

Basel Convention Plastic Waste Partnership (PWP)

Forum on

**EXTENDED PRODUCER RESPONSIBILITY:**

**End-of-Life of Vehicles**

Monday, 18 March,  
11:00 – 12:30 CET



**MODERATOR:** Mr. Alberto Santos Capra,  
Director of Basel Convention Regional Center (BCRC) for South America  
**National Institute of Industrial Technology (INTI)**



Ms. Momoko Yuyama  
Deputy Director  
**Ministry of Environment of Japan**



Dr. Ayub Macharia  
Director of Enforcement  
the National Environment Management Authority,  
**Government of Kenya**



Dr. Mehrnoosh Azodi,  
Programme management officer, **the BRS Conventions**

Dr. Clemence Liebert  
Circular Economy Manager  
Environmental, Technical & Regulatory Affairs  
**European Automobile Manufacturers' Association**

SPEAKERS



*SHARING BEST PRACTICES*



# The Basel Convention Plastic Waste Partnership (PWP)

## Objective



Improve and promote ESM of plastic waste at the global, regional and national levels and prevent and minimize its generation.

## Modalities



Working group and 4 project groups; steering group for pilot projects.

## Membership



Working group open to Parties and observers; over 300 reps of 150 entities.



## Donors

Canada, European Union, France, Germany, Japan, Norway, Sweden, Switzerland, USA.



## Project groups

1. Prevention and minimization
2. Collection, recycling and other recovery, incl. financing
3. Transboundary movements
4. Outreach, education, awareness raising.



## Pilot projects

40 pilot projects to be implemented in 50 countries globally.



# **EXTENDED PRODUCER RESPONSIBILITY**

## **PLASTIC WASTES IN END-OF-LIFE VEHICLES Setting the Scene**

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Mehrnoosh Azodi, PhD,  
Programme management  
officer



**BASEL / ROTTERDAM / STOCKHOLM  
C O N V E N T I O N S**

# Understanding End-of-Life Vehicles (ELVs)

- Definition: ELVs are vehicles deemed no longer suitable for use, including cars, buses, and trucks, due to failure, damage, or economic infeasibility for repair.

## Global Challenge:

- Rising global automobile ownership has escalated ELV numbers, raising environmental and resource management issues.
- Over 1 billion vehicles worldwide by 2010, with **ELVs estimated at 40 million units** annually, highlighting the urgent need for effective recycling strategies.

