Extended Producer Responsibility

An introduction to key concepts and requirements of EU law

Reloop Webinar, 27th August 2020

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About Eunomia

A policy, strategy and implementation consultancy, we are led by our purpose of helping to transform our clients' environmental and economic outcomes for the better

We are market experts in systemic change in material and energy resource efficiency, working at the highest level of professional competence to meet our clients' needs

Our work is global in scope with 100+ circular economy and sustainability specialists working on projects on six continents from bases in the UK, Brussels, Athens, New York and Auckland

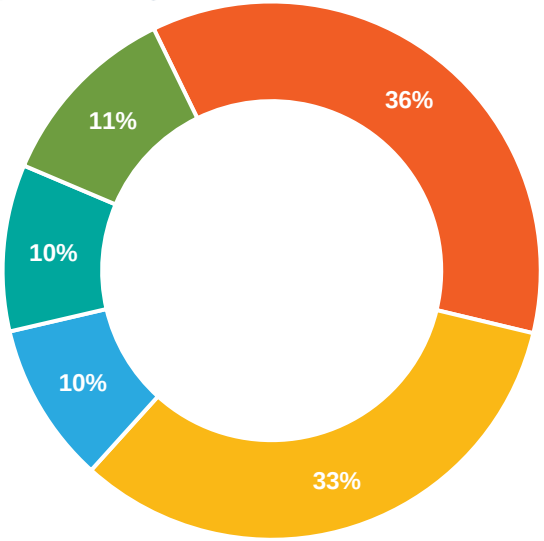
Eunomia Sectors and Selected Clients

National, Regional, Government

Ministry of Environment & Energy
Department of Energy & Climate Change
Finnish Government
Department for Environment Food & Rural Affairs
Norwegian Environment Agency
Llywodraeth Cymru Welsh Government
Hong Kong
The Scottish Government
Department of Ecology State of Washington
RPRA Resource Productivity & Recovery Authority

Supranational Government

OECD
JRC European Commission
European Environment Agency
eurostat
UNEP
European Commission
European Medicines Agency Science Medicines Health



Non-Governmental Organisations

wrap
reloop
Greenpeace
C40 Cities
Friends of the Earth
Keep Britain Tidy
CHEMTrust
ZERO WASTE SCOTLAND
EEB European Environmental Bureau
WWF
RCA Recycling Council of Alberta
sustrans
ClientEarth
Changing Markets Foundation

Local Government

Euro Cities
Camden
Exeter City Council
New York City Department of Sanitation
Surrey County Council
Calgary
SWA Sacramento Regional Solid Waste Authority
Islington
Manchester City Council
Somerset Waste Partnership
Greater London Authority
Town of Needham Incorporated 1711
Scottish Borders Council
City of Westminster

Private Sector

serco
TOMRA
FIFA
Deloitte.
Danone
M&S
SSE
esa environmental services association
Tesco
Europen
Eastman
Macquarie
I Squared Capital
Red Bull
ALDI SÜD
BASF We create chemistry
Nestlé
PepsiCo
Ball
Suez
Coca-Cola

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Study to Support Preparation of the Commission's Guidance for Extended Producer Responsibility Schemes

Final Report

Dr Dominic Hogg, Dr Chris Sherrington, Joe Papineschi, Mark Hilton, Alex Massie, Peter Jones

27th April 2020

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Study to Support Preparation of the Commission's Guidance for Extended Producer Responsibility Schemes

Recommendations for Guidance

Dr Dominic Hogg, Dr Chris Sherrington, Joe Papineschi, Mark Hilton, Alex Massie, Peter Jones

27th April 2020

Aims of this Presentation

- **Provide an introduction to EPR**
  - **What is it?**
  - **What is its purpose?**
  - **What are the key concepts?**
- **Discuss the specific requirements of:**
  - **Waste Framework Directive**
    - **Revised 2018**
  - **Packaging and packaging Waste Directive**
    - **Revised 2018**
  - **Single Use Plastics Directive**
    - **Adopted 2019**
  - **EU Circular Economy Action Plan 2.0**
    - **Published 2020**

EPR

Producers are responsible for the cost of managing their products once they become waste

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EPR – Drivers for Change

New Waste Framework Directive

- New targets for MSW
  - up from 50% in 2020 using any of four methods, to:
  - 55% by 2025;
  - 60% by 2030;
  - 65% by 2035
- New measurement method for measuring recycling targets
- Requirement for fee modulation under EPR and full cost recovery for packaging

Single Use Plastic Directive

- Tethering of caps for plastic beverage containers
- Recycled content:
  - 25% recycled content for all single-use PET beverage bottles by 2025
  - 30% recycled content for all single-use beverage bottles by 2030
- Separate collection of single-use plastic beverage containers:
  - 77% by 2025;
  - 90% by 2029
- EPR costs extended to behaviour change & litter clean-up

EU Directive on Packaging and Packaging Waste

- New targets for plastic (and other) packaging
- Plastics: up from 22.5% (pre-amendment in 2018) to 50% (2025); 55% (2030)
- New measurement method as per WFD
- Requirement for fee modulation as per WFD

Increased Attention on Plastic Pollution

- Growing public concern regarding plastic pollution and its impacts
- National and local governments responding with DRS, EPR and packaging requirements

Brand Commitments

- Growing awareness of a threat to brand reputation
- Increasing numbers of brands looking to meet or exceed statutory requirements
  - Commitments on recycled content
  - Commitments to achieve recycling targets
  - Commitments to sustainable packaging design
- Potential leadership role in countries that are not yet looking to make statutory changes

Key Concepts

- **Purpose**
  - To create incentives to prevent waste, promote eco-design and support achievement of recycling goals
- **Cost coverage (full cost recovery)**
  - Producers cover end of life cost of products placed on market
  - Internalising externalities of end of life management
  - Key questions around scope of cost coverage
- **Collective versus individual responsibility**
  - In many cases (e.g. packaging), collective schemes will be established through Producer Responsibility Organisations (PROs) to discharge responsibility on behalf of producers
- **Eco-modulation of fees**
  - Fees paid are ‘modulated’ to incentivise eco-design
  - Producers placing products on the market that do not meet eco-design objectives make a disproportionate contribution to the overall cost-coverage ‘pot’

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EPR Rationale: Why EPR?

