



Walloon Waste-Resources Plan: non-technical summary

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1. Preface

The Walloon Waste-Resources Plan (PWD-R) is part of a European (Framework Directive 2008/98/EC in particular), Federal (with regards to product standards) and regional framework with all of the legislation pertaining to waste (decree of 27 June 1996 amended and its implementing orders, tax decree of 22 March 2007, etc.), the Marshall Plan 4.0 and the Declaration of Regional policy 2014-2019.

The Plan is placed firmly in the perspective of a circular economy and sustainable development, and considers waste management as a vector of economic restructuring for Wallonia.

The PWD-R includes six strands:

- **Strand 1** presents the strategic framework which covers the actions of the Plan. It also includes a programme of structural measures relating to data management (capture, use, traceability, simplification), to issues of taxation, as well as the fight against environmental violations (inspections and penalties);
- **Strand 2** constitutes the programme for prevention and the reuse of waste. It covers both industrial waste and household waste;
- **Strand 3** constitutes the specific management plan for household waste;
- **Strand 4** constitutes the specific management plan for industrial waste;
- **Strand 5** constitutes the plan for public cleanliness and the fight against litter and fly tipping;
- **Strand 6** surveys the environmental and socio-economic impacts.

The PWD-R continues the actions developed in previous plans, but with the stated objective of applying as much as possible the principles of prevention and reuse, incorporating the experience of the circular economy into the selection and implementation of actions.

The Walloon Waste Plan Horizon 2010, which is still applicable pending the definitive adoption of the PWD-R, was evaluated both for its component relating to household waste and that relating to industrial waste. The assessments¹ which were drawn up in this regard were used to determine and select the measures and actions presented in this new plan.

Taking into account the uncertainty regarding the future evolution of society, the economic context and the industrial prospects in the context of the development of new strategies for a circular economy in particular, it would have been unrealistic to set goals beyond 2025.

As such, all of the options envisaged in the PWD-R have been established from the perspective of approximately a decade. Even if the implementation of the measures anticipated in the Plan is not limited in time, it is planned to evaluate the execution of the PWD-R (and its effects) at least every six years, and to revise it if necessary.

¹ The documents are available on the administration's website at the address: <http://environnement.wallonie.be/rapports/owd/pwd/index.htm>

2. Situational analysis

2.1. Waste in figures

In 2013, the total waste produced in Wallonia was estimated to be 15.2 million tonnes. The waste flows were broken down as follows:

<i>Household waste</i>		1,979,724
	Household waste	1,526,444
	Similar waste	358,055
	Municipal waste	95,225
<i>Industrial waste</i>		13,241,239
	Non-hazardous industrial waste	12,478,160
	Hazardous industrial waste	763,079
Total		15,220,963

Table 1: Waste production in Wallonia (2013)

Around 10 million tonnes of excavated earth needs to be added to this waste.

The waste sector employs around 6,000 people in Wallonia and generates turnover of ± 600 million euros², representing roughly 2.7% of Walloon Gross Domestic Product (and placing the sector in 8th position of industrial sectors).

2.2. A changing regulatory context

On 02/12/2015, the European Commission presented a global project comprised of:

- proposals to revise various directives relating to waste (waste framework directive 2008/98/EC, directives relating to packaging waste, landfill, electrical equipment waste, end-of-life vehicles, etc.,)
- a proposal for an action plan for the circular economy.

These measures aim to assist businesses and consumers in the transition to a more circular economy, in which resources are used more sustainably.

The proposed measures will help to "close the loop" of the product life-cycle, thanks to an increased use of recycling and reuse. They will generate benefits both for the environment and for the economy and employment, since they will allow (i) an optimised exploitation of raw materials, products and waste, to fully maximise their potential, and (ii) to promote energy savings and the reduction of greenhouse gas emissions. The proposals cover the entire life-cycle: from the production and consumption of goods up to waste management and the market for raw materials.

The proposal of the European action plan specifically anticipates:

- measures to reduce food losses and wastage;
- the development of quality standards applicable to secondary raw materials;
- measures aimed at encouraging sustainability, the repairability and recyclability of products, and energy efficiency;
- a revision of the regulations relating to fertilizer, in order to facilitate recognition of organic fertilizer and fertilizer made from waste within the single market;

² Figures extrapolated using data from the Federal Planning Bureau

- a strategy for plastics tackling issues relating to recyclability, bio-degradability, the presence of dangerous substances and the reduction of marine waste.

The main elements of the proposal to revise the European waste regulations are:

- the adoption of a clarified definition of waste and harmonised calculation methods;
- a common objective to achieve a recycling rate of 65% for municipal waste by 2030;
- a common objective to achieve a recycling rate of 75% for packaging waste by 2030;
- a binding objective aimed at reducing the rate of landfill of all waste to a maximum of 10% by 2030;
- a ban on landfilling selectively collected waste and the promotion of economic instruments intended to discourage landfill;
- concrete measures to encourage reuse and stimulate industrial symbiosis, in other words the transformation of by-products from a given sector into raw materials for another sector;
- economic measures intended for producers to firstly encourage them to place more environmentally friendly products on the market and secondly, encourage the systems for recovery and recycling (in particular for packaging, batteries, electrical and electronic equipment or vehicles);
- measures associated with public cleanliness and the fight against litter.

The Plan as drafted will make it possible to orient Wallonia within the areas proposed by the European Commission.

3. The strategic framework

3.1. The principles of the circular economy and the waste management hierarchy

The measures envisaged in the PWD-R have been developed and selected so that they can contribute to the most efficient application of the principles of the circular economy and the waste management hierarchy in Wallonia.

The circular economy is an economic concept aimed at limiting, as much as possible and in a coherent manner, consumption, and furthermore the waste of raw materials, water and energy during the life-cycle of goods and services, from design to end-of-life management, including production, distribution and consumption (cf. Figure 1). It encompasses and sequences familiar activities such as recycling, reuse, the fight against the food waste and energy savings.

Alternative consumption methods, industrial ecology including the highlighting of synergies and pooling between companies, and eco-design, are other concepts that can be incorporated into the establishment of a circular economy. In other words, in the context of managing waste and other polluting discharges, the idea is to maintain the various flows within the economic system as much as possible, minimising the loss of materials which are likely to generate more added value.

