

Western Balkans Six (WB6) Extended Producer Responsibility (EPR) Plastic Packaging Framework

Status: Final report

10 August 2026

The report is prepared within the Contract for the Supply of Consultation Services to support the RCC Secretariat in development of regionally harmonized EPR plastic packaging framework in Western Balkans Six.

Contents

Executive summary.....	1
Introduction and context	2
Strategic alignment with the EU acquis	2
Part 1: Harmonised EPR Operating Model and Toolkit	3
1. General provisions and definitions	4
a. Definition of EPR scheme	4
b. Definition of the scope of plastic packaging.....	4
c. Harmonised definitions of obliged parties and exemptions.....	6
d. Definition of the first-time availability on the market	8
e. Definition of the geographical scope, establishment of collection system and coordination of competition.....	9
f. Cost coverage of collection and waste management system	12
g. PRO appointment and obligations rules	13
h. Collection and recycling performance requirements and consumer awareness	15
i. Monitoring and reporting	17
2. Additional domestic flexibilities.....	17
Monitoring, reporting, verification (MRV) and control package	20
1. Introduction, purpose and scope	21
a. Introduction.....	21
b. Purpose and scope.....	21
c. Mandatory policy provisions and targets.....	21
2. Core pillar 1: Monitoring systems and market infrastructure	24
a. Centralised electronic registry architecture	24
b. Anti-free-rider control mechanisms and cross-checking	25
c. Administrative and financial sanctions for PRO non-compliance.....	27
3. Core pillar 2: Harmonised reporting obligations	28
a. Producer and importer reporting.....	28
b. PRO operational and financial reporting	30
c. Waste management and recycler reporting (material balance).....	31
d. Data dictionary and regional reporting standards	32
4. Core pillar 3: Verification, audit, and enforcement framework.....	33
a. Independent third-party verification and audit protocols.....	33
b. Strict evidentiary standards for compliance.....	33

c. Inspection, escalation, and penalties for non-compliance	34
d. Institutional responsibility: Responsible, Accountable, Consulted and Informed (RACI) Matrix	35
5. Phased implementation roadmap	35
Fee architecture and eco-modulation	36
1. Financing principles.....	36
2. Scope of eligible costs	37
3. Fee architecture framework	37
4. Fee setting methodology	38
5. Eco-modulation framework	39
6. Compliance and enforcement	40
7. Financial risk management	41
8. WB6 regional harmonisation parameters.....	42
Summary: PRO framework to guide the step-wise development of EPR	43
1. The harmonised core and the domestic flexibility matrix	43
2. The step wise implementation phase	43
Part 2: Regional and domestic stress-testing	46
Part 3: Regional and domestic rollout EPR roadmaps for plastic packaging	46
1. Regional phased implementation roadmap (2026-2030).....	47
2. Short-term implementation playbook (action plan 0-12 months).....	47
Annexes.....	49
Annexes for Part I: Harmonized Extended Producer Responsibility (EPR) Operating Model and Toolkit	49
a. Annex A : Harmonized Western Balkans Six (WB6) reporting templates (Pillar 2 tool) 49	
b. Annex B: Inspection and field audit checklists (Pillar 3 tool).....	51
c. Annex C: Harmonized data dictionary and classification standards	53
d. Annex D: SOPs, Terms of Reference (ToR) and Key Performance Indicators (KPIs) for Monitoring, Reporting and Verification (MRV) Controls.....	59
e. Annex E: PRO agreement framework	62
f. Annex F: the universal PRO net cost fee formula	63
g. Annex G: model eco-modulation scoring matrix checklist	64
h. Annex H: EPR fee parameter settings	65
i. Annex I: model legal and governance templates	67

j.	Annex J: Policy and legislative sources	69
k.	Annex K: Detailed Legal reference	70
	Annexes for Part II: Domestic stress-testing and domestic roadmaps	78
	Annexes from Part 2 of main report: regional and domestic stress testing	78
	Annexes from Part 3 of main report: Regional and domestic rollout roadmaps for EPR packaging	85
	Annexes for Part III: Inception Report	102
	Part 1: Analytical groundwork and WB6 Validation	102
	Part 2: EPR requirements matrix analysis	112
a.	Introduction	112
b.	Albania	113
c.	Kosovo*	113
d.	Montenegro	114
e.	Bosnia and Herzegovina	115
f.	North Macedonia	115
g.	Serbia	116
h.	Transversal analysis	117
	Annexes of the inception report	118
a.	Annex A: Single WB6 baseline snapshot template	118
b.	Annex B: Scoring and readiness legend for the operational requirements matrix	123

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

List of abbreviations

AI: Administrative Instruction	MRF: Material Recovery Facility
AKEM: Agency for Waste Economy of Albania	MRV: Monitoring, Reporting and Verification
API: Application Programming Interface	N/A: Not Applicable
AR: Authorized Representative	NEA: Environment Agency of Albania
B2B: Business-to-Business	NGO: Non-Governmental Organization
BOM: Bill of Materials	NIR: Near-Infrared
C&I: Commercial and Industrial	OECD: Organisation for Economic Co-operation and Development
CAPEX: Capital Expenditure	OJ: Official Journal
CE: Circular Economy	PCR: Post-Consumer Recycled
D4R: Design-for-Recycling	PE: Polyethylene
DRS: Deposit Return Scheme	PET: Polyethylene Terephthalate
EC: European Community	PHA: Polyhydroxyalkanoate
EEA: European Environment Agency	PII: Personally Identifiable Information
EEC: European Economic Community	PLA: Polylactic Acid
ELV: End-of-Life Vehicle	POM: Placed on the Market
EN: European Standard	PP: Polypropylene
EPA: Environmental Protection Agency	PPWD: Packaging and Packaging Waste Directive
EPR: Extended Producer Responsibility	PPWR: Packaging and Packaging Waste Regulation
EPS: Expanded Polystyrene	PRO: Producer Responsibility Organisation
ERP: Enterprise Resource Planning	PS: Polystyrene
EU: European Union	PUC: Public Utility Company
EU MS: European Union Member States	PVC: Polyvinyl Chloride
EVOH: Ethylene Vinyl Alcohol	PVDC: Polyvinylidene Chloride
EWC: European Waste Catalogue	R&D: Research and Development
FAQ: Frequently Asked Questions	RACI: Responsible, Accountable, Consulted and Informed
GAWB: Green Agenda for the Western Balkans	RC: Recycled Content
GDPR: General Data Protection Regulation	RCC: Regional Cooperation Council
GIZ: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	SAD: Single Administrative Document
GTIN/EAN: Global Trade Item Number / European Article Number	SEPA: Environmental Protection Agency of Serbia
HDPE: High-Density Polyethylene	SIMM: Integrated Waste Management Information System
HoReCa: Hotel, Restaurant and Café/Catering	SKU: Stock-Keeping Unit
HS: Harmonised System	SLA: Service Level Agreement
IBCs: Intermediate Bulk Containers	SME: Small and Medium-sized Enterprise
ID: Identifier	SOPs: Standard Operating Procedures
INSTAT: Institute of Statistics	SUP: Single-Use Plastic
ISO: International Organization for Standardization	SUPD: Single-Use Plastics Directive
KEPA: Agency for Environmental Protection of Kosovo*	ToR: Terms of Reference
KPI: Key Performance Indicator	UNDP: United Nations Development Programme
LDPE: Low-Density Polyethylene	UNEP: United Nations Environment Programme
LLDPE: Linear Low-Density Polyethylene	UUID: Universally Unique Identifier
LSG: Local Self-Government	VAT: Value Added Tax
MBR: Material Balance Register	WB6: Western Balkans Six
MEP: Ministry of Environmental Protection	WEEE: Waste Electrical and Electronic Equipment
MESPI: Ministry of Environment, Spatial Planning and Infrastructure	WFD: Waste Framework Directive
MoC: Memorandum of Cooperation	WTN: Waste Transfer Note
MoEPP: Ministry of Environment and Physical Planning	XPS: Extruded Polystyrene
MoFTER: Ministry of Foreign Trade and Economic Relations	ZELS: Association of the Units of Local Self-Government
MOU: Memorandum of Understanding	

Executive summary

The Western Balkans Six (WB6) Extended Producer Responsibility (EPR) Plastic Packaging Framework represents the culmination of a strategic transition from diagnostic baseline analysis to the design of an operationally focused regional framework. The foundational decision driving this project was the adoption of a "harmonised core with domestic flexibility" principle. This approach avoids a rigid, one-size-fits-all model, instead allowing each of the WB6 to maintain strict alignment with the European Union (EU) acquis, specifically the Waste Framework Directive (WFD), the Single-Use Plastics Directive (SUPD), and the Packaging and Packaging Waste Regulation (PPWR), while adapting institutional deployment to match individual market maturities. A consensus reached with regional stakeholders was the pivot away from abstract policy advice toward a "ready-to-use" operational toolkit. This toolkit provides domestic authorities with the concrete instruments required to bridge the gap between regional policy intent and domestic enforcement reality, including standardised polymer definitions, transparent fee-setting formulas, and audit protocols.

The final model functions as a practical engine for circularity, designed to neutralise the systemic data and administrative fragmentation currently hindering the region. By integrating a standardised Monitoring, Reporting, and Verification (MRV) system, anchored by Unique EPR identifiers (IDs) and a harmonized Data Dictionary, the framework provides the necessary infrastructure to reduce administrative burdens, eliminate intraregional double-counting, and guarantee data reliability across domestic registries. This is further supported by an eco-modulated fee architecture designed to ensure full cost recovery, alongside strict governance protocols for Producer Responsibility Organisations (PROs) and Model Service Level Agreements (SLAs) that formalise supply chains between PROs and municipalities. Together, these components provide a clear, phased pathway for each of the WB6 to advance from foundational legal alignment to full operational maturity by 2030.

Operational stress-testing conducted during the project identified five systemic risks that threaten the efficacy of EPR systems in the region: structural underfunding, significant data gaps, weak enforcement capacity, governance capture, and infrastructure bottlenecks. To mitigate these threats, the Regional Cooperation Council (RCC) is strongly advised to advocate for the mandatory adoption of the "necessary-cost" methodology, which ensures ring-fenced producer financing and prevents system underfunding. Furthermore, to secure system integrity, the framework recommends the timely deployment of standardised inspection checklists to identify and curb market free-riding, coupled with the consistent application of non-profit licensing criteria and mandatory third-party audit requirements for all operating PROs. By institutionalising these specific mitigation measures, the RCC and authorities across the WB6 can move beyond policy framework design to ensure sustainable, compliant, and transparent domestic implementation across the region.

Introduction and context

The primary objective of this mission is to support the development of a ready-to-use and regionally harmonised EPR Plastic Packaging Framework for the WB6. This framework is designed to overcome regional market fragmentation, accelerate the transition to a circular economy, and support EU accession-related alignment and implementation. To ensure practical utility, the framework is accompanied by step-by-step implementation guidance and a comprehensive, operational **Harmonised EPR Toolkit**. This toolkit provides regional standards, high-level templates, and practical guidance tailored to support WB6 authorities, PROs, inspectorates, and market actors in operationalising efficient EPR systems within their domestic contexts. The project was structured across three interconnected phases, moving from diagnostic baseline to operational design, and finally to domestic readiness:

- **Phase 1 - Analytical foundation and diagnostic baseline:** this initial phase (given in Annex) established the groundwork by evaluating the legal, institutional, and technical readiness of each of the WB6. The analytical foundation was driven by extensive institutional and field interviews with key market stakeholders across the WB6. These consultations provided first-hand operational insights that, combined with desk research, led to the delivery of the Baseline Diagnostics and the Operational Requirements Matrix. This matrix successfully translated complex EU requirements into measurable technical benchmarks, reviewed and validated with relevant stakeholders.
- **Phase 2 - Harmonised operating model and EPR toolkit:** building on Phase 1, this phase defined the structural "engine" of the regional framework. It delivered the **Harmonised EPR Toolkit** based on the principle of a "**harmonised core with domestic flexibility**." This phase established concrete mechanisms for MRV, a transparent eco-modulated fee architecture, and governance protocols to ensure universal WB6 coverage and enforcement.
- **Phase 3 - Operationalisation, transferability, and finalisation:** as the concluding milestone of the project, Phase 3 bridges the gap between regional theory and domestic reality. It consolidates the outputs of previous phases into a ready-to-use package by introducing a transferability and operability matrix, tailored domestic implementation roadmaps, and stress-testing frameworks designed to mitigate systemic failure modes. This phase equips the RCC and WB6 with the final strategic briefs necessary for immediate deployment.

Strategic alignment with the EU acquis

A foundational pillar of this project is ensuring that the proposed EPR framework drives alignment with the EU acquis, serving as a catalyst for the WB6 EU accession pathways and compliance with the **Green Agenda for the Western Balkans (GAWB)**. The framework systematically integrates the core principles and targets of key EU legislative instruments:

- **The WFD:** Establishing the waste hierarchy, life-cycle thinking, and the basic tenets of producer responsibility.

- **The SUPD:** Addressing specific restrictions, marking requirements, and separate collection targets for specific plastic streams.
- **The PPWR:** Integrating updated targets for recycling, reuse, and the reduction of packaging waste at source.

The "harmonised core" principle: By adopting these EU standards as a shared regional baseline, the framework mitigates the risk of regulatory divergence among the WB6. This alignment ensures that domestic market mechanisms are mutually interoperable, safeguarding regional trade while providing a future-proof architecture capable of adapting to evolving European legislative mandates. Simultaneously, the framework builds in **domestic flexibility**, acknowledging that while the environmental targets and structural compliance rules remain aligned with the EU, the institutional deployment must match the specific market realities and current legal maturities of each of the WB6.

Part 1: Harmonised EPR Operating Model and Toolkit

Building on the outcomes of the Phase 1, which focused on the current EPR baseline in the WB6 and supplemented by stakeholder consultations, WB6 snapshots and analysis of the market readiness to gain the in-depth understanding required to develop a harmonised EPR framework for plastic packaging, Phase 2 provides a practical toolkit for this purpose.

The purpose of the following EPR toolkit template is to establish a coherent and operationally feasible model that defines the institutional, legal, operational and compliance architecture required for effective implementation of EPR systems for plastic packaging across the region. It consists of harmonised regional standards, template structures and implementation guidance for domestic adaptation based on the WB6 institutional and market realities. The “Harmonised EPR Operating Model” serves as the central structural component of the regional EPR Plastic Packaging Framework for the WB6. This template is designed around the principle of “harmonised core + domestic flexibility”, ensuring alignment with the EU acquis and the Revised GAWB Action Plan 2025–2030, while allowing the WB6 to adapt implementation mechanisms to their domestic institutional and market realities.

Harmonised regionally	Domestic flexibility	EU/GAWB basis	Expected output (toolkit annex)
System scope: Coverage of all plastic packaging (household/non-household).	De minimis thresholds for micro-enterprises or simplified reporting.	WFD Art 8a; PPWR Art 3	Annex C (Data dictionary)
Producer registry: Mandatory unique registration for producers.	Liability models for online platforms (direct vs indirect).	PPWR Art 44	Annex A (Placed on the market (POM) templates)
Financials: min. 80% of the necessary costs coverage; ring-fenced for collection/sorting.	Market architecture: Monopoly vs. Competitive PRO models.	WFD Art 8a	Annex F (Fee formula)
Verification: Standardised POM reporting, mass-balance accounting, and independent audits.	Local service agreements: direct PRO-contracting vs. municipal-managed operations.	SUPD; WFD Art 8a	Annex B (Checklists), Annex D (Standard Operating Procedures (SOPs))

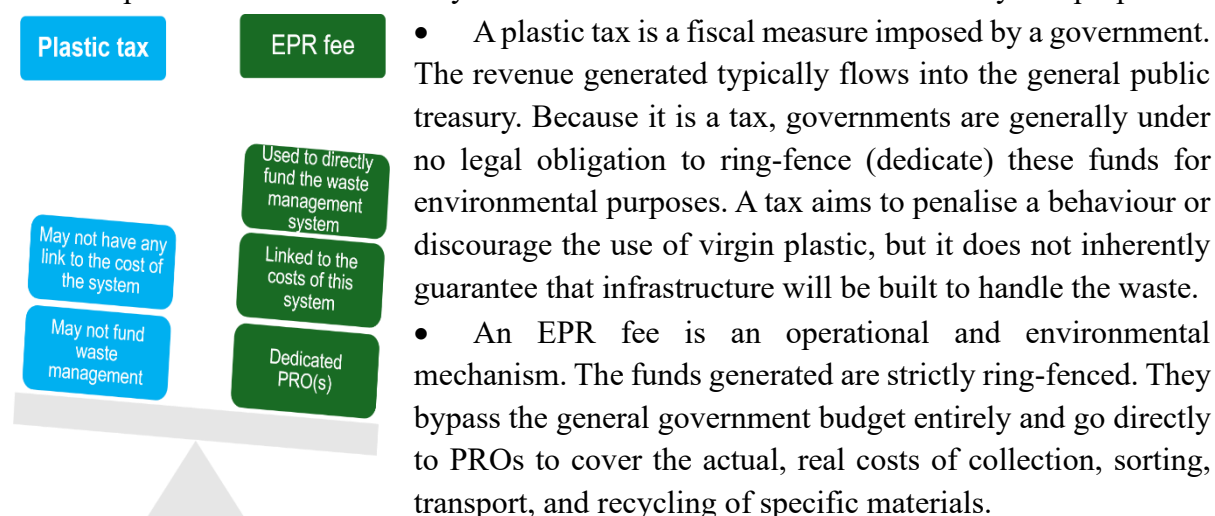
1. General provisions and definitions

One of the most important features of the regulatory framework for WB6 is the use of clear definitions for clearly identifying the producers, PROs and scope of the EPR scheme in particular plastic packaging covered.

a. Definition of EPR scheme

It is essential to firstly define what an EPR scheme is and what the exact term means in general in the context of a waste management system and reflect on the two concepts:

EPR should not be confused with a tax. Indeed, it's common to see EPR mischaracterised as a "plastic tax," but confusing the two overlooks how the money is controlled, where it goes, and how it impacts the circular economy. The core distinction lies in accountability and purpose:



The EPR fees, regardless of the model, financial EPR scheme or operational EPR scheme, ensures that producers are responsible for the packaging they place on the market by establishing the collection and treatment of waste while also covering the related costs.

Harmonised regionally	Domestic flexibility	Annex references and
The core principle of EPR and relevant definitions "Extended Producer Responsibility" "Producer responsibility organisation"	• Domestic laws may adapt the organisational definition of the "Producer Responsibility Organisation" (e.g., specific naming conventions, legal entity forms, or membership structures) to align with relevant domestic legal frameworks. • Producers can either individually fulfil this obligation or fulfil it collectively through a "Producer Responsibility Organisation" taking up this responsibility on their behalf.	Annex K • WFD Art 3(21) for EPR scheme definition • PPWR art. 3(66) for PRO definition

b. Definition of the scope of plastic packaging

For the definition of a harmonised EPR operating model, it is essential to firstly define what a packaging is, and the scope of the packaging covered. It is essential that specific definitions, such as "packaging," "plastic," and "composite packaging" must be identical to the EU PPWR to prevent "environmental dumping" or market fragmentation. In accordance with Article 8a of the WFD, the SUPD (EU) 2019/904, and the PPWR, and to ensure full consistency between their respective scopes, the following definitions may be adopted. While this framework operates fundamentally as a dedicated plastic packaging EPR model, it deliberately incorporates

broader packaging definitions where necessary to ensure legal consistency with overarching domestic and EU waste management regulations. The EPR fees ensure that producers are responsible for the packaging they place on the market by establishing the collection and treatment of waste and covering related costs. This obligation can be fulfilled individually or collectively through a PRO.

- **Packaging definition**

The legal framework must set out which types of packaging POM by the obliged companies are covered by the EPR scheme. For consistency between the WB6, the legal framework should also specifically further define what a packaging is and what a packaging is not. Regarding the packaging definition, the PPWR (article 3) provides for a definition of packaging that could be served as reference.

- **Plastic and composite packaging definitions**

After the definition of EPR, then it is decisive to define what plastic is, in order to ensure the same baseline in terms of plastic packaging that are covered across the WB6. The SUPD defines what plastic is for the scope of the Directive. It is the reference definition in the EU legislation to define what plastic products and packaging are. In addition, Commission guidelines on single-use plastic products ([2021/C 216/01](#)) provides guidance on the interpretation and implementation of the SUPD including examples of what is to be considered a single-use plastic product for the purposes of the Directive. The plastic definition should also be put in perspective with composite packaging, that are composed partially of plastic. A clear reference to the inclusion of composite packaging, such as drink carton packaging is essential because they are partially composed of plastic.

- **Distinction between packaging types**

Legislation should explicitly outline which packaging formats and types fall under the obligations of the EPR scheme. In particular, the legal framework should explicitly specify the type of packaging, households and/or non-households, and formats, single-use and/or reuse packaging. Any particular additions to the scheme, like single-use plastics, must be distinctly documented in the legal framework. Given the GAWB, in particular to establish a functional plastic packaging EPR scheme across the WB6 by 2028, the EPR scheme should, at least, cover the following, each backed by distinct definitions to ensure that all households and non-households packaging are covered, including hospitals, hotels, restaurants and offices.

Harmonised regionally	GAWB Action 22 priorities	Domestic flexibilities	Annexes and references
Packaging definition	/	/	Annex K Article 3 of PPWR
Plastic definition	/	/	Annex K - Article 3(1) SUPD
Composite packaging definition	/	/	Annex K - Article 3(24) PPWR

WB6 EPR Plastic Packaging Framework

Harmonised regionally	GAWB Action 22 priorities	Domestic flexibilities	Annexes and references
Single-use packaging	/	/	Annex K - Article 3 PPWR
Single-use plastic sales packaging	Beverage containers Lightweight carrier bags,	/	Article 3(54) of PPWR Part F of the Annex to Directive (EU) 2019/904
Single-use plastic service packaging	Cups for beverages, food and cutlery/stirrers.	Each of the WB6 may choose to include specific packaging types at different timelines for phased roll-outs.	Article 3(1) of PPWR
Single-use grouped packaging	/		Article 3(1) of PPWR
Single-use primary production packaging and transport packaging	/		Article 3(4) of PPWR Article 3(7) of PPWR
E-commerce packaging	/		Article 3(8) of PPWR
Reusable packaging	/		Article 11 of PPWR

See Annex C (Data dictionary and classification standards) as well.

c. Harmonised definitions of obliged parties and exemptions

To establish a level playing field across the WB6 and ensure the effective application of the "polluter pays" principle, it is critical to harmonise the definition of the parties responsible for the financial and operational management of plastic packaging waste. The obliged companies refer to companies obliged by law to participate in the system because of their role in placing packaging on the domestic market. *See Annex I for model templates to be domestic authorities and PROs.*

With the aim to develop a regional EPR framework for plastic packaging, the legal framework should harmonise the definition across the WB6 in order to define the parties participating in the system, in particular what actors are to be considered a producer, their related roles and when they become accountable for paying EPR fees. This would ensure consistency across the WB6 and avoid loopholes and regulatory gaps. Therefore, a clear definition of producer helps to identify which companies are responsible for complying with EPR law and financially contribute to the plastic packaging waste placed on the domestic market.

- **Producer:** it means any professional entity, regardless of the selling technique used, including distance contracts, that places packaged plastic packaging on the domestic market for the first time. This includes:
 - **Manufacturers:** Entities manufacturing and selling packaged products under their own brand or trademark within the entire territory.

- **Distributors:** Entities that have products manufactured and packaged by third parties and makes packaging available on the market.
- **Importers:** Any entity that brings packaged products into the domestic market for the purpose of sale or distribution.

It should be ensured that both domestic companies and importers fall under the definition “producers” and clearly define when to consider that the packaging is placed on the market. In addition, and considering the evolution of the market, a particular attention should be given to online platforms and when to consider them as producers. As a matter of fact, they directly make available on the market covered by the EPR scheme to consumers or other end -users from a third jurisdiction. To align with the EU Acquis, article 3(15) PPWR defines the notion of “producer”. The European Commission’s Frequently Asked Questions ([FAQ](#)) and [legal notice](#) help in further interpreting this definition. Considering the evolution of the market, particular attention must be given to **online platforms**, as they directly make packaged products available to consumers in order to avoid market fragmentation and reduce free-riding that leads to a significant loss of funding for handling the waste treatment. It would ensure a level playing field and avoid unfair competitive disadvantage for local producers who comply with EPR.

- To this end, the legal framework could make sure that the online platforms are legally liable for the compliance of third-party sellers on their platforms and could shift the burden of compliance from the individual seller to the marketplace.
- To operationalise this approach, the domestic legislative framework could incorporate binding provisions establishing that if an online platform allows an unregistered distance seller to market packaged goods within the territory, the platform itself becomes legally liable for the corresponding EPR eco-fees in place of that seller.
- However, to avoid creating an unenforceable legal burden, this liability must be supported by an automated, inter-institutional digital infrastructure. The specific operational requirements for this data integration—including automated data-triangulation engines, mandatory 48-hour compliance windows for platform backend enforcement, and standardised regional data dictionaries for polymer reporting—are detailed under **Section 2.2 (Anti-free-rider control mechanisms and cross-checking of MRV and control package part)**.

Given that companies place varying volumes of packaging on the market and that **small and medium enterprises (SMEs)** may face greater difficulties in complying with EPR obligations due to their size and limited resources, the legal framework should provide for administrative adjustments. These measures aim to ease the burden on small businesses without exempting them from their fundamental producer responsibilities.

In alignment with the PPWR, which requires every company that places packaging on the market to report and pay, no producer can be exempted from registration or reporting obligations. Instead, to protect SMEs from excessive administrative burden while maintaining collection targets and market fairness, the legal framework may implement the following simplification mechanisms:

WB6 EPR Plastic Packaging Framework

- **Simplified declaration:** Reduced reporting requirements for companies falling under a designated threshold (e.g., less than 500kg of packaging POM annually or where the EPR fee does not exceed a determined financial amount).
- **Flat-rate EPR fee:** The option for small producers to pay a simplified, flat-rate fee.
- **Adjusted reporting frequency:** Reduced reporting requirements (e.g., yearly rather than quarterly reporting) for qualifying SMEs.
- **Threshold verification:** To avoid free-riding, authorities retain the right to conduct random audits based on customs and tax data. If a producer exceeds the 500 kg boundary, standard eco-modulated fees apply retroactively.

Harmonised regionally	Domestic flexibility	Annexes and references
Definition of "Producer" (encompassing manufacturers, importers, and online marketplaces) to ensure no market gaps;	/	Annex I (Model legal and governance templates). Annex K - Art 3(15) of PPWR Regulation 2022/2065
Universal registration: mandatory registration for all producers (no absolute exemption from the registry to align with PPWR). "Low-Volume" threshold: Implementation of the regional 500 kg/year threshold to trigger the simplification mechanisms described above ¹ .	Transition for existing thresholds: Flexibility for WB6 to maintain current domestic limits (e.g. Serbia's 1 tonne or North Macedonia's specific weights) during a Phase 1 transition before gradual alignment.	Section 1.c (<i>Harmonised definitions of obliged parties and exemptions</i>). <i>References: EU PPWR Art. 44 (Register of producers) / EU Member States (EU MS) practices (Lithuania 500 kg, Belgium 300 kg).</i>
Liability and requirements for online marketplaces to prevent "environmental dumping."	/	Annex K - Article 45 of PPWR

d. Definition of the first-time availability on the market

Once having defined the obliged parties, then the legal framework should determine a standardised criteria for what constitutes first-time availability on the domestic market because this triggers the EPR obligations. Having a standardised interpretation will help for regional harmonisation. For example, the framework will need to address whether packaging produced by a manufacturer but found to be defective is considered to have been POM and is therefore subject to the EPR contribution. This would prevent the double charging of EPR fees on packaging across different stages of the value chain. As a safeguard procedure, the legal framework could also integrate a reimbursement procedure to avoid that packaging does not incur EPR fees twice.

Harmonized regionally	Domestic flexibility	Annexes and references
Harmonized legal definition of "placing on the market" ensuring regional alignment on what triggers EPR obligations.	/	Annex C (Data dictionary). Annex K - Article 3(11) of PPWR "Placing on the Market"

¹ This 500 kg threshold is proposed as a regional benchmark based on best practices from EU MS that balance SME protection with administrative efficiency (e.g., Lithuania operates a 500 kg threshold, while Belgium, Latvia, and the Czechia utilize a 300 kg limit). It also represents a balanced middle-ground for the WB6, sitting between North Macedonia's strict material-specific limits and Serbia's 1-tonne transitional threshold.

e. Definition of the geographical scope, establishment of collection system and coordination of competition

The architecture of the legal EPR framework has to ensure that it covers the whole entire territory and that fees paid by producers are sufficient to support a high-performing circular system. A clearly defined geographical, product and material coverage without limiting those areas to those where the collection and management of waste are the most profitable. The legislation should guarantee that all citizens have equal access to waste collection infrastructure and that PROs cover the entire territory. This principle of universal coverage is a fundamental pillar of the European regulatory landscape. The requirement is explicitly detailed in the general minimum requirements for EPR schemes established by the EU. Therefore, the legal framework should refer to the following minimum requirements:

- The PRO is strictly obligated to provide, or financially support, packaging waste collection, sorting, and treatment across the **entire territory**.
- The obligation of ensuring **equitable service provision** for all municipalities and citizens, regardless of geographical location, topography, or population density.
- **In case of EPR scheme competitive model**, PROs are authorised to operate within the same jurisdiction, but the competent authority should ensure a **coordinating mechanism or a clearing house** to ensure adequate financing and service without discrimination. This could take the form of appointing a centralised independent coordinating body, such as the Minister or Environmental Agency, that will monitor and ensure financial equalisation funds between PROs.

The central coordinating body shall be legally empowered to:

- Monitoring the equitable distribution of waste collection obligations across the entire territory, preventing any geographical discrimination or market segmentation;
- Administer a clearing system to ensure financial balance between PROs and that collection and waste treatment costs are fairly covered by all operating PROs in proportion to their respective market shares; and
- Aggregate, standardise, and verify compliance data to serve as a centralized interface between the PROs and municipalities. The coordinating body that standardises contracts, centralises municipalities' tonnage declarations, verifies the data, and acts as the single point of contact with the municipalities.

To operationalize the coordination of competitive PRO systems, particularly in fragmented governance contexts such as Bosnia and Herzegovina, the following clearing-house operational matrix outlines the division of roles, data flows, and verification standards required for an effective system:

Function	Responsible body	Required legal mandate	Data received	Decision/ financial equalisation rule	Verification evidence
Geographical service allocation and universal coverage equalisation	Independent Central Clearing House (supervised by Ministries / Inter-	Primary Waste Management Law and specific EPR By-Laws	PRO contract registries, municipal collection route maps, and	Service territories are mapped into geographic clusters (urban vs. rural). Total rural collection	Field inspection of active collection routes, municipal

WB6 EPR Plastic Packaging Framework

Function	Responsible body	Required legal mandate	Data received	Decision/ financial equalisation rule	Verification evidence
	Entity Environmental Funds)	mandating uniform territorial coverage and prohibited cherry-picking.	regional population density data.	obligations are distributed among PROs exactly proportional to their domestic POM market share.	verification certificates, and third-party logistics audits.
Financial equalisation and net cost-sharing	Independent Central Clearing House	Statutory right to levy equalisation fees on under-performing PROs and distribute compensatory payments.	Audited quarterly put on the market volumes (by polymer), actual PRO operational expenditure, invoices, and raw material sales revenues.	If a PRO's actual collection volume falls below its market-share liability, it must pay an equalisation fee into the clearing house. These funds are immediately redistributed to PROs that over-collected in high-cost/remote regions.	Certified bank transaction logs, verified financial balances, and matching multi-PRO invoice cross-checks.
Data aggregation and free-rider prevention	Central clearing house data unit (linked with customs and tax authorities)	Cross-jurisdictional data-sharing agreement and statutory authority to access confidential corporate tax/import registries.	Customs import manifests, value added tax (VAT)/tax filing summaries, and real-time electronic PRO member registries.	The Clearing House runs automated monthly scripts matching total customs-declared plastic packaging weight against total PRO-reported POM weight. Mismatches >5% automatically trigger a joint tax/environmental inspection.	Automated system discrepancy logs, application programme interface data transfer tokens, and formal inspection referral receipts.
Mass-balance and recycling target validation	Independent third-party environmental auditors (appointed by the Clearing House)	Mandatory domestic accreditation framework for EPR auditors with statutory right of entry to waste facilities.	Weighbridge tickets, Material Balance Registers (MBR) from sortation facilities, and final recycler recovery certificates.	Rejection of any recycling claims failing to show an unbroken chain-of-custody. Residues and non-recyclable fractions are algorithmically deducted using a standardised formula to be decided	Digital weighbridge data packets, waste shipment logs within WB6 (Annex VII/Basel), and certified end-recycler receipts.
Cross-jurisdictional dispute resolution	Joint inter-entity / inter-ministerial arbitration board	Framework Agreement / Memoranda of Understanding (MoU) establishing binding, non-judicial fast-track arbitration.	Formal written complaints, historical compliance ledgers, and audited financial statements under dispute.	Decisions must be issued within 30 days based strictly on data-driven compliance records. Penalties for market distortion are set at 3x the avoided financial equalisation cost.	Signed arbitration rulings, legally binding consent decrees, and proof of fine collection/allocation.

Case study

- In Albania EPR is still in its establishment phase and is not yet operational in practice, as the law will start producing legal effects from 1 December 2026². The law allows producers to comply with their EPR obligations individually, through a collective system organised with other producers and implemented through a licensed entity, or through an authorised PRO. However, the law does not establish a single monopoly PRO. This means that a competitive or multiple-PRO model may be possible, provided that each PRO is authorised by the ministry responsible for the environment and operates only for the specific waste stream for which it has been authorised.
 - In this context, the secondary legislation should include a clear coordination mechanism to avoid fragmentation of the system. Where more than one PRO or collective system operates within the same jurisdiction or waste stream, there is a risk that PROs may prioritise municipalities or areas where collection is easier, denser or less costly, while remote, low-density or less commercially attractive areas may remain underserved. To prevent this, the legal framework should establish or designate a coordination or clearing-house function.
 - This coordination function should not replace the PROs and should not operate as a PRO itself. Its role should be to ensure fair allocation of obligations, equitable territorial service coverage, financial balancing between PROs based on market shares and actual collection responsibilities, standardisation of municipal cooperation arrangements, verification of reported data, and consolidated reporting to the competent public authorities. It should serve as the single coordination interface between PROs, municipalities, licensed waste operators and the responsible public institutions.
 - The coordinating body or clearing-house function should be legally empowered to monitor territorial coverage, verify municipal tonnage declarations, administer financial equalisation between PROs, standardise contracts and reporting templates, and identify cases of non-compliance. Its establishment is particularly important in a financial and operational EPR model, where producers or PROs are responsible not only for financing the system, but also for organising or contracting collection, sorting, treatment, awareness-raising activities and cooperation with municipalities.

Harmonised regionally	Domestic flexibility	Annexes and references
Harmonised requirements of the EPR territory coverage	/	Annex K - Article 8a 3) of the WFD
Requirements of the establishment of a coordination/clearing house	Design of the specific clearing-house governance (e.g., ministerial vs. agency)	Annex D (SOPs and ToR for MRV Controls).

² Law No. 74/2025 “On the Extended Responsibilities of Producers of Products that Generate Waste”, the EPR system.

Harmonised regionally	Domestic flexibility	Annexes and references
mechanism to ensure fair competition	oversight) and local municipal partnership models to fit domestic institutional realities	Annex K - Article 8a 5)

f. Cost coverage of collection and waste management system

To guarantee the long-term financial viability and infrastructural development of the circular economy across the WB6, the harmonised legal framework should establish clear, non-negotiable minimum cost coverage of the packaging waste management costs and thus financial obligations for producers. The financial architecture of the WB6 framework must closely mirror the mandatory cost coverage principles established by the European Union. In alignment with the WFD, the domestic legislation must stipulate that producers shall **cover at least 80% of the necessary costs** associated with waste management of plastic packaging.

To ensure full compliance and operational efficacy, the legal framework must explicitly mandate that these financial contributions comprehensively cover the following cost categories:

- **Operational costs**, in particular separate collection, transport, sorting and waste treatment of plastic packaging waste. This ensures the system is adequately defined to meet recycling targets.
- **PRO's general and administrative costs** to ensure the functioning of the PRO in an effective manner (employees, IT infrastructure, offices, etc.).
- **Information and awareness costs** for measures intended to incentivise waste prevention and sorting by consumers. As provided by the SUPD, producers are required to finance targeted communication measures.
- **Data and reporting**: the fees must cover the administrative and technical costs associated with data collection, independent auditing, and statutory reporting to domestic environmental authorities and centralised monitoring body.
- **Litter cleanup costs**: aligned with the EU acquis and SUPD, for specifically designated single-use plastic packaging items, the scope of financial responsibility must be extended. Producers of these items must bear the proportionate costs of cleaning up environmental litter, alongside the subsequent transport and treatment of that littered waste.