- **Placing costs on producers gives them an incentive to reduce those costs by:**
  - **Eliminating unnecessary packaging**
  - **Ensuring packaging is readily recyclable**
  - **Funding recycling activities and infrastructure**
  - **Using recycled material**
- **Will support Member States (MS) to meet targets:**
  - **Packaging waste recycling targets (2025, 2030)**
  - **Municipal waste recycling targets (2025, 2030, 2035)**
  - **Collection targets for beverage bottles (2025, 2029)**
- **Note: deposit systems (DRS) are a form of EPR implementation, not a separate instrument**
  - **But clearly do interact with other EPR approaches**

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Plastics: Cost Coverage Under EU Directives

- Costs of Collecting and Sorting Plastic Packaging which is Recycled via Separate Collection
- Costs of Recycling Operation for Plastic Packaging from Separate Collection
- Material Revenues / Unclaimed Deposits
- Costs Associated with Awareness Raising e.g. littering and reusable alternatives
- Costs of Collecting Packaging which is Littered
- Costs of Treating or Disposing or Recycling of Packaging which is Littered
- Costs of data gathering and reporting for wet wipes, balloons and tobacco products
- Costs of Providing Information to Waste Holders
- Costs of Data Gathering and Reporting
- Costs of Collecting Plastic Packaging which is Not Separately Collected
- Costs of Sorting and Recycling Packaging From Mixed Waste (to meet targets)
- Costs of Treating or Disposing of Packaging which is Not Recycled

= required under PPWD / WFD

= required under SUP Directive

= permitted as per WFD Art 14

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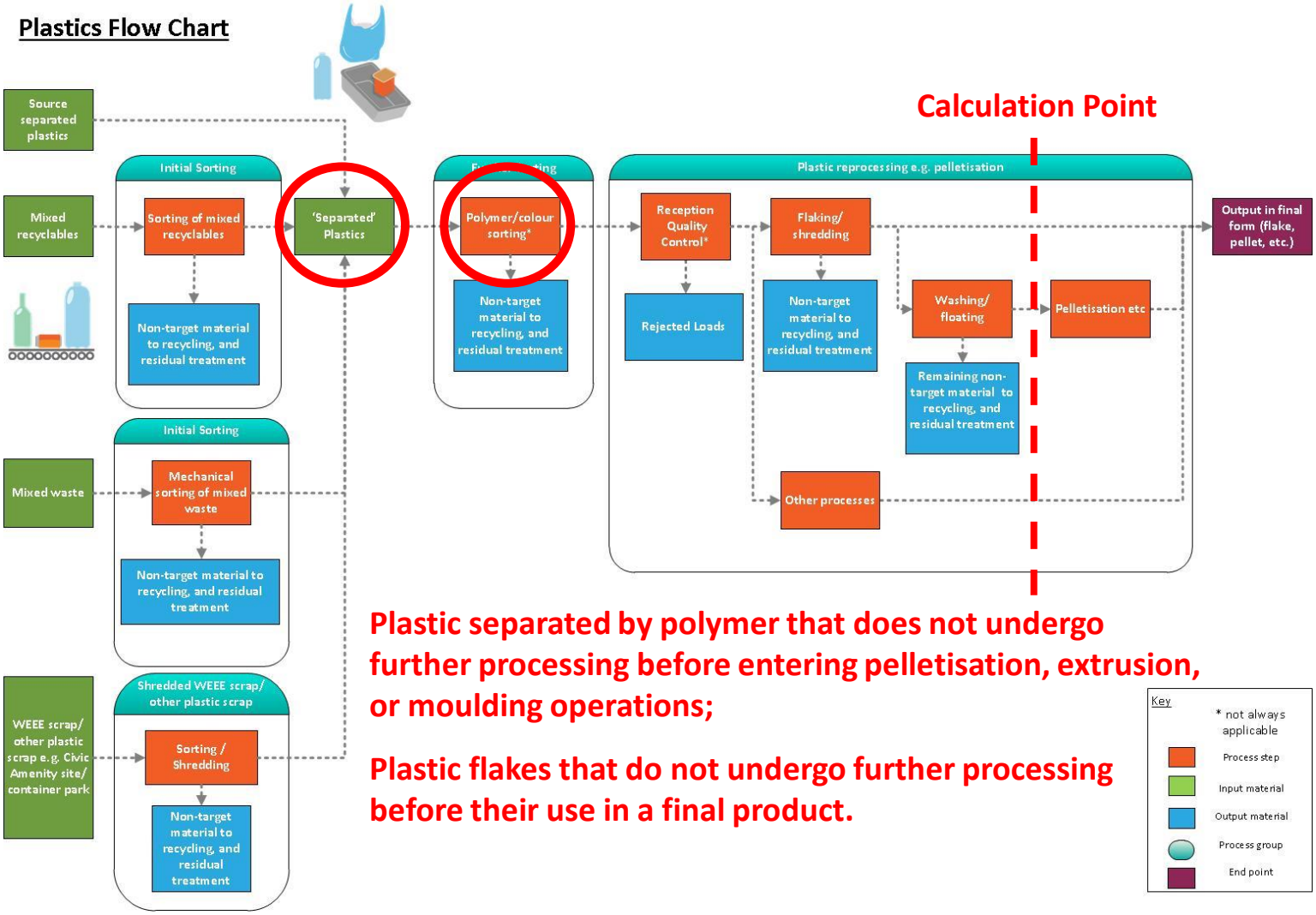
Single Use Plastics Directive Scope