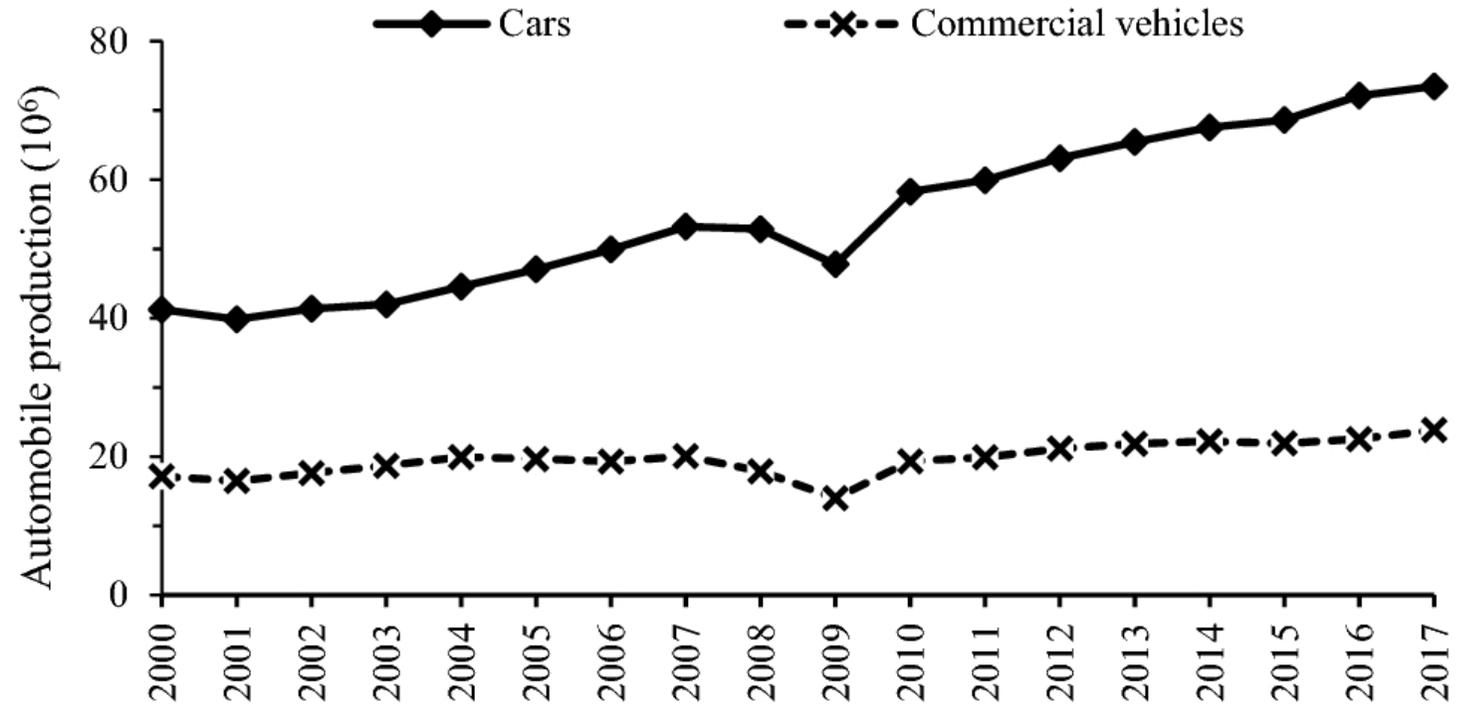
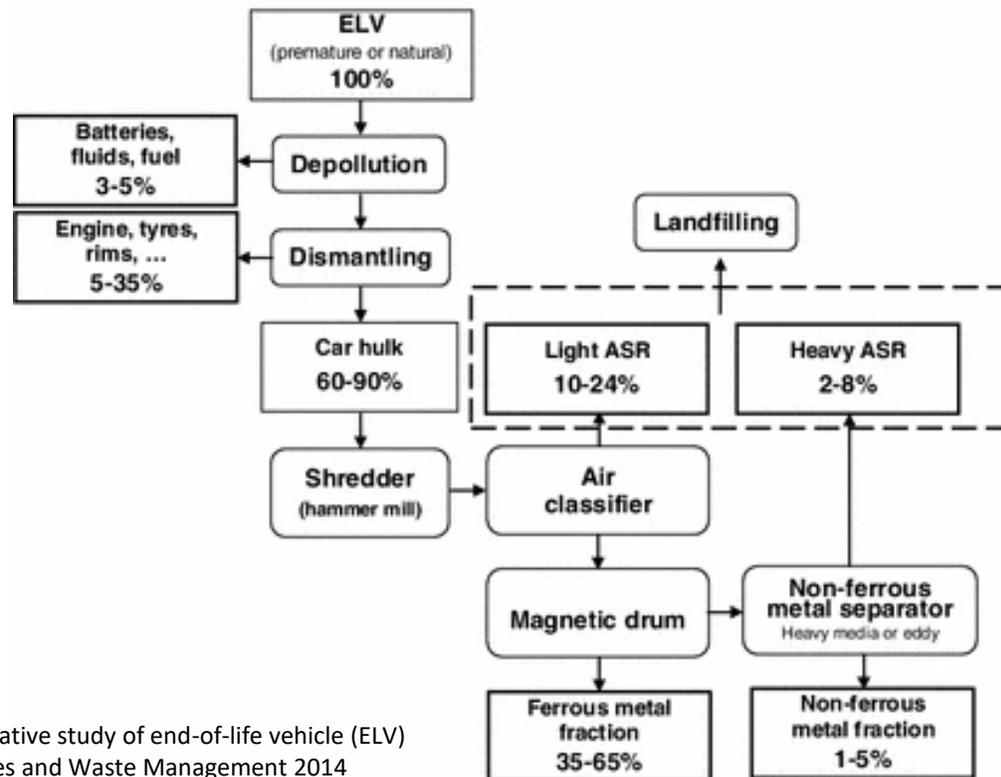


