SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

SWIM-H2020 SM EFH-IL-3

Plastic Tax

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SWIM and Horizon 2020 SM EFH-IL-3

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Plastics in EU - Legislation

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Definition

Economic instruments aimed at affecting behavior of industries, consumers, and resource managers through market systems[1]

They can be combined with other instruments:

- subsidies
- deposit-refund systems
- resource pricing schemes

Legg, D., Zoboli, R., Bleischwitz, R., Skovgaard, M., Herczeg, M., & Leveson-Gower, H. (2006). Economic instruments to promote material resource efficiency. Etc/Rwm, (February), 1–86.
Eurostat - Statistical Office of the European Union. (2017). Energy, transport and environment indicators. https://doi.org/10.2785/964100 KS-DK-17-001-EN-N.
Legg, D., Zoboli, R., Bleischwitz, R., Skovgaard, M., Herczeg, M., & Leveson-Gower, H. (2006). Economic instruments to promote material resource efficiency. Etc/Rwm, (February), 1–86.

Definition

Economic instruments aimed at affecting behaviour of industries, consumers, and resource managers through market systems[1]

They can be combined with other market-based instruments:

- Voluntary agreements
- Command measures
- Control measures

Legg, D., Zoboli, R., Bleischwitz, R., Skovgaard, M., Herczeg, M., & Leveson-Gower, H. (2006). Economic instruments to promote material resource efficiency. Etc/Rwm, (February), 1–86.
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Definition

Economic instruments aimed at affecting behaviour of industries, consumers, and resource managers through market systems[1]

- The most widespread form of environmental taxation in Europe are **energy taxes**.
- In 2015, they accounted for **76.7** percent of the total revenue from environmental taxes in the EU-27[3] .

- The taxes on waste management and resources are included among the so-called **"pollution and resources" taxes**, which represent a small share of total environmental tax revenues: **3.5%** of total revenues in EU-28 in 2015

Source: Eurostat - Statistical Office of the European Union. (2017).

Other significant environmental economic instruments applied in European countries

Taxes and charges on packaging:
amongst others, applied in

- Belgium
- Croatia
- Estonia
- Hungary
- Latvia
- Norway
- Poland
- The Netherlands

Other significant environmental economic instruments applied in European countries

Taxes and fees on plastic products: amongst others, applied in

- Belgium (disposable kitchenware)
- Germany (weight-based fees for plastics)
- Latvia (disposable kitchenware)

Other significant environmental economic instruments applied in European countries

- Levy on **plastic bags** applied in
  Denmark, Iceland, Ireland, Italy, Belgium, France, Hungary, Portugal and Spain (Andalusia)

- Taxes on **waste disposal/landfilling**, applied in Austria, Belgium, Bulgaria, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Malta, The Netherlands, Poland, Portugal, Sweden, Slovak Republic, Slovenia, Spain, and the United Kingdom.

Other significant environmental economic instruments applied in European countries

- **The taxes on waste management and resources are included among the so-called "pollution and resources" taxes, which represent a small share of total environmental tax revenues: 3.5% of total revenues in EU-28 in 2015**

However, the effects of these taxes have proved to be **very positive in reducing the environmental impact** of products and waste.

For instance, in the case of Ireland, the levy on plastic bags led to a 90% drop in use of plastic bags.

