SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Regional Training:

Fostering a SWITCH to GREEN Economy in the Mediterranean (WP3 REG 9)

11-13 December2018, Barcelona, Spain

This Project is funded by the European Union

SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Introduction to the policy track.

Presented by:
Marta Junquera, SWIM H2020 SM Project Manager

This Project is funded by the European Union

DAY 2

Time	Session	Description
09.00-09.20	PM1 – Introduction	• Introduction to the Policy Track ***Marta Junquera, SWIM H2020 SM Project Manager***
09.20-10.00	PM2- Understanding the issue	• How and where do plastics leak out of the material loop? Identifying key issues and priority areas for action ***Mervyn Jones, SWIM H2020 SM Expert***
10.00-11.15	PM3 – Exploring policy options	• Policy options to implement circular economy in the food and beverage packaging sector and related activities developed by SCP/RAC ***Pedro Fernandez, Marine Litter Project Manager, SCP/RAC*** • Introduction to the EU plastic strategy and policy framework for packaging ***Mervyn Jones, SWIM H2020 SM Expert*** • Working session
11.15-11.45	Coffee break	
11.45-13.00	PM4 – Instruments	• Voluntary:UK Plastic Act - • Green Public Procurement: Circular Economy ***Mervyn Jones, SWIM H2020 SM Expert*** • Working session/ Action Planning
13.00-14.00	Lunch break	
14.00-15.30	PM5 – Sharing Mediterranean experiences	• Extended Producer Responsibility for packaging – exploring different schemes ***Ignasi Puig Ventosa, ENT Environment & Management, Fundació ENT***) • ECO-Lef: Experience from the National System for the recovery and recycling of post- consumer packaging in Tunisia - ***Mounir Ferchichi***, ***SWIM H2020 SM Expert*** • Interventions from the participants on the current situation related to the prevention and management of packaging waste (Round table)
15.30-15.45	Coffee break	
15.45-17.00	PM6 – Discussing on the way forward	•

What is your role as policy makers?

Can you identify enabling policies that in your department or ministry currently take place?

Can you identify some challenges you find?

Can you identify already potential areas to change?

Quick actions to be developed?

Working session discussion on measures and preparation for day 3

DAY 3

Coming back together to work on common solutions… sharing, collaborating, looking beyond…

Time	Session	Description
09.00-11.00	**S07 – Feedback from the parallel session**	• Presentations of results from day 2 • Guided discussion and exchange between the 2 tracks • Identification of next steps ***SWIM-H2020 SM, SCP/RAC Experts and Participants***
11.00-11.30	Coffee break	
11.30-12.30	**S08 – Training wrap up and final conclusions**	• Learnings from the training ***Anis Ismail, SWIM H2020 SM Key Environmental Expert and Marta Junquera, SWIM-H2020 SM Project Manager, SCP/RAC***
12.30-13.00	Closing of the regional training	
13.00-14.00	**Lunch**	

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Working for a Sustainable Mediterranean, Caring for our Future

Plastics Materials Loop

Presented by: **Dr Mervyn JONES, SWIM H2020 SM Expert**
Director, SGR ltd

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

12 December, Barcelona, Spain

This Project is funded by the European Union

Defining the issue

Single Use Plastics

UK Government's proposed definition was:

"all products that are made wholly or partly of plastic and are typically intended to be used just once and/or for a short period of time before being disposed of"

Problematic Plastics

"typically plastic items where consumption could be avoided through elimination, reuse or replacement and items that, post-consumption, commonly do not enter recycling and composting systems, or where they do, are not recycled due to their format, composition or size".

Where are plastics of interest used?

Single use and problematic

- Staff
- Suppliers & contractors
- Public

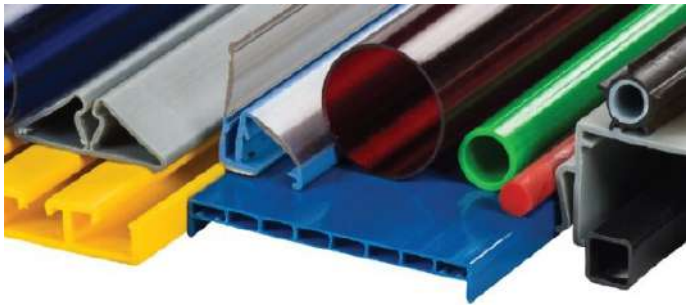
- Packaging – all categories
- Catering & hospitality
- Cleaning
- Facilities management
- Construction

- Commercial collection
- On the Go

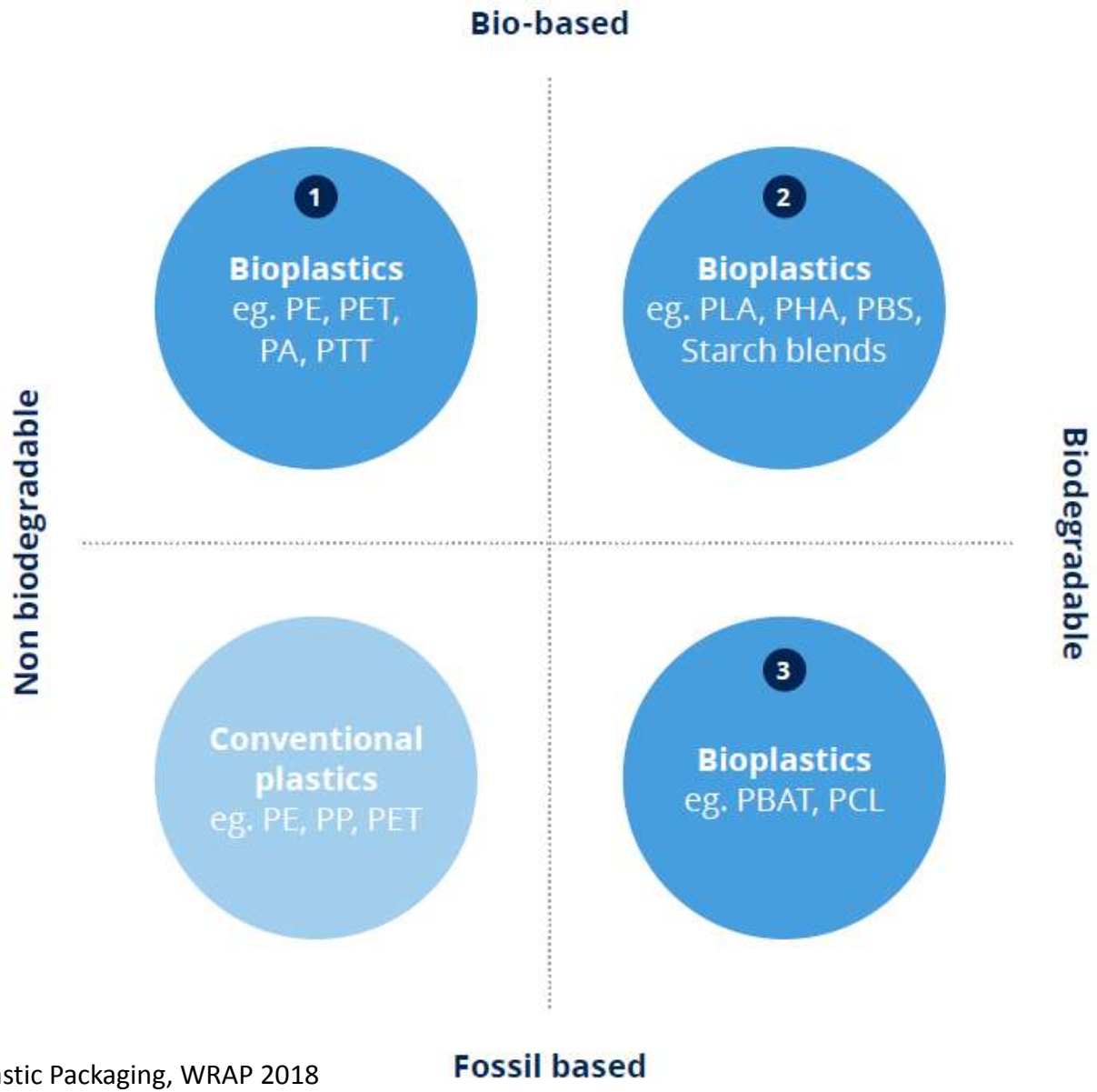








Complexity of plastics and terms

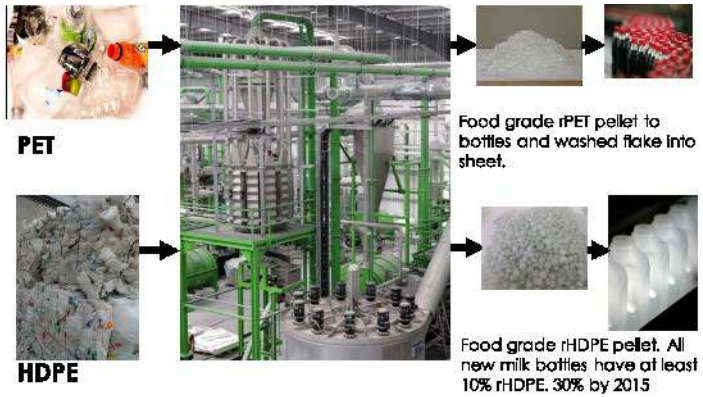


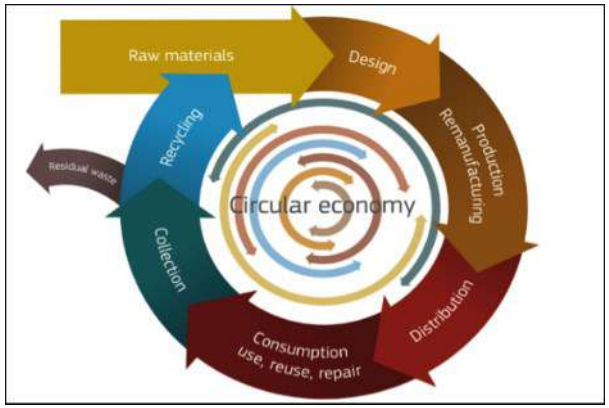
Source: Understanding Plastic Packaging, WRAP 2018

Problematic plastics

Plastic items can become problematic for a number of reasons:

1. **Uncommon material:** the polymer (PVC, EPS and PS) cannot currently be recycled effectively with the existing collection and recycling infrastructure for either technical or economic reasons.
2. **Design:** the design and manufacture of plastics items mitigates either effective collection and/or recycling.
3. **Leakage:** e.g. through disposal behaviour or mismanagement, e.g. frequently littered.
4. **Recycling:** the collection and recycling infrastructure cannot deal with recyclable plastics items because of cross-contamination, size and form etc.
5. **Perception:** the plastic item is widely perceived to be a problem e.g. by the public, media, environmental organisations and governments etc.





Simplified plastics loop

Landfill

Fossil & bio-based

Waste to Energy

recycle

polymer

disposal

Littering

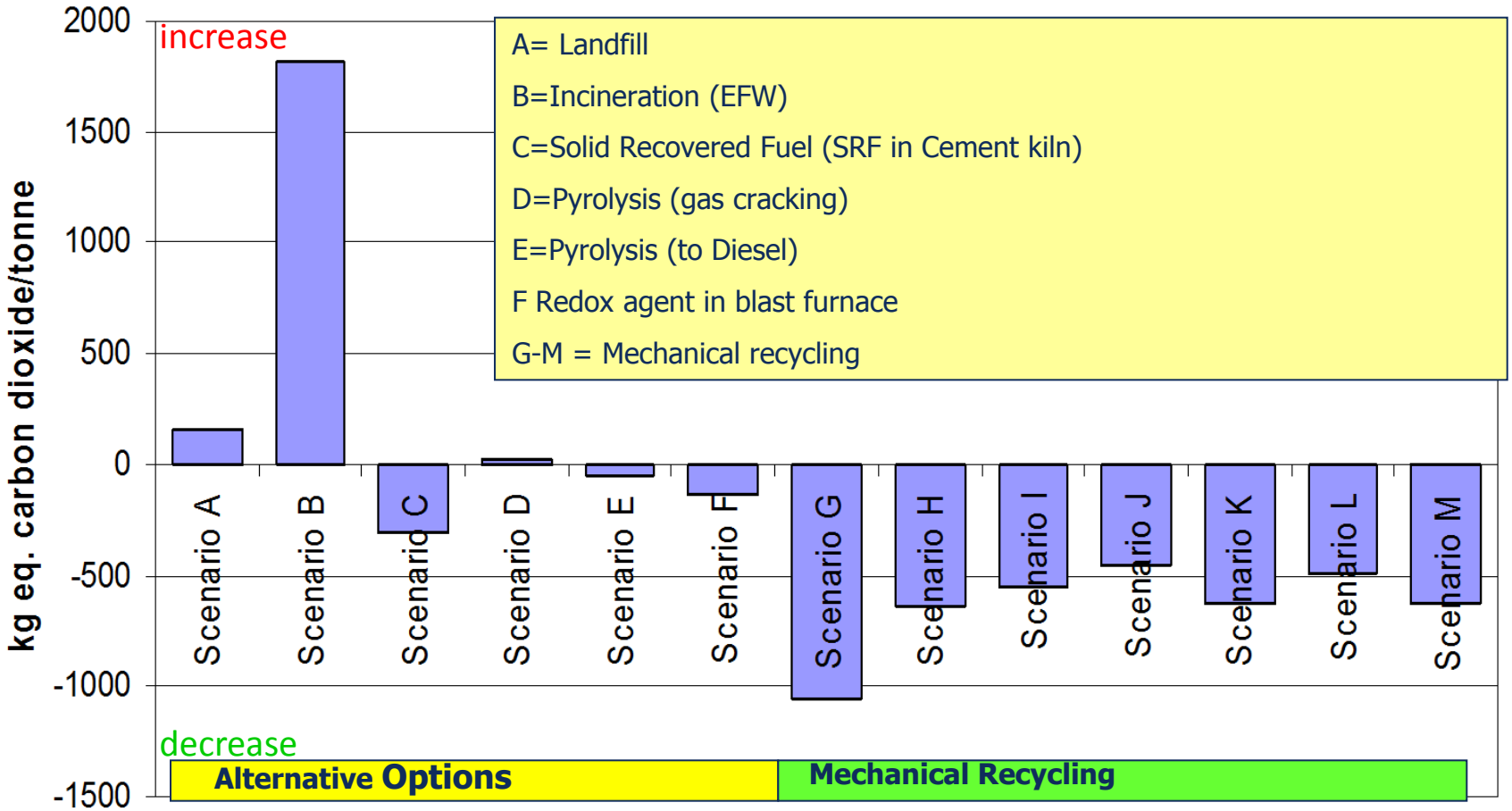
consumption

product

Image sources: WRAP, BT & Justin Hofman, NG Wildlife Photographer of the Year 2017

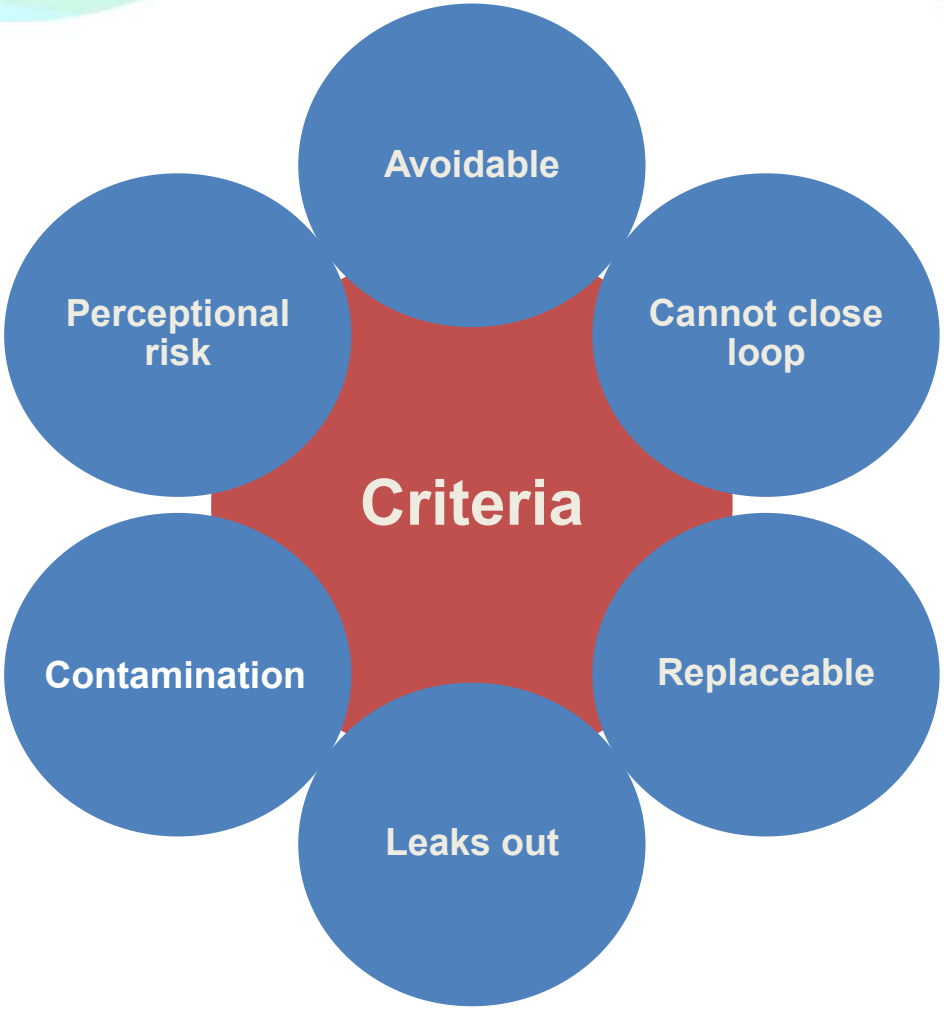
Summary of LCA plastics studies

Net global warming potential



Criteria for problematic items

- **Avoidable** in the context within which it is being used
- **Closed loop** - is the item unable to be reused, recycled or fully composted effectively with the existing collection and recycling infrastructure
- **Reuse or material alternatives** available that creates no additional impact
- Easily **leaked out** of the system e.g. littered or mismanaged
- A cause of **contamination**
- Widely **perceived** to be a problem by the general public and influencers, e.g. media, environmental organisations and governments



Criteria

1. Is the single use item avoidable in the context within which it is being used, i.e. unnecessary or replaceable by a re-use or alternative option?
2. Is the item unable to be reused, recycled or fully composted effectively with the existing collection and recycling infrastructure, i.e. the design and manufacture of the item impacts on the ability to close the material loop at end of life?
3. Is there a reuse or material alternative available that creates no additional impact?
4. Is the plastic item easily leaked out of the system e.g. through disposal behaviour or mismanagement, e.g. frequently littered?
5. Does the item frequently or easily lead to contamination issues or inefficient recycling within the collection and recycling system?
6. Is the plastic item widely perceived to be a problem by a broad range of groups including the general public, media, environmental organisations and governments etc?