REDUCE MARINE LITTER

MEASURES TO BE IMPLEMENTED	SINGLE-USE PLASTIC PRODUCTS
Consumption reduction (Article 4; Annex, Part A)	▪ Cups for beverages, incl. covers & lids ▪ Food containers
Restrictions on placing on the market (Article 5; Annex, Part B)	▪ Balloon sticks ▪ Beverage containers made of expanded polystyrene (PS), incl. caps and lids ▪ Beverage stirrers ▪ Cotton bud sticks ▪ Cutlery ▪ Cups for beverages made of expanded PS, incl. covers and lids ▪ Food containers made of expanded PS ▪ Plates; Straws
Product requirements (Article 6; Annex, Part C)	▪ Beverage containers ≤3L, incl. caps & lids
Marking requirements (Article 7; Annex, Part D)	▪ Cups for beverages ▪ Sanitary towels (pads), tampons & tampon applicators ▪ Tobacco products with filters ▪ Wet wipes
EPR (Article 8; Annex E)	
Annex EI: Awareness raising; Waste collection & treatment; Cleaning up litter	▪ Beverage containers ≤3L, incl. caps & lids ▪ Cups for beverages, incl. covers & lids ▪ Food containers ▪ Packets and wrappers ▪ Lightweight plastic carrier bags
Annex EII: Awareness raising; Cleaning up litter; Data gathering & reporting	▪ Balloons ▪ Wet wipes
Annex EIII: Awareness raising; Cleaning up litter; Waste collection & treatment; Data gathering & reporting	▪ Tobacco products with filters
Separate collection (Article 9; Annex, Part F)	▪ Beverage bottles ≤3L , incl. caps & lids
Awareness raising (Article 10; Annex, G)	▪ Balloons ▪ Beverage containers ≤3L, incl. caps & lids ▪ Cups for beverages, incl. covers & lids ▪ Food containers ▪ Lightweight plastic carrier bags ▪ Packets & wrappers ▪ Sanitary towels; tampons; tampon applicators ▪ Tobacco products with filters ▪ Wet wipes

New EU Measurement Method for Recycling



Plastic separated by polymer that does not undergo further processing before entering pelletisation, extrusion, or moulding operations;

Plastic flakes that do not undergo further processing before their use in a final product.

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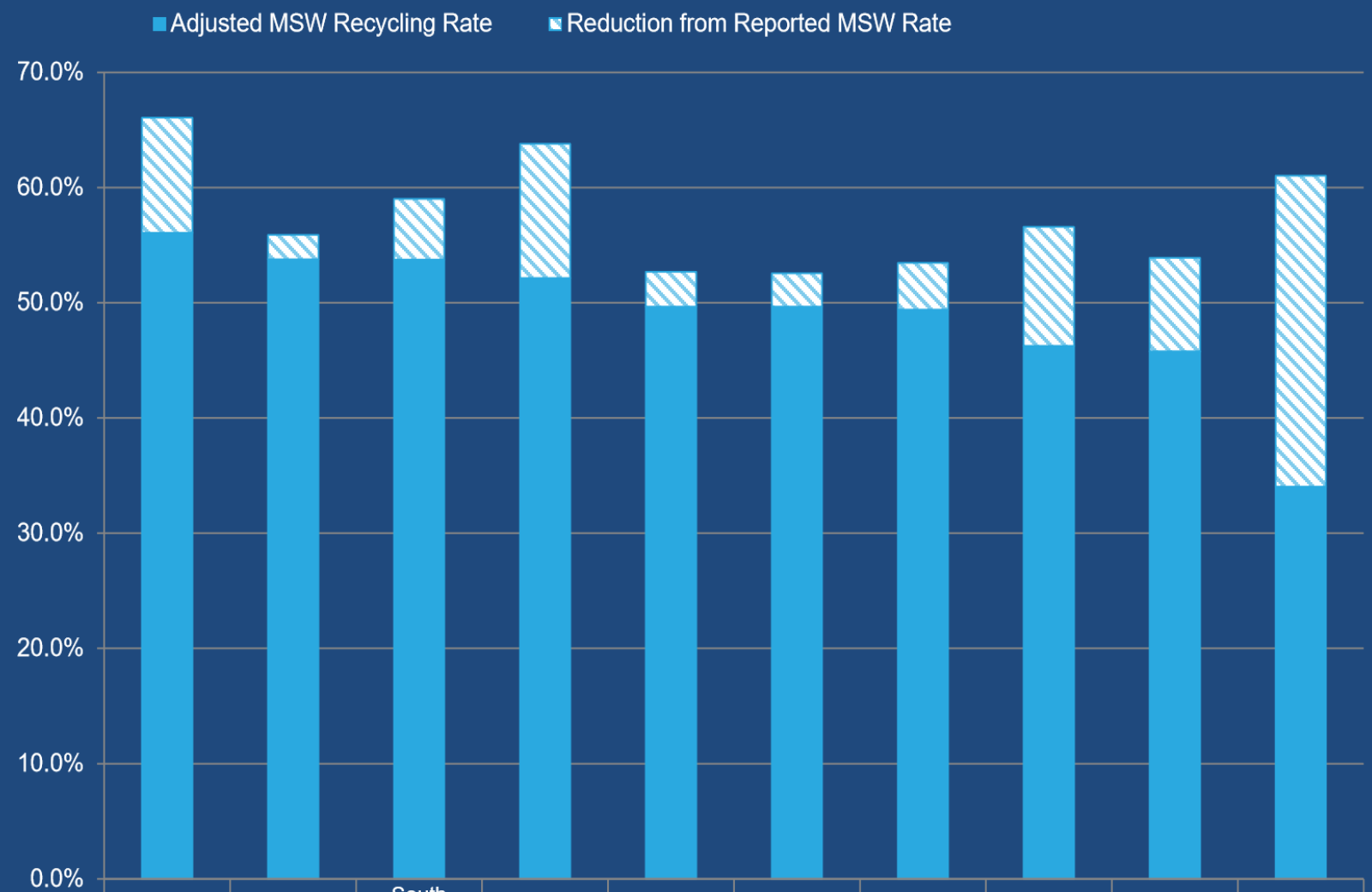
Top 10 - Adjusted Recycling Rate and Reduction from Reported Rate - MSW



