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Reform: The Impact of New Regulatory Requirements on Compliance Functions of Importing Companies

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Abstract: This article analyzes the impact of international environmental fee reforms and the Extended Producer Responsibility (EPR) mechanism on the compliance departments of importing companies. Key legislative initiatives and directives of the European Union, as well as practices in Japan, South Korea, and Canada, are considered. Practical recommendations for adapting compliance functions are offered, including process automation, improved contractual documentation, integration of accounting systems, and staff development.

Keywords: Extended producer responsibility, environmental fee, compliance, importers, regulatory requirements, recycling, reporting, risk management, circular economy.

Introduction: The scientific novelty of this article lies in its systematic analysis of the impact of international EPR reforms on importers' compliance functions, comparing different liability models in key jurisdictions, and offering practical recommendations for adapting processes to take into account ESG and automating document flow.

The modern materials management paradigm is gradually shifting from the linear "production-use-disposal" model to a circular economy that envisions closed resource chains, waste reduction, and material reuse. In this context, the Extended Producer Responsibility (EPR) mechanism Producer Responsibility is an effective environmental policy tool aimed at shifting responsibility for the product life cycle from government agencies and consumers to producers and importers.

The concept of EPR was proposed in the early 1990s and states that producers (and often importers) are responsible for the collection, recycling, and disposal of goods and packaging after their initial use. In legal and political terms, EPR is interpreted as "a financial and/or operational instrument designed to internalize the environmental externalities associated with waste management and to stimulate the implementation of sustainable product and waste management schemes" [1].

EPR schemes are becoming a key element of circular economy policies, as they encourage manufacturers to think about product design in terms of recycling and reuse, integrate waste management costs into production costs, and thus contribute to reducing the burden on natural resources. For example, a study in Poland showed that the implementation of EPR in the packaging sector strengthens the direction of transformation towards circularity [2]. Similarly, a systemic study of reverse waste flow logistics (reverse A study in Finland logistics) found that EPR schemes allow for the “closing” or “slowing down” of the resource cycle, which is consistent with the ideas of a circular economy [3].

With the spread of international EPR reforms and the strengthening of environmental reporting and waste management requirements, companies involved in international trade, particularly importers, face a number of new challenges. They must adapt their internal systems—from import accounting and product classification to documenting disposal operations, interacting with external operators, and monitoring compliance with regulations. Inadequate preparation for these changes can lead to significant financial, reputational, and legal risks. International reviews emphasize that key factors for successful EPR include: regulatory clarity , effective institutional regulation, and the ability of producers and importers to fulfill their obligations [4].

Thus, research into the impact of environmental tax reforms and extended producer responsibility on importers' compliance functions is becoming increasingly relevant, both from the perspective of management and sustainable development theory and from the practical perspective of business development in global supply chains.

The Organization for Economic Cooperation and Development notes that EPR is a policy in which producers are held responsible for their products at the post - consumer stage and the entire life cycle of the product. In particular, the OECD has prepared a guideline «Extended Producer Responsibility: Updated Guidance for Efficient Waste Management», which describes in detail the key elements of EPR schemes: establishing the responsibilities of producers, financial responsibility, monitoring tools and incentives for product design taking into account recycling [5].

More late OECD document under titled "Extended Producer Responsibility: Basic facts and key principles" also emphasizes that For successful EPR implementations require: transparent duties, effective mechanisms collection And processing, audit And participation stakeholders [6].

Thus, at the international level, there is a shift from a conceptual framework to an active expansion of the coverage of EPR schemes (packaging, electronics, textiles, etc.) and strengthening of requirements for proof of compliance with obligations.

The study compares the use of EPR in Japan and Canada (using electronic waste as an example) and shows that although both countries are OECD members and have high levels of production and recycling, they use different models: Japan uses a physical responsibility model, where the producer is obligated to organize collection and recycling, while Canada uses a financial responsibility model, where the producer pays a fee, and collection/recycling is organized differently. The article examines in detail the drivers and barriers: recycling infrastructure, the secondary materials market, administrative costs, and scaling up reverse logistics [7].

A study on the application of EPR to plastic waste in developing Asian countries identified significant challenges: weak collection infrastructure, high transport costs, insufficient monitoring systems, and the presence of “free riders” (producers who evade obligations) [8]. A study in Iran also shows that although legislation provides for an EPR system for packaging, in practice it operates on a voluntary basis and does not cover the majority of market participants [9].

In Poland, the effectiveness of EPR in the packaging industry is being analyzed as part of the transition to a circular economy. The authors indicate that the introduction of EPR stimulates the recycling of raw materials, but note limitations: insufficient integration with the energy sector and weak connection to the recycling contract system [2]. Also in Germany, a study of the EPR scheme for plastic waste demonstrates a transition from the previous «producer responsibility organization» model to a full-fledged EPR scheme, with an emphasis on covering new material flows [10].

EPR models differ significantly in several key respects:

1. Type of liability:

- physical responsibility. The manufacturer organizes the collection and disposal of its products (e.g., Japan);

- financial responsibility. The manufacturer pays an environmental fee, shifting the actual logistics and processing to third-party organizations or government agencies (e.g., Canada).

2. Infrastructure and secondary market:

- developed countries (EU, Japan). Thanks to their developed recycling infrastructure, logistics, and stable secondary materials market, the implementation and operation of EPR is much more efficient;

- developing countries. Here, implementation faces significant obstacles: a lack of processing capacity, complex road logistics, and a weak regulatory framework.

3. Regulation and efficiency:

- the effectiveness of EPR directly depends on the presence of clear standards, strict controls and inevitable sanctions;

- research (for example, in China) shows that the legislative framework, the awareness of company management and corporate image are key internal drivers of successful EPR implementation .