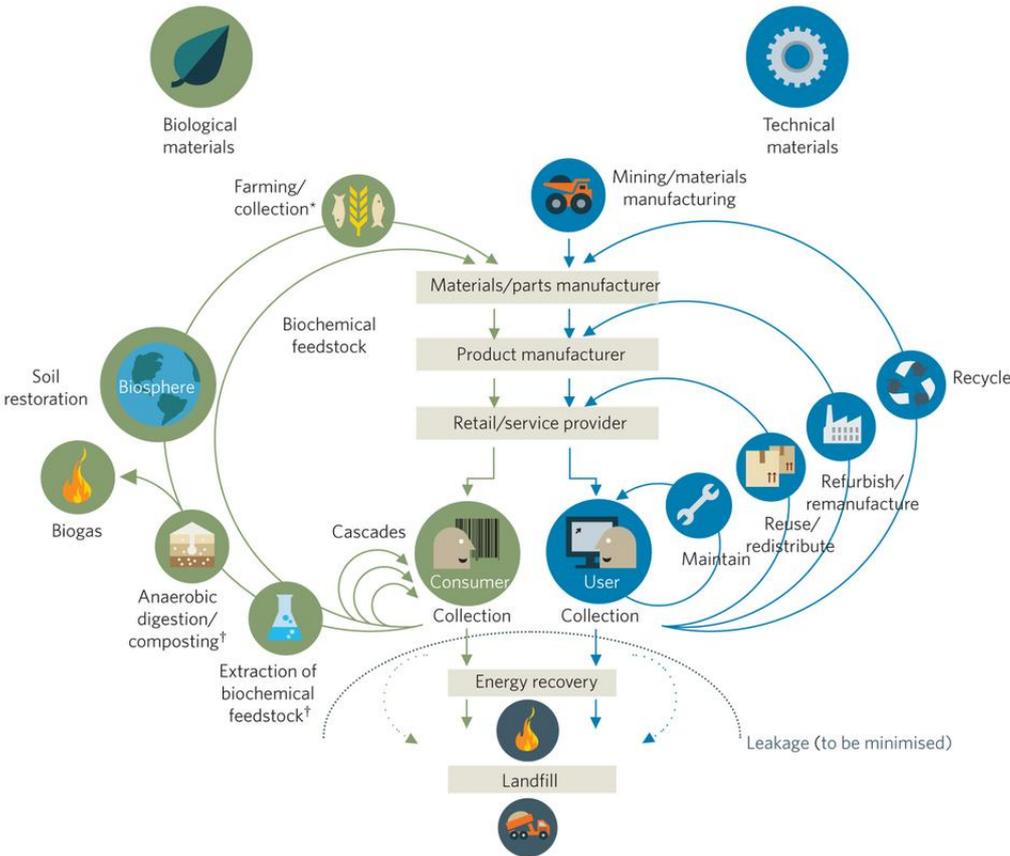


Figure 1: Diagram of the circular economy

The framework directive and the Walloon waste decree define the waste management hierarchy, which is broken down into five levels:

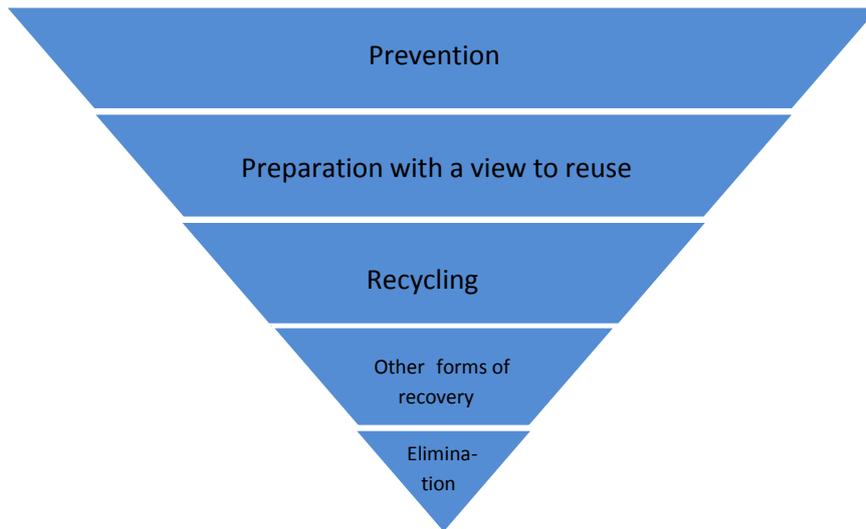


Figure 2: Waste hierarchy (Lansink's ladder)

This concept, which was launched in 1979, bears the name of a Dutch minister who ranked the methods of waste management (including prevention) according to their environmental impacts, from most favourable to least favourable. Since then, this concept has inspired and underpinned numerous policies relating to waste, implemented at the local, regional (including the previous Walloon Waste Plan Horizon 2010), national and international level.

The concept of the Lansink's ladder was transposed to the specific flows which are used, or which can be used, in human or animal food. It is referred to as Moerman's ladder. This ladder ranks the management methods of food waste flows according to their sustainability. This concept specifically underpins policies in the fight against food losses and wastage.

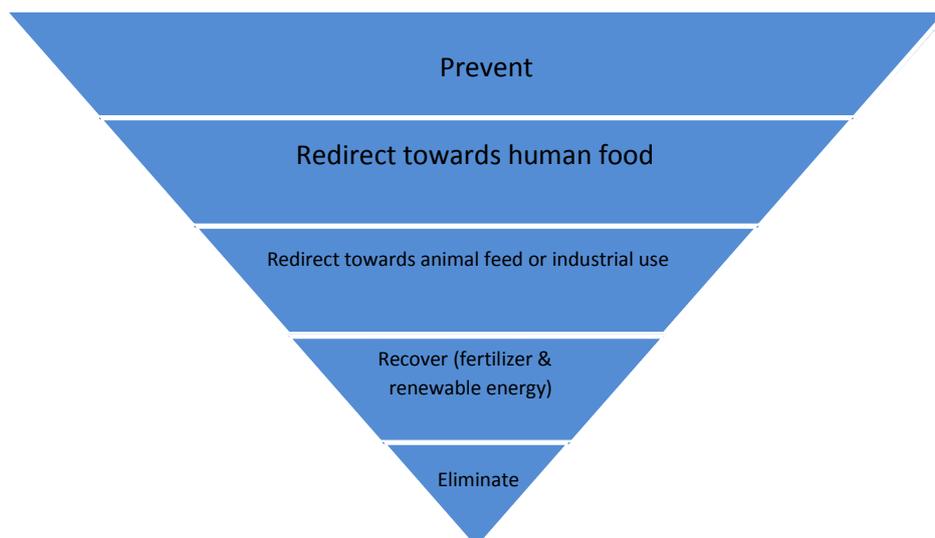


Figure 3: Moerman's ladder

3.2. Key ideas

The PWD-R constitutes both the programme for prevention/reuse and the waste management plan, covered by the European Framework Directive and by the Walloon waste decree. Moreover, Wallonia intends to engage strongly in the fight against the presence of litter and fly tipping in public spaces. As such, aspects related to the management of public cleanliness are the subject of a specific strand in the PWD-R.

The **prevention** of waste aims to minimize the supply of waste produced in Wallonia (quantitative prevention) and its impact on the environment and human health (qualitative prevention). Since the waste prevention policy is in line with the fight against food loss and wastage, the programme of actions also develops several instruments relating to this issue.

The **management** of waste aims to (re)direct residual waste towards more virtuous and efficient methods of treatment (from an environmental and sustainable development perspective). In other words, the objective is to be able to use waste as much as possible as a resource, in accordance with the concept of the circular economy.

In order to increase the relative quality and quantity of (re)usable waste flows as resources, Wallonia will develop and/or expand different policies and corresponding tools through the PWD-R. The most notable examples include:

- the obligation for separation of certain waste at the source;
- "conserving" selective collections, with a view to reuse;
- take-back obligations for some waste;
- the encouragement of deconstruction instead of demolition of buildings;
- the implementation of the concepts of by-products and end-of-waste status;
- measures aimed at recovering certain waste which is currently unused, or redirecting certain waste to more efficient facilities;
- measures aimed at increasing opportunities for composts and digestates, in keeping with soil management policy;
- measures making it possible to achieve critical thresholds to facilitate waste management or encourage short circuits;
- measures aimed at optimising the collection, sorting and treatment of waste by the inter-municipal waste management agencies, via a more effective pooling of the available resources.

To support these various measures, the different strands of the PWD-R also propose actions related to:

- raising awareness, providing information and training the various target groups;
- the logistics for collections and waste treatment infrastructure;
- the interactions between economic development, the prevention and management of waste, in accordance with the policy of sustainable development.

3.3. Structure of the plan

The first strand of the Plan presents the context and strategic framework, as well the key ideas identified above. It also contains a programme of transversal actions to support the realisation of the measures envisaged in strands 2 to 5, in accordance with the following lines:

- 1) The improvement of collection and the use of data;
- 2) The application of a regulatory tax policy which must encourage the prevention and reuse of waste, as well as the use of treatment facilities which are more environmentally sound;
- 3) The improvement of the administration's efficiency, from a structural, organisational and budgetary perspective;
- 4) The application of the policy of inspections and penalties so as to fight more effectively against environmental violations.