	Germany	Austria	South Korea	Wales	Switzerland	Italy	Belgium	Netherlands	Slovenia	Singapore
Reduction from Reported MSW Rate	10.0%	2.1%	5.3%	11.6%	3.0%	2.9%	4.1%	10.3%	8.1%	27.0%
Adjusted MSW Recycling Rate	56.1%	53.8%	53.7%	52.2%	49.7%	49.7%	49.4%	46.3%	45.8%	34.0%

EPR Fee Modulation: French Bonus/Malus System

On-pack sorting instructions

Weight reduction

Volume reduction

Mono-material packaging

Recycling disruptors

Non-recoverable packaging

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EU Guidelines: Focus on Recyclability

- **Design for Recycling (DfR) guidelines at the level of:**
  - **Specific *format* (e.g. bottle);**
  - **Made of a specific *material* (e.g. PET); and**
  - **In some cases by *colour***

Plastics Recyclers Europe Summary Design Guidance for PE transparent flexible film

	YES Full compatibility – materials that passed the testing protocols with no negative impact OR materials that have not been tested (yet), but are known to be acceptable in PE recycling	CONDITIONAL Limited compatibility – materials that passed the testing protocols if certain conditions are met OR materials that have not been tested (yet), but pose a low risk of interfering with PE recycling	NO Low compatibility – materials that failed the testing protocols OR materials that have not been tested (yet), but pose a high risk of interfering with PE recycling
Material	PE-LD; PE-LLD; PE-HD	multilayer PP/PE	any other polymer
Colours	unpigmented; transparent	light or translucent colours	dark colours
Barrier	barrier in the polymer matrix	barrier layer EVOH (in polyolefinic combination film); metalized layers	barrier layer PVC; PA, PVDC; any other barrier layer foaming agents used as expandant chemical agents; aluminium

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Design for Recyclability

	materials that passed the testing protocols with no negative impact OR materials that have not been tested (yet), but are known to be acceptable in PE recycling	materials that passed the testing protocols if certain conditions are met OR materials that have not been tested (yet), but pose a low risk of interfering with PE recycling	materials that failed the testing protocols OR materials that have not been tested (yet), but pose a high risk of interfering with PE recycling
Material	PE-LD; PE-LLD; PE-HD	multilayer PP/PE	any other polymer
Colours	unpigmented; transparent	light or translucent colours	dark colours
Barrier	barrier in the polymer matrix	barrier layer EVOH (in polyolefinic combination film); metalized layers	barrier layer PVC; PA, PVDC; any other barrier layer foaming agents used as expandant chemical agents; aluminium
Additives			additives concentration ≥ 0.97 g/cm3
Closure	same material as body	PE on PP body; PP on PE	any other

Fee Modulation - Packaging

- **Based on Design for Recycling guidelines:**
  - **YES for *all* relevant aspects: eligible for bonus**
  - **YES in some aspects but CONDITIONAL in *any* aspect: will face the standard fee; and**
  - **NO in any individual aspect: subject to a malus**
- **Or based on the recycling rate actually achieved**
  - **For material and packaging format or sub-format, e.g.**
    - **PET bottles (maybe clear, coloured, opaque)**
    - **HDPE bottles (maybe natural, coloured/opaque)**
    - **Flexible plastic packaging (maybe mono-polymer, multi-polymer, multi-material)**
- **Or a combination of both**
  - **Likely to move in this direction over time**

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Cost Coverage: Waste Framework Directive

- **Article 8a(4)(a):**
  - ***"costs of separate collection of waste and its subsequent transport and treatment, including treatment necessary to meet the Union waste management targets…"***
- **These *must* include the specific targets set in the Directives and *may* include other relevant targets and objectives (8a(1)(b))**
  - **Meeting wider targets (e.g. the WFD municipal waste targets) may require specific packaging stream targets to be exceeded**

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Concept of Net Costs

- **Producers must meet the net costs**
  - **These are the operational and support costs, minus the value of the recycling that is collected**
- **Municipalities may be given responsibility for sorting / selling the material they collect**
  - **Or, producers could take responsibility for this**
- **Net cost recovery means collectors and sorters (e.g. municipalities) should be less affected by fluctuations in material markets**

