



# MASTER THESIS | MASTER'S THESIS

Titel | Title

Designing Circularity: The Upstream Regulation, the Internal Market, and the  
Structural Limits of Harmonisation in EU Circular Economy Law – with  
Insights from Japan

verfasst von | submitted by

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angestrebter akademischer Grad | in partial fulfilment of the requirements for the degree of  
Master of Laws (LL.M.)

Wien | Vienna, 2026

Studienkennzahl lt. Studienblatt |  
Degree programme code as it appears on the  
student record sheet:

UA 999 082

Universitätslehrgang lt. Studienblatt |  
Postgraduate programme as it appears on the  
student record sheet:

Europäisches und Internationales Wirtschaftsrecht  
(LL.M.) [Berufsbegleitend Englisch]

Betreut von | Supervisor:

ao. Univ.-Prof. Mag. Dr. Siegfried Fina

## **Abstract (English)**

This thesis examines how EU internal market law shapes the scope of upstream circular economy regulation, using the Packaging and Packaging Waste Regulation (Regulation (EU) 2025/40) as its central case study. It proceeds through two working hypotheses. The first holds that Articles 34 to 36 TFEU structurally constrain Member States from adopting upstream circular economy measures, since design-phase obligations constitute product requirements subject to strict market access scrutiny and proportionality review, from which downstream waste management measures are largely shielded. The second holds that while Article 114 TFEU harmonisation through the PPWR formally overcomes those constraints, the regulation remains exposed to uneven national enforcement, increased litigation risk, and de facto regulatory divergence between Member States despite formal legal uniformity.

The thesis establishes the first hypothesis through analysis of the EU internal market's legal architecture, the *Dassonville* and *Cassis de Dijon* jurisprudence, and the structural asymmetry between upstream product requirements and downstream market organisation measures. It substantiates the hypothesis empirically through examination of regulatory fragmentation under the predecessor Packaging and Packaging Waste Directive and the Single-Use Plastics Directive, documented through divergence examples. The second hypothesis is examined through analysis of the PPWR's legal basis under Article 114 TFEU, its legislative history, the litigation exposure of its upstream obligations under the Court's proportionality jurisprudence across four procedural routes, and the enforcement architecture's structural dependence on national administrative capacity that varies materially across Member States, risking efficacy of its implementation.

A comparative chapter on Japan's circular economy governance framework, built on administrative coordination, ministerial judgment criteria, and consensus-based standard-setting, serves as an analytical lens for illuminating why the PPWR's litigation exposure and enforcement divergence are structural consequences of the EU's constitutional model rather than contingent drafting failures. The thesis concludes that Article 114 TFEU harmonisation formally resolves the free movement constraints on upstream regulation but relocates rather than eliminates the underlying tension, which finds new expression in the litigation exposure of the regulation's upstream obligations, in enforcement asymmetries between Member States of differing administrative capacity.

## **Abstract (Deutsch)**

Diese Masterarbeit untersucht, wie das Binnenmarktrecht der Europäischen Union den Regelungsspielraum für vorgelagerte Maßnahmen der Kreislaufwirtschaft prägt, wobei die Verordnung über Verpackungen und Verpackungsabfälle (Verordnung (EU) 2025/40, PPWR) als zentrale Fallstudie dient. Die Untersuchung basiert auf zwei Arbeitshypothesen. Die erste Hypothese besagt, dass die Artikel 34 bis 36 AEUV die Mitgliedstaaten strukturell daran hindern, vorgelagerte Maßnahmen der Kreislaufwirtschaft zu erlassen, da Verpflichtungen in der Produktgestaltungsphase Produktanforderungen darstellen, die einer strengen Kontrolle hinsichtlich Marktzugang und Verhältnismäßigkeit unterliegen, während nachgelagerte Maßnahmen der Abfallbewirtschaftung diesen Anforderungen nicht in gleichem Maße unterworfen sind. Die zweite Hypothese geht davon aus, dass die Harmonisierung auf Grundlage von Artikel 114 AEUV durch die PPWR diese Beschränkungen zwar formell überwindet, die Verordnung jedoch trotz rechtlicher Einheitlichkeit weiterhin anfällig für uneinheitliche nationale Durchsetzung, ein erhöhtes Prozessrisiko sowie faktische regulatorische Divergenzen zwischen den Mitgliedstaaten bleibt.

Die Arbeit bestätigt die erste Hypothese durch eine Analyse der rechtlichen Architektur des EU-Binnenmarktes, der Rechtsprechung in den Rechtssachen Dassonville und Cassis de Dijon sowie der strukturellen Asymmetrie zwischen vorgelagerten Produktanforderungen und nachgelagerten Maßnahmen der Marktorganisation. Empirisch wird diese Hypothese durch die Untersuchung regulatorischer Fragmentierung unter der Vorgängerregelung, der Verpackungs- und Verpackungsabfallrichtlinie, sowie der Einwegkunststoffrichtlinie untermauert, wobei konkrete Beispiele divergierender nationaler Regelungen herangezogen werden.

Die zweite Hypothese wird anhand der Rechtsgrundlage der PPWR in Artikel 114 AEUV, ihrer Entstehungsgeschichte, der Anfälligkeit ihrer vorgelagerten Verpflichtungen für gerichtliche Überprüfungen im Lichte der Verhältnismäßigkeitsrechtsprechung des Gerichtshofs der Europäischen Union über vier verschiedene Verfahrenswege sowie der Durchsetzungsarchitektur der Verordnung untersucht. Diese ist strukturell von den Verwaltungskapazitäten der Mitgliedstaaten abhängig, die erheblich variieren und dadurch die Wirksamkeit der Umsetzung beeinträchtigen können.

Ein vergleichendes Kapitel zum japanischen System der Kreislaufwirtschaft, das auf administrativer Koordination, ministeriellen Beurteilungskriterien und konsensbasierter Standardsetzung beruht, dient als analytische Perspektive, um aufzuzeigen, weshalb das Prozessrisiko der PPWR und die Unterschiede bei ihrer Durchsetzung keine bloßen Folgeerscheinungen gesetzgeberischer Unzulänglichkeiten darstellen, sondern strukturelle Konsequenzen des verfassungsrechtlichen Modells der Europäischen Union sind.

Die Arbeit gelangt zu dem Ergebnis, dass die Harmonisierung auf Grundlage von Artikel 114 AEUV die Beschränkungen des freien Warenverkehrs für vorgelagerte Regulierungsmaßnahmen zwar formell

beseitigt, den zugrunde liegenden Spannungsbogen jedoch nicht auflöst, sondern lediglich verlagert. Dieser tritt anschließend in neuer Form in der gerichtlichen Anfechtbarkeit der vorgelagerten Verpflichtungen der Verordnung sowie in den Durchsetzungsasymmetrien zwischen Mitgliedstaaten mit unterschiedlich ausgeprägten Verwaltungskapazitäten zutage.

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# **Designing Circularity: The Upstream Regulation, the Internal Market, and the Structural Limits of Harmonisation in EU Circular Economy Law – with Insights from Japan**

## **Chapter 1 – Introduction**

### **1.1 Background and rationale**

“We only have one Planet Earth, and yet, by 2050 we will be consuming as if we had three,” warned Virginijus Sinkevičius when unveiling the 2020 Circular Economy Action Plan of the EU. This statement captures the urgency with which the European Union has framed the transition towards a circular economy and resource efficiency as both an environmental and a legal imperative.

According to the European Commission<sup>1</sup>, total packaging waste rose from approximately 66 million tonnes in 2009 to around 78.5 million tonnes in 2019. It represents an increase of about 19 percent over the decade, a rate that exceeded growth in the EU’s gross national income during the same period. On a per capita basis, packaging waste generation reached an average of 173 kilograms in 2018, an increase of 27 kilograms compared to 2009. According to the Commission’s projections, if no additional policy measures are adopted beyond those already in place, total packaging waste generated in the EU is expected to increase by a further 18.7 percent by 2030 compared to 2018 levels.

The packaging sector is also responsible for a significant share of material consumption within the EU. The sector utilises approximately 40 percent of virgin plastic and 50 percent of paper placed in the internal market. By 2030, the ratio of plastic packaging in the total packaging is projected to increase to 23 percent from 19 percent in 2018. However, while the recycling rate of packaging waste was 66.5 percent in 2018, the increase is stagnant. The recycling rate is expected to reach only 69.6 percent by 2030. The increasing volume of plastic packaging and stagnant recycling rate mean that improvements in recycling are likely to be outpaced by the overall growth in packaging waste volumes.<sup>2</sup>

These figures illustrate a critical limitation of downstream-oriented environmental policy. Recycling rates may improve incrementally yet remain insufficient to offset the absolute growth in packaging volumes. This is not a coincidence but a structural consequence of regulating waste at the point of disposal rather than at the point of production. A circular economy approach that targets only the downstream stage — collection, sorting, and recycling — operates on materials that have already been produced, transported, and consumed. It does not close the tap, that is, address the choice of materials, the design of products, or the volume of packaging generated in the first place. The environmental case for upstream regulation rests precisely on this insight: intervening at the design and production stage,

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<sup>1</sup> European Commission, 'Commission Staff Working Document: Impact Assessment Report Accompanying the Proposal for a Regulation of the European Parliament and the Council on Packaging and Packaging Waste, Amending Regulation (EU) 2019/1020, and Repealing Directive 94/62/EC' SWD(2022) 384 final (30 November 2022) 9–11.

<sup>2</sup> European Commission, SWD(2022) 384 final (n 1) 9–11.

before packaging enters the waste stream, is capable of achieving reductions in material consumption, toxicity, and non-recyclable waste that downstream management cannot reach. Recyclability by design, substitution of hazardous substances at source, and packaging minimisation obligations reduce the volume and composition of waste before it is generated, rather than managing its consequences post facto. The shift from downstream waste law to upstream product regulation therefore represents not merely a change in regulatory technique but a qualitatively different approach to the environmental problem, one that the EU's circular economy legislation has increasingly sought to pursue, and whose legal feasibility under the internal market framework is the central question of this thesis.

This sense of urgency is not limited to the EU. In March 2022, 175 countries adopted UNEA Resolution 5/14, establishing an Intergovernmental Negotiating Committee to develop an internationally legally binding instrument on plastic pollution covering the full lifecycle of plastics. The breadth of participation and ambition of this initiative reflect a growing consensus that resource efficiency and plastic waste management require coordinated regulatory responses at both regional and global levels.

Within this global momentum, the EU has positioned itself as a frontrunner by translating circular economy objectives into binding legislative measures. The European Green Deal<sup>3</sup> identifies the mobilisation of industry for a clean and circular economy as a central policy pillar, while the 2020 Circular Economy Action Plan serves as a political driver for a new regulatory framework. A key manifestation of this shift is the Packaging and Packaging Waste Regulation, which replaces the Packaging and Packaging Waste Directive and moves from minimum harmonisation towards a uniform set of directly applicable rules across Member States.

Packaging, particularly plastic packaging, occupies a central position within the circular economy agenda. The environmental significance of upstream packaging regulation is difficult to overstate. Packaging design determines whether a product can be effectively recycled at all: a packaging format that combines incompatible materials, incorporates non-removable adhesives, or uses pigments that contaminate the recycling stream cannot be recycled regardless of how sophisticated downstream infrastructure becomes. Substance restrictions at the production stage prevent hazardous chemicals from entering the waste stream and the recycled material supply chain, where they would compromise both human health and the quality of secondary raw materials. Reuse obligations reduce the total volume of single-use packaging placed on the market. None of these environmental gains are achievable through downstream policy alone. Given the pervasive role of plastic packaging in cross-border trade, its regulation directly affects the functioning of the internal market under Articles 34 to 36 and Article 114 TFEU. The core challenge lies in reconciling ambitious environmental objectives with the preservation of market integration, particularly where regulatory divergence risks fragmenting the internal market.

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<sup>3</sup> European Commission, *'The European Green Deal' COM(2019) 640 final* (11 December 2019) 7.

## **1.2 Research problem and questions**

### **1.2.1 Research problem**

Despite the EU's expanding body of circular economy legislation, the legal boundaries between internal market integration and environmental protection remain conceptually and doctrinally unsettled. Plastic packaging regulation provides a particularly revealing test case, as it combines strong environmental rationales with direct implications for product design and market access conditions.

The central legal tension this thesis addresses arises from the interaction between two structural features of EU law. On the one hand, Articles 34 to 36 TFEU create a legal environment that is systematically inhospitable to upstream product regulation at Member State level. National measures governing packaging design, material composition, or recyclability constitute product requirements within the meaning of the Court's jurisprudence and are subject to strict market access scrutiny and proportionality review which downstream measures escape. This produces a structural disincentive for Member State upstream regulation that operates independently of political will or regulatory ambition. On the other hand, the EU's legislative response, which is to harmonise upstream requirements at EU level under Article 114 TFEU, overcomes this national-level constraint but introduces its own limitations, such as uneven enforcement across Member States of differing institutional capacity, litigation risk arising from the technical ambiguity of upstream obligations, and the risk of de facto regulatory divergence despite formal legal uniformity.

The EU has increasingly relied on Article 114 TFEU as the legal basis for harmonising circular economy measures, presenting internal market integration as a vehicle for achieving environmental objectives. While some scholars view Article 114 as a sufficiently flexible instrument capable of accommodating sustainability goals, others warn of competence overstretch, arguing that the use of internal market powers to pursue environmental outcomes risks distorting the Treaty's allocation of competences.

This tension is reflected in the case law of the Court of Justice, including judgments such as *Cassis de Dijon*, *Danish Bottles*, and *Tobacco Advertising I and II*, which illustrate the Court's persistent struggle to reconcile free movement of goods with legitimate public interest objectives, including environmental protection. The ubiquity of plastic packaging within the internal market amplifies this tension, increasing both the risk of regulatory fragmentation and the pressure placed on EU harmonisation mechanisms.

Against this background, this thesis uses the Packaging and Packaging Waste Regulation as a case study to examine the structural relationship between EU internal market law and upstream circular economy regulation: whether the internal market framework constrains Member State upstream measures, whether Article 114 TFEU can legitimately and coherently support circular economy regulation, and

whether the internal market framework can accommodate environmental objectives without undermining its integrative logic.

### **1.2.2 Acknowledgement of prior literature**

The scholarship most directly relevant to this thesis spans three connected fields. The relationship between EU free movement law and national environmental measures has been most comprehensively analysed by de Sadeleer in *EU Environmental Law and the Internal Market*, which provides a systematic account of how Articles 34 to 36 TFEU and the proportionality principle operate as constraints on national environmental regulation, covering free movement of goods, justification doctrines, and derogations from secondary law. De Sadeleer's analysis<sup>4</sup> establishes the doctrinal framework within which this thesis operates, though his work addresses the free movement constraint in general terms rather than through the specific lens of upstream circular economy regulation or the upstream-downstream distinction that this thesis develops as its central analytical category.

The limits of Article 114 TFEU as a legal basis for internal market harmonisation have been authoritatively examined by Weatherill<sup>5</sup>, whose 2011 article in the *German Law Journal* analysing the Tobacco Advertising aftermath demonstrated that Article 114 is flexible but bounded by a genuine harmonisation requirement that the Court enforces through proportionality review. Weatherill's analysis is foundational to Chapters 4 and 5 of this thesis. However, it predates the PPWR and does not address the specific question of whether Article 114 TFEU harmonisation resolves or merely relocates the structural constraints that free movement law imposes on upstream circular economy obligations.

Taken together, this body of prior scholarship establishes the legal and doctrinal foundations on which this thesis builds but leaves open the specific question it addresses: whether the structural constraints that free movement law imposes on upstream circular economy regulation are resolved or merely relocated by EU-level harmonisation under Article 114 TFEU, and what the PPWR's architecture reveals about the limits of that resolution.

### **1.2.3 Research questions**

The central research question of this thesis asks how EU internal market law shapes the legal space available for upstream circular economy regulation, and whether the PPWR's harmonisation model under Article 114 TFEU resolves the structural constraints that free movement law imposes or merely relocates them to a different register of legal tension.

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<sup>4</sup> Nicolas de Sadeleer, *EU Environmental Law and the Internal Market* (OUP 2014) 230–233.

<sup>5</sup> Stephen Weatherill, 'The Limits of Legislative Harmonization Ten Years after Tobacco Advertising: How the Court's Case Law has become a "Drafting Guide"' (2011) 12 *German LJ* 827, 843.

That question is approached through two hypotheses which together give the thesis its analytical architecture. The first is that Articles 34 to 36 TFEU structurally constrain Member States from adopting upstream circular economy measures under free movement law, a constraint that the upstream-downstream distinction makes visible precisely because design-phase interventions carry trade-restrictive effects that downstream waste management measures do not. The second is that while Article 114 TFEU harmonisation through the PPWR formally overcomes those constraints, it does so at the cost of exposing the regulation to uneven national enforcement, increased litigation risk, and the possibility of regulatory divergence between Member States.

To work through these hypotheses, the thesis examines the structural asymmetry between upstream and downstream measures under the Measure Equivalent to a Quantitative Restriction (MEQR) framework and proportionality doctrine, the regulatory fragmentation produced under earlier directive-based instruments, the legal basis and judicial exposure of the PPWR's upstream obligations, the enforcement conditions under which legal uniformity fails to produce regulatory uniformity in practice, and what Japan's coordination-based governance model reveals about the structural sources of those limitations.

### **1.3 Methodology**

The thesis adopts a doctrinal legal research approach, analysing relevant TFEU provisions (Articles 34–36, 114, and 11 TFEU) and relevant CJEU case law, including *Cassis de Dijon*, *Danish Bottles*, as well as *Tobacco Advertising I* and *II*. The doctrinal method is applied to identify the structural legal constraints that internal market law imposes on upstream circular economy regulation, to assess the legal basis and competence architecture of the PPWR, and to evaluate the Court's proportionality jurisprudence as it applies to technically complex upstream obligations. The thesis also contrasts the earlier directives, namely the PPWD and the SUP Directive with the PPWR to highlight the shift from minimum to full harmonisation and its implications for internal market coherence.

To contextualise the EU's approach, the thesis incorporates a comparative reflection on Japan's circular economy framework, drawing on the Basic Act on Establishing a Sound Material-Cycle Society (2000), the Fundamental Plan for a Sound Material-Cycle Society, and the Plastic Resource Circulation Act (2022). The comparative analysis does not seek to evaluate the relative merits of the Japanese and EU systems, but to use Japan's governance model, which achieves upstream regulatory coherence through administrative coordination rather than internal market harmonisation, as an analytical lens for illuminating the structural limitations of the EU's approach. This comparative perspective is particularly instructive for Hypothesis 2, since Japan's unitary enforcement architecture provides a counterfactual illustration of what enforcement coherence looks like when it is achieved through institutional unity rather than legal harmonisation.

The thesis does not adopt a political science or policy evaluation framework. The analysis throughout is legal and institutional: it asks what the law requires, what the Court's jurisprudence permits, and what structural consequences follow from the legislative choices examined.

## **1.4 Working Hypotheses**

This research proceeds on the following working hypotheses.

Hypothesis 1: EU internal market law, in particular Articles 34–36 TFEU, structurally constrains Member States' ability to adopt upstream circular economy measures regulating product design, composition, or placing on the market. National upstream circular economy measures are likely to be classified as product requirements and subjected to strict market-access and proportionality scrutiny, creating a structural disincentive for upstream regulation despite legitimate environmental objectives.

Hypothesis 2: The Packaging and Packaging Waste Regulation seeks to overcome these constraints by harmonising upstream requirements at EU level under Article 114 TFEU. However, EU harmonisation would remain exposed to uneven national enforcement, increased litigation, and the risk of deepening regulatory and economic divergence between Member States.

## **1.5 Structure of the thesis**

This thesis consists of seven chapters, examining how EU internal market law shapes the legal space available for upstream circular economy regulation and assessing the significance and structural limitations of the PPWR as a harmonisation response.

Chapter 2 establishes the theoretical foundation for Hypothesis 1. It analyses the architecture of EU internal market law, namely Articles 34 to 36 TFEU, the MEQR concept, the Dassonville formula, mutual recognition, and the proportionality principle and demonstrates why upstream product measures adopted at Member State level are systematically more legally vulnerable than downstream market organisation measures. The chapter introduces the upstream and downstream distinction as the central analytical axis of the thesis and establishes the structural disincentive for Member State upstream regulation that Hypothesis 1 identifies.

Chapter 3 substantiates Hypothesis 1 empirically by examining the EU circular economy legislative framework prior to the PPWR. Through analysis of the PPWD and the Single-Use Plastics Directive, and through the divergence examples of France, Italy, Spain, and Austria, the chapter demonstrates that directive-based minimum harmonisation has generated regulatory fragmentation among Member States and constrained effective upstream regulation.

Chapters 4 and 5 examine the PPWR as the EU's legislative response to the structural limitations identified in Chapters 2 and 3. It analyses the legal basis under Article 114 TFEU, the significance of the transition from directive to regulation, the legislative history and stakeholder engagement, and the

judicial exposure of the PPWR's upstream obligations under the Court's proportionality jurisprudence, assessing whether the evidence base and technical delegation framework of the regulation are capable of withstanding proportionality challenge.

Chapter 6 analyses the enforcement architecture and effectiveness of the PPWR in order to evaluate Hypothesis 2. It examines how the regulation's upstream obligations may be unevenly implemented across Member States of differing institutional capacity and demonstrates that legal uniformity in the text of the regulation does not guarantee regulatory uniformity in practice.

Chapter 7 considers Japan's circular economy legal framework as a comparative reference. The chapter does not assess the relative merits of the Japanese system but uses its distinctive features, which are administrative coordination, soft law compliance mechanisms, and integrated enforcement within a unitary state, as an analytical lens for illuminating the structural limitations of the PPWR's harmonisation model identified in Chapters 4 and 5.

Chapter 8 synthesises the arguments developed throughout the thesis, provides the answer to the central research question, and consolidates the assessment of both hypotheses. It reflects on the concept of a circular internal market as an emerging regulatory ideal, considers the implications of the EU's experience for international plastic pollution governance, and identifies the structural gap between legal harmonisation and institutional convergence as the central finding of the thesis.

## Chapter 2 – The legal architecture of the EU internal market

### 2.1 Internal Market Foundations and Integration Schemes

The internal market of the EU constitutes a central framework for European economic integration. Under the TFEU, the internal market seeks to create an economic zone without internal frontiers in which the free movement of goods, services, persons, and capital is guaranteed. Among these market freedoms, the free movement of goods plays a particularly important role. Articles 34–36 TFEU prohibit barriers to trade between Member States and form the legal backbone of the functioning of the internal market. Given that goods represent approximately three quarters of intra-EU trade<sup>6</sup>, the effective operation of these provisions is essential for cross-border economic activity and integrated supply chains.

The architecture of the internal market does not, however, merely remove trade barriers. It simultaneously creates a structured legal environment in which the regulatory choices available to Member States are shaped and constrained by free movement obligations. This structural dimension is particularly relevant for upstream product regulation, that is, measures that govern the design, composition, or characteristics of goods before they are placed on the market. These measures are systematically more legally vulnerable under internal market law scrutiny than downstream measures. Downstream measures organise waste management, collection systems, or market infrastructure. The central role of this chapter is to establish the reason for this structure and the foundation for Hypothesis 1.

The removal of trade barriers inevitably creates tensions between two competing objectives. On the one hand, the internal market aims to ensure the unrestricted circulation of goods across Member States. On the other hand, national authorities retain regulatory autonomy to pursue legitimate public policy objectives such as environmental protection, public health, and consumer safety. National regulations adopted for these purposes may nonetheless restrict trade by imposing divergent product requirements across Member States.

Internal market law therefore performs a dual function. It removes protectionist trade barriers while simultaneously establishing mechanisms through which regulatory diversity among Member States can be managed. In particular, Articles 34–36 TFEU prohibit quantitative restrictions and measures having equivalent effect (MEQRs), while the EU legal order has developed different mechanisms for addressing such barriers where they arise from divergent national regulation. In this context, Shoji identifies three principal models through which market integration operates within the EU legal order:

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<sup>6</sup>Eurostat, 'Intra-EU Trade in Goods – Main Features' (*Statistics Explained*, 7 May 2025)

<[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Intra-EU\\_trade\\_in\\_goods\\_-\\_main\\_features](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Intra-EU_trade_in_goods_-_main_features)> accessed 20 June 2026.

the **decentralised model, the centralised model, and the competition model**.<sup>7</sup> According to Shoji<sup>8</sup>, these models can be understood as different institutional approaches through which the internal market addresses or mitigates MEQR-type barriers resulting from regulatory divergence among Member States.

The decentralised model relies primarily on judicial enforcement of free movement rules. Member States retain regulatory authority, but their measures are subject to review under Articles 34–36 TFEU by the CJEU. Where national rules constitute MEQRs, they may become invalid unless they can be justified under Article 36 TFEU or the doctrine of mandatory requirements and satisfy the principle of proportionality. The centralised model instead relies on legislative harmonisation at EU level, most prominently through Article 114 TFEU. This article allows the EU to approximate the national measures in order to ensure the functioning of the internal market. Through harmonisation, regulatory divergences that can raise MEQR-type trade barriers may be removed by introducing uniform EU standards. Finally, the competition model emerges in the regulatory area where harmonisation is absent and regulatory diversity persists. In such situations, the principle of mutual recognition allows products lawfully marketed in one Member State to circulate in others, creating a form of regulatory competition between national regimes. This mechanism reduces the trade-restrictive effects of divergent national rules while allowing Member States to maintain different regulatory approaches.

