



NONTOX final consortium meeting Round table discussions regarding new projects



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Hinders for circularity

- The key challenges relate to technologies, costs and **legislation**

■ Hinders in processing

- Recyclates cannot reach the same material properties as virgin polymers
- Lack of continuity in supply is a key challenge
- Foreign materials in the recyclate disturb processing

■ Costs

- Overall costs related to use of recyclates can be high in short term
- High-quality recyclates can be quite expensive
- Prices fluctuate

■ Legislative hinders

- Policy focus on recycling targets (allowing exports for recycling)
- Lack of policy focus on production and consumption

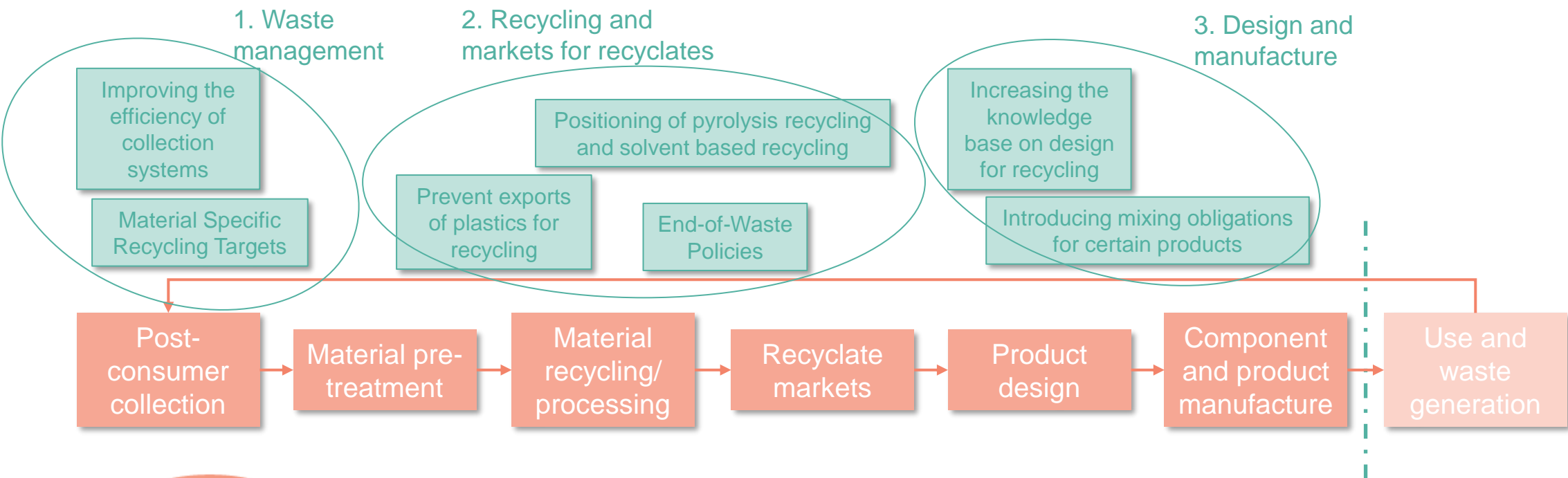
■ Bottlenecks in technology

- Need for alternative recycling technologies
- Need for advanced sorting technologies

Decision-making in the value chain

- Brand owners! → responsible for design
 - Design using secondary raw materials & design for recycling
 - Wish for full recyclability but lack knowledge on how to design for recyclability
 - Lack of data on recycle properties is too risky → if not actively asking for recyclates, nothing will change
- Most companies focus on sustainability = longevity & performance (energy saving)
 - Instability of recyclates was conceived as a potential problem for product longevity
- The role of converters - the choice of which raw material to use in production
 - Are converters blocking change despite requests from brand owners to use recyclates?
 - Small/large players have different position

How to increase circularity in the plastic sector



Recommendations for

1) Waste management

- ***Improving the efficiency of collection systems***
 - **Legislative revision:** waste recycling targets based on realized recycling instead of collection for recycling to support more efficient collection and processing.
 - **Policy implementation:** encourage sorting at site and more intensified segregation when possible.
- ***Material Specific Recycling Targets***
 - **Legislative revision:** material specific waste recycling targets to be introduced in the waste directives.

Recommendations for

2) Recycling and markets for recyclates

- ***Prevent exports of plastics for recycling***
 - **Legislative revision:** the waste shipment directive to prevent exports of plastic waste from Europe.
 - **Policy implementation:** support the **market uptake of secondary raw materials** to facilitate increasing plastics recycling in Europe.
 - **Standardisation activity:** **harmonization of recyclate quality** to further support recyclate market uptake.
- ***Positioning of chemical and physical recycling***
 - **Policy implementation:** support emerging recycling technologies through **increasing awareness** on these technologies through e.g. classification in the Taxonomy and through end-of-waste policies for recyclates.
- ***End of Waste Policy***
 - **Policy implementation:** introduce EU wide end-of-waste criteria for plastics in CE road maps.
 - **Standardisation activity:** **harmonization of recyclate quality** and requirements on feedstock origin and recyclate use in production.

Recommendations for

3) Design and manufacture

- *Increasing the knowledge base on design for recycling*
 - **Policy implementation:** support **information sharing** and increasing the knowledge base on **design for recycling**.
- *Introducing mixing obligations for certain products*
 - **Legislative revision:** product directives to include mixing obligations for certain products.
 - **Policy implementation:** support the recycling industry to ensure **sufficient recycling capacity** is available to meet the increasing demand for recyclates.
 - **Standardisation activity:** **harmonization of recyclate quality** and requirements on feedstock origin to ensure no environmental harm will come from the transition.

Insights from interviews WP5



- Clear interest towards change from within – techno-economical challenges are key hinders → policy pressure
- Decision-making on circularity is complex and scattered → hinders change
- Incentives focus on waste management → more emphasis on production and consumption
- Need to create a market pull - enable investments in recycling capacity
- Markets cannot provide for industry demand on volumes and qualities → need for better quality control and data availability
- Larger recycling volumes → better quality recyclates, stable security of supply, stabilization of markets
- End-of-life management need more focus
- High impact policies to prevent exports + introduce mixing obligations





Thank you!

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