Strands 2 to 5 are structured with similar outlines:

- 1) They present the strategic approaches for each of the envisaged issues (prevention-reuse, management of household waste, industrial waste and public cleanliness);
- 2) These strategic approaches are then broken down into three types of actions:
 - o actions related to good governance;
 - o actions which are transversal to the issue in question;
 - o actions which are specific to certain waste flows or, for public cleanliness, specific to certain management areas.

In total, there are **33 strategic approaches** and one programme comprising **157 measures** to guide and structure the Walloon policy for Waste-Resources and public cleanliness for the coming years (cf. annex 1).

These 157 measures are broken down into **751 specific actions**, and this breakdown is shown in Figure 4 below.

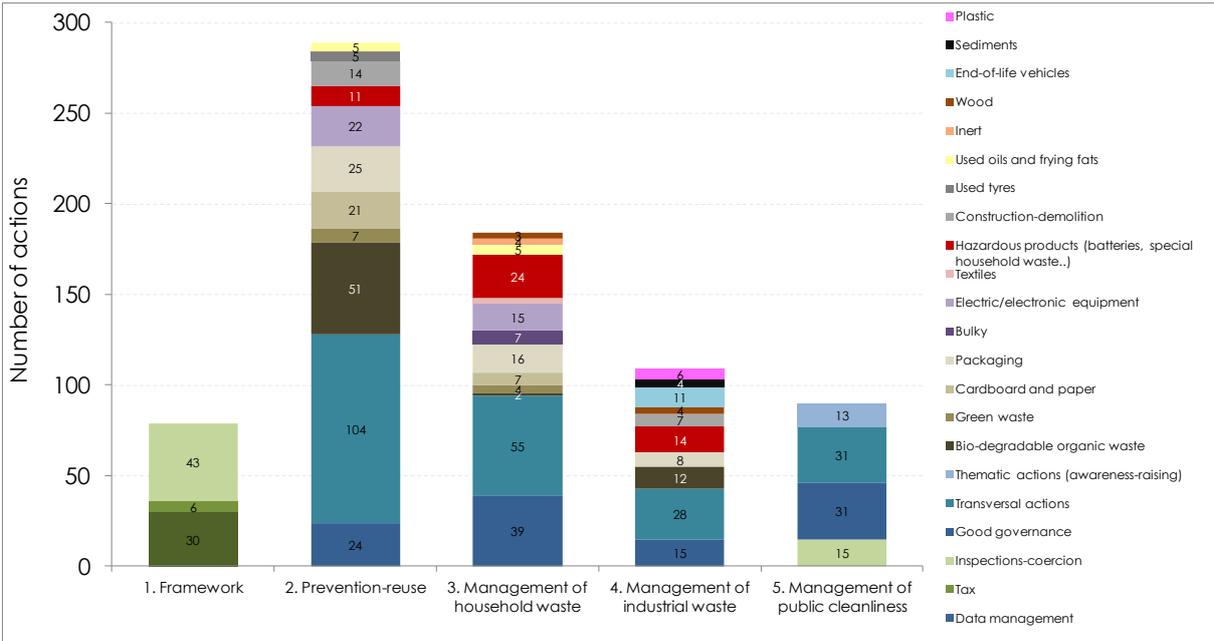


Figure 4: Breakdown of the number of actions of the draft PWD-R per strand, per type and per waste flow

With regards to the actions which are specifically focused on certain waste flows (317 actions in total), more than three quarters are focused on 6 types of specific waste which are (in descending order, cf. Figure 5):

- bio-degradable organic waste;
- packaging waste (household and industrial);
- hazardous waste (batteries, pesticides, medicines, asbestos, etc.);
- Waste Electric and Electronic Equipment (WEEE);
- cardboard (excluding packaging);
- construction and demolition waste.

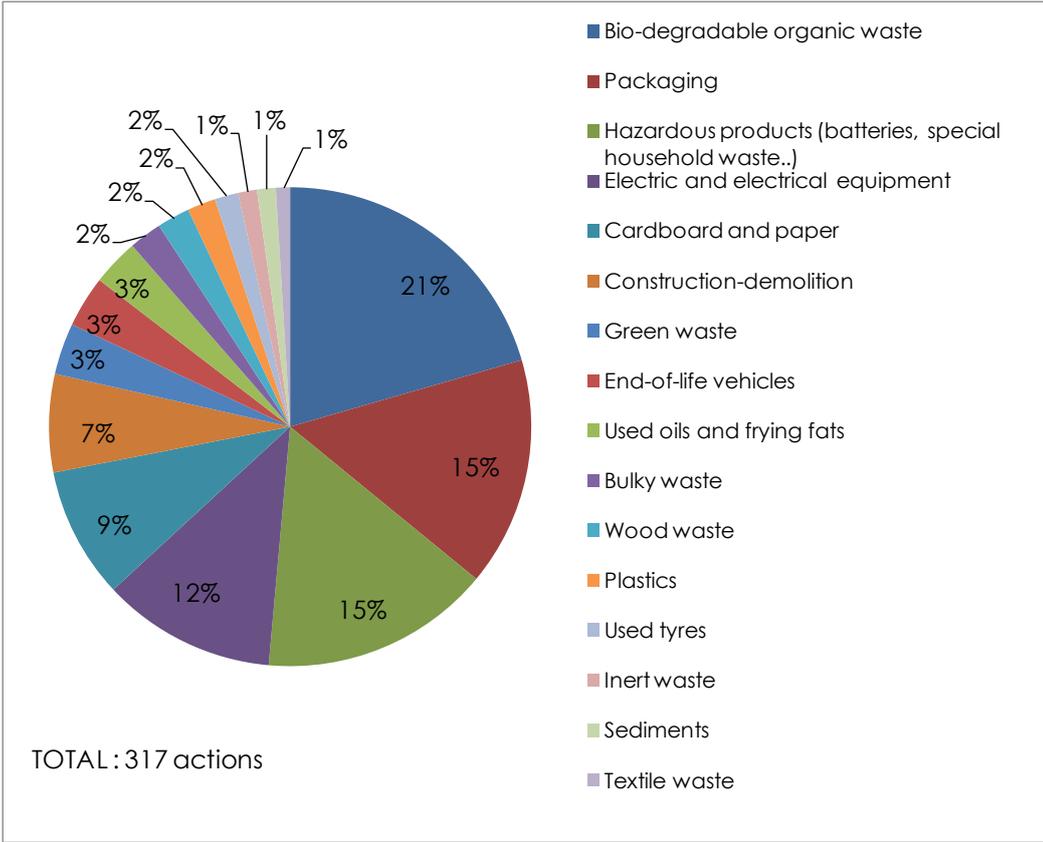


Figure 5: Breakdown of the number of actions of the draft PWD-R per type of waste

It is not possible to detail each of the approaches, measures and actions envisaged in the PWD-R in the context of this non-technical summary. The preferred option is to illustrate certain "key" measures which appear in the various strands of the PWD-R.

3.4. The objectives of the plan

The PWD-R proposes target values and numerical objectives, for which the presence varies from one strand to another, depending on various factors:

- Coherence with the objectives already defined at the European level and/or the desire of Wallonia to be more ambitious and exceed these objectives;
- Thoroughness and the level of data mastery: if for certain waste flows, there is still uncertainty deemed too significant regarding the waste supply or the rates of recycling or energy recovery, the choice was made not to define precise objectives, since the first measure to be implemented is the improvement of the quality of data;

- Levels of performance achieved and prospects for improvement: when a waste flow has already been almost fully optimised and recovered, it becomes unrealistic to set more ambitious objectives in relation to the current situation;
- Level of expertise of the public authorities regarding the expected effects of certain measures: a priori, it is difficult to predict whether measures relating to research & development will be successful, or to assess with certainty the impact of certain information campaigns, awareness raising campaigns or inspection campaigns.

These factors explain why for certain situations, the actions proposed in the PWD-R are not accompanied by numerical objectives leading up to 2025. However, for the actions which will probably have an indirect effect on the improvement of prevention, management or public cleanliness, the assessment of the expected effects can often only be qualitative.