These three models represent distinct institutional pathways for managing regulatory divergence within the internal market, overcoming MEQR. Critically for the purposes of this thesis, each model generates a different level of legal risk for Member States that seek to regulate packaging at the upstream product design stage. Under the decentralised model, national upstream measures are subject to direct challenge under Articles 34–36 TFEU and must survive proportionality review. Under the competition model, ambitious national upstream standards may be undermined by mutual recognition, creating pressure toward the lowest common regulatory denominator. Only under the centralised model, where EU-level harmonisation replaces divergent national rules, can upstream circular economy obligations be introduced without exposing Member States to free movement scrutiny. Understanding these integration models is therefore essential for analysing how internal market law shapes and constrains national circular economy regulation, and for appreciating why the shift from directive-based minimum harmonisation to regulation-based full harmonisation under the PPWR represents a structural response to those constraints.

### **2.1.1 Decentralised Integration Model (Judicial Integration under Articles 34–36 TFEU)**

The problem addressed by internal market law can be illustrated through a simple example. Suppose that a product X is manufactured in Country A in accordance with rule A. When this product is exported

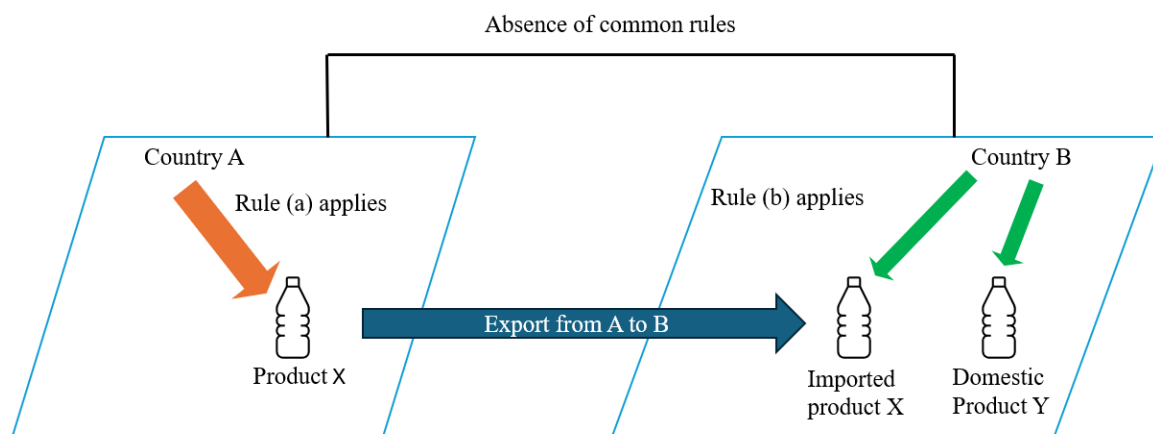
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<sup>7</sup> Katsuhiro Shoji, *Hajimete no EU Hō* [Introduction to EU Law] (2nd edn, Yūhikaku 2023) 45.

<sup>8</sup> Shoji (n 7) 42.

to Country B, it becomes subject to regulatory framework B. In this system, Country B applies the same regulatory requirements to both domestically produced goods (product Y) and imported goods (product X). Formally, the regulation does not discriminate between domestic and imported products because the same rules apply to both. At present, liberalisation of global trade largely remains at this level.

However, this approach generates what is commonly referred to as a double regulatory burden. While domestically produced goods must comply only with rule B, imported products must comply with both the regulatory framework of the exporting country A and that of the importing country B. As a result, producers exporting goods across borders may face additional costs to adapt their products to multiple regulatory systems. Even though the rule formally applies equally to domestic and imported goods, the effect may be to hinder cross-border trade.



*Figure 1 Decentralised integration model (adapted by the author from Shoji Katsuhiro, Hajimete no EU Hō [Introduction to EU Law] (2nd edn, Yūhikaku 2023))*

For this reason, such a model cannot function as the basis of the EU internal market. Measures that impose additional regulatory burdens on imported products may qualify as MEQRs under Article 34 TFEU and are therefore prohibited unless they can be justified under the limited derogations recognised in EU law.

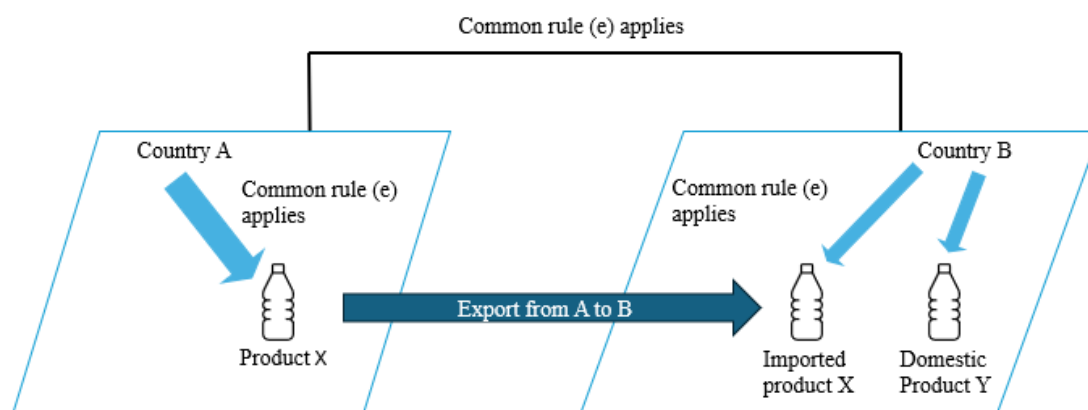
The decentralised model is structurally inhospitable for upstream circular economy measures. Member States wishing to require that packaging placed on their market meet specific recyclability standards, contain minimum recycled content, or avoid particular substances of concern must adopt rules that affect the intrinsic characteristics of goods. Such rules generate the double regulatory burden described above: producers already compliant with the standards of their home Member State must additionally comply with those of the importing state. They therefore fall squarely within the MEQR concept developed in the Court's jurisprudence and are subject to the full rigour of proportionality review. In order to address regulatory divergence between Member States without imposing such double

regulatory burdens on trade, the EU internal market has developed principal mechanisms described below.

### 2.1.2 Centralised Integration Model (Legislative Harmonisation under Article 114 TFEU)

The centralised model represents an alternative mechanism for achieving market integration. Instead of relying on judicial review of national measures, the EU legislature may adopt harmonised rules that replace divergent national regulations.

The centralised model can be illustrated using the same example of country A and country B. Suppose that product X is manufactured in Country A and exported to Country B. Instead of requiring the product to comply separately with rule A and rule B, the EU legislature may adopt harmonised rules that apply uniformly across all Member States. In such a situation, both Country A and Country B apply the same EU rule (e). Product X produced in Country A therefore already complies with the regulatory requirements applicable in Country B. As a result, the product can be exported without requiring modification to satisfy different national standards. By replacing divergent national rules with a common regulatory framework, harmonisation eliminates the risk of double regulatory burdens and ensures uniform conditions for market access throughout the internal market.



*Figure 2 Centralised integration model (adapted by the author from Shoji Katsuhiro, Hajimete no EU Hō [Introduction to EU Law] (2nd edn, Yūhikaku 2023))*

From the perspective of upstream circular economy regulation, the centralised model is the only mechanism that can accommodate ambitious product-level obligations without exposing them to free movement scrutiny. Where the EU legislature adopts uniform recyclability requirements or substance restrictions under Article 114 TFEU, those requirements apply equally in all Member States. No double regulatory burden arises, because there is only one regulatory framework. The legal vulnerability that afflicts national upstream measures under the decentralised model is structurally absent under harmonisation. However, as Chapter 4 will examine, the centralised model introduces its own constraints: Article 114 TFEU is not an unconstrained regulatory competence, and the Court of Justice

has established that harmonisation measures must genuinely address market fragmentation rather than serving primarily environmental objectives.<sup>9</sup>

### 2.1.3 Competition Model (Regulatory Competition in the Absence of Harmonisation)

The competition model emerges where harmonisation is absent and regulatory diversity persists among Member States. In such circumstances, the principle of mutual recognition allows goods lawfully marketed in one Member State to circulate throughout the internal market, even when national regulatory standards differ.

The competition model addresses regulatory divergence in a different manner. Using the same example, product X is produced in Country A under regulatory framework A. When the product is exported to Member State B, it is not required to comply with regulatory framework B, provided that it has been lawfully produced and marketed in Country A. Instead, the principle of mutual recognition allows product X to be marketed in Member State B despite the existence of different national regulatory standards. Under this approach, producers may choose to operate under the regulatory framework of a particular Member State while still accessing the wider internal market. As a consequence, national regulatory systems coexist and may compete with one another, potentially encouraging regulatory adjustment or convergence over time.

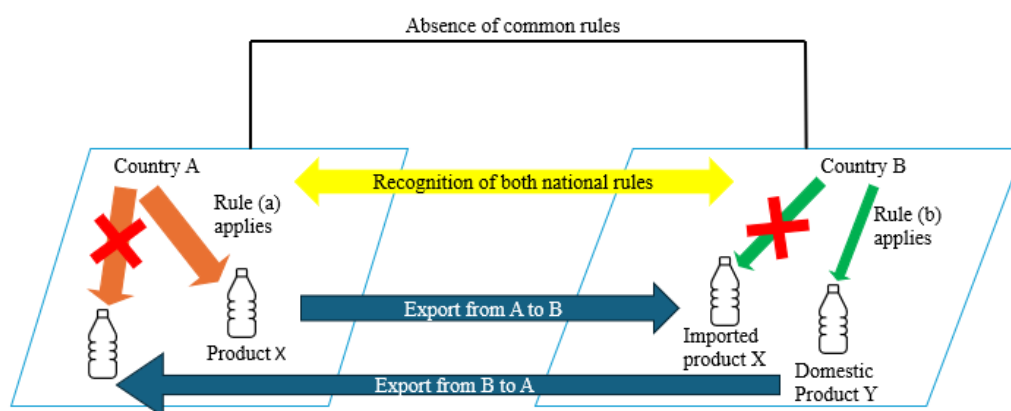


Figure 3 Competition model (adapted by the author from Shoji Katsuhiro, *Hajimete no EU Hō* [Introduction to EU Law] (2nd edn, Yūhikaku 2023))

This framework may generate a form of regulatory competition between Member States. Firms may prefer to operate in jurisdictions with more favourable regulatory conditions, potentially encouraging governments to adjust their regulatory frameworks in response to economic incentives.

<sup>9</sup> Shoji (n 7) 87.

While regulatory competition may stimulate innovation and policy experimentation, it can also generate concerns about a potential *race to the bottom*, particularly in areas such as environmental protection or product safety. Divergent national standards may also create uncertainty for producers and increase compliance costs in sectors characterised by integrated supply chains.

For upstream circular economy regulation, the competition model creates a specific structural disincentive. A Member State that adopts ambitious packaging design requirements requiring, for example, that products placed on its market meet high recyclability standards, cannot prevent products meeting lower standards from entering its market under mutual recognition, provided those products were lawfully marketed elsewhere in the EU. It can undermine the environmental ambition of the national measure without directly invalidating it. Producers can access the market of the more demanding Member State by establishing themselves in a less demanding one, reducing the practical effect of the upstream requirement. This dynamic constitutes a second structural constraint on Member State upstream regulation, operating alongside the proportionality scrutiny applicable under the decentralised model.

Therefore, in practice the EU adopts a combined approach where essential requirements related to safety, health and environmental protection are harmonised at EU level, while other aspects are left to the principle of mutual recognition. This approach is sometimes referred to as legislative mutual recognition.

<sup>10</sup> The model is described in the figure below.

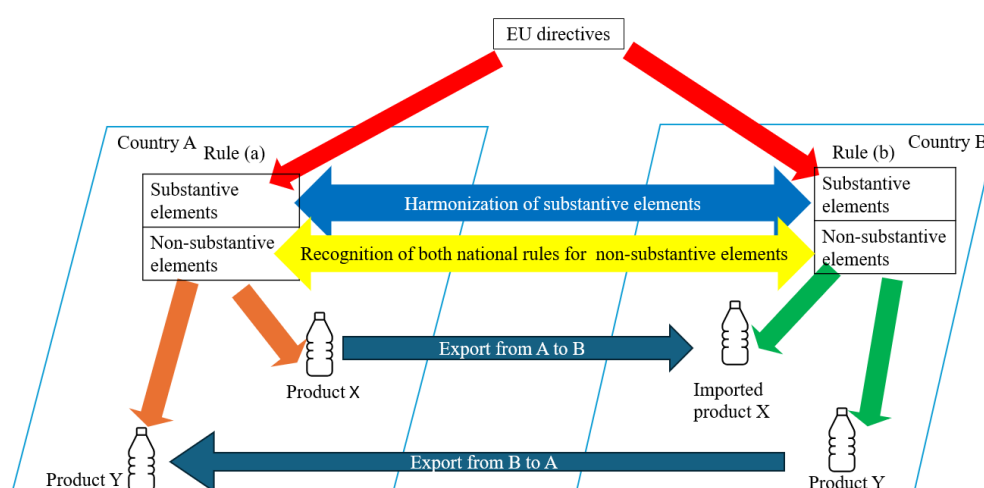


Figure 4 Co-existence of centralised and competition model (adapted by the author from Shoji Katsuhiro, *Hajimete no EU Hō [Introduction to EU Law]* (2nd edn, Yūhikaku 2023))

<sup>10</sup> Shoji (n 7) 89.

## **2.2 Free Movement of Goods and the Control of National Regulatory Barriers**

In a purely decentralised regulatory system, Member States would remain free to regulate products within their territories, provided that national measures do not discriminate against imported goods. However, the Court rejected such a narrow discrimination-based approach early in its jurisprudence. Even formally non-discriminatory rules may create substantial barriers to trade where producers are required to comply with multiple national regulatory regimes. As a result, national regulatory differences may generate additional compliance costs and fragment the internal market.

The development of the Court's case law on MEQRs, mutual recognition, and proportionality has progressively clarified the conditions under which national product regulations can survive free movement scrutiny. For upstream circular economy measures, this jurisprudence is directly determinative: it is the legal framework within which any national measure regulating packaging design, material composition, or recyclability must be assessed. The following sub-sections trace this development and identify, at each stage, its structural implications for national upstream regulation.

### **2.2.1 Market Access and MEQRs: The Dassonville Formula**

This broader approach was established in *Procureur du Roi v Dassonville* (Case 8/74). In this judgment, the Court defined MEQRs as all trading rules enacted by Member States which are capable of hindering, directly or indirectly, actually or potentially, intra-Union trade.<sup>11</sup>

This definition significantly expanded the scope of Article 34 TFEU. It made clear that internal market law does not only prohibit discriminatory measures, but also national regulations that may restrict market access for goods coming from other Member States. As a result, a wide range of national product regulations may fall within the scope of Article 34 TFEU.

The breadth of the Dassonville formula is particularly significant for upstream circular economy regulation. A national measure requiring that packaging placed on the market meet specific recyclability criteria, contain minimum proportions of recycled material, or avoid designated substances of concern will, in virtually every case, be capable of hindering, at least potentially, intra-Union trade. Such measures require producers whose goods are manufactured to different standards in other Member States to modify their products or packaging specifically for the national market in question. They therefore constitute MEQRs within the meaning of the Dassonville formula and are subject to the full scope of Articles 34–36 TFEU scrutiny, regardless of whether the measure is formally discriminatory.

### **2.2.2 Mutual Recognition: Cassis de Dijon**

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<sup>11</sup> Case 8/74 *Procureur du Roi v Dassonville* EU:C:1974:82, [1974] ECR 837.

The Court further developed this approach in *Rewe-Zentral AG v Bundesmonopolverwaltung für Branntwein* (Case 120/78),<sup>12</sup> commonly known as *Cassis de Dijon*. The Court recognised that differences in national product regulations may themselves create barriers to trade within the internal market.

To address this problem, the Court introduced the principle of mutual recognition. According to this principle, goods lawfully produced and marketed in one Member State should in principle be allowed to be sold in other Member States without the need to comply with additional product requirements imposed by the importing state.

Mutual recognition therefore reduces the need for producers to adapt their products to multiple national regulatory systems. In areas where EU harmonisation is absent, this principle plays an important role in facilitating the circulation of goods across the internal market.

*Cassis de Dijon* is significant for upstream circular economy regulation in two respects. First, it confirms that national product requirements, even when they are formally non-discriminatory ones, constitute MEQRs where they prevent goods lawfully marketed in one Member State from circulating freely in another. A recyclability standard adopted by one Member State that is more demanding than those of its neighbours will have precisely this effect. Second, and more importantly for this thesis, *Cassis* introduced the mandatory requirements doctrine, which allows Member States to justify such restrictions on grounds of the general interest, including environmental protection. However, the doctrine is subject to proportionality review, and it is that review that constitutes the structural constraint, not the recognition of environmental protection as a legitimate objective. As the *Danish Bottles* case discussed below illustrates, the Court may accept environmental protection as a justification in principle while still invalidating specific upstream design requirements as disproportionate.

### **2.2.3 Limits to Article 34 TFEU: The Keck Doctrine**

The broad interpretation of Article 34 TFEU developed in *Dassonville* and *Cassis de Dijon* led to an increasing number of national commercial rules being challenged under free movement law. In response, the Court sought to clarify the limits of Article 34 TFEU in *Keck* and *Mithouard* (Joined Cases C-267/91 and C-268/91).<sup>13</sup>

In this judgment, the Court distinguished between product requirements and selling arrangements. Product requirements regulate the intrinsic characteristics of goods, such as their composition, packaging, or labelling. Selling arrangements, by contrast, regulate the conditions under which goods are sold.

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<sup>12</sup> Case 120/78 *Rewe-Zentral AG v Bundesmonopolverwaltung für Branntwein* EU:C:1979:42, [1979] ECR 649.

<sup>13</sup> Joined Cases C-267/91 and C-268/91 *Criminal Proceedings against Bernard Keck and Daniel Mithouard* EU:C:1993:905, [1993] ECR I-6097.

The Court held that national rules concerning selling arrangements fall outside the scope of Article 34 TFEU provided that they apply equally to all traders within the national territory and affect domestic and imported goods in the same manner in law and in fact.

The Keck distinction is analytically decisive for upstream CE measures. Recyclability requirements, substance restrictions, minimum recycled content thresholds, and packaging format mandates all regulate the intrinsic characteristics of goods. They therefore fall on the product requirements side of the Keck line and remain subject to strict scrutiny under Article 34 TFEU. Upstream packaging design obligations cannot escape the MEQR framework through the selling arrangements exception. The Keck doctrine does not offer shelter for the kind of measures that a Member State wishing to regulate packaging at the design stage would need to adopt. Every such measure must be assessed and justified under the full proportionality framework established by the Court's jurisprudence.

#### **2.2.4 Justifications and Mandatory Requirements**

Even where a national measure qualifies as an MEQR, it may still be justified under certain circumstances. Article 36 TFEU provides explicit derogations for objectives such as public morality, public policy, public security, and the protection of the health and life of humans, animals, or plants. These derogations are interpreted strictly and must not constitute arbitrary discrimination or disguised restrictions on trade.

In addition to these derogations based in the Treaty, the Court introduced the concept of mandatory requirements in *Cassis de Dijon*. This doctrine allows Member States to justify non-discriminatory trade restrictions on grounds relating to the general interest, such as environmental protection, consumer protection, and the fairness of commercial transactions.

Environmental protection has also been recognised within this framework. In *Commission v Denmark* (Case 302/86)<sup>14</sup>, commonly referred to as the Danish Bottles case, the Court accepted environmental protection as a legitimate objective capable of justifying national packaging regulations, although it subjected the design of the Danish system to proportionality review.

The recognition of environmental protection as a mandatory requirement is important but does not resolve the structural difficulty facing national upstream CE measures. The justification doctrines, whether Treaty-based under Article 36 TFEU or judge-made under the mandatory requirements framework, do not exempt national measures from proportionality review; they merely provide the legitimate objective against which proportionality is assessed. A Member State must still demonstrate that its upstream measure is suitable to achieve the environmental objective, necessary in the sense that no less trade-restrictive alternative exists and proportionate in the strict sense relative to its economic

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<sup>14</sup> Case 302/86 *Commission of the European Communities v Kingdom of Denmark* (Danish Bottles) EU:C:1988:421, [1988] ECR 4607.

impact. As the following section examines, it is the proportionality requirement, not the availability of the environmental justification, that creates the decisive structural constraint on upstream circular economy regulation at national level.

### **2.2.5 Proportionality and the Vulnerability of Upstream Product Measures**

The principle of proportionality plays a central role in determining whether national measures restricting trade can be justified. Under this principle, a measure must be suitable for achieving the stated objective, necessary in the sense that no less restrictive alternative exists and proportionate in relation to its economic impact.

Product-related regulations affecting the intrinsic characteristics of goods often face strict scrutiny in particular. Such upstream measures, including rules on material composition, packaging design, or product labelling, may require producers to modify the design of their products in order to access different national markets. As a result, they may generate significant compliance costs and contribute to fragmentation of the internal market.

This structural dynamic can be illustrated by reference to the specific types of upstream measures that a Member State might adopt in pursuit of circular economy objectives. A requirement that packaging placed on the national market achieve a minimum recyclability grade forces foreign producers whose packaging does not meet that standard either to reformulate their packaging specifically for that market or to forgo market access entirely. The Court will ask whether this result is necessary to achieve the environmental objective, and whether a less trade-restrictive alternative, such as relying on EU-level standards, consumer information obligations, or downstream recycling infrastructure investment, would achieve a comparable result. Given the availability of multiple policy instruments for advancing circular economy objectives at the downstream stage, demonstrating that an upstream product design requirement is the least restrictive available means is structurally difficult. This difficulty is not incidental but structural: it follows from the architecture of proportionality review itself, which systematically favours measures with lower trade impact over those with higher trade impact when the environmental objective can be achieved by either.

From the perspective of circular economy, this dynamic creates structural difficulties for national initiatives that seek to regulate products at the design stage. Measures targeting recyclability requirements, material composition, or packaging formats may fall within the scope of Article 34 TFEU and therefore be subject to strict proportionality review. The combination of the Dassonville formula's breadth, the Keck doctrine's inapplicability to product requirements, and the demanding standard of proportionality review together constitute the structural legal constraint on Member State upstream CE regulation that Hypothesis 1 identifies. A Member State seeking to regulate packaging design faces not a single legal barrier but a cumulative sequence of legal scrutiny, MEQR classification, unavailability

of selling arrangement exemption, mandatory requirement justification, and proportionality, each of which must be satisfied for the measure to survive.

By contrast, downstream measures relating to waste management systems, recycling infrastructure, or market organisation generally impose fewer direct obstacles to cross-border trade. They may regulate what happens to goods after they have been placed on the market, or how collection and recycling systems are organised, without requiring foreign producers to modify the intrinsic characteristics of their products. The upstream and downstream asymmetry in legal vulnerability is therefore not merely a matter of degree but of kind: it reflects the different positions these two categories of measure occupy within the MEQR framework.

### **2.2.6 Harmonisation under Article 114 TFEU**

Another mechanism for addressing regulatory divergence within the internal market is legislative harmonisation at EU level. Article 114 TFEU provides the principal legal basis for such measures by authorising the EU legislature to adopt acts for the approximation of national laws that can obstruct the establishment and functioning of the internal market.

Through harmonisation, regulatory fragmentation can be reduced by introducing common standards that apply across Member States. Harmonisation may take different forms. Minimum harmonisation establishes baseline standards while allowing Member States to maintain or introduce stricter measures. By contrast, full harmonisation exhaustively regulates a particular field and precludes national rules.

The Court exercises a relatively deferential form of judicial review in order to assess harmonisation measures. In regulatory areas that involve complex economic or technical assessments, the Court generally examines whether the EU legislature committed a manifest error of assessment.

On the other hand, the Court has clarified that Article 114 TFEU cannot be used as a general regulatory competence. In *Germany v Parliament and Council* (Case C-376/98), known as *Tobacco Advertising I*<sup>15</sup>, the Court annulled a directive that lacked a sufficient connection to the functioning of the internal market. Subsequent case law confirmed that harmonisation measures must genuinely address regulatory divergences that affect trade.

The requirement that Article 114 TFEU measures genuinely address internal market fragmentation has direct implications for the PPWR. The upstream obligations introduced by the regulation must be grounded in the harmonisation of divergent national rules that create market access barriers, rather than in purely environmental objectives. As Chapter 3 will demonstrate, the proliferation of divergent national packaging requirements under the PPWD and SUPD provides a substantial factual basis for

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<sup>15</sup> Case C-376/98 *Germany v European Parliament and Council* (Tobacco Advertising I) EU:C:2000:544, [2000] ECR I-8419.

this justification. However, the Article 114 TFEU constraint also means that the PPWR's upstream ambitions are bounded by the internal market rationale: provisions that pursue environmental objectives without a genuine harmonisation function risk challenge on competence grounds, a dimension of the PPWR's litigation exposure that Chapter 4 will examine.