Some examples of problematic plastics

Why might these be considered problematic?

All a result and influenced by design choices

Design elements for PET

	Category A (ideal)	Category B (not ideal / not detrimental)	Category C (detrimental)
Colourants	Clear / no colour / natural; Colour light blue/green or other light colours and tints only	Colour - Strong tints dark blue/ green/brown	Dark or solid colours; Opaque white and others; Opaque black; Metallic colours; and use of fillers.
Barrier coatings & layers	No barrier/coating layers; Plasma coatings e.g. Chemical Vapour Deposition; SiO_x Monox/Monobar; Other blended additives/processing aids; Other PET based carriers	PEN barrier layer (if <3% total bottle weight) Amasorb barrier layer (if <3% total bottle weight)	EVOH / Amasorb / MXD6 Any nylon based barrier layers
Closures	HDPE/ LDPE/ PP		Metals / PS / PVC; Any other materials density >1g/cm^3
Closure liners and seals	No closure liners; HDPE, PP, PP+EVA/EVOH; PE+EVA/EVOH; EVA or EVOH if it floats i.e. density <1g/cm^3	Foamed PET; Paper; Silicone 'swimming' valves (density <1g/cm^3); Any other closures which float after granulation	Metal / PVC / EVA / Silicone / Neck foils of density >1g/cm^3 Any other material of density >1g/cm^3
Labels	No label; HDPE / MDPE / LDPE / LLDPE / PP /OPP / EPS / PET	Paper labels	Pressure sensitive; Self –adhesive labels; PVC / PS / Metallised labels
Sleeves	No Sleeve; PE / PP / OPP / EPS / foamed PET sleeves with density <1g/cm^3 and showing at least 40% of the bottle. Other films of density <1g/cm^3	PET sleeves; Full body shrink sleeves showing <40% of bottle; Full body shrink sleeves – fully colour printed	Contains any PVC Contains any Polystyrene (PS) Any other materials of density >1g/cm^3
Adhesives	No adhesive; Water soluble in 60 -80 ° C Plastic wrap, minimum glue e.g. lap join	Strong adhesives with paper labels Around 50% of adhesive not removable	Water insoluble (even at elevated temperatures and/or pH); Any non-removable glues
Base Cups	No base cup	HDPE / PP / clear PET	Coloured PET and other plastics density >1g/cm^3
Other components & bottle size	No other components Diameter > 50mm, length >100mm	Diameter 40 – 50mm, length < 100mm	Any polymer with density >1g/cm^3 PVC / PLA / PS / PETG Diameter < 30mm, length < 100mm

Source: WRAP

Plastic pots, tubs and trays & non-drinks bottle: Design

Category	Sub Item	IDEAL	NOT IDEAL	DETRIMENTAL
Body	Barrier coatings & layers	None	Nylon if less than 1% of total pack weight EVOH if less than 10% of total pack weight	Nylon if above 1% of total pack weight EVOH if above 10% of total pack weight PVdC (polyvinylidene chloride)
	Colour	Natural or lightly tinted colours	Heavy or solid colours including detectable black (affects recyclability in terms of value, not technical properties)	Carbon black
	Foamers & fillers	None		Fillers that increase the density of the pack beyond 0.995g/cm³ (talc, $CaCO_3$, other fillers)
Decoration	Labels and sleeves	No label PE or PP or OPP label with less than 60% coverage Removable in-mould label	Coverage over 60% PET label Paper label Permanent in-mould label	PVC or metallised label
	Adhesives	No adhesive, or, if necessary, adhesive which is water or alkali soluble in ambient conditions	Adhesive removed in water or alkali between ambient and 80°C	Adhesive not removed in water or alkali up to 80°C

Category	Sub Item	IDEAL	NOT IDEAL	DETRIMENTAL
	Direct printing	Minimum to meet legal requirements including production or use by / best before date		Other direct printing
	Ink	EuPIA compliant inks Please refer to www.eupia.org EuPIA is the printing ink group within the European Council of Paint, Printing Ink and Artists' Colour Industry (CEPE)		Inks that bleed and dye wash solution Non-EuPIA compliant inks
Closures	Caps, liners and seals	PP or HDPE or LDPE	PET or paper	PS or PVC or silicone or EVOH or thermoset plastics or metals
Lidding film / foil		Totally removable (by consumer) with no residue or top film of same polymer as body of the pack (PP)		
Trigger Sprays		PP or HDPE or LDPE	Metal springs & Ball-bearings, acetal or acrylic based components	Glass components
Other Components	Inserts (e.g. meat & fruit tray pads), sheets or strips which extend the life of the product or other additions to the pack such as base cups	PP or HDPE or LDPE	PET or paper	PVC or EPS or PU or PA (nylon) or PC (polycarbonate) or PMMA (acrylic) or thermoset plastics or metals

Source: WRAP

Implementing Policy Actions

Voluntary or information-based instruments

Certification, Standards & Labelling

Source: https://vienna-wv.com/portal/city-information/recycling/

Source: https://commons.wikimedia.org/wiki/File:Recycle001-perc.svg

Source: Paper Recycling Promotion Center, Japan; http://www.prpc.or.jp/menu03/cont09.html

Source: https://commons.wikimedia.org/wiki/File:Tidyman-glass-recycling.svg

Source: https://en.wikipedia.org/wiki/Waste_Electrical_and_Electronic_Equipment_Directive

Source: http://www.kronenbourg.com/1er-brasseur-France/actualites/responsabilite-solidaire/Pages/Kronenbourg-soutient-une-politique-de-traitement-durable-des-emballages.aspx#.Vc2e94v_9-U

Source: e-Stewards Certification Program, USA, http://e-stewards.org; http://www.ban.org

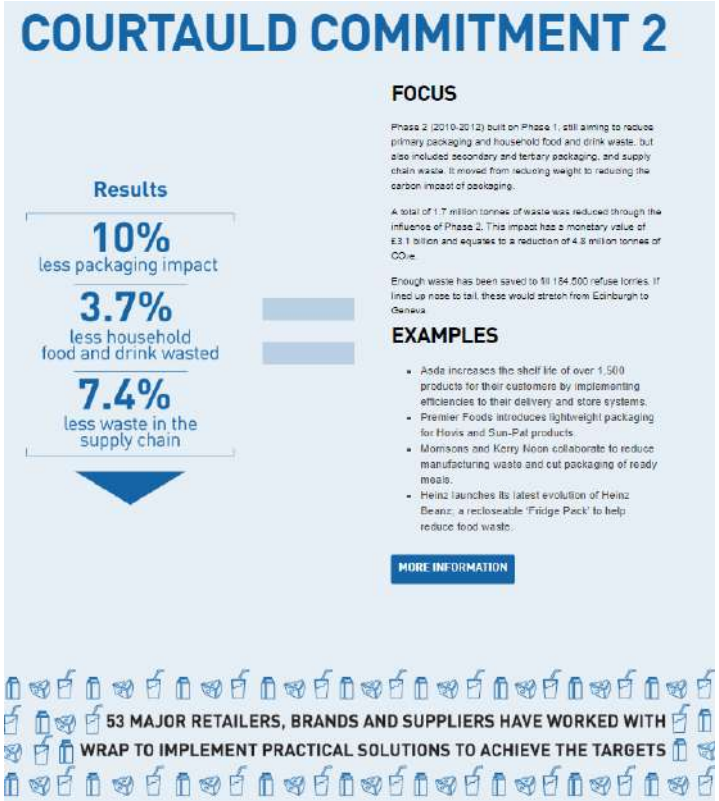
Source: Novelis South America, Brasil, http://www.novelis.com/en-us/pages/novelis-recycling-capabilities.aspx

Source: UNEP and ISWA, “Global Waste Management Outlook”, 2015

Examples of voluntary mechanisms

Common steps across the sector:

- Vision
- Collection
- Reprocessing
- Manufacturing
- Green Public Procurement (GPP)
- Action planning
- SMART targets



Actions

ACTION AREA	Action
AVOID	
	• Eliminate or avoid use of non-recycled plastics, e.g. substitute polymer type for more widely recyclable alternatives • Replace plastic with alternative materials • Increase reuse options to extend product lifetime and reduce dependency on virgin plastic materials • Replace specific single use items with reuse alternatives
DESIGN	
	• Encourage innovation in packaging design solutions to close plastic loops, e.g. design competitions etc • Use or specify recycled content to close materials loops, incentivise and encourage growth in secondary markets • More research into managing compostable alternatives within existing systems
INFRASTRUCTURE	
	• Increased sorting and separation technology for fossil-based polymers • Improve collection and recycling infrastructure for biodegradable and compostable alternatives • Improved on the go recycling infrastructure
EDUCATION	
	• Raise awareness and encourage the "right" disposal options; e.g. 'non-flushable' products and 'on the go' • Education on role of plastics and context of plastic use in society to avoid unintended consequences, e.g. in procurement • Behaviour change programmes and interventions focussed on the actions citizens can take purchasing, at home, work and on-the-go • Improved and consistent labelling for plastics

UK voluntary agreement benefits

($510M)

50%
800 signatories halved waste to landfill saving **£400** million

£1bn ($1.27bn)
New business models trading in clothing resale contribute to positive impact on UK GDP

Recycling

Waste prevention

Resource efficiency

Product sustainability

Sustainable consumption

A world where resources are used sustainably

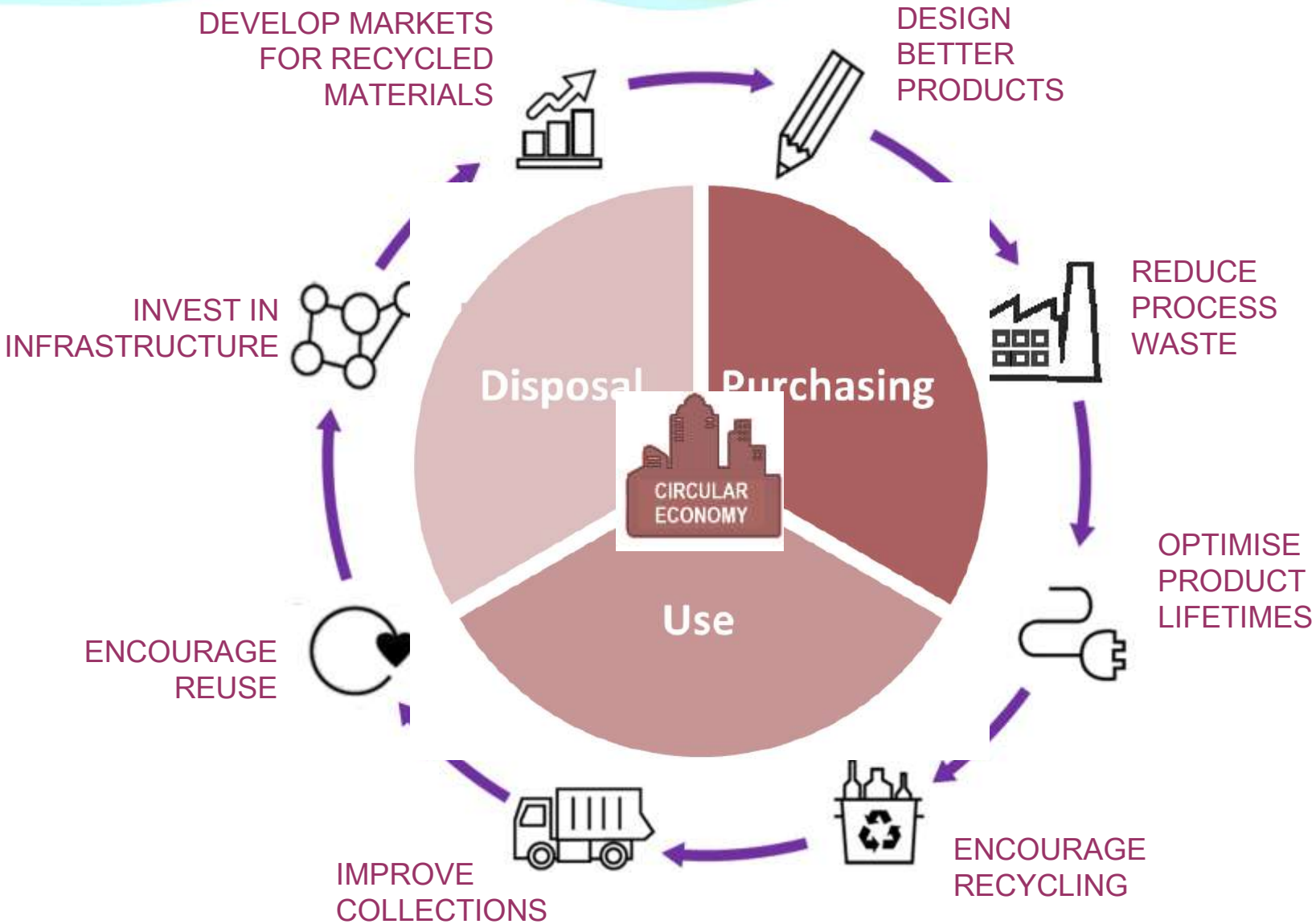
5% to 48%
more recycling of plastic bottles from **2000** to **2011**

2.3mt
£3.5bn benefit to Courtauld Commitment signatories and their customers on prevented food, drink and packaging waste

($4.8bn → $23bn)
UK recycling sector

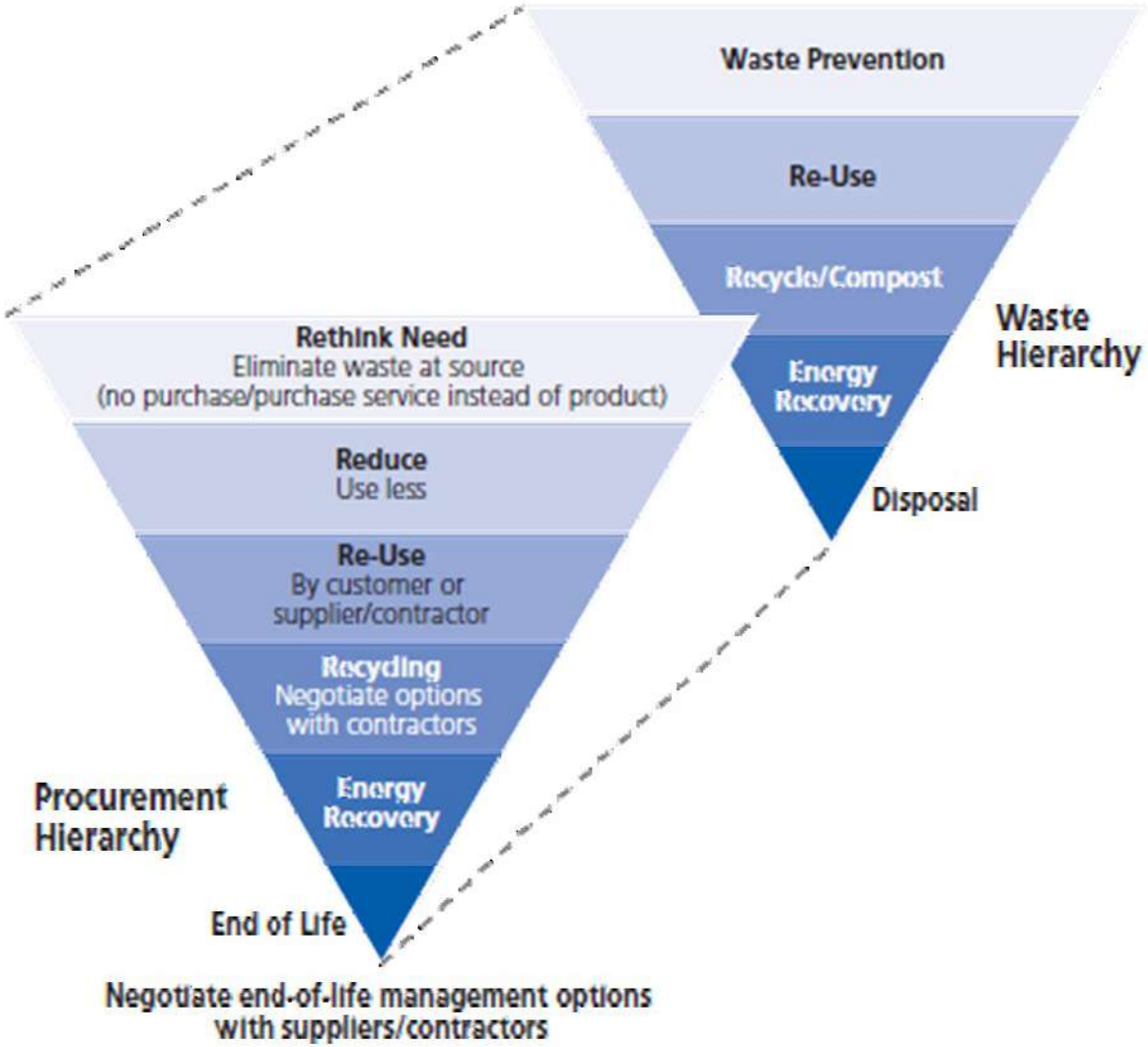
($4.5bn)

Procurement Cycle Opportunities



Alignment

Waste Hierarchy = Procurement Hierarchy



Selecting high potential product groups

Why?