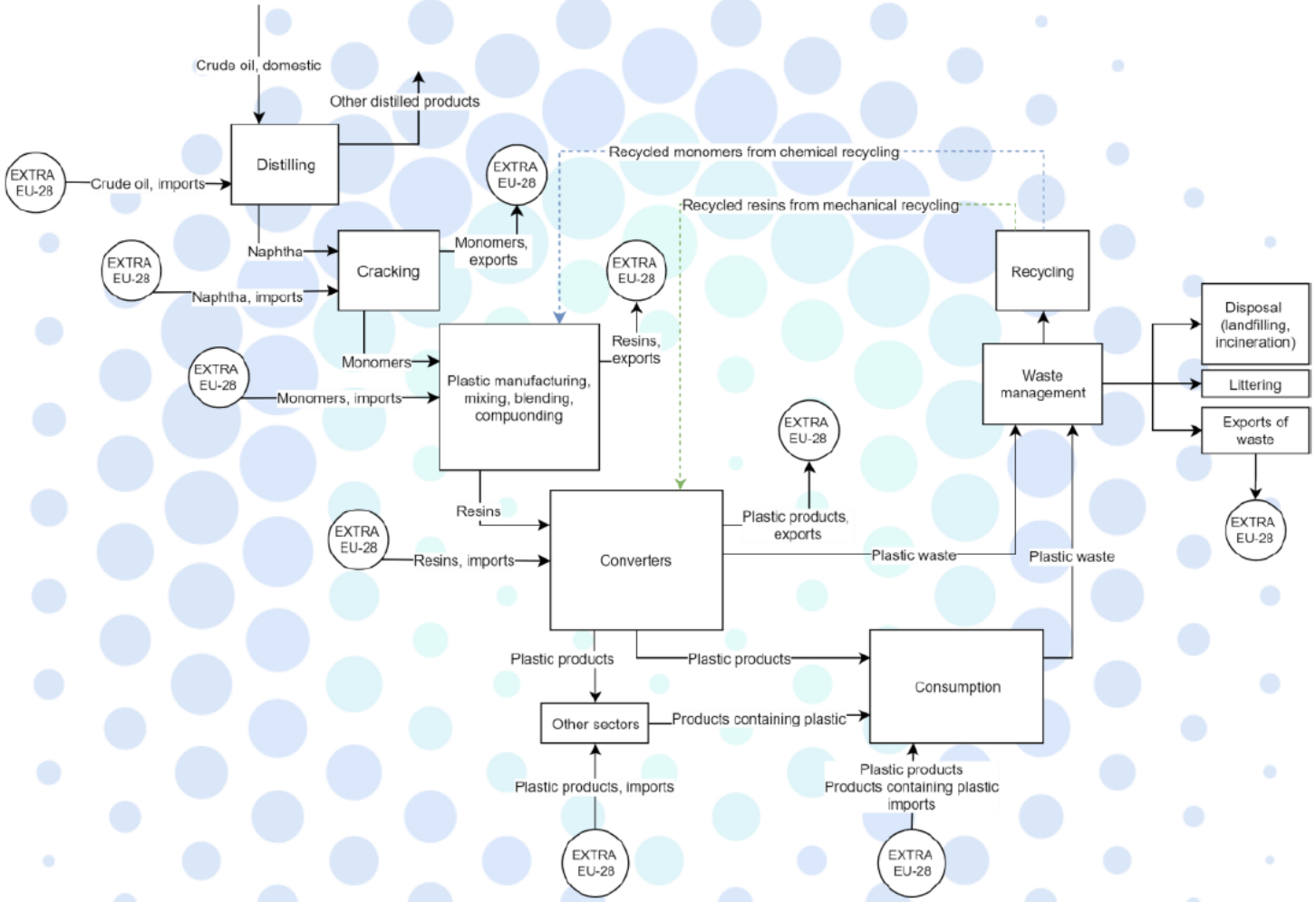
The experiences with economic instruments on waste management, products and materials highlight a number of lessons, including:

- the benefits of a specific and explicit link to environmental goals
- the need of establishing a tax rate which is high enough to influence the market
- the potential benefits of earmarking revenues for environmental purposes
- the need to ensure the presence of supporting infrastructures for implementation
- the importance of design aspects such as predictable rate increases and ensuring fairness to those who pay;

The experiences with economic instruments on waste management, products and materials highlight a number of lessons, including:

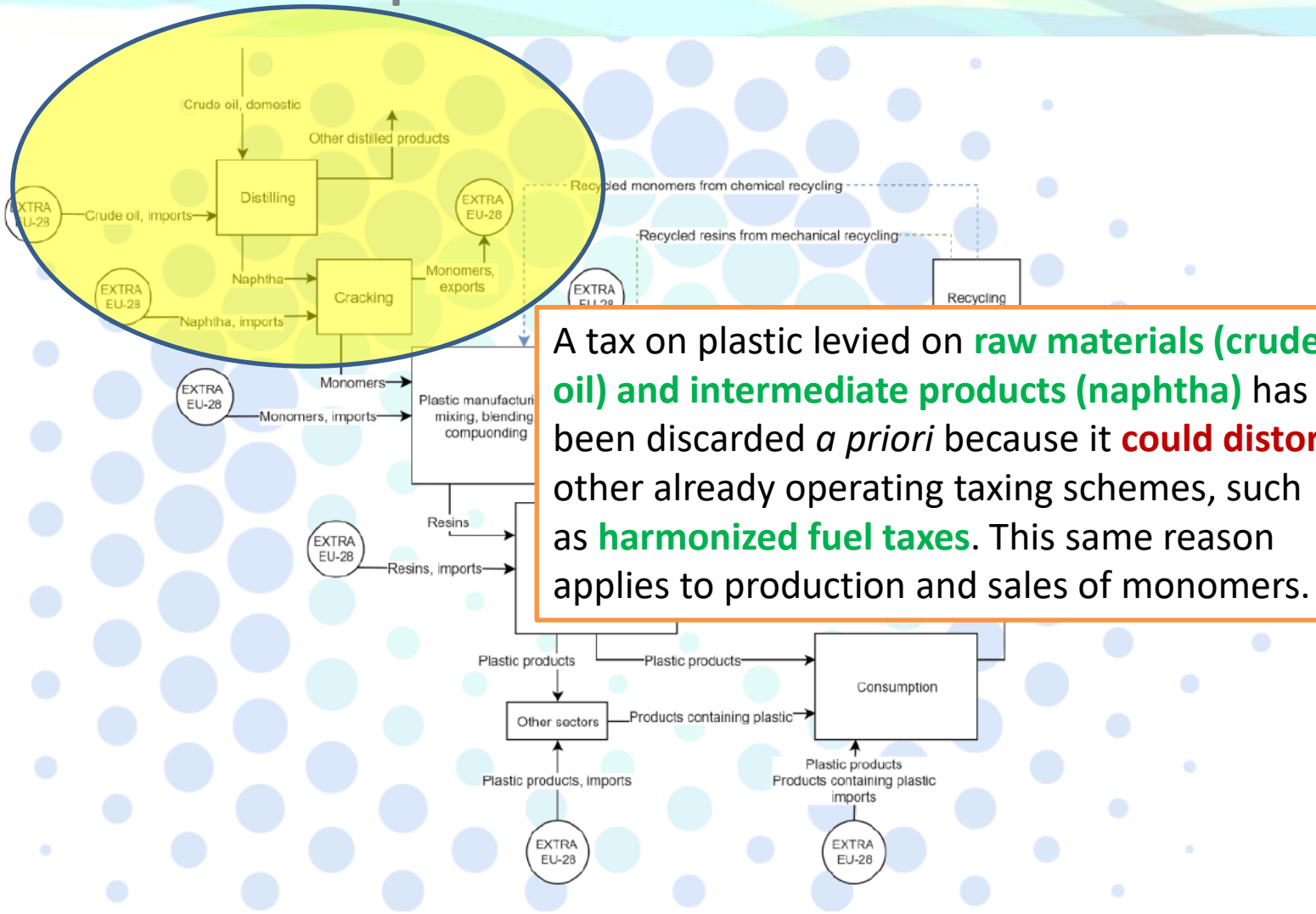
- coherence between relevant instruments and policies allows increased effectiveness
- the importance of tailoring instruments to the social and economic context
- the need of analyzing the social effects of the tax in order to avoid regressive effects
- the benefits of stakeholder engagement in design and implementation

The value chain of plastic



Source: Zero Waste Europe, 2017

The value chain of plastic



A tax on plastic levied on **raw materials (crude oil) and intermediate products (naphtha)** has been discarded *a priori* because it **could distort** other already operating taxing schemes, such as **harmonized fuel taxes**. This same reason applies to production and sales of monomers.