The tables below present the objectives and the target values which feature in the PWD-R.

3.4.1. Target values of strand 2: prevention and reuse

The expected evolutions of household waste levels between 2013 and 2025, following the actions envisaged in strand 2, are indicated in table 2.

Flow	Total waste	Business-as-usual projection	Impact of prevention	Scenario Prevention
	2013	2025	2025	2025
Organic materials	65.33	65.73	-11.18	54.55
Green waste (container parks/door to door/bottle banks)	69.14	70.95	-4.08	66.87
Paper and cardboard	74.35	73.43	-6.02	67.42
Mixed bulky waste and plastic	47.95	50.20	-1.62	48.59
Wood (container parks)	32.26	32.26	0.00	32.26
Waste Electric and Electronic Equipment (inter-municipal agencies + Recupel network)	9.94	10.40	-0.70	9.71
Textiles (inter-municipal agencies + recovery centres)	10.95	10.95	0.00	10.95
Glass packaging	33.5	33.50	-2.78	30.72
Glass non-packaging	0.95	0.95	0.00	0.95
P+MD packaging (all packaging including plastics)	33.4	33.4	-2.8	30.6
Plastic non-packaging	4.2	4.2	0.0	4.2
Metal non-packaging (container parks)	7.5	5.3	0.0	5.3
Inert waste (container parks)	112.7	112.7	0.0	112.7
Hazardous household waste (special waste, mineral oils, etc.) + batteries and accumulators	3.8	3.8	-0.3	3.5
Residue (asbestos, nappies, other packaging, etc.)	22.93	22.93	-0.04	22.89
Total	528.9	530.68	-29.49	501.20

Table 2: Expected effects of the household waste prevention actions up to 2025

The prevention actions envisaged in strand 2 should consequently result in a reduction of 5.6% of the total household waste by 2025.

The actions of strand 2 promoting the reuse of recoverable household items should make it possible to achieve an average quantity of reused objects of 8kg/inhabitant by 2025 (cf. table 3).

Objectives for collection with a view to reuse	Waste 2013 (tonnes)	Forecast 2025 (tonnes)	2013 (kg/inhabitant)	Forecast 2025 (kg/inhabitant)
Recoverable items	186,645	29,432	3.06	8.00

Table 2: Expected effects of the household waste reuse actions up to 2025

3.4.2. Objectives of strand 3: management of household waste

In accordance with the objectives of directive 2008/98/EC, the PWD-R has set the following objectives in terms of selective collection for certain types of household waste by 2025:

Objectives for collection with the aim of recycling	Waste 2013 (tonnes)	Forecast selective collection 2025 (tonnes)	Rate of selective collection 2013	Forecast rate 2025
Fermentable portion of general household waste without nappies	303,255	160,006	14%	53%
Cardboard (recyclable)	205,184	194,925	86%	95%
Glass (packaging)	113,019	107,368	86%	95%
PMD and P+MD (excluding residue)	115,061	89,792	43%	78%
Textile	40,269	30,202	55%	75%
Oils and frying fats	6,479	3,211	34%	50%
Batteries	1,414	706	48%	50%

Table 4: Numerical objectives in terms of the selective collection of household waste by 2025, per type of waste

The objectives for the recycling and recovery of Waste Electric and Electronic Equipment (WEEE) are the following:

Objectives for the collection of WEEE with the aim of recycling, reuse and recovery	Waste 2013 (tonnes)	Forecast selective collection 2025 (tonnes)	Forecast recovery 2025	Forecast preparation for reuse and recycling 2025
WEEE	80,186	52,121	between 75% and 85%	between 55% and 80%

Table 5: Numerical objectives in terms of selective collection, reuse, recycling and recovery of WEEE by 2025

The objectives for the recovery of green waste and wood are the following:

Objectives for the collection of green waste and wood with the aim of recycling or recovery	Forecast selective collection 2025 (tonnes)	Recovery rate 2013	Forecast rate 2025
Green waste	223,629	100%	100%
Wood	110,800	100%	100%

Table 6: Numerical objectives in terms of selective collection, recycling and recovery of the household portion of green waste and wood by 2025

3.4.2. Objectives of strand 4: management of industrial waste

For the reasons identified previously, an approach consisting of setting target values or numerical objectives has not been used in the majority of cases when defining the measures relating to the management of industrial waste.

However, we can make three exceptions:

- Measure 14 of this strand has the objective of tripling the production of renewable energy from wood. It should be noted that the realisation of this objective will not only be based on the continuation of recovering wood waste produced in Wallonia (whether household waste or industrial waste), but also on the use of wood which is not qualified as waste (including flows which are likely to be qualified as by-products when the regulatory provisions have been adopted) and if necessary on resources from other regions or countries. Finally, the realisation of this objective should not be to the detriment of the recovery and reuse chains for this resource.
- Measure 25 anticipates support for businesses which recover end-of-life vehicles, in order to maintain the recovery rate above or equivalent to 95%. This measure will support the relevant European and Walloon regulations.
- Finally, measure 27 anticipates the use of at least 30% recycled aggregates in public building sites.

4. Walloon Waste-Resources Plan: Focus on several key actions

4.1. Strand 1: transversal vision

The vast majority of the actions included in strand 1 of the PWD-R are focused on data management (capture, processing and dissemination) and the fight against environmental violations in the area of waste.

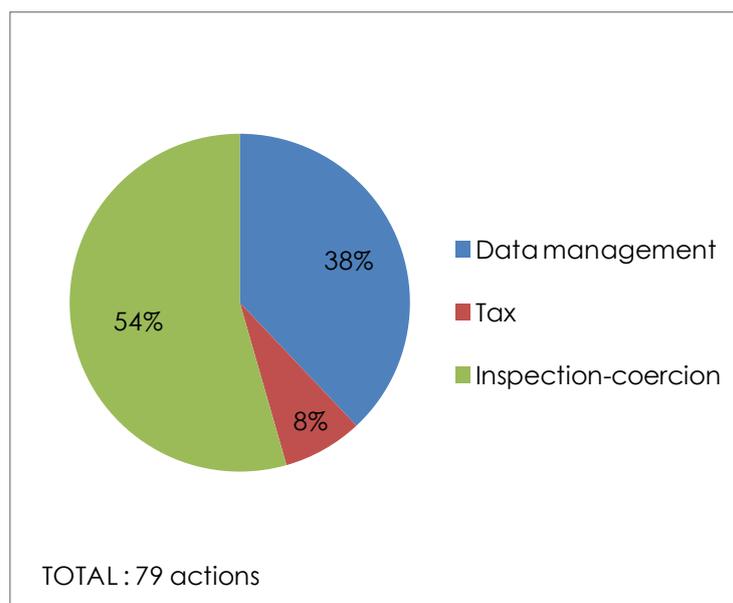


Figure 6: Breakdown of the number of actions envisaged in strand 1

Unlike the management of household waste which involves a more limited number of actors (inter-municipal agencies, persons with a take-back obligation, social economy businesses, etc.), industrial waste management is dependent upon a multitude of extremely varied operators. As such, obtaining precise figures from this sector is more complex to organise. This situation makes it necessary to improve the capture and use of data, so as to improve its management. This improvement will require administrative simplification and the automatic capture and archiving of useful data, both in the area of industrial waste and in that of household waste.

When these changes have been made, the administration will be more capable of proposing relevant strategic decisions. This improvement will allow greater and simplified transparency, as well as more efficient access to information for all the actors concerned: citizens, but also the professionals who will consequently be able to study a segment of the waste management sector in order to decide whether or not to invest there. It will also enable the traceability of waste to be optimised, and therefore its management.

To achieve this, it will be necessary to develop the administration's ability to access socio-economic and budgetary data related to the costs of waste management (household and industrial), with strict respect for privacy and the conditions of economic confidentiality of the operators.