In the context of circular economy policy, harmonisation plays an important role in overcoming the limitations of fragmented national regulation. By introducing common product standards across the internal market, EU legislation can reduce regulatory fragmentation while allowing environmental objectives to be pursued within the internal market framework.

## **2.3 Case Law Illustrating the Upstream and Downstream Asymmetry**

The structural distinction between upstream product requirements and downstream market organisation measures, introduced analytically in the preceding sections, is not merely a doctrinal abstraction. It is reflected in a consistent pattern in the Court's case law on packaging and environmental regulation. The following cases illustrate this asymmetry and demonstrate why it creates a systematic legal disadvantage for Member States seeking to regulate packaging at the design stage.

### **2.3.1 Product Requirements and Packaging Rules**

Two cases are particularly instructive for understanding the legal vulnerability of upstream packaging measures. In *Walter Rau Lebensmittelwerke v De Smedt*<sup>16</sup>, Belgian legislation required margarine to be packaged in cube-shaped containers in order to distinguish it from butter. Although the rule applied equally to domestic and imported products, the Court held that it constituted a measure having equivalent effect because it forced foreign producers to alter the packaging of their products specifically for the Belgian market. The judgment confirms the essential dynamic: a packaging requirement that is formally non-discriminatory nonetheless constitutes an MEQR where it requires product-level adaptation by importers. This logic applies directly to upstream CE measures: a recyclability requirement or substance restriction that diverges from the standards applicable in other Member States will inevitably require adaptation by producers whose products were designed for a different regulatory environment.

A similar issue arose in *Commission v Denmark (Danish Bottles)*<sup>17</sup>, which concerned Danish legislation requiring beer and soft drinks to be sold in approved reusable containers as part of an environmental protection scheme. The Court accepted environmental protection as a legitimate objective capable of justifying trade restrictions. However, it held that certain elements of the system, particularly the strict approval procedures and quantitative limitations imposed on non-approved containers, were disproportionate. *Danish Bottles* is the foundational case for the structural argument of this thesis. The

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<sup>16</sup> Case 261/81 *Walter Rau Lebensmittelwerke v De Smedt PVBA* EU:C:1982:359, [1982] ECR 3961.

<sup>17</sup> *Danish Bottles* (n 14).

Court did not reject the legitimacy of environmental packaging regulation. It confirmed that such regulation can, in principle, be justified. What it subjected to strict proportionality review was the specific mechanism by which Danish Bottles sought to pursue that objective: an upstream product requirement restricting the types of containers that could be placed on the market. The judgment demonstrates that the availability of an environmental justification does not insulate upstream product measures from disproportionality findings. A Member State that regulates products at the upstream stage must demonstrate not only a legitimate environmental objective but a design that the Court will accept as proportionate, which is a demanding standard that has structural deterrent effects on national upstream regulation.

### **2.3.2 Greater Flexibility for Downstream Market Organisation Measures**

In contrast, the Court has shown greater tolerance toward measures that organise markets or pursue environmental objectives without directly regulating product characteristics.

An example is *PreussenElektra*<sup>18</sup>, which concerned German legislation requiring electricity suppliers to purchase renewable energy from domestic producers at fixed minimum prices. The Court accepted that the measure pursued legitimate environmental objectives and concluded that it did not unduly restrict trade within the internal market. The judgment illustrates the upstream and downstream asymmetry at the heart of this chapter's analysis. *PreussenElektra* was a market organisation measure, it regulated how electricity was purchased and at what price, not the intrinsic characteristics of the product itself. As it did not require product-level adaptation by producers in other Member States, it fell outside the most demanding tier of free movement scrutiny. The contrast with *Walter Rau* and *Danish Bottles* is stark: identical environmental objectives, but different legal outcomes depending on whether the measure operates at the product design stage or the market organisation stage. For national circular economy policy, this asymmetry has a structural consequence: Member States face significantly lower legal risk when they invest in downstream infrastructure, design EPR schemes, or organise collection systems than when they impose upstream design obligations on packaging placed on their markets.

## **2.4 The Structural Constraint on Upstream Circular Economy Regulation: Establishing Hypothesis 1**

The analysis developed across this chapter establishes the theoretical foundation for Hypothesis 1. It is worth stating that foundation precisely before proceeding to the empirical demonstration in Chapters 3 and 4.

The internal market's legal architecture does not treat all regulatory measures equally. It imposes a systematically higher burden of justification on upstream product requirements than on downstream

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<sup>18</sup> Case C-379/98 *PreussenElektra AG v Schleswag AG* EU:C:2001:160, [2001] ECR I-2099.

measures. This asymmetry operates through four interlocking doctrinal mechanisms. The Dassonville formula captures virtually all upstream packaging requirements within the MEQR concept, regardless of whether they are formally discriminatory. The Keck doctrine's selling arrangements exception is inapplicable to product requirements, offering no relief for measures targeting packaging design or composition. The mandatory requirements doctrine, while recognising environmental protection as a legitimate justification, subjects upstream measures to demanding proportionality review that systematically disadvantages trade-restrictive means over less restrictive alternatives. In addition, the competition model's mutual recognition principle undermines the practical effect of national upstream standards even where they survive proportionality review, by allowing products meeting lower standards in other Member States to access the domestic market.

Together, these mechanisms create what this thesis characterises as a structural disincentive for upstream circular economy regulation at Member State level. The term structural is deliberate. The constraint does not arise from political choices by national governments or from the inadequacy of any particular legislative drafting. It arises from the architecture of internal market law itself, from the interaction of the MEQR concept, the Keck distinction, the proportionality standard, and the mutual recognition principle as they apply to product-level regulation. A Member State that adopts packaging design requirements to advance circular economy objectives does not merely face legal risk. It faces a legal environment in which the probability of successfully defending such measures is systematically lower than for equivalent downstream measures, creating a structural incentive to regulate downstream rather than upstream.

This structural disincentive has been compounded by the choice of directive-based minimum harmonisation in earlier EU packaging legislation. As Chapter 3 demonstrates, the PPWD and SUPD established common environmental objectives but left implementation to Member States, generating the conditions for regulatory fragmentation while simultaneously exposing national upstream measures to free movement scrutiny. As a result, 27 parallel packaging regulatory systems, divergent labelling schemes, and uneven enforcement of upstream design standards reflect not individual regulatory failures but the predictable outcome of a legal architecture that constrains upstream regulation at the national level without replacing it with effective EU-level standards. The PPWR's transition to regulation-based full harmonisation under Article 114 TFEU is a structural response to this architectural problem, and it is the significance and limitations of that response that Hypothesis 2 examines.

Taken together, these integration models reveal important structural constraints affecting national circular economy policies. Under the decentralised model, upstream product regulations adopted at national level may be challenged under free movement rules and subjected to strict proportionality review. Under the competition model, regulatory divergence may create pressures that discourage the adoption of ambitious national standards. As a result, Member States often retain greater regulatory

flexibility in relation to downstream waste management policies rather than upstream product design requirements.

These dynamics provide a structural explanation for the growing reliance on EU-level harmonisation in the circular economy field. Earlier instruments, such as the Packaging and Packaging Waste Directive (PPWD) and the Single-Use Plastics Directive (SUPD), relied largely on directive-based frameworks that permitted significant variation of national measures. However, such approaches have not fully eliminated regulatory fragmentation. The emergence of regulatory initiatives based on EU regulations, including the proposed Packaging and Packaging Waste Regulation (PPWR), reflects an attempt to address these limitations by introducing more uniform product-level requirements across the Union. This shift illustrates how the centralised model of integration may become increasingly important for advancing circular economy objectives within the internal market framework.

## **Chapter 3 – Circular Economy Regulation as a Legal Field**

### **3.1 Evolution from waste law to product design and resource efficiency**

The EU's approach to circular economy has undergone a significant transition over the past decades, with a shift from primarily focusing on end-of-pipe waste management towards proactive upstream strategies that aim to 'stop the tap'. These strategies emphasise prevention, product design, and resource efficiency. This regulatory evolution reflects a broader recognition that traditional waste management laws, which primarily addressed downstream treatment, were not sufficient to tackle the root causes of resource overconsumption and environmental degradation. Instead, the emphasis has shifted to preventing waste generation at an earlier stage, aligning with the principles of a circular economy, where materials circulate and are kept in use for as long as possible.

Historically, the EU's circular economy policy began with directives aimed at downstream measures, such as the Waste Framework Directive (WFD)<sup>19</sup>, which came into force in 1975 and was revised in 2008. The directive focused primarily on safe disposal of waste and robust recycling systems. However, by the early 2010s, the limitations of this downstream bias of the policy became evident. Waste volumes continued to rise, while the maturity of waste management and recycling rates varied widely across the Member States. These downstream measures often failed to achieve the systematic change needed to reverse the upward trend in waste volumes.

The shift to upstream measures was catalysed by the Circular Economy Action Plan (CEAP) in 2015. The plan introduced measures for redesigning products for increased durability, repairability and recyclability. This plan was a milestone towards product-oriented obligations. It required producers to consider the entire lifecycle of goods from conception to disposal.

A decisive advance in the circular economy occurred with the CE package of 2015, which introduced quantitative recycling and recovery targets, including 65 percent for municipal waste and 75 percent for packaging waste by 2030. Substantial financial instruments which support innovation and waste management infrastructure accompanied the policy package to help Member States achieve the targets.

Subsequent updates to CEAP in 2020 under the broad framework of the European Green Deal reinforced the lifecycle approach by prioritising sustainable product design through frameworks like the Ecodesign for Sustainable Products Regulation (ESPR) which extends ecodesign requirements beyond resource efficiency to include material circularity and resource performance. The rise of upstream-oriented obligations is evident in the integration of Circular Economy principles into an

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<sup>19</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives [2008] OJ L312/3.

economic policy objective. It is projected to generate 600 billion euros in net savings<sup>20</sup> while reducing CO2 emissions by 2–4%<sup>21</sup>.

Within the abovementioned broader regulatory transformation, packaging regulation has emerged as a central and particularly sensitive sector. Packaging represents one of the largest waste streams in the EU and directly intersects with its internal market dynamics. Unlike many durable products, packaging is short-lived by its definition and function. This makes packaging a critical test case for upstream design obligations aimed at prevention of waste generation and resource efficiency. As the EU progressed towards upstream regulation, packaging regulation became a laboratory for balancing environmental objectives with internal market harmonisation. The evolution from downstream measures to upstream measures is therefore visible and contested in the field of packaging regulation, which is positioned at the intersection of circular economy objectives and Article 114 harmonisation constraints.

### 3.2 PPWD: minimum harmonisation and its systemic limitations

The Packaging and Packaging Waste Directive (PPWD, 94/62/EC) is an earlier attempt to harmonise packaging design and packaging waste management at EU level. PPWD established essential requirements for packaging to be placed on the EU market and set recycling targets. However, its minimum harmonisation approach exposed systematic limitations<sup>22</sup> with symptoms such as vague essential requirements, weak enforcement and significant divergence in enforcement across the Member States.

*Table 1 Main content of PPWD*

| Articles     | Section                    | Main Content on Packaging Requirements                                                                |
|--------------|----------------------------|-------------------------------------------------------------------------------------------------------|
| Article 1    | Objectives                 | Prevent/reduce packaging waste impact; prioritise prevention, reuse, recycling; avoid trade barriers. |
| Articles 4-5 | Prevention and Reuse       | Implement preventive measures; encourage environmentally sound reusable packaging systems.            |
| Article 6    | Recovery/Recycling Targets | Achieve 50-65% recovery, 25-45% recycling by weight; min. 15% per material; allow stricter measures.  |
| Article 7    | Return/Collection Systems  | Establish non-discriminatory systems for packaging return, collection, reuse/recovery/recycling.      |
| Article 8    | Marking/Identification     | Use material codes (e.g., Annex I for plastics, paper); visible, durable markings.                    |
| Article 9    | Essential Requirements     | Minimise volume/weight; enable reuse/recovery/recycling; limit hazardous substances (Annex II).       |

<sup>20</sup> European Commission, 'Circular Economy Package: Questions & Answers' (MEMO/15/6204, 2015) 1.

<sup>21</sup> European Commission, 'Circular Economy Package: Questions & Answers' (n 20) 1.

<sup>22</sup> European Commission, SWD(2022) 384 final (n 1) 4.

The essential requirements of PPWD, such as minimisation of packaging weight and ensuring recyclability are defined broadly. The requirements lack standardised specifications or enforcement mechanisms. Due to this vagueness, PPWD was not implemented consistently, with each Member State interpreting requirements differently<sup>23</sup>. This resulted in the fragmentation of the EU packaging market and low incentives for sustainable packaging innovation. Since this is a directive, it relies on national authorities and EU oversight has limitations, weakening enforcement. In addition, a fundamental limitation stems from the limited competence of upstream harmonisation and bias towards downstream measures. Consequently, the PPWD was limited in addressing the core challenges for a transition to circular economy, highlighting the need for more binding and harmonised rules.

A 2014 Fitness Check<sup>24</sup> identified weaknesses in the Essential Requirements and recommended making them more concrete and easily enforceable. It also recommended strengthening them as a key tool to enhance environmental performance of packaging. Although the issue with PPWD had been recognised, the 2018 amendment did not fundamentally address these structural weaknesses. It primarily increased the recycling targets for 2025 and 2030, notably raising plastic packaging recycling rates from 22.5% to 50% for 2025 and 55% for 2030, and introduced revised calculation and reporting methodologies. Revision clauses mandated examination of reinforcing the Essential Requirements, promoting reuse and high-quality recycling, and evaluating measures on lightweight plastic carrier bags. However, no comprehensive upstream design framework was introduced.

### **3.2.1 *Radlberger Getränkegesellschaft mbH & Co and S Spitz KG v Land Baden-Württemberg***<sup>25</sup>

The systemic limitations of minimum harmonisation described above were also reflected in litigation. In Case C-309/02 *Radlberger Getränkegesellschaft mbH & Co and S Spitz KG v Land Baden-Württemberg*, the CJEU in 2004 examined the German mandatory deposit system introduced for certain one-way beverage containers within the framework of Directive 94/62/EC. The case concerned whether the deposit system, triggered when reusable packaging rates fell below a specified threshold, constituted an unlawful restriction to the free movement of goods.

The judgment confirmed that, despite the Directive's harmonising objectives, Member States retained considerable discretion in organising collection and recovery systems. The Court clarified that the PPWD does not establish a hierarchy between reuse and other forms of recovery, nor does it oblige Member States to prioritise reusable packaging over recycling. Although the Directive sets out

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<sup>23</sup> European Commission, SWD(2022) 384 final (n 1) 4.

<sup>24</sup> European Commission, SWD(2022) 384 final (n 1) 4.

<sup>25</sup> Case C-309/02 *Radlberger Getränkegesellschaft mbH & Co and S Spitz KG v Land Baden-Württemberg* EU:C:2004:799.

environmental objectives, it leaves the choice of instruments largely to national authorities. Member States may therefore introduce deposit and return systems or other recovery mechanisms, provided that they comply with internal market law.<sup>26</sup>

At the same time, that discretion remains subject to Articles 34 to 36 TFEU and proportionality review. The Court held that environmental protection may justify national measures that restrict trade, but only where those measures are proportionate and do not create unnecessary or discriminatory obstacles to the free movement of goods. The introduction of a deposit system is not unlawful in principle, but its design, transitional arrangements, and practical implementation must ensure equal market access for all operators, including foreign producers. On the transitional period specifically, the Court indicated that the six-month adaptation period given to producers may have been too short to satisfy proportionality, leaving the final assessment to the referring national court.

The case illustrates the dual dynamic of directive-based minimum harmonisation that this thesis identifies as a structural feature of the pre-PPWR framework. The PPWD permitted regulatory diversity and allowed Member States to pursue their own recovery system designs, yet even those downstream market organisation measures remained subject to proportionality review under Articles 34 to 36 TFEU. Regulatory discretion in theory coexisted with internal market constraint in practice. Importantly, the case concerned a downstream deposit-return scheme rather than an upstream product requirement: the contrast with the stricter proportionality scrutiny applied in *Danish Bottles* to upstream packaging design restrictions underlines the asymmetry between the two categories of measure that Chapter 2 establishes.

### 3.3 SUP Directive: partial harmonisation but downstream focus

The Single-Use Plastics Directive (SUPD 2019/904)<sup>27</sup> complements the PPWD by introducing measures aimed at reducing marine plastic litter and pollution. The directive focuses on the ten most commonly found single-use products on the shores of EU countries. The directive achieves partial harmonisation by bans on plastic products such as plastic cutlery, plates and straws where alternatives exist and mandatory consumption reduction for plastic food containers and cups.

*Table 2 Main content of SUPD*

| Articles  | Section    | Main Content on Packaging Requirements                                                                                                               |
|-----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Article 1 | Objectives | Prevent/reduce impact of single-use plastics on environment/health; promote circular economy, sustainable models; ensure internal market efficiency. |

<sup>26</sup> *Radlberger* (n 25) [36]–[46].

<sup>27</sup> Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment [2019] OJ L155/1.

|              |                                  |                                                                                                                                                                                                               |
|--------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Articles 4-5 | Consumption Reduction & Bans     | Reduce consumption of food containers, cups, etc. (Annex Part A) by 2026; prohibit market placement of certain items like cutlery, straws, polystyrene containers (Annex Part B) and oxo-degradable plastics. |
| Article 6    | Product Requirements             | Attach caps/lids to beverage containers; min. recycled content in PET bottles (25% by 2025, 30% by 2030); supplement PPWD rules.                                                                              |
| Article 7    | Marking Requirements             | Conspicuous markings on sanitary items, wipes, cups, etc. (Annex Part D) for waste options, plastic impacts; harmonised specs.                                                                                |
| Article 8    | Extended Producer Responsibility | EPR for food containers, beverage containers, cups, bags, wipes (Annex Part E); cover collection, treatment, litter clean-up costs.                                                                           |
| Article 9    | Separate Collection              | Achieve 77% (2025)/90% (2029) collection for beverage bottles (Annex Part F) via deposit/EPR schemes.                                                                                                         |
| Article 10   | Awareness Raising                | Inform consumers on alternatives, practices, impacts for food/beverage containers, cups (Annex Part G); producers cover costs.                                                                                |

While the SUPD advances circular economy objectives through promotion of reuse and Extended Producer Responsibility (EPR), it focuses predominantly downstream. The directive emphasises waste collection, labelling for proper disposal, and EPR schemes to cover cleanup costs. However, it does not establish a coherent legal framework on EU level for upstream design. For instance, product design requirements are limited to specific items such as beverage bottles, which require tethered caps by 2024. It lacks broader mandates for redesigning across plastic products. This partial approach has also led to uneven implementation across the Member States. They transpose the directive variably, perpetuating fragmentation and limiting its impact on realising circular economy.

### 3.4 Divergence examples

National divergences in packaging regulations illustrate the fragmentation under the PPWD and SUPD. This section introduces examples of divergence in upstream measures across the Member States.

#### 3.4.1 Triman (France)

For example, France's Triman logo,<sup>28</sup> the mandatory sorting symbol accompanied by harmonised Info-Tri instructions, has been required since 1 January 2015 in its basic form under Decree No 2014-1577. The current combined Triman and Info-Tri version became mandatory from 1 January 2022 for all household products and packaging falling under Extended Producer Responsibility schemes.<sup>29</sup>



*Figure 5 Triman logo and Info-Tri sorting instructions*

The logo is applied to recyclable household products and packaging subject to an Extended Producer Responsibility scheme. It informs consumers that the product is covered by sorting rules, while the accompanying Info-Tri provides detailed instructions on the appropriate sorting method.

This requirement for specific sorting instructions necessitates adaptations for the French market and increases compliance costs. The obligation applies irrespective of whether the product is lawfully marketed elsewhere in the European Union, thereby requiring producers to redesign packaging or add country-specific labelling exclusively for the French market.

The legal tension surrounding the Triman scheme escalated at EU level gradually. In 2020, the Commission initiated informal exchanges with the French authorities about the compatibility of the Triman requirement with EU harmonisation rules.<sup>30</sup> In February 2023, the Commission formally launched infringement proceedings. The Commission found the French measure disproportionate, as other restrictive measures that are less restrictive to trade are available until full harmonisation on the labelling requirements is achieved. The dispute demonstrates how, in the absence of fully harmonised EU-wide labelling standards under the PPWD framework, Member States resorted to unilateral regulatory initiatives that generated market fragmentation and legal uncertainty for economic operators.

Therefore, the French example reflects a broader structural dynamic: directive-based minimum harmonisation permits national measures, yet they may conflict with internal market principles where they impose product-specific requirements affecting cross-border trade. Rather than achieving convergence, the PPWD framework allowed divergent labelling regimes to proliferate, reinforcing the need for more uniform upstream regulation at EU level.

### **3.4.2 Italy: Mandatory Environmental Labelling**

<sup>28</sup> French Ministry for Ecological Transition, 'Le Triman, un logo obligatoire sur les produits recyclables' (Notre Environnement, 30 April 2015) <<https://www.notre-environnement.gouv.fr/actualites/breves/article/le-triman-un-logo-obligatoire-sur-les-produits-recyclables>> accessed 6 June 2026.

<sup>29</sup> European Commission, 'Packaging: Commission Refers France to the Court of Justice of the EU for Mandatory Triman Logo' (Press Release IP/25/1834, July 2025) <[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_25\\_1834](https://ec.europa.eu/commission/presscorner/detail/en/IP_25_1834)> accessed 6 June 2026.

<sup>30</sup> European Commission, 'Packaging: Commission Refers France to the Court of Justice of the EU for Mandatory Triman Logo' (n 29).

Under Legislative Decree No. 116/2020, which amended Legislative Decree No. 152/2006, Italy introduced mandatory environmental labelling requirements that became fully applicable on 1 January 2023 following several postponements.<sup>31</sup> The measure requires all packaging placed on the Italian market, whether it is primary, secondary or tertiary, to display specific environmental information aimed at facilitating waste sorting and recycling.

Packaging must include alphanumeric material identification codes based on EU Decision 97/129/EC, as well as clear disposal instructions in Italian. These instructions must be visible, legible and affixed directly on the packaging or its label. The Italian-language requirement applies irrespective of whether the packaging already complies with EU essential requirements and regardless of its lawful marketing in other Member States.

As a consequence, businesses marketing goods in Italy must modify packaging specifically for the Italian market, often by re-labelling or applying additional stickers. Non-compliance may result in administrative fines under Article 261 of the decree. Although the regime seeks to enhance recycling performance and operates within Italy's Extended Producer Responsibility framework, its language-specific and format-specific obligations have been criticised for increasing compliance costs and complicating cross-border trade within the internal market.

### **3.4.3 Spain's Packaging and Waste Regulations**

Spain adopted Royal Decree 1055/2022 on packaging and packaging waste, approved on 27 December 2022, transposing the Packaging and Packaging Waste Directive (PPWD) and the Single-Use Plastics Directive (SUPD) while introducing additional national measures. The decree came into force on 1 January 2023, with key labelling provisions entering into force in 2025.<sup>32</sup>

The Spanish measure establishes ambitious national reuse and recyclability objectives, including overall packaging recycling targets and requirements. It is aimed at increasing recycled content and reducing single-use packaging. Also, it mandates the use of specific pictograms or symbols indicating the appropriate waste fraction for disposal. These symbols must be visible, legible and durable, and are intended to guide consumers in sorting packaging correctly. Although the Spanish measure relies primarily on visual symbols rather than language-specific instructions, its format and presentation differ from those adopted in France and Italy.

### **3.4.4 Deposit-Return Systems (Austria and Cross-Border Incompatibility)**

Divergence across the EU Member States is also evident in the organisation of national deposit-return systems in Austria and its neighbouring countries. Austria introduced a mandatory deposit-return system

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<sup>31</sup> *Real Decreto 1055/2022, de 27 de diciembre, de envases y residuos de envases*, BOE núm 311 (28 December 2022).

<sup>32</sup> *Real Decreto 1055/2022* (n 31).

for single-use beverage bottles and metal cans on 1 January 2025<sup>33</sup> in order to meet EU collection targets under the SUPD. Similar systems operate in neighbouring Member States such as Germany<sup>34</sup> and Slovakia. The neighbouring Czech Republic has not introduced this system yet. Although these systems pursue similar environmental objectives and are designed to improve collection rates, they remain nationally organised and territorially confined.

Under the SUPD framework, Member States are required to achieve specific collection targets but retain discretion as to the instruments used. Deposit-return systems are therefore structured through domestic administrative and technical infrastructures. Eligibility for redemption is determined within each national system, and participation is tied to registration and compliance within the respective jurisdiction.

*Table 3 Comparison table of deposit-return systems in Germany, Austria, Slovakia and Czech Republic*

| Country  | Launch Date        | Administrator                   | Logo                                                                                | Labelling Barcode Requirements                                 | Cross-border redemption | Deposit amount |
|----------|--------------------|---------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------|----------------|
| Germany  | 2003 <sup>35</sup> | Deutsche Pfandsystem GmbH (DPG) |   | Nationally registered GTIN + DPG deposit mark                  | No                      | €0.25          |
| Austria  | 1 January 2025     | Recycling Pfand Österreich      |  | Official deposit symbol + GTIN registered in Austrian database | No                      | €0.25          |
| Slovakia | 1 January 2022     | Správca zálohového systému      |  | “ZÁLOHOVÁNÉ” logo + national registration                      | No                      | €0.15          |

<sup>33</sup> *Pfandverordnung, BGBl II Nr 283/2023*, in force 1 January 2025.