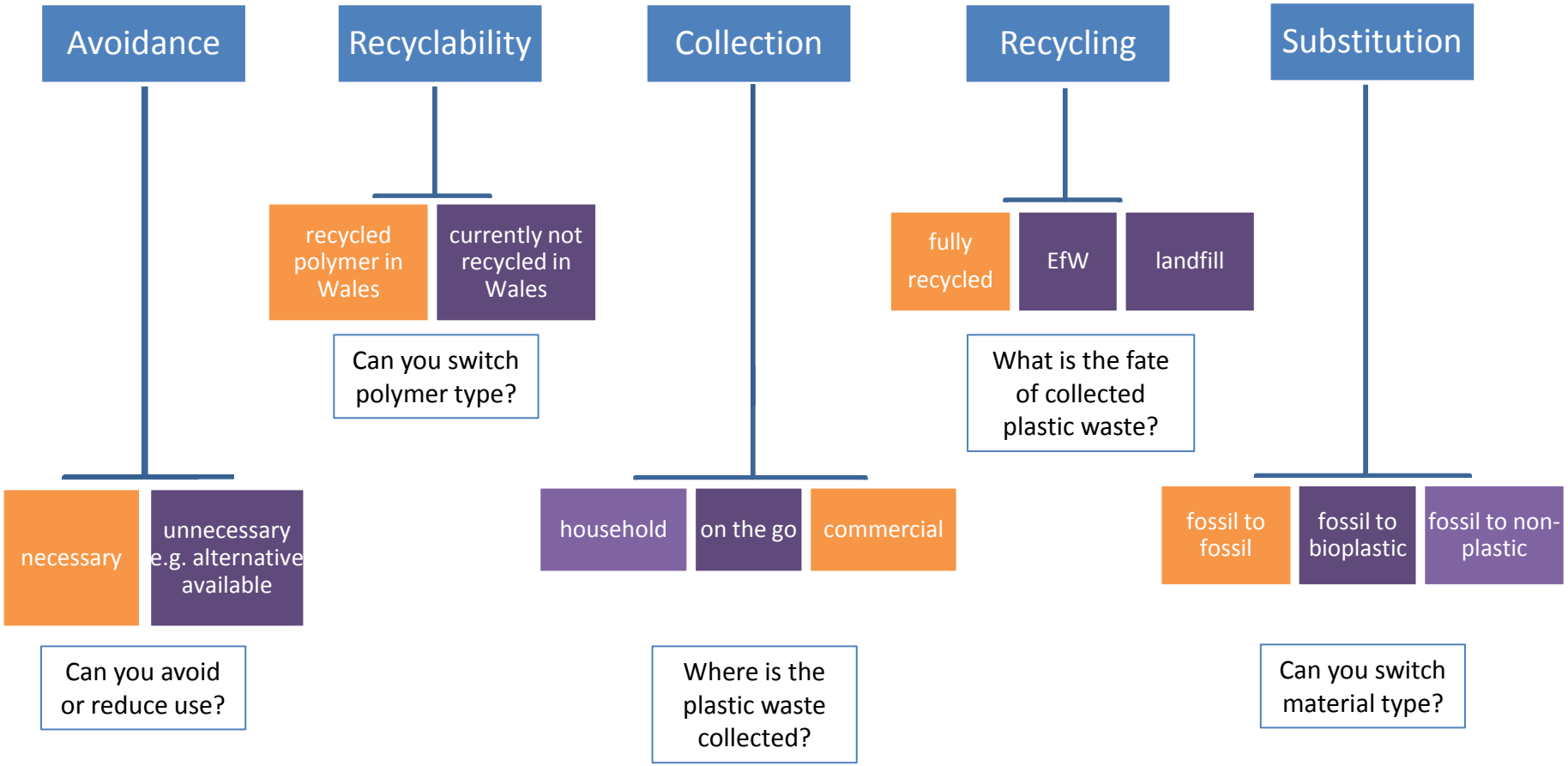
- Helps to select product groups for targeting relative to objectives
  - National Plastics targets
  - Banning Single Use Plastics (SUP)
  - Littering
- Identifies problematic plastics within your procurement scope
- Helps define actions:
  - Avoidance
  - Reduction
  - Substitution
  - Increasing collections
  - Increasing recycling

Various ways

- How to determine high-potential SUP groups:
  - Based on spend - risk
  - Based on complexity - lifetime
  - Based on risk – scope to influence

Procuring plastics

Key questions:



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Working for a Sustainable Mediterranean, Caring for our Future

SUSTAINABLE GLOBAL RESOURCES Ltd

Thank you

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This Project is funded by the European Union

SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Policy options to implement circular economy in the food and beverage packaging sector and related activities developed by SCP/RAC

Presented by:

Mr. Pedro FERNANDEZ, SCPRAC Project Manager

12th December 2018, Barcelona

This Project is funded by the European Union

Content

1. Introduction
2. Policy options: focus on policy action as initiator/leader and enabler/promoter
3. Case study on single-use plastic bags: Mediterranean regional guidelines
4. SCP/RAC Balkans project addressing plastic packaging in the F&B sector

Introduction: some facts and figures

Almost **2/3** of reported ocean plastic pollution stems from the **fast-moving consumer goods (FMCG) retail sector**.

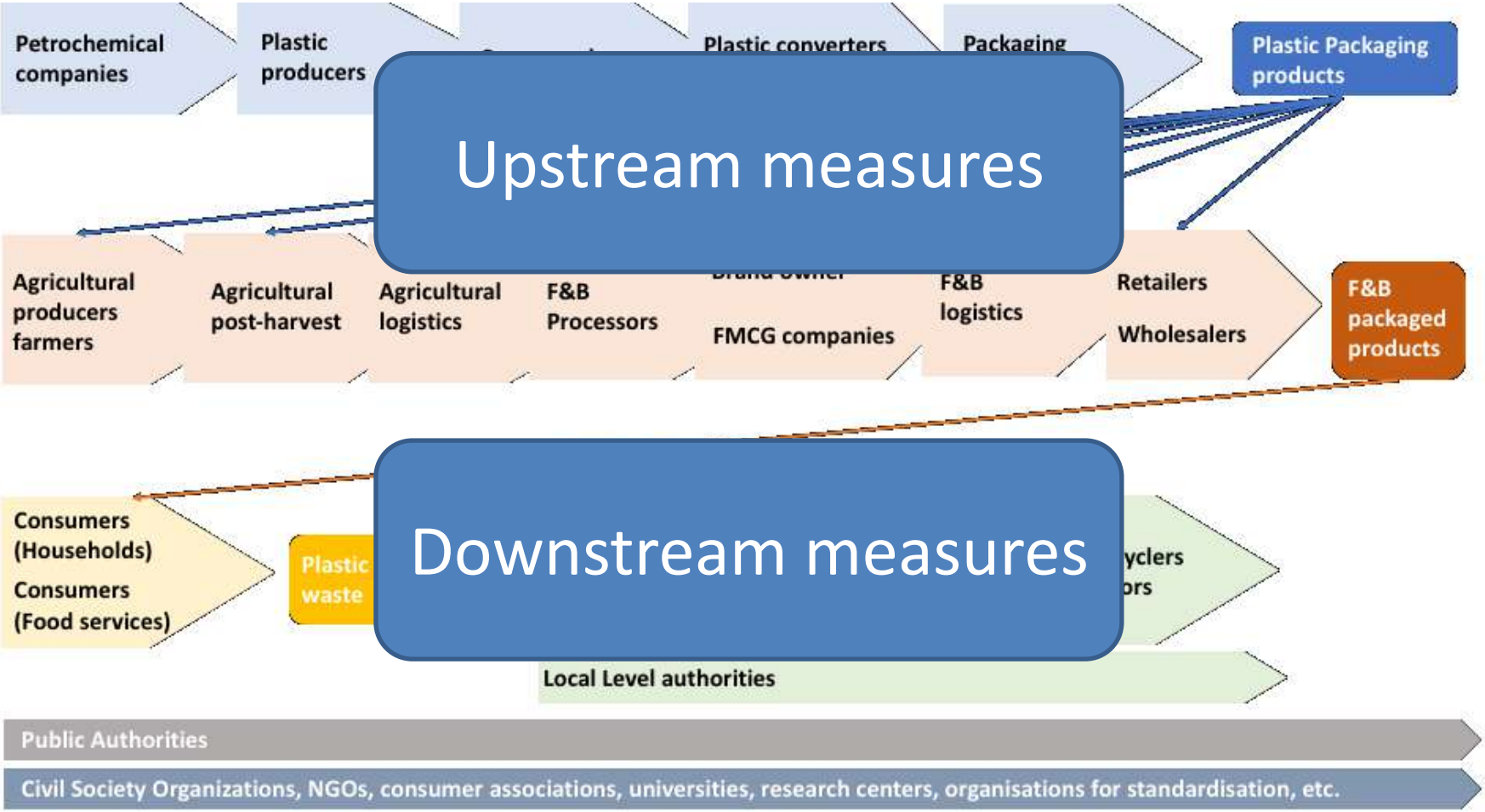
Out of the top 12 marine litter items found stranded on the European and Mediterranean beaches, **10 are single-use plastic** (SUP) items , including plastic packaging.

32% of global plastic packaging leaks into the environment.

Limitation of **recycling**: just a delay of final disposal?

Recycling contributes to plastic waste reduction **only** if displaces primary production of plastics. **Decoupling** of plastic production from economic growth might be a more viable option.

The food & beverage plastic packaging: product to waste chain



The policy options

Upstream measures
Extended Producer Responsibility
Eco-design
Eco-innovation
Business model innovations (BMI)

Downstream measures
Financial disincentives
Financial incentives
Ban of products with high negative expernalities
Green Public Procurement
Green Supply Chain Management (GSCM)
Awareness campaigns and environmental education
Eco-labels
Voluntary Agreements (VA)

Extended Producer Responsibility (EPR)

Although EPR financially contributes to waste management, it has proved limited effects on promoting eco-design and preventing waste generation in the first place.

Role for policy:

Promoter, defining the framework, supervision and monitoring

Upstream measures

Eco design, Eco innovation and Business Model Innovation (BMI)

Challenge: most companies still focus on how will the packaging drive consumers to buy their products, and the cost

The case of bio-plastics as eco-innovation > limitations to solve waste and marine litter problem

Role for policy:

- Training programmes, guidelines
- Development of common standards on material efficiency. Up to now, relevant legal framework such as the Eco-design Directive 2009/125/EC have mostly focused on energy use
- Laws regulating the requirements for specific types of packaging (e.g. Californian "Rigid Plastic Packaging Container Law" which states the quantitative requirements, in terms of composition, recyclability, and reusability
- Awards (e.g. Catalonia)
- Promotion of industrial symbiosis

Economic (market-based) instruments

MBIs can have an incentive effect that results in a change of behaviour, and/or a revenue-raising effect usually **requires appropriate legislative or regulatory backing.**

Disincentives

- Penalties
- Taxes and charges on products (fee/charge and taxes)

Incentives

- Deposit-Refund Systems (DRS)
- Subsidies and fiscal incentives

Role for policy:

- Legal framework to implement the economic instruments
- Promoting voluntary commitments within the private sector

Ban of products with negative externalities

Numerous national, sub-national, and local governments have passed laws prohibiting single-use plastics and foam products.

Role for policy:

- Adopt the regulatory measures
- Promote responsible alternatives
- Support to industry adaptation
- Raise awareness

Sustainable Procurement

Green Public Procurement

- GPP stimulate eco-design, eco-innovation, secondary raw material market
- Greater trust in recycled plastics, both from manufacturers and end users, driving demand
- Eco-design **guidelines and recycled plastic standards and certification schemes** should be developed

Green Supply Chain Management – GSCM

Sustainable supply chain management has become a strategic process enabling firms to create competitive advantage

New ISO 20 400 international standard for Sustainable Procurement (SP). It aims to help the procurement process have the most positive environmental, social & economic impacts possible over the entire life cycle of the products and services.

Downstream, Consumer-based measures

Awareness and communications campaigns, education of end-users

- Anti-litter campaigns
- Community programs
- Grass-root campaigns

Behavioural change campaigns are not a substitute for regulatory action.

Role for policy:

- Conception and implementation of campaigns
- Support Adopt-a-beach programs

Downstream, Consumer-based measures

The promotion of eco-labels and certification schemes

Challenging to demonstrate a positive impact

World's first "Plastic Free Trust Mark ," which aims to help make shoppers aware of products that come in packaging made entirely without plastic

PLASTIC FREE™

Downstream, Consumer-based measures

Voluntary agreements and initiatives to foster corporate accountability

Private stakeholders often have the lead in such initiatives, as a response to the threat by public authorities to introduce binding, i.e. non-voluntary, regulation, and to improve reputation

"the voluntary policy must not be used as an excuse not to regulate".

Role for policy:

- Foster voluntary agreement
- Assure monitoring

Regional guidelines to phase out single-use plastic bags in the Mediterranean Region

Policy options for a specific plastic packaging

Background

Regional Plan for Marine Litter Management in the Mediterranean (2013) aproved the Contracting Parties of the Barcelona Convention.

Specific focus on plastic bags.

EU funded Marine Litter Med Project, led by UNEP/MAP > SCP/RAC in charge of prevention component, particularly:

- Technical assistance to five MENA countries
- Development of regional guidelines to phase out single-use plastic bags in the Mediterranean Region > first review at regional meeting last October

The scope of the guidelines

- **Single-use plastic bags**: high-density polyethylene (HDPE) bags designed to be used once. This is usually determined by the width or grammage. For the purpose of this report, the focus is on those that have handles, generally used as shopping bags.

- The proposed guidelines intend to provide a **common understanding of the alternative measures** that can be considered in developing the most appropriate legal and regulatory framework to introduce the non-single use of plastic bags in the signatory countries of the Barcelona Convention.

- The guidelines focus on the **full process of decision making**, from absence of actions to reduce SUPB to a comprehensive programme to tackle them.