Image: End-of-life vehicle management: a comprehensive review, Open access, Selman Karagoz et al., J of Material Cycles and Waste Management, 2019

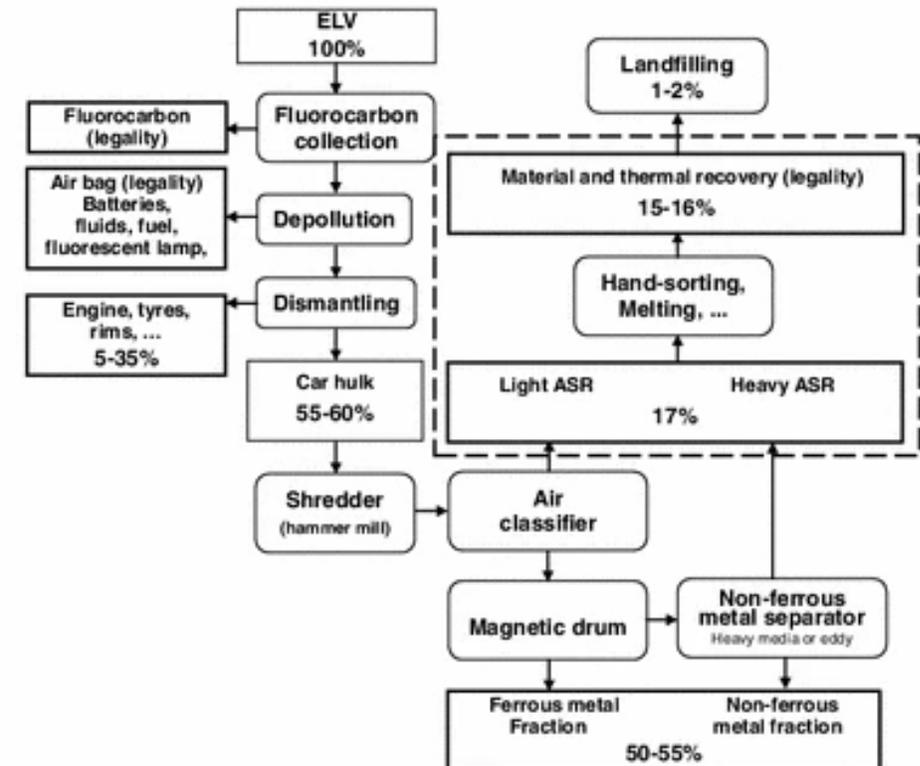
# Advancements in Plastic Recovery from ELVs

- Automobile Shredder Residue (ASR): The remaining fraction after the removal of valuable components from ELVs, consisting of plastics, metals, glass, and fibers. ASR presents significant recycling challenges due to its complex mixture.
- Plastic Components: Vehicles contain a significant amount of plastics, ranging from bumpers to interior components. The diversity of plastics complicates recycling efforts.

**In the EU**



**In Japan**



# Extended Producer Responsibility (EPR) for the ELV

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- EPR programs emphasize the manufacturer's role in the lifecycle of plastics used in vehicles, encouraging the design of more recyclable plastic components
- A mandatory ELV management system are intended to bring in the concept of EPR to ELV management, and to make clear the responsibility of stakeholders.
- The driving forces behind these efforts are the concern for the hazardous characteristics of ASR, the lack of final disposal sites and the corresponding rise in the treatment cost of ASR that would result to a high ASR recycling cost, consequently exceeding the price of ELV.