<sup>34</sup> *Verpackungsgesetz (VerpackG)* of 5 July 2017, *BGBl I S 2234*, replacing *Verordnung über die Vermeidung und Verwertung von Verpackungsabfällen* of 27 August 1998.

<sup>35</sup> *Verpackungsgesetz* (n 34).

|                       |                                                       |                                              |                                                                        |                                      |     |     |
|-----------------------|-------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------|--------------------------------------|-----|-----|
| <b>Czech Republic</b> | Not implemented (delayed / on hold from planned 2026) | Planned central operator (not yet appointed) | No official national logo yet (local/event signage uses “ZÁLOHUJ EME”) | N/A (proposed national registration) | N/A | N/A |
|-----------------------|-------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------|--------------------------------------|-----|-----|

As a consequence, deposits paid in one Member State are not generally redeemable in another. Even where packaging formats are materially identical, redemption depends on integration into the relevant national scheme. This does not necessarily constitute unlawful discrimination under Articles 34–36 TFEU, as deposit systems may be justified on environmental protection grounds provided they are proportionate and indistinctly applicable.

However, the coexistence of parallel national infrastructures illustrates a structural feature of minimum harmonisation. While EU law harmonises objectives, such as collection targets, it does not harmonise operational mechanisms. Economic operators active in multiple Member States must therefore participate in distinct national systems, and deposit infrastructures remain segmented along territorial lines.

The example demonstrates that convergence at the level of environmental goals does not automatically produce convergence at the level of implementation. Under directive-based harmonisation, Member States may pursue identical circular economy objectives through technically separate systems, resulting in structurally fragmented market conditions, which can create barriers in market access and fragment the internal market.

### **3.4.5 Structural Implications for the Internal Market**

These national measures, while motivated by circular economy objectives under the EU legal framework, demonstrate how divergent labelling and material requirements may fragment the EU internal market. Differences in national formats, language requirements and presentation standards oblige businesses operating across multiple Member States to undertake technical adjustments and compliance verification for each individual market. As mentioned above in the Italian example, mandatory Italian-language disposal instructions require exporters to redesign or relabel packaging specifically for the Italian market, increasing production costs and limiting market access. In Spain, although the system relies primarily on pictograms rather than textual instructions, the format and design of those symbols differ from neighbouring Member States, again necessitating adaptation for cross-border trade.

Such divergences generate duplicated compliance efforts, higher administrative expenses and reduced regulatory predictability. The European Commission's Annual Single Market Report<sup>36</sup> has identified national labelling requirements among the most disruptive barriers to cross-border trade. The report illustrates that even environmentally motivated measures may function as non-tariff obstacles where coordination is lacking.

This fragmentation is reinforced by disparities in institutional capacity. Member States with developed waste management and market surveillance infrastructures are better equipped to implement ambitious upstream requirements, whereas others face financial and administrative constraints. The result is differentiated regulatory intensity across the Union.

### **3.4.6 Doctrinal Categorisation of Divergent Measures**

The divergence described above also reflects the distinct categories of internal market control under EU law. The CJEU has also drawn important distinctions between product requirements, organisation of deposit-return systems, and proportionality limits.

In *Commission v Denmark (Danish Bottles)*<sup>37</sup> introduced in Chapter 2, the Court accepted the legitimacy of environmental protection but held that Denmark's restriction on authorisation of bottle types exceeded what was necessary. The deposit-return system itself was not deemed unlawful; rather, the limitation on container formats constituted a disproportionate product requirement under Article 34 TFEU. The judgment demonstrates that upstream design constraints are subject to strict proportionality review.

On the other hand, in *Radlberger*, the CJEU confirmed that Member States may introduce deposit-return systems under the PPWD. Such systems fall within national discretion, if they are non-discriminatory and proportionate. Environmental objectives may justify trade-restrictive effects where equal market access for businesses is ensured. The case illustrates the permissible scope of national regulatory autonomy within a minimum harmonisation framework.

The French Triman Scheme occupies a more sensitive position. As a mandatory product marking requirement introduced under the *Loi relative à la lutte contre le gaspillage et à l'économie circulaire* (Anti-Waste for a Circular Economy law)<sup>38</sup>, it directly alters the presentation of goods placed on the market. Such measures fall within Article 34 scrutiny and raise questions of compatibility in a partially harmonised field.

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<sup>36</sup> European Commission, 'Annual Single Market Report 2025' COM(2025) 76 final.

<sup>37</sup> *Commission v Denmark* (n 13).

<sup>38</sup> *Loi n° 2020-105 du 10 février 2020 relative à la lutte contre le gaspillage et à l'économie circulaire*, JORF n° 0035 (11 February 2020).

These distinctions show that not all forms of divergence are equivalent under EU law. Some trigger strict proportionality review as product requirements, others fall within justified environmental discretion, and others reflect parallel administrative infrastructures.

### **3.5 Why earlier EU CE measures left fragmentation, structural rationale for shifting to PPWR**

Earlier EU circular economy measures mentioned above established common environmental objectives but relied on minimum harmonisation. While these directives target recovery and recycling, they left significant discretion to Member States in determining regulatory techniques and enforcement structures. This design produced structural fragmentation within the internal market and limited the effectiveness of upstream circular economy regulation.

The fragmentation identified above is not incidental, but structural. It follows from the logic of directive-based minimum harmonisation, in which objectives are harmonised while implementation remains decentralised.

#### **3.5.1 Vagueness and Regulatory Discretion under the PPWD and SUPD**

The PPWD's essential requirements, contained in Article 9 and Annex II<sup>39</sup>, articulate broad principles such as minimisation of packaging weight, reusability and recoverability. However, they do not provide binding, harmonised design specifications or uniform enforcement criteria. The Directive set targets for recycling and recovery, yet left implementation mechanisms to national authorities.

This normative openness enabled Member States to develop divergent EPR systems, deposit-return schemes (DRS), and labelling obligations. When there were no EU-wide design-for-recyclability standards, national measures increasingly diverged. Businesses operating across borders were required to comply with multiple national frameworks, hampering market integration and increasing regulatory complexity.

The SUPD sought to address specific environmental harms through targeted bans, marking requirements and collection targets. Yet its directive form again relied on national transposition. Differences emerged in the scope of bans, the structure of EPR obligations, recycled content targets and labelling formats.

As a result, regulatory environments developed unevenly across Member States. While some countries adopted comprehensive enforcement mechanisms, others experienced delays or adopted narrower interpretations. The SUPD thus reinforced rather than resolved structural divergence.

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<sup>39</sup> European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste [1994] OJ L365/10, art 9 and Annex II.

### 3.5.2 Institutional Capacity as a Structural Driver of Fragmentation – Persistence of 27 Parallel Systems

Fragmentation under directive-based regulation was not solely legal in origin; it was also institutional. Analyses by the European Environment Agency<sup>40</sup> indicate significant disparities in administrative capacity and infrastructural development among Member States.

Member States such as Germany, the Netherlands, Denmark, Belgium and Italy possess capabilities to implement product-design obligations, sophisticated sorting infrastructure and developed market surveillance capabilities. These institutional advantages enable them to adopt more ambitious upstream design standards and to implement complex regulatory requirements under negative harmonisation.

On the other hand, Member States such as Greece, Hungary, Lithuania and Poland face greater administrative and infrastructural constraints. For these countries, imposing circular economy measures can generate substantial financial and practical burdens. In so-called latecomer Member States, including Bulgaria, Romania and Malta, even achieving existing recycling targets remains challenging due to limited waste management infrastructure.

These three tiers of capacity create structurally differentiated implementation environments<sup>41</sup>. Under the PPWD and SUPD frameworks, Member States with stronger institutional capacity could introduce additional or more detailed national requirements, while others struggled to implement existing obligations. The result was not convergence, but regulatory stratification across the internal market.

Neither the PPWD nor the SUPD established binding, directly applicable EU-wide design standards. The targets under those directives were addressed to Member States rather than directly to businesses, and verification mechanisms remained decentralised. Consequently, 27 parallel regulatory systems persisted.

Divergent labelling schemes, reuse incentives and material identification requirements required product-specific adaptations for each national market. Even where environmentally justified, such variations functioned as non-tariff barriers within the internal market. Compliance costs increased, legal predictability declined, and cross-border supply chains became more complex. Directive-based minimum harmonisation thus produced a dual dynamic: theoretical regulatory autonomy combined with practical market fragmentation.

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<sup>40</sup> European Environment Agency, *More from Less: Material Resource Efficiency in Europe* (EEA Report No 10/2016, European Environment Agency 2016) 7.

<sup>41</sup> European Environment Agency, 'Circular Material Use Rate in Europe' (European Environment Agency, 22 October 2024) <<https://www.eea.europa.eu/en/analysis/indicators/circular-material-use-rate-in-europe>> accessed 6 June 2026.

### **3.6 Link to Japan**

As Chapter 7 will analyse in detail, Japan's packaging waste regime under the Containers and Packaging Recycling Law provides a contrasting governance model. Operating within a unitary state structure, Japan achieves nationwide uniformity in recycling obligations through central coordination and extended producer responsibility mechanisms. Producers finance municipal collection systems under nationally administered schemes, and enforcement coherence is ensured through central oversight by the Ministry of the Environment.

Unlike the EU's pre-PPWR framework, Japan does not face internal market constraints between sub-national jurisdictions. Regulatory coherence is therefore achieved administratively rather than through supranational harmonisation. While Japan pursues circularity objectives, including through its Plastics Resource Circulation Strategy, its approach relies more heavily on coordinated national planning and industry participation than on binding upstream design mandates.

The EU's shift to the PPWR resembles Japan's model in seeking regulatory uniformity, yet the rationale differs. In the EU context, harmonisation is driven by internal market integration under Article 114 TFEU. In Japan, uniformity arises from centralised governance within a single legal order.

The comparison highlights a structural distinction: whereas Japan secures enforcement coherence through administrative centralisation, the EU must rely on legal harmonisation to overcome fragmentation. The PPWR thus represents an attempt to reconcile circular economy ambition with the constitutional constraints of the internal market.

### **3.7 Theoretical Framing: Decentralised, Centralised and Competitive Integration Models**

The regulatory evolution described in this chapter can be understood through the lens of the three integration models introduced in Chapter 2: the decentralised model, the centralised harmonisation model, and the regulatory competition model. The experience of the EU internal market with the PPWD and SUPD demonstrates the structural interaction of these models in packaging regulation.

Under the decentralised integration model, Member States retain regulatory autonomy based on Articles 34–36 TFEU, subject to the prohibitions of MEQR. The PPWD and SUPD operated largely within this framework. Although these two directives established common objectives, the regulation in the directive form left implementation to national authorities. Consequently, upstream packaging rules remained exposed to internal market scrutiny, and divergent national labelling schemes and reuse requirements proliferated, causing 27 parallel systems to exist.

In practice, this regulatory structure created important constraints on circular economy initiatives of the Member States targeting upstream measures. Measures that regulate packaging formats, material

composition, labelling requirements, or reuse systems often fall within the category of product requirements under Article 34 TFEU. Therefore, such measures trigger strict market access and proportionality review under the CJEU's jurisprudence of free movement of goods. Although directives such as the PPWD and SUPD established common environmental objectives, decentralised implementation allowed significant regulatory divergence among the Member States.

This dynamic directly supports Hypothesis 1. EU internal market law can constrain the ability of the Member States to regulate products at the design stage. In the absence of harmonisation at EU-level, upstream measures risk being classified as MEQRs and subject to strict judicial scrutiny, while differing national measures generated legal uncertainty and additional compliance costs for producers operating across the Member States.

The structural limitations described above explain the increasing shift towards EU-level harmonisation. The PPWR represents a significant step in this direction. The following chapter therefore examines the PPWR as an attempt to address the structural limitations identified in the existing regulatory framework of packaging.

## Chapter 4 – Legal Basis and Competence: The Case of the PPWR

### 4.1 Objectives of PPWR

The PPWR aims to address the growing environmental challenges and internal market fragmentation associated with packaging within the EU. The PPWR pursues several interrelated objectives.<sup>42</sup> First, it aims to reduce the generation of packaging waste by introduction of prevention measures, packaging reduction targets, and restrictions on unnecessary packaging formats. Second, the PPWR promotes the transition towards a circular economy of packaging by establishing requirements for improving the recyclability and reusability of packaging placed on the EU market. Third, it seeks to increase the use of secondary raw materials through minimum recycled content requirements for some categories of plastic packaging.

In addition to the environmental objectives, the PPWR also addresses internal market fragmentation.<sup>43</sup> As described in Chapter 3, divergent packaging rules emerged under PPWD. Through the introduction of harmonised rules at EU level, the PPWR seeks to ensure uniform conditions for packaging design, labelling and waste management throughout the EU. Both environmental objectives and internal market objectives reflect the dual nature of the PPWR as an environmental instrument and internal market harmonisation measure adopted under Article 114 TFEU.

The analysis in this chapter proceeds in four interconnected stages, each of which corresponds to a distinct legal question about the PPWR's design and durability. Section 4.2 maps the PPWR's substantive obligations across the packaging lifecycle, establishing what the regulation actually requires of economic operators. Section 4.3 examines the transition from directive to regulation as a structural choice, and what that choice achieves in terms of regulatory uniformity. Section 4.4 analyses the legal basis under Article 114 TFEU, the subsidiarity justification, and the proportionality framework as stated in the legislative text, assessing whether the conditions for relying on Article 114 are genuinely satisfied.

Section 4.5 traces the legislative history of the PPWR, documenting the political compromises and stakeholder pressures that shaped the final text and produced the derogations and flexibility clauses that qualify its upstream ambitions. Section 4.6 then examines the PPWR's judicial exposure, asking not whether the legal basis is formally valid, but whether specific upstream obligations survive the Court's proportionality jurisprudence and whether the delegation of technical standard-setting to the Commission creates independent litigation risk. Section 4.7 considers stakeholder and industry perspectives on the regulatory design choices made.

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<sup>42</sup> Regulation (EU) 2025/40 of the European Parliament and of the Council of 19 December 2024 on packaging and packaging waste [2025] OJ L, 22.1.2025, recitals 1–5 and art 1.

<sup>43</sup> European Commission, SWD(2022) 384 final (n 1) 18.

Together, these sections build a cumulative argument: the PPWR is a legally coherent instrument that makes a genuine contribution to internal market harmonisation, but its upstream obligations operate at the outer boundaries of what Article 114 TFEU can sustain, and the legislative compromises documented in section 4.5 have produced a text whose judicial durability remains structurally uncertain. This uncertainty is one of the two dimensions of Hypothesis 2 that Chapter 4 establishes; the second, concerning enforcement divergence, is developed in Chapter 6.

## 4.2 Key Obligations and Contents of the PPWR

The PPWR (Regulation 2025/40)<sup>44</sup> establishes a comprehensive, life-cycle framework for sustainable packaging in the EU internal market. The regulation emphasises prevention, reuse, high-quality recycling, and waste reduction. Adopted on 19 December 2024 and applicable from 12 August 2026, it introduces binding obligations directly applicable to businesses, replacing the fragmented approach of prior directives. The following table summarises the key obligations under the PPWR.

*Table 4 Key obligations of PPWR*

| Articles       | Section                                                  | Main Content                                                                                                                                                                                                                             |
|----------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Articles 5–11  | Sustainability requirements (upstream design)            | Restrictions on substances of concern; recyclability performance criteria; minimum recycled content in plastic packaging; provisions on bio-based and compostable packaging; packaging minimisation; requirements for reusable packaging |
| Articles 12–14 | Labelling, marking and information requirements          | Harmonised packaging labelling; labelling of packaging waste collection containers; rules on substantiated environmental claims                                                                                                          |
| Articles 15–23 | General obligations of economic operators                | Obligations applicable to manufacturers, importers, distributors and suppliers; traceability and compliance duties                                                                                                                       |
| Articles 24–33 | Prevention and reduction of packaging waste              | Quantitative packaging reduction targets; restrictions on excessive packaging; bans on certain packaging formats; binding reuse and refill obligations                                                                                   |
| Article 34     | Plastic carrier bags                                     | Consumption reduction obligations for Member States                                                                                                                                                                                      |
| Articles 35–39 | Packaging conformity                                     | Conformity assessment procedures; EU declaration of conformity; compliance verification mechanisms                                                                                                                                       |
| Articles 40–57 | Management of packaging and packaging waste (downstream) | Extended Producer Responsibility (EPR); organisation of reuse and refill systems; recycling targets; reporting and monitoring obligations                                                                                                |

The central characteristic of the PPWR is its life-cycle approach. It addresses packaging at its multiple stages from upstream to downstream. It covers design, placing on the market, use and its management

<sup>44</sup> PPWR (n 42) arts 70–71 (entry into force and application).

at end-of-life. PPWR combines the upstream product requirements such as recyclability performance criteria, restrictions on substances of concern, packaging minimisation obligations, and minimum recycled content targets with downstream measures relating to waste management, reuse systems, and extended producer responsibility schemes.

These obligations align with the waste hierarchy. They prioritise closing the tap, introducing measures for prevention and mandating waste reductions by 2030. They apply uniformly across the EU without national legislation, ensuring consistency for businesses while promoting circularity.

The timeline of enforcement of PPWR is summarised in the table below<sup>45</sup>. This phased timeline reflects a gradual tightening of packaging sustainability requirements, allowing businesses time to adapt while progressively advancing circular economy objectives within the internal market.<sup>46</sup>

*Table 5 Timeline of PPWR implementation*

| Time          | Regulatory event                         | What changes                                                                                                                                                                              |
|---------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2025 January  | Regulation published in Official Journal | Regulation (EU) 2025/40 is formally adopted and published, establishing the legal framework for EU packaging regulation.                                                                  |
| 2025 February | PPWR entry into force                    | The PPWR enters into force. Most obligations are subject to transition periods to allow preparation by Member States and economic operators.                                              |
| 2026 August   | General application begins               | Core provisions of the Regulation start to apply across the EU, including general obligations for economic operators and sustainability requirements                                      |
| 2028–2029     | Harmonised labelling mandatory           | Standardised EU packaging labelling and waste sorting instructions become mandatory across Member States.                                                                                 |
| 2030 January  | Recyclability requirements introduced    | Only packaging meeting minimum recyclability performance grades (A–C) may be placed on the EU market. Minimum recycled content requirements begin to apply for certain plastic packaging. |
| 2035 January  | Recyclability at scale required          | Packaging must be recyclable in practice and at scale within EU waste management systems, not only technically recyclable.                                                                |
| 2038 January  | Highest recyclability standards          | Only packaging with the highest recyclability grades (A and B) can be placed on the EU market. Lower grades are prohibited.                                                               |

### 4.3 Transition from Directive 94/62/EC (PPWD) to the PPWR

The transition to the Packaging and Packaging Waste Regulation (PPWR, Regulation (EU) 2025/40) represents a structural response to these limitations. By adopting a regulation under Article 114 TFEU, the EU moved from decentralised implementation toward directly applicable, uniform upstream standards.

<sup>45</sup> PPWR (n 42) arts 70–71.

<sup>46</sup> PPWR (n 42) arts 70–71.

The PPWR introduces binding recyclability criteria, recycled content requirements and harmonised labelling rules applicable across all Member States. Unlike directives, which permit divergent transposition, a regulation reduces discretion and strengthens legal certainty for economic operators.

The shift reflects recognition that upstream circular economy measures cannot function effectively within a fragmented minimum harmonisation structure characterised by divergent institutional capacity and regulatory discretion. Uniform rules are intended to prevent further stratification of regulatory levels and to restore internal market coherence.

#### **4.4 Legal Basis, Subsidiarity and Proportionality**

The PPWR is grounded in the Article 114 TFEU harmonisation clause as its legal basis.<sup>47</sup> This choice reflects the objective of addressing the regulatory fragmentation in the packaging sector and removing obstacles to free movement of goods. The subsidiarity principle and proportionality principle further support the PPWR.

Article 114 TFEU also served as the legal basis for the predecessor Directive 94/62/EC (PPWD). Based on this provision, the EU may adopt measures for the approximation of national laws, regulations or administrative action in Member States.<sup>48</sup> While administrative implementation remains largely with Member States, the PPWR directly regulates those elements where national divergences would create barriers to the free movement of goods. Through the harmonisation of these aspects, the Regulation aims to ensure recyclability, support the development of high-quality secondary raw materials, and provide a level playing field for economic operators active across multiple Member States.

This legal basis also aligns with the internal market approach traditionally used in EU product legislation, for example the Toy Safety Directive (Directive 2009/48/EC), the Machinery Regulation (Regulation (EU) 2023/1230), the General Product Safety Regulation (Regulation (EU) 2023/988), the Ecodesign for Sustainable Products Regulation (Regulation (EU) 2024/1781), and REACH (Regulation (EC) No 1907/2006). However, the PPWR goes further by extending its scope across the entire life cycle of packaging, from design and placing on the market to end-of-life management. In doing so, it seeks to establish a unified regulatory framework that combines market integration with circular economy objectives.

The subsidiarity principle further supports EU-level action in this area.<sup>49</sup> The characteristic of the EU market is high levels of cross-border trade between Member States. Packaging-related environmental challenges, including increasing waste volumes and barriers to circularity, cannot be effectively addressed by Member States acting individually. Given the integrated nature of the EU packaging

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<sup>47</sup> PPWR (n 42).

<sup>48</sup> European Commission, SWD(2022) 384 final (n 1) 18.

<sup>49</sup> European Commission, SWD(2022) 384 final (n 1) 18.

market, national measures tend to generate additional fragmentation and undermine the internal market. EU-level harmonisation therefore provides clear added value by ensuring a coherent regulatory framework and avoiding distortions arising from divergent national approaches.

The proportionality principle requires that EU action does not exceed what is necessary to achieve its objectives. In this respect, the PPWR adopts a gradual and structured approach, introducing progressively stricter requirements over time. Measures such as phased recyclability criteria and evolving restrictions on substances of concern are designed to provide regulatory certainty while allowing economic operators to adapt. The Regulation also maintains a degree of flexibility to accommodate innovation and technological development, supporting the conclusion that the intervention remains proportionate.<sup>50</sup>

Despite the strength of the Commission's justification, certain stakeholder and academic critiques question whether the final Regulation fully achieves its harmonisation objectives. The European Circular Economy Stakeholder Platform (ECOS) noted that the adopted text includes a greater number of derogations and flexibilities than initially proposed, particularly in relation to reuse targets and innovative packaging exemptions. They pointed out that during the negotiation phase, targets were lowered and made voluntary. As a consequence, the PPWR included numerous loopholes, and possibilities for derogations from strict measures were added.<sup>51</sup> These critiques highlight the political compromises inherent in the legislative process. They also illustrate that, even under a centralised harmonisation model, tensions between market integration and environmental ambition persist.

#### **4.5 Legislative Development and Negotiation of the PPWR**

The legislative journey of the PPWR began with the Commission proposal of 30 November 2022, which sought to revise the PPWD in line with the European Green Deal and the Circular Economy Action Plan. A central design choice of the proposal was the elevation of the legal instrument from a Directive to a Regulation. Directives set forth goals and obligations to be met by Member States while leaving the means of implementation to the discretion of national authorities, which has led to significant discrepancies between Member States with regard to EPR and environmental labelling obligations. A regulation, by contrast, applies uniformly throughout the Union, such that this issue does not arise.<sup>52</sup> This shift thus embedded a harmonisation objective at the heart of the instrument's legal architecture.

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<sup>50</sup> European Commission, SWD(2022) 384 final (n 1) 18.

<sup>51</sup> ECOS, *PPWR Analysis: A First Look at the New Packaging and Packaging Waste Regulation* (ECOS, January 2025) <[https://ecostandard.org/wp-content/uploads/2025/01/2025-01-22\\_ECOS\\_Position-PPWR-analysis.pdf](https://ecostandard.org/wp-content/uploads/2025/01/2025-01-22_ECOS_Position-PPWR-analysis.pdf)> accessed 6 June 2026.

<sup>52</sup> Keller and Heckman LLP, 'New EU Packaging and Packaging Waste Regulation: Highlights and Challenges Ahead' (Keller and Heckman LLP, 2025) <<https://www.khlaw.com/insights/new-eu-packaging-and-packaging-waste-regulation-highlights-and-challenges-ahead>> accessed 6 June 2026.

As EUROPEN<sup>53</sup> observed, the stated objectives of the Regulation are to continuously improve the environmental performance of packaging and to facilitate the correct functioning of the EU Internal Market, thereby protecting the free circulation of packaging and packaged goods across all Member States.

