Briefing Document: Facilitating Circular Innovation Through Regulatory and Policy Frameworks

Source: Excerpts from "Guidance-Making-the-Circular-Economy-Work.pdf"

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Subject: Review of key themes and challenges in enabling circular innovation within existing regulatory and policy frameworks, with a focus on the role of regulators and policy-makers and the specific case of plastics.

Executive Summary:

This document provides a review of the provided excerpts, highlighting the crucial roles of regulators and policy-makers in facilitating the transition to a circular economy. A key challenge identified is the need for clear, fit-for-purpose legislation, particularly regarding "end-of-waste" status, which currently relies heavily on fragmented case-by-case decisions across Member States (MS). Plastics are presented as a significant waste stream requiring specific action through a multi-pronged approach encompassing reduction, reuse, litter prevention, recycling, and addressing harmful substances. The document also details various practical tools and approaches employed by MS for assessing end-of-waste status and conducting inspections to ensure compliance with circular economy objectives.

Key Themes and Important Ideas:

1. The Crucial Role of Regulators:

Regulators, defined as "Authorities competent for permitting and inspection who are in charge of facilitating, assessing and authorising circular innovations," are at the forefront of enabling circular economy practices. Their responsibilities include:

- Cooperation with other regulators: This is essential to ensure a coherent approach across different administrative levels and sectors.
- **Developing circular strategies:** Incorporating circular economy principles into regulatory planning and decision-making.
- **Developing circular permitting and inspections:** Adapting permitting and inspection processes to accommodate circular innovations.
- **Proactive working with business:** Engaging with businesses to understand their needs and challenges in implementing circular models.
- **Information and risk management:** Sharing information and managing the inherent uncertainties and risks associated with novel circular processes.

The document acknowledges that "regulators may make different choices, as they differ throughout Europe," varying in mandate, tasks, capacity, and budgets.

2. The Importance of Policy-Makers:

Policy-makers play a vital role in creating an enabling environment for the circular economy by:

- Ensuring the legislative framework is fit for purpose: This is a significant challenge, particularly regarding clarifying concepts like "end-of-waste" and "by-products."
- **Supporting regulators:** Providing guidance, legal advice, resources, and mechanisms for knowledge sharing (e.g., Environmental Implementation Review Peer2Peer, IMPEL Review Initiative). Policy-makers also "determine budgets and decisions on money may influence the priorities of regulators."
- Creating a favourable policy environment: This includes setting targets, using
 economic instruments, and encouraging dialogue between different stakeholders.
 "Policy-makers can also support wider dialogue, bringing together different actors
 including businesses and regulators. The Green Deals in The Netherlands, for
 example, do this, not only providing a forum for communication between business
 and regulators, but providing clear messages on how best to frame the legislative and
 policy environment to support circular innovations."

3. Challenges and Approaches to "End-of-Waste" Status:

A central theme is the determination of when a material ceases to be waste and becomes a product. The Waste Framework Directive (WFD) 2018 provides general conditions, but "Unless for certain types of waste end-of-waste detailed criteria have been established at EU or MS level, the regulator or courts may have to decide on the end-of-waste status of each individual material which is recovered from a waste on the basis of the general conditions mentioned above and taking into account applicable case law (case-by-case decision)."

Different approaches exist across MS for determining end-of-waste status where no EU criteria exist:

- Using only national end-of-waste criteria.
- Using only case-by-case decisions.
- A mix of national criteria and case-by-case decisions.

Case-by-case decisions can be made through:

Prior authorisation (legally binding decisions or opinions).

- Operator self-assessment with voluntary, non-binding opinions from authorities.
- Verification by the regulator responsible for compliance assurance.

The document highlights the lack of clarity and potential for disagreement between MS regarding end-of-waste and by-product status, which hinders the development of an internal market for secondary raw materials. "Authorities of different MS (country of dispatch versus receiving country) might disagree on the waste character of a shipment."

Practical Tool 1 provides a detailed guide for regulators and producers on assessing end-ofwaste status on a case-by-case basis, outlining the information needed and different MS approaches. It emphasizes demonstrating:

- Certainty of use: "The substance or object is to be used for specific purposes."
- Market or demand: "A market or demand exists for such a substance or object."
- Compliance with legislation and standards: "Further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use." This includes considering REACH requirements (as further detailed in Annex D).
- No overall adverse environmental or human health impacts: "The use of the substance or object will not lead to overall adverse environmental or human health impacts."

4. Plastics as a Priority Area for Circular Action:

Plastics are identified as a significant problem requiring specific attention. The document outlines five complementary "areas of actions aimed at a more sustainable use of plastics":

- Less use of plastics.
- More re-use of plastics.
- Less littering (progressive actions) / take-up of spillage from nature (damage control measure).
- Recycling.
- Addressing the presence of SVHCs and other potentially harmful substances.

These areas are interconnected, and a range of interventions, from regulatory to educational, are needed. The presence of "legacy substances" (SVHCs) in recycled materials poses a particular challenge for regulators, highlighting the need for guidance and tools like decision trees (e.g., the Dutch SVHC decision tree).