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## Challenges in ELV Recycling with a Focus on Plastics

- Economic and Technical Challenges
- Environmental Concerns
- Legislative and Infrastructure Variability

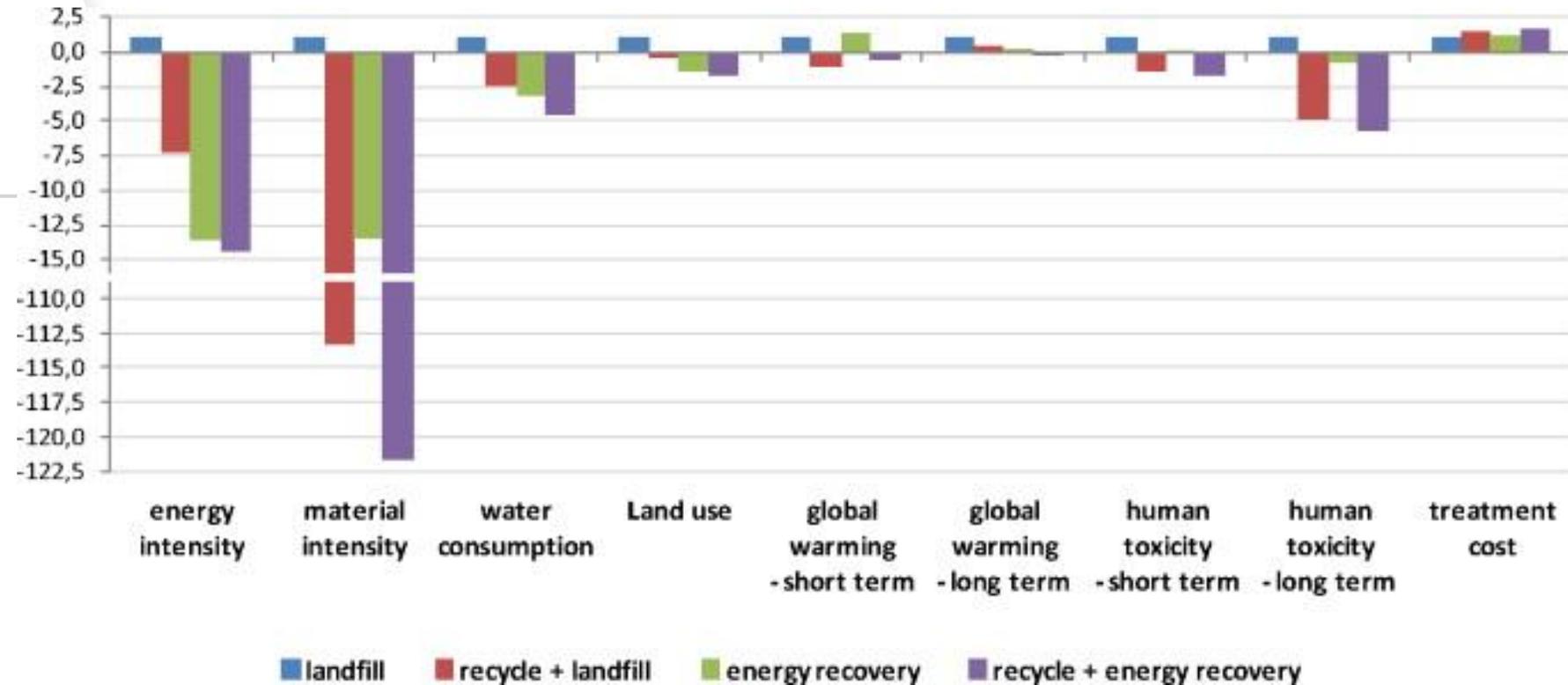


Image: Vermeulena I, et al., Sustainability assessment of industrial waste treatment processes: The case of automotive shredder residue. Resour Conserv Recycl (2012)

# EPR Systems for the ELVs, a strategic approach

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- **Legislative Enhancements:** Advocating for global standardization of ELV recycling regulations to streamline processes, especially for plastics.
- **Technological Development:** Focusing on advanced separation and recycling technologies tailored for the complex composition of ASR, particularly plastics.
- **Collaborative Efforts:** Strengthening international cooperation to share successful recycling practices, focusing on the efficient recovery of plastics from ELVs.



# Thank you!

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Please Contact us, if your entity or country works on EPR systems for the ELVs and you would like to share your experience and lessons learnt!

<https://www.basel.int/Implementation/Plasticwaste/PlasticWastePartnership/tabid/8096/Default.aspx>

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