Following a public consultation period from 1 December 2022 to 24 April 2023, the Environment, Public Health, and Food Safety (ENVI) Committee of the European Parliament issued its draft Report in April 2023<sup>54</sup>, voting on its final position on 24 October 2023. The Committee's proposed amendments notably included the introduction of a ban on PFAS in paper and cardboard food packaging, the assessment of recycled content requirements for materials beyond plastics, the reinforcement of plastic recycled content requirements, and the setting of specific waste reduction targets for plastic packaging. The European Parliament adopted its negotiating position on 22 November 2023, with 426 votes in favour, 125 against, and 74 abstentions.<sup>55</sup>

The Council reached its general approach on 18 December 2023. The Council maintained the Commission's proposal that all packaging placed on the EU market must be recyclable and additionally introduced a requirement for packaging to be separately collected, sorted, and recycled at scale to ensure effective recycling capabilities. It also mandated Member States to establish deposit return systems by 2029 to enhance collection and recycling of single-use plastic bottles and metal beverage containers.<sup>56</sup>

Intensive trilogues followed, with the first technical meeting commencing on 10 January 2024 under the Belgian Presidency, and the first political level trilogue taking place on 5 February 2024.<sup>57</sup> Prior to that political meeting, technical experts from both institutions had exchanged views and explored possible compromises across a total of nine meetings at technical level. At that midpoint, a provisional compromise had already been reached on 691 of the 1,095 individual provisions and recitals in the PPWR; in 80% of cases agreement was reached on the Commission's original proposal, the Council's position prevailed in 14% of cases, and the Parliament's in only 6%<sup>58</sup>. No agreement was expected at that first political trilogue, as the PPWR was simply too large and complex, and the positions of Council

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<sup>53</sup> EUROPEN, 'Packaging and Packaging Waste Regulation' (EUROPEN) <<https://www.europen-packaging.eu/policy-area/packaging-and-packaging-waste-directive/>> accessed 6 June 2026.

<sup>54</sup> European Parliament Committee on the Environment, Public Health and Food Safety (ENVI), *Draft Report on the Proposal for a Regulation on Packaging and Packaging Waste* (2023/0032(COD)), Rapporteur Frédérique Ries, (2023) 10.

<sup>55</sup> European Parliament, 'Revision of Packaging and Packaging Waste Directive (REFIT)' (Legislative Train Schedule) <[https://www.europarl.europa.eu/legislative-train/theme-a-european-green-deal/file-revision-of-packaging-and-packaging-waste-directive-\(refit\)](https://www.europarl.europa.eu/legislative-train/theme-a-european-green-deal/file-revision-of-packaging-and-packaging-waste-directive-(refit))> accessed 6 June 2026.

<sup>56</sup> EXPRA, 'Commencement of Trilogues: Discussions on Packaging and Packaging Waste Regulation Begin' (EXPRA, 21 February 2024) <<https://expa.eu/2024/02/21/commencement-of-trilogues-discussions-on-packaging-and-packaging-waste-regulation-begin/>> accessed 6 June 2026.

<sup>57</sup> Marc Engelmann, 'PPWR Unpacked (Part 17): Trilogue Half-Time, What Has Been Achieved So Far?' (LinkedIn, 2024) <<https://www.linkedin.com/pulse/ppwr-unpacked-part-17-trilogue-half-time-what-has-been-engelmann-tmjxf/>> accessed 6 June 2026.

<sup>58</sup> Engelmann (n 57).

and Parliament were too far apart on many issues. This distribution revealed a structural imbalance in institutional influence from the outset, with the most contested terrain centring on reuse quotas and packaging format bans.

The negotiations attracted unprecedented levels of stakeholder pressure. A group of over 40 environmental civil society organisations published a letter ahead of the first trilogue calling on negotiators to strongly address the presence of hazardous chemical substances in all packaging materials within the PPWR.<sup>59</sup> Industry associations were simultaneously pushing in the opposite direction, with concerns raised by the Confederation of European Paper Industries about closed-loop recycling requirements and by the European Chemical Industry Council about reduced recycled content targets and ambiguity surrounding bio-based feedstock.<sup>60</sup>

The trilogues culminated in a provisional political agreement on 4 March 2024, reached at the second and final political trilogue in Brussels.<sup>61</sup> The agreement was formally endorsed by ENVI on 19 March 2024 with 63 votes in favour, 9 against and 3 abstentions, and adopted by the Parliament on 24 April 2024 with 476 votes in favour, 129 against and 24 abstentions. The Regulation aims to tackle constantly growing waste, harmonise internal market rules and boost the circular economy.<sup>62</sup> After a corrigendum approved by Parliament on 27 November 2024 and lawyer-linguist corrections, the Council formally adopted the text on 16 December 2024. It was signed on 19 December 2024, published in the Official Journal on 22 January 2025 as Regulation (EU) 2025/40, entered into force on 11 February 2025, and becomes generally applicable on 12 August 2026.<sup>63</sup>

Key negotiation flashpoints included the following:

*Reuse targets:* The Commission proposed ambitious binding percentages for transport, e-commerce, and beverage packaging. Parliament and environmental stakeholders pushed for higher and earlier targets, while the Council and industry secured phased implementation and operator-specific exemptions. Civil society organisations regretted that the initial Commission proposal was watered down by a plethora of exemptions and derogations adopted under pressure from throwaway lobbies, particularly that cardboard packaging was excluded from reuse targets for transport, and that the scope of restrictions for unnecessary packaging was limited only to single-use plastics.<sup>64</sup> Binding reuse targets

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<sup>59</sup> Food Packaging Forum, 'EU Policymakers Push to Address PPWR Sticking Points During Final Negotiations' (Food Packaging Forum, 2024) <<https://foodpackagingforum.org/news/eu-policymakers-push-to-address-ppwr-sticking-points-during-final-negotiations>> accessed 6 June 2026.

<sup>60</sup> Food Packaging Forum (n 59).

<sup>61</sup> Packaging Dive, 'EU Parliament Votes for Sweeping Packaging Rules Under the PPWR' (Packaging Dive, 2024) <<https://www.packagingdive.com/news/eu-parliament-votes-ppwr-packaging-rules/714121/>> accessed 6 June 2026.

<sup>62</sup> EUROPEN, 'EU Negotiators Reach Provisional Agreement on PPWR' (EUROPEN, 5 March 2024) <<https://www.euopen-packaging.eu/news/eu-negotiators-reach-provisional-agreement-on-ppwr/>> accessed 6 June 2026.

<sup>63</sup> EUROPEN (n 62).

<sup>64</sup> EUROPEN (n 62).

were nonetheless introduced for the first time at European level, alongside deposit return systems across all Member States.<sup>65</sup>

*Recycled-content requirements:* The co-legislators agreed on 2030 and 2040 targets for minimum recycled content in plastic packaging, with exemptions for compostable plastic packaging and packaging whose plastic component represents less than 5% of the total weight. Minimum targets for beverage bottles were retained but accompanied by limited exemptions for food-contact and medical applications.

*Packaging reduction measures:* Binding packaging reduction targets for Member States were set at 5% by 2030, 10% by 2035, and 15% by 2040 against the 2018 baseline, alongside a maximum empty space ratio of 50% for grouped, transport and e-commerce packaging.<sup>66</sup>

*Chemical safety:* The compromise included a ban on per- and polyfluorinated alkyl substances (PFAS) in food-contact packaging beginning in 2026, a measure that Parliament's chief negotiator Frédérique Ries described as "a big victory for the health of European consumers," even though the Commission had argued against this addition, maintaining that persistent substances should be regulated under forthcoming chemicals legislation.

These compromises shaped a final text that reflects a fundamental tension at the heart of the PPWR's ambition: it achieves formal harmonisation through the choice of a Regulation as legal form, but the proliferation of derogations, exemptions, and Member State implementation discretions risks reintroducing the very fragmentation it was designed to cure. EUROPEN, representing the packaging industry, expressed continued concern about the potential for further market fragmentation, warning that divergent national measures could jeopardise the seamless operation of the Single Market and impede collective progress towards circularity.<sup>67</sup> How national governments exercise their remaining discretion will be a central determinant of whether the PPWR achieves a genuine circular economy transformation or merely its legislative form.

## **4.6 Stakeholder and Industry Perspectives**

Business stakeholders broadly welcomed the shift to a regulation, stating that harmonised EU-wide rules are essential to eliminate the fragmentation and compliance costs associated with the PPWD. FoodDrinkEurope<sup>68</sup>, representing the European food and beverage industry, expressed support for the general objectives of the PPWR to secure a well-functioning internal market through fully harmonised

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<sup>65</sup> EXPRA (n 56).

<sup>66</sup> EUWID Recycling and Waste Management, 'Trilogue Deal Reached on EU Packaging and Packaging Waste Regulation' (EUWID, 5 March 2024) <<https://www.euwid-recycling.com/news/policy/trilogue-deal-reached-on-eu-packaging-and-packaging-waste-regulation-050324/>> accessed 6 June 2026.

<sup>67</sup> EUWID (n 66).

<sup>68</sup> EUWID (n 66).

rules on packaging, while simultaneously decreasing the environmental impact. Similarly, EUROPEN<sup>69</sup> endorsed the transition from Directive to Regulation, emphasising the objective to continuously improve the environmental performance of packaging and to facilitate the correct functioning of the EU internal market, thereby protecting the free circulation of packaging and packaged goods across all Member States. Reflecting the breadth of industry alignment on the legal architecture, a coalition of over 100 EU and national associations from the packaging value chain issued a joint industry statement in December 2023 calling for preservation of the Article 114 TFEU single-market legal basis.<sup>70</sup>

Industry associations simultaneously emphasised the need for legal certainty, longer transition periods, and clear technical guidance to facilitate investment in reuse and recycling infrastructure. EUROPEN called on legislators to build on industry technical expertise, ensure extensive stakeholder consultations, and establish a regulatory framework that provides clarity for industry and supports sustainable growth without imposing unworkable constraints.<sup>71</sup> Concerns about regulatory completeness persisted even after adoption: as of 2025, EUROPEN's Executive Director noted that around 40 pieces of secondary legislation remained to be adopted, with many critical definitions, including what counts as 'packaging', remaining unresolved and generating significant compliance risk.<sup>72</sup>

Concerns centred on the feasibility of ambitious reuse and recyclability targets, particularly for SMEs and sectors with hygiene or safety constraints, alongside requests for extended derogations and financial support mechanisms. Plastics Europe<sup>73</sup> expressed support for the PPWR's targets in principle, but highlighted concerns about the feasibility of certain reuse targets for transport packaging and the need for a stable regulatory framework to encourage investments in recycling infrastructure. Industry voices cautioned that if the transition is not handled with adequate support and flexibility, compliance costs, including packaging line adaptations and higher EPR fees, could impact competitiveness of EU businesses, with SMEs bearing the sharpest impact.<sup>74</sup> On derogations, the Commission itself ultimately acknowledged that certain reuse requirements were disproportionately burdensome: following a feasibility study prompted by stakeholder feedback, it concluded that requiring the exclusive use of

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<sup>69</sup> EUROPEN, 'Over 100 Associations Warn Current PPWR Approach Risks Unravelling the Single Market and Setting the Clock Back on the Green Deal' (Joint Statement, December 2023) <<https://www.europen-packaging.eu/>> accessed 6 June 2026.

<sup>70</sup> EUROPEN (n 69).

<sup>71</sup> Plastech, 'PPWR Changes the Rules of the Game for Labels by 2030' (Plastech, 2025) <<https://www.plastech.biz/en/news/PPWR-changes-the-rules-of-the-game-for-labels-by-2030-21757>> accessed 6 June 2026.

<sup>72</sup> Plastech (n 71).

<sup>73</sup> INEOS Styrolution, 'All You Need to Know About the PPWR' (INEOS Styrolution, 2025) <[https://www.ineos.com/businesses/ineos-styrolution/learning-hub/blog/template\\_all-you-need-to-know-about-ppwr/](https://www.ineos.com/businesses/ineos-styrolution/learning-hub/blog/template_all-you-need-to-know-about-ppwr/)> accessed 6 June 2026.

<sup>74</sup> European Commission, 'Pallet Wrapping and Straps Exempt from 100% Reuse Requirement' (Environment News, 25 February 2026) <[https://environment.ec.europa.eu/news/pallet-wrapping-straps-exempt-100-reuse-requirement-2026-02-25\\_en](https://environment.ec.europa.eu/news/pallet-wrapping-straps-exempt-100-reuse-requirement-2026-02-25_en)> accessed 6 June 2026.

reusable pallet wrappings and straps for certain intra-company and intra-Member State transport operations would lead to disproportionate adaptation costs, and granted an exemption accordingly.<sup>75</sup>

However, the nature and intensity of industry engagement in shaping the final text has attracted significant critical scrutiny. InfluenceMap, a non-profit think tank that tracks corporate policy engagement, documented what it characterised as a pattern of organised opposition to the Regulation's most ambitious elements. Its analysis found that after intense negative policy engagement from the chemical and consumer products industries, the adopted PPWR was significantly watered down, with the final agreement introducing non-binding reuse targets, broad exemptions on prevention and reuse measures, and a weakening of the waste hierarchy approach by treating reuse and recycling as equivalent<sup>76</sup>. The think tank identified specific actors within this dynamic: particularly the chemical, packaging and consumer goods sectors. The chemical sector, including PlasticsEurope, BASF, Henkel, and CEFIC, did not support increasing the recyclability of plastic packaging through reduced polymer complexity or material-specific regulation, while associations including CEPI, BusinessEurope, and FoodDrinkEurope, alongside companies such as Coca-Cola, Sappi, Tetra Pak, and McDonald's, advocated for exemptions from reuse targets and disputed the comparative environmental credentials of reuse over single-use packaging.<sup>77</sup> At the company level, InfluenceMap's analysis of the consumer products sector found that while Danone and Nestlé were positively engaged with the PPWR, Henkel and Coca-Cola Europacific Partners took unsupportive stances, and that key measures and targets appeared to have been weakened even before the Commission's formal November 2022 proposal, compared to a leaked October 2022 draft.<sup>78</sup> Separately, BusinessEurope advocated for exemptions from reuse obligations in a December 2023 letter to the Chair of the EU Environment Council.

Civil society organisations drew parallel conclusions. The Rethink Plastic alliance, writing after the Regulation's adoption, described the PPWR as having been marked by an unprecedented and intense industry lobbying campaign to water down its ambition.<sup>79</sup> Taken together, these accounts suggest that the business stakeholder response to the PPWR was not monolithic: while the shift to a Regulation from a Directive commanded broad support, the substantive content of its obligations, particularly on reuse, became a site of sustained and consequential contestation.<sup>80</sup>

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<sup>75</sup> European Commission, 'Pallet Wrapping and Straps Exempt from 100% Reuse Requirement' (n 74).

<sup>76</sup> InfluenceMap, 'Europe's Packaging and Packaging Waste Regulation' (Industry Influence Briefing, 2024) <[https://lobbymax.org/site//data/000/014/Europe\\_Packaging\\_and\\_Packaging\\_Waste\\_Regulation.pdf](https://lobbymax.org/site//data/000/014/Europe_Packaging_and_Packaging_Waste_Regulation.pdf)> accessed 6 June 2026.

<sup>77</sup> InfluenceMap, 'Europe's Packaging and Packaging Waste Regulation' (n 76).

<sup>78</sup> InfluenceMap, 'Europe's Packaging and Packaging Waste Regulation' (n 76).

<sup>79</sup> InfluenceMap, 'BusinessEurope LobbyMap Profile' (InfluenceMap) <<https://lobbymax.org/influencer/BusinessEurope>> accessed 6 June 2026.

<sup>80</sup> Case C-123/99 *Commission v Hellenic Republic* EU:C:2000:211; Case C-35/00 *Commission v United Kingdom* EU:C:2002:37; Case C-466/99 *Commission v Italian Republic* EU:C:2002:68; Case C-292/99 *Commission v French Republic* EU:C:2002:276.

## 4.7 Interim Conclusion

The analysis in this chapter has examined the PPWR from three connected angles. Firstly, it has analysed its substantive obligations and the structural significance of the transition from directive to regulation, followed by its legal basis under Article 114 TFEU and the conditions under which that basis is valid. Then it explored the legislative history that produced the text as it stands, which was marked by political compromise through lobbying, phased implementation, and flexibility clauses that qualify its upstream ambitions. Three findings emerged from the analysis to be carried forward in this thesis.

First, the PPWR's transition from directive-based minimum harmonisation to regulation-based full harmonisation represents a structural response to the legal constraints identified in Chapter 2 and regulatory fragmentation documented in Chapter 3. By replacing divergent national packaging rules with a single directly applicable framework, the regulation removes the double regulatory burden that upstream product requirements have imposed on cross-border trade under the decentralised model. In this sense, this constitutes the most legally coherent available response to the legal constraints described in Hypothesis 1. It confirms that EU-level harmonisation under Article 114 TFEU is capable, in principle, of overcoming the structural disincentive for Member State upstream regulation.

Second, that capacity is not unlimited. The genuine harmonisation requirement established in *Tobacco Advertising I* means that Article 114 TFEU cannot sustain provisions whose primary effect is environmental rather than market-integrating. The PPWR's upstream obligations are simultaneously its most environmentally ambitious provisions and those whose connection to internal market fragmentation is most likely to be contested at the level of individual provisions. The regulation passes the genuine harmonisation test at the level of its overall framework. Whether specific provisions survive at the level of partial annulment review is a question Chapter 5 examines.

Third, the legislative history documented in section 4.5 shows that the regulation text the Council and Parliament adopted is considerably more qualified than the Commission's original proposal. Derogations, extended transition periods, and delegated act frameworks that defer technical standard-setting to 2028 have produced a regulation whose upstream ambitions are real, but whose operational content remains incomplete at the time of enforcement. The combination of textual qualification and technical incompleteness creates the conditions for the litigation exposure and enforcement divergence that Hypothesis 2 predicts, and that Chapters 5 and 6 develop in turn.

The next Chapter examines the first dimension of that exposure: the specific procedural vehicles through which the PPWR's upstream obligations are likely to be challenged, the doctrinal framework the Court of Justice would apply to each category of dispute, and the structural implications of sustained litigation uncertainty for the regulation's effectiveness as a harmonisation instrument.

## Chapter 5 – Litigation Risk and Judicial Exposure of the PPWR's Upstream Obligations

In the previous chapter, section 4.4 established that the PPWR's Article 114 TFEU legal basis is formally sound and supported by the documented fragmentation of national packaging rules examined in Chapter 3. Section 4.5 showed that the legislative process produced a text shaped by political compromise such as derogations, phased targets, and flexibility clauses that qualify the regulation's upstream ambitions. This section asks a third and distinct question: whether that text is judicially durable. Hypothesis 2 predicts that EU-level harmonisation, while overcoming the structural constraint on Member State upstream regulation identified in Hypothesis 1, remains exposed to increased litigation. This section substantiates that prediction by identifying the specific procedural vehicles through which challenges are likely to arise and assessing, for each, the doctrinal framework the Court would apply.

The litigation risk that Hypothesis 2 identifies is not a theoretical prediction about a novel instrument. It follows a documented pattern established across the PPWD framework, under which the Court received a sustained stream of disputes spanning all four categories examined below. The Commission brought successful infringement actions against Member States for failure to transpose or implement basic PPWD obligations, including proceedings against Greece for non-transposition of Directive 94/62/EC, against the United Kingdom for failure to draw up waste management plans covering its entire territory, against Italy for failure to forward information on packaging waste management plans, and against France for failure to include a packaging waste chapter in its waste management plans.<sup>81</sup> National courts generated preliminary references on definitional questions including what constitutes packaging within the directive's scope, who qualifies as a producer, and what activities constitute recycling. The Court was required to resolve each of them authoritatively.<sup>82</sup> Industry actors attempted to challenge Commission decisions on recovery and recycling targets directly, with the General Court consistently finding such challenges inadmissible for lack of direct and individual concern.<sup>83</sup> In addition, the interaction between Member State deposit-return systems and free movement of goods generated both preliminary references and infringement proceedings that reached the Court of Justice itself, most notably the German mandatory deposit system examined in section 3.2.1 of this thesis.<sup>84</sup> The PPWR does not inherit these specific disputes, since it supersedes the PPWD entirely. However, it inherits and intensifies the structural conditions that produced them. Its upstream obligations are technically more demanding than the PPWD's downstream targets, its directly applicable regulation form removes the admissibility barriers that deflected industry challenges under the directive framework, and its delegated act architecture adds a layer of secondary legislation that was absent from the predecessor instruments.

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<sup>81</sup> *Commission v Hellenic Republic and Others* (n 80).

<sup>82</sup> Case T-142/03 *Fost Plus VZW v Commission of the European Communities* EU:T:2005:51.

<sup>83</sup> Case T-234/13 *Lucart France v European Commission* EU:T:2014:616, Order of the General Court (First Chamber) of 7 July 2014.

<sup>84</sup> *Tobacco Advertising I* (n 15) [83]–[84], [98]–[99].

This chapter examines the four categories of disputes which are likely to arise in relation to the PPWR's upstream obligations: a) annulment actions challenging specific provisions of the regulation itself; b) preliminary references from national courts on definitional and technical questions; c) infringement proceedings against Member States for non-compliance or over-implementation; and d) challenges to the delegated acts the Commission adopts to operationalise the PPWR's technical framework. These categories are not equally likely to succeed, and the Court's established jurisprudence points to different outcomes depending on the procedural route and the specific provision challenged.

## **5.1 Annulment Actions: Competence and Partial Annulment Risk**

The most structurally significant litigation risk for the PPWR arises from annulment actions under Article 263 TFEU, brought either by Member States or by industry associations granted standing. The doctrinal framework the Court applies to such challenges follows a clear sequence, established in *Germany v Parliament and Council (Tobacco Advertising I)* and developed through subsequent case law.

The PPWD era already produced such challenges. In *Fost Plus VZW v Commission of the European Communities*, a Belgian packaging waste compliance organisation brought an annulment action before the General Court challenging two Commission decisions on packaging recovery and recycling targets. The General Court declared the action inadmissible for lack of direct and individual concern, confirming that private parties face a structural standing obstacle when seeking to challenge EU packaging decisions directly.<sup>85</sup> Similarly, in the joined cases T-202/13 to T-244/13, a group of producers brought annulment actions against Directive 2013/2/EU, which amended Annex I of the PPWD to include rolls, tubes and cylinders within the definition of packaging. The General Court again declared those actions inadmissible because the directive was not of direct and individual concern to the individual applicants.<sup>86</sup> Combined, these cases establish that annulment challenges to packaging legislation are structurally likely. For example, industry actors could attempt to challenge unfavourable legislative and administrative decisions. However, standing under Article 263 TFEU is a significant procedural obstacle for private parties, making preliminary references the more realistic litigation route for most economic operators, and direct annulment more realistic only for Member States and industry associations with representational standing.

The Court held at paragraph 83 of *Tobacco Advertising I* that construing Article 114 as vesting a general power to regulate the internal market would be incompatible with the principle that the powers of the Community are limited to those specifically conferred on it.<sup>87</sup> Paragraph 84 adds that a measure adopted under Article 114 must genuinely have as its object the improvement of conditions for the internal

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<sup>85</sup> *Fost Plus* (n 82).

<sup>86</sup> *Lucart* (n 83).

<sup>87</sup> *Tobacco Advertising I* (n 15) [83]–[84], [98]–[99].

market. According to the judgment, a mere finding of disparities between national rules and the abstract risk of obstacles is insufficient.<sup>88</sup> For the PPWR as a whole, this threshold is met. The fragmentation documented in Chapter 3 provides the factual foundation for a genuine harmonisation justification. The measures include for example divergent labelling schemes, deposit-return systems, and reuse requirements. The Court further confirmed in *British American Tobacco (Investments) and Imperial Tobacco* at paragraph 75 that the legislature cannot be prevented from relying on Article 114 on the ground that environmental protection is a decisive factor in the choices made, provided the harmonisation conditions are satisfied.<sup>89</sup> A wholesale annulment challenge to the PPWR on competence grounds is therefore unlikely to succeed.

The more credible annulment risk operates at the level of individual provisions, so-called partial annulment. *Tobacco Advertising I* itself illustrates how this works in practice. At paragraph 98 the Court accepted that a directive prohibiting tobacco advertising in periodicals and magazines could in principle be adopted under Article 100a because of genuine cross-border trade in press products. But at paragraph 99 it held that prohibitions on advertising on posters, parasols, ashtrays and articles used in hotels, restaurants and cafés could not be justified by the need to eliminate obstacles to free movement, because those prohibitions did not help to facilitate trade in the relevant products.<sup>90</sup>

There is a direct structural parallel for the PPWR. The reuse obligations under Article 26 extend across a wide range of packaging categories, some of which are characterised by genuinely integrated cross-border supply chains where divergent national rules create real market access barriers, and others of which have primarily local or regional distribution patterns with a weaker connection to internal market fragmentation. A partial annulment challenge can argue that specific reuse obligations applied to predominantly nationally distributed packaging categories serve environmental rather than market-integration objectives and thus cannot be sustained under Article 114. This follows the same doctrinal logic as paragraphs 98–99 of *Tobacco Advertising I* and represents the most legally coherent route for industry challengers.<sup>91</sup>

## 5.2 Preliminary References: Definitional Ambiguity and Technical Uncertainty

The second category of likely dispute arises through the preliminary reference procedure under Article 267 TFEU, initiated by national courts when economic operators challenge enforcement decisions by

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<sup>88</sup> *Tobacco Advertising I* (n 15) [83]–[84], [98]–[99].

<sup>89</sup> Case C-491/01 *The Queen v Secretary of State for Health, ex parte British American Tobacco (Investments) Ltd and Imperial Tobacco Ltd* EU:C:2002:741, [2002] ECR I-11453, [75]; Case C-380/03 *Germany v Parliament and Council (Tobacco Advertising II)* EU:C:2006:772, [2006] ECR I-11573, [37]–[42].