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What Costs Do Producers Meet? (1)

- **In some MS, many costs currently met by local or national governments will become the responsibility of producers**
  - **In some countries, additional funding from producers will be € € € € €**
- **Producers will be responsible for net operational costs of packaging recycling services, including (but not limited to):**
  - **Direct vehicle, staff & container costs (capital and running costs) e.g.**
    - **Door-to-door collections;**
    - **Communal collections; and**
    - **Recycling centres or container park facilities;**
  - **Maintenance costs for vehicles and containers**
  - **Depot and transfer stations costs**
  - **Sorting and processing costs**
  - **Costs of transporting waste to sorting and final treatment**
  - **Corporate overheads (e.g. IT, HR, financial services) associated with waste management**
  - **The costs of marketing and selling reused items or recycled materials**

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What Costs Do Producers Meet? (2)

- **In addition, cost coverage should include necessary supporting activities, including (but not limited to):**
  - **Performance incentives to encourage:**
    - **Waste prevention and reuse**
    - **A high recycling rate and**
    - **High recycling quality**
  - **Costs of providing information to citizens and other waste holders on managing their waste appropriately**
  - **Enforcement costs – i.e. the costs of systems to ensure that producers, waste management organisations, businesses and citizens follow the rules**
  - **Efficiency reviews to ensure that services are run at the lowest cost necessary to achieve the objectives and targets**
  - **Data gathering, recording, analysis and reporting costs**
  - **Costs of Producer Responsibility Organisations (PROs)**
- **In addition, EPR schemes *may* cover other costs**
  - **Member States have broad powers under Article 14(1) of WFD (polluter-pays principle)**
  - **This could cover litter, residual waste, marine pollution impacts etc.**

What Makes Costs 'Necessary'?

- **Producers must fund adequate services across the whole Member State**
  - Can't just meet the targets by focusing on the areas where it is cheapest to collect waste
- **The system must be capable of driving required outcomes:**
  - Collection/sorting system design
  - Communications
- **But only the necessary costs….**
  - Waste management system must have potential to be efficient…
  - … and be implemented in a way that is cost effective
- **If municipalities or the state collect material on behalf of producers, they will need to demonstrate cost effectiveness**
  - Through competition/market testing and/or
  - Through modelling and benchmarking

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Minimum or Standardised Service Models?

Multi-stream with separate food

Residual waste (up to a maximum equivalent of 120 litres weekly)

Minimum of 120 litres collected weekly

Plastics, metals and cartons

Glass and card*

Paper

Food

Plastics, metals, cartons, glass, card, paper and food

Two-stream (fibres separate) with separate food

Residual waste (up to a maximum equivalent of 120 litres weekly)

Minimum equivalent of 120 litres weekly

Plastics, metals, cartons and glass

Paper and card

Plastics, metals, cartons, glass, card and paper

Food

Co-mingled with separate food

Residual waste (up to a maximum equivalent of 120 litres weekly)

Minimum equivalent of 120 litres weekly

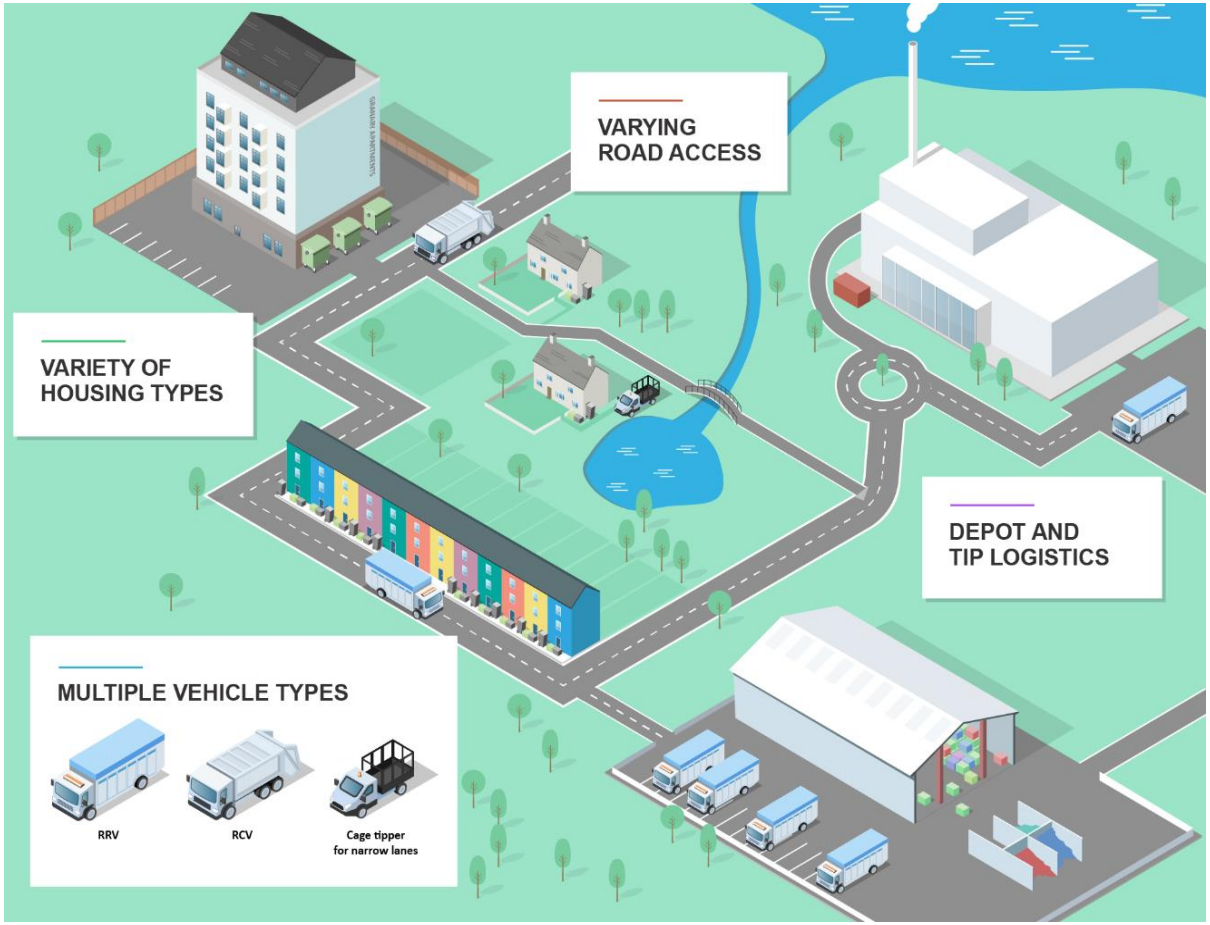
Plastics, metals, cartons, glass, paper and card**