Main elements document

Chapter 1: Introduction

Chapter 2: Policy options – international cases

Chapter 3: Alternatives to SUPB

Chapter 4: State of the art in Mediterranean countries

Chapter 5: Strategy

Policy options – cases review

- Voluntary agreements with the retail sector
- Regulatory economic incentives (charges, ecotaxes and subsidies)
- Bans (different types)

Voluntary agreements with the retail sector

Non distribution of SUPB: Tunisia

Non free distribution of SUPB: Spain (Region of Catalonia)

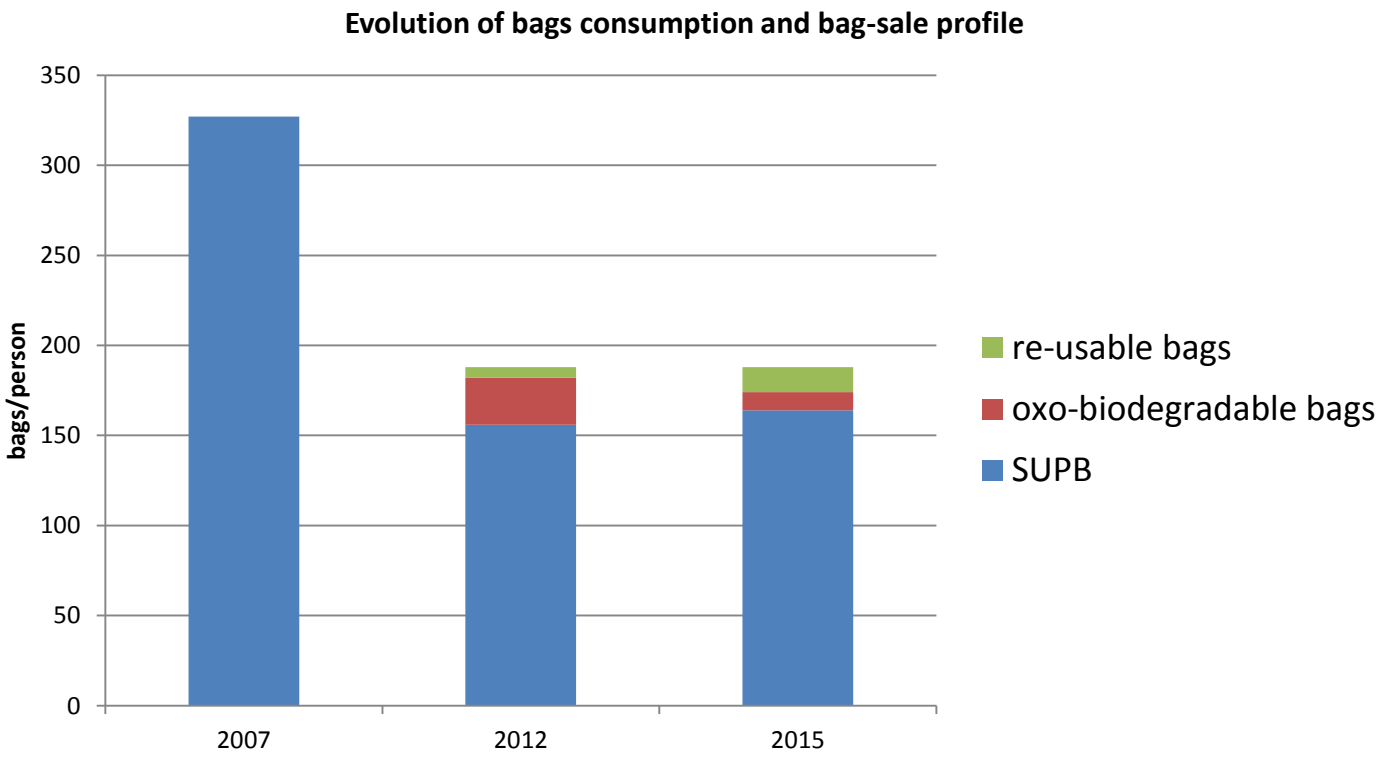
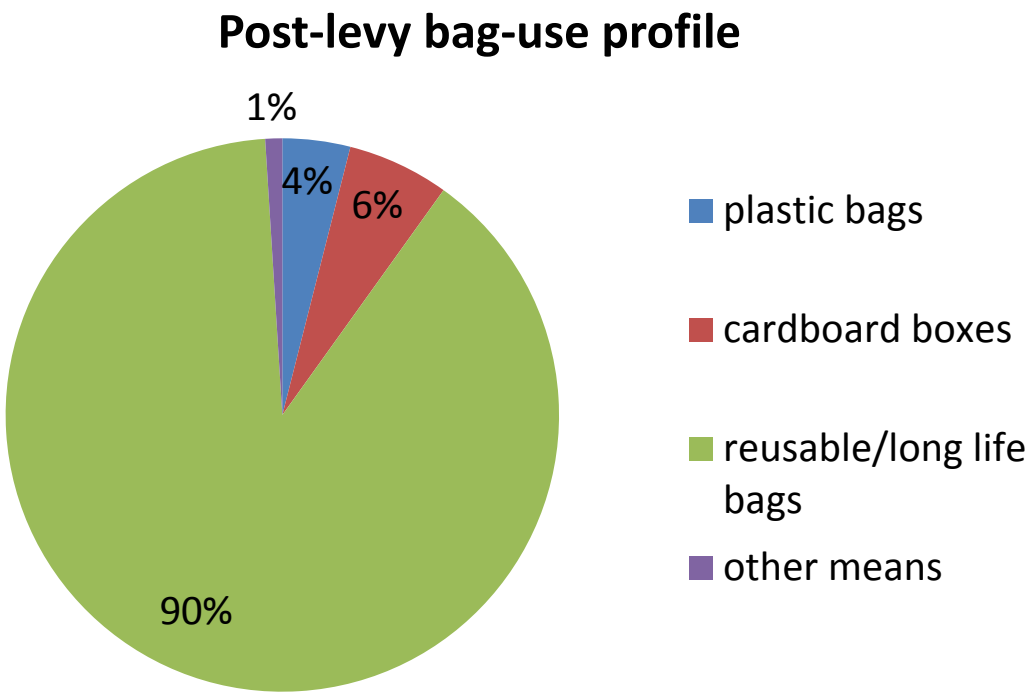


Figure. Bag-use profile evolution for the period 2001-2015. Source: own elaboration based on Daleph (2016)

Regulatory economic disincentives

Example of charges: Spain

Example of eco-taxes: Ireland, Israel



Ireland: 90% reduction. From 328 bags/person/year (pre-levy, 2002) to 12 bags/person/year (2015)

Bans on single-use plastic bags

Examples: Morocco, France, Italy.

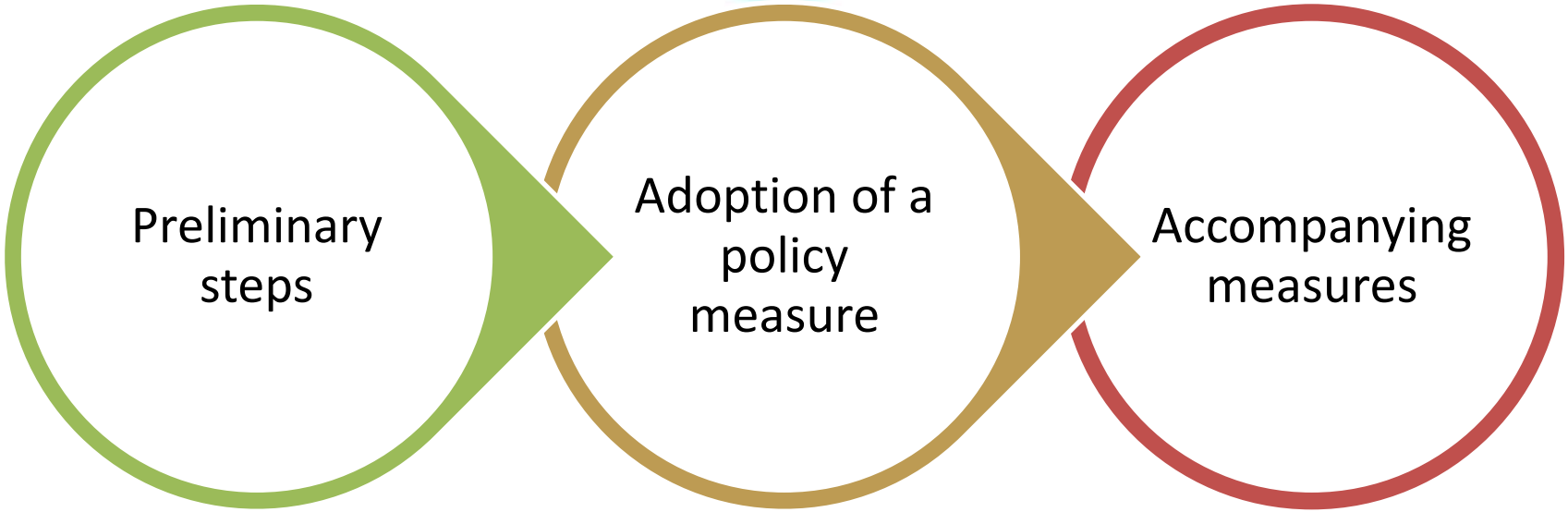
Key aspects: Allowed plastic alternatives

- Reusable bags (defined by minimum width and volume)
- Biodegradable bags (according to a recognized norm. Most usually it corresponds to industrial composting norm)

Exceptions

- Ultra-thin bags (e.g. vegetables in bulk)
- For specific uses (e.g. Household waste, agriculture)

The approach



- Assess production and consumption
- Assess policy options against national context
- Promote and develop alternatives to SUPB

- Promote voluntary agreements with retailers
- Implement charges and ecotaxes
- Adopt a ban

- Incentives to industry
- Upgrade waste management system
- Communication and participation
- Reviews and adapt

Alternatives to SUPBs (but also for other single-use plastics)

Risks of biodegradable bags:

- Just substitution of the material, and not a decrease on the production and use
- Final treatment needed as bio-waste, including separate collection
- False claims, including oxo-degradable bags
- Misleading message to citizens that may result in increased litter

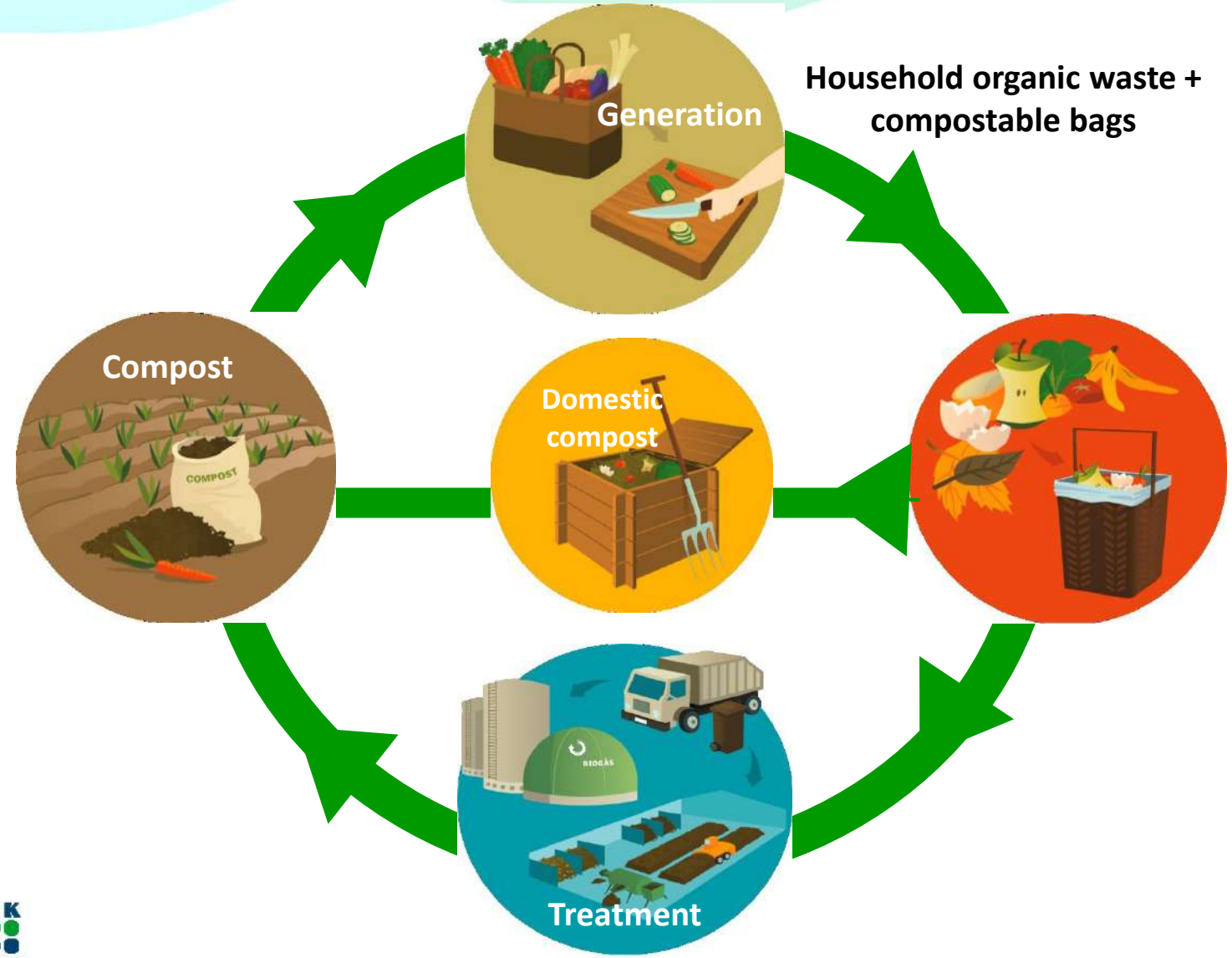
Biodegradable/compostable under which conditions?

- EN 13.432 (European Norm for compostable plastics)
- These bags only biodegrade under «industrial composting», since they need specific conditions (e.g. > 50°C)
- France has a specific norm for domestic compost (NF T 51-800)

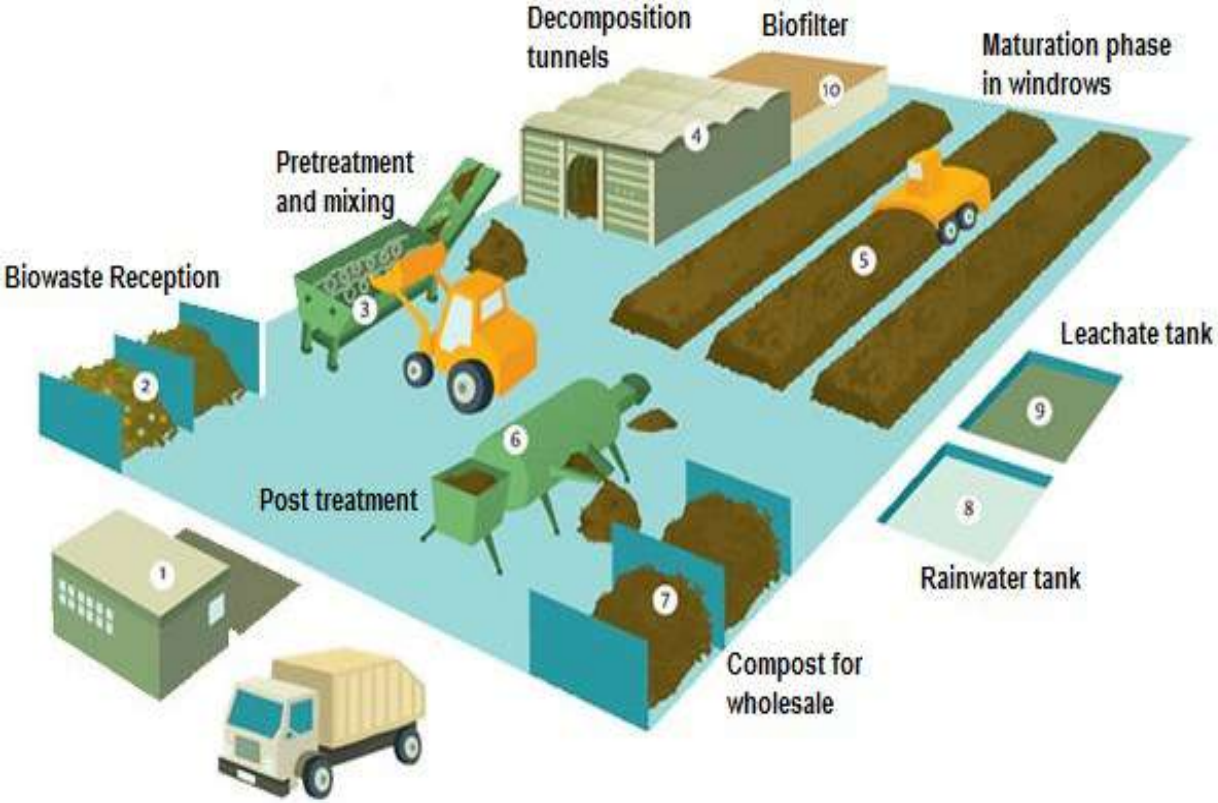
Other options are available and feasible

- Providing alternatives to SUPB can indeed turn into an economic opportunity, especially in national and local context

Bio-waste cycle (including compostable bags)