<sup>90</sup> *British American Tobacco* (n 89) [75]; *Tobacco Advertising II* (n 89) [37]–[42].

<sup>91</sup> Vincent Delhomme, 'The Paradoxical EU Competence to Regulate Tobacco' (College of Europe Research Paper No 1/2018) <[https://www.coleurope.eu/sites/default/files/research-paper/researchpaper\\_1\\_2018\\_vincent\\_delhomme\\_0.pdf](https://www.coleurope.eu/sites/default/files/research-paper/researchpaper_1_2018_vincent_delhomme_0.pdf)> accessed 6 June 2026, 14–18; Weatherill (n 5) 848–849.

national market surveillance authorities. This route is likely to generate a sustained stream of litigation over the PPWR's definitional ambiguities, particularly as the regulation's upstream obligations begin to be applied from 2026 and delegated acts progressively fill the technical framework from 2028.

The PPWR generated a sustained stream of preliminary references on precisely this basis. In *Plato Plastik Robert Frank GmbH v Caropack Handelsgesellschaft mbH*, a national court asked the Court of Justice to interpret who counts as a producer of packaging under the PPWR, specifically whether a manufacturer of plastic carrier bags falls within that definition.<sup>92</sup> In *The Queen on the application of Mayer Parry Recycling Ltd v Environment Agency*, a reference concerned whether mechanical reprocessing of steel from mixed scrap satisfied the PPWR's definition of recycling.<sup>93</sup> In *Sapod Audic v Eco-Emballages SA*, a reference arose from the French eco-emballages marking scheme and its compatibility with free movement of goods.<sup>94</sup> Each dispute arose from the same structural feature: definitional imprecision in a packaging framework leaving interpretive uncertainty that only the Court could resolve through successive rulings. The PPWR replicates this structure at greater scale and technical complexity.

The PPWR contains several provisions whose scope is sufficiently ambiguous to generate national court proceedings. The definition of 'packaging' in Article 3 and Annex I determines whether a given product falls within the regulation's scope at all, and therefore whether the full range of upstream obligations applies. The definition of 'high-quality recycling' in Article 3(33) links recycled content obligations to specific end-market quality standards that are themselves yet to be specified through delegated acts. The recyclability performance grades established under Articles 6 and 7 will require national courts to interpret the relationship between the primary text, the delegated acts, and the harmonised standards adopted by technical bodies. Each of these definitional uncertainties can generate a preliminary reference from a national court in any of the twenty-seven Member States, producing a fragmented jurisprudential landscape in which the Court's interpretive guidance develops unevenly across successive cases rather than through a single comprehensive ruling.<sup>95</sup>

The Court's approach to preliminary references on technical product regulation is one of deference to national courts on factual matters while providing authoritative guidance on the scope of EU obligations. For the PPWR, this means that definitional questions, such as whether a given packaging format falls within a particular reuse obligation or recyclability grade, will be resolved through a combination of Court interpretation and national court application, creating a period of interpretive uncertainty that may extend across the regulation's initial implementation decade. This is itself a dimension of the litigation

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<sup>92</sup> Case C-341/01 *Plato Plastik Robert Frank GmbH v Caropack Handelsgesellschaft mbH* EU:C:2004:254; Case C-444/00 *The Queen, on the application of Mayer Parry Recycling Ltd v Environment Agency* EU:C:2003:356; Case C-159/00 *Sapod Audic v Eco-Emballages SA* EU:C:2002:343.

<sup>93</sup> *Plato Plastik* (n 92); *Mayer Parry* (n 92); *Sapod Audic* (n 92).

<sup>94</sup> PPWR (n 42) arts 3, 3(33), 6–7, Annex I.

<sup>95</sup> PPWR (n 42) arts 3, 3(33), 6–7, Annex I.

risk that Hypothesis 2 identifies: not merely the cost and duration of individual proceedings, but the regulatory uncertainty that preliminary reference litigation generates for economic operators who cannot plan compliance investments without knowing how definitional boundaries will ultimately be drawn.

### **5.3     Infringement Proceedings: Non-Compliance and Gold-Plating**

The third category of likely dispute involves infringement actions under Articles 258–260 TFEU, brought by the Commission against Member States. Two distinct infringement scenarios are foreseeable in the PPWR context, pointing in opposite directions.

The first scenario is non-compliance or under-enforcement, such as Member States failing to designate competent authorities, failing to establish functioning market surveillance systems for upstream obligations, or failing to impose penalties that are effective, proportionate, and dissuasive as required by Article 68 of the PPWR.<sup>96</sup> The Commission's infringement record in the packaging sector provides strong evidence that this risk is not theoretical. As documented in Chapter 6, the Commission initiated infringement proceedings against eleven Member States in 2022 for failure to fully transpose the Single-Use Plastics Directive, an instrument of considerably narrower scope and lower technical complexity than the PPWR.<sup>97</sup> Where the PPWR's upstream obligations require technically demanding ex ante verification, such as design-for-recyclability audits, substance restriction checks, recycled content tracing, Member States with limited administrative capacity are structurally more likely to fall short, generating infringement proceedings that confirm rather than resolve the enforcement divergence analysed in Chapter 6.

The second scenario is over-implementation: Member States adopting national measures that go beyond the PPWR's harmonised framework under the guise of environmental ambition. Because the PPWR is a regulation rather than a directive, it precludes Member States from adopting divergent national packaging requirements in the fields it exhaustively harmonises. A Member State introducing additional recyclability criteria, stricter substance restrictions beyond those specified in Article 5, or additional reuse targets for categories already addressed by Article 26 would risk infringement proceedings for incompatibility with full harmonisation. The French Triman scheme, which generated Commission infringement action as documented in section 3.4.1, illustrates the pattern: ambitious national environmental measures that were permissible under minimum harmonisation become impermissible once full harmonisation replaces the directive. This scenario underlines the structural trade-off at the heart of H2: the shift from directive to regulation that overcomes the H1 constraint simultaneously

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<sup>96</sup> PPWR (n 42) art 68.

<sup>97</sup> European Parliament, Policy Department for Citizens, Equality and Culture, *Monitoring the Implementation of EU Law: Tools and Challenges* (Update, PE 769.042, January 2025) 46.

constrains Member State environmental ambition in the opposite direction, replacing the problem of too little harmonisation with the problem of too much.

#### **5.4 Delegated Act Challenges: The Structural Vulnerability**

The fourth and most structurally significant category of dispute concerns the delegated acts through which the Commission will operationalise the PPWR's technical framework. The PPWR delegates to the Commission the power to establish design-for-recycling criteria and recyclability performance grades, to determine the methodology for assessing recyclability at scale, and to specify EPR fee modulation parameters, which are all expected by 2028.<sup>98</sup> These delegated acts will determine which packaging may be placed on the internal market from 2030. They are therefore not secondary technical instruments but substantive market-access rules whose validity will be directly contestable.

The constitutional constraint on delegated acts under Article 290 TFEU is that the legislature may delegate only the power to supplement or amend non-essential elements of a legislative act.<sup>99</sup> Essential elements, those requiring political choices at the primary legislative level, must be determined in the act itself. As Craig has analysed, the line between essential and non-essential elements is not clearly drawn in technically complex product legislation, and the Court has not provided comprehensive guidance in the environmental and product regulatory context.<sup>100</sup> A challenge arguing that the recyclability performance grades, which determine market access conditions, constitute essential elements requiring legislative adoption rather than Commission delegation is legally plausible and would be admissible before the Court. *Philip Morris Brands v Secretary of State for Health (C-547/14)* is instructive on the procedural conditions under which delegated act challenges reach the Court. At paragraph 35 the Court confirmed that individuals may plead the invalidity of an EU act before national courts where a genuine dispute exists in which the validity question arises indirectly. However, at paragraphs 42-46 the Court declared inadmissible the questions concerning the validity of delegated and implementing act provisions of Directive 2014/40, on the ground that those provisions were not addressed to Member States and did not relate to implementation in the national legal system whose intent to transpose was being challenged. The case therefore confirms that delegated act validity questions are admissible in principle under Article 267 TFEU, but only where the referring court establishes a genuine dispute connection between the contested act and the proceedings before it.<sup>101</sup> PPWR delegated acts establishing recyclability grades that determine which packaging may be placed on the market fall squarely within the admissible category. A challenge against measures that determine

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<sup>98</sup> PPWR (n 42) arts 6–7 (design for recycling and recyclability performance grades); art 44 (EPR fee modulation).

<sup>99</sup> art 290(1) TFEU.

<sup>100</sup> Paul Craig, 'Delegated Acts, Implementing Acts and the New Comitology Regulation' (2011) 36(5) *European Law Review* 671, 673–684.

<sup>101</sup> Case C-547/14 *Philip Morris Brands SARL and Others v Secretary of State for Health* EU:C:2016:325, [35], [42]–[46].

market access conditions for all packaging placed on the internal market, constitute essential elements requiring legislative adoption rather than Commission delegation is legally plausible.

The question of whether such challenges are admissible before the Court follows from the general principles governing both the preliminary reference procedure and direct annulment actions. Under Article 267 TFEU, national courts may refer questions of validity concerning any act of the EU institutions, including delegated acts adopted by the Commission under Article 290 TFEU, provided a genuine dispute exists in which the validity question arises indirectly.<sup>102</sup> Under Article 263(4) TFEU, natural or legal persons may bring direct annulment actions against regulatory acts that are of direct concern to them and do not entail implementing measures. It is a category that encompasses Commission delegated acts establishing technical standards with direct market access consequences.<sup>103</sup> The practical significance of this for the PPWR was illustrated by the tobacco products litigation, where the referring court in *Philip Morris* included among its questions whether multiple delegated act provisions of Directive 2014/40, covering emissions levels, measurement methods, ingredients regulation, and health warnings, infringed Article 290 TFEU.<sup>104</sup>

The Court found the delegated act questions inadmissible not for absence of reasoning, but on the more specific ground that the contested provisions did not entail Member State implementation and therefore bore no relation to the proceedings in the main action. For the PPWR's delegated acts, that procedural obstacle does not arise. The delegated acts on recyclability performance grades will determine whether packaging may be placed on the internal market from 2030. Any national court proceeding arising from a market surveillance authority's enforcement decision based on those grades will involve a dispute connection that the *Philip Morris* litigation lacked. Article 290 TFEU delegation challenges would therefore be a recognised litigation category whose procedural admissibility is more readily established in the PPWR context than it was in the Tobacco Products Directive.<sup>105</sup> For the PPWR's delegated acts establishing recyclability performance grades, which will directly determine market access conditions for packaging placed on the internal market, both the preliminary reference route and the direct annulment route under Article 263(4) TFEU are available to economic operators with a sufficient connection to the contested act.

The evidentiary standard the Commission must meet when adopting these delegated acts is also subject to judicial scrutiny. The Court has consistently held that EU measures must be based on adequate evidence establishing that the legislative objective is genuinely pursued and that the measure chosen is appropriate to achieve it. In the context of Article 114 TFEU measures, the Court confirmed in *British*

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<sup>102</sup> art 267 TFEU; *Philip Morris* (n 101) [35].

<sup>103</sup> art 263(4) TFEU; Craig (n 100) 673–684, on the category of regulatory acts not entailing implementing measures and its application to Commission delegated acts.

<sup>104</sup> *Philip Morris* (n 101), Questions 4 and 5 as referred; [42]–[46] declaring those questions inadmissible.

<sup>105</sup> *Philip Morris* (n 101) [42]–[46].

*American Tobacco*<sup>106</sup> that the legislature must be allowed broad discretion in areas involving complex technical assessments, and that the legality of a measure is affected only where it is manifestly inappropriate having regard to the objective pursued. Applied by analogy to Commission delegated acts adopted under Article 290 TFEU, this standard requires that the technical and economic evidence base underlying each delegated act be sufficient to withstand manifest error review. Where the Commission's delegated act adoption process relies heavily on technical input from harmonised standards bodies and stakeholder consultations without generating an adequate evidential record, delegated act challenges will provide economic operators with a further avenue for contesting upstream obligations they find commercially unworkable.

The temporal dimension of this vulnerability matters independently. The delegated acts are not expected until 2028, yet the regulation becomes generally applicable in August 2026. During the intervening period, national market surveillance authorities will lack the benchmarks required to conduct meaningful compliance audits to make sure that upstream obligations are met. This creates a de facto transitional period of legal uncertainty that compounds the enforcement divergence analysed in Chapter 6.

## **5.5 Structural Implications for Hypothesis 2**

The four categories of dispute examined in this section, annulment actions targeting specific upstream provisions, preliminary references on definitional ambiguity, infringement proceedings in both directions, and delegated act challenges, constitute the litigation risk dimension of Hypothesis 2. Three conclusions follow.

First, the PPWR's Article 114 TFEU legal basis is robust at the level of the overall regulatory framework. Wholesale annulment on competence grounds is unlikely given the Court's consistent post-*Tobacco Advertising I* deference to the legislature where genuine fragmentation is demonstrable. The litigation risk is more precisely located at the level of specific upstream provisions whose genuine harmonisation justification is weaker, and at the level of quantified obligations whose evidentiary foundation may not satisfy the Court's proportionality expectations.

Second, preliminary reference litigation over definitional ambiguities will generate sustained normative uncertainty across the regulation's initial implementation period that is distinct from, and additional to, enforcement divergence. Economic operators cannot plan compliance investments without interpretive certainty on the scope of upstream obligations, and that certainty will develop unevenly through successive national court proceedings rather than through a single authoritative ruling.

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<sup>106</sup> Philip Morris (n 101) [42]–[46].

Third, the delegated act framework introduces a structural litigation vulnerability that will not begin to be resolved until 2028 at the earliest and that will then generate its own additional wave of proceedings. The combination of primary text vulnerability, definitional ambiguity, and delegated act exposure means that the PPWR's upstream regulatory framework will operate under conditions of sustained judicial uncertainty across its initial implementation decade, which is a structural consequence of applying a technically complex centralised model in a legal order whose judicial review mechanisms operate case by case rather than through ex ante comprehensive validation.

Together with the enforcement divergence to be established in Chapter 6, this judicial uncertainty constitutes the double-layered confirmation of Hypothesis 2 that this thesis develops: the PPWR overcomes the structural constraint on Member State upstream regulation identified in Hypothesis 1, but this comes at the cost of sustained litigation exposure and institutional fragility that legal harmonisation alone cannot resolve.

## **Chapter 6 – Enforcement and Effectiveness: From Uniform Rules to Uneven Practice**

### **6.1 PPWR Enforcement Architecture: Monitoring, Penalties, and Market Surveillance**

The PPWR's enforcement architecture operates across three interlocking layers: monitoring and reporting obligations, market surveillance, and penalties. Each layer is legally grounded in the PPWR itself and in the horizontal framework established by Regulation (EU) 2019/1020 on market surveillance and compliance of products, which provides the general institutional infrastructure within which PPWR-specific enforcement mechanisms sit.<sup>107</sup>

#### **6.1.1 Monitoring and Reporting**

The Commission is responsible for aggregating EU-wide compliance data through a structured reporting system. Economic operators submit data on packaging placed on the market, recycled content, and reuse targets; Member States consolidate national data and transmit it to the Commission; and the Commission conducts periodic evaluations and publishes implementation reports. This system is designed to generate early warnings of non-compliance and to provide the evidentiary basis for Commission enforcement action. However, the quality of data flowing through this system is itself contingent on national administrative capacity. The availability of specialised personnel, the frequency of inspections, and the robustness of national data collection infrastructure directly determine what the Commission receives and therefore what it can act upon<sup>108</sup>.

#### **6.1.2 Market Surveillance**

Market surveillance under the PPWR is conducted by national authorities designated by each Member State under Article 10 of Regulation (EU) 2019/1020 on market surveillance and compliance of products. Those authorities are responsible for verifying that packaging placed on the market meets the PPWR's upstream design requirements, recyclability criteria, substance restrictions, minimum recycled content, and packaging minimisation obligations. Regulation (EU) 2019/1020 itself acknowledges the structural problem this creates: differences in national market surveillance resources lead to fragmented enforcement, with surveillance being "more rigorous in some Member States than in others, potentially compromising the level playing field among businesses."<sup>109</sup> This is a problem that persists despite the 2019 reform and that the Commission has since identified as requiring further legislative intervention.<sup>110</sup>

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<sup>107</sup> Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products [2019] OJ L169/1.

<sup>108</sup> PE 769.042 (n 97) 19–21; European Commission, *Enforcing EU Law for a Europe That Delivers*, COM(2022) 518 final (13 October 2022) 10–12.

<sup>109</sup> Regulation (EU) 2019/1020 (n 107) recital 14.

<sup>110</sup> Regulation (EU) 2019/1020 (n 107) recital 14; see also European Commission, 'Evaluation and Possible Revision of Regulation (EU) 2019/1020 on Market Surveillance and Compliance of Products' (Initiative Reference 14807, launched November 2025) <<https://ec.europa.eu/info/law/better-regulation/have-your->

### 6.1.3 Penalties

The PPWR requires Member States to lay down rules on penalties applicable to infringements and to take all measures necessary to ensure their implementation, with penalties required to be effective, proportionate, and dissuasive.<sup>111</sup> Critically, the regulation does not prescribe EU-wide penalty levels: the setting of specific penalties is left entirely to Member States. This means that while the obligation to penalise is harmonised, the actual enforcement pressure that penalties create varies across the Union depending on national penalty regimes, prosecution rates, and enforcement culture. As one commentary on the PPWR's enforcement structure has noted, companies operating across multiple EU markets should therefore expect differences in interpretation and application of penalties between Member States, a structural feature of the architecture that the regulation does not resolve.<sup>112</sup>

The table below summarises the key enforcement provisions, their legal basis, and the actor responsible for each:

*Table 6 Enforcement architecture of PPWR*

| <b>Enforcement element</b>             | <b>Legal basis</b>                          | <b>Responsible actor</b>                        | <b>Key limitation</b>                                            |
|----------------------------------------|---------------------------------------------|-------------------------------------------------|------------------------------------------------------------------|
| Monitoring and data reporting          | PPWR Art. 56; COM(2022) 518                 | Economic operators → Member States → Commission | Data quality dependent on national capacity                      |
| Market surveillance                    | PPWR Arts. 40–44; Regulation (EU) 2019/1020 | National market surveillance authorities        | Intensity varies across Member States                            |
| Conformity assessment and declarations | PPWR Arts. 36–39                            | Economic operators                              | Verification depends on national audit capacity                  |
| Penalties                              | PPWR Art. 68                                | Member States                                   | Penalty levels and prosecution rates left to national discretion |
| Infringement proceedings               | Arts. 258–260 TFEU                          | European Commission                             | Reactive, reserved for systemic breaches only                    |
| Early-warning mechanism                | PPWR Art. 56                                | Commission                                      | Dependent on completeness of reported data                       |

This enforcement architecture reflects the standard EU model of centralised rule-setting combined with decentralised enforcement. Its structural limitation, which the following sections develop, is that it

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say/initiatives/14807-Market-surveillance-and-compliance-of-products-evaluation-and-possible-revision-of-Regulation-EU-2019-1020\_en> accessed 6 June 2026.

<sup>111</sup> PPWR (n 42) art 68.

<sup>112</sup> Greenberg Traurig LLP, 'EU Packaging and Packaging Waste Regulation: New Compliance Requirements for E-Commerce' (Greenberg Traurig LLP, August 2025) <<https://www.gtlaw.com/en/insights/2025/8/eu-packaging-and-packaging-waste-regulation-new-compliance-requirements-for-e-commerce>> accessed 6 June 2026.

presupposes a degree of administrative homogeneity across Member States that does not exist in practice, and that the PPWR's own penalty framework does nothing to remedy.

## **6.2 Why enforcement matters for upstream circular economy rules**

The preceding section identified the structural limitation that the PPWR's enforcement architecture presupposes a degree of administrative homogeneity across Member States that does not exist in practice, which is not equally significant across all regulatory contexts. For downstream waste management obligations such as collection targets, sorting infrastructure, and landfill bans, enforcement failures are visible, measurable, and relatively straightforward to detect through waste flow statistics and environmental inspections. The enforcement gap that 5.1 identifies therefore carries qualitatively greater consequences for the PPWR than it would for a directive-based downstream instrument, because the upstream obligations the PPWR introduces are of a fundamentally different character.

Upstream obligations under the PPWR, such as design-for-recyclability requirements, restrictions on substances of concern, minimum recycled content thresholds, and packaging minimisation standards, require *ex ante* technical verification. A national authority seeking to verify whether a packaging product meets the PPWR's recyclability performance grade must apply complex technical criteria established through delegated acts, assess material composition and processing compatibility, and evaluate conformity documentation submitted by the economic operator. This demands a level of technical expertise and inspection capacity that is qualitatively different from that required to verify the enforcement of downstream obligations, for example, verifying whether a municipality has achieved a collection rate target. The regulation's central ambition, which is to shift regulatory intervention from waste management to product design, simultaneously relocates the enforcement burden from relatively standardised downstream auditing to technically demanding upstream product inspection. Member States that lack required administrative capacity, testing infrastructure, or the institutional experience to conduct design-for-recyclability assessments will therefore face a qualitatively greater enforcement deficit under the PPWR than they did under the PPWD, even if their general administrative capacity remains unchanged.

The acute structural problem is confirmed by the broader EU enforcement record. Environmental regulation is the domain where this structural problem is most acute. The European Parliament's 2025 study documents that environment and the internal market consistently generate the highest numbers of open infringement cases across all EU policy areas, with environmental enforcement alone accounting for 356 open cases in 2021.<sup>113</sup> Particularly instructive for the PPWR context is the Commission's initiation of infringement procedures against eleven Member States in 2022 for failure to fully transpose the Single-Use Plastics Directive, a packaging-specific instrument of considerably narrower scope and

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<sup>113</sup> PE 769.042 (n 97) 46, section 4.4.2 (environment and internal market as the policy areas with the highest number of infringement cases; 356 open environmental infringement cases in 2021).

lower technical complexity than the PPWR.<sup>114</sup> If a directive imposing relatively straightforward downstream obligations on single-use plastic products generated infringement proceedings against more than a third of all Member States, the enforcement challenges facing the PPWR's technically demanding upstream design and composition requirements are likely to be substantially more severe.

The Eurostat packaging waste statistics provide concrete evidence of this enforcement unevenness under the PPWD. In 2023, the overall EU recycling rate for packaging waste stood at 67.5%, close, though not yet meeting the 2030 target of 70%. However, that aggregate figure conceals a substantial spread across Member States. Seven Member States already exceeded the 70% target in 2023, with Belgium leading at 79.7%, followed by the Netherlands at 75.8% and Italy at 75.6%. At the other end of the scale, four Member States reported total packaging recycling rates below 50%, with Romania at 37.3%, Hungary at 42.8%, Malta at 44.4% and Greece at 48.0%. The gap between the best and worst performing Member States therefore exceeded 40 percentage points on a target that has been legally binding since the PPWD came into force.

The divergence is even more striking for plastic packaging specifically: Belgium and Latvia were the only Member States to meet the 2030 plastic recycling target of 55% in 2023, while Hungary recorded a rate of only 23.0% and France 25.7%. These figures are not merely a snapshot of different waste management traditions. Rather, they reflect the structural consequence of directive-based minimum harmonisation, in which common targets are set at EU level, but compliance is determined by national administrative and infrastructural capacity that varies materially across Member States. The same pattern of differentiated compliance is likely to persist under the PPWR. It is therefore not a speculative prediction but an empirically grounded inference from the predecessor instrument's enforcement record.<sup>115</sup>

The internal market consequences of this enforcement asymmetry are direct and profound. Where upstream obligations are rigorously enforced, producers face real compliance costs, for example, investment in recyclable material substitution, reformulation to eliminate substances of concern, and supply chain adjustments to source minimum recycled content. Where enforcement is weak or technically unsophisticated, those same obligations may remain effectively unenforced, allowing non-compliant products to circulate freely within the single market.<sup>116</sup> As the Commission has acknowledged, non-compliance by one or a few Member States "distorts competition within the internal market undermining the level playing field for businesses across the EU."<sup>117</sup> The result is a compliance

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<sup>114</sup> PE 769.042 (n 97) 46 (Commission infringement action against 11 Member States in 2022 for failure to fully transpose the SUP Directive (n 27)).

<sup>115</sup> Eurostat, 'Packaging Waste Statistics' (Statistics Explained, data extracted 10 October 2025) <[https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Packaging\\_waste\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Packaging_waste_statistics)> accessed 6 June 2026.

<sup>116</sup> Regulation (EU) 2019/1020 (n 107) recital 14.

<sup>117</sup> COM(2022) 518 final (n 108) 3, cited in PE 769.042 (n 97) 13.

cost asymmetry that replicates, through the enforcement gap, precisely the market fragmentation that the PPWR's full harmonisation model was designed to eliminate.

Effective enforcement of upstream CE rules is therefore a constitutive condition of the PPWR's regulatory model. Without it, legal uniformity in the text of the regulation does not produce regulatory uniformity in practice, and the transition from directive to regulation fails to deliver the coherence that its Article 114 TFEU legal basis presupposes.

### **6.3 Governance and Regulatory Architecture**

The PPWR establishes a multilevel governance structure that assigns rulemaking and oversight to the EU level while entrusting operational implementation and enforcement to Member States and direct compliance obligations to economic operators. The European Commission plays a central coordinating and supervisory role: it monitors implementation via early-warning mechanisms, aggregates Union-wide data, conducts periodic evaluations, and adopts the extensive secondary legislation required to operationalise technical provisions.