Source: Zero Waste Europe, 2017

At what stage could a plastic tax be applied

To sum up, there are three main tax levying stages:

- where monomers are purchased by plastic manufacturers
- where polymers are either sold by plastic manufacturers or purchased by converters
- Where products placed in the market for final consumption

Source: Zero Waste Europe, 2017

Legal nature of the proposed instrument

1) **New and independent tax**

1.1 An independent tax **fixed at EU level** (This was the approach of the Carbon tax proposed by the European Commission in 1992)

1.2 An independent tax **regulated at EU and national level**

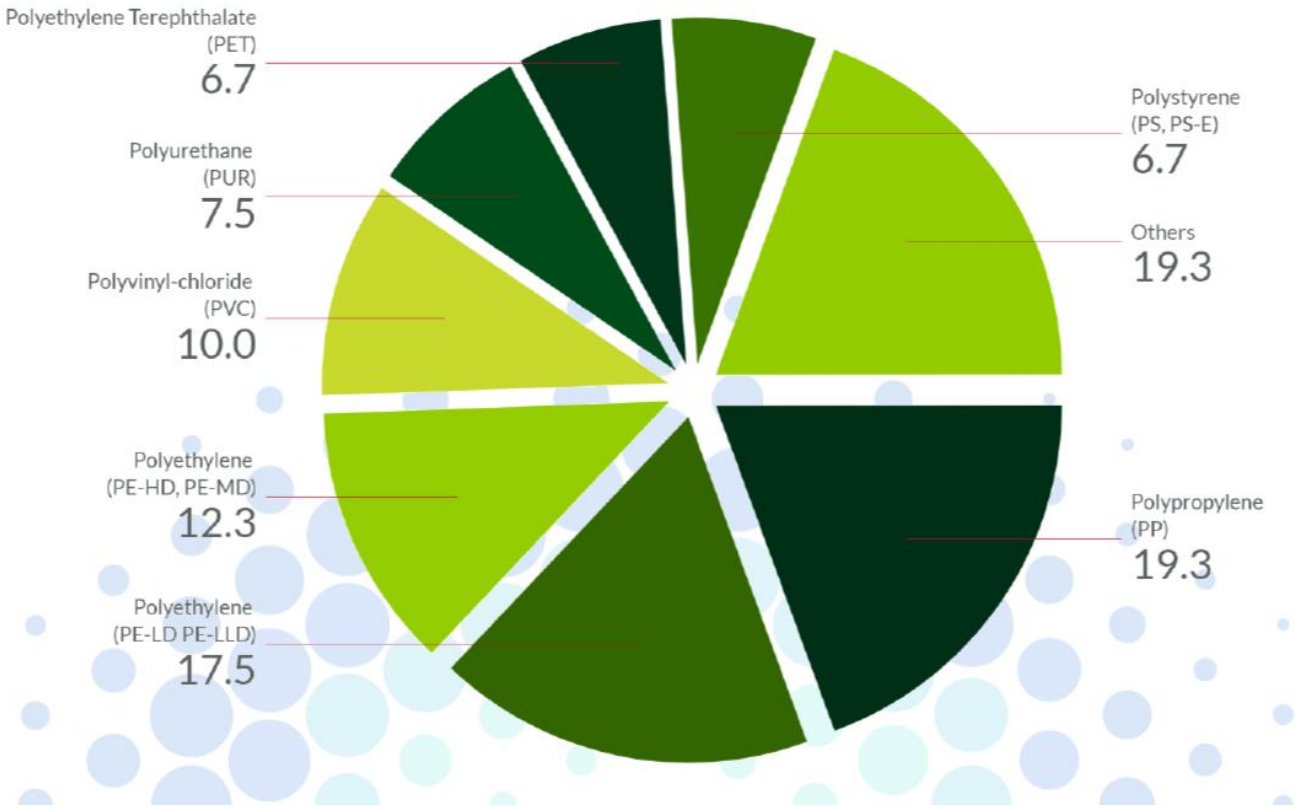
2) As a tax **integrated in or linked** to an existing tax

This is for example the case of electricity taxes in some EU countries, which are linked to **VAT**