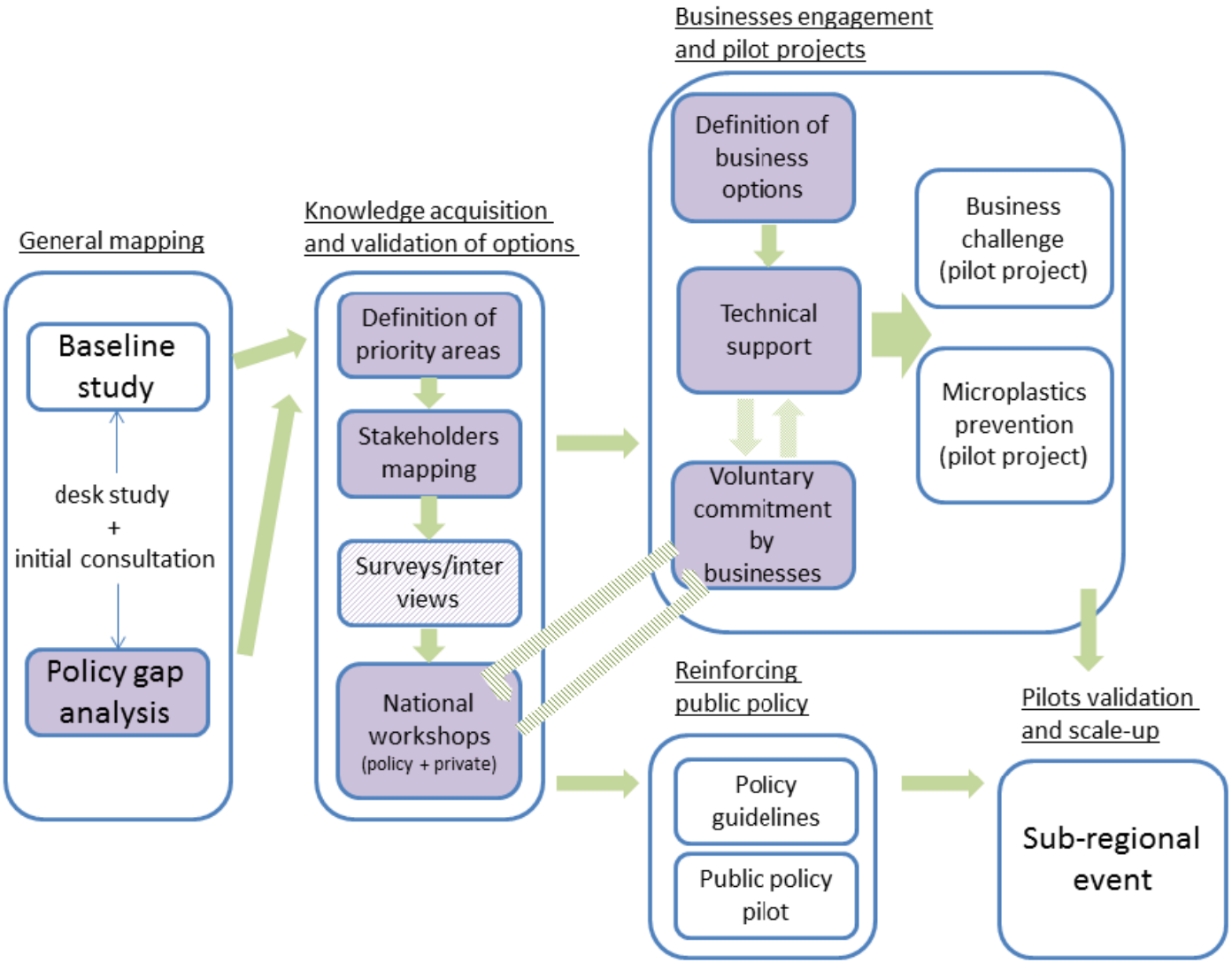


Treatment: industrial composting



Case study

Marine litter prevention from the plastic packaging food & beverage sector in the Western Balkans


General mapping
Baseline study
desk study
+
initial consultation
Policy gap analysis
Knowledge acquisition and validation of options
Definition of priority areas
Stakeholders mapping
Surveys/inter views
National workshops
(policy + private)
Businesses engagement and pilot projects
Definition of business options
Technical support
Voluntary commitment by businesses
Business challenge (pilot project)
Microplastics prevention (pilot project)
Reinforcing public policy
Policy guidelines
Public policy pilot
Pilots validation and scale-up
Sub-regional event

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Thank you for your attention.

Pedro FERNANDEZ

Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC)

pfernandez@scprac.org

This Project is funded by the European Union

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Introduction to the EU plastic strategy and policy framework for packaging

Presented by: **Dr Mervyn JONES, SWIM H2020 SM Expert**

Co-Chair, EU-Australia Leadership Group, Plastics Forum

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

12 December, Barcelona, Spain

This Project is funded by the European Union

European Plastics Landscape

Packaging Directive

- Packaging and Packaging Waste Directive (EU) 2015/720
  - increase the targets for recovery and recycling of packaging waste
  - consumption of lightweight plastic carrier bags.

Plastics Strategy

- European Strategy for Plastics in a Circular Economy adopted January 2018
  - 55% recycling of plastic packaging waste by 2030
  - reduce consumption to 90 bags/person by 2019 and 40 bags by 2026
  - product design to address durability, repairability and recyclability
  - member States obliged to monitor and reduce their marine litter
- Promoting an EU-wide pledging campaign for the uptake of recycled plastics.

Industry

- Plastics 2030 – Voluntary Commitment to increase circularity and resource efficiency

BAN ON CERTAIN DISPOSABLE PLASTIC
plastic cotton swabs, cutlery, plates, straws, drink stirrers &balloon sticks

CONSUMPTION REDUCTION TARGETS
reduce the use of plastic food containers and drinks cups

COLLECTION TARGETS
collect 90% of single-use plastic drinks bottles by 2025

LABELLING REQUIREMENTS
Certain products, e.g. wipes, will require a clear and standardised labelling which indicates how waste should be disposed

AWARENESS-RAISING MEASURES
raise consumers' awareness about the negative impact of littering of single-use plastics available re-use systems and waste management options

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EU proposed measures for single use items

A European Strategy for Plastics in a Circular Economy

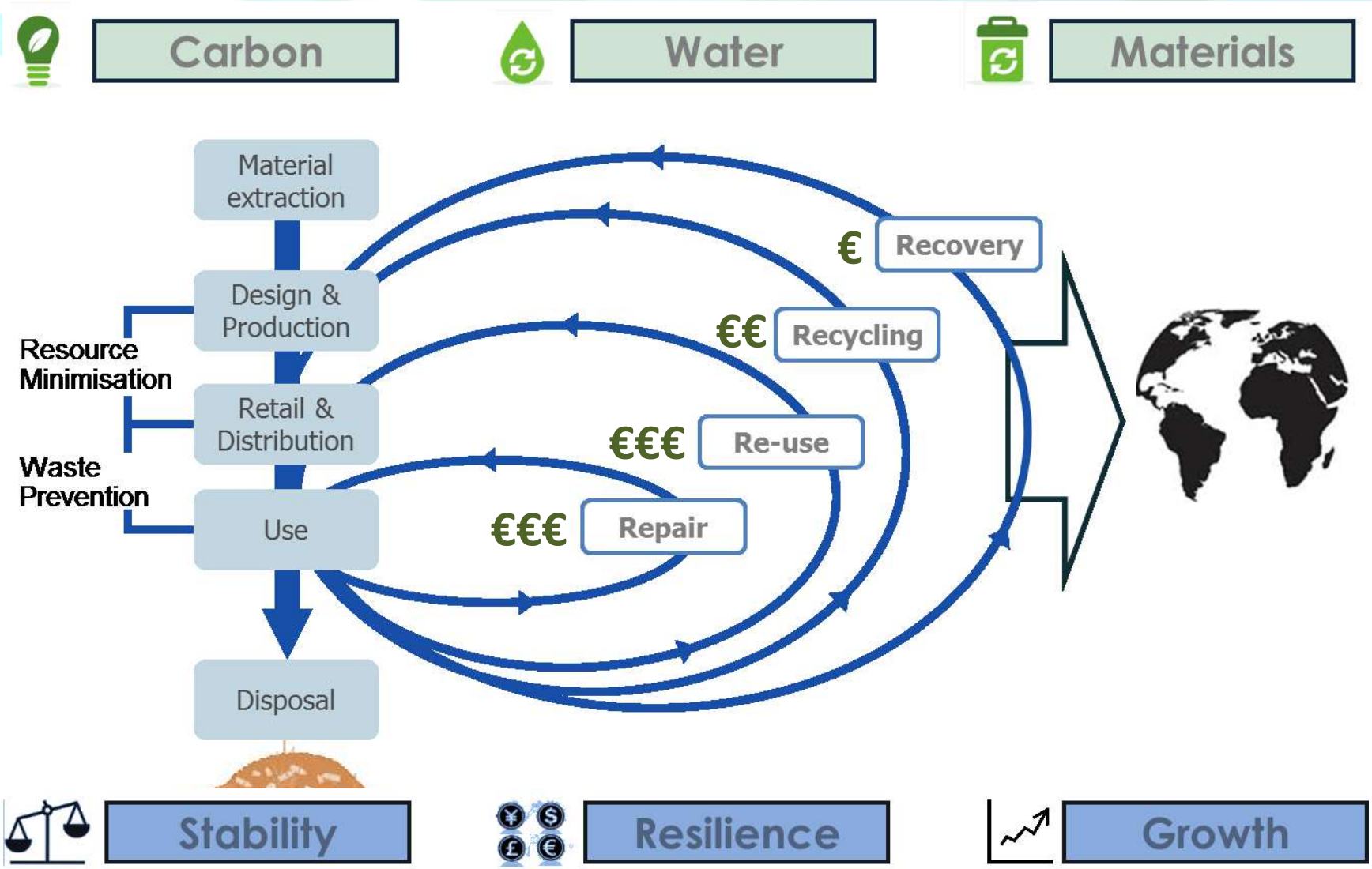
24 Oct 2018 - Single-use plastics ban by 2021 approved by European Parliament

The list of banned items such as cutlery and cotton buds was chosen because there are readily available alternatives, such as paper straws and cardboard containers.

	Consumption reduction	Market restriction	Product design requirement	Marking requirements	Extended producer responsibility	Separate collection objective	Aware-ness raising measures
Food containers	X				X		X
Cups for beverages	X				X		X
Cotton bud sticks		X					
Cutlery, plates, stirrers, straws		X					
Sticks for balloons		X					
Balloons				X	X		X
Packets & wrappers					X		X
Beverage containers, caps & lids			X		X		X
Beverage bottles			X		X	X	X
Tobacco product filters					X		X
Sanitary items: - Wet wipes				X	X		X
- Sanitary towels				X			X
Lightweight plastic carrier bags					X		X
Fishing gear					X		X

https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516265440535&uri=COM:2018:28:FIN

Plastics and circular economy benefits



Circular EU economy benefits

European Union

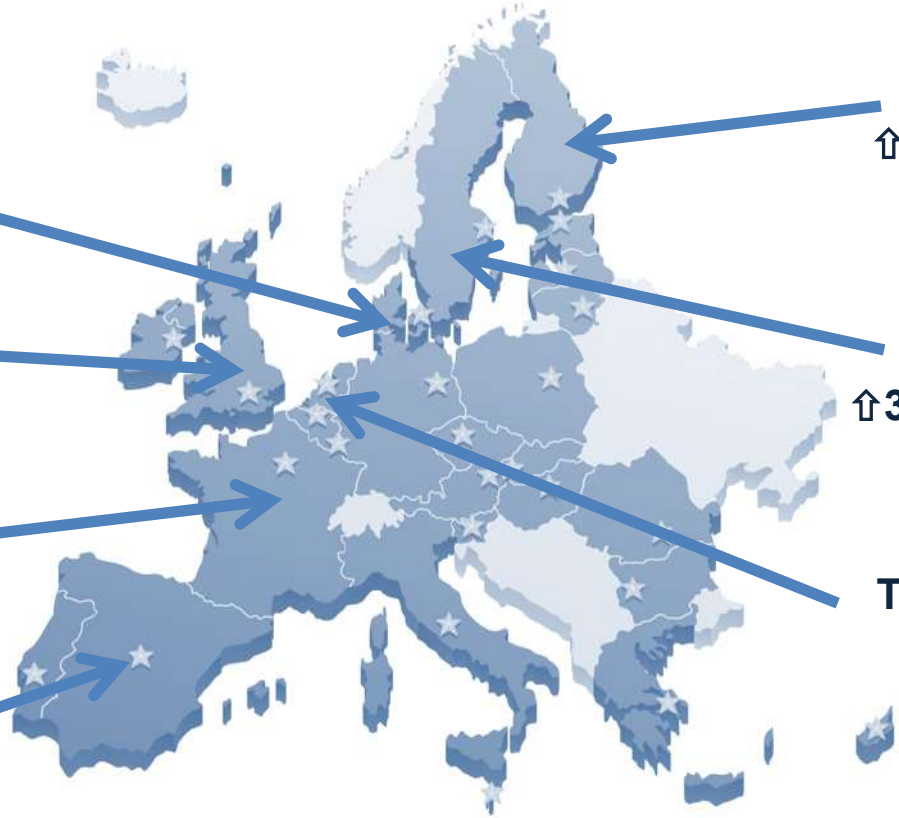
€ 324 billion (www.rebus.eu)

Denmark
⇧ GDP 0.8–1.4%
7,000-13,000 jobs

United Kingdom
~€30 billion
⇧200,000 jobs

France
⇧GDP 0.33-0.66%
100,000 jobs

Spain
⇧GDP 0.33-0.66%
100,000 jobs



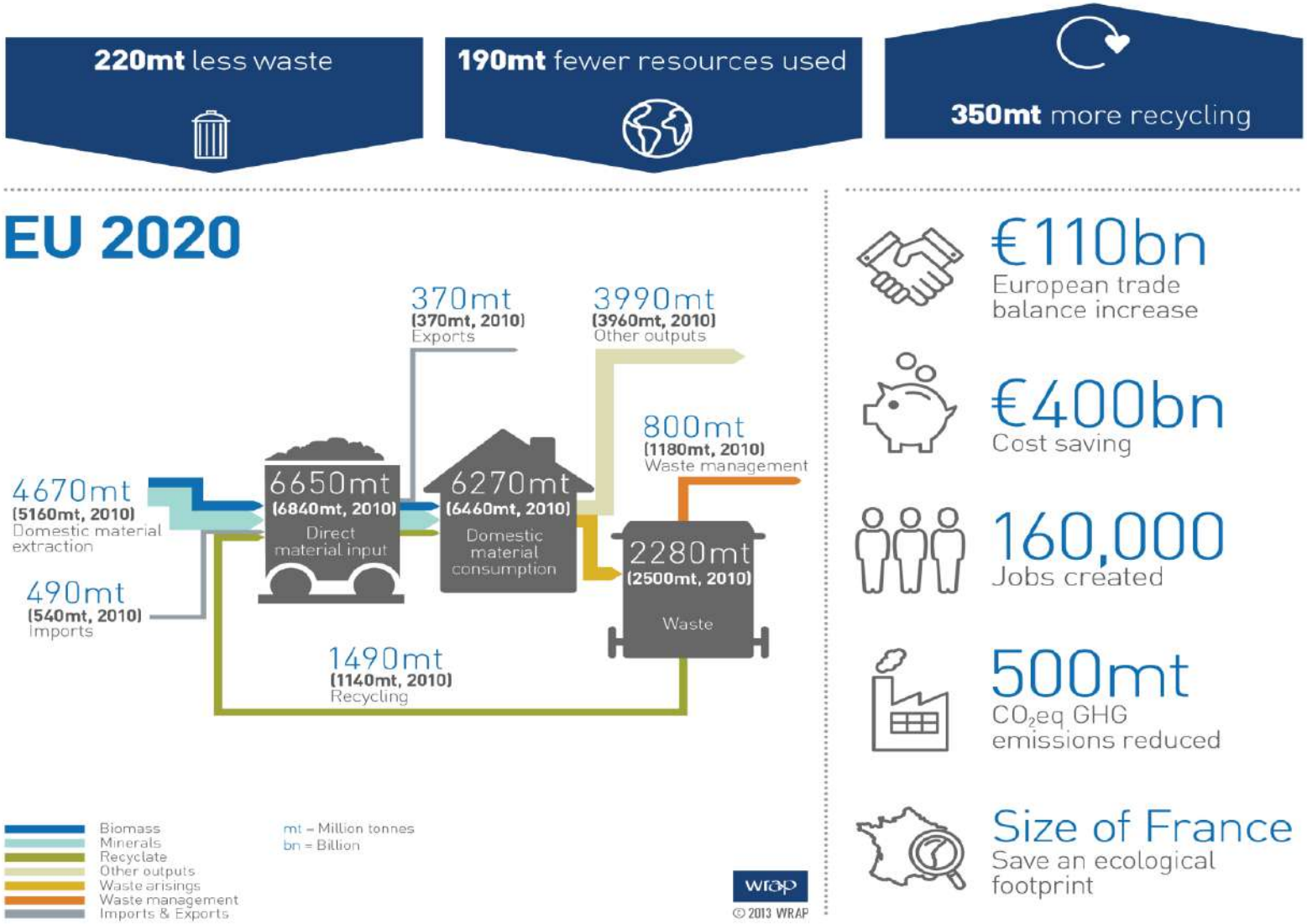
Finland
⇧GDP 0.33-0.66%
15,000 jobs

Sweden
⇧3% trade balance
15,000 jobs

The Netherlands
€7,3 billion
54,000 jobs

Sources: EU, Ellen McArthur Foundation, Club of Rome, TNO, WRAP

UK Vision for a circular EU



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Thank you

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COFFEE BREAK

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UK Plastics Pact - Waste and Resources Action Programme

Presented by: **Dr Mervyn JONES, SWIM H2020 SM Expert**

Director, SGR ltd

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

12 December, Barcelona, Spain

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UK National Landscape

England

- Ban on the manufacture and sale of microbeads from January 2018
- HM Treasury consultation March 2018 on changes to the tax system or charges to reduce the amount of single-use plastics waste – 162,000 responses

Scotland

- Committed to a deposit return scheme
- Ban on the manufacture and sale of microbeads from June 2018
- Proposals to ban plastic-stemmed cotton buds and expert panel to advise on options to reduce reliance on single-use items.