Member State authorities designate competent bodies for national producer registers, EPR scheme authorisation, market surveillance, and enforcement of collection and reuse systems. They must integrate packaging obligations into national waste prevention programmes and impose effective penalties, while retaining flexibility in organising collection infrastructure and setting EPR fee levels subject to harmonised modulation criteria. Economic operators across the supply chain, manufacturers, importers, distributors, and fulfilment service providers, bear direct obligations: conformity assessment, traceability, EU declarations of conformity, participation in EPR schemes with recyclability-modulated fees, and detailed reporting.

This architecture formally ensures uniform substantive rules while accommodating national administrative diversity. However, assigning operational enforcement to Member States replicates a structural pattern that has proven problematic across EU environmental regulation more broadly. The European Parliament's 2025 study on monitoring the implementation of EU law<sup>118</sup> documents that Member States bear primary responsibility for operational enforcement, yet governance weaknesses and coordination failures across national administrations are persistent and well-documented.<sup>119</sup> The Environmental Implementation Review 2022<sup>120</sup> identified the root causes of enforcement failure as relating to the "insufficient integration of the environmental objectives in the framing and execution of public policies, ineffectiveness of environmental governance, including by those responsible for ensuring compliance on the ground, and lack of transparency on environmental information."

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<sup>118</sup> PE 769.042 (n 97) 19–21.

<sup>119</sup> PE 769.042 (n 97) 19–21.

<sup>120</sup> European Commission, *Environmental Implementation Review 2022: Turning the Tide Through Environmental Compliance*, COM(2022) 438 final (8 September 2022) 23, cited in PE 769.042 (n 97) 10–12.

Article 114 TFEU harmonisation operates on the content of substantive rules but has no legal mechanism to compel convergence in the institutional conditions under which those rules are applied. The Environmental Implementation Review 2022<sup>121</sup> acknowledged, as a factual matter, that political will remains a necessary condition for effective implementation that legal instruments alone cannot supply.<sup>122</sup> For the PPWR, this means that divergence in enforcement intensity across Member States is not a transient compliance problem correctable through infringement proceedings but a structural feature of the multilevel enforcement architecture that harmonisation under Article 114 TFEU leaves intact.

## **6.4 Delegated and Implementing Acts**

The PPWR relies extensively on secondary legislation to translate its framework provisions into operational technical standards, reflecting the complexity and evolving nature of upstream sustainability requirements. Delegated acts under Article 290 TFEU empower the Commission to supplement non-essential elements, notably by establishing design-for-recycling criteria, recyclability performance grades (A–C), and the framework for EPR fee modulation, expected to be adopted by 1 January 2028. Implementing acts under Article 291 TFEU ensure uniform conditions, covering methodologies for the "recycled-at-scale" assessment, harmonised labelling formats including material composition, sorting instructions and recycled-content symbols, and standardised reporting templates.<sup>123</sup>

This delegation is structurally indispensable. Precise technical methodologies, such as chain-of-custody verification for recycled content or digital-marking specifications, cannot be exhaustively defined in the primary text without risking rapid obsolescence as technologies evolve. Delegating these elements to the Commission enables adaptation while preserving democratic oversight through the scrutiny procedures applicable to delegated acts.

This architecture also introduces a temporal enforcement gap. Until the Commission adopts the relevant delegated and implementing acts, national market surveillance authorities will lack the technical benchmarks required to conduct meaningful upstream audits. The litigation dimension of this gap is examined in section 5.4. The enforcement consequence is that the shift from directive to regulation, while legally immediate in its direct applicability, produces a period during which the regulation's upstream ambitions cannot be fully operationalised in practice.

## **6.5 Divergence risks**

Despite its directly applicable character, the PPWR contains significant flexibility clauses and derogations that risk tempering the centralised model. Innovative packaging may obtain up to five-year

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<sup>121</sup> COM(2022) 438 final (n 120) 23.

<sup>122</sup> COM(2022) 438 final (n 120) 23.

<sup>123</sup> PPWR (n 42) arts 6–7 (design for recycling and recyclability performance grades), art 44 (EPR fee modulation).

exemptions from certain design-for-recycling criteria; Member States can grant operator-specific derogations from reuse targets under strict conditions; and numerous product categories, medicinal, dangerous goods, and contact-sensitive packaging, remain partially exempt. National autonomy persists in EPR fee setting, collection-system design, and enforcement practices.<sup>124</sup> These provisions, born of political compromise, mean that uniform legal rules may still produce differentiated practical outcomes depending on Member State administrative capacity and enforcement vigour.

The more fundamental divergence risk, however, arises not from the regulation's formal flexibility clauses but from structural differences in national enforcement capacity that the PPWR does not address. Member States with strong institutional capacity will be able to implement upstream obligations, market surveillance of recyclability requirements, technical audits of substance restrictions, verification of minimum recycled content, with the frequency and expertise those obligations demand. As section 6.2 established, enforcement asymmetry replicates within the single market the competitive distortion that harmonisation was designed to prevent.

This systemic risk is confirmed by the evidence on EU environmental enforcement more broadly. The European Parliament's 2025 study documents consistent patterns in which the same Member States repeatedly appear in late transposition and infringement statistics across successive years.<sup>125</sup> While the PPWR as a directly applicable regulation does not require national transposition and therefore falls outside that specific dataset, those figures serve as a structural indicator: the Member States that have historically struggled with directive transposition and operational implementation are precisely those most likely to face capacity constraints in conducting the technically demanding market surveillance that upstream CE obligations would require.

The implications of this divergence for the Member States are direct. As the Commission itself has acknowledged, non-compliance by one or a few Member States "distorts competition within the internal market undermining the level playing field for businesses across the EU."<sup>126</sup> This is precisely the de facto fragmentation that the transition from directive to regulation was intended to prevent, and it represents a structural limitation across the Member States that legal harmonisation alone cannot resolve.

Effective upstream CE enforcement therefore requires not only uniform substantive rules on paper but the administrative capacity to give those rules operational effect. The transition from directive-based to regulation-based governance is a necessary condition for overcoming the structural constraints identified in Hypothesis 1, but it is not a sufficient condition for achieving the regulatory coherence that Hypothesis 2 predicts will remain elusive without convergence in national enforcement capacity.

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<sup>124</sup> PPWR (n 42) arts 26(8) (innovative packaging exemptions), 29(5)–(6) (reuse target derogations), and Annex I (exempt packaging categories).

<sup>125</sup> PE 769.042 (n 97) 29–36, Figures 3–5 (late transposition infringement cases per Member State, 2021–2023).

<sup>126</sup> COM(2022) 518 final (n 108) 3, cited in PE 769.042 (n 97) 13.

## **6.6 Interim Conclusion: Legal Uniformity Without Institutional Convergence**

The analysis in this chapter has established that the PPWR's enforcement architecture, while legally coherent, contains structural limitations that Article 114 TFEU harmonisation alone cannot address. Three conclusions follow from the preceding sections, each directly testing Hypothesis 2.

First, the transition from directive to regulation partially resolves the problem identified in Hypothesis 1, since Member States are no longer required to act unilaterally in the face of Articles 34–36 TFEU scrutiny. However, it simultaneously transfers the locus of regulatory risk from the legislative to the enforcement stage. The PPWR imposes uniform substantive obligations across all twenty-seven Member States through a single directly applicable text. What it cannot impose is uniform institutional capacity to give those obligations operational effect. The enforcement architecture described in section 6.1 delegates market surveillance, penalty enforcement, and technical auditing to national authorities whose resources, expertise, and enforcement culture differ significantly. This delegation is not a drafting choice that could have been avoided. Rather, it reflects the constitutional structure of the EU, in which operational enforcement of internal market regulation remains a Member State competence. Article 114 TFEU provides the legal basis for uniform rules; it does not provide a mechanism for uniform enforcement conditions.

Second, the qualitative character of the PPWR's upstream obligations makes enforcement divergence more consequential under the PPWR than in prior packaging regulation. As section 6.2 established, upstream CE obligations require ex ante technical verification of design and material composition. The shift from the PPWR's downstream framework to the PPWR's upstream model simultaneously increases the technical demands placed on national market surveillance authorities. Member States with limited administrative resources will face an enforcement deficit that is qualitatively greater under the PPWR than under its predecessor. That deficit is compounded by the temporal enforcement gap identified in sections 5.4 and 6.4, since national authorities currently lack the technical benchmarks to conduct meaningful upstream audits.

Third, the flexibility clauses and derogations identified in section 6.5 introduce a further layer of formal differentiation that operates alongside the informal differentiation produced by enforcement capacity gaps. Together, the uniform regulatory framework the PPWR establishes on paper will produce differentiated regulatory environments in practice. Economic operators operating in Member States with rigorous enforcement and minimal use of derogations will face materially different compliance conditions from those operating in Member States where enforcement intensity is lower and derogations are more readily granted. The compliance cost asymmetry this produces replicates, through the enforcement gap, the competitive distortion and market fragmentation that full harmonisation under Article 114 TFEU was designed to eliminate.

These three conclusions further advance Hypothesis 2. The PPWR successfully overcomes the structural constraint identified in Hypothesis 1 by relocating upstream regulation to the EU level under Article 114 TFEU, thereby removing the exposure of national measures to Articles 34–36 TFEU scrutiny. However, the harmonisation it achieves is legal rather than institutional. It produces uniform rules without producing uniform enforcement conditions, and it is the latter that determines whether regulatory uniformity translates into market uniformity in practice. The risk of uneven national enforcement and deepening de facto divergence between Member States, which is the enforcement dimension of Hypothesis 2, is a structural consequence of applying a centralised legislative model to a decentralised enforcement architecture in a domain requiring technically complex ex ante verification. This enforcement dimension of Hypothesis 2, read alongside the litigation exposure established in Chapter 5, constitutes the two-track structural fragility that the thesis as a whole identifies as the defining limitation of the PPWR's harmonisation model. The Japanese comparison developed in the next chapter will illuminate this structural gap further, by showing what enforcement coherence looks like when it is achieved through institutional unity rather than legal harmonisation.

## **Chapter 7 – Japan's Circular Economy Governance: An Administrative Coordination Model as Comparative Lens**

### **7.1 Framing the Comparison: Purpose, Limits, and Analytical Value**

The preceding chapters have identified two structural limitations of the PPWR's harmonisation model under Article 114 TFEU. Chapter 5 demonstrated that the regulation's upstream obligations are exposed to sustained litigation risk across four procedural routes, arising from the interaction between the Court of Justice's proportionality methodology and the technical design of quantified upstream requirements. Chapter 6 demonstrated that legal uniformity does not produce institutional uniformity, and that enforcement divergence between Member States of differing administrative capacity will produce de facto regulatory differentiation despite formal harmonisation. Together, these two dimensions constitute the two-track confirmation of Hypothesis 2.

This chapter introduces Japan's circular economy governance framework as a comparative reference for understanding both dimensions. The purpose of the comparison requires precise statement at the outset, because its analytical value for this thesis is specific and limited. The comparison does not seek to evaluate the relative merits of the Japanese and EU regulatory systems, or to suggest that Japan's approach represents a superior model that the EU should adopt. The two systems operate in fundamentally different constitutional contexts, since there is no equivalent of the EU's internal market constraint on upstream product regulation in Japan. The structural conditions that make Japan's governance model work are not transferable directly to the EU without constitutional change that goes well beyond regulatory design.

The analytical value of the comparison lies precisely in its counterfactual character. Japan has advanced upstream circular economy governance, including quantified recycling obligations, upstream design requirements, and recycled content targets without the litigation exposure and the enforcement divergence identified. Examining how it has done so, and what institutional conditions make that possible, illuminates by contrast the structural reasons why the EU's Article 114 TFEU harmonisation model necessarily carries both costs. The comparison does not demonstrate that the PPWR was poorly designed. It shows that the litigation risk and enforcement divergence identified in the preceding chapters are not contingent features that better drafting might have prevented, but structural consequences of applying a centralised legislative model to a decentralised enforcement architecture in a legal order whose primary compliance mechanism is judicial enforcement.

One terminological observation is analytically significant and should be noted before the substantive analysis begins. The dominant term in Japanese policy discourse for circular economy governance is not サークュラーエコノミー, which is the direct transliteration of circular economy, but 循環型社

会, commonly translated as a sound material-cycle society.<sup>127</sup> This distinction is not merely linguistic. Japan's framework originated in waste and environmental policy in the late 1990s, with the emphasis placed on social structure, citizen behaviour, and institutional coordination rather than on economic model transformation.<sup>128</sup> This orientation was shaped in significant part by Japan's domestic resource context. As one of the most resource-scarce advanced economies in the world, Japan has negligible domestic reserves of primary industrial materials, such as iron ore, copper, aluminium, nickel, and the rare earth elements essential to modern manufacturing. Japan is heavily dependent on imports for virtually all fossil fuels and most industrial raw materials. A 2023 METI policy document frames the circular economy explicitly as a response to this dependency, identifying resource constraint as the primary driver of Japan's domestic resource circulation strategy, and describing the goal as establishing a 資源自律経済, meaning a resource-autonomous economy, through systematic recovery and reuse of secondary materials.<sup>129</sup> Japan's policy on resource-autonomous economy is motivated in significant part by resource security and the strategic imperative of reducing dependence on imported primary materials. This explains why Japan's governance model is oriented toward maximising the quality and quantity of secondary material flows, closing the arterial-venous loop as a resource security measure, rather than toward the harmonisation of divergent national product standards that drives the EU's Article 114 TFEU approach. It also explains why the emphasis fell on social structure and citizen behaviour: in the absence of domestic natural resources, the entire population's participation in waste separation and material recovery becomes a structural economic necessity, not merely an environmental aspiration.

The EU, by contrast, developed its circular economy concept as an industrial and economic growth strategy, a redesign of the economic model itself, pursued through product regulation, market harmonisation, and legally enforceable obligations on economic operators.<sup>130</sup> The difference in foundational philosophy is reflected clearly in a Ministry of Environment policy analysis, which notes

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<sup>127</sup> Ministry of Economy, Trade and Industry, 'Resource Circulation Economy Policy: Trends and Directions' (資源循環経済政策を巡る動向とそのあり方について, 産業構造審議会 産業技術環境分科会 資源循環経済小委員会 資料 4, November 2023)

<[https://www.meti.go.jp/shingikai/sankoshin/sangyo\\_gijutsu/resource\\_circulation/pdf/002\\_04\\_00.pdf](https://www.meti.go.jp/shingikai/sankoshin/sangyo_gijutsu/resource_circulation/pdf/002_04_00.pdf)> accessed 6 June 2026, slide 42.

<sup>128</sup> Ministry of Environment, 'On the Conceptual Distinction between 循環型社会 and サーキュラーエコノミー' (環境省, document 000225523) <[https://www.env.go.jp/council/content/i\\_01/000225523.pdf](https://www.env.go.jp/council/content/i_01/000225523.pdf)> accessed 6 June 2026, 113. The document identifies that Japan's framework originated in 廃棄物・環境政策 with emphasis on 社会構造・市民行動・制度づくり, while the EU framework originated in industrial policy with emphasis on 経済成長と資源効率の両立.

<sup>129</sup> Ministry of Economy, Trade and Industry (n 127) slide 5 (成長志向型の資源自律経済の確立に向けた問題意識: 資源制約・リスク, 多くのマテリアルが将来は枯渇、供給が一部の国に集中しているマテリアルあり、日本は先進国の中でも自給率が低い).

<sup>130</sup> Ministry of Economy, Trade and Industry (n 127) slide 5.

that Japan emphasises social structure and citizen behaviour, while the EU emphasises economic growth and resource efficiency and that the EU's framework is driven by the Directorate-Generals for industry and competition as much as by environmental policy.<sup>131</sup> This foundational difference produces different legal architectures, different enforcement models, and a different relationship between upstream and downstream governance, the distinctions that the following sections examine.

A further terminological feature of Japanese policy documents is directly relevant to the thesis's analytical framework. METI consistently organises resource circulation policy around the concepts of 動脈産業 (arterial industries, for example production, manufacturing, and distribution) and 静脈産業 (venous industries, such as waste collection, sorting, and recycling).<sup>132</sup> The arterial-venous metaphor is not decorative. It expresses a governance philosophy in which resource circulation requires coordinated linkage between the upstream production side and the downstream waste side, functioning together like the blood circulatory system. Policy failure occurs when arterial and venous industries are not coordinated, when producers design products without regard to recyclability, or when recyclers cannot process what producers have placed on the market. A 2023 METI working group document describes a system in which arterial industries producing waste and venous industries processing it into recycled materials are coordinated, so that recycled materials of the required quality and quantity are returned to arterial industries.<sup>133</sup> The Japanese governance model is structured around this coordination challenge. As section 7.3 demonstrates, this produces an institutional architecture fundamentally different from the PPWR's approach, and one that avoids the specific litigation and enforcement vulnerabilities the PPWR inherits from its legal basis.

## **7.2 The Japanese Legislative Framework for Upstream Packaging Regulation**

Japanese recycling and resource circulation policies are operated within a hierarchical and comprehensive legal framework, consisting of multiple interlocking statutes. The foundation of this framework is the Basic Act for Establishing a Sound Material-Cycle Society (循環型社会形成推進基本法), adopted in 2000.<sup>134</sup> This act functions as a framework law, determining the overall policy orientation and direction, which is centred on the 3R principle of Reduce, Reuse, and Recycle, providing the interpretive foundation against which all sector-specific legislation is assessed. Based on the act, the Ministry of Environment formulates the Basic Plan for Establishing a Sound Material-Cycle Society

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<sup>131</sup> Ministry of Environment (n 128) 113. The document identifies that Japan's framework originated in 廃棄物・環境政策 with emphasis on 社会構造・市民行動・制度づくり, while the EU framework originated in industrial policy with emphasis on 経済成長と資源効率の両立.

<sup>132</sup> Ministry of Economy, Trade and Industry (n 127) slides 2–4.

<sup>133</sup> Ministry of Economy, Trade and Industry (n 127) slides 2–4.

<sup>134</sup> Basic Act for Establishing a Sound Material-Cycle Society (循環型社会形成推進基本法), Act No 110 of 2000. English translation available via the Japan Law Translation Database (Ministry of Justice).

(循環型社会形成推進基本計画), which is adopted by the Cabinet and updated every five years. The most recent plan was adopted in August 2024.

It is important to emphasise the Basic Act's hierarchical function in the comparative context. It provides interpretive coherence for all sector-specific legislation below it, operating through a clear ministerial hierarchy between METI and the Ministry of Environment. This is structurally different from the EU's packaging governance architecture, which is organised horizontally. The PPWR, the ESPR, the Waste Framework Directive, and the SUP Directive operate in parallel without a single overarching framework statute performing the equivalent integrating function. The consequence is that the Japanese framework can adjust the technical content of sector-specific obligations through ministerial planning cycles without primary legislative action, while the EU's framework requires delegated acts, legislative amendment, or infringement proceedings to achieve equivalent adjustments. The litigation vulnerability identified in Chapter 5 is partly a consequence of this structural difference in how technical standards are embedded and subsequently adjusted within the legal framework.

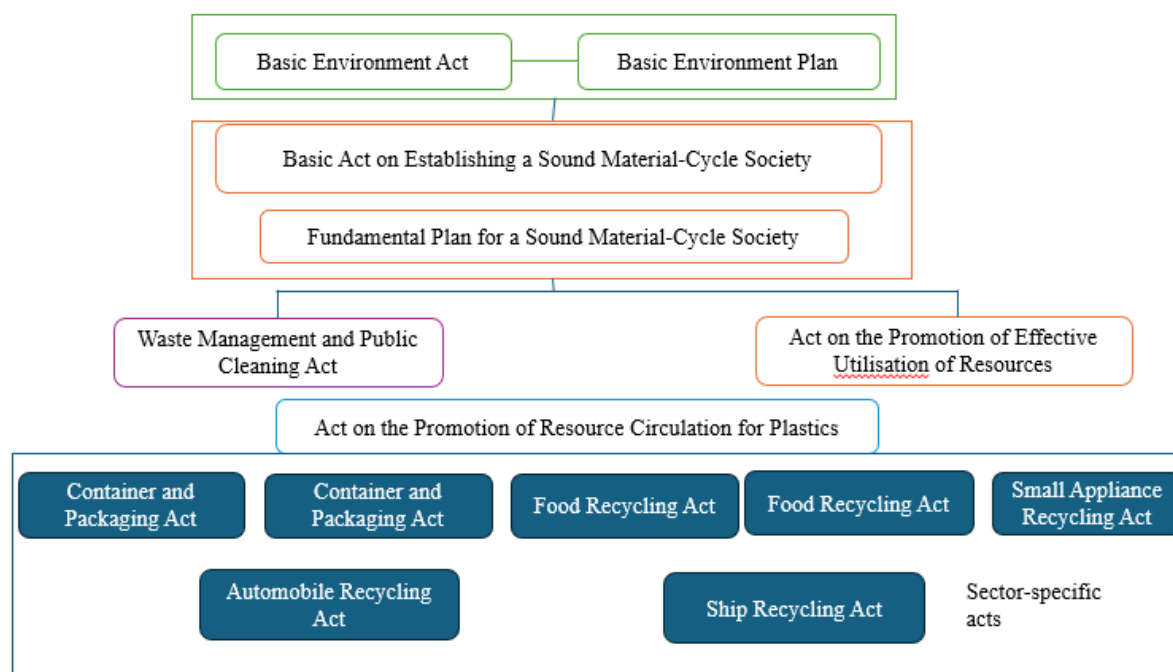


Figure 5 Legal Framework for Establishing a Sound Material-Cycle Society<sup>135</sup>

The Act on the Promotion of Effective Utilisation of Resources (資源有効利用促進法, 2001) is the central substantive legislation supplementing the Basic Act. The act aims to promote resource efficiency across the entire product lifecycle, and to reduce and recycle by-products generated in industrial

<sup>135</sup> Ministry of Environment (Japan), '循環型社会を形成するための法体系 [Legal Framework for Establishing a Sound Material-Cycle Society]' (translated by the author, 環境省) <<https://www.env.go.jp/council/content/03recycle03/000293460.pdf>> accessed 6 June 2026.

processes.<sup>136</sup> It applies to designated resource-saving industries, including the manufacturing sectors for paper, glass containers, steel pipe, and construction, as well as to designated recyclable products including packaging. Quantitative recycling targets are a defining characteristic of the act: the paper manufacturing sector must maintain a wastepaper utilisation rate of approximately 65 percent, and the glass container industry a cullet utilisation rate of approximately 76 percent.<sup>137</sup> Designated operators are further required to submit five-year plans for by-product reduction and recycling promotion, with periodic reporting obligations that provide the institutional mechanism for ensuring effectiveness. The reporting system creates an administrative compliance record without generating the legally crystallised obligations that trigger proportionality challenge before the courts, which is a structural feature examined further in section 7.3.

Sector-specific legislation supplements the Act on the Promotion of Effective Utilisation of Resources across a range of product categories, including household appliances, automobiles, construction materials, and food waste. For packaging specifically, the Container and Packaging Recycling Act (容器包装リサイクル法, enacted 1995, substantially amended 2006) governs the distribution of compliance obligations across the packaging value chain. The act mandates that business operators whose annual use of packaging exceeds 50 tonnes submit annual reports detailing usage volumes, material compositions, and initiatives aimed at improving resource efficiency, against a judgment criterion requiring operators to set targets for reducing packaging use per unit of production and to implement plans for achieving those targets progressively.<sup>138</sup> Operational responsibility for recycling is delegated to the Japan Containers and Packaging Recycling Association (公益財団法人日本容器包装リサイクル協会), a designated body coordinating between municipalities responsible for collection and private sector recyclers responsible for reprocessing. This tripartite structure, consisting of central government judgment criteria, industry association coordination, and municipal implementation, distributes governance responsibilities without concentrating enforcement authority in a single administrative body, and without creating the market surveillance architecture whose unevenness generates the enforcement divergence examined in Chapter 6.

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<sup>136</sup> Act on the Promotion of Effective Utilisation of Resources (資源の有効な利用の促進に関する法律), Act No 48 of 1991 as substantially amended 2001.

<sup>137</sup> Act on the Promotion of Effective Utilisation of Resources (n 136).

<sup>138</sup> Ministry of Economy, Trade and Industry and Ministry of Environment, 'Current Status of the Container and Packaging Recycling System' (容器包装リサイクル制度を取り巻く現状, 参考資料 2)

<[https://www.meti.go.jp/shingikai/sankoshin/sangyo\\_gijutsu/resource\\_circulation/container\\_packaging\\_recycling\\_wg/pdf/001\\_s02\\_00.pdf](https://www.meti.go.jp/shingikai/sankoshin/sangyo_gijutsu/resource_circulation/container_packaging_recycling_wg/pdf/001_s02_00.pdf)> accessed 6 June 2026, slide 26 (annual reporting obligations for large-scale packaging users; judgment criteria).