Harmonised regionally	Domestic flexibility	Annexes and references
Mandatory minimum cost coverage of 80% of "necessary costs" for plastic packaging waste management, including collection, sorting, and administrative overhead.	Detailed definition of eligible infrastructure costs specific to local waste management realities and the setting of baseline fee tariffs.	Annex F (Universal PROt fee formula) and Annex H (EPR fee parameters). Annex K - Art 8a 4) of the WFD & Article 8, Article 11 of the SUPD
Necessary cost coverage & cost-efficiency definition	/	Annex K - Article 8a 4) of the WFD
Coverage of awareness and littering costs definitions	/	Annex K - Article 8 2) of the SUPD

Harmonised regionally	Domestic flexibility	Annexes and references
Transparency (ownership, fees, selection of operators)	/	Annex K - Article 8a 3) e) of the WFD

Refer to Annex F: the universal PRO net cost fee formula for the standardised mathematical approach to calculating these net costs and implementing eco-modulated tariffs

g. PRO appointment and obligations rules

To ensure a level playing field, PRO operating licenses are granted by the Ministry of Environment for a fixed, renewable period (usually 5 years). See also:

- Section 3.2 - PRO operational and financial reporting - regarding the licence requirement.
- Section 2.3 - Administrative and financial sanctions framework - regarding license revocation protocols
- Template I.2 - Clearing House Agreement - in case competitive PRO market.

Case study

- PRO licences are issued at the lower governance level by the competent ministries for a limited period of 5 years.
 - In the entity-level of the Federation of Bosnia and Herzegovina, licenses are granted by the Federal Ministry of Environment and Tourism
 - In the entity-level of the Republika Srpska they are issued by the Ministry for Spatial Planning, Civil Engineering and Ecology of Republika Srpska.
- In Albania, the authorisation is granted for one specific waste stream and is valid for a period of five years³ and granted by the Ministry of Environment. The law also provides that the authorisation may be suspended or revoked in case of failure by the PRO to fulfil its obligations. The detailed documentation requirements, application review procedures, deadlines and authorisation fees are to be approved by decision of the Council of Ministers, upon proposal of the minister responsible for the environment. However, while Article 11 establishes the legal basis for PRO authorisation, it does not itself provide a detailed operational model for PRO authorisation and accreditation. This gap should be addressed through the proposed Annex “Model PRO Authorisation and Accreditation Rules (Governance Pillar)”, which should translate the legal requirements of Article 11 into clear procedural, governance, compliance and monitoring rules for PROs.
- In North Macedonia, PRO licenses are issued by the Ministry of Environment and Physical Planning for each of the waste streams, for a period of five years.

³ Article 11 of Law No. 74/2025 “On the Extended Responsibilities of Producers of Products that Generate Waste

The legal framework should explicitly define the pre-qualification requirements for any entity applying to become a PRO. The licence could only be granted to companies that satisfy the following cumulative conditions:

- be incorporated as a **not-for-profit entity**. However, while this may be a legal requirement, it is most of the case a market practice.
- have as its **sole statutory purpose** the assumption, on behalf of its contracting parties, of the take-back obligation of packaging or financial obligation of the collection and waste management system responsible for ensuring compliance with the respective obligations
- have among its **Board of directors** or among the persons authorised to act on behalf of the association only persons who are in full possession of their civil and political rights;
- have among its **Board of directors** or among the persons authorised to act on behalf of the association no one who has been convicted of an offence under the respective legislation.

To foster public trust and ensure regulatory accountability, the legal framework must impose rigorous **transparency obligations** on PROs. Aligned with the EU acquis, the legal framework should require PRO to publicly disclose the following information:

- The **ownership** of the entity with a clear breakdown of the PRO's ownership structure, its members, and the composition of its board of directors
- The **financial contribution structure** paid by producers for handling plastic packaging waste.
- In jurisdictions where the PRO operates under an operational or hybrid model and directly contracts waste management operators, the **selection procedure for waste management** operators selected for operating collection, sorting, and treatment services, while ensuring these processes are conducted fairly and without conflicts of interest.

Last, the legal framework should ensure that the PRO **equally treats producers**, regardless of their origin or size, whilst also taking into consideration small and medium enterprises to avoid administrative burden.

Harmonised regionally	Domestic flexibility	Applicable annex
Minimum criteria for PRO authorisation must be standardised to prevent "forum shopping" (where PROs choose jurisdictions with the weakest oversight); requirements for non-profit status, Board member composition, transparency, equal treatment of producer principles must be identical.	Specific licensing procedures (e.g., whether the licence is issued by the Ministry or an Agency) and the exact duration of the authorisation period (e.g., 5 years vs. renewable terms) can be aligned with domestic law.	Annex E (PRO agreement framework) and Annex I (Model legal and governance templates). Annex K - Article 8a 3) e) of the WFD

For inspiration for the legal framework, see the French example of the article requiring the obligations for the appointment of the PRO⁴.

⁴ See Annex K - article L541-10 of the French environmental code.

h. Collection and recycling performance requirements and consumer awareness

The harmonised EPR framework functions as the primary delivery mechanism for the GAWB. The model explicitly maps its performance trajectory to the following key GAWB milestones:

- GAWB Action 19 (Recycling and Collection Systems): Establishes the requirement for fully functional, regional EPR systems across all WB6, supported by standardised collection infrastructure and harmonised audit protocols.
- GAWB Action 22 (Single-Use Plastics Reduction): Dictates the phased restriction of the top five most littered Single-Use Plastic (SUP) items and mandates the integration of recycled content into packaging to drive regional market demand for circular materials.

To ensure compliance with both EU acquis (PPWR/SUPD) and regional GAWB commitments, the following performance roadmap defines the mandatory implementation milestones:

Year	Functional EPR systems (GAWB Action 19)	Recyclability & SUP reduction (GAWB Action 22)	Collection	Recycled content targets (GAWB Action 22)	Awareness obligations
2028	Full authorisation and operational launch of PROs in all WB6; unique registry active.	The top 5 most littered SUPs are banned or significantly restricted in at least 3 WB6. 80% reduction in the availability of the top 5 SUPs in the market (compared to 2023 baseline)		/	PROs inform consumers about waste prevention measures, take-back and collection systems, their role about preventing littering and ensuring correct sorting.
2029	/	At least 50% of plastic packaging is recyclable, reusable, or compostable.	Separate collection target of 90% for SUP Polyethylene Terephthalate (PET) bottles and metal cans	/	/
2030	/	Transition to PPWR-compliant packaging (100% plastic packaging is recyclable, bans of specific plastic packaging		30% recycled plastic content in plastic packaging, in line with EU targets.	/

- **Definition of collection and recycling performance requirements:** Aligning with the trajectory set by PPWR, GAWB Pillars and the domestic legislation the legal framework should mandate the separate collection of packaging waste at the source. This obligation must be universally applied across both household non-households plastic packaging. In addition, the legal framework should mandate specific, weight-based recycling targets for all plastic packaging POM. In particular:
 - Mandatory separate collection definition of all plastic packaging waste
 - A specific focus could be defined for PET bottles and the means to achieve such targets such as deposit return schemes (DRS).
 - Mandatory separate collection targets for plastic packaging waste

WB6 EPR Plastic Packaging Framework

- Mandatory recycling targets for plastics: this needs also to be aligned with recyclability requirements.
 - GAWB pillars require a percentage of packaging waste recycled with the aim to achieve more than 50% by 2030 across the WB6.
 - PPWR is more ambitious by providing for plastic packaging a recycling target of 55% by 2030.

These targets might be binding, progressive, weight-based and cover plastic packaging POM.

- **Bans of specific plastic packaging:**

- As provided by GAWB Pillars, for which by 2028, the top 5 most littered SUPs are banned or significantly restricted in at least 3 WB6, the regional EPR framework could define the specific plastic packaging bans and thus seek for harmonisation across the region by 2028.
- The SUPD already bans specific plastic packaging that the legal framework could refer to. The regional framework should integrate the existing EU bans on specific single-use plastic packaging items for which sustainable alternatives are readily available (e.g., expanded polystyrene food/beverage containers and cups). It should be noted that bans that the SUPD covers are not all considered as packaging.
- To prevent fragmentation in the regional market, the framework must progressively phase out the specific plastic packaging formats restricted under the PPWR.

- **Plastic recycled content targets:** to further promote circularity and align with the GAWB Pillars and the EU legislation (SUPD and PPWR), producers should be incentivised to incorporate recycled content into their plastic packaging. This could be progressively introduced with specific targeted packaging with targeted exemptions.

- **Awareness obligations:** the EPR scheme strongly depends on the end-user capacity to correctly sort at the source. Therefore, the PRO should have a legal and financial responsibility to inform, educate, and engage with citizens. Without active public participation the EPR targets will be challenging to be met. With reference to the EU legislation, PROs, could be legally responsible for informing consumers about:

- Available waste prevention measures.
- Take-back and collection systems.
- The role of the end-user in preventing littering and ensuring correct sorting.

These obligations are explicitly monitored through the PRO's annual audit (see Annex D).

Harmonised regionally	Domestic flexibility	Annexes and references
Promote the Waste hierarchy and require separate collection at source. Require 90% of separate collection for SUP PET bottles and cans aligned with SUPD requirement.	Choice of measure to reach the targets (DRS, etc.)	Annex K - Article 4 of the WFD Annex K - Article 50 of PPWR
Plastic Bans aligned with WB6 Pillars and PPWR bans (article 25)	Requirement of any additional bans on plastics packaging	Annex K - Article 5 of the SUPD and article 25 of PPWR

WB6 EPR Plastic Packaging Framework

Harmonised regionally	Domestic flexibility	Annexes and references
Recycled content obligations aligned with GAWB Action 22 and PPWR	More ambitious requirements regarding the incorporation of recycled plastic	PPWR Art 7 - Recycled Content Targets
Awareness obligations for citizens	More ambitious requirements regarding the incorporation of recycled plastic	Annex K - Article 10 of SUPD

i. Monitoring and reporting

Please refer to the section MRV and control package below for more information.

- **Reporting responsibilities** of producers: Producers report the total weight of plastic packaging by polymer type put on the market.
- **Dialogue with the competent authority:** as provided by the EU legislation (article 8a WFD) a coordination between the relevant stakeholders that are part of the EPR scheme needs to be ensured. This dialogue, defined at the Government level, between relevant stakeholders involved includes producers and distributors, private or public waste operators, local authorities, civil society organisations and, and where applicable, social economy actors and reuse operators.
- **Enforcement interfaces:** there should be an adequate monitoring and enforcement framework to ensure producers compliance, including in the case of distance sales, that the financial means are properly used and that all actors involved in the implementation of the EPR schemes report reliable data.
- **Verification mechanism:** Adequate self-control mechanism, supported, where relevant, by regular independent audits

2. Additional domestic flexibilities

While the harmonised regional core establishes the mandatory baseline, the implementation pace and technical complexity of the EPR toolkit must be adapted to the specific maturity level of each of the WB6. To ensure realistic compliance trajectories, the framework classifies WB6 into three segments, with varying degrees of flexibility in the application of the toolkit:

Maturity segment	Characteristics	Flexibility package focus
Early-stage systems Kosovo*, Montenegro	Drafting initial legislation; lacks operational registry or PRO infrastructure.	High flexibility on timelines: Focus on establishing the basic registry and mandatory producer data capture rather than complex fee eco-modulation.
Fragmented systems Albania, Bosnia and Herzegovina	Multiple PROs active; operational infrastructure exists but lacks coordination/clearing-house.	Flexibility on governance: Priority is placed on implementing the clearing-house and data reconciliation tools to eliminate data fragmentation and 'cherry-picking' of waste streams.
More mature systems Serbia, North Macedonia	Fully operational PROs; established audit trails; advanced reporting capacity.	Flexibility on fine-tuning: Focus on advanced fee eco-modulation (bonus/malus), implementation of DRS for specific streams, and optimising infrastructure for recycled content compliance.

Considering the specific institutional and legislative landscape, remaining provisions will need to be adapted at domestic level.

1. Domestic governance and institutional architecture

- **Definition of specific roles for the respective domestic bodies** (Ministry, Environmental Agency, Enforcement body, etc.)
- **Domestic procedures of public authority oversight:** procedures for monitoring and auditing the PROs and the producers.
- **Informal sector integration pathways:** the WB6 shall maintain the flexibility to design domestic roadmaps for the gradual formalisation of the informal sector, acknowledging its significant role in current collection volumes. Such flexibility should not undermine the overall functioning of the EPR scheme. Therefore, a particular attention should be given to stronger enforcement against unlicensed collection with practical formalisation mechanisms, such as mandatory transaction receipts at authorised aggregation points. These receipts would allow material flows collected through informal channels to enter the formal system only under traceable, auditable and compliant conditions. The introduction of more structured EPR mechanisms should carefully consider social inclusion aspects to avoid exclusion of vulnerable groups currently dependent on informal waste collection as a source of income.
 - As a matter of fact, it is a prerequisite to include the informal sector for data reliability and credible domestic reporting. For instance, in North Macedonia, recyclers (e.g., Eko Plast Tehnika) emphasise that the current reliance on informal collection, without a formal link to a digital tracking platform, leads to a 'data-reality gap' where reported figures do not match physical waste volumes.
 - For example, in Albania, the Ministry of Environment carries on a gradual transition to compliance, allowing the informal sector to be progressively integrated into the EPR ecosystem under clear compliance conditions, auditable traceability requirements and verifiable reporting obligations.
 - Another example, in Serbia, the informal sector plays a significant role in the collection and recycling of secondary raw materials, particularly packaging waste, yet it remains largely outside formal waste management and EPR systems. Several Case Studies (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, World Bank) made analyses for Serbia and identified key integration pathways, including formalisation of collectors, cooperation with municipalities, and inclusion in EPR and recycling value chains. Additional Serbia-focused initiatives, promote innovative models for integrating informal collectors into municipal waste management and circular economy systems. According to the analyses, the informal sector remains one of the main contributors to recycling performance in Serbia, particularly for packaging waste streams. At the same time, the reports highlight that modernisation and centralisation of waste systems may risk excluding informal collectors unless integration measures, social inclusion mechanisms, and traceability frameworks are incorporated from the outset. Estimation is that between 35.000 and 50.000 people are involved in this collection channel.
 - In Bosnia and Herzegovina, the informal sector also plays an important role in the collection of recyclable materials, particularly metal, paper, cardboard, PET, and certain packaging waste streams. Informal collectors contribute significantly

to material recovery rates, especially in urban areas, through direct collection from households, containers, landfills, and commercial sources. However, similar to the rest of the WB6, the informal sector remains largely outside formal waste management and EPR systems. Due to the complex governance structure in Bosnia and Herzegovina, including entity, cantonal, and municipal competencies in environmental management, there is currently no harmonised approach for the integration or formalisation of informal waste collectors within EPR schemes. Existing recycling value chains rely considerably on private collectors and intermediaries, while data on informal collection activities remain limited and fragmented. Analyses conducted by international organisations and development partners in Bosnia and Herzegovina have highlighted the need to strengthen traceability, reporting mechanisms, and coordination between municipalities, recyclers, PROs, and informal collectors.

2. PRO Operational & authorisation procedures

- **Definition of the PRO authorisation:** the various requirements in order to be appointed as PRO for the domestic market, referring at least to the key basic principles defined (see above).
- **The EPR market structure:** the decision on allowing either a monopoly or a competitive model. One or several PROs may operate on the entire area, but it should reflect the areas' need. If several PROs are operating on the same territory, one body independent of private interests or an entrusted public authority should oversee the implementation of EPR. Competition should neither undermine the performance of the waste management system nor have unintended consequences on producers reporting.
- **EPR scheme structure:** The PRO can organise the system itself and have the ownership of the materials (Operational EPR scheme) or only finance the system (Financial EPR scheme).

3. Implementation and enforcement

- **Municipal coordination:** Modular templates for service agreements between PROs and municipalities and / or waste management operators. These agreements typically follow two main models: the PRO may either directly contract private companies to deliver collection and sorting services, or it may enter into a cooperative arrangement with local authorities, whereby the PRO provides financial compensation for services managed at the municipal level. Modular templates for these agreements should incorporate clear technical specifications regarding material quality and reporting standards to ensure transparency and provide long-term security for infrastructure investments.
- **Enforcement and sanctions:** the specific penalties and procedures adapted to the domestic judicial and administrative system in the event of non-compliance with the legislative framework. The SUPD (article 14) and PPWR (article 68) require that EU MS shall lay down the rules on penalties applicable to infringements of domestic provisions pursuant SUPD and PPWR and shall take all measures necessary to ensure

that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive.

- PPWR requires more specifically to include administrative fines for not reaching the reuse defined targets by the Regulation. Where the legal system of the EU MS does not provide for administrative fines, this paragraph may be applied in such a manner that the fining procedure is initiated by the relevant authority and that the fine is imposed by competent courts, while ensuring that those legal remedies are effective and have equivalent effect to the administrative fines referred to in this paragraph. In any event, the fines imposed shall also be effective, proportionate and dissuasive.

4. Waste management system

- **Collection system:** the choice of system (curbside vs. bring-points) depending on local infrastructure; and involving informal sector as well
- **Minimum availability standards** such as density of collection points, service frequency, or territorial coverage requirements.

Feature	Harmonised core (WB6 level / EU alignment)	Domestic flexibilities
Legal framework and definitions	Identical definitions for 'producer', 'packaging', etc.	/
Scope of scheme	Mandatory inclusion of all plastic packaging (household and non-household).	/
Cost coverage	Requirement for producers to cover 80% to 100% of "necessary costs" (collection, transport, sorting, information, and data management).	Determination of the exact percentage (e.g., 80% vs 100%) and inclusion of specific local infrastructure costs.
PRO governance	Transparency requirements, non-profit structure preference, and mandatory producer representation.	Choice of market architecture: single PRO (monopoly) vs multiple competing PROs.
Performance targets	Recycling and recycled content targets aligned with the GAWB.	Domestic interim milestones and specific roadmaps to achieve the final regional targets.
Collection operations	Obligation for universal territorial coverage, ensuring services are provided in all areas, not just profitable ones.	Technical choice of collection system (door-to-door vs bring points) and frequency of services.

Monitoring, reporting, verification (MRV) and control package

The following control chain illustrates the integrated data and verification flow from the producer's declaration to final enforcement.

Flow stage	Responsible actor	Primary action	MRV control/ verification point
Declaration	Producer	Submit PoM data	Registry validation / Unique EPR ID
Aggregation	PRO	Collect & aggregate	Anti-free-rider cross-check
Traceability	Waste operator	Process material	MBR
Verification	Independent auditor	Validate audit trail	Final mass-balance certification
Enforcement	Authority / inspectorate	Inspect / sanction	Penalties / license revocation

1. Introduction, purpose and scope

a. Introduction

The MRV and control package constitutes the operational backbone of the harmonised EPR plastic packaging framework across the WB6. Grounded in the technical gap analysis of regional transposition matrices (see. the inception report and excel analysis), this package is specifically tailored to address the acute, real-world implementation challenges shared across the WB6: weak material traceability, fragmented municipal reporting, non-existent data interoperability, and high free-rider risks in emerging e-commerce markets.

Rather than serving as a purely theoretical legal transposition, this package is designed as a highly practical governance and compliance instrument. It bridges the gap between high-level legislative alignment and ground-level execution by providing civil servants, environmental inspectorates, and market operators with standardised checklists, uniform data dictionaries, and auditable verification workflows (fully developed in annexes).

b. Purpose and scope

The primary objective is twofold:

- to transition the WB6 toward complete alignment with EU circular economy mandates,
- and to achieve systemic **regional harmonisation** across the WB6 to prevent market fragmentation.

Because plastic packaging supply chains and secondary material flows frequently across the WB6, a single un-harmonised domestic framework risks creating "environmental dumping zones" or regional double-counting of recycled fractions. Therefore, the purpose of this package is to establish a unified regional baseline. This harmonised core ensures that a plastic product POM in one WB6 faces identical structural reporting, design-for-recycling evaluation, and trace-back validation parameters when sorted or recycled in another. The scope of application applies strictly to all obliged stakeholders operating within the WB6: domestic manufacturers, international importers, online marketplaces, third-party distance sellers, authorised PROs, municipal waste utilities, and final reprocessing recyclers.

c. Mandatory policy provisions and targets

To secure future EU accession readiness, this package translates the baseline requirements identified in the Requirements Matrix into binding operational rules. Structurally, it reflects the intersection of the WFD - Article 8a, the SUPD, the PPWR, and the GAWB. The system tracks and enforces two clear streams of compliance:

Quantitative environmental targets

- Recycling targets: achieving an overall packaging waste recycling rate of $\geq 50\%$ by 2030 (GAWB Action 19), specifically targeting a 55% mandatory recycling rate for plastic packaging by 2030 (PPWR Article 52).
- Separate collection targets: reaching a 77% separate collection rate for single-use plastic beverage bottles by 2025, escalating to 90% by 2029 (SUPD Article 9(1); PPWR Article 49). This operational track explicitly foresees data-linking with compulsory Deposit

Return Schemes (DRS) where collection baselines fail to achieve EU thresholds (PPWR Article 50).

- Recycled content and market reduction: enforcing a mandatory 30% recycled content threshold in plastic packaging by 2030, alongside an 80% reduction in the market availability of the top 5 single-use plastic items by 2028 (GAWB Action 22).

Minimum EU structural mandates (the legal baseline)

In accordance with the minimum requirements for EPR schemes, public oversight architectures across the WB6 must legally execute:

- **Mandatory producer registration (WFD Article 8a(5) & PPWR Article 44):** Operation of a single domestic registry to identify all market-placing entities and issue mandatory registration numbers (subsequently appointed ‘the EPR registration number’). Crucially, a strict legal link must be established between market-placing licenses and EPR registration: no producer or importer shall be legally permitted to place any products on the domestic market without a valid and active EPR registration number, thereby guaranteeing full systemic compliance and market entry control.
- **Extended cost-coverage principle (WFD Article 8a(4) & PPWR Article 45):** Producer financial fees collected by PROs must completely cover not only separate collection, transport, and automated sorting, but also the costs of carrying out waste compositional surveys of mixed municipal waste, out-of-home public collection receptacles, and separate litter cleanup obligations for designated single-use plastic polymer formats (SUPD Article 8(2)).
- **Public accountability and anti-trust transparency (WFD Article 8a(3)(e) & PPWR Article 46):** Enforcing mandatory independent third-party audits of PRO financial books and material mass-balance flows. PROs are legally bound to publish audited packaging placement datasets and polymer-specific fee tariffs publicly.

Complementary operational recommendations (expert best practices) - relevant for domestic implementation

Beyond strict compliance with the text of EU regulations, and drawing from international experience (*Organisation for Economic Co-operation and Development (OECD), Prevent Waste Alliance EPR Toolbox, and global emerging market case studies - see the Annexe I for sources*”), this framework incorporates **strategic recommendations** to overcome specific WB6 administrative bottlenecks:

- **Institutional neutrality via independent monitoring bodies:** rather than leaving monitoring solely to competent ministries or private PROs, it is strongly recommended to establish an independent, specialised EPR monitoring authority per jurisdiction, sustainably funded via a dedicated oversight levy on PRO revenues⁵.
- **Inter-institutional data bridging (anti-free-rider shield):** registries should not operate in silos. The system must mandate the automatic digital cross-checking of producer declarations against customs databases (for imports) from customs

⁵ See sources and OECD and Prevent Waste Alliance best practice for more details.

authority/agency, tax authorities, and general business registries to instantly flag under-declarations or hidden distance-sellers.

- **Advanced tech integration for market surveillance:** to assist under-resourced inspectorates, the package recommends deploying artificial intelligence-driven anomaly detection and machine learning algorithms within the digital registries to automatically flag statistical deviations in reported mass-flows or abrupt drops in a producer's historical volume.
- **Mandatory MBR:** to eliminate fraudulent "ghost recycling" claims, waste management operators must be legally required to utilise harmonised tracking tools (ex. such as the WF-Rep Tool⁶) to map the exact inputs and outputs of sorting and recycling facilities.
- **Mandatory MBR :** Reporting frequency should be standardised across the WB6, ideally on a quarterly basis, with monthly reporting for high-volume operators. To ensure comparability, operators should use harmonised EU-tested tools such as the WF-Rep Tool or pilot MBRs already applied in EU MS. Non-compliance should trigger graduated penalties, ranging from administrative fines to suspension of PRO authorisation, with mandatory third-party audits verifying reported inputs and outputs.
- **Socio-economic integration of the informal sector:** recognising the unique socio-economic landscape of the WB6, reporting protocols must include inclusive data pathways for informal waste pickers. Partnering with municipalities and formal aggregators allows their real, significant contributions to recycling rates to be quantified without exposing vulnerable individuals to complex administrative burdens (*OECD updated guidance*).
- Continuous capacity-building and staffing programs for public authorities, municipalities, and market actors (as highlighted in interviews):
 - For public authorities and enforcement bodies: there is a critical need to increase dedicated staffing levels within domestic environmental agencies, as current teams are often too small to manage oversight. Beyond hiring, focused training is required on EPR technical design, specifically eco-modulation and financial modelling, and the technical capacity of inspectors (environmental, market, and customs) to conduct waste-specific audits and verify complex traceability chains. Training modules should explicitly cover eco-modulation design, fee-setting and financial modelling, and MRV protocols to strengthen technical oversight. A recommended staffing ratio is one inspector per 50 registered producers, ensuring adequate coverage of compliance audits. To build regional expertise, RCC could convene peer-learning workshops across the WB6, enabling inspectorates and agencies to exchange best practices and harmonise enforcement approaches.
 - For municipalities: support must focus on both hiring qualified waste management officers and providing them with practical guidance on implementing separate collection systems. Municipalities should be supported

⁶ WF-RepTool (*WEEE Forum Reporting Tool*) is a harmonized, software-based reporting system developed by the WEEE Forum. It is used as an international benchmark for monitoring, calculating, and verifying the recycling and recovery rates of waste streams, ensuring data traceability and transparency down to final treatment facilities.

with model job descriptions for waste management officers, clarifying responsibilities for data reporting, contract oversight, and citizen engagement. Standardised service-level agreement (SLA) templates between PROs and municipalities (as outlined in Phase 1 recommendations) should be adopted to ensure consistent service quality. Funding sources for municipal staffing must be clarified, with costs covered either through PRO fee allocations or earmarked domestic budget transfers to avoid gaps in local implementation. Training must emphasise standardised data reporting and MRV protocols to ensure local waste management plans are interoperable with domestic registries.

- **For market actors:** strategic guidance and human resource support are needed to help companies appoint dedicated compliance officers to manage EPR as a core operational responsibility. This includes proposing clear circular business models (e.g. for the Hotel, Restaurant, and Café/Catering (HoReCa) sector) to help businesses transition from "abstract" regulatory concepts to operational compliance. EU best practice shows that many firms appoint EPR compliance officers embedded within sustainability or finance departments to manage reporting and fee obligations. Sector-specific guidance should be developed for HoReCa, retail, and e-commerce, where packaging flows differ significantly. Pilot circular business models could include deposit-return schemes for beverage packaging and reusable service packaging systems for restaurants and cafés, demonstrating practical pathways from regulation to operational compliance.

These strategic expert recommendations are technically operationalised with concrete execution steps across the core pillars of this framework (Pillars 1, 2, and 3) and structured as turnkey field tools within the Annexes.

2. Core pillar 1: Monitoring systems and market infrastructure

a. Centralised electronic registry architecture

To operationalise the mandatory producer registration required by **WFD Article 8a(5)** and **PPWR Article 44**, each of the WB6 must develop a unique, competent-authority-monitored centralised electronic registry.

- **Definition of obliged companies:** registration is mandatory for any legal entity introducing packaged goods into the market for sale, commercial distribution, or consumption within the relevant WB6. This includes domestic manufacturers, brand owners, importers, and distance/online sellers.
- **Registry management and governance:** to ensure absolute neutrality and commercial confidentiality, the registry must be hosted and managed by a dedicated public authority (e.g., Environmental Protection Agency, Ministry of Environment) or an independent supervisory body, rather than being directly controlled by competing private entities.
- **Minimum mandatory data sets:** upon registration, every obliged company must provide:
 - Unique tax ID / corporate registration number.

WB6 EPR Plastic Packaging Framework

- Company name, legal address, and verified contact details.
- PPWR-aligned metrics: structural declaration of packaging categories matching Design for Recycling criteria (PPWR Article 6), prospective post-consumer recycled content targets (PPWR Article 7), and compostability status (PPWR Article 8).
- Technical components breakdown: for single-use plastic beverage bottles, producers must separately report the net weights of the bottle bodies, caps/lids, and labels/sleeves, in strict compliance with Implementing Decision (EU) 2023/2683.
- Accurate, historical weight data of packaging introduced to the domestic market, split by baseline polymer types.

Data category	Minimum data fields	Institutional interface
Producer registry	Unique EPR ID, company tax ID, contact details, polymer types	Ministry of environment / environmental agency
Customs/tax data	Harmonised System (HS) codes (Chapter 39), import tonnage, VAT status	Customs authority / tax office
PRO reports	Aggregate POM declarations, recycling rates, financial statements	Environmental agency / PRO
Municipal/waste data	Separate collection tonnage, service zone maps	Municipalities / waste operators
Recycler certificates	Mass-balance input/output logs, facility certification status	Recycling facilities / independent auditor
Inspection findings	Audit scores, non-compliance notices, penalty status	Environmental inspectorate

- Unique EPR registration numbers: the registry will generate a unique EPR Registration Number for each compliant producer. This number must be displayed on all commercial documents (e.g., invoices, customs declarations) to operationalise the traceability link between customs data, commercial sales records, and market placement.

All data fields above must be structured according to the classification standards defined in Annex C (Data dictionary). Templates for producer declarations and waste facility registrations are provided in Annex A (Harmonised WB6 reporting templates).

b. Anti-free-rider control mechanisms and cross-checking

In line with the EU mandate to monitor distance sellers and maintain a level playing field, the following technical solutions are deployed.

● Inter-institutional data cross-checking

The central registry must interface digitally with customs databases, managed by the customs authority/agency and especially tracking Harmonised System (HS) codes under Chapter 39 (Plastics) (to track imports), tax authorities, and general business registries. Automating these checks allows immediate detection of under-declarations or omitted registrations. To enhance oversight and system integrity, the following risk-based control matrix establishes the operational procedures for identifying and mitigating market compliance gaps.

Risk type	Data source	Automated check	Manual inspection trigger	Responsible institution	Frequency	Corrective action
E-commerce free-riding	Marketplace platform Application	Seller ID vs. EPR registry match	Missing/invalid registration ID	Environmental agency	Monthly	Platform block access

WB6 EPR Plastic Packaging Framework

Risk type	Data source	Automated check	Manual inspection trigger	Responsible institution	Frequency	Corrective action
	Programme Interfaces (APIs)					
Undeclared imports	Customs (Single Administrative Document (SAD)) data	Importer tax id vs. EPR registry	Import activity w/o EPR record	Customs authority	Quarterly	Cargo hold + audit
Under-reported POM volumes	Sales invoices / vat data	Discrepancy between revenue vs. volume	Statistical variance >20%	Environmental agency	Annual (audit cycle)	Field audit + fine

- **Distance seller and online marketplaces controls**

Online platforms and digital marketplaces should be held liable for the compliance of third-party distance sellers as aligned by article 45 of PPWR. Under these rules, platforms are restricted from hosting sellers who cannot provide a valid unique EPR registration number.

Online platforms will need to provide secure API integration for automated verification of the EPR registration number before the seller is authorised to sell on the marketplace. This enforcement framework operates under the following operational rules:

- **A defined-time compliance window:** If a seller's registration cannot be verified, the secure system triggers a mandatory, automated compliance period [exact duration to be defined]. Upon expiry of this period, the platform must suspend the seller's product listings and block their access to the marketplace.
- **Standardised quarterly ledgers:** If the online platform does not suspend the seller's access, it will be required to report the volumes of packaging POM to the competent authorities or the designated PRO.
- **Market transparency and competition compliance**

To ensure market fairness while fully respecting antitrust regulations, the central producer registry must be managed by an independent third-party entity. Producers may register and submit their information directly to this registry or authorise their PRO to do so on their behalf.

A public, searchable interface of this registry will be maintained to allow compliant companies to verify market participation and identify non-registered competitors. To protect commercial confidentiality and prevent anti-competitive behaviours, this public interface is strictly limited to administrative data. It will display only the names and registration numbers of active producers, without any mention of financial status, compliance history, or POM volumes.

Within the PRO's governance, strict data limitation protocols must be enforced to prevent the exchange of commercially sensitive information among competitors. Board members and producers shall not have access to individual company declarations (e.g., specific packaging types or volumes per brand). Instead, the board's access is restricted exclusively to aggregated, anonymised market data, such as the total number of registered producers or macro-level packaging material percentages, ensuring system transparency without compromising market competition.

- **Monitoring of informal market distortions**

The market surveillance framework shall include a mechanism to monitor buy-back price volatility for recyclables. This is specifically designed to identify and mitigate unfair competition from unlicensed or informal operators who, by avoiding regulatory compliance costs, offer inflated prices that undermine the ability of licensed PROs to secure material flows.

c. Administrative and financial sanctions for PRO non-compliance

To ensure the environmental and operational integrity of the EPR scheme, a strict, legally binding enforcement framework operates under a system of **proportional escalation**.

Institutional neutrality and the avoidance of political or commercial conflicts of interest are guaranteed by placing this oversight under the direct supervision of a **centralised independent coordinating body (clearing house)**, sustainably funded via a dedicated oversight levy on PRO revenues. To be effective, this regulatory authority must be equipped with genuine environmental police powers to conduct unannounced on-site audits, seize non-compliant documentation, and formally record infractions, supported by a sufficient workforce of specialised auditors and data analysts.

To ensure operational realism and legal compliance across all WB6, this MRV enforcement framework mirrors the principle of domestic flexibilities (as provided in Part 1: Harmonised operating model). While the "Harmonised Core" reflects baseline enforcement powers readily executable under existing administrative laws (such as inspectorate notices or permit suspensions), advanced mechanisms requiring specific institutional setups (such as online marketplace liabilities or PRO asset forfeitures) are explicitly categorised as "Domestic Flexibilities". For WB6 with fragmented systems, these advanced sanctions represent a legal roadmap for future integration rather than an immediate mandatory requirement.

The table below outlines how this graduated enforcement framework is structured, distinguishing between the harmonised regional core and domestic implementation flexibilities:

Feature / Actor	Harmonised core (WB6 level / EU alignment)	Domestic flexibilities
Enforcement hierarchy	A mandatory, graduated system of proportional escalation for all non-compliance: Notice → Financial Penalty → Suspension → Revocation / Referral.	Domestic legislation defines the exact statutory duration for grace periods (e.g., 20 vs. 30 business days) and specific criminal court referral pathways.
Producers and importers	Notice: 30-day corrective window. Suspension: Deactivation of the EPR Registration Number, blocking domestic sales/imports. Referral: Prosecution for active free-riding/fraud.	Specific methods for calculating administrative fines for under-reporting
Online marketplace	Principle of liability: Introduction of baseline compliance monitoring requirements for platforms regarding third-party sellers, aligned with EU standards.	Implementation pace: Tailored procedural timelines for marketplace backend integration and explicit incorporation of marketplace enforcement powers into domestic legislation.
Waste operators and recyclers / reprocessors	Notice: 30-day window to correct registry reporting or phantom tonnage discrepancies.	Determination of which domestic body (Environmental Agency or Inspectorate)

WB6 EPR Plastic Packaging Framework

Feature / Actor	Harmonised core (WB6 level / EU alignment)	Domestic flexibilities
	Suspension: Temporary halt of waste management accreditation, blocking their right to issue compliance certificates. Revocation: Permanent loss of operating licence for structural fraud.	leads the physical field audits and manages the daily penalty rates.
PROs	Accreditation: Licences are granted by the Ministry of Environment for a fixed, renewable period of 5 years, subject to regular performance reviews. Notice: 20-day mandate to submit a binding remediation plan. Financial penalty: Fines calculated proportionally per missing tonne of target material. Asset forfeiture: Total or partial forfeiture of the PRO's mandatory bank solvency guarantee due to chronic financial delinquency. Licence revocation: Full operating licence cancellation, automatically reclassifying member producers as individual non-compliant operators.	The allocation formula for redistributing forfeited PRO bank funds to municipal operational loops to cover emergency uncollected waste management.
Municipalities	Exempt from financial sanctions: Subject to administrative performance reviews and service-level agreement evaluations rather than financial penalties.	Design of specific administrative performance indicators, local reporting mechanisms, and municipal tonnage validation protocols.

3. Core pillar 2: Harmonised reporting obligations

This section delivers the technical architecture needed to satisfy **WFD Article 8a(1)(c)** regarding robust data collection and **PPWR Article 46** regarding transparency.

a. Producer and importer reporting

Obligated companies must regularly declare the total net weight of packaging POM.