Wales

- Ban on the manufacture and sale of microbeads from July 2018
- Working with other parts of the UK on a deposit return scheme (DRS) for drinks containers
- “Refill Nation“ ambition

UK Plastics Pact
Collaborative initiative to create a circular economy for plastics and tackle plastic waste.

New Plastics Economy
Applying the principles of the circular economy to rethink and redesign the future of plastics, starting with packaging.

Plastic free communities
Over 365 plastic free communities Surfers Against Sewage PlasticsFree Coastline Vision.

The Courtauld Commitment 2025
Helping the UK achieve UN Sustainable Development Goal 12.3 by provide lower impact products more efficiently.

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THE UK PLASTICS PACT

A world where plastic is valued and doesn’t pollute the environment

Targets - By 2025:

THE UK PLASTICS PACT

BY 2025 **100%** of plastic packaging to be reusable, recyclable or compostable

BY 2025 **70%** of plastic packaging effectively recycled or composted

BY 2025 **ELIMINATE SINGLE-USE PACKAGING**

Take actions to eliminate problematic or unnecessary single-use packaging items through redesign, innovation or alternative (reuse) delivery models.

BY 2025 **30%** average recycled content across all plastic packaging

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Voluntary membership

THE UK PLASTICS PACT

- 63 businesses signed (42 at launch)
- 23 engagement partners (17 at launch)
- Some major non-food brands and non-grocery retailers are pending sign up
- >60% grocery packaging
- 100s of enquiries

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Collaborative Action Groups (CAGs)

Unnecessary & problematic single-use plastic items (Target 1)

- Agree definition/criteria/scope of unnecessary & problematic single-use.
- Draw up list of items to address and support a strategy to implement

Defining & rolling out recyclability (Target 2)

- Define clear criteria and guidance for recyclable, reusable, compostable.
- Agree what 'good' looks like in terms of polymer choices and colour.

Film & flexibles recycling (Target 2 & 3)

- Develop and initiate a roadmap to collect & recycle plastic films.

Recycled content (Target 4)

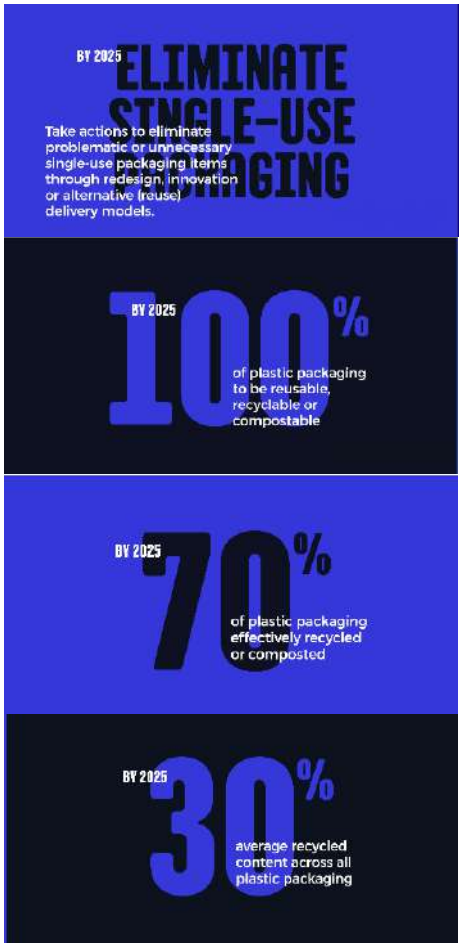
- How to measure
- Key opportunities

End markets (Target 3 & 4)

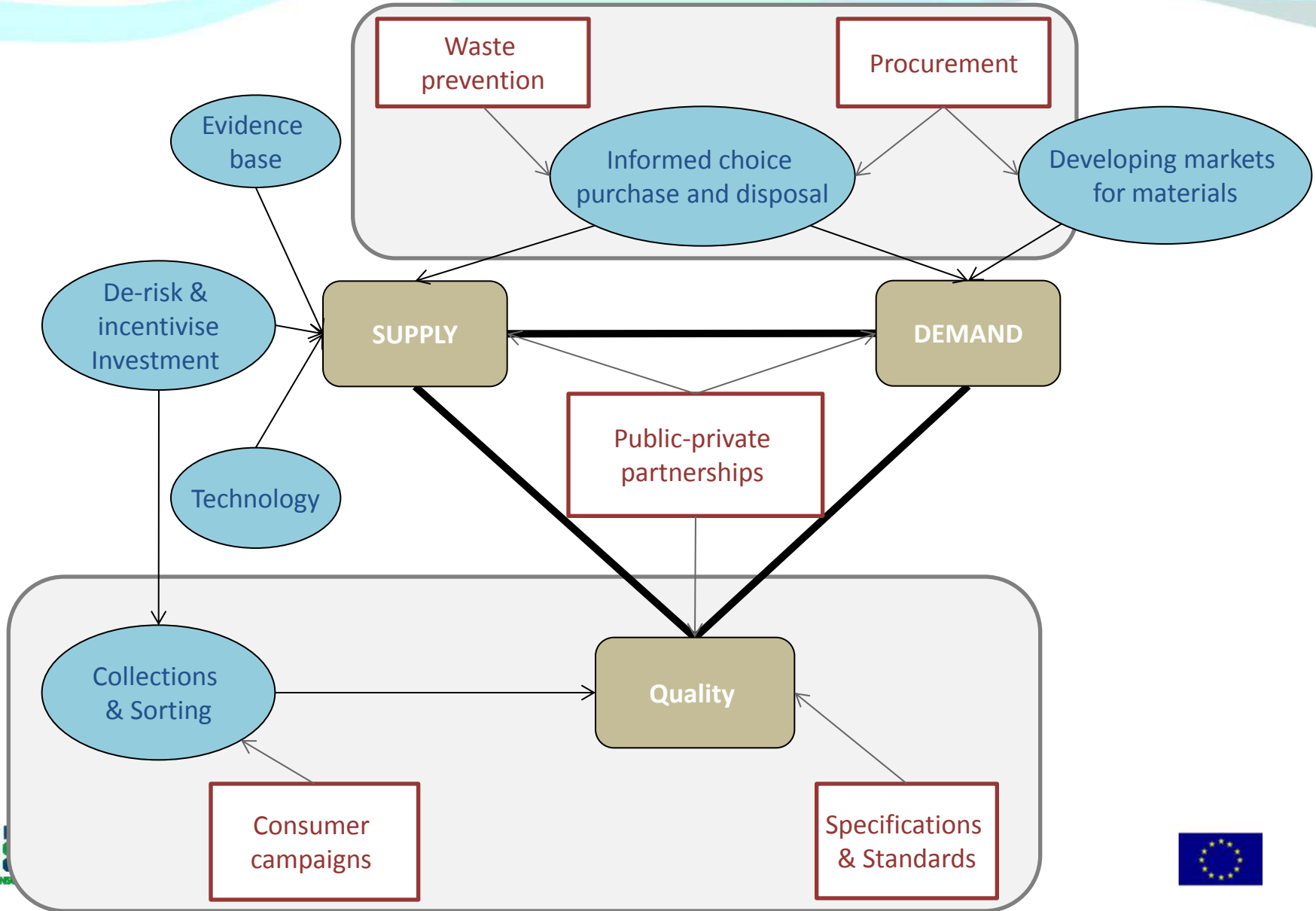
- What is the current situation &key opportunities?
- What end markets are needed to be developed further?

Measurement & reporting requirements (Target 1,3 & 4)

- Explore the various options for measuring & reporting each of the targets.
- Develop data reporting platform.

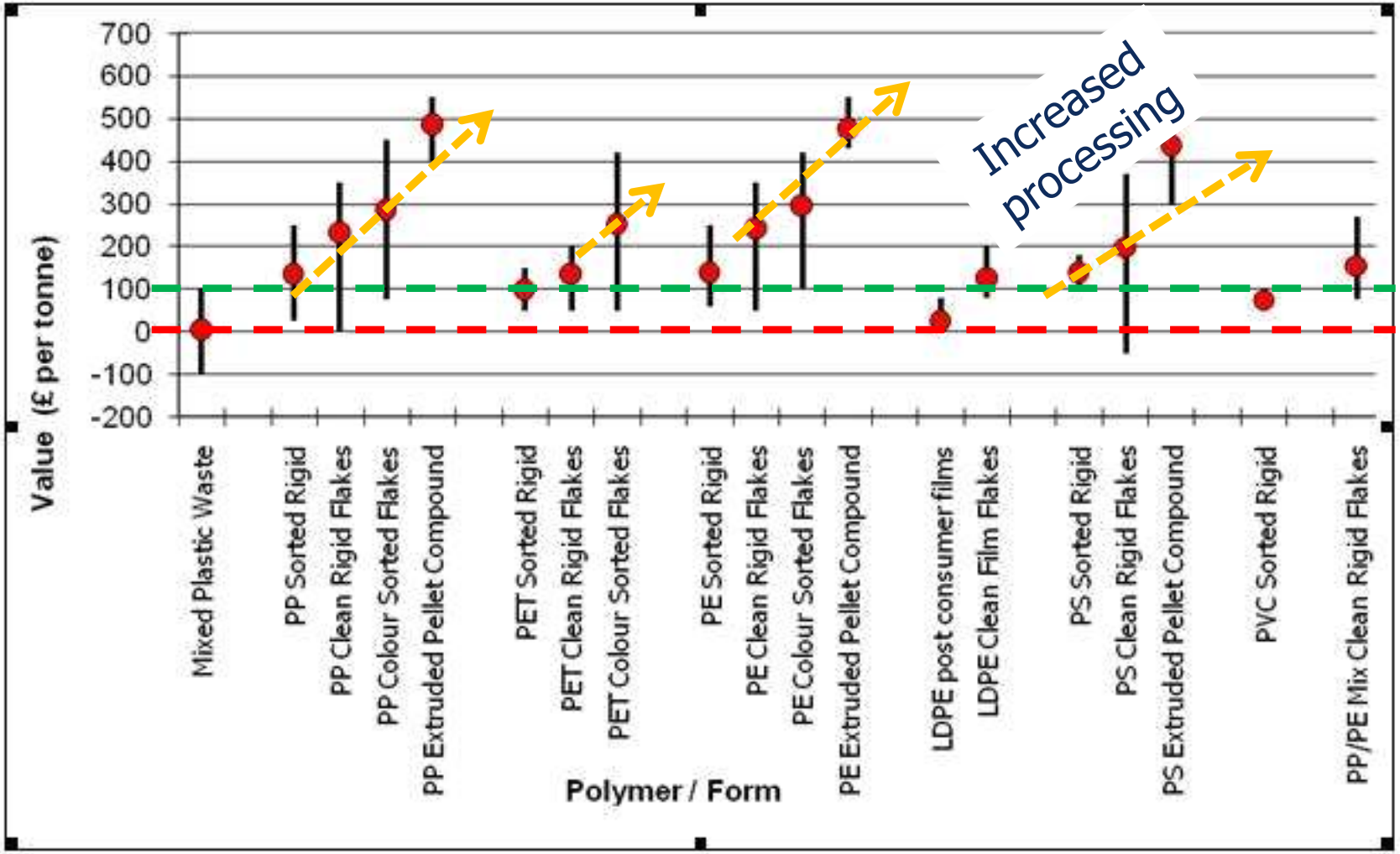


The value chain



End markets – financial drivers

Figure 29 : Market Value Ranges For Sorted Plastic Fractions From Domestic Waste Stream



Market development

- Encouraging demand for recycled materials and products in existing markets, e.g.
  - construction sector products
  - retail e.g. packaging
  - logistics e.g. packaging
- Addressing barriers to market entry
- Encouraging new business and retail models
- Public sector procurement e.g. leadership

Infrastructure

- What are you aiming for?
- Ensure quality and capacity by:
  - Addressing technical barriers
  - Determining capacity requirements
  - Providing financial support to leverage private sector investment
  - Obtaining clarity on end market requirements for outputs (e.g. quality requirements)

Improving quality of reprocessing

PET

Food grade rPET pellet to bottles and washed flake into sheet.

HDPE

Food grade rHDPE pellet. All new milk bottles have at least 10% rHDPE. 30% by 2015

Working with retailers & brands

- Design in recyclability
- Encourage innovation
- Match labelling on packaging where available

- Create demand for recycled content
- Simplify packaging where possible

Strategies to reduce household waste

- Changes to products, packaging & labelling
  - making it easier for consumers to buy the right amount, and use what is bought, and recycle packaging easily
- National / large scale communication
- Community engagement & support
  - awareness raising & enabling behaviour change

Littering

The Dream

The Reality

Behaviour change

- Role of packaging in food waste prevention
- National campaigns – ‘Love Food Hate Waste’ & ‘Recycle Now’ – ‘what to recycle and where’
- Local delivery - communication materials for municipalities and partners
- ‘On pack’ labels for packaging in partnership with retailers and brands
- Incentives, e.g. deposit return schemes
- Discentives, e.g. fiscal and penalties

Effective mass collections

- Materials streams:
  - Plastics, glass, wood, metal, paper & cardboard, organic
- Kerbside recycling
- Bring sites
- Collections for re-use
- Take-back schemes

Make participation easy

- Social interventions to deliver behaviour change – social media
- Collections designed for different housing types
  - types of container
  - capacity of container
  - collection frequency
- Legal compliance for collections
- Simple ‘rules’
- Consistency in national recycling services
- Can collections at home & at work be the same?

Impact & evaluation

- National metrics
  - Government statistics
  - impact of regulation
- Business plan
  - every 3-4 years
- Programme level
  - sectoral
  - product/material
- Mechanisms
  - campaigns
  - voluntary agreements
  - financial mechanisms

- **Benchmarking**
- **Forecasting**
- **Monitoring & reporting**
  - WRAP internal
  - online reporting tools
  - industry self reporting
- **Evaluation**
  - independent verification

The tone of voice is…

…not so much here

Don't …….

Negative

- Irrelevant (your not talking about me)
- Rational action
- I am told to ('nanny state')
- Your intelligence, not mine

…much more over here

Value …….