Source: Zero Waste Europe, 2017

Most affected plastics and most affected uses

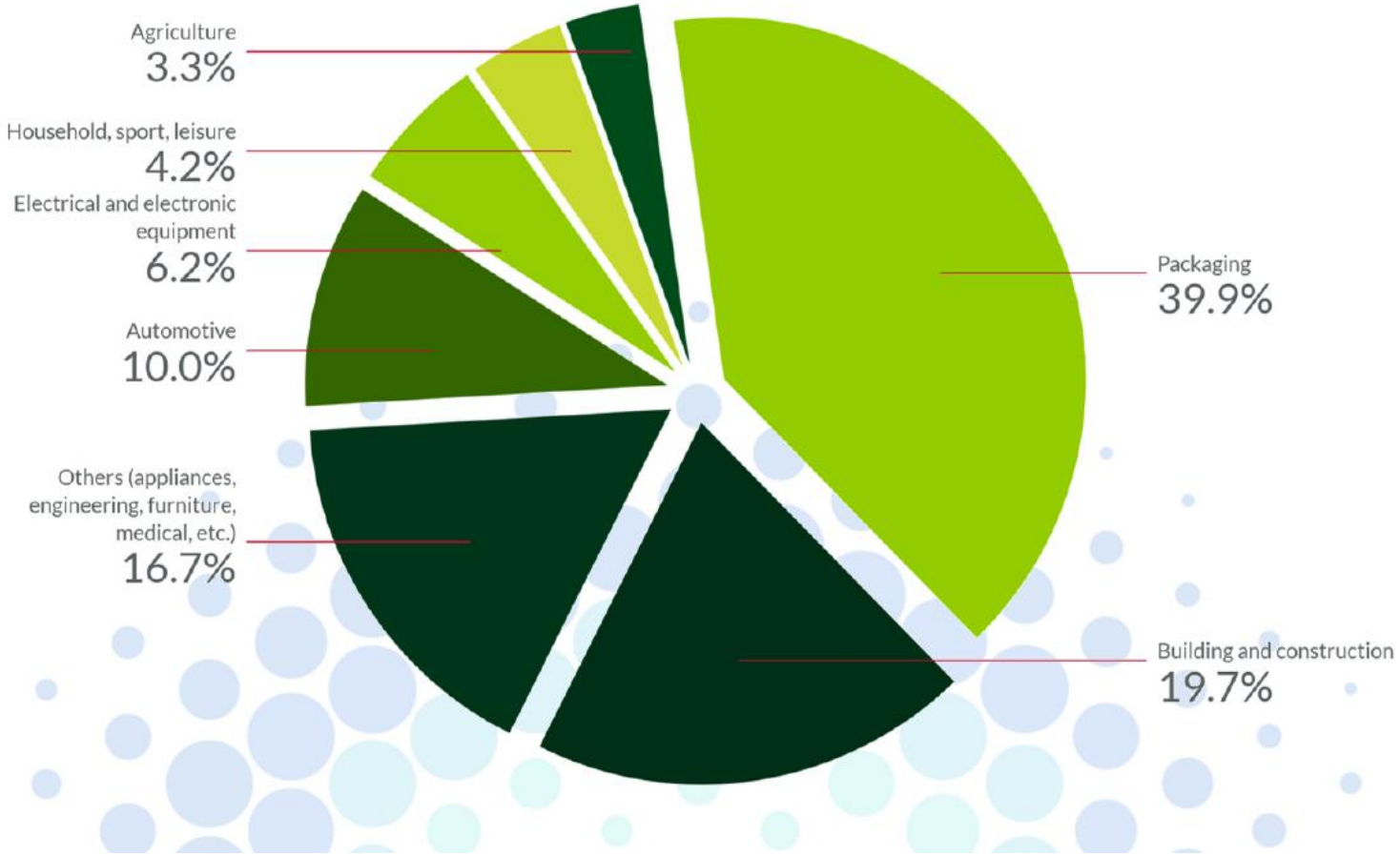
Plastics converter demand by resin type, 2016



Source: Plastics Europe, 2018. Plastics – the facts 2017

Most affected plastics and most affected uses

Plastics converter demand, main market sectors, 2016



Source: Plastics Europe, 2018. Plastics – the facts 2017

Impact of the tax

- The impact of the tax on the different plastics will depend upon the **configuration of the tax** and their relative **elasticity** (particularly the existence of alternative materials).

- For example, the demand for **plastic water bottles** has been found to be **inelastic**, because there are not suitable substitutes for PET bottles in the case of water. Another interesting case is **plastic bags**. In some countries, **elasticity was high in the short term** (as a kind of "overreaction" for paying for a product that was formerly obtained for free), although it decreased over time since taxes rates were not sufficiently high

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Thank you for your attention.

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