- **Frequency:** Declarations must be submitted via an online portal on a standardised regular frequency (quarterly for high-volume producers, annually for micro-enterprises).
- **Granularity:** Data must be disaggregated by precise polymer type and format to allow for future eco-modulation of fees (**PPWR Article 6(8)**). Declarations must separate **Rigid Formats** (PET transparent vs. coloured, High-Density Polyethylene (HDPE), Polypropylene (PP)) from **Flexible Formats** (Mono-material Polyethylene (PE) vs. Multi-layer/Composite plastic films).
- **Component-level disaggregation (EU calculation alignment):** In alignment with **Implementing Decision (EU) 2019/665** and **2023/2683**, producers cannot simply report a single composite weight for a packaged product. Reporting interfaces must mandate the separate declaration of non-detachable components. For example, a beverage bottle entry must disaggregate the net weight of the **bottle corporate body, the closure/cap, and the label/sleeve**. This front-end granularity is structurally required to allow accurate mass-balance reconciliation when these same components are chemically or mechanically separated at the final recycling point of calculation.

- Recycled plastic calculation rules:** Following **Implementing Decision (EU) 2023/2683** and its subsequent updates⁷, the proportion of recycled content (RC) in beverage bottles must be declared using the harmonised formula:

$$RC = W/R \times 100\%$$

Where R represents the total weight of post-consumer recycled plastic used across all bottle parts (body + caps + labels), and W represents the total weight of all plastics used in those components. Plastics derived from pre-consumer industrial scraps or chemical recycling loops that are allocated to non-packaging outputs are strictly excluded.

Harmonised core vs. domestic flexibility in reporting flow

The chosen domestic model must be clearly stated in the implementation legislation and must not increase the overall administrative burden for the producer beyond what is necessary for validation. The operational data exchange architecture supporting these obligations is mapped in the following diagram:

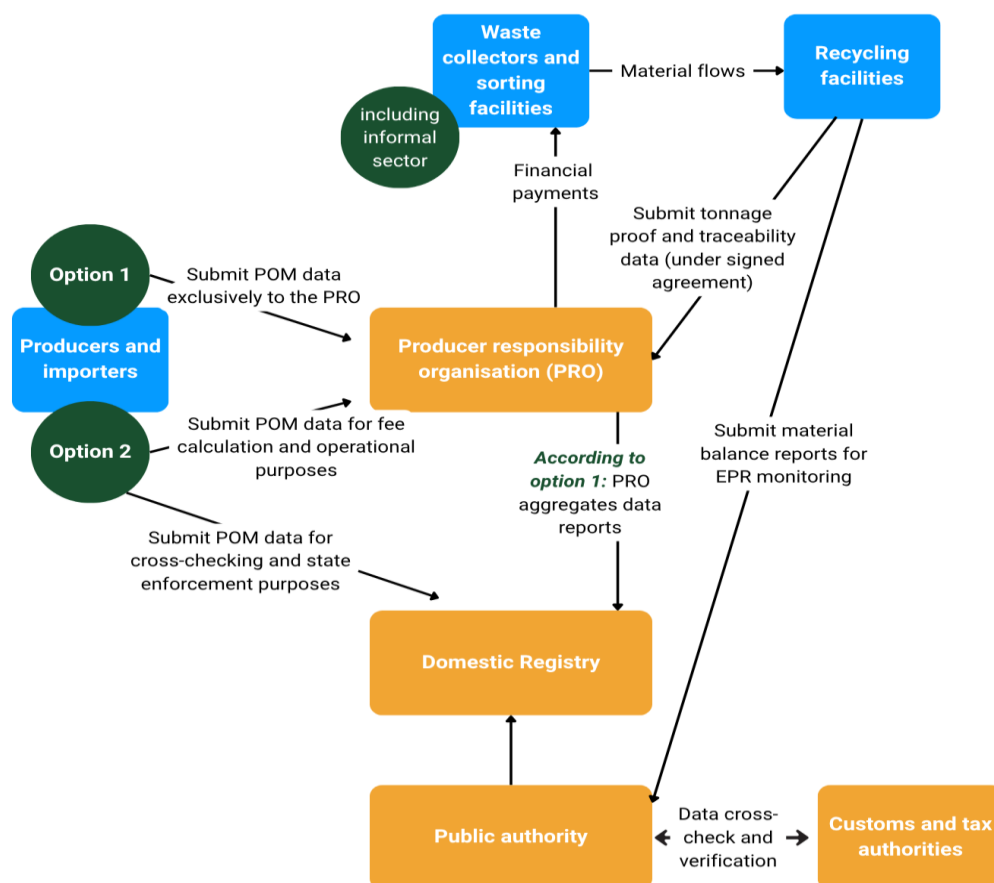


Diagram made by Circulearth: Harmonised EPR data flow and reporting architecture

The reporting flow and operational paths are divided as follows:

⁷ Please note the amendment of the implementing act is currently in process, see [here](#) for more information.

Feature	Harmonised core (WB6 level / EU alignment)	Domestic flexibilities
Reporting flow and architecture	Mandatory existence of a unique Centralised Electronic Registry. Compulsory submission of granular, component-level POM data. Application of the EU Recycled Content formula.	Pathway selection (domestic choice): - Option 1 (single flow): producer reports to the PRO, which acts as a data agent to the Registry. - Option 2 (dual flow): producer reports twice (to the PRO for fees + direct to Registry for enforcement).
Filing Schedules	Standardised regular frequency reporting templates.	Setting exact frequency thresholds based on producer volume (e.g., quarterly for high-volume, annually for micro-enterprises).

b. PRO operational and financial reporting

To comply with the **public disclosure and cost-coverage mandates** (WFD Art 8a and PPWR Article 45):

- **PRO aggregation:** PROs must aggregate data from all member producers and report directly to the supervisory authorities to prove collective target compliance.
- **Public accountability:** In line with PPWR Article 46, PROs are legally required to publish audited annual reports on their public websites. These reports must outline total packaging weights POM versus the actual volumes collected, sorted, and recycled.
- **Financial transparency:** Public reports must clearly detail the structure of the financial EPR fees collected and how those funds are distributed. Financial auditing must verify that producer fees structurally cover collection, sorting, waste compositional surveys, and specific SUPD Article 8 obligations, including public litter cleanup costs and out-of-home collection infrastructures.

To ensure absolute structural integrity and satisfy the strict governance mandates of the framework, all authorised PROs operating within the WB6 must institutionalise the following governance safeguards and conflicts of interest protections:

- **Board composition and ownership rules:** A PRO must function as a non-profit entity owned exclusively by obliged producers. No waste management operator, collection utility, or final recycler may hold equity, voting rights, or a seat on the PRO Board of Directors. This guarantees a strict **separation of regulator, operator, and compliance functions**.
- **Related-party transaction safeguards:** PROs are legally barred from entering into service contracts with waste companies owned directly or indirectly by their board members or shareholders. All operational expenditures must be audited annually to detect and eliminate hidden intra-group margin inflation.
- **Standardised procurement rules:** When contracting collection, transport, or sorting services from third-party public utilities or private operators, PROs must enforce open, non-discriminatory, and transparent **tendering and procurement guidelines**. Selection criteria must be based purely on verified environmental performance, geographical coverage, and cost-efficiency.

Feature	Harmonised core (WB6 level / EU alignment)	Domestic flexibilities
PRO Governance & Costs	PROs must be non-profit, owned exclusively by producers. Waste operators barred from Boards. Full financial coverage of collection/litter costs (SUPD Art 8).	The exact percentage/mechanism of the oversight levy on PRO revenues to fund the independent competent authority.

c. Waste management and recycler reporting (material balance)

To eliminate fraudulent reporting, all waste management operators, sorting centres, and final recyclers must be certified and registered.

- **MBR:** Facilities are required to maintain strict daily logs of all incoming waste fractions and outgoing sorted/processed commodities.
- **Anticipatory mass-balance accounting for chemical recycling:** For emerging advanced or chemical recycling investments processing mixed plastic waste within the WB6, the MRV system framework must be structurally designed to integrate the forthcoming EU implementing acts on mass-balance allocation. Operators must prepare to deploy facility-level mass-balance accounting, closely tracking the ongoing EU legislative development regarding attribution baselines (such as the *fuel-exempt* or *proportional* models). To prevent speculative accounting fraud across the WB6, the system must establish from the outset that attributed recycled plastic volumes shall remain strictly non-transferable between separate physical facilities, regardless of the final allocation methodology adopted by the European Commission⁸.
- **Standardised software integration:** The WB6 will adopt harmonised reporting tools (such as the WF-Rep Tool⁹) to ensure a consistent, auditable trail of mass flows across flows within the WB6.
- **Formalisation mechanisms for informal data integration:** To ensure that the massive volumes of PET collected by informal waste pickers are accurately captured in domestic recycling rates without creating administrative gridlocks, WB6 must implement 'Point-of-Aggregation' reporting. Aggregation centres (authorised waste depots and scrap dealers) must be legally required to issue standardised receipts for informal buy-backs. These receipts will serve as the baseline verification entry point for the mass-balance system, formalising the data flow at the first legal node of the value chain.

*It must be explicitly noted that while the core structural requirements for waste operators are anchored in the primary text of the PPWR, the precise reporting templates, data transmission formats, and verification protocols for plastic recycling streams remain subject to forthcoming EU secondary legislation (implementing and delegated acts). Consequently, during Phase 1 and Phase 2 of the regional roadmap, the procurement and development of the Centralised Electronic Registry and the associated waste management reporting software must mandate an **agile, modular architecture**. This ensures that data fields can be dynamically updated to*

⁸ Please note the amendment of the implementing act is currently in process, see [here](#) for more information.

⁹ WF-RepTool (*WEEE Forum Reporting Tool*) is a harmonized, software-based reporting system developed by the WEEE Forum. It is used as an international benchmark for monitoring, calculating, and verifying the recycling and recovery rates of waste streams, ensuring data traceability and transparency down to final treatment facilities.

integrate the specific EU-harmonised reporting templates as soon as they are formally adopted by the European Commission, preventing costly system redesigns.

Feature	Harmonised core (WB6 level / EU alignment)	Domestic flexibilities
Traceability and mass-Balance	Daily logs (MBR), non-transferable chemical recycling mass-balance volumes, and modular software architecture ready for future EU acts.	Design of 'Point-of-Aggregation' rules and receipt templates to formalise data from informal waste pickers without gridlock.

d. Data dictionary and regional reporting standards

To prevent data fragmentation and enable intraregional tracking within the WB6, a unified Data Dictionary is established (see Annex C). This dictionary provides standard definitions for terms like "POM", "composite packaging", and "recycling". All weights must be reported in metric tonnes (t), utilising identical European Waste Catalogue (EWC) codes.

- **Mandatory EU point of calculation alignment:** In strict compliance with **implementing decision (EU) 2019/665** (the harmonised methodology applied since 2022), the recycling rate must **not** be calculated based on the output of sorting facilities or the weight of collected waste sent for recovery. Instead, the metric must record the **net weight of plastic packaging waste entering the final recycling operation** (specifically at the point of entry into pelletisation, extrusion, or moulding processes).
- **Residue deduction rule:** To prevent inflated data, all sorting residues, non-targeted polymers, moisture, organic contamination, and non-plastic elements (e.g., paper labels, adhesives, metals) discarded at the recycling facility gate or during pre-treatment must be systematically subtracted from the reported recycled tonnages. The net recycled weight (W_{recycled}) must be derived using the mandatory material balance verification formula:

$$W_{\text{recycled}} = W_{\text{input}} - W_{\text{sorting residues}} - W_{\text{non-packaging materials}}$$

Where:

- W_{input} is the mass of sorted waste entering the recycling facility.
- $W_{\text{sorting residues}}$ is the mass of materials discarded during pre-treatment at the recycling plant.
- $W_{\text{non-packaging materials}}$ refers to any attached non-plastic substrates or non-packaging elements.

*The harmonised regional Data Dictionary and the mathematical baseline verification formulas established herein are aligned with current EU standards (notably Implementing Decision 2019/665). However, stakeholders must anticipate that the European Commission is mandated under the PPWR to adopt specific secondary acts clarifying the exact calculation and verification methodologies for packaging recycling targets (including strict rules on material losses during sorting and advanced chemical recycling processes). The administrative templates and data dictionary entries developed for the WB6 must be treated as **living regulatory documents**. They shall be systematically reviewed and updated to embed these*

forthcoming EU acts, ensuring that the regional definition of 'Net Recycling Input' remains perfectly compliant with the latest European methodologies.

4. Core pillar 3: Verification, audit, and enforcement framework

Verification is the mechanism that guarantees that the "robust data" reported under Pillar 2 matches the physical reality, fulfilling the enforcement obligations of the competent authorities under EU rules.

a. Independent third-party verification and audit protocols

Third-party audits designed to verify producer and PRO reporting accuracy must be executed under a legally mandated, uniform ToR framework.

- Auditor qualification: Audits can only be performed by independent, internationally accredited auditing firms registered with the Ministry of Finance and certified by the Environmental Protection Agency.
- Risk-stratified sampling methodology: The Independent Central Clearing House (in coordination with the competent monitoring body) will establish an annual audit footprint. High-volume producers (top 20% by market share) must undergo mandatory annual audits. Medium and low-volume producers will be sampled based on an automated risk-matrix scoring system (flagging sudden historical volume drops or sector tariff anomalies).
- Data access mandate: The ToR grants auditors legally unhindered access to the company's internal Enterprise Resource Planning (ERP) financial systems, purchasing ledgers, bill of materials (BOM), and physical logistics warehouses.

Feature	Harmonised core (WB6 level / EU alignment)	Domestic flexibilities
Audit frequency and sampling	Mandatory annual independent financial and operational audits for all PROs (WFD Art 8a). Mandatory annual audits for high-volume producers (top 20% by market share).	Criteria and automation rules for the risk-matrix scoring system used to sample and audit medium and low-volume producers.

b. Strict evidentiary standards for compliance

An obligation is only considered fulfilled when backed by an unbroken chain of custody. The following documents constitute the **mandatory inspection evidence standards** required to validate any compliance claim:

Stakeholder	Mandatory evidence documents	Key verification metrics
Producers importers /	Custom declarations, commercial invoices, sales records, and official PRO Membership Certificates.	Cross-referencing imported weights (Chapter 39) against EPR declarations. Verifying component weights (caps, sleeves) match Decision 2023/2683 guidelines.
Logistics sorting /	Waste Transfer Notes (WTNs), transport bills of lading, and facility input/output logs.	Verification of origin, municipal baseline mapping, and physical movement of waste.

Stakeholder	Mandatory evidence documents	Key verification metrics
Recyclers (domestic/export)	Recycling certificates , final mass-balance invoices, facility mass allocation logs, and official export/customs clearance paperwork	Confirming waste reached the definitive recovery point (Net Recycling Input) under EU-equivalent environmental standards. For imported post-consumer recyclates from non-WB6/non-EU jurisdictions, third-party audits must certify that the facility meets the EU's environmental equivalence rules.

For waste streams originating from informal collection networks, certified weight tickets and financial payout logs issued by licensed first-stage aggregators shall be accepted as valid evidence of origin by third-party auditors, provided they are matched with a physical mass-balance audit of the aggregator's facility.

c. Inspection, escalation, and penalties for non-compliance

Environmental inspectorates must be equipped with explicit legal mandates, standardised check-lists, and clear escalation pathways to act decisively against non-compliance.

- **Inspection checklists:** field inspectors will verify that physical stock matches registry records, ensure EPR registration numbers appear on commercial invoices, and review facility mass-balance logs.
- **Advanced monitoring technologies:** inspectorates will look to leverage machine learning and AI-driven data analytics, integrated directly into the Central Clearing House data reconciliation loop, to automatically flag statistical anomalies in reporting, sudden drops in declared producer volumes, or structural imbalances in recycler mass reports.
- **Escalation procedure:**
 - *First offense / minor variance:* formal Warning with a mandatory 30-day corrective action period.
 - *Non-cooperation / persistent failure:* administrative suspension of the EPR Registration Number (rendering all domestic sales or imports legally blocked).
 - *Fraud / active free-riding:* referral for criminal prosecution.
- **Penalty framework:** Financial penalties must be set at a level that is **dissuasive and structurally higher than the cost of compliance**. Fines will be calculated as a percentage of the company's total annual turnover, supplemented by a fixed penalty per tonne of undeclared or uncollected packaging material.

Feature	Harmonised core (WB6 level / EU alignment)	Domestic flexibilities
Inspectorate mandate and escalation	Mandatory alignment on the graduated severity path: Notice → Financial Penalty → Suspension → Prosecution. Fines must structurally exceed compliance costs.	Setting the exact percentage of annual turnover for fines. Defining specific internal mandates and operational protocols for domestic enforcement bodies.

d. Institutional responsibility: Responsible, Accountable, Consulted and Informed (RACI) Matrix

To coordinate operations and secure cross-institutional data streams, the execution of the MRV a Control Package is governed by the following regional RACI Matrix:

Stakeholder	Registry and system setup	POM collection data	Mass-balance and waste verification	Market surveillance and enforcement	Domestic and regional reporting
Ministries of Environment	A	I	I	A	A
Environmental agencies / funds	R	A	A	R	R
Environmental inspectorates	C	I	R	R	I
PROs	C	R	R	I	R
Independent Central Clearing House	R	C	R	C	R
Producers & importers	I	R	I	I	I
Recyclers & waste Operators	I	I	R	I	I
Municipalities & public utilities	I	I	R	I	I
Customs authorities	R	R	I	C	I
Tax authorities	C	R	I	C	I
Statistical offices	I	I	I	I	C

- **Responsible (R):** The entity executing the physical task or generating the primary data.
- **Accountable (A):** The final decision-making body with ultimate legal liability for the outcome.
- **Consulted (C):** Key stakeholders providing input, validation, or data integration.
- **Informed (I):** Stakeholders updated on outcomes but not directly executing tasks.

5. Phased implementation roadmap

To ensure operational feasibility and prevent administrative overload within existing WB6 capacities, the deployment of the MRV & Control Package follows a strict, phased milestone timeline over a three-year horizon. The progression transitions from foundational legal anchoring to regional digital interoperability, as mapped in the strategic implementation roadmap below:

Phase 1: foundation (year 1)	Phase 2: onboarding (year 2)	Phase 3: integration (year 3+)
● Draft and pass primary/secondary legislation (WFD Art 8a).	● Open mandatory registration portal for all producers and importers.	● Activate digital interoperability between customs, tax, and EPR databases.

Phase 1: foundation (year 1)	Phase 2: onboarding (year 2)	Phase 3: integration (year 3+)
- Establish the regional Data Dictionary and reporting templates. - Launch Centralised Electronic Registry software development.	- Execute technical training for customs (HS Codes) and inspectorates. - Begin mandatory reporting cycles for high-volume plastic packaging.	- Deploy AI-driven anomaly detection and independent third-party audits. - Harmonise regional registries to eliminate double-counting across the WB6.

Fee architecture and eco-modulation

The primary purpose of this section is to guide competent public authorities, newly authorised PROs and market actors in configuring an auditable and equitable financial network. The strategic objectives of this modular framework are defined as follows:

- Internalisation of end-of-life costs: to ensure that the complete lifecycle costs of plastic packaging are structurally embedded within the product's commercial placement price.
- Upstream eco-design steering: to utilise differentiated economic levers - specifically financial bonuses and maluses - to strongly incentivise packaging reduction, sortability, mechanical recyclability, and the market-driven incorporation of post-consumer recycled resins aligned with EU targets of the SUP directive and PPWR.
- Regional convergence and levelling: to prevent regional market fragmentation, eliminate market trade distortions across the WB6, and minimise the administrative reporting burdens for multi-jurisdictional enterprises operating within the WB6.

1. Financing principles

To secure institutional trust and financial resilience, the PRO fee architecture must be built upon three structural pillars:

1. Cost coverage of at least 80%

In strict compliance with the EU acquis, the financial contributions paid by packaging producers must reflect at minimum 80% of the necessary costs of plastic packaging waste management. The PRO must calculate baseline fees by determining the total operational and infrastructural outlays for separate collection, transport, sorting, and treatment, and then subtracting the commercial revenues derived from the sale of sorted, high-quality secondary raw material fractions.

2. Transparency and proportionality

EPR fees must be mathematically calculated and allocated based on actual data inputs rather than arbitrary estimates. Producers must only pay for the specific volumes, polymer types, and packaging formats that they place on the domestic market. Cross-subsidisation where easily recyclable fractions, such as rigid clear PET, financially shield low-value or non-recyclable fractions, such as flexible multi-layer laminates, is legally prohibited.

3. Cost efficiency

The PRO must establish clear efficiency benchmarks for waste management operators and public utility companies. Financial allocations collected via producer fees must never subsidise

operational negligence, structural over-staffing, or sub-optimal mechanical sorting lines within public or private waste management facilities.

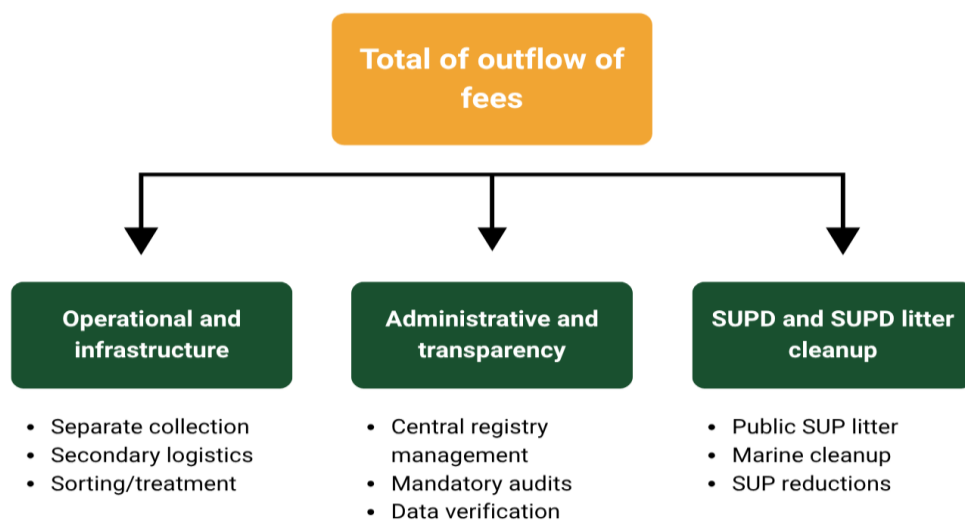
2. Scope of eligible costs

The financial resources amassed through the collection of modulated producer fees are strictly ring-fenced. Under this harmonised model, eligible costs are categorised across the following mandatory operational and administrative windows:

- Collection and transport costs: financing the roll-out of dedicated separate collection infrastructure (including color-coded municipal bins, household smart sacks, and specialised waste collection vehicles) and secondary logistics to transfer hubs.
- Sorting and recycling costs: funding the processing fees (gate fees) at regional material recovery facilities, automated optical sorting stations, and mechanical reprocessing networks.
- Communication and public awareness: underwriting continuous domestic and regional consumer education campaigns aimed at reducing littering and improving sorting accuracy at the source.
- Audits and registry maintenance: financing the administrative execution of the authorised Central EPR Registry, producer declaration verification processes, and independent third-party mass-flow auditing lines.
- Infrastructure investments and operational support: allocating dedicated capital to scale up regional sorting capabilities and supporting social inclusion schemes for formalising informal waste picker collectives (just transition allocations)

3. Fee architecture framework

The PRO must publish distinct baseline producer tariffs, calculated per metric tonne, for separate categories of plastic packaging to accurately mirror their sorting and mechanical treatment complexities:



To protect SMEs from administrative paralysis, competent authorities may institute a simplified unit-based reporting mechanism for low-volume producers who fall beneath a designated weight threshold (e.g., less than 1 metric tonne POM annually). These operators may pay a flat

per-unit fee based on a simplified declaration sheet, bypassing the need for rigorous monthly polymer-specific breakdowns.

4. Fee setting methodology

1. Annual tariff-setting cycle

To ensure market predictability and financial transparency, the calculation of EPR producer fees follows a structured, data-driven annual cycle.

While the framework establishes the macro-steps and core principles of the tariff-setting mechanism below, the precise technical data sources, market parameters, and baseline cost categories required to operationalise this cycle are defined in Annex H (EPR fee parameter settings). Financial modelling details remain high-level to respect the varying technical capacities and data fragmentation challenges across the WB6. The step-by-step annual tariff-setting cycle operates as follows:

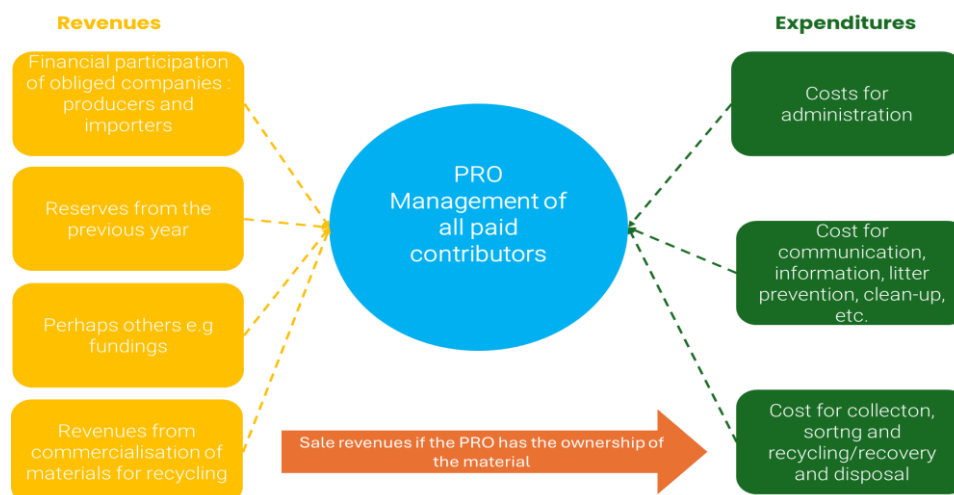
- **Data collection:** The PRO gathers POM declarations from producers and collects operational cost data from municipalities and waste management operators (utilising the recommended data sources outlined in Annex H, such as municipal utility financial reports and facility weighbridge logs).
- **Cost validation:** The PRO audits and validates all reported costs to ensure they are accurate, necessary, and free from operational inefficiencies, accounting for local challenges like data fragmentation and informal sector integration.
- **Deduction of material revenues:** Calculate net costs by subtracting revenues generated from the sale of sorted secondary raw materials and unclaimed deposit fees from gross operational costs (refer to Annex H - Market and revenue inputs).
- **Reserve calculation:** Determine the necessary allocation for the Financial Stabilisation Reserve Fund to maintain system liquidity (recommended at 5% of annual fee revenue as per Annex H).
- **Eco-modulation adjustment:** Apply the bonus/malus scoring matrix to baseline tariffs based on packaging design-for-recycling (D4R) criteria and recycled content percentages (refer to Annex H - Eco-modulation criteria).
- **Consultation:** Initiate a mandatory consultation period with municipalities, PROs, and producer representatives to review the proposed fee structure and address local context challenges.
- **Authority approval:** Submit the final fee proposal, including the consultation feedback report, to the competent authority for formal validation.
- **Publication:** Legally publish the approved tariff schedules (e.g., by December 1st) to ensure market predictability and compliance.

2. Financial stabilisation reserve fund

To insulate the regional waste collection network from the extreme price volatility of international secondary plastic commodity markets, the PRO must legally maintain a ring-fenced Financial stabilisation reserve fund. A fixed percentage of the annual producer contributions (e.g., 5%) must be directed to this reserve until the fund holds the equivalent of 6

to 12 months of total system operational expenditures. This capital may be drawn upon exclusively to maintain municipal collection payments during global collapses in secondary resin market values.

3. The budget redistribution



5. Eco-modulation framework

1. Staged eco-modulation approach

To ensure administrative feasibility and data reliability, eco-modulation will be implemented in two stages:

- **Stage 1 (Foundational):** Focuses on basic material/recyclability criteria that can be verified immediately via current declarations.
 - Criteria: Near-Infrared (NIR) sortability (avoidance of non-detectable pigments), basic density compatibility (rigid polyolefins < 1g/cm³), and avoidance of disruptive materials (e.g., Carbon Black pigments, Polyvinyl Chloride (PVC) shrink sleeves).
- **Stage 2 (Advanced):** Introduced once registry data maturity is confirmed by independent audit.
 - Criteria: Precise Post-Consumer Recycled (PCR) content thresholds, certified reusability metrics, and advanced component-level D4R metrics.

2. Bonus/Malus Scoring Matrix (Illustrative)

Note: All specific percentage values provided below are illustrative and subject to domestic fee-setting validation unless sourced from official regulatory tariffs.

Criteria	Classification	Fee Impact (Illustrative)
Stage 1: NIR Sortability	Compliant (Detectable)	-10%
Stage 1: Disruptive Materials	Carbon Black / PVC labels	+50%
Stage 2: PCR Content	>30% Post-Consumer Recycled	-15%
Stage 2: Reusable Design	Certified Reusable Format	-20%

3. Roadmap for Transition

The transition from Stage 1 to Stage 2 shall be formally triggered upon validation by the competent authority that producer reporting data (specifically component-level plastic weight logs) meets the required consistency thresholds for advanced fee calculation.

6. Compliance and enforcement

For the effective implementation of the EPR schemes in WB6, the compliance framework balances strict regional requirements with specific domestic adaptation pathways. In terms of regional strategy, a binding baseline requirement can be set up while keeping flexibility up to each of the WB6 regarding localised institutional design. However, empirical analysis shows that the more the system parameters and escalation intervals are harmonised, the better the overall system will be enforced in the region. Regional consistency prevents intraregional loopholes, stops data evasion, and provides local inspectorates with a synchronised operational shield against multi-market free-riders.

1. Operational rules and deadlines

The PRO must execute producer fee collections via structured quarterly billing cycles. Obligated parties must submit electronic data declarations within 30 days of the close of each quarter, triggering automated fee invoicing based on the active modulated tariff matrix. Payments must be settled within 30 business days of invoice issuance. In cases of declaration omission, under-reporting, or chronic payment delinquency, the authorised enforcement authorities must initiate a formal escalation sequence is initiated between the PRO and the authorised enforcement authorities:

- Administrative warning (day 15 of delay): Issued by the PRO as an official notice to comply within 14 business days, accompanied by an automated late payment penalty rate (e.g., 1% interest per week of delay).
- Financial auditing mandate (day 30 of delay): The PRO flags the non-compliant producer to the enforcement authorities who trigger an immediate, mandatory third-party operational and financial audit at the non-compliant producer's expense.
- Revocation of commercial authorisation (day 60 of day): If non-compliance persists, the PRO officially refers the case to the authorised enforcement authority, providing all evidence of delinquency. Upon receiving this referral, the authority formally suspends the producer's unique EPR Registration Number. This status update is transmitted electronically to market inspectorates and customs platforms, legally blocking the non-compliant enterprise from importing, distributing, or selling any packaged goods within the domestic territory.

2. Establishment of clear operational consequences

For the effective functioning of PROs, and consequently the overall EPR system, it is necessary to clearly define the legal and financial consequences in cases where obligated industry actors fail to fulfil their payment obligations. Payment default represents a very frequent challenge in practice, threatening systemic underfunding across municipal collection loops.

3. PRO safe-harbour and non-reporting mechanism

While flexibility is not inherently negative, it is recommended to introduce a dedicated safeguard mechanism into domestic legislation. This mechanism legally permits authorised PROs not to report the underlying quantities of obligated companies that have failed to make the required financial payments. This exclusion option applies specifically in cases where the PRO itself has already fully fulfilled its regulatory and operational obligations within that territory. This protects the collective compliance status of the PRO from being penalised due to individual corporate default, and shifts direct enforcement by the competent authorities onto the defaulting actor.

Case study : compliance procedure in Albania

In the case of Albania, the EPR system may operate through a staged compliance process. Producers submit quarterly data to the PRO on the quantities of EPR products POM, in line with the quarterly reporting obligation under Article 9 of Law No. 74/2025 “On the Extended Responsibilities of Producers of Products that Generate Waste”. On this basis, the PRO applies the financial contribution due under the producer contract, while the producer pays the contribution every three months in accordance with Article 13 of the Law. If a producer fails to report, under-reports or fails to pay the applicable contribution, the first step should be a contractual compliance procedure managed by the PRO, including a written warning, a request for correction and a defined deadline for remedying the breach. If the breach continues, the PRO should formally report the case to the Environmental Agency and to the ministry responsible for the environment, providing documentary evidence of the non-compliance. This approach is consistent with the reporting framework established by Articles 10, 19 and 21 of the Law, which require reporting by producers and PROs, establish the EPR register administered by the Environmental Agency, and provide for verification of reported data. Where non-compliance is confirmed, the case may be followed up by the competent enforcement authorities in accordance with the Law. Depending on the nature of the breach, the Environmental Agency, the environmental inspectorate, market surveillance authorities, customs authorities or other competent institutions may be involved. Enforcement measures may include administrative fines, suspension or termination of activity in accordance with inspection legislation, restrictions on placing non-compliant products on the market where applicable, and, in cases of PRO non-compliance, suspension or cancellation of the PRO authorisation under Articles 22, 23 and 24 of Law No. 74/2025.

7. Financial risk management

1. Systemic underfunding mitigations

To shield the waste management ecosystem from underfunding caused by inaccurate producer reporting, the domestic framework must institute minimum statutory fee floors. Baseline tariffs must be audited against real-world inflation indices on a bi-annual basis to guarantee that PRO revenues continuously match the changing operational cost of separate municipal collection lines.

2. Market volatility and parallel import safeguards

Parallel imports and unverified intraregional packaging flows represent severe financial risks to smaller WB6 exposed to intraregional packaging flows. The PRO must establish a dedicated enforcement fund to finance random market sorting sampling at retail hubs. If un-registered packaging brands are detected on retail shelves, the domestic distributor faces immediate legal liability for all retroactive EPR fees and corresponding administrative fines.

8. WB6 regional harmonisation parameters

The harmonised regional core

To minimise corporate friction and accelerate regional circular tracking under GAWB actions, the following architectural parameters must remain identical across all WB6:

- The core reporting dictionary definitions and material coding classifications for the 6 core plastic polymer types.
- The D4R evaluation guidelines and disqualifying material criteria. The independent mass-flow auditing criteria and post-consumer recycled content certification standards

Boundaries for domestic flexibility

While the core system rules are unified, WB6 retain structural flexibility to adapt the system to their specific domestic frameworks:

- The choice of internal PRO market structures: WB6 can choose whether to establish a single authorised PRO monopoly or allow a managed, competitive landscape of multiple non-profit PRO entities.
- Municipal fund distribution arrangements: WB6 can customise the internal financial workflows connecting the PRO to local actors, choosing between direct PRO-managed commercial tendering or financial cost-reimbursement clearings for public municipal utilities.
- Exact baseline tariff scales: the baseline tariff scales (the starting price per polymer tonne prior to eco-modulation) are set per WB6 to correspond with localised fuel costs, labour rates, and physical distance parameters.

Summary: PRO framework to guide the step-wise development of EPR

To ensure a successful, market-stable rollout across the WB6, the establishment of the EPR system must follow a structured, step-wise implementation pathway. WB6 cannot deploy complex fee modulation or competitive markets without first solidifying their legal foundations and digital MRV infrastructure. The matrix below establishes the division between the Regionally Harmonised Core (non-negotiable elements required to prevent trade barriers) and Domestic Flexibility (adjustable operational elements to fit local governance structures).

1. The harmonised core and the domestic flexibility matrix

Functional layer	Regionally harmonised core	Domestic flexibility
Legal and scope	Plastic packaging framework legally aligned with EU PPWR/SUPD definitions.	Specific de minimis volume thresholds for SME administrative relief.
	Unified definitions for Manufacturers, Importers, and Distributors.	Integration choices within broader general packaging legal acts.
Free-rider Enforcement	Liability for e-commerce online platforms. Mandatory integration of the unique EPR registration token for market entry.	Legal mechanisms for shifting compliance enforcement from individual foreign distance sellers to the marketplace platform.
MRV infrastructure	Centralised digital EPR registry architecture. Automated multi-agency data-triangulation protocols (Customs + Tax + Registry).	Choice of managing agency (e.g., environmental ministry; independent Domestic-owned Fund; delegated authority).
Market architecture	Prohibited "cherry-picking" (mandated universal geographical coverage).	System design: single non-profit monopoly PRO or competitive multi-PRO market.
	Standardised mass-balance reporting methodology to be adopted	Decentralised vs. Centralised domestic clearing-house oversight.
Fee structures	80% to 100% true net cost coverage mandate.	Exact baseline financial parameters pegged to domestic municipal waste collection operating expenses optimisation profiles.
	Core eco-modulation design rules (Bonus/Malus based on polymer recyclability and PCR content).	

2. The step wise implementation phase

Phase 1: legal transposition and core definitions

The roadmap begins with the critical task of aligning primary legislation across the WB6 to establish an airtight legal baseline. Domestic authorities must amend or enact waste management laws to explicitly transpose harmonised definitions of plastic packaging, clear producer hierarchies, and extended marketplace liabilities. This structural alignment prevents regulatory gaps and ensures that manufacturers, importers, and distributors operate under identical rules throughout the region.

A cornerstone of this foundational period is creating the legal mandate for a single, centralised digital registry. This mandate dictates that no commercial operator can legally introduce plastic packaging into the domestic market without obtaining an active, unique registration token. To ensure political and economic viability, this phase also introduces specific administrative safeguards for small and medium enterprises. Rather than granting outright exemptions, the legal framework introduces simplified flat-rate financial options and annual reporting cycles for low-volume producers putting less than 500 kg of plastic on the market per year, maintaining system fairness without causing excessive bureaucratic friction.