Positive

- Relevant to me
- Deeply held need
- I interpret
- My intelligence, not yours

The behaviour change Journey

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SUSTAINABLE GLOBAL RESOURCES Ltd

Thank you

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LUNCH BREAK

13h00 14h00

SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Extended Producer Responsability for packaging – exploring different schemes

Presented by:

Igansi Puig Ventosa, ENT Environment & Management, Fundació ENT

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

12 December, Barcelona, Spain

This Project is funded by the European Union

SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

ECO-Lef: Experience from the National System for the recovery and recycling of post-consumer packaging in Tunisia

Presented by:

Mounir Ferchichi, SWIM H2020 SM Expert

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

12 December, Barcelona, Spain

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La Transition Vers une Economie Verte

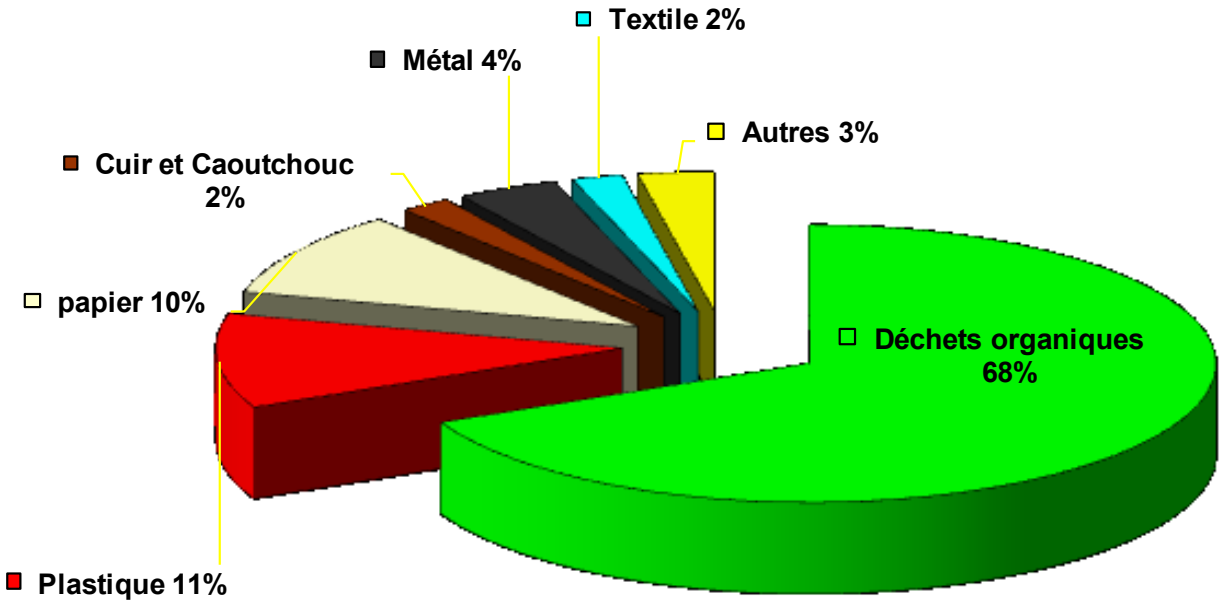
Le Rapport publié par le PNUE intitulé : « vers une économie verte : Pour un développement durable et une éradication de la pauvreté », démontre que :

- **La transition vers une économie verte est possible si l'on investit 2 % du PIB mondial par an d'ici à 2050 dans la transformation verte des secteurs clés que sont l'agriculture, le bâtiment, l'énergie, la pêche, la foresterie, l'industrie manufacturière, le tourisme, le transport, l'eau et la gestion des déchets.**
- **Bien entendu, ces investissements doivent être accompagnés de réformes politiques nationales et internationales.**

Cas Pratique de la gestion des déchets d'emballage en Tunisie : ECOLEF

- **Les entreprises se positionnent comme suiveurs technologiques ,**
- **L'éco-conception du produit et de son emballage se fait en amont des entreprises installées en Tunisie.**
- **La priorité concerne la gestion du déchet post consommation plutôt que l'éco-conception de l'emballage ,**
- **Mise en place d'un cadre règlementaire , institutionnel et surtout financier viable économiquement .**

Composition des déchets ménagers et assimilés



Cadre Règlementaire Loi n° 96-41 du 10 juin 1996, relative aux déchets et au contrôle de leur gestion et de leur élimination

CHAPITRE II DES DECHETS D'EMBALLAGE

Art. 10. - Les emballages sont fabriqués dans la mesure du possible à partir de matières les rendant aptes à la réutilisation ou à la transformation compatibles avec les exigences de la protection de la santé publique et de l'environnement.

La prolifération des déchets d'emballage doit être évitée par :

- **la limitation du volume des emballages et de leur poids au volume minimum nécessaire pour la protection du contenu et la commercialisation du produit et en utilisant le minimum de matières et de produits colorants et de colle,**
- **lorsque cela est possible techniquement, la conception d'emballages pouvant être réutilisés d'une manière compatible avec les normes relatives au contenu,**
- **la reprise des emballages et leur réutilisation ou recyclage .**

Article 12 : Loi n° 96-41 du 10 juin 1996, relative aux déchets et au contrôle de leur gestion et de leur élimination

- Les professionnels mettent en place, de leur propre gré ou sur initiative des autorités compétentes, des systèmes de reprise des déchets d'emballage, de leur valorisation ou de leur réutilisation. Les producteurs et les importateurs sont tenus d'adhérer à tout système créé de collecte, de transformation ou de valorisation de catégories déterminées de déchets d'emballage.

tout système à créer doit être approuvé par décret ,

Loi n° 96-41 du 10 juin 1996, relative aux déchets et au contrôle de leur gestion et de leur élimination

Art. 13. - L'utilisation de produits recyclés dans la fabrication d'emballages destinés à contenir directement des produits alimentaires est strictement interdite, sauf autorisation préalable du Ministre chargé de la Santé Publique après avis du Ministre chargé de l'Environnement.

Loi n° 96-41 du 10 juin 1996, relative aux déchets et au contrôle de leur gestion et de leur élimination

Art. 29. - L'opération d'élimination des déchets doit avoir lieu selon les conditions susceptibles de faciliter la récupération, la transformation et la valorisation de la plus grande proportion de déchets dont notamment, les éléments non dégradables et les matières pouvant être valorisées. Des règlements peuvent être pris pour arrêter les modes de fabrication et déterminer les catégories de matières et d'éléments qui s'ajoutent dans certaines fabrications pour faciliter les opérations de récupération et de valorisation. Ces règlements peuvent interdire certains traitements et certaines formes de mélange et de jonctions avec d'autres matières. Ces règlements sont fixés par des décrets pris sur proposition du ministre chargé de l'environnement, après avis des ministres chargés de l'Industrie et du Commerce.

Art. 30. - Dans un but de protection de l'environnment, les règlements visés à l'article 29 de la présente loi peuvent prévoir des incitations et des encouragements à certaines catégories de professionnels en vue de l'utilisation dans la fabrication d'un produit déterminé ou d'une catégorie de produits, de proportions minimales de matières et d'éléments qui ont été valorisés, recyclés ou récupérés, à condition que ces matières soient conformes aux normes de qualité.

Décret n° 97-1102 du 2 juin 1997, fixant les conditions et les modalités de reprise et de gestion des sacs d 'emballages et des emballages utilisés

- **Article premier. - Le présent décret vise à assurer les conditions nécessaires afin de garantir une reprise et une gestion rationnelle des sacs d'emballage et des emballages utilisés et d'éviter l'impact négatif de leur abandon dans l'environnement. Ses dispositions s'appliquent aux sacs d'emballage en plastique et aux emballages fabriqués totalement ou partiellement en plastique ou en métal, d'une contenance supérieure ou égale à 100 millilitres destinés à être commercialisés sur le marché local.**

- **Art. 2. - Les emballages sont fabriqués de manière à ce qu'ils soient limités du point de vue volume au minimum nécessaire à la protection et à la commercialisation du produit. Ils doivent être conçus de façon à être réutilisés sans que cette réutilisation soit contraire aux normes prescrites pour le produit en question.**

- **Art. 3. - Pour faciliter leur valorisation les sacs et les emballages doivent être fabriqués : - avec le minimum de matières premières, - de matières non composées et non toxiques, - de matières valorisables.**

Décret n° 97-1102 du 2 juin 1997,
fixant les conditions et les modalités de reprise et de gestion des sacs d 'emballages et des emballages utilisés

- **Art. 4. - Tout producteur et tout distributeur qui commercialise des sacs ou des produits emballés comme indiqué à l'article premier du présent décret et toute personne responsable de leur première mise sur le marché, au cas où le producteur et le distributeur sont inconnus, est tenu de pourvoir à la reprise de ses sacs et emballages utilisés en vue de les réutiliser ou de les valoriser conformément aux conditions prévues par la législation et la réglementation en vigueur.**
- **Art. 5. - Les personnes visées à l'article précédent qui commercialisent des produits emballés sont tenues de : - pourvoir elles-mêmes à la reprise et à la gestion des emballages utilisés des produits qu'elles mettent sur le marché selon les conditions fixées à l'article 6 du présent décret, - ou confier la prise en charge pour leur compte de cette obligation à des entreprises titulaires de l'autorisation définie à l'article 9 du présent décret et sur la base d'un contrat à conclure avec elles, - ou adhérer au système public de reprise et de valorisation des emballages utilisés créée conformément à l'article 8 du présent décret.**

Art. 7. - L'adhésion au système public de reprise et de valorisation des emballages utilisés créé conformément à l'article 8 du présent décret est obligatoire pour les entreprises qui commercialisent des sacs d'emballage sur le marché local.

Art. 8. - Est créé un système public de reprise et de valorisation des emballages utilisés dont la gestion est confiée à l'agence nationale de gestion des déchets . Il est financé par les contributions des adhérents qui seront fixées par l'agence en fonction des quantités et des catégories d'emballages commercialisées sur le marché local.

Gestion des Déchets d'Emballage

Principe de Responsabilité Elargie des Producteurs P.R.E

Textes règlementaires

Institutionnellement :

l'ANGed a la mission de mettre en place la stratégie nationale en la matière et le secteur privé assure la collecte, le transport et le recyclage.

Deux principaux textes régissent la gestion de la filière gestion des déchets solides :

1.la loi 1996 – 41 du 10/6/1996 relative aux déchets et au contrôle de leur gestion et de leur élimination
2. le décret 97-1102 du 2/6/1997 fixant les conditions et les modalités de reprise et de gestion des sacs d'emballage et des emballages utilisés.

Mise en place d'un système de collecte rémunérée à partir d'avril 2001 ;

- **Organisation d'opérations de tri et de collecte des déchets plastiques à la source**
- Création d'équipes d'ouvriers pour procéder à la collecte des emballages plastiques utilisés ;
- Consentir une aide financière aux gouvernorats et aux communes pour l'organisation de campagnes de collecte des emballages plastiques usagés
- Mise en œuvre d'un programme intégral de sensibilisation à plusieurs axes ;
- Mise en œuvre d'un programme de partenariat avec les associations et les organisations pour l'organisation de campagnes de volontariat de terrain et des activités de sensibilisation.

Axes de la stratégie nationale de gestion des déchets

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Le Système Public de Reprise et de Valorisation des emballages utilisés « ECO~Lef »

- Adoption de la collecte rémunérée depuis avril 2001

- Création de micro-entreprises privées , de collecte , de transport et de recyclage des déchets d'emballage,

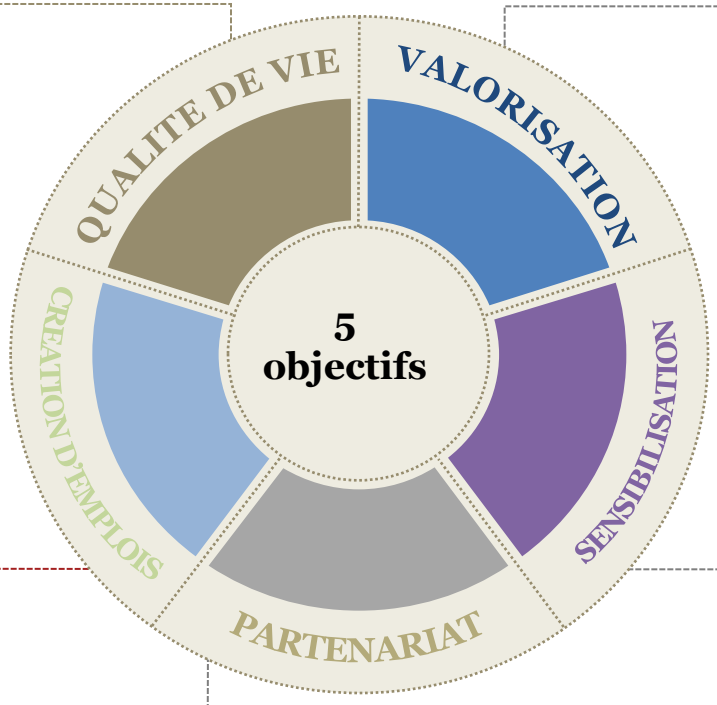
- Compagnes de communication et de sensibilisation , avec les écoles, le grand public, les ONGs …

Décret n° 97-1102 du 2 juin 1997,
fixant les conditions et les modalités de reprise et de gestion des sacs d 'emballages et des emballages utilisés.

Les objectifs du système public Eco-lef

1.Contribuer à la préservation de la propreté publique dans les villes, les agglomérations urbaines, les espaces publics, les routes et les plages

2.Promouvoir et encourager le recyclage des matières collectées



3.Encourager l'intervention du secteur privé et la création de petites entreprises de collecte du plastique et de nouvelles sources de revenus

4.Sensibiliser le citoyen afin de rationaliser l'utilisation des emballages et des sachets en plastique

5.Promouvoir le partenariat avec les autorités régionales et locales pour mieux maîtriser le phénomène de la pollution engendrée par les déchets en plastique

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Les mécanismes de financement

DECRET N° 1102 DU 2/06/1997

CONTRIBUTION ADHERANTS

Depuis l'année 1999

PAIEMENT DIRECT

Taux De Recouvrement 70%

LOI DE FINANCES depuis l'année 2003 : PONCTION A LA SOURCE

5% DU CA A L'IMPORTATION

(Plastiques Granulés et autres …)

FOND SPECIAL

Taux De Recouvrement 100%

ANGed

GESTION ECO~Lef

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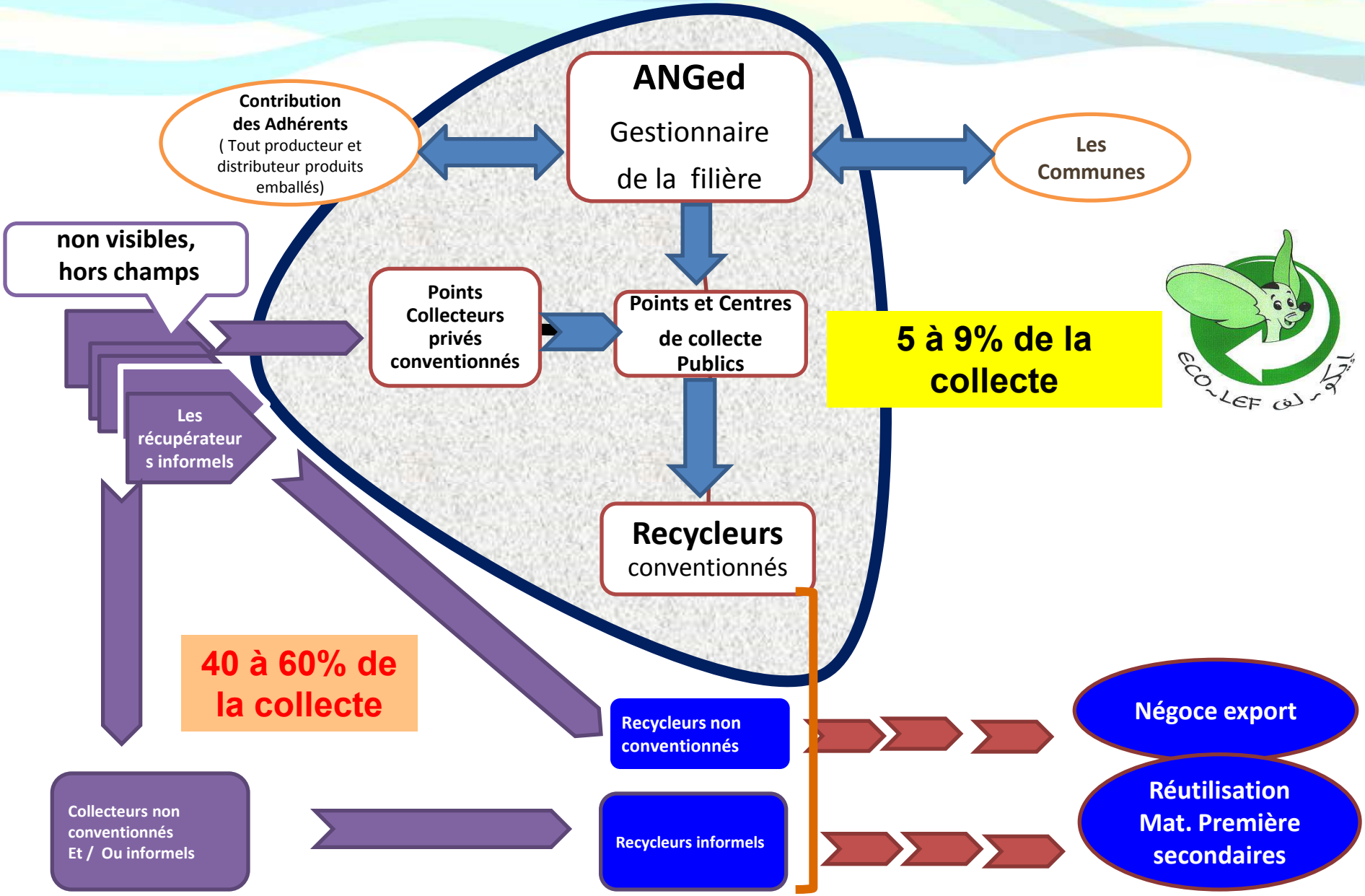
Champ d'action du Système Eco-lef: un bon exemple d'économie circulaire et croissace verte