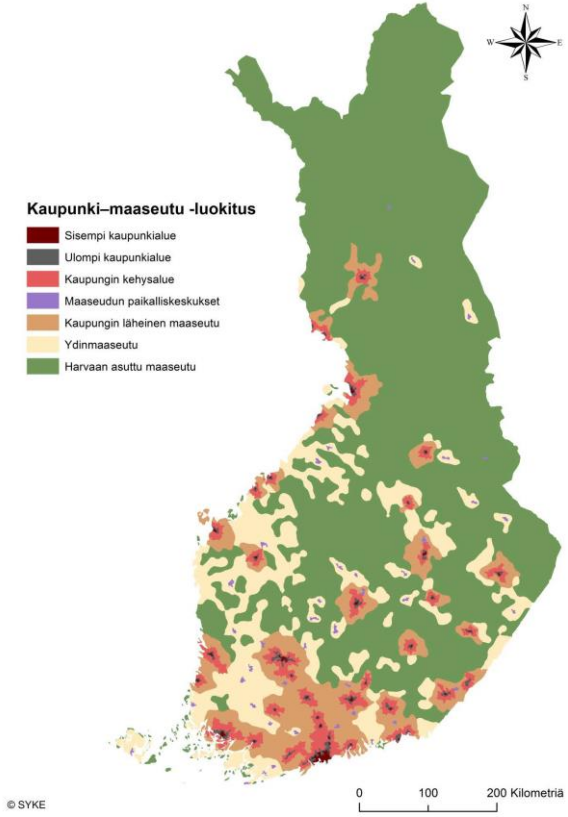
Food

Plastics, metals, cartons, glass, card and paper

Food

Collection Resource Requirements





- **More sophistication likely to be required in designing services and demonstrating efficiency**