Phase 2: Digital MRV and data-triangulation integration

Once the legal pillars are secured, the focus shifts to building the digital infrastructure necessary to eliminate free-riding and enforce compliance. This phase marks the official launch of the centralised electronic registry, which does not operate in isolation but serves as a dynamic, interconnected node. Developers will integrate the registry with customs databases and corporate VAT or tax records using secure system-to-system application programming interfaces.

This connection activates the automated data-triangulation engine, which continuously runs cross-checks matching the physical weight of imported plastic packaging against reported transactional revenues. Simultaneously, online marketplaces must feed their active third-party seller registries into this system. If an online distance seller exhibits commercial activity but lacks a verified token in the central registry, the system automatically triggers a strict defined hour compliance window. If the seller fails to comply, the platform's backend must systematically revoke their active product listings. This digital net ensures that free-riders are systematically identified and removed before any major financial fees change hands.

Cross-cutting capacity-building and phased implementation support

Effective EPR implementation will require continuous capacity-building efforts alongside legal and technical reforms. Interviews conducted across the WB6 consistently highlighted the need to strengthen the capacities of competent authorities, inspectorates, municipalities, PROs, producers, and waste operators to implement and enforce new obligations effectively. Therefore, training programs, practical implementation guidelines, pilot projects, peer-learning mechanisms, and phased roll-out approaches should accompany all implementation phases. Such measures are particularly important in the WB6, where institutional capacities, technical expertise, and levels of experience with EPR systems vary significantly across jurisdictions and administrative levels.

Phase 3: Coordination governance and fee architecture

With an accurate data stream established, WB6 can safely deploy the financial mechanics of the EPR model by establishing an Independent Central Clearing House. This body is exceptionally vital in complex, fragmented, or decentralised governance contexts, such as Bosnia and Herzegovina, where lower domestic layers require central coordination. The Clearing House immediately enforces geographical service allocation rules, dividing territory into urban and rural clusters to ensure that PROs do not simply cherry-pick highly profitable, high-density urban areas while leaving rural zones unserved.

Financially, the Clearing House activates a dynamic equalisation mechanism. If a PRO fails to meet its collection liabilities, it must pay an equalisation fee that the Clearing House immediately redistributes to organisations that over-collected in high-cost or remote regions. Concurrently, the fee architecture transitions to a true net cost-coverage model, requiring producers to cover 80% to 100% of waste management operational expenditures based on optimised, modern efficiency profiles. This phase also introduces the first layer of eco-modulation, introducing fee penalties for problematic, non-recyclable formats like multi-layer

pouches while rewarding clear, highly recyclable polymers like PET and high-density polyethylene with fee reductions.

Phase 4: Full system optimisation and market stability

The final phase transitions the fully operational framework into a mature, self-sustaining circular economic engine. To guarantee total transparency and prevent fraud, authorities will enforce mandatory mass-balance reporting across all sortation and recycling facilities. This requires waste operators to log material inputs against actual high-quality outputs, calculating net recycling rates by subtracting sorting residues from total inflows. Independent third-party environmental auditors will validate these claims using digital weighbridge data packets and shipment logs across the WB6, ensuring that fraudulent recycling certificates are entirely eradicated.

To secure long-term market stability against external economic volatility, the framework mandates that PROs allocate a fixed percentage of their ongoing fee revenue into a dedicated Financial Stabilisation Reserve Fund. This fund acts as an institutional shock absorber, ensuring that separate collection and sortation systems remain fully liquid and functional even during global crashes in the commodity price of scrap plastic. Finally, any lingering jurisdictional compliance or allocation disputes across the WB6 are routed through a fast-track, data-driven Inter-Entity or Inter-Ministerial Arbitration Board, cementing systemic trust and ensuring continuous operation.

Part 2: Regional and domestic stress-testing

To ensure the long-term viability and reliability of the WB6 regional framework, this section evaluates the operational model's capacity to neutralize the systemic risks identified during the initial diagnostic (Phase 1). By shifting specific WB6-level granularities to the Annexes, this core section synthesizes how the EPR Toolkit acts as a unified regional resilience mechanism against potential system failures, structured around a **regional failure modes diagnostic** and a **strategic risk mitigation matrix**. Across the WB6, the diagnostic phase highlighted five systemic bottlenecks. The table below demonstrates how specific tools within the EPR Toolkit systematically neutralize these failures at a regional level, transforming local vulnerabilities into harmonized structural resilience.

Failure mode risk	Aggregated regional gaps (WB6)	Toolkit Resilience Solution (Phase 2 Annexes)	Regional harmonisation effect
Data gaps and reliability	Fragmented reporting, cross-entity friction, lack of digital interoperability, and custom-coding friction.	Annex C (Data Dictionary) & Template A.1: Standardizes polymer definitions and enables automated cross-checks via Unique IDs.	Standardizes polymer definitions across all 6 markets. Enables automated cross-checks between Customs, Tax Authorities, and Environmental Agencies using a single, harmonized EPR ID format.
Underfunding	Tariffs below real cost recovery, reliance on donor/municipal budgets, resistance from producers, and lack of lifecycle cost transparency.	Annex F (necessary cost Formula) & Annex H (Stabilisation Fund): Mandates 80-100% cost recovery from producers and creates a financial buffer.	Mandates 80–100% cost recovery from producers. Replaces arbitrary fee-setting with an eco-modulated, transparent lifecycle cost formula, securing independent funding.
Weak enforcement	Acute shortage of inspectors, high free-rider rates (30-40%), and absence of structured field protocols.	Checklist B.1 (Inspectorate)& Administrative Sanctions: Provides a step-by-step verification protocol for field audits.	Provides a standardized, step-by-step verification protocol for field audits. Drives mandatory Customs-PRO data sharing to track unregistered importers and free-riders across the WB6.
Governance capture	Delayed secondary legislation, risk of local monopolies, lack of operational PRO history, and weak institutional coordination.	Template I.1 (PRO Authorisation) & B.2 (Audit Protocol): Strict non-profit licensing criteria and mandatory third-party audits	Enforces strict non-profit licensing criteria and mandatory third-party independent audits. Prevents monopolistic behaviour and ensures financial transparency before market entry.
Infrastructure bottlenecks	Basic/obsolete sorting equipment, lack of separate collection logistics, and low capacity in the domestic recycling industry.	Template I.4 (Model SLA): Secures feedstock for recyclers through binding service level agreements between PROs and cities	Secures clean plastic feedstock for recyclers through binding, high-standard contracts between PROs, municipalities, and private operators.

Part 3: Regional and domestic rollout EPR roadmaps for plastic packaging

To ensure the long-term viability and reliability of the WB6 regional framework, this section evaluates the operational model's capacity to neutralize the systemic risks identified during the initial diagnostic (Phase 1). By shifting specific WB6-level granularities to the Annexes, this core section synthesizes how the EPR Toolkit acts as a unified regional resilience mechanism against potential system failures, structured around a Regional Risk Mitigation Matrix, a Short-Term Implementation Playbook, and a Strategic Roadmap.

1. Regional phased implementation roadmap (2026-2030)

This matrix follows the "Harmonised Core + Domestic Flexibility" logic defined in the Phase 2 Operating Model (EPR Toolkit).

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
Phase 1: Foundation	0-12 months	Legal transposition of harmonized polymer definitions and procedures across secondary legislation (bylaws). Establishment of interconnected Central Registries. Authorization of at least one operational non-profit PRO in nascent markets (Albania, Kosovo*, Montenegro) as a first practical step.	Political approval of the EPR Framework. Customs/Tax data sharing agreements. Execution of mandatory data-sharing agreements between Domestic Customs Administrations, Tax Authorities, and Environmental Ministries.	Initial producer registration & corporate administrative baseline tracking using the Annex C Data Dictionary standard codes.
Phase 2: operationalisation	1-3 years	Full PRO accreditation & licensing rollout. Launch of separate collection and automated sorting systems in pilot municipalities and regional tourism hotspots. Where a multi-PRO competitive market layout exists or emerges (Serbia, North Macedonia, Bosnia and Herzegovina), establishment of a central Independent Clearing House (Producer Balancing Body) to manage market-share equity and financial compensations	Fully functional Measurement, Reporting, and Verification (MRV) digital database systems. Completed localized necessary-cost studies (Annex F) to anchor fee schedules and prevent market underfunding.	Quarterly POM declarations by distinct plastic polymer type & packaging component weight.
Phase 3: optimisation	2028-2030	Introduction of advanced eco-modulation (Bonus/Malus fee structures linked to circularity performance). Systematic formalization and integration of the informal collection sector into formal PRO contracts (Kosovo*, Serbia). Full alignment with PPWR 2030 targets.	Verified mass-balance and recycling evidence standards across all operators. Operational regional data-sharing protocols to track intra-regional polymer recycling flows.	Audited annual returns & circularity Key Performance Indicators (KPIs). Full reconciliation between packaging POM and packaging waste effectively recycled.

2. Short-term implementation playbook (action plan 0-12 months)

Immediate operational steps using the specific tools provided in the Phase 2 Toolkit Annexes.

Registry onboarding

- Operational action: deploy the digital interface for Template A.1 (Producer POM Annual Declaration) to capture producer/importer administrative baselines, unique EPR registration numbers, tax IDs and component-level plastic packaging weights.
- **Regional harmonisation and transition:**
 - *In mature markets (Serbia, North Macedonia):* Implementation will focus on upgrading existing operational platforms by introducing secondary amendments

to reporting rulebooks, transitioning from generic reporting to mandatory, polymer-specific tracking.

- *In nascent/transitioning markets (Albania, Montenegro, Kosovo*, Bosnia and Herzegovina):* Competent authorities will deploy standardized, web-based database entry models to replace current manual Excel tracking, preparing the data architecture for integration with upcoming domestic digital platforms (such as the e-government portals).

Data standards alignment

- Operational action: adopt the Harmonised Data Dictionary (Annex C) to ensure consistent polymer coding, producer identification and interoperability between Customs, Tax, and the domestic EPR registries.
- **Regional harmonisation and transition:** environmental Ministries across the WB6 will issue formal administrative rulebooks to institutionalize Annex C. This will be supported by the signature of joint cross-agency Memorandums of Cooperation (MoCs) between Ministries of Environment, Public Revenue Offices, and Customs Administrations to establish a shared regional data validation language.

Producer registration drive and anti-free-rider drives

- Operational action: Issue **Unique EPR IDs** to all identified domestic producers and importers to prevent early system leakage, enabling automated cross-checks against Customs import manifests and domestic tax databases.
- **Regional harmonisation and transition:** customs administrations will incorporate the Unique EPR ID into their standard clearing procedures. Importers and producers failing to register within the central database will be flagged as non-compliant, triggering immediate market verification protocols. Domestic Environmental Inspectorates will systematically cross-match active business registries with the new EPR ID list to identify and capture unmapped free-riders currently operating outside the schemes.

Municipal engagement

- Operational action: prepare draft Service Level Agreements (SLAs) between the shadow PRO/Authority or authorised PROs and municipalities, using Annex I, Template I.4, to define service standards, reporting obligations, payment mechanisms and verified material-flow requirements.
- **Regional harmonisation and transition:** to streamline negotiations and bypass local governance fragmentation, the rollout will be coordinated through domestic municipal associations and institutional networks (such as The Association of the Units of the Local Self-Government (ZELS) in North Macedonia or equivalent local government units). SLAs will maintain the core structural requirements of Template I.4 but will feature domestic flexibility clauses to adapt operational logistics, contamination thresholds, and equipment requirements to the specific context of each municipality (e.g., urban hubs, remote rural areas, or tourism-heavy coastal zones).

Annexes

Please note that the appendices are organized into three distinct operational sections:

- **Part I: Harmonized EPR Toolkit** – Contains the core technical frameworks, standardized definitions, and model templates developed during Phase 2.
- **Part II: Domestic stress-testing and domestic roadmaps** – Provides the granular, each of the WB6 analysis, institutional RACI matrices, and localized adaptation sheets linked directly to the findings of **Part 2** and **Part 3** of the main report.
- **Part III: Inception Report** – Includes the baseline diagnostic data, methodological frameworks, and initial stakeholder interview summaries from Phase 1.

Annexes for Part I: Harmonized Extended Producer Responsibility (EPR) Operating Model and Toolkit

- Annex A : Harmonized Western Balkans Six (WB6) reporting templates (Pillar 2 tool)**

Template A.1: producer “placed-on-market” (POM) annual declaration form

Operational Use Instructions:

- **Who fills it in:** Producer/Importer
- **Reporting frequency:** **Quarterly** (*Standard/High-Volume*) or **Annual** (*Micro-enterprises*)
- **Evidence required:** Commercial invoices, customs declarations, shipping logs
- **Verification body:** PRO / Environmental Authority
- **Acceptance threshold:** 100% data alignment (no variance).

This digital data template must be embedded within the Centralised Electronic Registry software interface to capture the granular requirements of European Union (EU) Waste Framework Directive (WFD) Article 8a, Single-Use Plastics Directive (SUPD) Article 8, and Packaging and Packaging Waste Regulation (PPWR) Articles 6, 7 and 8.

A.1.1: corporate administrative baseline

- **EPR unique registration number:** [Issued upon system onboarding]
- **Domestic corporate tax ID:** [For automated customs cross-checking]
- **Compliance scheme operator:** [] Collective (Specify PRO Name) / [] Individual (Attach Financial Guarantee Proof)

A.1.2: component-level plastic weight logs (metric tonnes, t)

WB6 EPR Plastic Packaging Framework

Producers must disaggregate every packaging stock-keeping unit (SKU) into its independent component elements to ensure verification alignment with Implementing Decisions (EU) 2019/665 and 2023/2683 (and forthcoming implementing acts of PPWR).

Primary Polymer Type	Rigid Format (t)	Flexible Format (t)	Component Breakdown (Net weight in t)
Polyethylene Terephthalate (PET) (Clear / Light Blue)		N/A	Body: _____ Cap: _____ Label: _____
PET (Coloured / Opaque)		N/A	Body: _____ Cap: _____ Label: _____
High-Density Polyethylene (HDPE)			Body: _____ Closure: _____
Polypropylene (PP)			Tray/Tub: _____ Film overwrap: _____
Low-Density Polyethylene (LDPE) / Linear Low-Density Polyethylene (LLDPE)	N/A		Film / Pouch: _____
Multi-layer / Composite			Primary plastic mass: _____ Alu/Paper layer: _____

A.1.3: circular performance attributes

- **Post-consumer recycled (PCR) content:** Average % of certified recycled resin incorporated per polymer category: _____ % (*Attach RecyClass or equivalent certification*).
- **Compostability status:** Is the packaging certified industrially compostable under EN 13432? [] Yes / [] No
- **SUPD Art 8 Liability:** Total number of units POM for:
 - Food containers / wrappers: _____ units
 - Beverage cups: _____ units

Template A.2: Waste management facility material balance register (MBR)

Operational Use Instructions

- **Who fills it in:** Waste facility / Recycler
- **Reporting frequency:** Monthly
- **Evidence required:** Weighbridge tickets, Waste Transfer Notes (WTN), facility input/output logs
- **Verification body:** Environmental Agency / Third-party Auditor
- **Acceptance threshold:** Unaccounted mass loss $\leq 3\%$

To be filled out monthly by certified sorting stations and final recyclers to prevent ghost recycling.

WB6 EPR Plastic Packaging Framework

- **Facility Environmental Permit Number:** _____
- **Reporting Period:** [Month / Year]

Net Recycling Input = Total Inbound Material – Total Sorting Residues – Non-Packaging Fractions

- Total Inbound Plastic Waste Received (t): _____
- Inbound Stream Origin Breakdown:
 - Municipal Separate Collection (SUPD Art 9 targets): _____ t
 - Commercial & Industrial (C&I) separate streams: _____ t
 - Formalised Informal Sector Points (Aggregators): _____ t
- Total Sorting Residues / Contamination Deducted (t): _____ (*Sent to landfill/incineration*)
- Total Non-Packaging Elements Subtracted (t): _____ (*Paper, adhesives, dirt, moisture*)
- Net Recycling Input achieved (t): _____ (*Entering extrusion/pelletisation point*)

b. Annex B: Inspection and field audit checklists (Pillar 3 tool)

Checklist B.1: Environmental inspectorate field verification manual

Operational Use Instructions

Who fills it in: Environmental Inspectorate

Reporting frequency: Ad-hoc (Unannounced)

Evidence required: Physical stock count, invoice samples, EPR registration check

Verification body: Competent Environmental Authority (Internal review)

Acceptance threshold: 100% valid EPR registration on sampled documents

Standardized operational tool for domestic environmental inspectors during unannounced site visits at producer or importer warehouses.

- [] EPR Invoice Visibility Check: Verify if the producer's unique EPR Registration Number is permanently printed on a random sample of ten commercial sales invoices and customs declarations.
- [] Physical-to-Digital Weight Matching: Draw 3 product lines from the warehouse shelves. Weigh the plastic packaging components on calibrated scales and compare the physical weight against the technical Bill of Materials (BOM) ledger and the latest digital registry declaration.

- [] E-Commerce / Distance Seller Traceability: Review the outbound shipping logs. Verify that any third-party distance selling platform hosting the company's products has verified and logged the manufacturer's active EPR status.
- [] Financial Fee Modulated Tariff Verification: Audit the PRO membership invoice to ensure the company is paying the correct eco-modulated fee tier (checking that multi-layer or carbon-black polymers are penalized with the correct higher rate).

Checklist B.2: Independent auditor waste-flow validation protocol

Operational Use Instructions

- **Who fills it in:** Accredited Third-party Auditor
- **Reporting frequency:** Annual
- **Evidence required:** Facility input/output logs, weighbridge certification, export documents
- **Verification body:** Environmental Agency / Ministry
- **Acceptance threshold:** No critical findings; total mass discrepancy $\leq 3\%$

Mandatory verification steps for third-party auditors certifying the recycling rate claims of PROs and waste operators.

- [] Weighbridge Integrity Verification: Inspect the domestic metrology stamps on the facility's weighbridges. Confirm calibration has occurred within the legal 12-month window.
- [] Informal Sourcing Paper-Trail Audit: Review the buy-back receipt logs from licensed tier-1 scrap aggregators. Ensure that volumes purchased from informal waste-pickers are linked to a physical batch number and a mass-balance log at the depot.
- [] Intraregional Shipment Chain of Custody (WB6 Transit): For plastic fractions exported for final recycling within or outside the WB6 region, verify the presence of:
 - [] Annex VII Green-Listed Waste documents.
 - [] Customs export clearance stamps.
 - [] EU Broad Equivalent Declaration: Signed certificate from the destination facility proving the final reprocessing occurred under environmental standards equivalent to EU law.
- [] Mass Anomaly Discrepancy Flag: Run the material balance calculation. If the unaccounted process loss variance exceeds a $\pm 3\%$ threshold, immediately issue a Non-Compliance Flag and suspend target certification pending technical justification.

c. Annex C: Harmonized data dictionary and classification standards

Section C.1: Stakeholder operational guidelines

C.1.1 Coexistence of API and paper streams

The registry supports both digital API ingestion and human-in-the-loop paper transcription. Systems distinguish these via the 'Data_Capture_Method' and 'Last_Modified_By' metadata trackers.

C.1.2 Understanding data conflicts & double reporting

Data collisions trigger a structural lock. The 'Conflict_Flag' flips to True, and the 'Record_Status' becomes 'Under_Review_Conflict' to prevent double-billing.

C.1.3 Step-by-step conflict resolution

Pathway A (Aggregation Rule): Used to sum fragmented logistics data streams into a master record.

Pathway B (Arbitrated Overwrite Rule): Used to override incorrect data, archiving the error to 'Superseded'.

C.1.4 Managing legal disputes & General Data Protection Regulation (GDPR) compliance

Legal Holds: If a producer appeals an auditor's data overwrite, the Record_Status must be shifted to 'Under_Legal_Dispute'. This acts as a circuit breaker, freezing the automated financial engine from issuing invoices based on contested weight declarations until court resolution.

GDPR Anonymization: To comply with privacy laws regarding the 'Right to be Forgotten', clerk IDs stored in the Last_Modified_By field are automatically scrubbed and replaced with a generic 'SYS_ARCHIVED' token once the legal data retention period (e.g., 5 years) expires.

Section C.2: Technical data dictionary schema

C.2.1: Producer legal & geographic entity

Field Name	Data Type	Description / Definition	Nullable (M/O)	Allowed Values / Rules
Producer_ID	String (Alphanumeric)	Unique legal identifier assigned upon registration.	M	E.g., REG-2026-ALB091
Producer_Name	String	Legal corporate name placing packaging on the market.	M	E.g., Bottling Corp
WB6_Code	String (Enum)	ISO 3166-1 alpha-2 code for WB6 routing.	M	AL, RS, MK, BA, ME, XK
Billing_Currency	Enum	Local currency standard for invoicing.	M	EUR, RSD, ALL, BAM, MKD
Authorized_Representative	String	Legal representative for foreign distance sellers.	Conditional	Corporate name or identity.

C.2.2: Producer-PRO relational mapping

Field Name	Data Type	Description / Definition	Nullable (M/O)	Allowed Values / Rules
Mapping_ID	String (Universally Unique Identifier (UUID))	Unique identifier for this specific contract mapping.	M	System-generated UUID
Producer_ID	String (Foreign Key)	Reference back to Producer Entity.	M	REG-2026-ALB091
PRO_ID	String	Unique identifier of the contracted PRO.	M	PRO-SEKOPAK-01
Market_Segment	Enum	Specifies the packaging segment covered.	M	Household, Commercial, Industrial, Mixed
Contract_Start_Date	Date	Effective start date of PRO coverage.	M	YYYY-MM-DD

C.2.3: POM declarations

Field Name	Data Type	Description / Definition	Nullable (M/O)	Allowed Values / Rules
Declaration_ID	String	Unique token identifying the periodic submission.	M	E.g., DEC-2026-Q1-881
Line_ID	String (UUID)	Unique identifier for granular sub-components.	M	UUID
Component_Type	Enum	Structural designation of the sub-item.	M	Body, Cap, Label, Film Wrap, Pallet
Material_Code	Enum	Specific polymer identifier for eco-modulation.	M	PET, HDPE, LDPE, PP, PS, Composite
Component_Weight_Kg	Decimal (18, 2)	Net weight. Must be strictly positive.	M	Greater than 0.00
GTIN_EAN_Code	String	Global barcode identifier.	O	Fallback: NULL
Recycled_Content_Pct	Decimal (5, 2)	Certified post-consumer recycled plastic percentage.	O	Default: 0.00

C.2.4: Audit, provenance & legal controls

Field Name	Data Type	Description / Definition	Nullable (M/O)	Allowed Values / Rules
Audit_Status	Enum	Legal classification of verification checks.	M	Audited, Pending Correction, Failed Validation
Record_Status	Enum	Registry engine flag for legal validity and billing.	M	Active, Superseded, Under_Review_Conflict, Under_Legal_Dispute
Conflict_Flag	Boolean	Automated system trigger indicating a data collision.	M	True, False
Last_Modified_By	String	ID of system user or API token making alterations.	M	System-Generated
Data_Retention_Expiry	Date	Deadline for GDPR data anonymization.	M	Calculated: Created_Date + 5 Years
Clerk_Anonymization_Flag	Boolean	System flag confirming human personally identifiable information (PII) is scrubbed.	M	True, False

C.2.5: Financial & currency master

This centralized master table allows the registry engine to automatically convert base eco-modulation fees (calculated in EUR) into local WB6 currencies for intraregional compliance.

WB6 EPR Plastic Packaging Framework

Field Name	Data Type	Description / Definition	Nullable (M/O)	Allowed Values / Rules
Exchange_Rate_ID	String	Unique identifier for the daily/monthly exchange rate snapshot.	M	UUID
Target_Currency	Enum	The local currency being converted against the Euro standard.	M	RSD, ALL, BAM, MKD
Exchange_Rate_to_EUR	Decimal (10, 4)	The official central bank conversion multiplier.	M	E.g., 117.1523 (for RSD)
Effective_Date	Date	The date this exchange rate becomes legally active for billing.	M	YYYY-MM-DD

Section C.3: Classification standards, market segment boundary rules & metric thresholds

Target Audience: Software Developers, Ministry Auditors, Customs Inspectors, PRO Compliance Officers

To ensure uniform reporting across the WB6, the Market_Segment field in Module 1.5 must be selected using strict, hierarchical constraints.

C.3.1 Household packaging

Packaging items generated as waste at the household level or originating from retail channels where the end-user is a private consumer.

- Flexible plastic criterion: Any flexible plastic film, pouch, wrap, or bag with a material thickness of less than 50 microns (μm), regardless of sales location.
- Rigid plastic criterion: Any rigid container, bottle, tray, or tube with a volumetric capacity less than or equal to 5.0 Liters AND a net component weight less than or equal to 2.0 Kilograms.

C.3.2 Commercial packaging

Packaging generated as waste within retail offices, distribution points, restaurants, and service environments during commercial activities, but not entering industrial production streams.

- Flexible plastic criterion: Grouping/bundling shrink films used to retail-pack multiple consumer items with a thickness between 50 and 100 microns.
- **Rigid plastic criterion:** Rigid trays, crates, display boxes, and presentation stands with a volumetric capacity between 5.0 and 25.0 Liters, EXCLUDING any lightweight containers that fall under the Household weight limit ($\leq 2.0\text{kg}$).

C.3.3 Industrial packaging

Packaging designed exclusively for transport, logistics, and bulk protection within manufacturing plants, chemical processing facilities, or wholesale business-to-business (B2B) distribution nodes.

- Flexible plastic criterion: Heavy-duty pallet stretch wraps, construction films, and bulk silage bags with a thickness exceeding one hundred microns.

- Rigid plastic criterion: Intermediate Bulk Containers (IBCs), chemical drums, bulk canisters, and heavy-duty logistics crates with a volumetric capacity exceeding 25.0 Liters, or a net weight exceeding 5.0 Kilograms.

C.3.4 Mixed packaging (dual-use)

If a packaging format is distributed through retail and wholesale streams seamlessly (e.g., uniform take-away containers distributed to households and catering businesses alike), it must be classified as Mixed and billed at the Household tariff baseline by default to prevent free-riding.

Section C.4: Extended polymer & chemical taxonomy

The Material_Code enum in Module 2B must follow specific sorting paths. When an item contains materials not explicitly listed as standalone database entries, developers and users must route them via the following index.

Physical material encountered	Correct selection	Material_Code	Backend system routing behaviour
Clear/Transparent PET (Bottles, Trays)	PET		Routed to Bonus review queue if clear.
Opaque/Coloured PET (e.g., opaque milk white)	PET		Automatically downgraded to Base or Malus .
High-Density Polyethylene (Detergents, Caps)	HDPE		Routed to standard recycling yield stream.
Low-Density Polyethylene (Bags, Films)	LDPE		Routed to flexible recycling stream.
Polypropylene (Yogurt cups, rigid caps)	PP		Routed to rigid polyolefin recycling stream.
Polystyrene / Expanded Polystyrene (EPS)	PS		Hardcoded block from Bonus tier; flags local recycling limits.
Polyvinyl Chloride (PVC) (Sleeves, Blisters)	Composite		Critical Penalty: Triggers absolute Malus multiplier.
Multi-Layer Laminates (Inseparable plastics)	Composite		Evaluated under the 5% contamination rule (see 2.1).
Bio-based Plastics (PLA, PHA, Starch blends)	Composite		Prohibited from standard resin paths to prevent contamination.

C.4.1 The 5% multi-layer contamination rule

If a single packaging component consists of more than one polymer type that cannot be physically separated by a consumer:

- If the secondary polymer constitutes less than 5.0% of the total component mass, the row may be reported under the dominant polymer's Material_Code.
- If the secondary polymer constitutes 5.0% or more of the total component mass, the row must be classified as Composite.

- The High-disruption override: Regardless of total weight percentage, if an inseparable layer contains any measurable trace amount of PVC, PVDC, or EVOH, it is legally barred from standard polymer routing and must be declared as Composite.

C.4.2 Biodegradable, oxo-degradable, and bio-resin routing protocol

To prevent the degradation of physical recycling batches through greenwashed materials, developers must program the following hard coded verification restrictions:

- Oxo-degradable prohibitions: Any plastic packaging utilizing catalytic chemical additives designed to cause the plastic to fragment into micro-fragments upon exposure to sunlight or oxygen (commonly labelled as "oxo-biodegradable") is strictly prohibited from registering under standard resin codes (HDPE, LDPE, PP). They must be declared as Composite and routed automatically to the maximum Malus Tier (2.0x).
- Bio-based resins (PLA/PHA/Starch Blends): Clear bio-plastic bottles or trays (such as Polylactic Acid - PLA) mimic standard PET visually but destroy the chemical integrity of recycling batches. These materials must be mapped to Composite and are barred from standard polyolefin recovery streams unless a certified industrial composting recovery stream tag (complying with EN 13432) is provided.

Section C.5: Component assembly & disassembly matrix

Producers cannot declare a multi-part product as a single row. The Component_Type enum in Module 2B enforces digital disassembly.

C.5.1 The 1% separation rule & toxicity overrides

Every physically distinct part of a packaging unit that can be unscrewed, peeled off, torn away, or separated by an end-consumer must be reported as a separate line-item row in Module 2B if its weight is equal to or greater than 1.0% of the total packaging unit mass.

- The Toxicity override: Any sub-component containing PVC, PVDC, Silicone, or Elastomers must be declared as an individual line-item row, regardless of how light it is relative to the total packaging mass.

C.5.2 Rule set for inks, labels, and adhesives

- Direct ink printing: Direct printing does not require a separate component row. However, if Carbon-Black pigments are used anywhere in the ink, the parent component row (Body) must be flagged as non-recyclable in the audit module.
- Adhesives: Glue lines do not require individual weight logging. However, if the adhesive is non-water-soluble at 60°C or permanently binds the label to the bottle body during commercial washing, the parent Body component is barred from the Bonus tier.

Section C.6: Technical routing matrix for eco-modulation tiers**C.6.1 Tier routing truth matrix**

If Material_Code is:	And Component_Type is:	Supporting physical properties matrix:	Automated system resulting Eco_Modulation_Tier
PET	Body	Clear, transparent, uncoloured, or light transparent blue; combined with a water-soluble adhesive label.	Bonus (Multiplier: 0.8x)
PET HDPE PP	Any	Standard colours (red, blue, green, etc.); clear resin; mono-material configuration.	Base (Multiplier: 1.0x)
Any	Any	Employs Carbon-Black pigmentation (undetectable by standard near-infrared optical sorting sensors).	Malus (Multiplier: 1.5x)
PS	Body	Any format (Rigid or Expanded Styrofoam).	Malus (Multiplier: 1.5x)
Composite	Any	Contains a PVC layer, aluminum barrier foil layer, or bio-degradable PLA polymer blend.	Malus (Multiplier: 2.0x)

C.6.2 LDPE & flexible packaging billing exceptions

Because flexible low-density films are processed through distinct regional sorting operations, system developers must code the following automated overrides for LDPE:

- Clear commercial stretch film: If Material_Code = LDPE and Market_Segment = Commercial or Industrial, and the material is uncoloured/transparent, route automatically to the Base Tier (Multiplier: 1.0x).
- Heavily pigmented retail bags: If Material_Code = LDPE and Market_Segment = Household, and the material contains opaque colouring or deep tints, route automatically to the Malus Tier (Multiplier: 1.25x) to reflect the diminished market value of coloured recycled film flakes.

Section C.7: Administrative integration guide for PRO staff**C.7.1 Pre-validation checks for paper declarations**

When a clerk receives a handwritten or typed paper form at a PRO intake desk, the clerk must verify the presence of a clear split key for each component and check all weight allocations before transcribing data into the Manual_Portal.

C.7.2 Escalation & missing certificate protocol

If a paper submission claims a Recycled_Content_Pct greater than 0.00% but the producer has left the certification verification box completely blank:

1. Do not reject the form: The clerk must type in the requested percentage to keep the data stream whole.

2. Flag for suspended validation: The clerk shifts the Record_Status flag in Module 3 to Pending_Verification.
3. The 14-day grace trigger: The automated system generates an official warning notice to the producer. The producer has exactly fourteen business days to upload or email the missing certificate token.
4. Automated reset: If the token is successfully verified within the window, the status shifts to Active. If the 14-day grace period expires without proof, the system automatically overwrites the Recycled_Content_Pct to 0.00%, locks the row, and issues an un-modulated invoice.

d. Annex D: SOPs, Terms of Reference (ToR) and Key Performance Indicators (KPIs) for Monitoring, Reporting and Verification (MRV) Controls

While the core body of this report establishes the regulatory principles and governance rules of the EPR scheme, this Annex serves as the operational toolkit for its concrete implementation across the WB6. The objective of this section is to translate legal requirements into practical, ready-to-use administrative instruments, calibrated to fit regional capacities without creating undue bureaucratic burden. Crucially, this operational toolkit is designed to serve as the technical foundation for continuous capacity-building, providing the baseline criteria for upcoming training programs, inspectorate guidelines, and peer-learning activities across competent authorities, PROs, and operators. In line with the project's regional scope, these frameworks are designed to harmonise data collection, enabling seamless benchmarking between each WB6.

To avoid duplicate content with previous chapters and the dedicated Data Dictionary (Annex C), this toolkit focuses strictly on standardized data structures and operational field controls.

It is organised into three components:

- a **quarterly reporting template** to standardise producer declarations,
- an **evidence standards and inspection checklist** to empower environmental and market inspectorates on the ground,
- and a **harmonized KPI framework** equipped with formulas and reporting cadences to track and compare the overall performance of the EPR system at a regional level.

Section D.1: POM quarterly reporting template

Column name	Data type	Description / validation rule
Producer_ID	Alphanumeric	Unique EPR registration number.
Reporting_Period	Dropdown	Q1, Q2, Q3, Q4 + Year (e.g., Q1-2026).
Plastic_polymer_type	Dropdown	Specific resin category: PET (Clear), PET (Coloured), HDPE, LDPE/LLDPE, PP, PS, XPS, or Mixed/Multi-layer Plastics.
Packaging_Format	Dropdown	Rigid (e.g., bottles, trays) or Flexible (e.g., films, bags, pouches).

WB6 EPR Plastic Packaging Framework

Column name	Data type	Description / validation rule
Polymer_Proportion (%)	Numeric	Specific percentage of each plastic resin per tonne of packaging (mandatory for multi-layer or composite plastic waste).
POM_Mass_Tonnes	Numeric (Decimal)	Total net weight of plastic packaging placed on the domestic market.
Total_Units_Produced	Integer	Total number of individual plastic packaging units POM.
Recycled_Content_Proportion (%)	Numeric	Percentage of post-consumer recycled plastic (PCR) integrated into the packaging (critical for eco-modulation and EU targets verification).
Customs_Declaration_Ref	Alphanumeric	Mandatory if the plastic goods were imported (links to Customs database).

Section D.2: Evidence standards and inspection checklist for plastic supply chains

To ensure that producers do not under-report plastic volumes and that recycling claims are genuine, environmental and market inspectorates shall use the following standardized checklist during field and administrative controls:

Control point	Verification protocol	Required documentary evidence
Plastic imports	Cross-check declared plastic POM weights with customs entries and raw resin import volumes.	Single administrative document (SAD) from customs & bills of lading.
Domestic manufacturing	Match plastic processing output (or preform purchases) with sales logs.	Corporate sales ledgers, production logs, & value-added tax (VAT) tax declarations.
PRO membership	Ensure the producer is actively paying polymer-specific EPR fees.	Valid PRO compliance certificate for the active compliance year.
Traceability of scrap	Verify that collected plastic waste actually reached an authorized reprocessor.	Weighbridge records & Plastic Waste Transfer Notes (WTN).
Recycling validation	Confirm actual recycling occurred, net of washing and sorting polymer residuals.	Official Recycling Certificates signed by accredited plastic reproducers.
Recycled content claim	Audit the technical specifications of the plastic manufacturing process and raw material procurement.	Recycled content certificates (e.g., RecyClass, QA-CER, or equivalent ISO 14021/14044 standards), polymer purchasing invoices, and bills of materials (BOM).

Section D.3: Terms of reference (ToR) for PRO and reprocessor compliance audits

To maintain a level playing field and prevent systemic fraud, the authorized competent authority (or independent oversight body) does not manage daily operations but focuses its enforcement on auditing three critical pillars of the plastic EPR scheme:

A. Market free-riders and data matching

WB6 EPR Plastic Packaging Framework

- **The customs/tax audit:** the authority's primary task is to run annual automated cross-checks. It matches the list of registered producers in the EPR Registry against customs import databases and corporate Tax/VAT records.
- **Targeted enforcement:** if a company imports or manufactures plastic packaging but does not appear in the EPR registry, the authority triggers a direct compliance notice.

B. PRO governance and financial leaks

- **Anti-monopoly & related-party verification:** Since PRO boards are composed of industry competitors, the authority audits PRO procurement processes. It checks that the eco-contributions collected are spent on actual waste management and are not leaked through inflated contracts to the PRO's own board members' companies.
- **Solvency monitoring:** the authority audits the PRO's financial stability annually to ensure it holds the mandatory cash reserves required to pay municipalities for ongoing plastic collection, preventing sudden system shutdowns.