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La collecte rémunérée des emballages

Prix de reprise des emballages usagés

Bouteilles de Boissons gazeuses et eau

Bouteilles de Lait

Films en plastique

Sachets en plastique

Canettes métalliques

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Photos illustrant l'activité de collecte rémunérée des emballages

Photos illustrant l'activité de tri et de préparation des emballages

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Déchets de Plastiques Agricoles

Déchets de Plastiques Agricoles

Collecte et stockage des déchets de plastiques agricoles

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Phot Campagnes de sensibilisation et de communication

activités réalisées avec et les associations

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Campagnes de sensibilisation et de communication

Photos illustrant les activités de sensibilisation et de communication réalisées avec et les associations

Campagnes de sensibilisation et de communication

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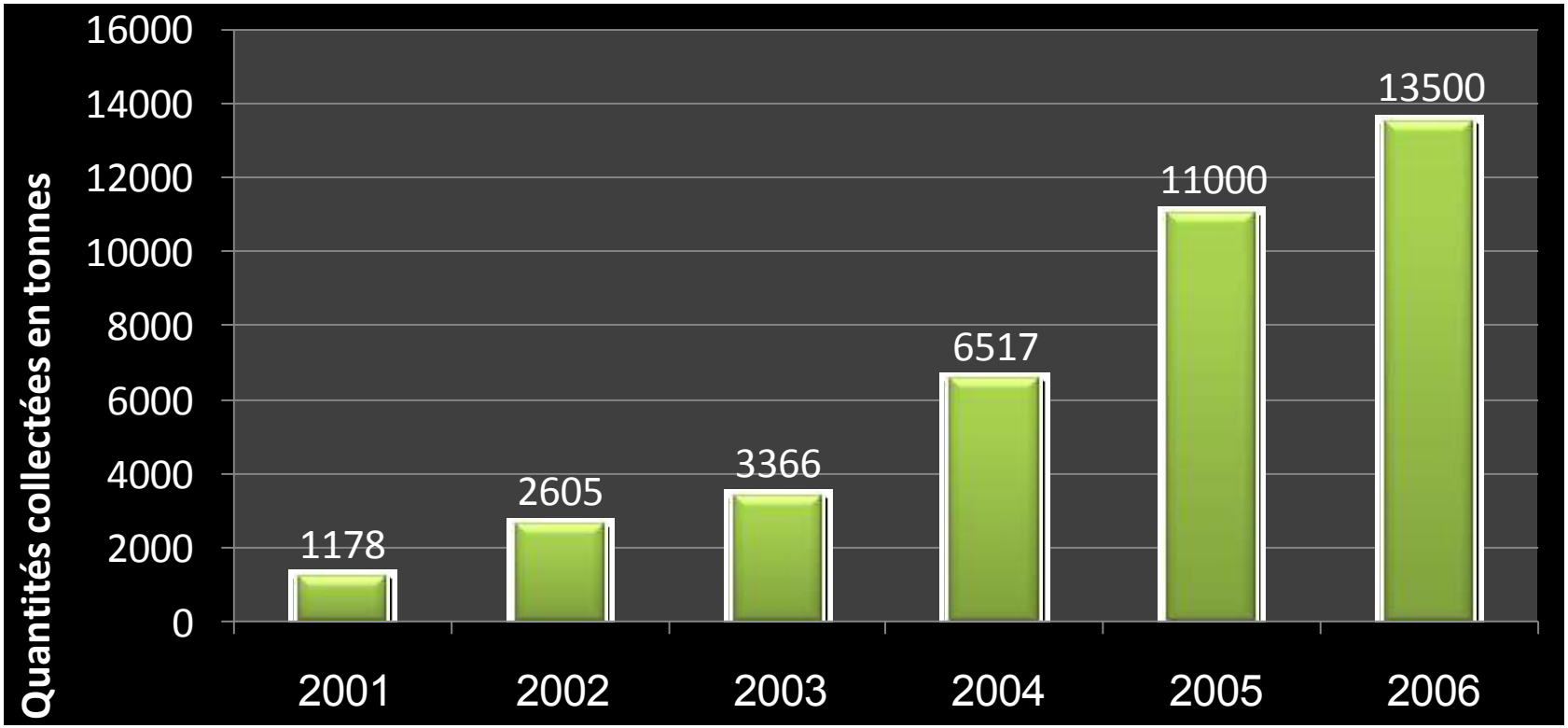
ÉVOLUTION DES QUANTITÉS DES DÉCHETS PLASTIQUES COLLECTÉES (90 % BOUTEILLES EN PET)

16 000 T collectées 2007-2008..20011



Potentialités & Disfonctionnements du Système

Des Potentialités à exploiter…

- **Le système a permis de mettre en place et d'initier une chaine de collecte ,transport et de recyclage de déchets : chaine de valeurs**
- **Vivier de création d'emplois**
- **Une volonté partagée pour réorganiser et développer le système**

… et des **Disfonctionnements** à remédier…

- **Le système s'est écarté de ses objectifs**
- **Prolifération de collecteurs et recycleurs informels qui menacent la pérennité et la viabilité des PME**

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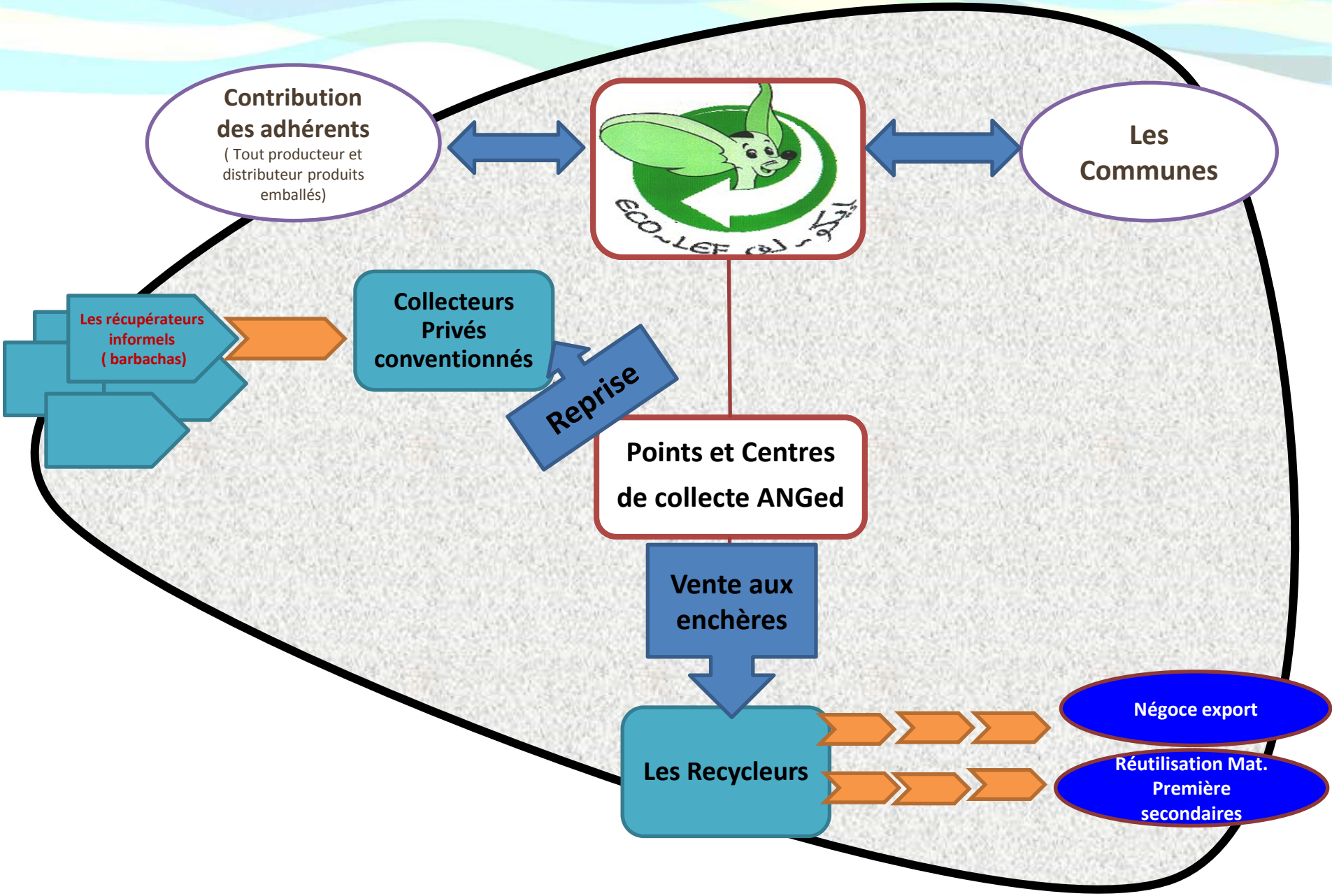
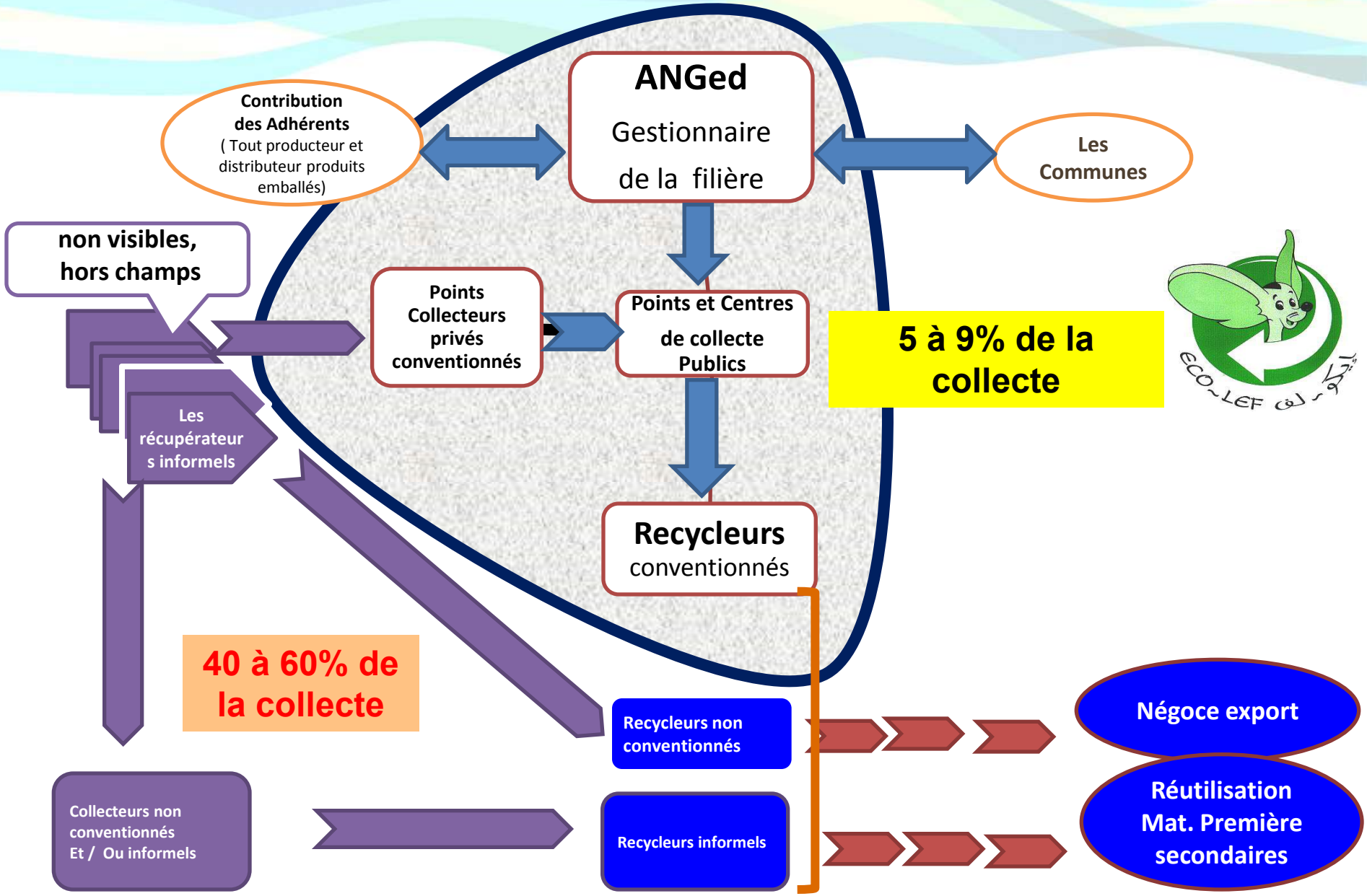
Réformes et Développement ECO-LEF

Elargir le champ d'action et d'Intervention



Champ d'action du Système Eco-lef



Encourager L'intervention du secteur Privé dans le cadre d'un Partenariat Public Privé : PPP

1. Objectif Environnemental

Se positionner comme le régulateur –superviseur du secteur gestion déchets d'emballages

- Développer une base de données et de statistiques en ligne (veille en ligne)
- Optimiser- Améliorer la productivité du système avec maitrise des coûts de fonctionnement
- Améliorer et organiser logistique et méthode par la mise en place d'une Bourse de déchets en ligne
- Encourager l'augmentation de la valeur ajoutée du secteur : intervention du Secteur Privé : PPP

2. Objectif Social

Renforcer l'écosystème de gestion des déchets d'emballages

- Appel aux récupérateurs informel pour adhérer au système (par simple enregistrement auprès de l'ANGED ,environ 10.000)
- Développer le réseau et porter progressivement la productivité (concilier création d'entreprises avec viabilité économique)
- Appui , accompagnement et assistance technique aux PME du secteur

Stratégie de réorganisation de ECO-LEF

Réorganisation de la Collecte :

S'engager sur un partenariat public privé pour mettre en place les moyens nécessaires et faire face aux différents problèmes :

- **Valorisation des collecteurs informel dans les rues et les décharges en les recensant, les équiper de cartes professionnelles, vêtements et équipement de protection, suivi de leur situation médicale, en leur affectant des zones bien déterminés, ce travail se fera en partenariat avec les associations;**
- **Eliminer les intermédiaires entre le collecteur dans la rue ou la décharge et le client final, les solutions proposées seraient la mise en place de camions a bennes et d'organiser des tournées de collectes régulières.**

Stratégie de réorganisation de ECO-LEF

- **Participation à la mise à jour des centres de collecte existants de l'ANGED ainsi que la création d'autres centres en les équipant à la pointe de la technologie par du tri optique permettant d'obtenir des bales de PET sans impureté, a l'instar de ce qui se fait en Europe;**
- **Réorganiser le système de cession des bales aux recycleurs agrées pour une meilleure gestion des ressources financières alloués à la collecte par une vente aux enchères mensuelle, ou une indexation sur le prix de la matière vierge sur le marché mondial.**
- **Ne plus subventionner la matière qui peut être elle même rentable, mais utiliser les fonds de ECOLEF pour investir dans le système de collecte et augmenter ainsi les quantités collectées.**

Stratégie de réorganisation de ECO-LEF

Réorganisation des recycleurs :

- il faut identifier le nombre de recycleurs agrées réellement actif et les convertir en centres de collecte et de mise en balle, éliminant ainsi l'étape de broyage des bouteilles dans de petits centres qui induit une matière de faible qualité vu que les contaminant sont broyés et seraient beaucoup plus difficile à trier étant déjà en petits morceaux.

- Etant donné l'inexistence aujourd'hui de consommateur de Pet recyclés en Tunisie et que tous les marchés sont à l'export, les recycleurs agrées devraient être des entreprises totalement exportatrices, ce qui permettra de contrôler avec exactitude les quantités exportées en recoupant les données des services douaniers.

- A fin de garder le maximum de valeur ajoutée sur le territoire Tunisien il serait judicieux d'appliquer une taxe sur l'export des déchets de Pet qu'elles soient en balle ou en Pet broyé non lavé. (valeur ajoutée importante par rapport au PET lavé à chaud)

Mode de management du système Eco-lef

Bureau de Pilotage , de coordination et d'assistance technique : Régulateur

01

Créer une synergie et une collaboration entre professionnels et industriels

02

Adopter une organisation plus souple , réactive basée sur un PPP

03

Appel aux projets innovant dans le secteur de tri et de Recyclage : Bottle to Bottle

04

Campagne de communication de proximité / prise de conscience sur les déchets d'emballages

Merci pour votre attention.

This Project is funded by the European Union

SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Fostering a SWITCH to GREEN Economy in the Mediterranean

eco design and enabling policies.

- Working session / Discussion on the feasibility of key measures
- Preparation for Day 3

SWIM-H2020 SM Experts

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11-13 December2018, Barcelona, Spain

WRAP UP & CLOSING

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