In this context, one of the actions of strand 1 aims in particular to develop a computer application to create a database for the flows which are not subject to the declaration pursuant to the tax decree, in particular by extending the tool which already manages the results of the REGINE integrated survey.

Wallonia also intends to make best use of the fiscal tools to penalise as much as possible the least sustainable management channels, while reducing the charges for the management methods which foster the development of the circular economy. More specific topics will also be studied, such as the situation in the incineration and co-incineration sector, or the problem of backfilling.

By the same token, Wallonia will continue its work to revise and simplify the mechanisms of subsidising municipalities, inter-municipal agencies, social economy businesses, etc., so as to make them more efficient in environmental and socio-economic terms.

Actions will also be undertaken to develop synergies within the administration, and to optimise the inspections carried out and their follow-up. This will mean, inter alia, strengthening (i) the effectiveness of public action by an integrated and multidisciplinary approach against fraud, (ii) the structuring and complementarity of the services concerned and (iii) the establishment of coordination structures.

To do this, the PWD-R intends to continue the development of the centralised database of official records, managed by the Police and Inspections Department of the DGO3, and to expand it, to also accommodate information relating to complaints registered by the DGO3 and to official records prepared by the local police which have recourse to the regional sanctioning official. Contacts will be also made to negotiate cooperation agreements with the federal authorities and the other Regions, with a view to linking up the databases and accessing all the information available relating to offenders.

The PWD-R also intends to step up inspections for specific waste flows (wood, end-of-life vehicles, construction and demolition waste, animal by-products, etc.).

4.2. Strand 2: prevention of household and industrial waste

Preventing the emergence of waste consists of taking measures upstream of the emergence of waste, or downstream, once it has been produced, by reducing:

- o the quantity of waste, including via reuse or its preparation, or by extending the life span of products;
- o the harmful effects of produced waste on the environment and human health;
- o the content of harmful substances in materials and products.

Reuse, which consists of maintaining products for as long as possible in the economic sphere for the same purposes as their initial function, also contributes to the objective of sustainable resource management.

However, the qualitative aspect of composting at home is integrated into the prevention of waste, to the extent that it is recycled at the source and aims to minimise emissions or the presence of pollutants in the environment.

The 289 actions envisaged in strand 2 of the PWD-R project have been selected so that they can contribute to the achievement of the objectives contained in the

Regional Policy Declaration 2014-2019, in connection with the principles of the prioritisation of waste management defined at the European level.

The actions should therefore help to optimise the use of raw materials and natural resources, allow a decoupling between the production of waste and economic growth, develop innovative facilities (for reuse and recycling), fight against all forms of waste (food waste in particular) and promote reuse with the participation of social economy businesses.

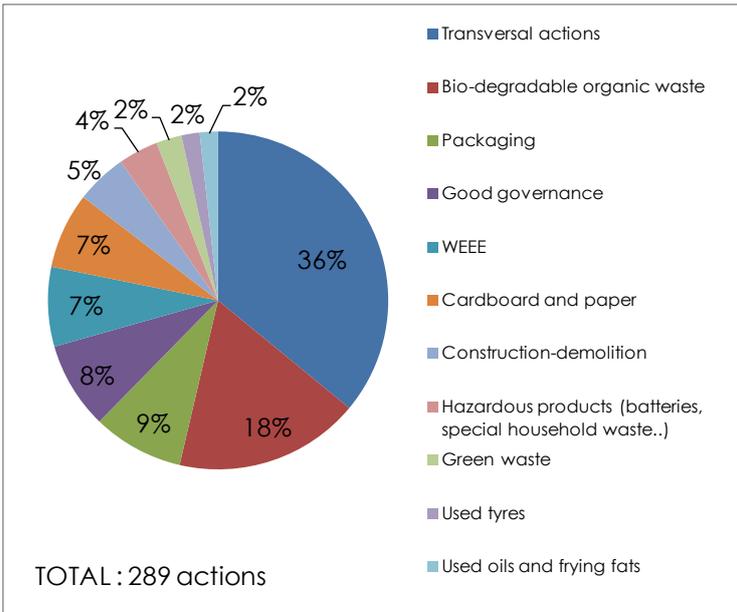


Figure 7: Breakdown of the number of actions envisaged in strand 2

Approximately one third of the actions of strand 2 are transversal actions primarily intended to strengthen research, the exemplary role of public authorities (administrations, schools, etc.) and the promotion of more sustainable methods of distribution and consumption, through virtualisation, the development of an economy of functionality, labelling and eco-construction.

These actions are also intended to raise awareness of the significant potential of reuse, increase the attractiveness of sales outlets for second hand goods, and support the development of new niche areas for reuse, for construction waste in particular.

With regards to the waste flows targeted by the programme of actions, around 20% of the actions are intended to reduce the production of bio-degradable organic waste, by combating food loss and wastage as a priority, in line with the actions and objectives pursued by the REGAL Plan³, which is designed to reduce food losses and wastage by 30% by 2025.

To achieve this, the actions planned in strand 2 target all of the links of the chain: producers, primary and secondary processors, distributors, HoReCa, schools, associations and households. Some specific actions are intended to facilitate donations of surplus food.

³ Walloon Plan to combat food losses and wastage (<http://moinsdedechets.wallonie.be/fr/je-m-engage/gaspillage-alimentaire>)

By tackling these flows of organic waste in particular, the planned measures should make it possible to substantially reduce the carbon footprint associated with the production/processing of food products.

Waste Electric and Electronic Equipment (WEEE), packaging waste and waste cardboard are three flows targeted by the prevention and reuse measures. Among these, specific examples include the actions planned to limit the distribution of advertising mail and unwanted free press (by reinforcing the use of the 'No Advertising' sticker for example), to encourage eco-responsible actions in terms of paper use (digitisation of the mailing of certain documents, etc.) to combat over-packaging (bulk sales, concentrated products, etc.) and encourage reusable/ecological packaging⁴, as well as various envisaged actions to encourage repairs for electric and electronic equipment (for example, via the RepairCafés network.).

4.3. Strand 3: management of household waste

The current assessment of Wallonia's performance in terms of selective collections and recovery of household waste suggests that around 70% of the total supply of waste is selectively collected ($\pm 50\%$ via container parks⁵, $\pm 15\%$ door-to-door collection, and $\pm 5\%$ via bottle banks and clothing banks).

Taking into account the type of waste which is still present in the waste bins for any type of disposal in Walloon households, it is immediately apparent that the organic waste flow shows considerable potential in terms of selective collection, home-based or neighbourhood composting, and recycling, since compostable organic waste or bio-fermentable waste represented $\pm 60\%$ of the quantities of general household waste in 2013. Packaging waste, which accounted for $\pm 20\%$ in the composition of general household waste, represents another interesting flow for recovery, in particular for plastics (rigid plastics, plastic film, etc.)⁶.

With regards to installations for household waste, Wallonia already has significant infrastructure: 221 container parks, 25 public sorting centres and/or regrouping/transfer centres, 8 public composting centres (linked with private centres - PPP), 2 public bio-fermentation centres with a total capacity of $\pm 85\,000$ tonnes per year, 4 public energy recovery centres (incinerators) which process ± 1 million tonnes of waste per year, and 5 public landfill centres.

The analyses and forecasts carried out in terms of available treatment capacity suggest that the PWD-R does not need to foresee an increase in landfill and incineration capacities up to 2025 (incinerator overcapacity of between 164 and 215 kilotons is anticipated). However, additional bio-fermentation capacity should be envisaged to treat the organic waste flows which will be collected between now and 2025 (additional tonnage of between 90 and 128 kilotons).

⁴ This action has already been partially achieved via the prohibition of light, single-use plastic bags, which entered into force in Wallonia on 01/12/2016.