C. Traceability of plastic recycling

The authority verifies the integrity of the plastic recycling claims. Instead of heavy field inspections, it performs a desk-based "mass-balance audit" by cross-referencing three documents:

- The total plastic tonnages declared by the producers.
- The transport weight receipts (*Waste Transfer Notes*) from municipalities.
- The final **Recycling Certificates** issued by accredited reproprocessors.

It should be compliant with the implementing decisions of SUPD and the upcoming implementing acts under the PPWR.

The authority ensures that sorting residues, dirt, and unrecyclable polymer losses are strictly deducted from the final recycling rates, ensuring the jurisdiction only counts *real* recycling toward its EU and domestic targets.

D. WB6 Comparable KPI framework for plastic EPR

To allow benchmarking and performance comparison between the WB6, the effectiveness of the plastic EPR scheme shall be monitored using the following harmonized indicators:

KPI Name	Definition	Calculation formula	Reporting Cadence	Target aligned with EU
EPR Plastic Registration Rate	Measures the success of anti-free-rider controls and market coverage.	(Number of Registered Plastic Producers / Total Active Importers + Manufacturers from Tax Data) * 100	Annual	100% (Zero Free-Riders)
Polymer-Specific Recycling Rate	Tracks performance against target plastics (e.g., PET bottles).	(Verified Recycled Tonnes from Recycling Certificates / Total Declared POM Plastic Tonnes per Polymer) * 100	Annual	Aligned with EU PPWR & SUPD material targets

WB6 EPR Plastic Packaging Framework

KPI Name	Definition	Calculation formula	Reporting Cadence	Target aligned with EU
Free-rider plastic volume share	Estimates the size of the plastic leakage/unregistered market.	(Estimated Unregistered POM Tonnes from Customs vs Registry Gap / Total Estimated Domestic Plastic Packaging Market) * 100	Bi-annual	< 5% of total market volume
PRO operational solvency ratio	Evaluates the financial resilience of the collective system.	Total Financial Cash Reserves $\geq$ Operational Costs of 6 Months of Plastic Waste Collection	Quarterly	Continuous financial stability
Data Quality and Registry Consistency Rate	Measures the reliability and consistency of submitted declarations	Option A: (Declarations validated without correction / Total declarations submitted) $\times$ 100 Option B: Option B (Customs Discrepancy): (Total Tonnage Discrepancy identified via Customs Cross-Checks / Total Declared POM Tonnes) $\times$ 100	Annual	$\geq 95\%$

e. Annex E: PRO agreement framework

Strategic pillar	Detailed specifications	Minimum mandatory content and clause for the PRO agreement
Governance, legal status, and EPR scope	Corporate governance & non-profit structures	- Mandatory corporate structure as a private, strictly non-profit entity owned by the producers. - Obligation to ensure equal representation of different industry sectors (beverages, food, cosmetics, retail) within the Board of Directors - Requirement for competent-authority-appointed observers (e.g., Ministries of Environment and Finance) with veto power over budget deviations. - Strict prohibition of dividend distribution; all financial surpluses must be reinvested into the system or used to lower future EPR fees.
Institutional coordination and data-sharing	Inter-institutional cooperation and data exchange	- Obligation to establish formal cooperation mechanisms between environmental authorities, customs administrations, tax authorities, business registries, municipalities, and PROs. Mandatory, automated protocols for data sharing, strict traceability, and cross-verification of reported quantities to ensure absolute data accuracy. - Requirement to define responsibilities for data sharing, verification, and reconciliation of reported quantities. - Establishment of procedures for identifying free-riders and addressing inconsistencies between producer declarations and official administrative records. - Where applicable, cooperation protocols should be aligned with the functions of the Clearing House and domestic MRV systems.
Financial architecture framework	Cost coverage framework	- Definition of the municipal compensation based covering the municipal operational costs (separate collection, public bins, sorting, and transport). - Potential deduction of revenues from the sale of secondary raw materials from the total financial support paid to local public authorities depending of the EPR structure defined (operational or financial) - Inclusion of a minimum fee to cover local administrative and data reporting costs.

WB6 EPR Plastic Packaging Framework

Strategic pillar	Detailed specifications	Minimum mandatory content and clause for the PRO agreement
		Inclusion of costs for the cleanup, transport, and treatment of littered waste for designated Single-Use Plastic (SUP) products, in compliance with the SUPD, with a focus on covering sensitive areas such as coastal and tourist zones.
	Financial reserves	Requirement to maintain financial reserve equivalent to a minimum of 3 months to cover municipal costs and ensure continuous waste management service in case of PRO bankruptcy or license revocation.
	Eco-modulation	Mandatory establishment of a fee modulation framework based on the recyclability of packaging (Note: it will require to be compliant with upcoming secondary legislation of PPWR on eco-modulation rules)
Municipal infrastructure and collection	Standardized local agreement	Obligation to use a single, competent authority-approved model agreement template for all partnerships with municipalities.
Audits and performance targets	Reporting and controls	- Development of a secure digital reporting platform for producers to submit their packaging volume POM. - Obligation to conduct independent third-party audits on at least 5% to 10% of total member financial contributions annually, targeting data fraud or under-declaration.
	Progressive material performance targets	- Legally binding annual recycling targets for plastic packaging - Requirement to submit an annual compliance report to the Ministry of Environment demonstrating the performance targets using the latest EU calculation methods.
Research and development (R&D)	R&D funding allocations	Allocation of minimum percentage of total annual EPR fees revenue for the development of eco-design and R&D projects.
Consumer awareness	Implementing measures	- Allocation of minimum percentage of total annual EPR fees revenue for public consumer awareness campaigns. - Obligation to develop and deliver localized educational kits for schools, media sorting-awareness campaigns, etc.

f. Annex F: the universal PRO net cost fee formula

$$F_b = \frac{(C_{\text{coll}} + C_{\text{sort}} + C_{\text{adm}} + C_{\text{comm}}) - R_{\text{mat}}}{T_{\text{pom}}}$$

Where:

- C_{coll} = Total annual cost of separate collection and transport logistics for that specific material.
- C_{sort} = Total annual cost of mechanical sortation and gate-fee processing.
- C_{adm} = Administrative operational budget of the PRO and registry tracking lines.
- C_{comm} = Budget for public communication and consumer sorting awareness campaigns.
- R_{mat} = Total market revenue recovered from selling sorted high-quality baled plastic scrap fractions.

- T_{pom} = Total certified weight (in metric tonnes) of that specific polymer category placed on the domestic market

Example with dummy figures for "rigid plastic packaging" for one year.

If:

C _{coll} (collection & transport)	€4,000,000
C _{sort} (sorting & gate fees)	€2,500,000
C _{adm} (PRO admin & registry)	€500,000
C _{comm} (awareness campaigns)	€300,000
R _{mat} (revenue from selling sorted scrap)	€1,800,000
T _{pom} (tonnes POM)	250,000 tonnes

Then:

$$= (4,000,000 + 2,500,000 + 500,000 + 300,000) - 1,800,000 / 250,000$$

$$= (7,300,000 - 1,800,000) / 250,000$$

$$= 5,500,000 / 250,000 = €22.00$$

So, every producer who puts that type of plastic packaging on the market pays roughly €22 for every tonne they place — covering their fair share of collection, sorting, admin, and awareness costs, net of what the PRO recovered by selling the recycled scrap.

g. Annex G: model eco-modulation scoring matrix checklist

PRO auditors must evaluate packaging submissions using the following standardized scoring rules:

- Standard base polymer tariff applied (baseline verification).
- Criteria 1: Near-Infrared (NIR) scan verification - Passed / Failed (Apply +50% Carbon Black Malus)
- Criteria 2: Body density < 1 g/cm³ - Passed / Failed (Apply +50% Heavy Polymer Malus)
- Criteria 3: Detachable non-PVC closure-Passed / Failed (Apply +100% PVC Degradation Malus)
- Criteria 4: Certified post-consumer recycled content - [...] % verified via recognised certificate. (Deduct 1% from base fee for every 1% of certified PCR integrated).

h. Annex H: EPR fee parameter settings

This annex provides the comprehensive technical dataset required to operationalise the PRO net cost formula (Annex F). It serves as the unified reference for setting annual producer tariffs across the WB6 region.

The column “local context and challenges (WB6 insight)” quickly summarises and identifies the challenges for collecting these data, based on the existing dynamics in the WB6. It has been completed in coordination with stakeholder interviews and the inception report.

The general term ‘Currency’ is used to accommodate all domestic currencies.

Category	Parameter	Technical point	data	Unit of measure	Recommended data source	Local context and challenges (WB6 insights)
Operational costs	Collection and transport	Gross operational expenditure for separate plastic collection (bins, bags, fuel, labour).		[Currency]/tonne or [Currency]/capita	Municipal utility financial reports	Municipal tariffs currently do not cover real costs (Albania, Kosovo*). Data is fragmented across municipalities (Albania, Bosnia and Herzegovina).
	Logistics	Secondary transport costs from local transfer stations to regional sorting hubs.		[Currency]/tonne/km	Logistics service contracts	Infrastructure underdeveloped/underutilised (Albania, Kosovo*); sorting is often manual (Montenegro, Serbia).
	Sorting	Gate fees at Material Recovery Facilities (MRF), including residue disposal.		[Currency]/tonne (input)	Facility weighbridge logs	High dependence on donor funding (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), EU); lack of long-term capital expenditure (CAPEX) planning (Kosovo*, Montenegro).
	CAPEX support	Amortisation and investment for color-coded bins and specialized collection trucks.		Annual depreciation [Currency]	Asset registries/CAPEX audits	High price volatility and lack of a regional price index. Market risks for recyclers are high (Serbia).
	Litter clean-up	Cleanup of littered SUPs (SUPD Art. 8 liability).		[Curr.]/km or t	Municipal authorities and local environmental NGOs	Essential for SUPD alignment; currently no formal budget tracking for litter

WB6 EPR Plastic Packaging Framework

Category	Parameter	Technical point	data	Unit of measure	Recommended data source	Local context and challenges (WB6 insights)
						(Albania, Kosovo*).
	Informal sector integration	Service fees for informal sector aggregators.		[Curr.]/tonne	/	Informal sector manages major volumes; ignoring them leads to major data gaps (Serbia, Albania).
Market and revenue inputs	Markets revenues	Realised market value for sorted polymer fractions (PET, HDPE, PP, LDPE).		[Currency]/tonne (output)	Regional market indices	Essential for PRO solvency, but financial models remain conceptual and pending feasibility studies (Kosovo*, Albania).
	Yield factor	Percentage of marketable material recovered after sorting		% of total input	Material balance registers	Lack of technical capacity and NIR scanners within authorities to verify claims (Montenegro, Kosovo*). Potential for data fraud (Serbia).
	Stabilisation levy	Mandatory allocation for market volatility protection		5% of annual fee revenue	PRO financial plan	N/A
Eco-modulation (ref. Annex G)	NIR Scan (Crit. 1)	Verification of Near-Infrared detectability (e.g., Carbon Black).		+50% Malus on base fee	D4R Technical Audit	N/A
	Density (Crit. 2)	Verification of body density < 1 g/cm ³ (Rigid Polyolefins).		+50% Malus on base fee	Lab verification	N/A
	Closures (Crit. 3)	Compatibility of non-PVC closures and adhesives.		+100% Malus on base fee	D4R Technical Audit	N/A
	PCR Content (Crit. 4)	Verified percentage of Post-Consumer Recycled content.		-1% Credit per 1% of PCR	RecyClass / EuCertPlast	Lack of domestic standards for PCR verification (Albania, Kosovo*). Certification (e.g., RecyClass) is rare; high risk of "greenwashing" without third-

WB6 EPR Plastic Packaging Framework

Category	Parameter	Technical point	data	Unit of measure	Recommended data source	Local context and challenges (WB6 insights)
						party audits (Serbia).
System and administration	Registry & Audit	Central Electronic Registry maintenance & 5-10% producer audits.		Fixed annual [Currency]	Registry Budget	N/A
	Awareness	Domestic communication and litter-reduction campaigns.		[Currency]/inhabitant	Communication Plan	N/A
	Small and Medium Enterprise (SME) flat rate	Simplified fee for producers < 1 tonne/year.		Fixed unit fee [Currency]	Simplified Declaration	N/A

i. Annex I: model legal and governance templates

Template I.1 – PRO authorisation dossier

1. Legal Form & Registration

- Entity type (non-profit/commercial, as permitted domestically).
- Registration certificate and proof of legal standing.

2. Governance Safeguards

- Board composition (minimum independent members).
- Conflict-of-interest policy.
- Ring-fencing of financial flows.

3. Transparency Requirements

- Public disclosure of membership, fee schedules, audited reports.
- Annual governance statement published online.

4. Territorial Coverage Obligations

- Minimum service coverage (urban, rural, remote).
- Equitable access for all municipalities.

5. Audit & Oversight

- Independent annual financial and performance audit.
- Compliance with domestic registry reporting templates.

Template I.2 – Clearing house agreement

1. Mandate

- Ensure equitable distribution of collection obligations.
- Administer financial equalisation between PROs.

2. Financial Equalisation Rules

- Cost allocation proportional to market share.
- Transparent calculation methodology.

3. Standardized Municipal Contracts

- Harmonized service-level agreements (SLAs).
- Centralised tonnage declarations.

4. Data Verification & Reporting

- Consolidated compliance data.
- Annual public report on territorial coverage.

5. Escalation Procedures

- Penalties for non-compliance.
- Arbitration mechanism for disputes between PROs.

Template I.3 – SME simplified declaration form

1. Producer Identification

- Unique ID, contact details, authorized representative.

2. Annual Packaging Volume

- Estimated tonnage or category band (e.g., <500kg).

3. Fee Payment Declaration

- Flat-rate fee or simplified eco-modulation band.

4. Reporting Frequency

- Annual or quarterly, depending on domestic rules.

5. Audit Note

- Subject to random verification by PRO or authority.

Template I.4 model service level agreement (SLA) between PROs and Municipalities

1. Scope of Services

- Collection frequency, sorting standards, awareness campaigns.

2. Data Reporting Obligations

- Standardized templates for tonnage, costs, performance indicators.

3. Cost Allocation

- Transparent calculation of municipal service costs.

4. Verification Procedures

- Independent audits of municipal declarations.

5. Termination & Renewal

- Conditions for contract renewal or termination.

Template I.5 – Compliance officer role description (Market actors)

1. Core Responsibilities

- Producer registration, POM reporting, fee payment.
- Internal data collection and verification.

2. Circular Business Models

- Deposit-return schemes, reusable packaging pilots.
- Sector-specific compliance (Hotel, Restaurant, and Café/Catering (HoReCa), retail, e-commerce).

3. Reporting Lines

- Embedded within sustainability or finance departments.
- Liaison with PROs and domestic registries.

4. Training Requirements

- Eco-modulation, MRV protocols, fee modelling.

j. Annex J: Policy and legislative sources

1. EU Legislative Framework

- **PPWR:** Articles 46, 49, and 52 (Legal definitions and compliance requirements).
- **SUPD:** Article 9 (Separate collection targets).
- **WFD:** General provisions on EPR and producer responsibility.

2. WB6 Regional Policy

- **Green Agenda for the Western Balkans (GAWB):** Actions 19 and 22 (Implementation roadmaps for EPR and SUP reduction).

- **Regional Cooperation Council (RCC):** "Action Plan for the Implementation of the Sofia Declaration on the Green Agenda for the Western Balkans," Sectoral Study on Waste Management.
- **The World Bank:** "Solid Waste Management Sector Assessment in the WB6," Operational Policy Papers.

3. International Guidance and Best Practice

- **Organisation for Economic Co-operation and Development (OECD):** "EPR: Updated Guidance for Efficient Waste Management."
- **OECD:** "Competitiveness in the Western Balkans: A Policy Outlook," Chapter on Circular Economy and Waste Systems.
- **Prevent Waste Alliance / GIZ:** EPR Toolbox (Factsheets 2, 3, 4, 5, and 11) and "EPR Assessment and Implementation Roadmaps for Developing and Emerging Economies."
- **Regional Case Studies:** "Monitoring and Assessing EPR Compliance of Producers and Importers: The Case of Vietnam" and "EPR for Advancing Circular Economies for Plastics in Bangladesh."

k. Annex K: Detailed Legal reference

Subject	Law	Article	Legal provisions
EPR Scheme	WFD 2008/98/EC	Article 3(21)	'EPR scheme' means a set of measures taken by EU Member States (EU MS) to ensure that producers of products bear financial responsibility or financial and organizational responsibility for the management of the waste stage of a product's life cycle.
PRO	PPWR 2025/40/EC	Article 3(66)	'PRO' means a legal entity that financially, or financially and operationally, organises the fulfilment of EPR obligations on behalf of producers.
Packaging	PPWR	Article 3(1)	'packaging' means an item, irrespective of the materials from which it is made, that is intended to be used by an economic operator for the containment, protection, handling, delivery or presentation of products to another economic operator or to an end user, and that can be differentiated by packaging format based on its function, material and design, including: (a) an item that is necessary to contain, support or preserve a product throughout its lifetime, without being an integral part of the product, and which is intended to be used, consumed or disposed of together with the product; (b) a component of, and ancillary element to, an item referred to in point (a) that is integrated into the item; (c) an ancillary element to an item referred to in point (a) that is hung directly on, or attached to, the product and that performs a packaging function, without being an integral part of the product, and which is intended to be used, consumed or disposed of together with the product; (d) an item that is designed and intended to be filled at the point of sale in order to dispense the product, which is also referred to as 'service packaging'; (e) a disposable item that is sold and filled or designed and intended to be filled at the point of sale and which performs a packaging function; (f) a permeable tea, coffee or other beverage bag, or soft after-use system single-serve unit that contains tea, coffee or another beverage, and which is intended to be used and disposed of

WB6 EPR Plastic Packaging Framework

Subject	Law	Article	Legal provisions
			together with the product; (g) a non-permeable tea, coffee or other beverage system single-serve unit intended for use in a machine and which is used and disposed of together with the product;
Plastic	SUPD	Article 3(1)	‘plastic’ means a material consisting of a polymer as defined in point (5) of Article 3 of Regulation (EC) No 1907/2006 of the European Parliament and of the Council (3), to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified’
Composite packaging	PPWR	Article 3(24)	‘Composite packaging’ means a unit of packaging made of two or more different materials which are part of the weight of the main packaging material and cannot be separated manually and therefore form a single integral unit, unless one of the materials constitutes an insignificant part of the packaging unit and in any event no more than 5 % of the total mass of the packaging unit and excluding labels, varnishes, paints, inks, adhesives and lacquers; this is without prejudice to Directive (EU) 2019/904;
Single-use packaging	PPWR	Article 3	‘single-use packaging’ means packaging which is not reusable packaging.
SUP packaging sales	PPWR	Article 3(5)	‘sales packaging’ means packaging conceived so as to constitute a sales unit consisting of products and packaging to the end user at the point of sale.
	PPWR:	Article 3(54)	‘SUP beverage bottles’ means beverage bottles listed in Part F of the Annex to Directive (EU) 2019/904;
	Annex to SUPD	Part F	‘Beverage bottles with a capacity of up to three litres, including their caps and lids, but not: (a) glass or metal beverage bottles that have caps and lids made from plastic, (b) beverage bottles intended and used for food for special medical purposes as defined in point (g) of Article 2 of Regulation (EU) No 609/2013 that is in liquid form’
SUP packaging service	PPWR	Article 3(1)	“an item that is designed and intended to be filled at the point of sale in order to dispense the product, which is also referred to as ‘service packaging”
Single-use grouped packaging	PPWR	Article 3(6)	‘grouped packaging’ means packaging conceived so as to constitute a grouping of a certain number of sales units at the point of sale, irrespective of whether that grouping of sales units is sold as such to the end user or whether it serves as a means to facilitate the restocking of shelves at the point of sale or to create a stock-keeping or distribution unit, and which can be removed from the product without affecting its characteristics
Single-use primary production packaging and transport packaging	PPWR	Article 3(4)	‘primary production packaging’ means an item designed and intended to be used as packaging for unprocessed products from primary production as defined in Regulation (EC) No 178/2002 of the European Parliament and of the Council (54);
	PPWR	Article 3(7)	‘transport packaging’ means packaging conceived so as to facilitate the handling and transport of one or more sales units or a grouping of sales units, in order to prevent damage to the product from handling and transport, but which excludes road, rail, ship and air containers;

WB6 EPR Plastic Packaging Framework

Subject	Law	Article	Legal provisions
E-commerce packaging	PPWR	Article 3(8)	'e-commerce packaging' means transport packaging used to deliver products in the context of sale online or through other means of distance sales to the end user;
Reusable packaging	Article 11 of PPWR		
Reusable packaging	PPWR	Article 11	(a) it has been conceived, designed, and POM with the objective to be re-used multiple times; (b) it has been conceived and designed to accomplish as many rotations as possible under normally predictable conditions of use; (c) it fulfils applicable requirements regarding consumer health, safety, and hygiene; (d) it can be emptied or unloaded without being damaged in a way that would prevent its further function and re-use; (e) it is capable of being emptied, unloaded, refilled, or reloaded while maintaining the quality and safety of the packaged product and ensuring compliance with the applicable safety and hygiene requirements, including those on food safety; (f) it is capable of being reconditioned while maintaining its ability to perform its intended function; (g) it allows for affixing of labels and the provision of information on the properties of that product and on the packaging itself, including any relevant instructions and information for ensuring safety, adequate use, traceability, and shelf-life of the product; (h) it can be emptied, unloaded, refilled, or reloaded without risk to the health and safety of those responsible for doing so; and (i) it fulfils the requirements specific to recyclable packaging set out in Article 6, so that it can be recycled when it becomes waste.
Producer	PPWR	Article 3(15)	'producer' means any manufacturer, importer or distributor to whom, irrespective of the selling technique used, including by means of distance contracts, one of the following applies: (a) the manufacturer, importer or distributor is established in a EU MS and makes available for the first time from within the territory of that EU MS and on that same territory transport packaging, service packaging, or primary production packaging, whether as single-use packaging or as reusable packaging; or (b) the manufacturer, importer or distributor is established in a EU MS and makes available for the first time from within the territory of that EU MS and on that same territory products packaged in packaging other than those referred to in point (a); or (c) the manufacturer, importer or distributor is established in a EU MS or in a third jurisdiction and makes available for the first time on the territory of another EU MS, directly to end users, transport packaging, service packaging or primary production packaging, whether as single-use packaging or as reusable packaging; or (d) the manufacturer, importer or distributor is established in a EU MS or in a third jurisdiction and makes available for the first time on the territory of another EU MS, directly to end users, products packaged in packaging other than those referred to in point (c); or (e) the manufacturer, importer or distributor is established in a EU MS and unpacks packaged products without being an end user, unless another person is the producer as defined in point (a), (b), (c) or (d);
Online platform	Regulation (EU) 2022/2065	Article 3 (i)	'online platform' means a hosting service that, at the request of a recipient of the service, stores and disseminates

WB6 EPR Plastic Packaging Framework

Subject	Law	Article	Legal provisions
			information to the public, unless that activity is a minor and purely ancillary feature of another service or a minor functionality of the principal service and, for objective and technical reasons, cannot be used without that other service, and the integration of the feature or functionality into the other service is not a means to circumvent the applicability of this Regulation;
Online platform obligations	PPWR	Article 45	Providers of online platforms (...) that allow consumers to conclude distance contracts with producers shall obtain the following information from producers that offer packaging or packaged products to consumers located in the Union prior to allowing those producers to use their services: (a) information on the registration of the producers referred to in Article 44 of this Regulation in the EU MS where the consumer is located and the registration number(s) of the producer in that register; (b) a self-certification by the producer confirming that it only offers packaging with regard to which the EPR requirements referred to in paragraphs 1, 2 and 3 of this Article are complied with in the EU MS where the consumer is located. Where a producer sells its products via an online marketplace, the obligations set out in paragraph 2 of this Article may, on the basis of written mandate, be met by the provider of the online platform, on behalf of the producer.
Placing on the market	PPWR	Article 3(11)	'placing on the market' means the first making available of packaging, whether empty or with a product, on the Union market.
Geographical scope	WFD	Article 8a 3)	EU MS shall take the necessary measures to ensure that any producer of products or organization implementing EPR obligations on behalf of producers of products:
Coordinating body	WFD	Article 8a 5)	"Where, in the territory of an EU MS, multiple organizations implement EPR obligations on behalf of producers of products, the EU MS concerned shall appoint at least one body independent of private interests or entrust a public authority to oversee the implementation of EPR obligations."
Costs coverage of separate collection and waste treatment	WFD	Article 8a 4)	"4. EU MS shall take the necessary measures to ensure that the financial contributions paid by the producer of the product to comply with its EPR obligations: (a) cover the following costs for the products that the producer puts on the market in the EU MS concerned: — costs of separate collection of waste and its subsequent transport and treatment, including treatment necessary to meet the Union waste management targets, and costs necessary to meet other targets and objectives as referred to in point (b) of paragraph 1, taking into account the revenues from re-use, from sales of secondary raw material from its products and from unclaimed deposit fees, — costs of providing adequate information to waste holders in accordance with paragraph 2, — costs of data gathering and reporting in accordance with point (c) of paragraph 1. (...) c) Do not exceed the costs that are necessary to provide waste management services in a cost-efficient way. Such costs shall be established in a transparent way between the actors concerned. Where justified by the need to ensure proper waste management and the economic viability of the EPR scheme, EU MS may depart from the division of financial responsibility as laid down in point (a), provided that: (i) in the case of EPR schemes established to attain waste management targets and objectives established under legislative acts of the Union, the producers of products bear at least 80 % of the necessary costs; (ii) in the case of EPR schemes established on or after 4 July 2018 to attain waste

WB6 EPR Plastic Packaging Framework

Subject	Law	Article	Legal provisions
			management targets and objectives solely established in EU MS legislation, the producers of products bear at least 80 % of the necessary costs; (...)
General and administrative costs	WFD	Article 8a 3)	EU MS shall take the necessary measures to ensure that any producer of products or organization implementing EPR obligations on behalf of producers of products:(...)(c) has the necessary financial means or financial and organizational means to meet its EPR obligation
Coverage costs of awareness measures and littering costs	SUPD	Article 8 2) a)	"EU MS shall ensure that the producers of the SUP products listed in Section I of Part E of the Annex to this Directive cover the costs pursuant to the EPR provisions in Directives 2008/98/EC and 94/62/EC and, insofar as not already included, cover the following costs: (a) the costs of the awareness raising measures referred to in Article 10 of this Directive regarding those products; (b) the costs of waste collection for those products that are discarded in public collection systems, including the infrastructure and its operation, and the subsequent transport and treatment of that waste; and (c) the costs of cleaning up litter resulting from those products and the subsequent transport and treatment of that litter."
Awareness measures	SUPD	Article 11	"EU MS shall take measures to inform consumers and to incentivise responsible consumer behaviour, in order to reduce litter from products covered by this Directive, and shall take measures to inform consumers of the SUP products listed in Part G of the Annex and users of fishing gear containing plastic about the following: (a) the availability of re-usable alternatives, re-use systems and waste management options for those SUP products and for fishing gear containing plastic as well as best practices in sound waste management carried out in accordance with Article 13 of Directive 2008/98/EC; (b) the impact of littering and other inappropriate waste disposal of those SUP products and of fishing gear containing plastic on the environment, in particular on the marine environment; and 12.6.2019 Official Journal of the EU L 155/13 EN (24) Council Regulation (EC) No 850/98 of 30 March 1998 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms (OJ L 125, 27.4.1998, p. 1). (c) the impact of inappropriate means of waste disposal of those SUP products on the sewer network."
Licence	French Environmental Code	Article L541-10	1.- Pursuant to the EPR principle, any natural or legal person who designs, manufactures, handles, treats, sells, or imports waste-generating products, or components and materials used in their manufacture—referred to as the "producer" under this sub-section—may be required to provide for or contribute to the prevention and management of the waste generated by such products. Producers may also be required to adopt an eco-design approach for their products; to promote the extension of product lifespans by ensuring, to the best of their ability, that all professional repairers and consumers concerned have access to the components indispensable for efficient maintenance; to support reuse, redistribution, and repair networks, such as those managed by social and solidarity economy organizations or those promoting integration through employment; to contribute to development aid projects regarding the collection and treatment of their waste; and to develop the recycling of waste originating from such products. Producers shall fulfil their obligation by collectively setting up accredited PROs, which they shall govern, to which they shall transfer their obligation,

WB6 EPR Plastic Packaging Framework

Subject	Law	Article	Legal provisions
			and to which they shall pay a financial contribution in return. Exceptions to this governance principle may be granted by decree if no accredited PRO has been established by the producers. Representatives of local authorities responsible for waste management, accredited environmental protection associations, consumer protection associations, as well as legal entities operating in the reuse and redistribution sector, may be involved in preparing certain decisions upon request by the governing body of the PRO. Each PRO shall establish a stakeholder committee, comprising notably producers, representatives of local authorities responsible for waste management, accredited environmental protection associations, consumer protection associations, as well as waste prevention and management operators, including those from the social and solidarity economy. This committee shall issue a public opinion prior to certain decisions made by the PRO, specifically those regarding commitments undertaken, the amount and scale of financial contributions, eco-modulation of fees, the allocation of funding, and the terms of procurement contracts initiated by the PRO. In the absence of an opinion within one month, it shall be deemed granted. The committee may also issue recommendations to the PRO, particularly concerning the eco-design of products within the scope of the producer responsibility scheme. The committee shall have access to information held by the PRO for the performance of its duties, subject to legally protected trade secrets. The composition of the committee, its operating procedures, and the types of draft decisions to be submitted to it for a prior opinion shall be specified by decree. They may be adapted to reflect the specific characteristics of each sector. Producers who set up an accredited individual collection and treatment system may derogate from the second paragraph of this Section I, provided that their products bear a marking identifying their origin, that they ensure free take-back of waste across the entire domestic territory—accompanied, where it improves collection efficiency, by a return premium aimed at preventing littering—and that they hold a financial guarantee in the event of default. Any person who, on a professional basis, places on the market for the first time within the domestic territory a product subject to the EPR principle, and resulting from a reuse, preparation for reuse, or redistribution operation, may be considered a producer. A decree shall define the application terms of this paragraph, notably the specific EPR sectors concerned. II.- PROs and individual systems shall be accredited for a renewable maximum duration of six years, provided they demonstrate that they possess the technical capability, governance structure, and financial and organizational means to meet the requirements of a specification standard fixed by ministerial decree, following an opinion from the cross-sector commission. This specification standard shall detail the objectives and implementation methods of the obligations mentioned in this section, the projects on which the cross-sector commission must be consulted or informed, and, where justified by the nature of the products, shall set distinct targets for waste reduction, reuse, preparation for reuse, repair, integration of recycled material, recyclability, and recycling. These targets must align with domestic waste management goals. PROs and individual systems shall also be subject to periodic self-monitoring based on regular independent audits conducted at least every two years, to evaluate their financial management, the quality of data collected and reported, and the coverage of waste management costs. A summary of the audit findings shall be officially published, subject to legally

WB6 EPR Plastic Packaging Framework

Subject	Law	Article	Legal provisions
			protected trade secrets. In overseas territories, the aforementioned specification standard shall provide for the consultation of the local authorities concerned to ensure a tailored deployment of waste prevention, collection, treatment, and recovery. It shall also allow PROs to temporarily provide for the collection, sorting, or treatment of waste subject to the EPR principle in local authorities that request it. Where multiple PROs are accredited for the same product category, producers may be required to establish an accredited coordinating body under the same conditions as provided in the first paragraph. III.- PROs shall treat producers under objective, transparent, and non-discriminatory conditions. They shall provide them with analytical accounting for the various categories of products and resulting waste, transfer the unused portion of their contributions in the event of a change of PRO, and grant them access to technical information from waste management operators to facilitate the eco-design of their products. Subject to legally protected trade secrets, producers of waste-generating products and their PROs shall also grant waste management operators access to technical information regarding products POM, particularly any information on the presence of hazardous substances, to ensure high-quality recycling or recovery. For their accredited activities, PROs shall fulfil a public interest mission, may only engage in low-risk, secure financial investments, and their articles of association shall explicitly state that they operate on a non-profit basis for their accredited activities. A domestic auditor shall ensure that PROs maintain sufficient financial capacity to meet their obligations and that this financial capacity is used in compliance with this paragraph.
Transparency	WFD	Article 8a 3) e)	EU MS shall take the necessary measures to ensure that any producer of products or organization implementing EPR obligations on behalf of producers of products:(...)(e) makes publicly available information about the attainment of the waste management targets referred to in point (b) of paragraph 1, and, in the case of collective fulfilment of EPR obligations, also information about: (i) its ownership and membership; (**ii) the financial contributions paid by producers of products per unit sold or per tonne of product POM; and (iii) the selection procedure for waste management operators.
Waste hierarchy	WFD	Article 4	The following waste hierarchy shall apply as a priority order in waste prevention and management legislation and policy: (a) prevention; (b) preparing for re-use; (**c) recycling; (d) other recovery, e.g. energy recovery; and (e) disposal.
Plastic bans	SUPD	Article 5 and Part B of the Annex	EU MS shall prohibit the placing on the market of the SUP products listed in Part B of the Annex and of products made from oxo-degradable plastic. (1)Cotton bud sticks, except if they fall within the scope of Council Directive 90/385/EEC (1) or Council Directive 93/42/EEC (2); (2)Cutlery (forks, knives, spoons, chopsticks); (3)Plates (4)Straws, except if they fall within the scope of Directive 90/385/EEC or Directive 93/42/EEC; (5)Beverage stirrers; (6)Sticks to be attached to and to support balloons, except balloons for industrial or other professional uses and applications that are not distributed to consumers, including the mechanisms of such sticks; (7)Food containers made of expanded polystyrene, i.e. receptacles such as boxes, with or without a cover, used to contain food which: (a)is intended for immediate consumption, either on-the-spot or take-away,

WB6 EPR Plastic Packaging Framework

Subject	Law	Article	Legal provisions
			(b) is typically consumed from the receptacle, and (c) is ready to be consumed without any further preparation, such as cooking, boiling or heating, including food containers used for fast food or other meal ready for immediate consumption, except beverage containers, plates and packets and wrappers containing food; (8) Beverage containers made of expanded polystyrene, including their caps and lids (9) Cups for beverages made of expanded polystyrene, including their covers and lids.
Plastic bans	PPWR	Article 25 and Annex 5	From 1 January 2030, economic operators shall not place on the market packaging in the formats and for the uses listed in Annex V: - SUP packaging used at the point of sale to group goods sold in bottles, cans, tins, pots, tubs, and packets designed as convenience packaging to enable or encourage consumers to purchase more than one product. (...) - SUP packaging for less than 1,5 kg prepacked fresh fruit and vegetables (...) - SUP packaging for foods and beverages filled and consumed within the premises in the HoReCa sector (...) - SUP packaging in the HoReCa sector, containing individual portions or servings, used for condiments, preserves, sauces, coffee creamer, sugar and seasoning, (...) - Single-use packaging for cosmetics, hygiene and toiletry products for the use in the accommodation sector (...) - Very lightweight plastic carrier bags, except for very lightweight plastic carrier bags required for hygiene reasons or provided as sales packaging for loose food when this helps to prevent food wastage.
Recycled content targets	PPWR	Article 7	1. By 1 January 2030 or 3 years from the date of entry into force of the implementing act referred to in paragraph 8 of this Article, whichever is the latest, any plastic part of packaging POM shall contain the following minimum percentage of recycled content recovered from post-consumer plastic waste, per packaging type and format as referred to in Table 1 of Annex II, calculated as an average per manufacturing plant and year: (a) 30 % for contact-sensitive packaging made from polyethylene terephthalate (PET) as the major component, except SUP beverage bottles; (b) 10 % for contact-sensitive packaging made from plastic materials other than PET, except SUP beverage bottles; (c) 30 % for SUP beverage bottles; (d) 35 % for plastic packaging other than those referred to in points (a), (b) and (c) of this paragraph.
Awareness measures	SUPD	Article 10	EU MS shall take measures to inform consumers and to incentivise responsible consumer behaviour, in order to reduce litter from products covered by this Directive, and shall take measures to inform consumers of the SUP products listed in Part G of the Annex and users of fishing gear containing plastic about the following: (a) the availability of re-usable alternatives, re-use systems and waste management options for those SUP products and for fishing gear containing plastic as well as best practices in sound waste management carried out in accordance with Article 13 of Directive 2008/98/EC; (b) the impact of littering and other inappropriate waste disposal of those SUP products and of fishing gear containing plastic on the environment, in particular on the marine environment; and (c) the impact of inappropriate means of waste disposal of those SUP products on the sewer network.

Annexes for Part II: Domestic stress-testing and domestic roadmaps**Annexes from Part 2 of main report: regional and domestic stress testing**

This part provides an in-depth domestic stress-testing for each WB6.