4. Material flows (categories):

- Initially, EPR focused on “traditional” flows (electronics, packaging);

- Today, schemes are constantly expanding and covering new, more complex categories, such as textiles, building materials and others, which requires constant adaptation and complication of compliance systems.

Consequently, the international review shows that EPR reforms are becoming a global trend: a growing number of countries are implementing producer/importer obligations, and reporting and implementation requirements are becoming more complex. However, their effectiveness depends on many factors: infrastructure, market conditions, the

regulatory environment, contracts with supply chain participants, and companies' ability to adapt. For importing companies operating in international markets, this means that compliance functions must consider not only local legislation but also global trends, regulatory dynamics, and best international practices.

International EPR reforms have a comprehensive impact on the internal processes of importing companies, requiring the restructuring of compliance functions and the integration of new procedures into supply chains. Key impacts include:

1. Product classification and accounting. Companies are required to identify goods, packaging, and materials in accordance with national and international EPR category lists. For example, in the EU, each waste category (WEEE, packaging, batteries) has separate reporting rules and disposal standards [11]. Misclassification errors can lead to incorrect calculations of environmental fees, regulatory fines, and reputational damage.

2. Documentary evidence of recycling. International EPR schemes require companies to collect, store, and provide evidence of product recycling. For example, in Japan, the law on household appliance recycling requires recycling certificates from licensed operators [12]. Compliance functions must ensure the collection and verification of recycling certificates, implement internal control procedures, and integrate data into ERP and reporting systems.

3. Financial planning and risk management. Different levy rates, requirements for gradually increasing recycling standards, and different liability models increase the complexity of cost forecasting [7]. Compliance, in conjunction with the finance department, should model scenarios including payment of environmental fees, independent recycling, and penalties for noncompliance.

4. Interaction with regulators and external auditors. EPR requires transparency and willingness to provide data to regulators. In the EU, this means preparing reports for national EPR registries; in Japan, this means submitting processing certificates to state databases [6]. Compliance must develop interaction procedures, assign responsible persons, and ensure readiness for audits.

5. Competency enhancement and organizational burden. EPR implementation requires new competencies: environmental law experts, waste management and recycling engineers, IT specialists, and accounting system integration specialists. A lack of resources increases the risk of errors and ineffective compliance.

Table 1 - Impact of EPR reforms on key compliance functions

Direction of impact	European Union	Japan	Canada	Developing countries of Asia	Basic requirements for compliance
Product classification	Waste categories WEEE, packaging, batteries; separate regulations	Electronics, household appliances, packaging	Electronics, packaging, household appliances	Plastic, packaging, electronics (partially implemented)	Accurate matching of product codes with the list, ERP integration
Documentary evidence of disposal	Certificate of processing from licensed operators, EPR register	Processing reports and operator reports	Processing Acts and Reports in Provincial EPR Programs	Limited capabilities; partial reporting	Collection, storage and verification of disposal reports, control of internal procedures
Financial planning	Differentiated fee rates by category	The cost of logistics and processing is included in the cost price	Payment of the fee, processing is organized by operators	Different rates, high uncertainty	Simulation of multiple scenarios, resource allocation, cost control

Interaction with regulators	Regular reporting, auditing, integration with the national registry	Transfer of processing certificates and reporting to the Ministry of Environment databases	Data transfer to provincial EPR programs	Partially regulated, limited control	Development of interaction regulations, preparation for audit
Organizational workload	High (specialists, IT systems, internal control)	Average (processing reports, operator control)	Average	High , given the weak infrastructure	Personnel training, education, and involvement of external experts

In the context of the global EPR reform, importing companies must adapt their compliance processes to effectively manage risks, ensure regulatory compliance, and integrate new procedures into their operations. Key action areas include:

1. Automate product classification and accounting. Implement a module for automatic classification of goods and packaging in accordance with international lists (WEEE, Packaging , batteries, etc.). Set up integration with ERP and supply chain management systems to automatically verify imported goods against EPR lists. Update databases when international and national regulations change.

2. Centralized system for documentation and verification of disposal. Create a unified register of all disposal certificates, contracts with licensed operators, and supporting documents. Implement internal control procedures to verify the completeness and accuracy of disposal certificates. Ensure readiness for external audits and regular reporting to EPR registers.

3. Financial modeling and risk management. Develop scenario modeling for environmental fee payments and recycling arrangements. Create reserves to cover potential fines, adjustments, and regulatory changes. Coordinate internal policies with the finance department to ensure transparent reporting of EPR expenses.

4. Regulations for interaction with regulators. Develop standard procedures for data transfer to national and international EPR registries. Designate persons responsible for communication with regulators, disposal operators, and external auditors. Create an action plan for unscheduled inspections or requests for additional information.

5. Developing staff competencies. Training compliance and logistics staff on new EPR requirements and international reporting. Engaging external consultants and experts in environmental law, waste management, and IT integration. Establishing an internal team to monitor legislative changes and international EPR practices.

6. Strategic planning and ESG integration. Integrate EPR commitments into corporate ESG strategies and sustainability reporting. Use EPR performance data to enhance branding and investor communications. Develop long-term strategies to minimize waste, increase recycling, and use recycled materials.

For clarity, we can imagine the adaptation of the compliance function as a cyclical process: 1. Classification of goods and packaging → 2. Calculation of EPR obligations → 3. Concluding contracts with recycling operators → 4. Collection and storage of recycling certificates → 5. Reporting and audit → 6. Financial modeling and ESG integration → return to step 1 when regulations change.

Thus, the EPR and environmental fee reforms globally complicate compliance processes for importers, requiring accurate classification, evidence-based disposal, data integration, and financial modeling. Adapting compliance functions through automation, contractual adjustments, and staff training reduces operational and legal risks and ensures compliance with new international requirements.

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