In 2022, the Act on the Promotion of Resource Circulation for Plastics (プラスチック資源循環促進法) came into force, institutionalising a circular approach across the entire plastic value chain, including consideration of resource efficiency at the design stage, promotion of product reuse, and the expansion of recycled material use.<sup>139</sup> The act introduces plastic-specific design guidelines (プラスチック使用製品設計指針) covering substitution of non-plastic materials, use of recyclable materials, recycled plastic content, and use of bioplastics. It also creates certification mechanisms for municipal recycling plans under Article 33 and voluntary collection and recycling certification for producers under Article 39, both operationalised since 2022, with early certifications granted to Sendai City, Anjo City, and Yokosuka City.<sup>140</sup>

Overall, Japan's legal framework for packaging and plastic resource circulation is multilayered. Under the policy orientation outlined in the Basic Act, the Act on the Promotion of Effective Utilisation of Resources functions as the core statute, and sector-specific legislation supplements the framework across designated product categories. The framework's most distinctive feature, characterised by its reliance on periodic reporting, five-year planning cycles, and administrative judgment criteria rather than on legally enforceable product requirements subject to judicial review, is the institutional foundation of the compliance model examined in section 7.3.

### **7.3 Administrative Coordination and the Arterial-Venous Governance Model**

The most analytically distinctive feature of Japan's circular economy governance, and the feature most directly relevant to the structural comparison with the EU, is the compliance model through which METI organises resource circulation policy. Japanese policy documents consistently distinguish between arterial industries and venous industries, and the governance challenge is understood as coordinating the two sides of this circulation system rather than imposing uniform legally binding standards on individual economic operators.<sup>141</sup>

METI's 2023 Resource Autonomy Strategy makes this coordination model explicit through a three-gear policy architecture.<sup>142</sup> The first gear concerns the regulatory and competitive environment, that is, the rules and legal standards that structure market behaviour. The second gear provides policy support tools,

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<sup>139</sup> Act on the Promotion of Resource Circulation for Plastics (プラスチックに係る資源循環の促進等に関する法律), Act No 60 of 2021, in force 1 April 2022.

<sup>140</sup> Act on the Promotion of Resource Circulation for Plastics (n 139).

<sup>141</sup> Ministry of Economy, Trade and Industry (n 127).

<sup>142</sup> Ministry of Economy, Trade and Industry (n 127) slides 1–5 (arterial-venous framework and stakeholder committee deliberations), slide 33 (three-gear transmission system), slide 37 (partnership membership as of 6 November 2023: 計 198 者, 企業・業界団体 155 社・団体, 自治体 10, 大学・研究機関・関係機関 33), slides 38–39 (participation requirements: voluntary quantitative target-setting within one year, public disclosure of targets and progress, annual reporting to secretariat).

including investment assistance, digitalisation support, and standardisation programmes. The third gear is an industry-government-academia partnership launched in September 2023, which by November of that year had enrolled 198 participating entities: 155 companies and industry associations, 10 local authorities, and 33 universities and research institutions.<sup>143</sup>

Participation in the partnership requires members to set voluntary quantitative targets within one year of joining, to disclose those targets and their progress publicly, and to submit annual progress reports to the partnership secretariat. Crucially, non-achievement of targets carries no legally binding enforcement consequence. The system operates entirely through administrative coordination and reputational accountability rather than through legal compulsion.<sup>144</sup>

The Container and Packaging Recycling Act's compliance data illustrates this model in operation. By fiscal year 2021, separate collection of PET bottles had been implemented by 98.8 percent of municipalities, glass containers by over 94 percent across all colours, and plastic packaging containers by 75.6 percent.<sup>145</sup> The quality of collected plastic packaging bales also improved substantially over time. Quality is measured by the proportion of conforming packaging material relative to total bale weight, with Rank A denoting 90 percent purity or above. By fiscal year 2022, 97 percent of all plastic packaging bales achieved Rank A quality, compared to only 77 percent in fiscal year 2002 before the introduction of a financial incentive mechanism.<sup>146</sup> Under that mechanism, municipalities that improved their sorting quality received financial contributions from the designated industry body. Quality gains were therefore achieved through administrative incentives and cooperative municipal action, without any recourse to litigation or judicial enforcement.

Taken together, these mechanisms provide the common technical language that links producers and recyclers across the supply chain. The underlying governance concept is that producers take integrated responsibility for both the upstream design of their products and the downstream recyclability of those products, without relying on legally mandated grades set by a regulatory authority and subsequently contested in court.

The mechanism through which technical standards are developed is particularly significant in the comparative context. METI develops standards through ministerial advisory committees, known as *shingikai*, with mandatory participation from industry associations, academic experts, and local

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<sup>143</sup> Ministry of Economy, Trade and Industry (n 127) slides 1–5, 33, 37, 38–39.

<sup>144</sup> Ministry of Economy, Trade and Industry (n 127) slides 1–5, 33, 37, 38–39.

<sup>145</sup> Ministry of Economy, Trade and Industry and Ministry of Environment (n 138) slide 7 (separate collection implementation rates by municipality and material type, fiscal year 2021 data: PET ボトル 98.8%, 無色ガラス製容器 94.1%, プラスチック製容器包装 75.6%, translated by the author); slide 28 (plastic packaging bale quality: Rank A proportion fiscal year 2002 77% rising to fiscal year 2022 97% following introduction of the rationalisation contribution system, 合理化拠出金制度, translated by the author).

<sup>146</sup> Ministry of Economy, Trade and Industry and Ministry of Environment (n 138) slides 7 and 28.

authority representatives.<sup>147</sup> The resource circulation committee documents show this process in operation across multiple sessions: stakeholders contest definitions, measurement methods, and target levels during the working group stage, before any standard becomes legally operative. This front-loaded consensus approach means that technical standards arrive with industry acceptance already embedded in them. The PPWR's delegated act model works in the opposite sequence: primary legislative obligations come into force first, and the technical standards specifying their content follow years later. As section 5.4 of this thesis demonstrates, that sequencing produces both a temporal enforcement gap and sustained litigation risk that Japan's advisory committee model avoids structurally.

#### **7.4 Contrasting Governance Models: Legal Harmonisation versus Administrative Coordination**

The structural contrast between the EU and Japanese approaches operates across three axes that directly illuminate the limitations identified in Chapters 5 and 6 of this thesis.

The first axis is the compliance mechanism. The PPWR secures upstream packaging compliance through legally binding obligations enforceable by national market surveillance authorities of each Member State and ultimately by the Court of Justice through the litigation routes examined in Chapter 5. Japan's system secures comparable upstream compliance through administrative coordination, such as mandatory periodic reporting, ministerial judgment criteria, financial incentive mechanisms, and industry association self-regulation coordinated through JIS standards. The critical difference is not the level of environmental ambition but the legal architecture through which compliance is achieved. Japan's model generates no equivalent of the four litigation categories identified in Chapter 5, such as annulment actions, preliminary references, infringement proceedings, and delegated act challenges. This is because its upstream obligations are not formulated as legally enforceable product requirements subject to judicial proportionality review. Where the PPWR must satisfy the Court's evidence-based proportionality standard for each quantified obligation, Japan's periodic reporting and top-runner benchmarking system operates through administrative adjustment that does not create the legal crystallisation point that triggers challenge under Article 263 or Article 267 TFEU.

The second axis is the institutional architecture. The PPWR operates through twenty-seven national market surveillance authorities of differing capacity, expertise, and enforcement culture. This can be the structural source of the enforcement divergence examined in Chapter 6. Japan's system operates through two coordinating ministries with sector-allocated jurisdiction, a network of designated industry associations, and a single designated body coordinating collection, recycling, and quality monitoring across the entire national territory. The arterial-venous framework is not merely a conceptual metaphor; it is an institutional design that assigns clear roles to METI, the Ministry of Environment, and industry

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<sup>147</sup> Ministry of Economy, Trade and Industry and Ministry of Environment (n 138) slides 7 and 28.

associations, with coordination achieved through shared ministerial committees rather than through legal uniformity imposed by a supranational legislature. The enforcement coherence this produces cannot be replicated in the EU without replicating Japan's unitary administrative architecture, which is constitutionally unavailable within the EU's multi-level governance structure.

The third axis is technical standard-setting. The Commission's delegated act of PPWR's recyclability performance grades expected by 2028 generates the structural vulnerability examined in section 5.4. Japan's equivalent technical standards are developed through METI shingikai with mandatory stakeholder participation. The METI resource circulation committee documents show this process explicitly. Firstly, technical standards are developed through iterative consensus across multiple sessions before becoming operative, with industry, academic, and government stakeholders having the opportunity to contest definitions and measurement methods at the working group stage rather than through litigation after adoption.<sup>148</sup> This front-loaded consensus model means that when technical standards become operative, they carry industry acceptance already embedded. The PPWR's delegated act model, producing standards after primary obligations are in force, arrives at technical precision at the cost of a temporal enforcement gap and sustained litigation risk that the shingikai model avoids structurally.

It is important to note what this comparison does not establish. It does not establish that Japan achieves better environmental outcomes than the EU's PPWR will deliver. Japan's voluntary partnership model and administrative consensus mechanisms carry their own limitations: they generate less democratic accountability than the EU's legislative process, they depend on cooperative industrial culture that may not always be present, and they leave non-cooperative actors with fewer legally certain obligations to comply with. The comparison establishes only that two structurally different governance approaches are available for upstream circular economy regulation, and that the litigation exposure and enforcement divergence the PPWR inherits are products of the EU approach's structural features rather than of poor regulatory design.

## **7.5 What the Japanese Model Illuminates About the PPWR's Structural Limitations**

Three specific illuminations follow from the comparison developed in this chapter.

First, the PPWR's litigation exposure is not a drafting accident. It is a necessary consequence of the decision of the EU to use legally enforceable upstream obligations as its primary compliance mechanism. Japan demonstrates that upstream circular economy governance is achievable without this litigation exposure. However, this is achievable only where a) the governance model does not require judicial enforcement as its primary compliance guarantee, and b) a unitary administrative centre can develop technical standards through consensus before legal operationalisation. The EU's reliance on the

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<sup>148</sup> Ministry of Economy, Trade and Industry and Ministry of Environment (n 138) slides 7 and 28.

Court of Justice as the ultimate guarantor of regulatory uniformity is both the source of its legal coherence across twenty-seven Member States and the source of the litigation risk identified in Chapter 5.

Second, the PPWR's enforcement divergence is not a failure of implementation design. It is a structural consequence of applying a centralised legislative model to a decentralised administrative architecture. Japan demonstrates that enforcement coherence is achievable, provided that an institutional framework exists where a small number of authoritative bodies coordinate implementation across a unified national territory with consistent administrative capacity. The EU's twenty-seven-jurisdiction enforcement architecture cannot be made to function like Japan's two-ministry coordination model through better regulation or stronger monitoring. The enforcement gap between Member States of differing capacity is a structural feature of the EU's constitutional design applied to technically demanding upstream obligations, not a consequence of the PPWR's specific choices.

Third, the temporal uncertainty created by the PPWR's delegated act framework reflects a structural feature of the EU's separation of legislative and technical standard-setting functions. Japan's *shingikai* model demonstrates that this sequencing can be inverted. Technical consensus can be built before legal operationalisation. However, this requires a single administrative centre with the authority to convene binding consensus processes. METI's working group documents show that this process, while slower than the EU's delegated act timeline, produces technical standards that arrive with stakeholder acceptance already embedded, reducing the probability of subsequent legal challenge. The PPWR's delegated act process will produce technically more precise standards but will arrive at them after upstream obligations are already in force, creating the temporal enforcement gap and litigation vulnerability documented in Chapter 5.

Taken together, the Japanese comparison confirms that the structural gap between legal harmonisation and institutional convergence identified in this thesis is not a pathology of the PPWR's design. It is an inherent feature of the EU's approach to upstream circular economy governance, an approach that, given the constitutional architecture of the Union and the internal market rationale of Article 114 TFEU, could not have been designed otherwise.

## **7.6 Interim Conclusion**

The comparative analysis in this chapter has used Japan's circular economy governance model as an analytical lens for illuminating structural features of the PPWR's harmonisation approach that the EU's own institutional framework makes difficult to see from within. It has used the contrast between Japan's administrative coordination model and the EU's legal harmonisation model to demonstrate why the two structural limitations identified in Chapters 5 and 6 are not contingent features that better legislative design might have prevented.

The terminological distinction with which this chapter opened proves analytically significant beyond its surface appearance. Japan's concept of a sound material-cycle society and the EU's concept of a circular economy are not simply different labels for the same regulatory objective. They reflect different foundational philosophies that produce different governance architectures. Japan's framework, rooted in waste, resource and environmental policy and oriented toward social structure and citizen behaviour, produced a governance model built on administrative consensus, cooperative industry engagement, and front-loaded stakeholder participation in standard-setting. The EU's framework, rooted in economic model transformation, technological innovation and market integration, produced a governance model built on legally enforceable harmonisation, binding product obligations, and judicial enforcement as the ultimate compliance guarantee.

Each model reflects the institutional conditions of the system that produced it, and each carries the structural limitations of those conditions. The PPWR's litigation exposure, enforcement divergence, and delegated act uncertainty are the structural costs of the EU's approach. These costs do not appear in the Japanese system not because Japan has found better regulatory solutions, but because Japan's unitary administrative architecture, coordinating ministries, and consensus-based standard-setting process do not generate the same structural tensions. The gap between legal harmonisation and institutional convergence that this thesis has identified as the central limitation of the PPWR is, in the end, the price of applying the EU's constitutional model to technically demanding upstream obligations across twenty-seven jurisdictions.

The enforcement dimension of Hypothesis 2 established in Chapter 6, read alongside the litigation dimension established in Chapter 5 and the comparative illumination developed in this chapter, constitutes the complete substantiation of Hypothesis 2. Chapter 8 synthesises these findings across both hypotheses, addresses the broader implications for the concept of a circular internal market, and considers what the EU's experience suggests for international plastic pollution governance.

## **Chapter 8 – Conclusion**

### **8.1 Answer to Main Research Question**

This thesis aimed to identify how EU internal market law shapes the scope of upstream circular economy regulation, and whether the PPWR's harmonisation model under Article 114 TFEU resolves the structural constraints that free movement law imposes or merely relocates them to a different register of legal tension. The answer developed across the preceding chapters is that it does both, but not in equal measure.

The analysis identified an inherent tension. Measures that directly regulate products through requirements such as labelling fall within the category of product requirements under Article 34 TFEU, triggering strict market access and proportionality review under the Court's free movement jurisprudence. The *Cassis de Dijon* line of authority and the mandatory requirements doctrine enable Member States to justify upstream measures on environmental grounds, but the path is narrow and proportionality-sensitive. The structural constraints against upstream measures demonstrated in this thesis show that this is not accidental. It is derived from the logic of free movement law itself, which scrutinises measures conditioning market access more strictly than measures regulating goods after they have been placed on the market.

On paper, the legal harmonisation across Member States achieved through the PPWR resolves these structural constraints. The regulation removes the legal space in which Member States could adopt conflicting upstream rules and replaces it with a uniform legal framework. The directive-based approach under the predecessor PPWD had already demonstrated the limitations of that model, fragmenting compliance conditions and undermining the internal market objectives the directive itself was meant to serve. To the extent that Member States can no longer impose their own packaging design requirements, the free movement constraint identified in Hypothesis 1 is overcome at the legislative level.

However, the resolution remains partial. By shifting upstream obligations to the EU level, the PPWR concentrates legal exposure at the EU level rather than dispersing it across Member States. Mandatory reuse targets, design-for-recycling requirements, and restrictions on problematic substances are precisely the kind of far-reaching market-conditioning measures that invite strict proportionality scrutiny from the Court. Unlike the minimum harmonisation model, where Member States absorb some of that legal exposure at national level, a directly applicable regulation places the full weight of any legal challenge on the EU framework itself.

The enforcement dimension compounds this vulnerability. The PPWR's obligations are uniform on paper, but their practical effect depends on compliance at national level. National surveillance authorities differ in infrastructure and administrative capacity. A design-phase obligation that is actively policed in one Member State and largely unmonitored in another produces uneven implementation and

the kind of competitive distortion that harmonisation is supposed to prevent. The dense layer of implementing acts through which the Commission will specify technical parameters introduces a further variable. Delays or inconsistencies in that process leave compliance gaps that each national authority will manage differently, if at all.

The answer to the central research question is therefore the following. EU internal market law structurally constrains upstream circular economy measures under the framework of free movement of goods. Article 114 TFEU harmonisation formally overcomes those constraints, but the underlying tension between regulatory ambition and legal vulnerability is relocated rather than resolved. That tension finds new expression in the litigation exposure of the regulation's upstream obligations, in the enforcement asymmetries between Member States of differing administrative capacity, and in the governance of the delegated acts on which the regulation's practical operation depends.

## **8.2 Evaluation of Hypotheses**

The first hypothesis held that Articles 34 to 36 TFEU structurally constrain Member States from adopting upstream circular economy measures under free movement law. This is confirmed by the analysis in Chapters 2 and 3. Free movement law draws a meaningful distinction between measures that condition market access and measures that regulate use or disposal, and upstream design-phase obligations fall on the more restrictive side of that line. The Court's proportionality jurisprudence reinforces this: upstream obligations carry a heavier burden of justification than downstream equivalents because their trade-restrictive effects are more direct, and invoking environmental protection as a mandatory requirement does not discharge that burden where the relationship between means and ends does not withstand scrutiny.

The second hypothesis held that Article 114 TFEU harmonisation through the PPWR, while overcoming those constraints, remains exposed to uneven national enforcement, increased litigation risk, and regulatory divergence between Member States. This is confirmed, with one qualification. On litigation exposure, Chapter 5 showed that several of the PPWR's core provisions are defensible on the basis of the legislative record, but vulnerability depends on how the Court approaches margin of appreciation for Article 114 measures with predominantly environmental objectives, a question left open by the Tobacco Advertising line of cases. On enforcement and divergence, the hypothesis is confirmed without qualification, though the nature of the divergence risk warrants clarification. The divergence produced by the predecessor directive arose from uneven transposition, a problem the PPWR formally eliminates by applying directly. The divergence risk identified here is different in character: it emerges not from differences in the text of applicable law but from differences in how national market surveillance authorities apply a uniform set of obligations. A regulation enforced rigorously in some Member States and minimally in others produces *de facto* fragmentation even where the legal text is identical across the internal market. Chapter 6 demonstrated that this risk is structural given the variation in

administrative resources and infrastructure across Member States, and it is compounded by the upstream character of many of the PPWR's obligations, where non-compliance at the design phase is considerably harder to detect and sanction than non-compliance with downstream labelling or collection requirements.

### **8.3 Implications for the Internal Market**

The PPWR is the most ambitious attempt to date to use the internal market competence to regulate packaging at the design stage rather than at the point of disposal. By replacing the directive-based framework with a directly applicable regulation, it removes the transposition discretion that allowed Member States to implement the predecessor instrument in inconsistent ways, producing the divergent labelling schemes, deposit-return systems, and reuse requirements documented in Chapter 3. The shift to a regulation was intended to end that fragmentation by establishing a single set of obligations applicable uniformly across all Member States without requiring national transposition.

Whether that formal uniformity produces real market integration is a different question, and the answer depends heavily on enforcement consistency. As Chapter 6 established, where upstream obligations are actively monitored in some Member States and largely unpoliced in others, producers in well-enforcing jurisdictions bear compliance costs that their competitors elsewhere do not. Design-for-recyclability assessments, substance restriction checks, and recycled content verification require a level of technical expertise that varies materially across national market surveillance authorities. That variation produces exactly the competitive distortion that harmonisation was designed to remove, replicating at the enforcement level the same fragmentation the regulation replaced at the legislative level. Formal uniformity in the legal text does not guarantee substantive uniformity in practice.

This analysis carries a structural implication for future internal market legislation in the circular economy field. The PPWR's experience suggests that the choice between directive and regulation, while legally significant, is not sufficient on its own to secure genuine regulatory uniformity where obligations are technically demanding and enforcement depends on national administrative capacity. Future instruments imposing upstream design obligations would benefit from more prescriptive harmonisation of enforcement mechanisms, including minimum standards for market surveillance frequency, common technical audit criteria, and greater convergence in penalty levels across Member States. Without those accompanying measures, the shift from minimum to full harmonisation resolves the legislative fragmentation problem while leaving the enforcement fragmentation problem structurally intact.

### **8.4 Implications for Circular Economy Governance**

The PPWR's upstream orientation rests on an insight developed in Chapter 1 and confirmed throughout the thesis: packaging design determines recyclability, and the material and structural choices made at the production stage set a ceiling on what downstream systems can achieve regardless of how well those

systems are organised. Regulating at source is therefore not simply a more ambitious policy choice but a structurally necessary one if circular economy objectives are to be met.

The governance challenge, as Chapters 5 and 6 demonstrated, is that upstream obligations are technically more demanding to enforce than downstream ones and more legally exposed to proportionality challenge. The PPWR's extended producer responsibility framework creates economic incentives for upstream compliance by making producers financially accountable for end-of-life management and ecomodulating fees to reward better design. Whether that mechanism functions as a genuine design incentive depends on the technical parameters the Commission sets through delegated acts, whose output is not expected until 2028 and whose adoption process is less transparent and less open to challenge than the legislative procedure that produced the regulation itself.

The comparison with Japan developed in Chapter 7 is instructive here, since it illustrates a different answer to the same governance challenge. Japan achieves significant upstream improvements through administrative coordination, periodic reporting obligations, ministerial judgment criteria, and consensus-based standard-setting through *shingikai* processes, without the litigation exposure or enforcement divergence that the PPWR inherits from its legal architecture. The critical point, as Chapter 7 established, is not that Japan's model is superior but that it depends on institutional conditions, including a unitary administrative architecture, coordinating ministries with sector-allocated jurisdiction, and front-loaded industry consensus, that are not replicable within the EU's multi-level governance structure. The litigation exposure and enforcement divergence identified in this thesis are not drafting failures. They are structural consequences of applying the EU's constitutional model to technically demanding upstream obligations across twenty-seven jurisdictions.

One implication that follows from this analysis is that the EU's investment in the substantive framework of the PPWR needs to be matched by a comparable investment in the governance infrastructure that gives that framework practical effect. Concretely, this would mean accelerating the delegated act process so that technical standards are in place before enforcement obligations become fully operational, strengthening the coordination role of the Commission in supporting national market surveillance authorities, and considering whether the horizontal market surveillance framework under Regulation (EU) 2019/1020 is adequate for the technically demanding upstream auditing that the PPWR requires. The Japanese comparison suggests that the sequencing of standard-setting relative to legal operationalisation matters considerably: front-loading technical consensus before obligations take effect reduces both litigation risk and enforcement divergence, a lesson the PPWR's delegated act architecture currently inverts.

Beyond the EU, the PPWR carries implications for the ongoing INC negotiations on plastic pollution introduced in Chapter 1. Those negotiations have been shaped by a persistent divide between states favouring downstream waste management solutions and those pressing for a life-cycle approach

including binding upstream obligations. The PPWR demonstrates that upstream obligations at scale are legally and administratively feasible within a developed regulatory system, and the EU's experience of implementing them across twenty-seven Member States provides a concrete reference point for what binding upstream provisions in an international instrument might require in terms of legal architecture and technical specification. At the same time, the enforcement asymmetries identified in this thesis are a caution against assuming that ambitious treaty language translates automatically into effective implementation. The EU's experience shows that differences in administrative capacity and enforcement resources produce de facto fragmentation even within a developed and legally integrated regulatory order. For a global instrument operating across states with far greater institutional disparities, that lesson carries additional weight. The INC process would benefit from treating enforcement capacity as a first-order design question built into the instrument from the outset, rather than a matter to be resolved after headline obligations are agreed.

## **8.5 Limitations of the thesis and directions for future research**

This thesis operates within certain methodological boundaries that should be acknowledged. The analysis is doctrinal throughout, examining what the law requires, what the Court's jurisprudence permits, and what structural consequences follow from the legislative choices examined. The thesis does not purport to measure empirically how the PPWR is being implemented in practice, how enforcement intensity varies across Member States, or whether the regulation's upstream obligations are producing the environmental outcomes intended. Those questions require methods that lie beyond the scope of legal analysis. The comparative chapter on Japan is similarly bounded: it uses Japan's governance model as an analytical lens rather than conducting a comprehensive evaluation of Japanese circular economy law, and it draws on a combination of official policy documents and ministerial committee materials that reflect the state of the framework as of the time of writing. Finally, the PPWR entered into force in February 2025 and becomes generally applicable in August 2026. The delegated acts that will determine the operational content of many of its upstream obligations have not yet been adopted. The thesis therefore analyses a regulatory framework that is still taking shape, and some of its assessments of litigation exposure and enforcement risk will need to be revisited as the secondary legislative framework develops and the first cases reach the Court.

The methodological boundaries identified above point to a connected research agenda. As the delegated acts take shape and the first enforcement decisions and court proceedings emerge, empirical and doctrinal research will need to work together. Tracking how the Commission exercises its delegated act powers, how national authorities translate upstream obligations into practice, and how the Court responds to the first wave of PPWR litigation will be essential for testing whether the structural vulnerabilities identified here materialise as predicted.

The bounded scope of the Japan comparison points to a further direction. Chapter 7 used Japan's governance model as a specific analytical lens rather than as the basis for a comprehensive comparative study. Extending that comparison to additional jurisdictions with developed upstream circular economy frameworks would allow the structural limitations identified in this thesis to be assessed against a wider range of governance models and would contribute to the still-developing field of comparative circular economy law.

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