Albania

Failure risk	mode	Specific local gaps (from interviews + inception report)	Toolkit Resilience Solution (Phase 2 Annexes)	Domestic assessment and local adaptation
Data gaps and reliability		Fragmented reporting and inconsistent coding across the Producer Registry, Customs, Institute of Statistics (INSTAT) and the Environmental Agency (NEA) create risks of under-reporting, data gaps, and double counting.	Annex C (Data Dictionary) & Template A.1: Standardizes polymer definitions and enables automated cross-checks via Unique IDs.	This solution directly addresses current data-coding friction and should be integrated with the planned SIMM digital platform. Local adaptation should prioritise alignment between NEA, Customs, and INSTAT datasets, using the unique EPR registration number as the common reference point.
Underfunding		Municipal waste tariffs remain below the real cost of service provision, and public budget allocations for waste infrastructure are often insufficient. As a result, the development, modernisation, and long-term operation of municipal waste systems frequently depend on capital investments, external or donor-funded support, and, in many cases, Public-Private Partnership models.	Annex F (necessary cost Formula) & Annex H (Stabilisation Fund): Mandates 80-100% cost recovery from producers and creates a financial buffer.	The necessary-cost methodology is critical because it bridges the gap between current municipal tariffs and the actual operational costs of plastic packaging waste management. Local adaptation should start with pilot municipalities to calculate real service costs and define transparent compensation rules between PROs and municipalities.
Weak enforcement		Weak inspection and monitoring capacities, combined with the lack of clear operational procedures for enforcement and sanctioning, limit the effective implementation of waste management obligations and reduce compliance incentives.	Checklist B.1 (Inspectorate)& Administrative Sanctions: Provides a step-by-step verification protocol for field audits.	The checklist provides the technical basis needed for NEA, the Market Inspectorate and Customs to execute their mandates in a consistent way. Albania should adapt the checklist into a domestic inspection protocol, supported by inspector training and a clear escalation pathway for free-riders and non-reporting producers.
Governance capture		No operational PROs have been established yet, while the business model for implementation remains unclear. Institutional roles and responsibilities, particularly between the Ministry, the NEA and the Agency for Waste Economy of Albania (AKEM), still require further clarification to ensure effective coordination, oversight, and enforcement.	Template I.1 (PRO Authorisation) & B.2 (Audit Protocol): Strict non-profit licensing criteria and mandatory third-party audits	These tools are essential to prevent monopolistic behaviour, opaque financial flows or weak accountability as PROs enter the domestic market. Local adaptation should require clear PRO authorisation criteria, transparent annual reporting, independent audits and public disclosure of key performance and financial indicators.
Infrastructure bottlenecks		Sorting and recycling infrastructure remains basic and underfunded; the domestic	Template I.4 (Model SLA): Secures feedstock for recyclers through binding service level agreements	The SLA model is essential for scaling up local sorting and recycling initiatives, including pilots such as Permet and Lezha. Local

WB6 EPR Plastic Packaging Framework

Failure risk	mode	Specific local gaps (from interviews + inception report)	Toolkit Resilience Solution (Phase 2 Annexes)	Domestic assessment and local adaptation
		recycling industry operates at very low capacity.	(SLA) between PROs and cities	adaptation should define minimum service standards, contamination thresholds, payment mechanisms for quality materials and contractual obligations for municipalities, PROs, and recyclers.

Bosnia and Herzegovina

Failure risk	mode	Specific local gaps (from interviews + inception report)	Toolkit Resilience Solution (Phase 2 Annexes)	Domestic assessment and local adaptation
Data gaps and reliability		Fragmented reporting across entity-levels of Bosnia and Herzegovina; lack of specialized databases and qualified staff for data management.	Annex C (Data Dictionary) & Template A.1: Standardises polymer definitions and enables automated cross-checks via Unique IDs	<i>The proposed harmonized data framework directly addresses the fragmentation of reporting systems between lower administrative levels and the absence of interoperable databases. Local adaptation should prioritise the establishment of a common reporting architecture and standardized coding rules across entity-levels of Bosnia and Herzegovina and Brcko District of Bosnia and Herzegovina, using a unique EPR registration number to enable cross-checking of producer declarations, customs records, and waste flow reporting.</i>
Underfunding		Funding limited to basic bin procurement; lack of full lifecycle cost transparency in lower administrative levels	Annex F (necessary cost Formula) & Annex H (Stabilisation Fund): Mandates 80-100% cost recovery from producers and creates a financial buffer.	The necessary-cost methodology is particularly relevant as current EPR financing often covers only collection containers and selected awareness activities, while sorting, transport and treatment costs remain insufficiently financed. Local adaptation should include pilot cost assessments in representative municipalities and public utility companies to establish transparent service costs and compensation mechanisms between PROs, municipalities, and service providers.
Weak enforcement		Weak operational execution and fragmented enforcement mechanisms across various levels of government	Checklist B.1 (Inspectorate)& Administrative Sanctions: Provides a step-by-step verification protocol for field audits.	The harmonized inspection checklist would strengthen consistency in enforcement across lower administration level inspection bodies. Local adaptation should focus on developing joint inspection protocols, clarifying institutional responsibilities, and providing specialised training for environmental and market inspectors to improve detection of free-riders, under-reporting, and non-compliance with EPR obligations.

WB6 EPR Plastic Packaging Framework

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Resilience Solution (Phase 2 Annexes)	Domestic assessment and local adaptation
Governance capture	Fragmented institutional roles and risk of local monopolies; limited practical EPR knowledge at local level.	Template I.1 (PRO Authorisation) & B.2 (Audit Protocol): Strict non-profit licensing criteria and mandatory third-party audits	These governance safeguards are particularly important in the Bosnia and Herzegovina context, where fragmented institutional arrangements and small market volumes may increase the risk of market concentration and conflicts of interest. Local adaptation should establish transparent authorisation criteria for PROs, mandatory independent audits, and public disclosure of financial and operational performance indicators, while clearly defining oversight responsibilities across competent authorities.
Infrastructure bottlenecks	Sorting is limited to the point of generation (bins) with no industrial-scale sorting or clear material flow tracking.	Template I.4 (Model SLA): Secures feedstock for recyclers through binding SLA between PROs and cities	The SLA model could provide the contractual certainty needed to expand sorting and recycling capacity in Bosnia and Herzegovina and improve material traceability. Local adaptation should prioritise the integration of municipal public utility companies and private waste operators into the PRO financing framework, define minimum service standards and reporting obligations, and establish incentives for investments in sorting infrastructure and material recovery facilities.

*Kosovo**

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Resilience Solution (Phase 2 Annexes)	Domestic assessment and local adaptation
Data gaps and reliability	Significant constraints in monitoring and reporting due to the lack of an integrated information system.	Annex C (Data Dictionary) & Template A.1: Standardizes polymer definitions and enables automated cross-checks via Unique IDs.	Until the EPR is established, standardized manual reporting templates for producers, importers, municipalities, and waste operators, should be created. Once the EPR is operational, these reporting procedures should be migrated to a domestic integrated information system.
Underfunding	Insufficient funding for waste infrastructure, reliance on donor funding and municipal budget.	Annex F (necessary cost Formula) & Annex H (Stabilisation Fund): Mandates 80-100% cost recovery from producers and creates a financial buffer.	The polluter-pays principle should be presented. Assess the Eco-Fund's role in managing these financial flows, and support awareness raising, capacity building, and infrastructure investments during the transitional phase, while operational waste management costs should be financed through producer responsibility fees.
Weak enforcement	Gaps in human resource capacity at the central level, shortage of environmental	Checklist B.1 (Inspectorate)& Administrative Sanctions:	Capacity building and training programme for environmental inspectors, Agency for

WB6 EPR Plastic Packaging Framework

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Resilience Solution (Phase 2 Annexes)	Domestic assessment and local adaptation
	inspectors, and staff within the waste management sector.	Provides a step-by-step verification protocol for field audits.	Environmental Protection of Kosovo* (KEPA), municipal inspectors, and other relevant authorities on packaging reporting, producer verification, risk-based inspections, audit procedures, and the use of harmonized inspection manuals and upcoming digital reporting tools.
Governance capture	Delayed implementation of secondary legislation and institutional capacity gaps regarding EPR fee calculation and PRO governance.	Template I.1 (PRO Authorisation) & B.2 (Audit Protocol): Strict non-profit licensing criteria and mandatory third-party audits	Secondary legislation should clearly define licensing criteria, governance requirements, roles and responsibilities, transparency obligations, auditing procedures, conflict-of-interest safeguards, and regulatory oversight before PRO is established and becomes operational.
Infrastructure bottlenecks	Current waste management system suffers from limited technical infrastructure, no infrastructure for separate collection and sorting, and limited operational logistics to support the EPR system.	Template I.4 (Model SLA): Secures feedstock for recyclers through binding SLA between PROs and cities	Prioritisation of municipal sorting facilities in the initial PRO investment rounds, accompanied by gradual investments in separate collection infrastructure, operational logistics, and recycling capacity to support the effective implementation of EPR.

Montenegro

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Resilience Solution (Phase 2 Annexes)	Domestic assessment and local adaptation
Data gaps and reliability	Significant constraints in monitoring due to the delay in establishing an integrated information system; historical lack of integrated digital monitoring.	Annex C (Data Dictionary) & Template A.1: Standardizes polymer definitions and enables automated cross-checks via Unique IDs.	Support the phased introduction of standardized manual data collection and reporting protocols across institutions until the domestic digital information system is fully operational. Align reporting templates with the 2025 digital reporting targets, establish a centralised producer registry, and harmonise data collection methodologies to enable interoperability and data exchange between the oversight body, statistical office and tax and customs administration.
Underfunding	Due to a decentralised waste management system, local authorities suffer from historically insufficient funding for municipal waste infrastructure, paired with a central government capital investment gap for regional infrastructure.	Annex F (necessary cost Formula) & Annex H (Stabilisation Fund): Mandates 80-100% cost recovery from producers and creates a financial buffer.	Local adaptation depends on the strict execution of targets mandated by the Waste Management Plan. The line Ministry must strengthen its supervisory and enforcement mechanisms over local municipalities. Strict legal penalties must be introduced for municipalities failing to adopt local waste management plans or comply

WB6 EPR Plastic Packaging Framework

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Solution (Phase 2 Annexes)	Resilience (Phase 2)	Domestic assessment and local adaptation
				with the domestic Waste Management Plan.
Weak enforcement	Previous EPR attempts failed due to a lack of operational logistics and non-enforcement. Substantial gaps in human resource capacity and a shortage of qualified staff within the waste management sector and inspectorates.	Checklist B.1 (Inspectorate)& Administrative Sanctions: Provides a step-by-step verification protocol for field audits.		Capacity building needs for the Environmental Protection Agency (EPA) to implement the field verification manual. Address human resource constraints by strengthening technical capacities within inspectorates and other competent authorities, introducing standardized enforcement procedures, and enhancing coordination among institutions responsible for EPR compliance monitoring.
Governance capture	Delayed implementation of secondary legislation, human resource gaps within the oversight bodies and institutional capacity gaps in establishing the necessary digital monitoring infrastructure.	Template I.1 (PRO Authorisation) & B.2 (Audit Protocol): Strict non-profit licensing criteria and mandatory third-party audits		Improve inter-institutional coordination through clearly defined mandates, harmonized implementation procedures, and shared digital reporting systems. Prioritise the timely adoption of secondary legislation and strengthen institutional capacity to ensure consistent oversight and enforcement.
Infrastructure bottlenecks	Current system suffers from limited technical infrastructure, critical human resources gaps and a lack of operational logistics.	Template I.4 (Model SLA): Secures feedstock for recyclers through binding SLA between PROs and cities		Address infrastructure bottlenecks through a phased investment approach combining PRO obligations with targeted development of collection, sorting, and transfer infrastructure. Prioritise high-impact waste streams and strengthen operational logistics, including transport and aggregation systems.

North Macedonia

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Solution (Phase 2 Annexes)	Resilience (Phase 2)	Domestic assessment and local adaptation
Data gaps and reliability	Reliable and centralized data is missing, making waste flow monitoring and target tracking difficult	Annex C (Data Dictionary) & Template A.1: Standardizes polymer definitions and enables automated cross-checks via Unique IDs.		Integration of existing The Ministry of Environment (MoEPP) databases with the new regional data standards, including joint digital connection between the Ministries and Customs controls. In addition, integration of the custom controls into the EPR system.
Underfunding	Resistance from producers to extra costs and lack of visibility on real treatment/recycling costs.	Annex F (necessary cost Formula) & Annex H (Stabilisation Fund): Mandates 80-100% cost recovery from producers and creates a financial buffer.		Application of the eco-modulation scoring to achieve full lifecycle cost recovery. Cooperation among Ministry and Custom controls for increased control and reducing the free-riders.

WB6 EPR Plastic Packaging Framework

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Solution (Annexes)	Resilience (Phase 2)	Domestic assessment and local adaptation
Weak enforcement	Shortage of qualified staff (only fifteen inspectors) and 30-40% of companies are "free-riders" outside the scheme.	Checklist (Inspectorate) & Administrative Sanctions: Provides a step-by-step verification protocol for field audits.	B.1	Mandatory customs-PRO data sharing to identify unregistered importers. Joint inspection controls between environmental and market inspectors for reducing the free-riders.
Governance capture	Shortage of skilled technical staff capable of managing complex EPR technicalities.	Template I.1 (PRO Authorisation) & B.2 (Audit Protocol): Strict non-profit licensing criteria and mandatory third-party audits		Strengthening the MoEPP's oversight role via harmonized regional audit standards. Establishing Body on Producer Balancing where skilled technical staff will be employed and will work independently.
Infrastructure bottlenecks	Waste transporters use obsolete equipment, and there is a need for continuous investment in municipal infrastructure.	Template I.4 (Model SLA): Secures feedstock for recyclers through binding SLA between PROs and cities		Using the SLA to mandate modern equipment standards for PRO-funded transport. Governmental subsidies to be provided to waste transporters, including mentorship programmes for management and business development.

Serbia

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Solution (Annexes)	Resilience (Phase 2)	Consultant's assessment and local adaptation
Data gaps and reliability	Deep systemic, regulatory, and operational bottlenecks; lack of transparent data reconciliation.	Annex C (Data Dictionary) Template A.1: Standardizes polymer definitions and enables automated cross-checks via Unique IDs.		The proposed Data Dictionary and Unique EPR ID system should be integrated with the existing Environmental Protection Agency of Serbia (SEPA) reporting platform to enable consistent producer reporting and reconciliation of data from producers, PROs, customs, and waste operators. The 2025 SEPA annual report is expected to include more detailed reporting on plastic packaging POM by polymer type (e.g. PET, HDPE, LDPE, PP and other plastics), which would significantly improve the availability of polymer-specific data, facilitate implementation of the harmonized regional reporting framework, and support future compliance with PPWR reporting requirements. This approach is also consistent with the objectives of the Circular Economy Development Programme 2026–2030, which promotes digitalisation, improved data management, and monitoring systems to support Serbia's transition towards a circular economy.
Underfunding	Persistent funding gaps and insufficient cost recovery remain major operational challenges.	Annex F (necessary cost Formula); Annex H (Stabilisation Fund): Mandates 80-100% cost recovery from producers		The regional necessary cost methodology should be used to assess whether current producer fees adequately reflect the real costs of separate collection, sorting, and recycling. Existing gaps in cost recovery, uneven producer participation, and limited

WB6 EPR Plastic Packaging Framework

Failure mode risk	Specific local gaps (from interviews + inception report)	Toolkit Solution (Phase 2 Annexes)	Resilience (Phase 2)	Consultant's assessment and local adaptation
		and creates a financial buffer.		transparency in cost allocation. A harmonized cost methodology would support more transparent fee- setting and strengthen long-term financial sustainability.
Weak enforcement	Free-riding, limited operational monitoring and the lack of integration of the informal collection sector into the formal EPR system reduce traceability, reporting quality and overall recycling performance, particularly for PET, packaging.	Checklist (Inspectorate) & Administrative Sanctions: Provides a step-by-step verification protocol for field audits.	B.1	Effective implementation requires systematic data exchange between SEPA, Customs, the Environmental Inspectorate, and the Market Inspectorate to identify unregistered producers and reduce free-riding. The gradual integration of the informal collection sector into the formal EPR system would further improve traceability and the reliability of reported recycling data. Clear operational inspection procedures and sufficient inspection capacity are also required to ensure consistent enforcement across all obligated producers.
Governance capture	Transparent PRO governance, equal market conditions for all licensed PROs and independent oversight mechanisms are essential to ensure confidence in the EPR system.	Template I.1 (PRO Authorisation) & B.2 (Audit Protocol): Strict non-profit licensing criteria and mandatory third-party audits		Clear governance rules, transparent financial reporting, independent auditing of PROs and well-defined institutional responsibilities are essential to ensure confidence in the EPR system and minimise governance risks. Clearly defining institutional responsibilities between competent authorities and strengthening oversight mechanisms to minimise governance risks are required.
Infrastructure bottlenecks	Limited high-quality sorting capacity for plastic polymers and insufficient investment in separate collection and recycling infrastructure.	Template I.4 (Model SLA): Secures feedstock for recyclers through binding SLA between PROs and cities		The Model Service Level Agreement (SLA) provides a practical mechanism for strengthening cooperation between PROs and municipalities through clearly defined contractual responsibilities, service standards, and reporting obligations. In Serbia, where separate collection systems remain at various levels of implementation across municipalities. The Model SLA could support a more harmonized and consistent approach to service delivery. Further efforts are needed to improve sorting quality, increase investment in separate collection infrastructure, and strengthen cooperation with authorized waste operators and domestic recyclers to ensure a stable supply of high-quality plastic feedstock. These measures would improve recycling performance and support future compliance with PPWR requirements. They are also fully consistent with the Circular Economy Development Programme 2026–2030, which identifies separate collection, recycling infrastructure, and stronger cooperation across the waste management value chain as domestic priorities.

Annexes from Part 3 of main report: Regional and domestic rollout roadmaps for EPR packaging

Albania - Domestic EPR roadmap for plastic packaging

Domestic baseline and implementation readiness

This section identifies the starting point for the domestic market, referencing the diagnostic groundwork performed in Phase 1 of the project (interviews + inception report).

- Legal status: A new legal foundation has been established through Law No. 74/2025 on EPR and Law No. 57/2025 on Integrated Waste Management, ensuring partial transposition of the EU WFD. However, the system is not yet operational; implementation is pending the adoption of secondary legislation and implementing bylaws, with the EPR framework expected to become operational in December 2026.
- Institutional RACI:
 - Competent authorities: The framework involves the Ministry responsible for environment, which leads policy development, strategic planning and regulatory oversight, and the NEA, which is expected to play a central role in registry management, supervision, and environmental monitoring. AKEM established as a commercially structured entity with 100% domestic ownership, may have an operational or implementation-support role in the waste sector, but should not be described as a regulatory authority overseeing municipalities. The institutional framework is further supported by Customs, tax authorities, and market inspectors, particularly in relation to data verification, market controls, compliance checks, and enforcement support. .
 - Enforcement capacity: The report indicates that current enforcement capacity is weak. While mandates exist, general operational procedures, digital system interoperability, and the necessary staffing levels for effective inspection and monitoring require "substantial strengthening".
- Market snapshot:
 - PROs: There are currently no operational PROs in Albania. However, the legislative framework permits the establishment of multiple competing PROs rather than a monopolistic structure.
 - Plastic packaging (POM): Verified data on Plastic Packaging POM remains limited, and current reporting systems lack the reliability and detail required for a fully functional EPR model.
- Critical gaps:
 - Technical/Infrastructure: There is a significant lack of separate collection and sorting infrastructure, with current efforts limited to municipal pilot projects. The domestic recycling industry is underutilized, operating at only 25% of its capacity primarily due to insufficient feedstock availability.

WB6 EPR Plastic Packaging Framework

- **Data:** Reporting systems are fragmented and unreliable. Digital interoperability between the e-Albania registry, customs, tax administrations, and local inspections is not yet operational, leading to weak statistics on recycling and packaging flows.
- **Enforcement:** A major bottleneck is the lack of specific operational capacities, inspection procedures, and defined staffing requirements needed to enforce compliance and prevent free-riding.

Phased implementation roadmap (2026-2030)

This matrix follows the "Harmonized Core + Domestic Flexibility" logic defined in the Phase 2 Operating Model (EPR Toolkit).

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
Phase 1: Foundation	0-12 months	Legal transposition of harmonized definitions and procedures. Establishment of the Central Registry and creation of at least one operational PRO as a first practical step toward implementing the EPR system.	Political approval of the EPR Framework. Customs/Tax data sharing agreements.	Initial producer registration & corporate baseline.
Phase 2: operationalisation	1-3 years	PROs accreditation & licensing. Launch of separate collection in pilot municipalities. Where a multi-PRO competitive market layout is selected, establishment of a central Clearing House (Producer Balancing Body) to manage market-share equity and financial compensations.	Functional MRV system. Completed necessary costs study and fee setting.	Quarterly POM declarations by polymer & component.
Phase 3: optimisation	2028-2030	Introduction of eco-modulation (Bonus/Malus). Full alignment with PPWR 2030 targets.	Verified recycling evidence standards. Regional data-sharing protocols.	Audited annual returns & circularity KPIs.

Short-term implementation playbook (action plan 0-12 months)

Immediate operational steps using the specific tools provided in the Phase 2 Toolkit Annexes.

- **Registry onboarding:** deploy the digital interface for Template A.1 (Producer POM Annual Declaration) to capture producer/importer administrative baselines, unique EPR registration numbers, tax IDs, and component-level plastic packaging weights.
- **Data standards alignment:** adopt the Harmonized Data Dictionary (Annex C) to ensure consistent polymer coding, producer identification and interoperability between Customs, Tax, and the EPR Registry.

WB6 EPR Plastic Packaging Framework

- Producer registration drive: issue Unique EPR IDs to all identified producers and importers to prevent early "free-riding" and enable automated cross-checks against Customs and tax records.
- Municipal engagement: prepare draft SLA between the shadow PRO/Authority or authorized PROs and municipalities, using Annex I, Template I.4, to define service standards, reporting obligations, payment mechanisms, and verified material-flow requirements.

Risk mitigation and stress testing

Domestic application of the mitigation measures developed in Part 2: Stress-Testing of the Framework.

Identified risk	Local context / sensitivity	Embedded mitigation measure
Underfunding	Municipal tariffs do not cover real waste-management costs, especially in remote areas.	Apply Annex F necessary-cost formula and Annex H stabilisation reserve fund to ensure ring-fenced producer financing and minimum 80% cost coverage.
Data gaps	Fragmented reporting between Registry of NEA, Customs, and INSTAT; missing weights or inconsistent packaging classification.	Use Annex C Data Dictionary and Template A.1 POM Declaration with unique producer IDs, standard polymer codes, and automated cross-checks.
Weak enforcement	Limited inspection capacity and risks linked to informal or unlicensed collectors.	Apply Checklist B.1 for field inspections and Checklist B.2 for waste-flow audits, including invoice checks, weight verification, and mass-balance controls .
Governance capture	No operational PROs yet; risk of monopoly influence, opaque fees, or weak oversight.	Use Template I.1 PRO Authorisation and Template I.2 Clearing House rules, with non-profit governance, independent audits, and conflict-of-interest safeguards.

Bosnia and Herzegovina - Domestic EPR roadmap for plastic packaging

Domestic baseline and implementation readiness

This section identifies the starting point for the domestic market, referencing the diagnostic groundwork performed in Phase 1 of the project (interviews + inception report).

- Legal status: Environmental competencies are highly fragmented, divided between the entity-levels of Bosnia and Herzegovina, Brcko District, cantons, and municipalities. While laws at the entity-levels on waste management exist, there is no harmonized areawide implementation. Bosnia and Herzegovina notably lacks alignment with the SUPD and PPWR obligations at the domestic level.
- Institutional RACI: Governance is complex and multi-layered. Responsibilities are split between Ministries and environmental funds on entity-levels , with coordination duties assigned to the Ministry of Foreign Trade and Economic Relations (MoFTER).

This fragmentation leads to inconsistent enforcement and reporting, creating significant risks for uniform application of producer obligations.

- **Market snapshot:**
 - PROs: Several PROs operating within the entity-levels are already operational, including Ekopak, Eko život, and Euro Beta.
 - Plastic Packaging (POM): While systems exist, they are not integrated on higher level of government. Current systems lack reliable, harmonized reporting, and there is no unified mechanism to prevent under-reporting or free-riding across the different entities.
- **Critical gaps:**
 - Data/MRV: Reporting systems are highly fragmented; multiple institutions collect data using different methodologies, leading to unreliable statistics and poor oversight.
 - Enforcement: Coordination between customs authorities, environmental inspectorates, and administrations on entity-levels is weak. There is no customs-linked compliance verification mechanism ensuring PRO membership prior to import.
 - Technical/Infrastructure: Implementation is inconsistent. Awareness-raising is ad-hoc, and there are no binding separate collection targets for plastic beverage bottles aligned with EU thresholds, nor an operational Deposit Return Scheme (DRS).
 - Financing: Eco-modulation is absent; existing EPR fees are typically flat or weight-based rather than linked to circularity performance (recyclability, recycled content).

Phased implementation roadmap (2026-2030)

This matrix follows the "Harmonized Core + Domestic Flexibility" logic defined in the Phase 2 Operating Model (EPR Toolkit).

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
Phase 1: Foundation	0-12 months	Legal transposition of harmonized definitions. Establishment of the Central Registry.	Political approval of the EPR Framework. Customs/Tax data sharing agreements.	Initial producer registration & corporate baseline.
Phase 2: operationalisation	1-3 years	PRO accreditation & licensing. Launch of separate collection in pilot municipalities.	Functional MRV system. Completed necessary costs study and fee setting.	Quarterly POM declarations by polymer & component.

WB6 EPR Plastic Packaging Framework

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
		Where a multi-PRO competitive market layout is selected, establishment of a central Clearing House (Producer Balancing Body) to manage market-share equity and financial compensations.		
Phase 3: optimisation	2028-2030	Introduction of eco-modulation (Bonus/Malus). Full alignment with PPWR 2030 targets.	Verified recycling evidence standards. Regional data-sharing protocols.	Audited annual returns & circularity KPIs.

Short-term implementation playbook (action plan 0-12 months)

Immediate operational steps using the specific tools provided in the Phase 2 Toolkit Annexes.

- Registry onboarding: deploy the digital interface for Template A.1 (Producer POM Annual Declaration) to capture corporate administrative baselines.
- Data standards alignment: adopt the Harmonized Data Dictionary (Annex C) to ensure interoperability between Customs, Tax, and the EPR Registry.
- Producer registration drive: issue Unique EPR IDs to all identified producers and importers to prevent early "free-riding".
- Municipal engagement: prepare draft SLA between the shadow PRO/Authority and Municipalities based on the template in Annex I (Template I.4).

Risk mitigation and stress testing

Domestic application of the mitigation measures developed in Part 2: Stress-Testing of the Framework.

Identified risk	Local context / sensitivity	Embedded mitigation measure
Underfunding	Municipal waste tariffs and service fees often do not fully cover the costs of separate collection, transport, and recycling, particularly in smaller and rural municipalities where economies of scale are limited.	Apply Annex F necessary-cost formula and Annex H financial stabilisation reserve rules to ensure ring-fenced producer financing and predictable cost recovery mechanisms.
Data gaps	Reporting remains fragmented across producers, importers, municipalities, customs authorities, statistical institutions, and authorized operators, creating risks of inconsistent packaging classifications, missing weights, and double counting.	Use Annex C Data Dictionary, Unique EPR registration numbers and Template A.1 POM declarations with automated cross-checks between customs, tax, and registry data.
Weak enforcement	Limited inspection capacity and uneven enforcement across jurisdictions create risks of free-riding producers, under-reporting and unregistered waste operators or collectors operating outside formal systems.	Apply Checklist B.1 (Inspectorate Manual) and Checklist B.2 (Waste Flow Audit) for field verification, invoice checks, mass-balance controls, and verification of reported recycling quantities.

Identified risk	Local context / sensitivity	Embedded mitigation measure
Governance capture	The small size of the market and limited number of authorized operators may create risks of market concentration, limited competition, opaque fee setting or conflicts of interest.	Apply strict non-profit governance principles, independent audits, transparent fee methodologies and conflict-of-interest safeguards through PRO authorisation and oversight procedures.

Kosovo* - Domestic EPR roadmap for plastic packaging

Domestic baseline and implementation readiness

This section identifies the starting point for the domestic market, referencing the diagnostic groundwork performed in Phase 1 of the project (interviews + inception report).

- Legal status: An emerging legal framework is in place based on administrative instructions regarding packaging waste and SUPs. However, a fully operational EPR system has not yet been introduced. A new Law on Waste is currently under development to formally introduce EPR systems, and while a legal basis for a Deposit Return Scheme (DRS) for beverages has been adopted, no system operator has been appointed. Two analytical studies on EPR Model Options Assessment and Pre-design for Packaging and Tires are under preparation. These studies will recommend the most suitable EPR models, based on international experience and their applicability to the domestic legal, institutional, and market context, and will support the development of the forthcoming secondary legislation.
- Institutional RACI: Institutional responsibilities are primarily held by the Ministry of Environment, Spatial Planning and Infrastructure (MESPI), supported by environmental inspectorates, customs authorities, and the tax administration. Current enforcement capacity remains limited, with a significant need for inspector training and institutional strengthening to manage EPR/DRS/SUP enforcement.
- Market snapshot: There are currently no operational PROs in place. The recycling market comprises approximately 175 companies operating across collection, processing, and manufacturing activities, but the formal integration of the informal sector remains a critical prerequisite for system success.
- Critical gaps:
 - Technical/Infrastructure: There are currently no operational PROs in place. Separate collection and sorting systems remain underdeveloped, with limited recycling infrastructure and operational capacity to support the implementation of EPR.
 - Data: Existing reporting mechanisms are insufficient; they focus primarily on municipal waste streams and lack the detailed tracking required for packaging material flows.
 - Governance/enforcement: Key components such as PRO accreditation criteria, fee methodologies, audit systems, and anti-free-rider mechanisms remain under

WB6 EPR Plastic Packaging Framework

development at this stage. Substantial capacity building is required to establish reliable packaging-flow databases and effective audit protocols.

Phased implementation roadmap (2026-2030)

This matrix follows the "Harmonized Core + Domestic Flexibility" logic defined in the Phase 2 Operating Model (EPR Toolkit).

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
Phase 1: Foundation	0-12 months	Legal transposition of harmonized definitions. Establishment of the Central Registry.	Political approval of the EPR Framework. Customs/Tax data sharing agreements.	Initial producer registration & corporate baseline.
Phase 2: operationalisation	1-3 years	PRO accreditation & licensing. Launch of separate collection in pilot municipalities. Where a multi-PRO competitive market layout is selected, establishment of a central Clearing House (Producer Balancing Body) to manage market-share equity and financial compensations.	Functional MRV system. Completed necessary costs study and fee setting.	Quarterly POM declarations by polymer & component.
Phase 3: optimisation	2028-2030	Introduction of eco-modulation (Bonus/Malus). Full alignment with PPWR 2030 targets.	Verified recycling evidence standards. Regional data-sharing protocols.	Audited annual returns & circularity KPIs.

Short-term implementation playbook (action plan 0-12 months)

Immediate operational steps using the specific tools provided in the Phase 2 Toolkit Annexes.

- Registry onboarding: deploy the digital interface for Template A.1 (Producer POM Annual Declaration) to capture corporate administrative baselines.
- Data standards alignment: adopt the Harmonized Data Dictionary (Annex C) to ensure interoperability between Customs, Tax, and the EPR Registry.
- Producer registration drive: issue Unique EPR IDs to all identified producers and importers to prevent early "free-riding".
- Municipal engagement: prepare draft SLA between the shadow PRO/Authority and Municipalities based on the template in Annex I (Template I.4).

Risk mitigation and stress testing

Domestic application of the mitigation measures developed in Part 2: Stress-Testing of the Framework.

WB6 EPR Plastic Packaging Framework

Identified risk	Local context / sensitivity	Embedded mitigation measure
Underfunding	Waste management is currently financed mainly through municipal budgets, service fees, and donor support. There are no operational EPR financing mechanisms, and infrastructure investments remain limited.	Mandatory financial stabilisation reserve Fund rules.
Data gaps	Existing reporting systems cover municipal waste and do not provide reliable packaging-flow data. A digital producer registry and packaging reporting platform are not yet operational.	Automated Database Fallbacks for missing barcodes or weights.
Weak enforcement	Limited institutional capacity, insufficient staffing, and lack of digital monitoring systems constrain effective enforcement of future EPR obligations.	Use of Checklist B.1 (Inspectorate Manual) for field verification.
Governance capture	No PRO is currently operational. Secondary legislation defining PRO governance, accreditation, transparency, and oversight is still under development.	Strict Non-profit Governance and independent audit rules.

Montenegro - Domestic EPR roadmap for plastic packaging

Domestic baseline and implementation readiness

This section identifies the starting point for the domestic market, referencing the diagnostic groundwork performed in Phase 1 of the project (interviews + inception report).

- Legal status: Montenegro shows a high degree of legislative alignment with EU acquis, primarily through the 2024 Law on Waste Management and the 2025 EPR Decree. This framework transposes the WFD, the PPWR, and the SUPD (including the ban on thin plastic bags and taxation of thick bags). However, implementation remains in a transitional phase as secondary legislation is finalized.
- Institutional RACI: responsibilities are divided among:
 - Ministry of Ecology: Policy development, legislative planning, municipal oversight.
 - EPA: Monitoring and oversight, licensing and data registration, collection, and system compliance auditing.
 - Eco-Fund: Collector of targeted eco-levies and distributor of municipal equipment grants (auxiliary financial management)
 - *Enforcement Capacity*: Significant institutional capacity gaps exist, including shortages of qualified technical staff and the need for stronger inspection powers.
- Market snapshot: There are currently no fully operational PROs, as Montenegro is in a licensing transition period. The market is nascent, with limited processing infrastructure and a heavy reliance on landfilling, despite improved legislative intentions. Verified packaging flow data remains limited and inconsistent across official sources.
- Critical gaps:

WB6 EPR Plastic Packaging Framework

- **Infrastructure:** There is a lack of adequate collection and sorting equipment, though investments are currently being mobilized for regional recycling centres in Nikšić and Bijelo Polje to address these shortages.
- **Enforcement:** Enforcement is currently weak, particularly in tourism hotspots where waste generation spikes. The system lacks the robust, integrated digital tracking required to verify producer obligations and combat potential free-riding.
- **Technical/Data:** A significant bottleneck is the "deadlock" of the centralized digital information system, following a failed procurement tender for the software. Data discrepancies between the EPA and domestic statistics (Monstat) remain a major hurdle for reliable MRV.

Phased implementation roadmap (2026-2030)

This matrix follows the "Harmonized Core + Domestic Flexibility" logic defined in the Phase 2 Operating Model (EPR Toolkit).

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
Phase 1: Foundation	0-12 months	Legal transposition of harmonized definitions. Establishment of the Central Registry.	Political approval of the EPR Framework. Customs/Tax data sharing agreements.	Initial producer registration & corporate baseline.
Phase 2: operationalisation	1-3 years	PRO accreditation & licensing. Launch of separate collection in pilot municipalities. Where a multi-PRO competitive market layout is selected, establishment of a central Clearing House (Producer Balancing Body) to manage market-share equity and financial compensations.	Functional MRV system. Completed necessary costs study and fee setting.	Quarterly POM declarations by polymer & component.
Phase 3: optimisation	2028-2030	Introduction of eco-modulation (Bonus/Malus). Full alignment with PPWR 2030 targets.	Verified recycling evidence standards. Regional data-sharing protocols.	Audited annual returns & circularity KPIs.

Short-term implementation playbook (action plan 0-12 months)

Immediate operational steps using the specific tools provided in the Phase 2 Toolkit Annexes.

- **Registry onboarding:** deploy the digital interface for Template A.1 (Producer POM Annual Declaration) to capture corporate administrative baselines.
- **Data standards alignment:** adopt the Harmonized Data Dictionary (Annex C) to ensure interoperability between Customs, Tax, and the EPR Registry.

WB6 EPR Plastic Packaging Framework

- Producer registration drive: issue Unique EPR IDs to all identified producers and importers to prevent early "free-riding".
- Municipal engagement: prepare draft SLA) between the shadow PRO/Authority and Municipalities based on the template in Annex I (Template I.4).

Risk mitigation and stress testing

Domestic application of the mitigation measures developed in Part 2: Stress-Testing of the Framework.

Identified risk	Local context / sensitivity	Embedded mitigation measure
Underfunding	Reliance on unstable public and administrative budget allocations for waste management investments, decentralisation of waste management system to local authorities	Mandatory financial stabilisation reserve Fund rules.
Data gaps	Fragmented institutional data collection across multiple institutions, lack of integrated digital monitoring system, inconsistent and non-standardized reporting methodologies	Automated Database Fallbacks for missing barcodes or weights.
Weak enforcement	Limited inspectorate and EPA human resource capacity, weak operational logistics for field verification, inconsistent enforcement of obligations and compliance monitoring	Use of Checklist B.1 (Inspectorate Manual) for field verification.
Governance capture	Delays in secondary legislation, weak coordination between competent authorities	Strict Non-profit Governance and independent audit rules.

