Facilitate transboundary movement of waste destined for recycling

Current EU waste regulations make it easier to dispose of medical devices than to recycle them, hindering the shift from a linear to a circular economy. We summarize the current situation and suggest initiatives to enable a viable circular alternative.

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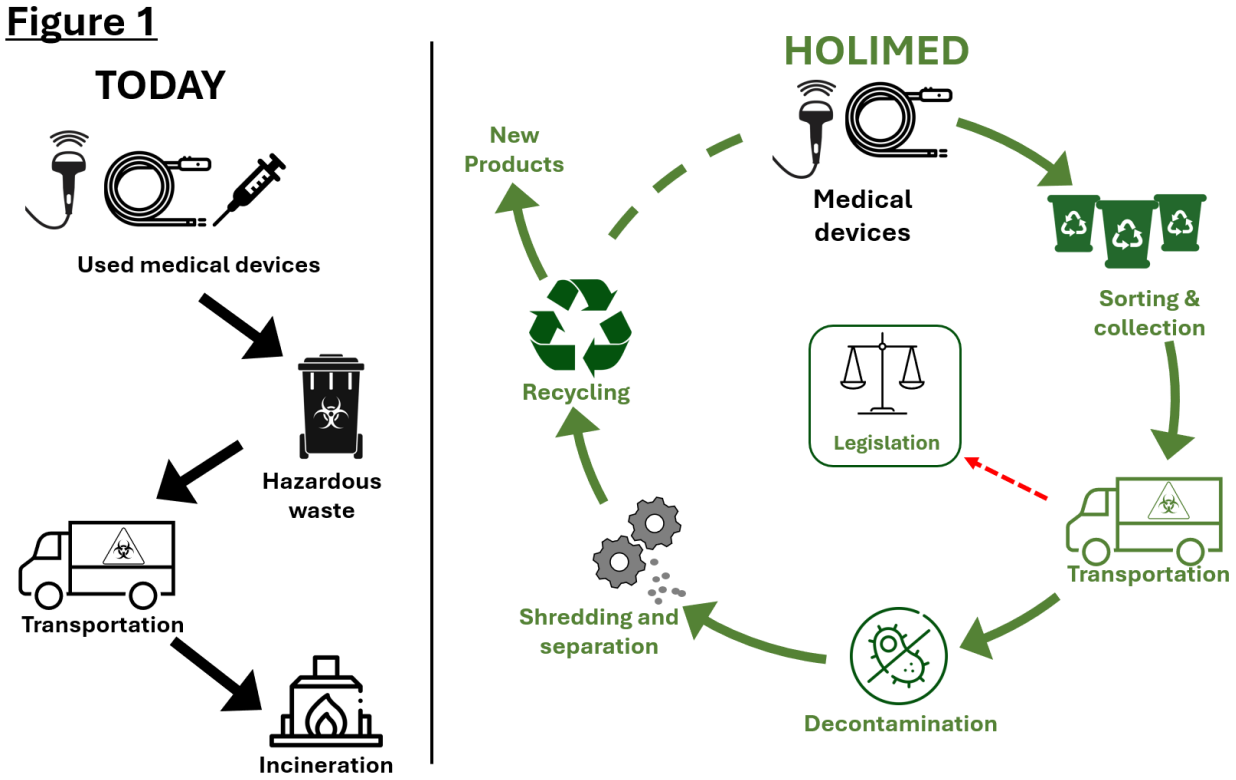
To enable circularity of complex multi-component items like medical devices we recommend:

- **Fair and proportional rules** so recycling is not disadvantaged against disposal.
- Introduce a **fast-track Prior Informed Consent (PIC) procedure for shipments destined for certified recycling hubs**, so materials for recycling are not unnecessarily delayed by regulations designed for disposal.
- Recognize the **circular economy purpose** of these shipments in national and EU permit procedures to reduce administrative burden while maintaining full safety compliance.
- Ensure **harmonization of national waste shipment regulations** within the EU.

Background:

HoliMed is a Danish-centered initiative that represents the full value-chain from medical device manufactures, hospitals, waste broker, recycler, and manufacture utilizing recycled plastic. We are establishing the infrastructure required for recycling medical devices to enable a circular flow in an otherwise conventional linear value chain (figure 1).

Figure 1



The Circular Economy Act aims to *"...facilitate the free movement of 'circular' products, secondary raw materials and waste"*. Recycling complex multi-component items (e.g. medical devices) is a highly specialized process, and the volume of material is lower than everyday commodities. An economically viable circular model requires a high volume of products. To enable scalability, legislation must allow easier cross-border transport of waste destined for recycling at specialized recycling hubs.

Today, waste brokers must navigate the regulatory complexity of transboundary waste movements under the **EU Waste Shipment Regulation (EU) 2024/1157**[1] and related international frameworks such as the **Basel**

Convention (1989)[2]. The current challenge is not the safety requirements themselves, but the fact that the legal classification ignores the intended circular use. Innovative circular economy solutions face heavier bureaucratic burdens compared to linear disposal routes. For instance, shipments of plastics for recycling often require notification under the **OECD Decision C(2001)107/Final**[3] (Amber List), while sending the same plastics for incineration or landfill can proceed faster with fewer controls. This discourages investment and scaling.

From a circular economy perspective, these medical plastics are not destined for disposal but for high-value recycling. Once they reach the recycling hub, they are decontaminated, processed, and converted into secondary raw materials. By early recognition of a recycling purpose, the shipments could follow a streamlined regime (closer to Green List), while still fully complying with ADR transport safety rules for potentially contaminated materials.

Current concrete challenges:

Classification of materials:

It is not always clear whether a recovered material is "waste" or already a "secondary raw material." This creates additional legal risk. **The Waste Framework Directive (2008/98/EC)**[4] sets out definitions, but interpretation varies. Clean plastic fractions recovered from medical devices may still be classified as "hazardous waste" in one country, requiring full export permits, while another country may accept them as secondary raw material ready for use.

Differing national rules:

Every EU country has its own way of handling export permits under the Waste Shipment Regulation (**EC No 2024/1157**)[1]. The **Basel Convention (1989)**[2] established the Prior Informed Consent (PIC) procedure for transboundary movements of hazardous waste (as defined in Annex II & VIII of the Convention). In the EU system, this corresponds to Amber-listed waste, while Green-listed waste is subject only to general information requirements, not full PIC. However, implementation can differ widely between member states, leading to long delays (often several months) and legal uncertainty.

High administrative burden:

The used medical devices must be shipped to a specialized hub for decontamination before recycling. Under current EU regulations this means the material is classified as hazardous waste at the point of export. It therefore falls under the Amber List, triggering the full **Prior Informed Consent (PIC) procedure**. For brokers, this results in:

- Multiple permits and notifications for each shipment,
- Coordination between authorities in exporting, importing, and transit countries,
- Documentation and contracts in several languages,
- Long waiting times (often several months) before a shipment is approved.

Lack of proportionality:

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Reference:

1: EU Waste Shipment Regulation (EC No 2024/1157) – Governs shipments of waste within, into, and out of the EU. Link

2: Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989) – Global treaty regulating hazardous waste exports, including Green/Amber lists. Basel Convention. Link

3: OECD Decision C(2001)107/Final – Controls shipments of wastes for recovery between OECD countries; defines lists and procedural requirements. OECD Decision Link

4: EU Waste Framework Directive (2008/98/EC) – Definitions of waste, by-products, and recovery; helps clarify secondary raw material vs. waste status. Link