⁵ Recycle parks in Wallonia accept 46 different waste flows, with the 6 largest flows (amounting to $\pm 90\%$ of the total tonnage) representing inert waste, green waste, bulky waste, wood waste, cardboard and metals.

⁶ The potential of selective collection for additional packaging (via the P+MC bag) is estimated to be + 12 kg/inhabitant by 2025.

These forecasts take into account the quantities of recyclable and/or combustible CIW (Common Industrial Waste) which will be redirected towards new treatment methods, following a landfill ban by 2020, as envisaged by the PWD-R.

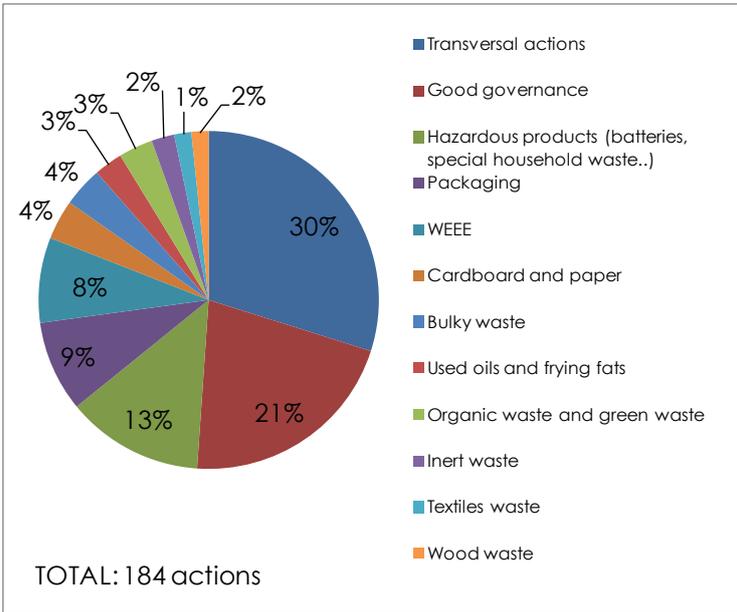


Figure 8: Breakdown of the number of actions envisaged in strand 3

Given the current performance and existing infrastructure, half of the 184 actions envisaged in strand 3 (which are focused on good governance and various transversal aspects) will be designed essentially to:

- develop more incentivised pricing structures to limit the production of general household waste and encourage sorting, observing the principle of 'true cost' and ensuring price transparency;
- optimise the operation of take-back obligations;
- maintain and consolidate the effectiveness and efficiency of existing selective collections;
- develop selective collections with the aim of reuse;
- improve waste recycling possibilities by emphasising selective sorting at the source, the quality of sorting, and the purchase of recyclable products and materials. Actions are also planned to encourage the emergence of new recycling facilities;
- optimise the attractiveness and functioning of existing container parks by enabling them to receive new waste flows which have a positive environmental and environmental assessment;

With regards to specific actions for certain waste flows, the priorities of the PWD-R include:

- making the separation of the organic portion of general household waste widespread, via composting at home or selective collecting, right throughout the Walloon territory;
- maximising the selective collection of plastic packaging waste, in particular by accepting rigid plastic packaging in PMD bags.

A large part of the actions of strand 3 are also focused on special household waste and Waste Electric and Electronic Equipment (introduction of new take-back or participation obligations, support for reuse, pilot projects for innovative collections, inspections of parallel collection channels, etc.).

With regards to management infrastructure, the PWD-R anticipates checking and annually publishing the synergies between the Walloon treatment capabilities (public and private) and the actual production of household waste, and monitoring the costs of waste management passed on to municipalities and citizens, per type of tool and treatment facility. A prospective study into the residual treatment needs should be carried out in 2020, and subsequently every 4 years.

The PWD-R lays down the principle that existing public treatment installations first need to be saturated before any subsidies for new installations are considered. In this context, installations for selective dismantling, regrouping and transfer will need to be developed/adapted to facilitate the transport of waste to treatment installations, whilst ensuring that the costs for transporting household waste are shared as much as possible and partnerships between public and private operators are strengthened.

By the same token, the actions of strand 3 aim to give priority to renovating and extending existing container parks before any new parks are constructed, with a view to receiving new waste flows.

4.4 Strand 4: management of industrial waste

Industrial waste is waste which originates from activity of an industrial, commercial or artisan nature which is not assimilated into household waste. Waste from tertiary sector activities also falls under this definition. It may also be classed as hazardous waste, non-hazardous waste or inert waste, depending on its potential impact on the environment.

Strand 4 covers the industrial waste management plan and includes 34 measures each divided into 109 actions, namely 4 measures related to good governance, 12 transversal measures and 18 measures related to specific industrial waste flows.

The selection of 9 flows⁷ included in strand 4 is the result of regulatory obligations (the analysis of waste flows is the subject of specific provisions in the regulations, such as hazardous waste, end-of-life vehicles, bio-degradable waste, etc.), as well as a desire to be coherent with the Regional Policy Declaration (to tackle rigid plastics and rare earths) and the fact that it is a work of prioritisation.

⁷ a) hazardous waste, waste oil and PCB/PCT, b) packaging waste, c) bio-degradable waste, d) end-of-life vehicles, e) construction and demolition waste, f) sediments, g) wood waste, h) plastic waste, i) rare earths.

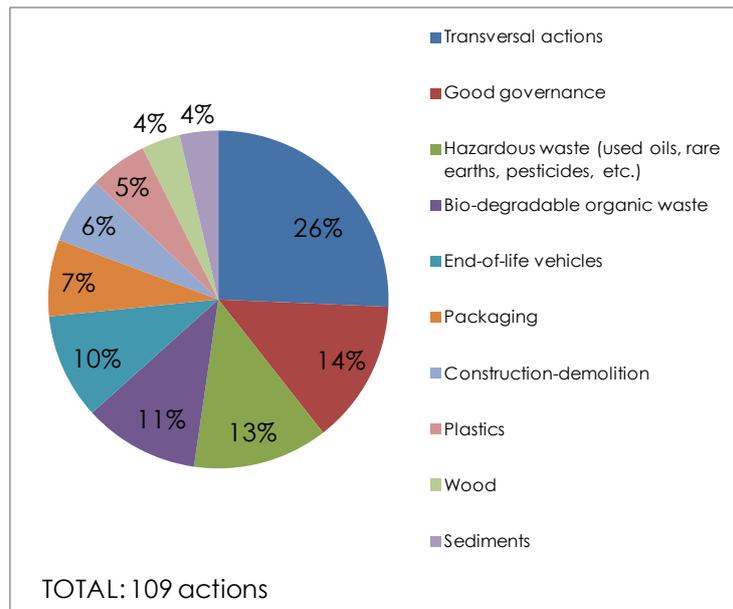


Figure 9: Breakdown of the number of actions envisaged in strand 4

The leitmotiv of the measures of strand 4, like that of the entire PWD-R, is to manage waste as a resource. Among the 34 measures of this strand, 30 are likely to have positive or very positive impacts on improving the efficient use of natural resources and consequently on the preservation of these resources.

In this strand, the Walloon Government has established the five strategic approaches which will govern the future of industrial waste management for decades to come:

- Manage waste as a resource. This vision will make it possible to facilitate and maximise the reuse and recovery of the waste in question;
- Improve the collection and use of data, to ensure high-quality reporting without an unnecessary administrative burden;
- Create markets for secondary raw materials, in order to encourage the circular economy;
- Scrap landfill centres, so as to limit them to final waste in the long term;
- Ensure high quality recycling, by encouraging research and development projects, and by ensuring the monitoring of and the effective dissemination of the best available techniques, the optimal conditions for recycling will be guaranteed.

The transversal actions, which represent around one quarter of the 109 actions of strand 4, aim essentially to:

- Bolster waste management within economic activity zones and rural zones, or for diffuse flows;
- Establish new obligations for sorting at the source, including the collection of organic materials from the largest producers;
- Maximise the fuel efficiency of energy recovery units and the heat recovery produced by these;
- Increase the production of renewable energy from wood, including wood waste;
- Encourage public-private partnerships.