North Macedonia - Domestic EPR roadmap for plastic packaging

Domestic baseline and implementation readiness

This section identifies the starting point for the domestic market, referencing the diagnostic groundwork performed in Phase 1 of the project (interviews + inception report).

- Legal status: North Macedonia is identified as a regional frontrunner due to its advanced legislative framework. It implemented an EPR system for packaging waste as early as 2010 and significantly expanded it through the 2021 Framework Law on EPR, which covers seven waste streams, including packaging. The legal framework is broadly harmonized with EU waste directives.
- Institutional RACI:
 - Competent authorities: The Ministry of Environment and Physical Planning oversees policy development. Registration and reporting functions are managed through established environmental administrative systems maintained by the Ministry.
 - Enforcement capacity: Despite the strong legislative foundation, enforcement is a primary challenge. The report highlights systemic issues, including insufficient institutional knowledge, weak inspection capacities, a lack of

reliable centralized data systems, and shortages of qualified technical staff to supervise the increasing number of PROs.

- **Market snapshot:**
 - PROs: North Macedonia possesses a mature, competitive PRO market with several operational organizations, including Pakomak (industry-owned), Euro Ekopak, and Alpak Eko.
 - Plastic Packaging (POM): While the report does not provide a single total volume figure for Plastic Packaging POM, it notes that plastic packaging represented 17% of separately collected waste packaging in 2024, with all collected plastic reportedly recycled. Corporate awareness of EPR obligations is estimated at 70%.
- **Critical gaps:**
 - Institutional/Technical: The main bottlenecks are not legislative but operational—specifically, the need for better institutional expertise and inspection powers to manage the competitive PRO system.
 - Infrastructure/Coordination: While collection systems exist (partially through PRO-municipal cooperation), there is weak coordination of sorting infrastructure at the municipal level. Additionally, midstream logistics are severely neglected: due to vehicle and staff shortages, paired with low market prices for plastics, waste operators frequently fail to transport sorted materials to recycling facilities on time.
 - Data/transparency: The system lacks reliable, centralized digital tracking mechanisms for packaging flows, which hinders transparency and data verification.

Phased implementation roadmap (2026-2030)

This matrix follows the "Harmonized Core + Domestic Flexibility" logic defined in the Phase 2 Operating Model (EPR Toolkit).

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
Phase 1: Foundation	0-12 months	Legal transposition of harmonized definitions. Establishment of the Central Registry.	Political approval of the EPR Framework. Customs/Tax data sharing agreements.	Initial producer registration & corporate baseline.
Phase 2: operationalisation	1-3 years	PRO accreditation & licensing. Launch of separate collection in pilot municipalities. Where a multi-PRO competitive market layout is selected, establishment of a	Functional MRV system. Completed necessary costs study and fee setting.	Quarterly POM declarations by polymer & component.

WB6 EPR Plastic Packaging Framework

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
		central Clearing House (Producer Balancing Body) to manage market-share equity and financial compensations.		
Phase 3: optimisation	2028-2030	Introduction of eco-modulation (Bonus/Malus). Full alignment with PPWR 2030 targets.	Verified recycling evidence standards. Regional data-sharing protocols.	Audited annual returns & circularity KPIs.

Short-term implementation playbook (action plan 0-12 months)

Immediate operational steps using the specific tools provided in the Phase 2 Toolkit Annexes.

- Registry onboarding: deploy the digital interface for Template A.1 (Producer POM Annual Declaration) to capture corporate administrative baselines.
 - MoEPP develops a rulebook for prescribing the Form and Content of the Template A1 (Producer POM Annual Declaration), develop web-based registry (instead of the current manual - maintained in excel) and integrate it with Customs Administration. Introduce verification body.
- Data standards alignment: adopt the Harmonized Data Dictionary (Annex C) to ensure interoperability between Customs, Tax, and the EPR Registry.
 - The Ministry develops a Rulebook for adoption of the Harmonized Data Dictionary. Develop Joint Protocol for cooperation between MoEPP, Customs Administration and Public Revenue Office, as well as data sharing and using the POM Annual Declaration), based on a Memorandum for Cooperation or similar.
- Producer registration drive: issue Unique EPR IDs to all identified producers and importers to prevent early "free-riding".
 - Customs Administration adopts a Rulebook on the procedure for issuing the unique EPR IDs. Those that are not registered are directly considered as illegal operators where penalties and market prohibition applies. Furthermore, the domestic Environmental Inspectorate conducts supervision and cross-matching to compare the lists from active operators at the Public Revenue Office and EPR ID Registry.
- Municipal engagement: prepare draft SLA between the shadow PRO/Authority and Municipalities based on the template in Annex I (Template I.4).
 - This activity should be led by the Association **of the Units of Local Self-Government (ZELS)** serving as the institutional coordinator, mediating between individual Municipalities, their local **Public Utility Companies** and PROs.

WB6 EPR Plastic Packaging Framework

- SLAs should follow the same structure as prescribed in Template I.4, but should be customized to the local context (rural-urban Municipality, size, population, accessibility, etc.)

Risk mitigation and stress testing

Domestic application of the mitigation measures developed in Part 2: Stress-Testing of the Framework.

Identified risk	Local context / sensitivity	Embedded mitigation measure
Underfunding	Low fee collection due to lack of inspection supervision, big percentage of free-riders.	Mandatory financial stabilisation reserve Fund rules.
Data gaps	No existing of unique reporting system, no integration of the data bases between institutions (MoEPP, Tax Authority and Customs Administration Control).	Automated Database Fallbacks for missing barcodes or weights.
Weak enforcement	Increased number of environmental inspectors that will inspect more frequently, conduct cross-checking, cooperate with domestic market inspectors, and domestic customs inspectors for joint inspections.	Use of Checklist B.1 (Inspectorate Manual) for field verification.
Governance capture	Adopt the Law on Body for Producer Balancing.	Strict Non-profit Governance and independent audit rules.

Serbia - Domestic EPR roadmap for plastic packaging

Domestic baseline and implementation readiness

This section identifies the starting point for the domestic market, referencing the diagnostic groundwork performed in Phase 1 of the project (interviews + inception report).

- Legal status: An operational EPR system for packaging waste is in , based on the Law on Packaging and Packaging Waste and the Law on Waste Management, with producer obligations already in place for companies placing packaging on the market. The system is implemented through licensed PROs, annual reporting to the SEPA, and domestic packaging waste recovery and recycling targets. Currently, producers already report plastic packaging POM by polymer type, while PRO reporting is not yet polymer-specific. Future alignment should therefore extend polymer-level reporting requirements to both producers and PROs, enabling reconciliation of packaging POM with packaging waste collected and recycled by polymer type. This would significantly improve data quality and traceability in line with the PPWR reporting requirements. The Circular Economy Development Programme 2026–2030 provides an additional strategic framework for strengthening circular economy measures, improving waste management performance, and supporting further alignment with EU policy requirements.
- Institutional RACI:
 - Competent authorities: The Ministry of Environmental Protection is responsible for policy development, legislation, and overall supervision of the EPR system.

The SEPA manages environmental reporting and domestic databases, while the Environmental Inspectorate is responsible for monitoring compliance with waste management legislation. Strengthened cooperation with the Customs Administration would further improve the identification of obligated producers and support data reconciliation.

- Enforcement capacity: The operational implementation of the EPR system relies on close cooperation between licensed PROs, municipalities, public utility companies (PUCs), authorized waste operators, and recyclers. Although these actors are already actively involved in the system, stronger coordination, clearer contractual arrangements, systematic data exchange, and harmonized reporting procedures are needed to improve traceability, reduce free-riding, and ensure transparent verification of recycling results.
- Market snapshot:
 - PROs: Serbia has the most mature, competitive PRO market in the WB6, led by the incumbent Sekopak along with eight other authorized operators. While the system has contributed to achieving domestic recycling targets for packaging waste, its operational implementation remains uneven across municipalities, particularly regarding separate collection of household packaging waste.
 - Plastic Packaging (POM): Producers already report plastic packaging POM by polymer type through the domestic reporting system, while reporting by PROs is not yet polymer-specific. The expected publication of the 2025 SEPA Annual Report is anticipated to provide more detailed information on plastic packaging POM by polymer category (e.g. PET, HDPE, LDPE, PP, and other plastics). Extending polymer-level reporting requirements to PROs would enable reconciliation between packaging POM and packaging waste collected and recycled by polymer type, significantly improving data quality, traceability, and transparency in line with PPWR reporting requirements. According to the SEPA Annual Report 2024, approximately 45% of plastic packaging waste was recycled. Serbia also has a well-developed domestic recycling industry, particularly for PET, HDPE, and LDPE. However, interviewees consistently highlighted that existing recycling capacities are not fully utilised due to insufficient quantities of high-quality separately collected plastic packaging and uneven implementation of separate collection systems across municipalities.
- Critical gaps:
 - Policy/Regulatory: The current legal framework provides the basis for EPR implementation; however, further alignment with the PPWR will be required, including harmonized polymer-level reporting by both producers and PROs, enhanced monitoring of packaging flows and the introduction of eco-modulation principles. The implementation of the Circular Economy

WB6 EPR Plastic Packaging Framework

Development Programme 2026–2030 provides an important strategic framework for these regulatory improvements.

- **Governance/Transparency:** Further improvements are needed to strengthen transparency, data reconciliation and coordination between competent institutions, SEPA, PROs, and authorized waste operators. Interviewees also highlighted the need for clearer verification procedures, more transparent reporting and harmonized methodologies for monitoring packaging flows and recycling performance. There is a stated need for an independent clearing-house mechanism to audit data from competing PROs, improve transparency, and ensure fair competition.
- **Market/Scope:** While the current EPR system covers conventional producers, future implementation should address obligations related to online platforms and distance sellers in line with the PPWR. At the same time, improved traceability of packaging flows and polymer-specific reporting will be necessary to ensure consistent reporting across all obligated producers.
- **Infrastructure:** Household separate collection systems have been introduced but remain unevenly developed across municipalities in terms of coverage, infrastructure, and service quality. Serbia has a well-developed recycling industry for several plastic polymers; however, existing recycling capacities are not fully utilised due to insufficient quantities of high-quality separately collected material. In addition, food-grade bottle-to-bottle PET recycling capacity is currently not available.

Phased implementation roadmap (2026-2030)

This matrix follows the "Harmonized Core + Domestic Flexibility" logic defined in the Phase 2 Operating Model (EPR Toolkit).

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
Phase 1: Foundation	0-12 months	Further alignment of the existing EPR legal framework with PPWR requirements, including harmonized definitions, polymer-level reporting obligations and clearer responsibilities for producers, PROs, and competent institutions. Upgrade of the existing SEPA reporting system to enable improved reconciliation of data on plastic packaging POM, collected, and recycled. Preparation of the necessary cost methodology, Model SLA, and framework for an independent clearing-house mechanism. Further alignment of the existing EPR legal	Adoption of the revised legal framework and relevant secondary legislation, where applicable. Establishment of harmonized polymer-level reporting requirements for producers and PROs. Upgrade of the SEPA reporting system and strengthened data exchange between SEPA, PROs, and authorized waste operators. Development of the necessary cost methodology and Model SLA.	Annual POM declarations by producers on plastic packaging POM by polymer type. Harmonized reporting by producers and PROs using standardized polymer categories. Establishment of baseline data for polymer-specific material flows and reconciliation of packaging POM with packaging waste collected and recycled.

WB6 EPR Plastic Packaging Framework

Phase	Timeline	Key milestones	Prerequisites and dependencies	Reporting requirements
		framework with PPWR requirements, including harmonized definitions, polymer-level reporting obligations and clearer responsibilities for producers, PROs, and competent institutions.	Assessment of the legislative and institutional changes required for PPWR implementation.	
Phase 2: operationalisation	1-3 years	Implementation of harmonized polymer-level reporting by both producers and PROs. Establishment of an independent clearing-house mechanism for data reconciliation and verification of recycling results. Gradual implementation of the Model SLA between PROs and municipalities. Expansion and improvement of separate collection systems, with a focus on collection coverage and sorting quality. Introduction of eco-modulation principles based on the necessary cost methodology. Integration of PPWR requirements into the domestic EPR system, including polymer-level reporting, eco-modulation, and performance monitoring.	Functional upgraded SEPA reporting platform and harmonized data exchange. Adoption of secondary legislation supporting polymer-level reporting and eco-modulation. Operational Model SLA and necessary cost methodology. Capacity building for competent institutions, PROs, and municipalities	Annual reporting by PROs on plastic packaging collected and recycled by polymer type. Data reconciliation between packaging POM and packaging waste collected and recycled. Monitoring of separate collection performance, recycling results, and implementation of eco-modulation principles.
Phase 3: optimisation	2028-2030	Full implementation of eco-modulation based on recyclability and circularity performance. Full polymer-level reconciliation between packaging POM and packaging waste collected and recycled. Implementation of the independent clearing-house mechanism for verification of reported data and recycling results. Full implementation of PPWR requirements within the domestic EPR system. Achievement of the applicable PPWR 2030 targets for plastic packaging.	Operational polymer-level reporting by producers and PROs. Fully functional clearing-house mechanism and harmonized data reconciliation procedures. Verified recycling evidence and quality assurance procedures. Mature cooperation between PROs, municipalities, authorized waste operators, and recyclers. Operational implementation of PPWR reporting and monitoring requirements.	Audited annual reporting by producers and PROs, including polymer-specific material flows. Annual verification of recycling performance through the clearing-house mechanism. Monitoring and reporting of compliance with applicable PPWR reporting requirements and 2030 targets indicators

Short-term implementation playbook (action plan 0-12 months)

Immediate operational steps using the specific tools provided in the Phase 2 Toolkit Annexes.

- Registry onboarding: deploy the digital interface for Template A.1 (Producer POM Annual Declaration) to capture corporate administrative baselines. Implementation could be led by SEPA, through an upgrade of the existing domestic reporting platform and annual reporting system. This would require amendments to the reporting rulebook and harmonisation of reporting templates to support polymer-level reporting in line with PPWR requirements.
- Data standards alignment: adopt the Harmonized Data Dictionary (Annex C) to ensure interoperability between Customs, Tax, and the EPR Registry. Implementation should be led by the Ministry of Environmental Protection in cooperation with SEPA, through the revision of reporting methodologies and harmonisation of reporting templates. The adoption of Annex C would support polymer-level reporting and improve data reconciliation in line with PPWR requirements.
- Producer registration drive: Issue Unique EPR IDs to all identified producers and importers to prevent free-riding, building upon the existing producer registration system managed by SEPA. The Unique EPR ID should be integrated into reporting by producers and PROs and progressively linked with Customs data, enabling more effective identification of obligated producers, improved data reconciliation, and greater transparency of the EPR system.
- Municipal engagement: prepare draft SLA between the shadow PRO/Authority and Municipalities based on the template in Annex I (Template I.4). In Serbia, the Ministry of Environmental Protection, in cooperation with municipalities, public utility companies (PUCs) and licensed PROs, should coordinate the preparation and pilot implementation of the Model SLA. The Model SLA would establish clear contractual responsibilities, service levels, reporting obligations and financing arrangements, thereby strengthening cooperation between PROs and municipalities, and supporting a more harmonized implementation of separate collection services across Serbia.

Risk mitigation and stress testing

Domestic application of the mitigation measures developed in Part 2: Stress-Testing of the Framework.

Identified risk	Local context / sensitivity	Embedded mitigation measure
Underfunding	Current producer fees are not always aligned with the actual costs of separate collection, sorting, and recycling. Greater transparency in cost allocation and harmonized application of the necessary cost methodology are needed to ensure the long-term financial sustainability of the EPR system.	Application of the necessary cost methodology (Annex F), introduction of eco-modulation principles and establishment of a financial stabilisation mechanism.
Data gaps	Polymer-level reporting currently exists only for producers placing packaging on the market. The absence of polymer-specific reporting by PROs limits reconciliation between packaging POM and packaging waste collected and recycled.	Implementation of the Harmonized Data Dictionary (Annex C), Unique EPR IDs and upgraded SEPA reporting platform to support polymer-level reporting and data reconciliation.

WB6 EPR Plastic Packaging Framework

Identified risk	Local context / sensitivity	Embedded mitigation measure
Weak enforcement	Free-riding, limited traceability of packaging waste flows and the significant role of the informal sector, particularly in PET collection, reduce the effectiveness of monitoring and verification within the EPR system. The gradual integration of informal collectors into the formal waste management system remains an important challenge.	Implementation of Checklist B.1 (Inspectorate Manual), introduction of Unique EPR IDs, strengthened cooperation between SEPA, environmental inspectorate, PROs and authorized waste operators, and measures supporting the gradual formalisation and integration of the informal collection sector into the EPR system.
Governance capture	PRO market is characterised by the presence of multiple operating companies under different business models, including vertically integrated structures. This increases the need for transparent governance, equal market conditions and independent verification of data and financial flows to ensure fair competition and confidence in the EPR system.	Establishment of an independent clearing-house mechanism with transparent governance rules, independent auditing, and harmonized reporting procedures to ensure fair competition, equal market conditions, and confidence in the EPR system.

Annexes for Part III: Inception Report

Part 1: Analytical groundwork and WB6 Validation

Executive summary

This inception report sets out the approach, methods, and initial findings for building a decision-ready diagnostic baseline for a harmonized EPR framework focused on plastic packaging across the WB6. The Phase 1 work will be narrowly targeted on the operational conditions required to implement plastic packaging EPR, rather than a general waste management review. The objective is to produce an evidence-based, operationally actionable baseline that supports the design of a regional EPR Plastic Packaging Framework and Toolkit aligned with EU acquis, the Revised GAWB Action Plan, and relevant regional commitments.

The inception deliverables comprise a methodology and consultation protocol, an operational requirements matrix that translates EU and regional obligations into implementable components, a set of WB6 comparable diagnostic snapshots, and a stakeholder consultation plan. This report documents the diagnostic approach, the data sources and verification strategy, the stakeholder engagement plan, the structure of the operational requirements matrix, and the timetable and deliverables for Phase 1. It also summarises preliminary, evidence-based observations drawn from the baseline materials already reviewed and flags key information gaps that will be addressed through targeted consultations.

Purpose and scope

The purpose of this document is to establish the analytical and operational foundation necessary to design a harmonized, operational EPR system for plastic packaging across the WB6. The scope is deliberately narrow and implementation-oriented: the assessment concentrates on the legal, institutional, technical and market conditions that determine whether a plastic packaging EPR scheme can be operationalised in each WB6 and at the regional level. The assessment excludes a comprehensive review of other waste streams except where they are directly relevant to plastic packaging EPR (for example, where PROs already manage multiple streams and this affects governance or cost allocation).

This includes the following core elements: producer registration and POM reporting; definition of obligated parties and scope; PRO authorisation and minimum performance requirements; financing and cost coverage rules and fee-setting logic; eco-modulation readiness; reporting, transparency and governance safeguards; enforcement and anti-free-rider controls; evidence standards and verification protocols; and KPI definitions mapped to GAWB Action 19 and Action 22 milestones.

Methodology overview

The methodology is structured around three interlocking workstreams: (1) the operational requirements matrix, which translates EU and regional obligations into technical and operational components; (2) the baseline diagnostics, which apply a single comparable template to each WB6 to assess implementation readiness; and (3) structured stakeholder consultations to validate assumptions, fill evidence gaps and test operational feasibility.

The methodology emphasises rapid, evidence-based analysis and pragmatic validation. It combines documentary review, targeted data requests, and structured interviews. The approach is iterative: the operational requirements matrix will be refined as each WB6 diagnostics and stakeholder consultations reveal practical constraints and opportunities. The output is a decision-ready baseline that identifies the minimum, non-negotiable conditions for operational EPR and the realistic sequencing of reforms required to meet regional targets.

Operational requirements matrix: purpose and structure

The operational requirements matrix is the central analytical tool. Its purpose is to convert legal obligations and policy objectives into measurable, implementable requirements, and indicators. The matrix will be used to assess each WB6 against the same operational yardstick and to identify harmonisation opportunities and constraints.

The matrix is organised into thematic modules that reflect the “non-negotiables” for an operational EPR system. Each module contains a brief description of the requirement, the EU or regional legal basis, the operational indicators to be measured, and the minimum evidence standard required for a positive readiness assessment. The modules are:

1. Producer registration and POM reporting — requirements for mandatory producer registration, unique identifiers, POM reporting frequency and data fields, and verification procedures.
2. Scope and obligated parties — definition of products and packaging types in scope, treatment of importers and distance sellers, and rules for authorized representatives.
3. PRO authorisation and performance — authorisation criteria, governance safeguards, conflict-of-interest rules, minimum territorial coverage, service obligations, and performance KPIs.
4. Financing and cost coverage — full net cost methodology, eligible cost categories, minimum producer cost share, fee-setting logic, and transparency of fee schedules.

WB6 EPR Plastic Packaging Framework

5. Eco-modulation — staged criteria for fee differentiation based on recyclability, recycled content, reusability, and design-for-recycling, with data requirements and computational rules.
6. Reporting, transparency, and governance — registry templates, minimum data fields, public disclosure requirements, audit rules, and oversight arrangements.
7. Enforcement and anti-free-rider controls — inspection roles, customs/tax interfaces, risk-based controls, sanctions and remedies, and intraregional leakage mitigation (including e-commerce compliance and distance selling).
8. Evidence standards and verification — acceptable documentary evidence for recycling claims, recycling certificates, waste transfer notes, and anti-double-counting controls.
9. KPI definitions and MRV — harmonized KPIs (collection rates, recycling rates by polymer, POM reconciliation ratios, free-rider incidence indicators) and MRV protocols.

Each matrix cell maps the operational requirement to the relevant GAWB Action 19/22 milestones and to PPWR/WFD/SUPD provisions where applicable. The matrix will be used to produce a staged readiness score for each requirement in each WB6, accompanied by a short justification and source note, incorporating a intraregional legal interoperability assessment to ensure regional alignment by 2028.

Baseline diagnostic on plastic packaging EPR systems in the WB6

The “Baseline Diagnostic on EPR Systems in the WB6” provides a comparative assessment of the current status of EPR systems across the WB6. The diagnostic evaluates legal alignment with the EU acquis, institutional structures, PRO governance, operational capacity, market readiness, infrastructure, enforcement systems, and readiness for future PPWR obligations.

The analysis demonstrates that all WB6 are progressing toward EU-aligned EPR systems, but they remain at significantly various stages of legislative development and operational implementation. While North Macedonia and Serbia possess advanced operational EPR frameworks, Albania, Kosovo*, and Montenegro remain in earlier implementation phases, and Bosnia and Herzegovina continues to face substantial institutional fragmentation challenges.

Legal and institutional frameworks

The diagnostic finds that Albania recently established a new legal foundation for EPR through Law No. 74/2025 on EPR and Law No. 57/2025 on Integrated Waste Management. These laws partially transpose the WFD and establish the institutional architecture necessary for future implementation. However, operational implementation remains pending until secondary legislation and implementing bylaws are adopted. It’s institutional framework includes the Ministry of Environment, NEA, AKEM as the domestic waste management agency, customs authorities, tax institutions, market inspectorates, and municipalities.

Bosnia and Herzegovina presents a fragmented governance structure, with environmental competencies divided between the entity-levels of Federation of Bosnia and Herzegovina, Republika Srpska, Brcko District of Bosnia and Herzegovina, cantons, municipalities, and

various environmental funds. Although laws at the entity-levels exist, Bosnia and Herzegovina lacks harmonized areawide implementation, particularly regarding the SUPD and PPWR obligations. Coordination between institutions remains inconsistent, resulting in uneven enforcement and reporting systems. This fragmentation increases the risk of under-reporting, free-riding and uneven implementation of producer obligations.

Kosovo* possesses an emerging legal framework based primarily on administrative instructions concerning packaging waste and SUPs. The domestic strategy provides targets (50% municipal recycling by 2035) and a legal basis for a deposit return scheme (DRS) for beverages has been adopted, although no system operator has been appointed yet. Existing measures establish an initial legal basis aligned with selected EU obligations; however, a fully operational EPR system has not yet been introduced. Additional secondary legislation, accreditation systems, digital registries, enforcement procedures, and operational mechanisms are still required. Institutional responsibilities currently rest primarily with the MESPI, inspectorates, customs authorities, and tax administration.

Montenegro demonstrates a high degree of legislative alignment through the 2024 Law on Waste Management and the 2025 EPR Decree (i.e. transposition of the EU SUPD, the ban on thin plastic bags, and the taxation of thick bags from late 2024). Some avoidance risks remain, including potential loopholes related to thicker plastic bags and uneven enforcement of plastic bag/SUP restrictions. The institutional structure includes the Ministry of Ecology, the Environmental Protection Agency, and the Eco-Fund responsible for financial management. Nevertheless, implementation remains in transition, and digital reporting systems are still being established.

North Macedonia is identified as one of the regional frontrunners due to its 2021 EPR legislation and broader harmonisation with EU waste directives. The Ministry of Environment and Physical Planning oversees policy development, while registration and reporting functions are managed through environmental administrative systems. Multiple operational PROs already function within the system.

Serbia also demonstrates advanced legal alignment (the registration obligation applies above 1 ton of POM). The Law on Waste Management and packaging legislation establish operational producer obligations and recovery systems. The Ministry of Environmental Protection, SEPA, local self-governments, and public utility companies all play defined roles within the EPR framework. Thus, the market is competitive (led by the incumbent Sekopak) with a plastic recycling rate of 45% in 2024¹⁰, but this flow comes almost entirely from industry and commerce (municipal household streams being embryonic).

The diagnostic repeatedly recommends regional harmonisation of legal definitions, especially concerning the concepts of “producer” and “placing on the market”, in order to prevent regulatory loopholes and transboundary non-compliance.

¹⁰ EU4Green, “Current status and learnings in Serbia” (presentation, EPR Workshop, Sarajevo, April 22, 2026), p. 8, Table “SEPA” (Achieved Targets %).

PRO landscape and governance

The analysis highlights major differences in PRO structures across the WB6. Albania, Kosovo*, and Montenegro currently lack fully operational PRO systems, although legal provisions allowing their establishment already exists. In Albania, producers may comply individually or through authorized PROs, and the law permits multiple competing systems rather than a monopolistic structure.

Bosnia and Herzegovina already operates multiple PROs in the entities, including Ekopak, Eko život, and Euro Beta. North Macedonia also maintains several mature operational PROs, including Pakomak (owned by producers), Euro Ekopak, Eco Packaging, and Alpak Eko. The sector has a target of 85% recovery by 2028, and the corporate awareness rate is estimated at 70%. Serbia has the most mature competitive PRO market, led by Sekopak and several other authorized operators.

The diagnostic places significant emphasis on governance structures. North Macedonia, Serbia, and Bosnia and Herzegovina require non-profit PRO models, while Albania's legislation explicitly allows commercial for-profit PRO structures, which is unique in the WB6 and poses a major risk of diverting eco-fees away from infrastructure investments. The report identifies potential risks associated with vertically integrated and profit-oriented PRO systems, including transparency concerns and diversion of EPR fees away from circular economy investments. Consequently, the diagnostic recommends transparent, cost-based PRO governance with conflict-of-interest safeguards, independent audits, public reporting, and clear rules ensuring that EPR fees are used for eligible EPR system costs and performance improvements, regardless of the legal form of the PRO. The report further stresses the importance of harmonising PRO accreditation procedures according to Article 8a of the WFD. It recommends establishing standard regional criteria for licensing, auditing, financial guarantees, transparency obligations, and operational responsibilities.

Operational capacity and data systems

One of the most significant regional weaknesses identified in the diagnostic concerns data systems and reporting infrastructure. New legislation in Albania introduces the basis for a digital EPR registry connected through e-Albania and AKEM systems, but detailed interoperability arrangements with customs, tax administration, and municipalities remain undefined.

Bosnia and Herzegovina operates highly fragmented reporting systems managed through separate environmental funds and administrative entities. Kosovo* has only initial provisions for producer registration and digital reporting, while Montenegro is still developing digital systems expected to become operational in 2025. But digital tracking might end up with a deadlock following the failure of the tender for the centralized information system.

North Macedonia and Serbia possess more mature reporting systems, including mandatory producer registration and annual reporting obligations. However, both WB6 still face coordination gaps between municipalities, PROs, and domestic reporting authorities.

The report repeatedly identifies the need for interoperable digital systems capable of connecting producer registries, customs databases, municipal reporting systems, and waste-flow monitoring platforms. The diagnostic recommends developing a harmonized producer registry template and minimum data fields that each WB6 can adapt within its domestic digital system, with standardized data-exchange protocols between registries, customs/tax systems, and inspection bodies. API-based exchange can be considered as a later-stage option where feasible.

Packaging flows and market readiness

The assessment finds that reliable packaging-flow and polymer-specific tracking systems remain underdeveloped throughout the WB6. In Albania, verified data on packaging POM remain limited, and digital interoperability between the e-Albania registry, customs and local inspections is not yet operational. Bosnia and Herzegovina has introduced revised packaging-waste targets and separate collection obligations, but recycling targets remain comparatively low.

Kosovo* has identified PET beverage bottles as a priority stream, yet comprehensive recycling and packaging-flow databases have not been established. Data systems in Montenegro remain inconsistent, with substantial discrepancies between different official reporting sources. According to available figures cited in the diagnostic, approximately 91% of treated municipal waste in Montenegro was still landfilled in 2023, indicating very low actual recycling performance despite improvements compared to previous years.

North Macedonia reports advanced recycling rates through its PRO systems. According to the Ministry of Environment and Physical Planning, plastic packaging represented 17% of separately collected waste packaging in 2024, with all collected plastic reportedly recycled. Serbia's 2024 packaging waste report indicates an overall plastic packaging recycling rate of approximately 45%, although much of the system continues to depend on industrial and commercial waste streams rather than household collection.

The report strongly recommends harmonising regional reporting methodologies, especially through common polymer classification systems such as PET, HDPE, and LDPE coding, to facilitate regional benchmarking and comparability.

Producer awareness and cost coverage

The diagnostic identifies low producer awareness as a common regional challenge, particularly in Albania, Kosovo*, and Montenegro. While legal obligations formally exist, operational understanding among producers remains weak. Bosnia and Herzegovina demonstrates similar implementation challenges despite relatively developed legal provisions.

North Macedonia is identified as a frontrunner in awareness-raising activities, with approximately 70% of businesses reportedly familiar with EPR obligations. Serbia also demonstrates a relatively established compliance culture, although challenges persist regarding full producer participation.

Regarding financing systems, all WB6 are progressively introducing polluter-pays principles and producer-financed waste management mechanisms. However, the report notes that most

systems still lack transparent methodologies for calculating full net costs and eligible EPR cost categories, including collection, transport, sorting, communication, data/reporting, audit, and reasonable municipal service costs. The diagnostic therefore recommends developing a common regional methodology for calculating municipal service costs financed through EPR systems.

Infrastructure and municipal interfaces

The report identifies substantial infrastructure gaps throughout the WB6 region. Separate collection and sorting systems remain limited, especially outside urban areas. Albania has initiated pilot projects in selected municipalities, while Bosnia and Herzegovina's PROs cooperate with local authorities to introduce separate collection containers and pilot recycling systems.

Kosovo*'s municipal infrastructure is still under gradual development, and dedicated EPR collection interfaces remain absent. Montenegro requires further investments in collection equipment and municipal capacities. North Macedonia has established more advanced collection systems through cooperation between PROs and municipalities, including reverse vending machine initiatives introduced by Pakomak. Serbia possesses broader operational cooperation between PROs, local self-governments, and public utilities, although household-level separate collection coverage remains uneven.

The diagnostic repeatedly emphasises the importance of harmonising service-level agreements between municipalities and PROs, while also exploring regional aggregation, shared sorting capacity, or secondary raw material cooperation where legally feasible, economically justified, and compliant with waste shipment rules.

Recycling market conditions

The report finds that recycling markets across the WB6 remain underdeveloped and highly dependent on exports of recyclable materials. Recycling industry of Albania operates at only 25% of capacity due to insufficient feedstock availability. Bosnia and Herzegovina possesses domestic PET and paper recycling capacity, but glass recycling still depends on exports.

Recycling market of Kosovo* includes approximately 175 companies¹¹ operating across collection, processing, wholesale waste trade, plastics manufacturing, and waste-treatment activities. Integrating the informal sector is critical; without it, the EPR system will compromise its capacity to secure the necessary material.

Recycling market of Montenegro remains nascent, with limited regional processing infrastructure. North Macedonia currently possesses several PET and polyolefin pre-treatment companies, although most recyclable materials continue to be exported. Serbia has the most developed recycling market, including several operational PET, LDPE and HDPE recyclers, although food-grade bottle-to-bottle recycling remains absent.

¹¹ Bujar Pira, *Circular Economy in Kosovo** (Policy Brief, Riinvest Institute, April 9, 2026), 39, <https://tinyurl.com/2karxxfn> (accessed May 25, 2026).

The diagnostic recommends establishing a regional secondary raw materials price index to stabilise recycling markets and encourage investment.

Enforcement, monitoring and free-rider risks

Weak enforcement capacity is identified as one of the most serious regional risks. Legislation in Albania establishes inspection mandates and customs responsibilities but does not specify operational capacities or staffing requirements. Inspection systems of Bosnia and Herzegovina remain fragmented across competent levels, with stakeholders indicating significant free-rider and under-reporting risks, while Kosovo* possesses limited enforcement capacity and requires substantial inspector training.

Montenegro faces enforcement gaps particularly in tourism hotspots, while North Macedonia struggles with supervision of the growing number of PROs. North Macedonia also faces additional bottlenecks, including limited inspection capacity and weak coordination of sorting infrastructure at municipal level.

Serbia demonstrates improving enforcement structures but still faces fragmented institutional competencies and limited local-level control. Local operators expressed the need to set up an independent clearing-house mechanism to audit data from competing PROs and combat e-commerce evasion.

The report highlights significant free-rider risks, particularly related to e-commerce and undeclared imports. Bosnia and Herzegovina and Albania are identified as especially vulnerable due to weak enforcement and fragmented customs systems. Consequently, the diagnostic recommends establishing common regional approaches for online marketplaces, using customs/import data, producer declarations, and risk-based controls to cross-check producer registration and POM reporting, while treating waste shipment/export evidence separately under recycling verification and traceability rules.

Eco-modulation and circular economy readiness

Finally, the diagnostic concludes that eco-modulated fee systems remain underdeveloped throughout most of the WB6 region. Albania, Kosovo*, and Bosnia and Herzegovina (flat fees based on weight) currently lack explicit legal frameworks introducing differentiated producer fees based on recyclability, reusability, recycled content, or hazardous substances.

Legislation in Montenegro prioritises reusable products, although detailed implementing decrees remain pending. North Macedonia is gradually aligning its system with EU eco-modulation principles, supported by PRO-led design improvement initiatives. Serbia has already introduced higher fees for certain non-recyclable packaging formats, making it one of the more advanced systems regionally.

The report concludes by recommending staged and computable eco-modulation criteria, starting with simple material and recyclability categories, and expanding later to recycled content, reusability and design-for-recycling criteria as data quality improves.

Reference List

EU legislation and policy frameworks

1. European Parliament and Council of the EU. (2008). *Directive 2008/98/EC on Waste and Repealing Certain Directives (WFD)*. Official Journal of the EU. Available through [European Commission – WFD](#)
2. European Parliament and Council of the EU. (2018). *Directive (EU) 2018/851 Amending Directive 2008/98/EC on Waste*. Official Journal of the EU. Available through [Circular Cities and Regions Initiative – WFD](#)
3. European Parliament and Council of the EU. (2019). *Directive (EU) 2019/904 on the Reduction of the Impact of Certain Plastic Products on the Environment (SUPD)*. Official Journal of the EU. Available through [Circular Cities and Regions Initiative – SUPs Directive](#)
4. European Parliament and Council of the EU. (2025). *PPWR 2025/40*. Official Journal of the EU. Available through [European Commission – Packaging Waste](#)
5. European Commission. (2020). *A New Circular Economy Action Plan: For a Cleaner and More Competitive Europe*. Brussels: European Commission.
6. European Commission. (2020). *Green Agenda for the Western Balkans*. Brussels: European Commission.
7. European Commission. *EU Enlargement Package and each WB6 Reports for the Western Balkans*. Available through European Commission – Enlargement Policy Package
8. European Environment Agency (EEA). *Waste Recycling and Circular Economy Monitoring Reports*. Available through [European Environment Agency](#)

Domestic legislation and strategies

Albania

1. (2025). *Law No. 74/2025 on EPR*.
2. (2025). *Law No. 57/2025 on Integrated Waste Management*.
3. *Waste Management Strategy and Action Plan*.

Bosnia and Herzegovina

1. Federation of Bosnia and Herzegovina. *Law on Waste Management*.
2. Republika Srpska. *Law on Waste Management*.
3. Environmental Protection Fund of the Federation of Bosnia and Herzegovina. *Packaging Waste Management Regulations*.