Hermes 2.0 Collection Modelling

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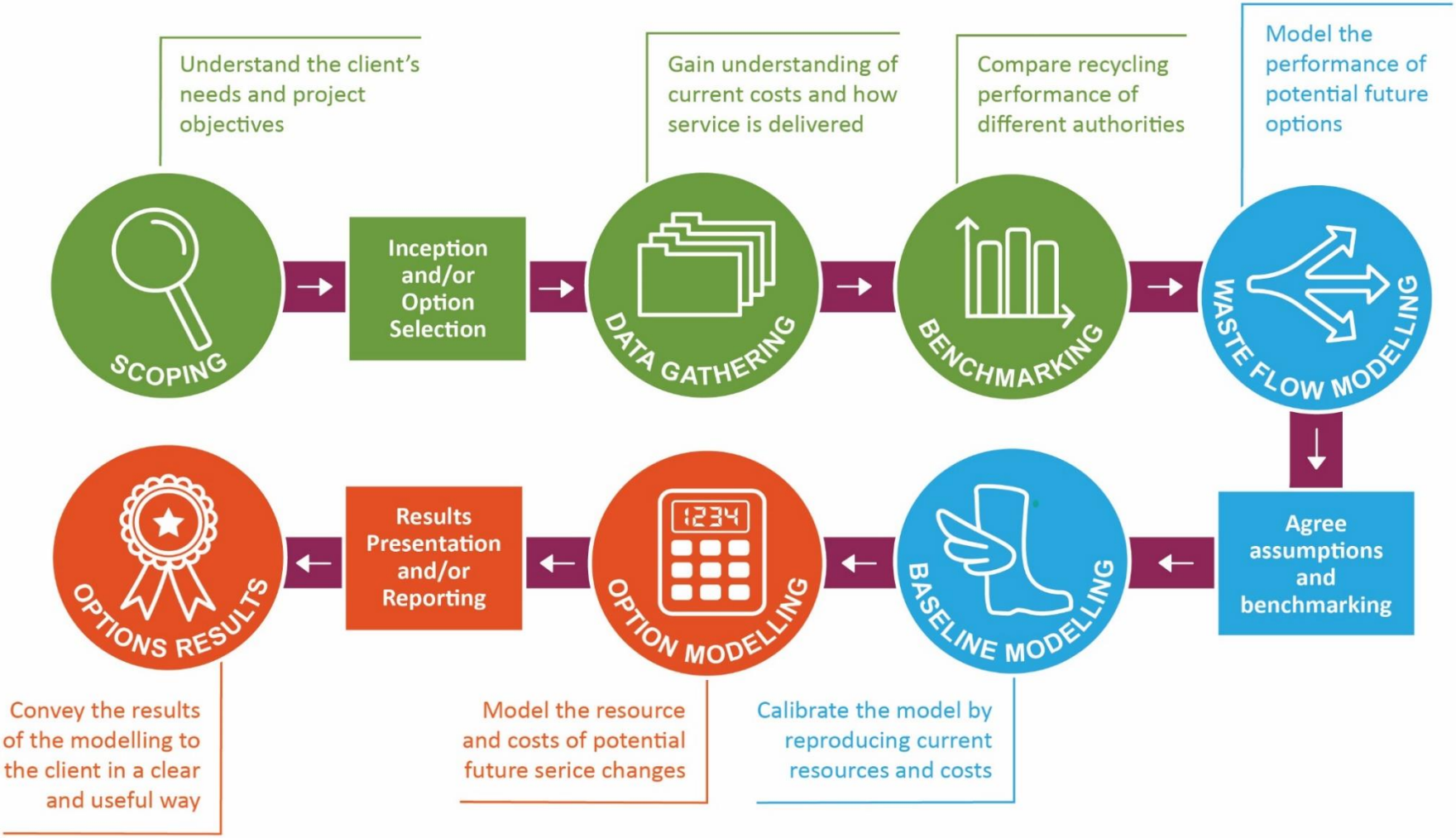
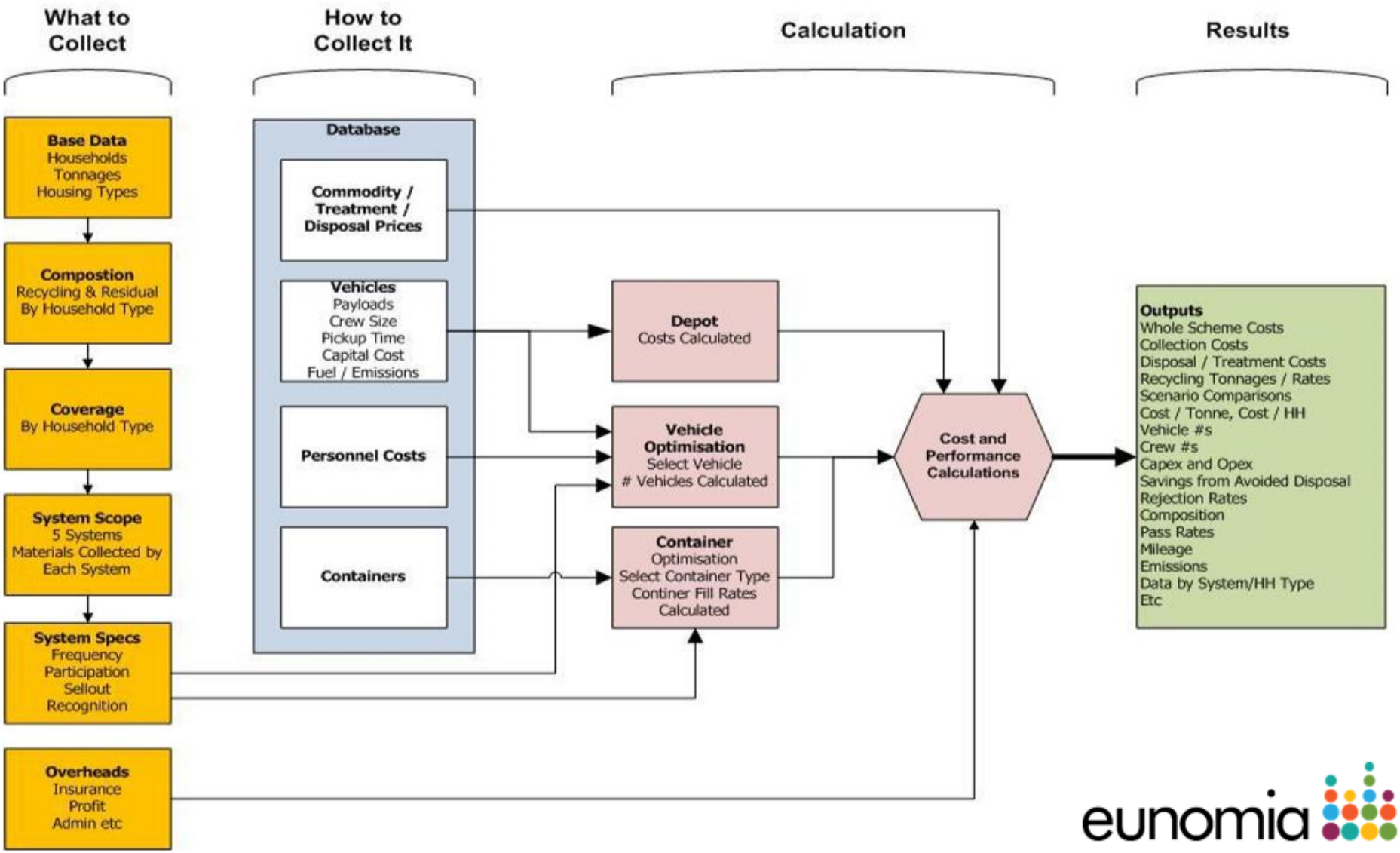


Key

☐ Meetings/Reports ◯ Stages/Tasks Model Preparation Collection Options Appraisal Results Reporting/Presentation