Good governance actions represent around 15% of the actions envisaged in strand 4. They include in particular the actions related to the key measure, which targets the introduction of by-product and end-of-waste status concepts in Wallonia.

Good governance also includes measures relating to:

- the principles of autonomy and proximity;
- the introduction of derogations to the waste hierarchy if the overall environmental assessment is more favourable than in the event of a strict application of the hierarchy.

Finally, several measures relating to certain flows can be highlighted:

- Develop complementary facilities for the collection and treatment of hazardous waste and anticipate future needs related to rare earths and their waste;
- Encourage and oversee the recovery and recycling of bio-degradable waste and organic materials in various applications (animal feed, agriculture, horticulture, green chemistry, bio-fermentation, composting);
- Support the legal facilities for the collection and treatment of end-of-life vehicles and ensure that they continue to exceed a recovery rate of 95%;
- Encourage reuse and recycling on building sites, and in particular the selective deconstruction of buildings;
- Encourage the reuse of recycled aggregates as a substitute for natural resources;
- Improve the seaworthiness and environmental quality of waterways thanks to adequate sediment management (dredging spoil), and encourage the emergence of recovery facilities for these.

4.5. Strand 5: public cleanliness management

The inclusion into the PWD-R of a strand which is solely dedicated to public cleanliness management is a novel phenomenon compared with previous Walloon waste plans. The inclusion of strand 5 is justified by the fact that the issue of cleanliness is very closely related to that of waste. In many cases, the prevention and management of litter and fly tipping rely on mechanisms, tools and facilities which are also used for household waste and industrial waste, even if this issue presents unique features, which are taken into consideration in strand 5.

Indeed, not only does improving public cleanliness make it possible to reduce the environmental and landscape aspects associated with the presence of litter and fly tipping, it also helps to increase citizen well-being and reduce feelings of insecurity. Moreover, public cleanliness is a complex societal issue which requires the involvement of various actors (the political world, public authorities, the business world, citizens, etc.).

The general objectives pursued by the PWD-R are to achieve a clear improvement in the level of cleanliness of the public spaces in Wallonia, in such a way as to reduce the economic and social costs related to this phenomenon.

Achieving this objective requires a significant change in the mentality and behaviour of some citizens, efficient coordination of the actions to be undertaken within the territory, coherence between the regional and local policies, initiative-taking, the implementation of suitable infrastructure and the possible use of proportionate coercive measures.

The 7 strategic objectives and the 90 actions envisaged in strand 5 follow three different approaches: good governance, a transversal axis (which targets various angles of approach simultaneously) and specific themed areas (represented in the 5 pillars shown in Figure 10 below).

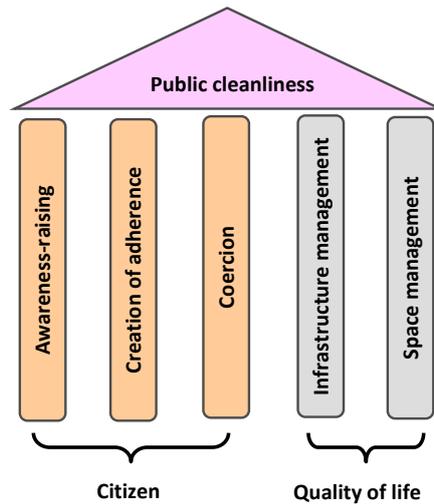


Figure 10: Thematic areas of the public cleanliness management plan (strand 5)

One third of the actions corresponds to good governance actions, another third corresponds to transversal actions and the final third corresponds to specific actions.

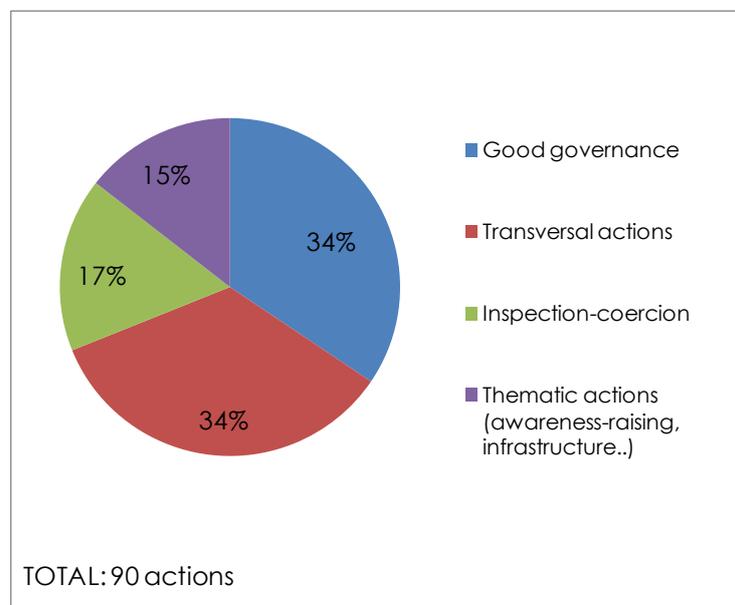


Figure 11: Breakdown of the number of actions envisaged in strand 5

The good governance actions essentially aim to execute and evaluate the effects of the operational action plan developed by the Be WaPP unit, to measure the level of public cleanliness in Wallonia, develop expertise by centralising know-how, and mobilising all the sectors concerned.

The thematic actions are primarily intended to raise awareness among certain target audiences (schoolchildren, newcomers, sportspeople, etc.) and those responsible for uncleanliness (via appropriate communication campaigns), and to mobilise citizens (e.g. through the annual Big Spring Clean initiative or the granting of subsidies enabling support for various initiatives), checking up on and combating anti-social acts (e.g., increasing the number of police officers) and finally improving the availability of infrastructure (e.g. encouraging the purchase of waste bins, ash trays, street vacuum cleaners).

The transversal actions envisaged in strand 5 are intended to support local authorities, develop specific approaches for certain target groups or certain types of places (e.g. identifying black spots which require particular measures) and encourage prevention from the moment of production and distribution (at the level of packaging design in particular).

Annex 1: Inventory of measures

Strand 1: Framework

1. Transform DGO3 into a genuine data source
2. Develop administrative simplification, in particular by systematically separating the information to be sent from the information made available on request
3. Continue, consolidate and improve the collection and use of data relating to industrial waste.
4. Develop a computer application and a database for flows which are not subject to a declaration pursuant to the tax decree
5. Improve the traceability of industrial waste
6. Implement a monitoring centre for costs associated with waste management
7. Adjust taxes to achieve environmental objectives
8. Centralise information relating to waste fraud
9. Strengthen surveillance by means of a better structure
10. Sustain and intensify collaboration between public administrations
11. Strengthen collaboration between the investigative and disciplinary bodies
12. Revise the "environmental crime" decree and its implementation
13. Combat violations in container parks
14. Combat waste theft and illegal facilities
15. Strengthen inspections of wood waste treatment operations
16. Professionalise the end-of-life vehicle processing sector
17. Strengthen inspections of construction and demolition waste operations, including excavated earth
18. Strengthen inspections of activities related to animal by-products

Strand 2: Prevention

1. Relay transversal requests from Wallonia to the Federal authority and the Wallonia-Brussels Federation
2. Relay the concerns of the Region to the Federal authority by priority channels
3. Ensure a link between research and the environment
4. Integrate the aspects related to health in the area of qualitative waste prevention
5. Support local authorities in their waste prevention and eco-consumption missions
6. Draw on the waste prevention achieved within schools to educate pupils, for example
7. Encourage digitisation and promote the economy of functionality
8. Establish a framework agreement with the distribution sector
9. Support businesses in their waste prevention policies
10. Organise the strategies for communication, information and awareness raising
11. Improve knowledge relating to food losses and wastage
12. Undertake food loss reduction actions at the production level
13. Implement actions to combat food loss at the food industry level
14. Facilitate donations of surplus food
15. Manage food waste in the HoReCa sector and small-scale food distribution more effectively
16. Take action in school canteens to reduce food wastage there
17. Raise awareness on food wastage among households
18. Encourage crushing and high-quality composting at home and support neighbourhood composting actions
19. Limit the distribution of unwanted advertising mail
20. Limit the distribution of unwanted free press
21. Encourage the purchase of office paper according to environmental criteria