Kosovo*

1. *Draft Law on Waste Management.*
2. (2024). *Integrated Waste Management Strategy 2024–2035.*
3. *Administrative Instruction on Packaging and Packaging Waste.*

Montenegro

1. (2024). *Law on Waste Management.*
2. (2025). *Decree on EPR.*
3. *Waste Management Strategy.*

North Macedonia

1. (2021). *Framework Law on EPR.*
- 2.. *Law on Packaging and Packaging Waste.*
- 3.. *Law on Waste Management.*

Serbia

1. *Law on Waste Management.*
- 2.. *Regulation on Packaging and Packaging Waste.*
3. *Waste Management Programme.*

Institutional and regional sources

1. [Regional Cooperation Council \(RCC\)](#)
2. [European Commission – Environment Directorate-General](#)
3. [Circular Cities and Regions Initiative](#)
4. [European Chemicals Agency – WFD Resources](#)
5. OECD. *EPR: Updated Guidance for Efficient Waste Management.*
6. United Nations Environment Programme (UNEP). *SUPs: A Roadmap for Sustainability.*
7. World Bank. *Western Balkans Circular Economy and Waste Management Assessments.*
8. United Nations Development Programme (UNDP). *Waste Governance and Circular Economy Reports in the Western Balkans.*

Supplementary analytical and media sources

1. Reuters. (2024). *EU Provisionally Agrees on Law to Cut Packaging Waste.* Available through [Reuters – EU Packaging Waste Agreement](#)

2. Reuters. (2024). *EU Parliament Backs Clampdown on SUP Packaging*. Available through [Reuters – EU Parliament Plastic Packaging Measures](#)
3. European Commission. *SUPs Policy Overview*. Available through [European Commission – SUPs](#)
4. European Commission. *Packaging Waste Policy Overview*. Available through [European Commission – Packaging Waste Policy](#)

Part 2: EPR requirements matrix analysis

a. Introduction

The EPR Requirements Matrix Analysis provides a comprehensive comparative assessment of the alignment of WB6 with the EU acquis related to EPR, packaging waste, SUPs, and circular economy obligations. The analysis is structured around the requirements stemming from the WFD, the SUPD, and the PPWR, while also linking these obligations to the GAWB pillars and regional targets.

The framework establishes that by 2030, at least 50% of packaging waste should be recycled, while by 2028 all WB6 are expected to have functional EPR systems for plastic packaging in place. The document further emphasises regional harmonisation of EPR systems, including structured consultations across WB6 and the identification of feasible regional cooperation mechanisms, such as harmonized templates, shared reporting standards, peer-learning, market information exchange, and cooperation on secondary raw materials where legally and economically justified. In relation to SUPs, the framework envisages that by 2028 the five most littered SUP products should either be banned or significantly restricted, alongside an 80% reduction in their market availability compared to the 2023 baseline. Additional targets include increasing recyclability, reusability and compostability of plastic packaging to at least 50% by 2029 and achieving 30% recycled content in plastic packaging by 2030.

The WFD requirements outlined in the analysis stress the importance of clearly defining the roles of producers and PROs, establishing waste management systems aligned with the waste hierarchy, and ensuring robust domestic-monitored reporting systems. The framework also requires equal treatment of domestic and foreign producers, including online sellers, and obliges EU MS to inform producers about prevention, reuse, and collection measures. Further obligations concern geographical and material coverage of EPR systems, availability of collection infrastructure, financial and organizational capacity of EPR schemes, auditing and self-control mechanisms, transparency obligations, cost coverage responsibilities, enforcement systems, and stakeholder dialogue mechanisms.

The SUPD requirements focus on litter clean-up obligations, out-of-home collection systems, awareness-raising campaigns, and separate collection targets for plastic beverage bottles, including potential implementation of Deposit Return Schemes (DRS). The PPWR introduces additional obligations concerning eco-modulated fees, recyclability requirements, recycled content obligations, compostability standards, harmonized labelling systems, packaging reduction measures, restrictions on certain SUP packaging formats, reuse and refill targets, producer registers, obligations for online platforms, and detailed governance requirements for

PROs. It also establishes collection and recycling targets by material type and introduces mandatory DRS obligations where collection rates remain below 80%.

b. Albania

The analysis demonstrates that Albania has recently adopted two key laws intended to establish the domestic EPR framework: Law No. 74/2025 on EPR and Law No. 57/2025 on Integrated Waste Management. The EPR framework is expected to become operational in December 2026. According to the analysis, a partial alignment with EU waste acquis was achieved, although substantial implementation gaps remain. The document notes that it still requires significant investment in recycling infrastructure, sorting capacity, design-for-recycling systems, and enforcement mechanisms to meet EU requirements by 2030.

The legal framework foresees producer registration systems administered by NEA, mandatory reporting of products POM, contractual arrangements between producers and PROs, and financial contributions intended to finance collection, treatment, awareness activities, and infrastructure. Enforcement mechanisms include audits, inspections, penalties, and suspension of PRO authorisations. The analysis notes, however, that detailed operational procedures, digital systems and enforcement capacities still need substantial strengthening.

The legislation partially transposes the waste hierarchy principles by introducing prevention, preparation for reuse, recycling, recovery, and disposal priorities. However, several obligations from the WFD remain only partially addressed, especially regarding data reporting reliability, equal treatment between domestic and foreign producers, producer information obligations, minimum territorial service standards, transparency requirements, cost-calculation methodologies, and stakeholder dialogue systems.

The report highlights that current waste data systems remain fragmented, with weak recycling statistics, limited traceability, and insufficient producer reporting. While future EPR implementation is expected to improve this situation, current systems are still largely dependent on municipalities and public institutions rather than producers. Similarly, eco-modulated fees, mandatory DRS obligations, recycled-content requirements, design-for-recycling standards, compostability rules and several PPWR obligations have not yet been transposed into domestic legislation.

The analysis also notes that Albania has not yet introduced mandatory Deposit Return Schemes for beverage containers. Although deposit-return systems are mentioned in strategic documents as possible measures, no binding legal obligation currently exists. Additional gaps include the absence of detailed obligations for online platforms, insufficient safeguards for confidential producer data, lack of mandatory areawide PRO coverage, limited transparency obligations, and no explicit equal-treatment protections for SMEs or small producers.

c. Kosovo*

The analysis presents a different stage of development. Kosovo* is currently drafting a new Law on Waste that is expected to formally introduce EPR systems. Existing legislation already demonstrates partial alignment with EU requirements, including the Administrative Instruction

on Packaging and Packaging Waste, as well as strategic alignment with the EU Circular Economy Action Plan and the GAWB.

Integrated Waste Management Strategy 2024–2035 establishes ambitious targets, including 50% municipal waste recycling and 70% landfill reduction by 2035. The strategy also aims to improve producer registries and data reporting systems. It actively participates in regional RCC initiatives related to SUPs and harmonized EPR systems.

Despite this progress, the report stresses that an operational EPR system is still lacking. Most obligations remain under development and are expected to be regulated through future secondary legislation and administrative instructions. Key elements still missing include PRO accreditation criteria, fee methodologies, audit systems, enforcement procedures, anti-free-rider mechanisms, and transparent reporting systems.

The report further explains that current data systems are insufficient for EPR implementation. Existing reporting mechanisms focus mainly on municipal waste streams and do not provide detailed tracking of packaging material flows. Recycling and source-separation data remain weak, while municipal reporting quality varies considerably. Although existing systems may serve as a starting point, substantial institutional and technical upgrades will be necessary to establish reliable packaging-flow databases and producer reporting systems.

Financially, there is no a transparent lifecycle-cost model for packaging waste management. Waste management is currently financed mainly through municipal budgets, service fees, and donor support, with no functioning EPR financing mechanisms. Discussions regarding the establishment of PROs are ongoing, but no operational model has yet been defined.

Finally, the report notes that active stakeholder consultations have been conducted during the drafting of the new Waste Law and EPR-related analyses. Producers, importers, business associations, and public institutions are participating in these discussions. However, the analysis concludes that considerable capacity building, institutional strengthening and secondary legislation will be required before Kosovo* can fully operationalise a compliant and effective EPR system aligned with EU requirements.

d. Montenegro

The analysis explains that Montenegro has demonstrated a strong political commitment to harmonising its waste management and plastic packaging legislation with the EU acquis. The 2024 Waste Management Law was specifically adopted to align domestic legislation with the WFD, the PPWR, and the SUPD. It introduced restrictions on SUP products, including plastic bag limitations and fees, mirroring the measures adopted under the EU SUPD.

Although an EPR framework has been previously introduced in earlier legislation, the analysis notes that the system was never fully operationalised in practice. The main barriers included insufficient waste infrastructure, lack of logistical capacity, weak operational coordination, and inadequate institutional preparedness. One of the most significant institutional challenges identified in the report concerns the absence of an integrated digital information and monitoring system. A procurement process for such a system had been initiated but failed, delaying the establishment of reliable monitoring and reporting capacities. The report further identifies

major human-resource gaps within the waste management sector, including shortages of technically qualified personnel and limited institutional expertise.

Nevertheless, Montenegro has aligned several strategic targets with EU objectives, including commitments to recycle at least 50% of municipal waste and to strengthen circular economy systems. The report indicates that Montenegro is progressing legislatively but still faces significant implementation and institutional-capacity challenges before achieving fully operational EPR compliance.

e. Bosnia and Herzegovina

The analysis presents one of the most institutionally fragmented systems in the WB6. The report explains that environmental protection and waste management responsibilities are divided among the Federation of Bosnia and Herzegovina, Republika Srpska, the Brcko District of Bosnia and Herzegovina, cantons, municipalities, and multiple public institutions. Although EU waste directives are partially transposed through entity level legislation, implementation remains highly fragmented and inconsistent.

The analysis notes that awareness-raising measures related to packaging waste and SUPs are currently implemented only partially and on an ad hoc basis. There is no unified domestic EPR-funded communication system dedicated specifically to SUP reduction campaigns. Bosnia and Herzegovina also lacks binding separate collection targets for plastic beverage bottles aligned with EU thresholds, and there is currently no operational Deposit Return Scheme infrastructure.

Regarding eco-modulated fees, the report concludes that systematic fee structures linked to recyclability, recycled content, reusability, or hazardous substances has not yet been introduced. Existing EPR fee systems are generally based on flat or weight-based contributions rather than circularity performance criteria. Likewise, a binding design-for-recycling obligations or bans on non-recyclable packaging has not been adopted.

The report further highlights major weaknesses in data management and reporting systems. Because of the complex governance structure, multiple institutions collect data using different methodologies, resulting in inconsistent and unreliable waste statistics. Stakeholders interviewed during the assessment identified fragmented databases, insufficient professional staff, weak coordination between customs authorities and environmental inspectorates, and limited monitoring of online sellers and intraregional trade.

The report also points out that Bosnia and Herzegovina has not yet established a customs-linked compliance verification mechanism requiring proof of PRO membership prior to imports, nor has it introduced harmonized penalty systems proportional to market-placement volumes. There is no comprehensive public cost-benefit analysis assessing the transfer of waste-management responsibilities from municipalities to producers under EPR schemes.

f. North Macedonia

North Macedonia is presented as one of the more advanced systems in the WB6 in terms of legislative development. Since the opening of accession negotiations in 2022, it continued implementing reforms aligned with the EU Growth Plan for the Western Balkans and the

circular economy transition. EPR system for packaging waste was introduced in 2010 and significantly expanded the framework through the 2021 Framework Law on EPR, which now covers seven waste streams.

The report explains that a strong legal basis for EPR enforcement, including the Law on Waste Management and the Law on Packaging and Packaging Waste is in place. PROs, including the domestic PRO Pakomak have been established, which operates as a not-for-profit industry-owned organization. Producers and importers cooperate directly with PROs and submit packaging quantities POM.

Despite the advanced legislative framework, implementation challenges remain significant. Stakeholder interviews highlighted systemic misunderstandings about EPR obligations, insufficient institutional knowledge, weak inspection capacities, lack of reliable centralised data systems, and shortages of qualified technical staff. The report repeatedly stresses that the main challenge is not legislation itself, but implementation and enforcement capacity.

Legal framework includes legally binding domestic collection targets for packaging waste, gradually increasing from 55% in 2021 to 85% by 2028. The legislation also allows producers to establish deposit-refund systems for packaging waste, although a fully operational areawide DRS infrastructure has not yet been implemented. The law sets detailed obligations concerning the operation of deposit-refund systems, including registration requirements, labelling obligations, retailer participation, and reimbursement procedures.

The report further explains that EPR legislation obliges collective schemes to cooperate with municipalities, authorized waste handlers, and retailers, and to ensure that packaging waste reaches licensed recycling facilities. Producers are required to finance collection infrastructure, public communication, waste separation systems, and take-back mechanisms. However, the report still identifies significant gaps in digital tracking systems, transparency mechanisms, inspection capacities, and data verification.

g. Serbia

The analysis describes it as one of the most institutionally developed EPR systems in the WB6, although substantial implementation gaps remain. Serbia has steadily progressed in EU accession negotiations and has adopted numerous reforms in waste management, industrial pollution control, and climate policy. Recent amendments to the Law on Waste Management and related packaging regulations introduced criteria for by-product status, end-of-waste conditions, and stronger reuse obligations.

Under packaging waste regime, companies placing more than one ton of packaging material on the market are required to fulfil recovery and recycling obligations either individually or through authorized PROs. The report explains that EPR system is already operational and relatively aligned with EU standards, especially regarding recovery targets and producer obligations.

At the same time, the report identifies several important shortcomings. Harmonized material-specific collection targets aligned with newer PPWR obligations are still lacking. Deposit Return Schemes are not legally mandatory, and no binding DRS system linked to collection-

rate thresholds currently exists. The report also notes that a harmonized Register of Producers fully aligned with newer EU requirements is not in place.

Stakeholder interviews highlighted concerns regarding transparency, cost calculation methodologies, unequal territorial coverage of waste-management services, and insufficient institutional oversight. Although oversight responsibilities formally exist within the Ministry for Environmental Protection, the SEPA, and inspection authorities, respondents identified the need for an independent clearing-house mechanism to improve data verification, transparency, and fair competition among PROs.

The report also concludes that responsibilities for online platforms and digital marketplaces remain unregulated within the EPR framework. Existing legislation focuses primarily on producers, importers, and PROs, while online sellers are not yet subject to specific EPR verification obligations.

h. Transversal analysis

The transversal analysis sheet synthesises the comparative findings across all WB6 and assigns numerical scores to each WB6's level of alignment with specific EU obligations. The scoring highlights major regional trends and identifies areas where harmonisation efforts are most urgently needed.

The analysis demonstrates that Albania, North Macedonia, and Serbia currently possess the most developed EPR frameworks, while Kosovo* and Montenegro remain at earlier stages of operational implementation. Bosnia and Herzegovina continues to face the greatest challenges due to institutional fragmentation and inconsistent governance arrangements.

Across the WB6, the report identifies several common weaknesses:

- fragmented and unreliable data systems,
- insufficient recycling and sorting infrastructure,
- limited inspection and enforcement capacities,
- incomplete implementation of eco-modulated fee structures,
- lack of harmonized DRS systems,
- weak transparency and digital tracking mechanisms,
- insufficient coordination between municipalities, producers, and PROs,
- continued dependence on landfilling,
- limited reuse and refill systems,
- inadequate public awareness and consumer participation.

The transversal analysis recommends accelerating regional harmonisation of EPR legislation, strengthening producer reporting obligations, investing in digital monitoring systems, improving institutional capacities, developing common methodologies for fee calculation and cost coverage, and establishing stronger regional cooperation mechanisms for packaging waste management and recycling markets.

The report concludes that while all WB6 are progressively aligning their legal frameworks with EU waste acquis and circular economy principles, implementation remains the primary

challenge. Achieving full compliance with future EU packaging, recycling and circular economy targets will require substantial investment, stronger governance systems, reliable data infrastructures, and significantly improved enforcement capacities across the entire region.

Annexes of the inception report

a. Annex A: Single WB6 baseline snapshot template

WB6 EPR Plastic Packaging Framework

Criteria/WB 6	Albania	Bosnia and Herzegovina	Kosovo*	Montenegro	North Macedonia	Serbia	Preliminary regional recommendation based on this diagnostic
1. LEGAL & INSTITUTIONAL							Align domestic definitions of 'Producer' and 'POM' with EU PPWR to prevent transboundary leakage.
Legal and Regulatory Status (WFD/PPWR alignment)	Partial. Draft EPR Law (57/2025) pending; Law on Integrated Waste Management (2024) transposes WFD.	Fragmented. Lower domestic-level laws (Federation of Bosnia and Herzegovina 27/23, Republika Srpska 2018/2021). SUPD not fully transposed.	High. Administrative Instruction (AI) No. 07/2023 on Packaging and AI 04/2025 transposes EU PPWR and SUPD.	High. Law on Waste Management (2024) and Decree on EPR (2025) align with EU standards.	Largely harmonized. Laws on Waste Management and EPR (2021) align with WFD/PPWD.	Good. Law on Waste (2023) and Law on Packaging established; partial SUPD transposition.	Establish a common timeline for transposing PPWR minimum requirements across all WB6.
Institutional Roles (RACI)	Ministry of Tourism/Env (Policy); AKEM oversees municipalities.	Federation of Bosnia and Herzegovina, Republika Srpska and Brcko District of Bosnia and Herzegovina have independent jurisdiction; MoFTER coordinates.	MESPI (Policy); Environmental/Market Inspectorates, Customs, and Tax Admin (Enforcement).	Ministry of Ecology (Policy); EPA (Monitoring); Eco-Fund (Financial management).	Ministry of Env/Physical Planning (Policy); Environmental Admin (Registration).	Ministry of Env Protection (Policy); SEPA (Reporting); local self-governments (LSGs) (Local management). [cite: 22, 31]	Clarify roles between Environmental Protection Agencies and Inspectorates for standardized enforcement.
2. PRO LANDSCAPE & GOVERNANCE							Standardise PRO accreditation and governance to ensure fees reinvestment in circular infrastructure.
Name(s) of the PRO(s)	None yet operational; system in establishment.	Federation of Bosnia and Herzegovina:	None yet operational; in formation stage.	None yet operational; transition period until mid-2025 licensing.	Pakomak, Euro Ekopak, Eco Packaging, Alpak Eko.	Sekopak (leader) and seven other authorized operators.	Maintain a regional database of certified PROs for

WB6 EPR Plastic Packaging Framework

Criteria/WB 6	Albania	Bosnia and Herzegovina	Kosovo*	Montenegro	North Macedonia	Serbia	Preliminary regional recommendation based on this diagnostic
		Ekopak, Eko život. Republika Srpska: Euro Beta.					intraregional compliance.
Market Structure (Single/Monopoly vs. Multiple PROs)	Planned competitive or hybrid (product fee/PRO).	Multiple (competitive) at entity-levels.	Multiple (competitive) allowed by law.	Multiple (competitive) allowed by law.	Multiple (competitive).	Multiple (competitive).	Benchmark regional efficiency of competitive vs. monopolistic models.
Domestic Accreditation of the PRO (Process/Status)	Pending full implementation of EPR law.	Established licensing via ministries at entity-levels.	In progress; legal groundwork laid by AI 07/2023.	Early stage; process defined in 2025 Decree.	Established licensing via MoEPP	Established licensing via Ministry.	Establish uniform accreditation criteria based on minimum requirements of WFD Art 8a.
PRO Operational Model (Financial vs. Operational)	Planned competitive or hybrid (product fee/PRO).	Financial (fund recycling projects) and partially operational (infrastructure investment).	Planned operational (PROs responsible for collection/recycling).	Financial/Operational hybrid during transition.	Financial/Operational hybrid.	Financial/Operational hybrid.	Align on the 'Full Cost Principle' where PROs have operational responsibility for collection/sorting.
PRO Governance Status (Non-profit vs. For-profit)	Planned unusual hybrid model between commercial/non-profit.	Non-profit mandatory for PROs (e.g. Ekopak).	Planned non-profit focus.	To be determined by licensing.	Non-profit (e.g. Pakomak).	Non-profit (e.g. Sekopak).	Recommend non-profit governance models to prevent leakage of fees into profit margins.
PRO Technical Specifications (Material focus/KPIs)	Planned for all packaging	All packaging (paper, plastic, glass, metal, wood)	Full packaging scope, waste electrical and electronic equipment (WEEE), batteries.	Packaging, SUP, tires, batteries, WEEE, end-of-life vehicles (ELV), fishing gear.	Packaging, WEEE, batteries, waste oils, tires, textiles, ELV.	Packaging, tires, asbestos, batteries, oils, WEEE, ELV.	Standardise technical reporting KPIs (e.g. collection rate by polymer) across all PROs.
3. OPERATIONAL CAPACITY							Standardise 'Registry' data fields to allow for regional benchmarking.
Registry Maturity (Digital/Auditable)	SIMM digital platform deployment	Reporting via Environmental Protection	Packaging register established; mandatory	Establishing digital data reporting systems in 2025.	Established mandatory producer registration via MoEPP.	Established reporting for >1 ton packaging.	Develop a unified digital registration portal

WB6 EPR Plastic Packaging Framework

Criteria/WB6	Albania	Bosnia and Herzegovina	Kosovo*	Montenegro	North Macedonia	Serbia	Preliminary regional recommendation based on this diagnostic
	planned for 2025/2026	Funds on entity-levels; fragmented.	producer registration.				template for the WB6.
Reporting Systems (Interoperability)	SIMM aims to link EPR registries and customs data.	Simplified reporting through domestic-level fund systems.	Integration of EPR and DRS data into central platform planned.	In progress; law mandates local plans integrated with PRO data.	Annual reports from PROs to MoEPP.	Annual reporting to SEPA; gaps in municipal/PRO coordination.	Enable API-based data exchange between domestic registries and customs.
4. MARKET READINESS							Define a regional list of 'highly recyclable' packaging formats.
Packaging Flows (Polymer-level tracking)	Mapping limited; Ishmi River carries 500t plastic leakage annually.	Limited tracking; large, undeclared volumes (50% free-riders).]	Recycling rate 3-4%; PET beverage bottles cited as priority.	Mapping ongoing; recycling performance <15%.	20% plastic in municipal waste; PROs report 40% packaging recycling.	15.5% recycling; EPR relies on industrial/commercial sources.	Implement harmonized material codes (PET/HDPE/LDPE) for all reporting.
Producer Obligations Awareness	Low among businesses; criticized by chambers for tax rates.	Moderate; 78% of small businesses cite unclear regulations.	Low; awareness campaigns planned for resource circularity.	Low; awareness raising targeted at HoReCa sector needed.	Frontrunner in awareness (70% understand law).	Established but challenges remain in ensuring full compliance.	Joint regional awareness campaigns for regional producers.
Cost Coverage Systems (Full cost principle)	Planned producer fees per POM.	PRO fees or higher Environmental Fund payments (polluter-pays).	Producers pay handling and producer fees to authorized PROs.	Producer fees introduced for collection/recycling reimbursement.	Producers responsible for collection, sorting, recovery costs.	Companies >1t POM must cover management costs.	Establish a common methodology for 'Net Cost' calculation for municipal services.
5. INFRASTRUCTURE AND INTERFACE							Harmonise SLA between PROs and Municipalities.
Collection and Sorting Interfaces	Pilot projects for separate collection in selected cities.	Ekopak works with twenty-six collectors in all ten cantons.	Regional systems with MRFs and composting facilities planned.	Local authorities integrate separate collection into waste plans.	Bring systems established by PROs with municipalities.	PROs partner with LSGs and public utilities for collection.	Promote regional 'Sorting Hubs' for WB6 with lower economies of scale.
Municipal/Public Utility Roles	Municipalities de facto clients of domestic operator from 2026.	Jurisdiction for collection; cantons must set up systems2]	Municipal/Regional enterprises deliver services under MESPI.	Obligated to integrate separate collection; need equipment/training.	Utility enterprises face efficiency challenges; regional centres delayed.	Roles split across agencies; weak local enforcement.	Standardise the transition from waste taxes to service fees paid by PROs.

WB6 EPR Plastic Packaging Framework

Criteria/WB 6	Albania	Bosnia and Herzegovina	Kosovo*	Montenegro	North Macedonia	Serbia	Preliminary regional recommendation based on this diagnostic
Recycling Market Conditions	Recycling industry operating at 25% capacity due to raw material lack.	Domestic recyclers for PET/paper; glass must be exported.	Association of Recycling Companies formed; 175 active companies.	Nascent; regional recycling facilities not yet in place.	3 PET and one polyolefin pre-treatment companies; mostly exported.	Moderate; establishment of CE hub in Chamber of Commerce.	Create a regional secondary raw materials price index to stabilize markets.
6. ENFORCEMENT AND MRV							Establish a regional 'EPR Inspectorate' peer-review mechanism.
Inspection Capacity and Procedures	Weak enforcement; task force established for plastic bag ban.	Limited inspections; joint planning at entity-levels of Bosnia and Herzegovina needed.	Limited; training required for EPR/DRS/SUP enforcement.	Gaps in tourism hotspots; Eco-Fund to support surveillance.	Gaps in supervision of increasing number of PROs.	Improving but weak at local level; competencies are scattered.	Joint training for environmental inspectors on auditing PRO accounts.
Customs and Tax Interfaces	Draft law links SIMM to customs information.	Inconsistent across domestic-level; high transboundary movement risk.	Customs and Tax Admin monitor imports and fiscal compliance.	In development; Eco-Fund channels bag levy fees.	Customs rules for transboundary waste transfer established.	Law on Fees for Use of Public Goods regulates domestic payments.	Standardise Harmonised System (HS) for packaging types to detect free-riders at touching points of WB6 (to be double check with legal requirements on waste shipment, specifically with the new EU Waste Shipment Regulation and the constraints for non-OECD jurisdictions)
Reporting Reliability & Data Verification	Gaps persist; SIMM platform planned to improve transparency.	Weak data; 50% under-reporting by free riders.	Fragmented; digital platform planned to track packaging flows.	Unreliable/Inconsistent between Monstat and Ministry.	Estimations based on resident numbers; equipment lack at landfills.	Modest; discrepancy between declared POM and waste composition.	Adopt regional 'Verification Protocol' for recycling certificates.
Free-rider Risks (E-commerce)	High due to weak enforcement and informal car graveyards.	High (>50%); coordinated inspection s needed.	Early stage; mandatory registration aiming to reduce risk.	Loophole for thicker bags in tourism coastal areas	Market fragmentation concerns; oversight needs strengthening.]	Challenges in full producer compliance despite established system.	Common regional approach to holding online marketplaces

WB6 EPR Plastic Packaging Framework

Criteria/WB6	Albania	Bosnia and Herzegovina	Kosovo*	Montenegro	North Macedonia	Serbia	Preliminary regional recommendation based on this diagnostic
							liable for EPR fees.
Readiness for Eco-modulation	Special Fund for Circular Economy planned (30% income).	Federation of Bosnia and Herzegovina Rulebook reclassifies multilayer packaging for recyclability.	AI 07/2023 allows for eco-modulated fees based on design.	Law prioritizes reusable products; decree details pending.	Update to align with EU; Pakomak supports design improvements.	System includes higher fees for non-recyclable packaging.	Harmonise criteria (e.g. bonus/malus for recycled content) to avoid distortion.

b. Annex B: Scoring and readiness legend for the operational requirements matrix

Each WB6 has been assessed based on the following criteria:

GAWB Pillars	Action 19	Recycling rates of EPR-managed waste streams	Percentage of packaging waste recycled Target: $\geq 50\%$ by 2030
	Action 19	By 2027: Regional EPR harmonisation	Guidelines drafted; at least 4 WB6 engaged in packaging EPR consultations.
	Action 19	By 2028: WB6 will have operational packaging EPR scheme Functional EPR systems for plastic packaging are in place in all WB6.	At least two regional mechanisms (e.g. joint tenders, intraregional returns) launched
	Action 22	Ban of SUPD products	By 2028, the top five most littered SUPs are banned or significantly restricted in at least 3 WB6.
	Action 22	SUPD reduction	By 2028, 80% reduction in the availability of the top 5 SUPs in the market (compared to 2023 baseline).
	Action 22	Recyclability, Reusability, Compostability	By 2029, at least 50% of plastic packaging is recyclable, reusable, or compostable.
	Action 22	Recycled content	By 2030, 30% recycled plastic content in plastic packaging, in line with EU targets.
	Article 8a 1a)	Role definition	Clear identification of producers and PROs.
	Article 8a 1b)	Waste hierarchy	EU MS set waste management targets aligned with the waste hierarchy and ensure that the waste holders targeted by the EPR are informed about waste prevention measures, centres for re-use and preparing for re-use, take-back and collection systems, and the prevention of littering.
	Article 8a 1) c)	Data reporting and Reporting System	Robust and verified data collection system monitored by the EU MS. Ensure that a reporting system is in place to gather data on the products POM of the EU MS by the producers of products subject to EPR and data on the collection and treatment of waste resulting from those products specifying, where appropriate, the waste material flows
WFD	Article 8a 1) d)	Equal treatment	Non-discrimination between domestic producers and importers (including online distance sellers).
	Article 8a 2)	Information of producers	EU MS shall take the necessary measures to ensure that the producers are informed about waste prevention measures, centres for re-use and preparing for re-use,

WB6 EPR Plastic Packaging Framework

SUPD			take-back and collection systems, and the prevention of littering.
	Article 8a 3) a)	Defined geographical and material scope	A clearly defined geographical, product and material coverage without limiting those areas to those where the collection and management of waste are the most profitable
	Article 8a 3) b)	Waste collection system	Provides an appropriate availability of waste collection systems
	Article 8a 3) c)	Financial operational scheme or EPR	A necessary financial means or financial and organizational means to meet EPR obligations
	Article 8a 3) d)	Audits and self-control mechanism	Adequate self-control mechanism, supported, where relevant, by regular independent audits
	Article 8a 3) e)	Transparency	Public disclosure of performance data (recycling rates), ownership, and membership of the PRO, financial EPR cost structures (financial contribution paid by PROs per unit sold or per tonne of product POM) and the selection procedure for waste management operators.
	Article 8a 4)	Cost coverage	Producers must cover costs for separate collection and its transport, sorting, and treatment. Other costs covered: - costs of providing adequate information to producers about waste prevention measures, centres for re-use and preparing for re-use, take-back and collection systems, and the prevention of littering. - costs of data gathering and reporting system EU MS may depart from the division of financial responsibility set out above, provided that the producers of products bear at least 80 % of the necessary costs. Those costs do not exceed the costs that are necessary to provide waste management services in a cost-efficient way. Such costs shall be established in a transparent way between the actors concerned.
	Article 8a 5)	Monitoring, enforcement, competition and	EU MS shall establish an adequate monitoring and enforcement framework to ensure producers compliance, including in the case of distance sales, that the financial means are properly used and that all actors involved in the implementation of the EPR schemes report reliable data. Where multiple organizations operate in one EU MS, the EU MS shall appoint at least one body independent of private interests or entrust a public authority to oversee the implementation of EPR. EU MS shall allow producers to appoint an authorized representative for the purposes of fulfilling the obligations of a producer related to EPR schemes on its territory. The MS may defined requirements to be met by the AR (Registration, information, and reporting requirements)
	Article 8a 6)	Governance Comitology and	EU MS shall ensure a regular dialogue between relevant stakeholders involved in the implementation of EPR schemes, including producers and distributors, private or public waste operators, local authorities, civil society organizations and, where applicable, social economy actors, re-use and repair networks and preparing for re-use operators.
	Article 8 2) b & c)	Litter cleanup and out-of-home collection costs	Producers of SUP plastic (food containers, wrappers, Beverage container, Cups for beverages, lightweight bags) must pay for : - the cleanup of littering - out-of-home collection (including transport and treatment)
PPWR	Article 8 2) a)	Awareness raising	Funding of measures to inform and incentivise consumers to reduce plastic waste.
	Article 9 1)	Separate collection	Target of 77% collection by 2025 and 90% by 2029 for waste single plastic beverage bottles. In order to achieve that objective, EU MS may inter alia: (a) establish deposit-refund schemes; (b) establish separate collection targets for relevant EPR schemes
	Article 6 8)	Fee eco-modulation	PRO fees must be modulated based on recyclability

WB6 EPR Plastic Packaging Framework

		EU MS should be allowed to use other criteria, such as recycled content, reusability, presence of hazardous substances or other criteria in accordance with Directive 2008/98/E
Article 6	Design for recycling	Ban on non-recyclable packaging by 2030 (standardized criteria).
Article 7	Recycled content	Mandatory minimum % of recycled plastic in plastic packaging starting in 2030 + recycled content of the SUPD on plastic beverage bottles
Article 8	Compostability	Mandatory industrial compostability for tea and coffee bags and sticky labels affixed to fruit and vegetables
Article 12	Labelling	Harmonized pictograms to guide consumer sorting (mandatory). Harmonized labelling for reuse (mandatory), DRS (voluntary), and recycled content (voluntary).
Article 24	Reduction	By 1 January 2030, grouped packaging, transport packaging or e-commerce packaging shall ensure that the maximum empty space ratio, expressed as a percentage, is 50 % By 12 February 2028, the economic operators who fill sales packaging shall ensure that empty space is reduced to the minimum necessary for ensuring the packaging functionality, including product protection.
Article 25	Restriction of SUP packaging	From 1 January 2030, economic operators shall not place on the market specific packaging listed (e.g. SUP packaging for unprocessed fresh fruit and vegetables)
Article 29, Article 32 & Article 33	Reuse targets and Refill	Reuse targets by 1 January 2030 for transport packaging and for alcoholic and non-alcoholic beverages in sales packaging These targets are raised by 2040 There are some exceptions For the takeaway sector, the targets are less stringent For refill, HoReCa sector shall provide a system allowing consumers to bring their own container
Article 44	Register of Producers	Establishment of a domestic register which shall serve to monitor compliance of producers. Producers shall be obliged to register in the Register of Producers with an associated register number
Article 45	Additional costs covered by the PRO	- costs of labelling waste receptacles for the collection of packaging - costs of conducting compositional surveys of collected mixed municipal waste
Article 45	Authorized Representatives	A producer shall appoint, by written mandate, an authorized representative for the EPR in each EU MS where the producer makes packaging or packaged products available for the first time, other than the EU MS where the producer is established.
Article 45	Online Platforms	Online platforms shall obtain the following information from producers that offer packaging prior to allowing those producers to use their services: - information on the registration of the producers in the EU MS where the consumer is located and the registration number(s) of the producer in that register; - a self-certification by the producer confirming that it only offers packaging with regard to which the EPR requirements are complied with in the EU MS where the consumer is located. The online platform shall make best efforts to assess whether the information received is complete and reliable.
Article 46 2)	PROs requirements - Geographical scope	Obligation that the PRO entrusted cover the whole territory of the MS
Article 46 2)	PROs requirements - Confidentiality of data	PROs shall ensure the confidentiality of the data in their possession as regards proprietary information or information directly attributable to individual producers or their authorized representatives.

WB6 EPR Plastic Packaging Framework

Article 46 4)	PROs requirements - Overseeing	EU MS shall appoint an independent third party to oversee the conducting of the EPR obligations by the PRO in a coordinated manner or shall entrust such oversight to the competent authority.
Article 46	PROs requirements - transparency	PROs shall publish on their websites, at least once a year, information on the quantity of packaging, including packaging of packaged products, made available for the first time on the territory of a EU MS, or unpacked by a producer without being an end user, and on the levels of recovered and recycled materials in relation to the quantity of packaging for which they have been performing producer responsibility obligations.
Article 46	PROs requirements - Equal treatment	PROs shall ensure equal treatment of producers regardless of their origin or size, without placing a disproportionate burden on producers of small quantities of packaging, including packaging of packaged products, including small and medium-sized enterprises.
Article 46	Appointment procedure of PROs	EU MS shall detail the authorisation procedure, relevant requirements, and establish the modalities for verifying compliance, including the information to be provided by PROs. The verification of PROs information shall not exceed 18 weeks from the submission of a complete application dossier. That verification shall be conducted by a competent authority or an independent expert. Requirements to be established by EU MS include : - WFD Requirements laid down in Article 8a(3), points (a) to (d) - Measures put in place or paid for by the PRO that are sufficient to allow for the return and waste management of all packaging waste in accordance with free of charge for consumers, with a frequency proportionate to the area and volume of packaging waste covered with regard to the quantity and types of packaging, including packaging of packaged products, made available for the first time on the territory of a EU MS - the necessary arrangements, including preliminary arrangements, to that end are in place with distributors, public authorities or third parties conducting waste management on their behalf; - the necessary sorting and recycling capacity is available to ensure that packaging waste collected is subsequently subject to preliminary treatment and high-quality recycling; - an adequate guarantee intended to cover the costs related to waste management operations in the event of non-compliance with EPR obligations, including in the permanent cessation of its operations, or insolvency.
Article 48	Separate collection	EU MS shall ensure that systems and infrastructures are set up to provide for the return and separate collection of all packaging waste from the end users
Article 49	Mandatory collection targets	By 1 January 2029, EU MS shall set mandatory collection objectives per materials type - plastic; - wood; - ferrous metals; - aluminium; - glass; - paper and cardboard;
Article 50	Mandatory DRS	Compulsory implementation of Deposit Return Schemes for bottles/cans if collection rates are < 80%
Article 52	Mandatory recycling targets	Recycling targets by 2030: (i) 55 % of plastic; (ii) 30 % of wood; (iii) 80 % of ferrous metals; (iv) 60 % of aluminium; (v) 75 % of glass; (vi) 85 % of paper and cardboard.