Examples of innovative plastic circular initiatives are provided, including:

- Swedish Stockings using recycled ghost nets and textile remnants.
- Aquafil transforming fishing nets and other Nylon waste into ECONYL® regenerated nylon.
- Ioniqa's chemical PET recycling process.
- Reconcil's deposit system for takeaway containers to encourage reuse.
- Houdini's rental service for sportswear.

5. Regulatory Tools and Processes:

The document discusses several regulatory tools and processes relevant to circular innovation:

- Industrial Emissions Directive (IED): Sets out categories of industrial activities
 requiring permits, including waste management. Challenges exist in applying IED to
 innovative recovery processes and determining Best Available Techniques (BAT). "For
 certain innovative recovery processes it may be unclear what IED category applies."
- Waste Framework Directive (WFD): Regulates waste prevention and management.
 Article 13 mandates waste management without endangering human health or harming the environment. Article 29 requires MS to establish waste prevention programmes.
- Waste Shipment Regulation (WSR): Regulates the transboundary movement of
 waste. Disagreements between MS on waste status of shipments (e.g., used goods
 vs. waste) create critical points. "The development of an internal market for
 secondary materials could be facilitated more by improving the understanding of
 different MS approaches and by MS aligning interpretations on a voluntary basis."
 Article 50 (2a) requires MS to establish inspection plans based on risk assessment for
 waste shipments.
- REACH Regulation: Concerns the registration, evaluation, authorisation, and restriction of chemicals. The document notes the need to consider REACH requirements when assessing end-of-waste status and that innovative processes might require REACH registration or authorisation exemptions (like the PPORD exemption).
- **Permitting:** Environmental permits are a key tool for authorizing circular innovations. The example of South-Holland exploring incorporating circular economy within

permits is provided. Permits can also be used to allow for temporary derogations for trials of innovative techniques.

- Inspections: Inspections are crucial for ensuring compliance with waste, environmental, and product legislation throughout the circular chain (from production to final use of end-of-waste materials). "The inspection system aims at assessing the respect of the four conditions set in the WFD (Article 6)." Different authorities may be involved in inspections (environmental, police, customs, product inspectors), requiring coordination.
- Databases for End-of-Waste Assessments: Some MS (Italy Veneto Region, UK England, Netherlands) have databases or lists of end-of-waste assessments, although public accessibility and level of detail vary. A proposal for a database collecting case-by-case assessments is presented in Practical Tool 1, Part B.

6. Business Perspectives and Opportunities:

Businesses need "fit-for-purpose legislation" to confidently invest in circular innovations. The context in which innovative businesses operate is influenced by spatial planning and the potential for industrial symbiosis. Regulators can work with planning authorities to "identify opportunities to enhance circular economy opportunities at the local level." Opportunities for "smarter implementation" of regulations exist.

Important Facts and Examples:

- Examples of case-by-case end-of-waste assessments in MS are provided for red mud, bottom ash, and used tyres.
- Different methods for case-by-case end-of-waste decisions in MS include prior authorisation, self-assessment with non-binding opinions, and verification by the regulator.
- Examples of practical guidance developed in MS to support end-of-waste assessments are mentioned for the UK-England, the Netherlands, and France.
- The Dutch national waste management plan sets minimum standards for waste treatment, guiding permitting decisions (e.g., requiring recycling for separately collected plastic).
- The Dutch national waste programme includes an SVHC decision tree to guide regulators in assessing risks posed by hazardous substances in waste streams for recycling.

- Examples of innovative circular projects are highlighted, including regenerated refrigerants (Finland), shipment of used mobile phones (Estonia), and a recovery plant for diapers (Italy).
- The concept of a "Regulatory Position Statement (RPS)" in the UK (England) for trials of innovative waste recovery techniques is presented.
- A list of methodologies or guidances concerning end-of-waste assessment in various MS (EU Commission, Belgium - Flanders, UK - England, France, Italy - Veneto Region, Netherlands, Spain) is provided in Table 1.
- The benchmarks for assessing non-waste status based on WFD Articles 4, 5(1), and 6(1) are summarized in Figure 16.
- Examples of how MS have demonstrated certainty of use and market existence for end-of-waste materials are given (e.g., submitting invoices, letters of intent, written agreements).
- Figure 19 illustrates the involvement of different inspection regimes in the end-of-waste recovery chain (WFD, IED, REACH, WSR, Police, Product).
- Table 8 provides a checklist for inspecting waste transfer stations (R12/R13 recovery operations).
- Table 13 provides a checklist for inspecting the final user of end-of-waste materials.

Conclusion:

The provided excerpts underscore the complexity of integrating circular economy principles into existing regulatory and policy frameworks, particularly within the European context. The lack of harmonized "end-of-waste" criteria across MS creates uncertainty and administrative burdens for businesses involved in circular activities. Addressing the specific challenges of waste streams like plastics, including the presence of harmful substances, is critical. Effective collaboration between regulators and policy-makers, alongside clear, supportive legislation and robust enforcement mechanisms, are essential to facilitate circular innovation and achieve a more sustainable use of resources. The practical tools and examples from various MS offer valuable insights into potential approaches for overcoming these challenges.

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