22. Foster the eco-responsible consumption of office paper
23. Encourage eco-design for packaging
24. Encourage reusable packaging and combat over-packaging
25. Encourage beverage distribution systems which produce limited amounts of packaging waste
26. Develop the prevention and reuse of electric and electronic equipment
27. Encourage the repairing of electric and electronic equipment and bulky items
28. Encourage the use of rechargeable batteries and battery-free products and equipment
29. Promote alternatives to hazardous products
30. Strengthen the prevention measures in the standard specifications for 'Qualiroutes' and Buildings 2022
31. Encourage eco-construction by limiting waste
32. Limit spoil in the context of the "balanced backfill-spoil" project
33. Establish standards for the deconstruction of buildings
34. Improve tyre management
35. Promote bio-degradable oils
36. Continue the framework agreement currently in place with RESSOURCES
37. Establish and support partnerships between social economy businesses and local authorities
38. Increase the attractiveness of sales outlets for second-hand goods
39. Conduct communication campaigns regarding actions which are favourable for reuse
40. Communicate to businesses the modalities for getting rid of reusable goods (recoverable items and Waste Electric and Electronic Equipment)
41. Analyse and propose the setting of objectives for reuse in legislation
42. Support the development of new niches for reuse, and help them to develop
43. Strengthen the provisions in the area of reuse in the regulations relating to Waste Electric and Electronic Equipment
44. Support the development of facilities for the reuse of construction waste

Strand 3: Household waste

1. Refine the regional policy in terms of 'true cost'
2. Ensure good governance of the take-back systems for certain waste
3. Split the obligations applicable to household waste and professional/industrial waste
4. Encourage the implementation of management plans for major crises due to bad weather and pandemics
5. Improve the recycling possibilities for household waste
6. Create a framework which is favourable to innovation in terms of selective collections
7. Improve the recycling possibilities for household waste and similar waste through R&D
8. Put in place a combination of coherent regional instruments with the aim of encouraging the recycling of household waste
9. Encourage the sorting and recycling of household waste
10. Optimise the functioning of container parks
11. Minimise the risks associated with the waste collection profession
12. Ensure the separation of the organic portion of general household waste in the Walloon territory
13. Continue the selective collection of green waste, at the least through container parks, with the aim of directing them towards composting
14. Continue to develop the selective collection of glass
15. Continue to develop the selective collection of PMD and make P+MD more widespread

16. Continue to develop the selective collection of cardboard
17. Optimise the reuse and recycling of bulky waste in the networks of container parks
18. Optimise selective collections, sorting, reuse and recycling of bulky waste through different collections
19. Increase the collection rates of WEEE
20. Maintain Wallonia's position at the European forefront in the area of the selective collection and recycling of batteries
21. Encourage the selective collection of special household waste by making producers responsible
22. Improve the waste management of care products by households
23. Continue the selective collection of other hazardous waste produced by households (excluding special household waste)
24. Improve the opportunities for inert waste collected selectively in container parks
25. Develop in Wallonia the recovery of waste wood collected in container parks
26. Encourage the selective collection of oils and frying fats
27. Continue to develop the selective collection of textiles
28. Oversee the selective collection of out-of-date or unused medicines
29. Ensure regional good governance for investment in waste management infrastructure
30. Optimise the treatment of waste in treatment installations
31. Harmonise practices in waste treatment tools at the regional level
32. Standardise the specifications of container parks
33. Objectivise the conditions for extending and locating container parks

Strand 4: Industrial waste

1. Decide to implement the Walloon regulatory framework relating to the concepts of by-products and the end-of-waste status of waste
2. Create a concertation platform between DGO3 and NEXT
3. Conduct a dynamic policy of cross-border transfers
4. Perfect the decision-making tool for derogations to the waste hierarchy
5. Measure the effects of the sorting policy in businesses
6. Encourage reuse in industry
7. Develop a materials exchange
8. Encourage reuse in industry by means of incentive mechanisms
9. Bolster waste management within economic activity zones and rural zones, or for diffuse flows
10. Evaluate the actual use of inter-municipal container parks by SME/VSEs
11. Create new obligations for sorting at the source including the collection of organic materials from the largest producers
12. Ensure optimal energy recovery of industrial waste
13. Maximise the heat recovery produced by energy recovery units
14. Find structural facilities for the recovery of wood B and develop facilities for wood A
15. Encourage public-private partnerships
16. Consolidate and develop the selective collection network for certain hazardous waste
17. Develop complementary treatment facilities for hazardous waste
18. Develop the recycling of industrial packaging
19. Encourage the recycling of bio-degradable waste in applications with high added value (animal feed/green chemistry)
20. Oversee in a simple and clear manner the use of organic materials in agriculture and horticulture
21. Supplement the regulatory framework relating to composting and bio-fermentation installations
22. Establishment and exploitation of a regional nitrogen assessment
23. Inform consumers about the legal facilities for end-of-life vehicles

24. Provide a real value to the destruction certificate for end-of-life vehicles
25. Stabilise the overall recovery rate for end-of-life vehicles to at least 95%
26. Increase reuse and recycling on building sites
27. Encourage the reuse of recycled aggregates
28. Ensure a sustainable and lasting management of sediment
29. Clarify the classification of various categories of wood waste
30. Develop the recovery of ash from wood-fired boilers
31. Improve logistics for the selective collection of plastics
32. Development of new recycling facilities in Wallonia for post-consumer plastics
33. Support improvement projects for biosource plastics
34. Anticipate the impacts of technological developments linked to critical raw materials in general, and rare earths in particular, and their collection and treatment

Strand 5: Public cleanliness

1. Implementation, execution and follow-up of an operational plan relating to the improvement of public cleanliness
2. Draw up an assessment of regional public cleanliness and ensure the follow-up of this assessment
3. Identify and budget the studies to be carried out at the regional level in terms of cleanliness
4. Develop expertise in the area of cleanliness
5. Establish agreements with the aim of mobilising more 'sectors' in the issue of cleanliness
6. Adapt the regulatory framework with the aim of encouraging an improvement in public cleanliness
7. Introduce a ban on providing single-use plastic bags
8. Include public cleanliness management in urban planning concepts
9. Communicate with a regional visual identity
10. Raise awareness among the responsible groups regarding anti-social behaviour and move from awareness to a lasting change in behaviour
11. Educate and raise awareness among citizens (from a young age)
12. Mobilise citizens every year by means of a large-scale project, so as to increase their involvement in public cleanliness
13. Encourage and bolster civic initiatives and/or local authority initiatives and strengthen support for improving public cleanliness
14. Use inspection and coercion measures
15. Support municipalities in identifying those responsible for fly tipping and litter
16. Organise consultation between coercion actors
17. Strengthen social control
18. Improve the availability of infrastructure in strategic locations
19. Facilitate the acquisition of cleaning equipment
20. Improve the quality of life of citizens
21. Support those responsible for parks and other frequented natural spaces in a "cleanliness" process
22. Make businesses responsible for improving cleanliness in their surroundings
23. Encourage and bolster participation and exchange between the various actors
24. Provide support to local authorities in obtaining cleanliness management tools
25. Address public cleanliness via the targeted approach of specific target groups
26. Elaborate a cleanliness approach which is specific to certain key locations, as well as to black spots
27. Support projects in the area of public cleanliness
28. Encourage prevention at the level of production and distribution