Eunomia Hermes Model: Detail



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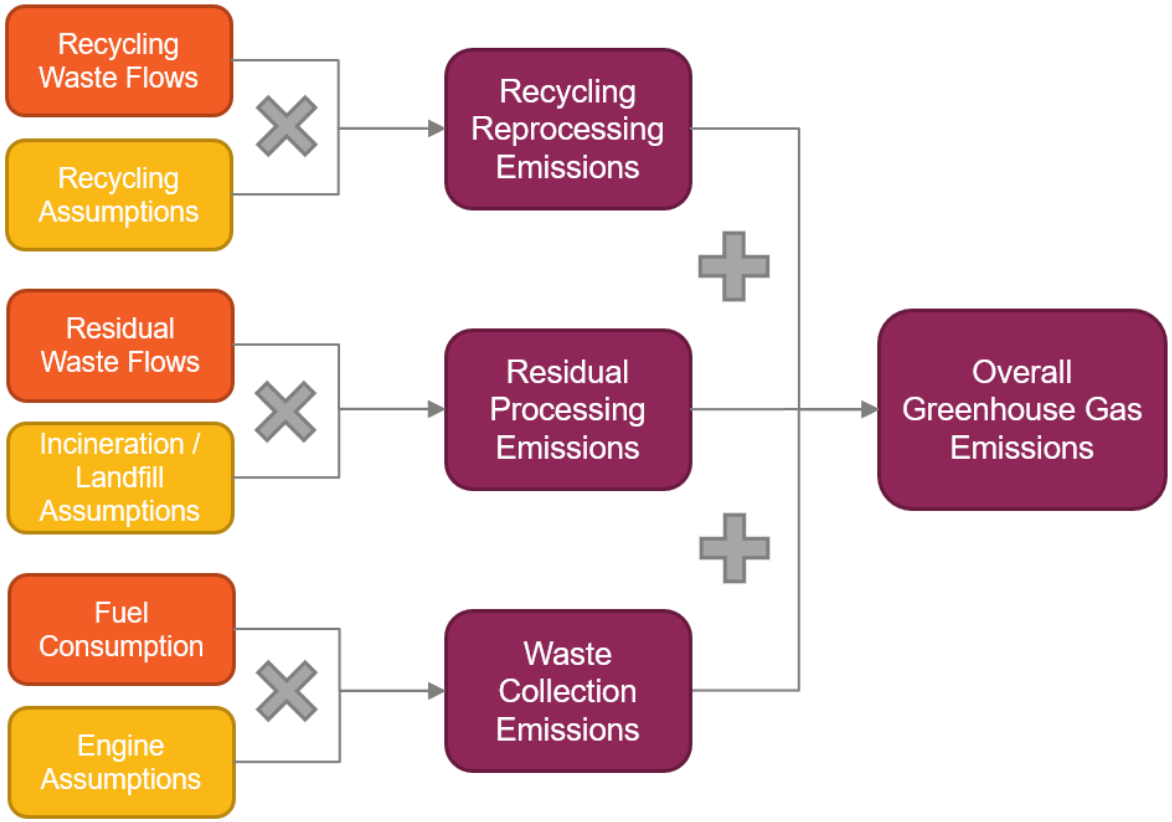
Consideration of Carbon Emissions



- **Increasingly important for governments and producers**
- **Can be used to justify different approaches**
  - **e.g. derogations from strict application of separate collection**

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Aberystwyth Pwy
Recycle More
CONWY
ROMKIQUIP
RECYCLING
RECYCLING
DAF


NTM
NTM


PLAST-
FÖRPACKNINGAR
PAPPERS-
FÖRPACKNINGAR
BRÄNNBART
MATAVFALL
METALL-
FÖRPACKNINGAR
OFÄRGAT GLAS
TIDNINGAR
FÄRGAT GLAS
1
2


NTM
NTM
NTM


NTM


Aberystwyth Pwy
Recycle More


STEKLO
GLASS
EMBALAŽA
PACKAGING
PAPIR
PAPER

Collection and Distribution of Funds

- **Member States can decide:**
  - How to ensure cost coverage by producers:
    - Collect money through PROs
    - Collect money through levies or taxes
    - Allow direct responsibility by producers

    But must modulate and limit to 'necessary costs'
  - How to distribute EPR money to waste management organisations (e.g. municipalities)
    - Could be based on modelled costs
    - Could be based on actual measured costs
    - Could be based on producers contracting directly with municipalities
    - Could be through supporting the price of recycled materials

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Circular Economy Action Plan 2.0

- Published in March 2020
- Wide range of additional targets & measures
  - Potentially radical focus on product policy
  - Halving municipal waste by 2030
    - Reducing food waste
  - New targets to reduce packaging waste
  - "Mandatory essential requirements" for all packaging placed on the market
    - All packaging placed on the EU market to be reusable or recyclable in an economically viable way by 2030
  - Mandatory use of recycled content
- EPR to be introduced for textiles

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Conclusions

- **EPR is perhaps the most important instrument in EU for 'making packaging circular'**
- **Legislation & guidelines seek appropriate balance between producers & collectors/recyclers:**
  - **Collectors/recycler should expect:**
    - **High degree of cost coverage of high-performing systems**
    - **Transparency on funding**
    - **Increased recyclability of the waste stream**
    - **Investment in infrastructure**
  - **Producers should expect:**
    - **An efficient collection and sorting system**
    - **High performance and high quality material for recycling**
    - **A high degree of transparency on costs**

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