REGIONS FOR RECYCLING

MUNICIPAL SOLID WASTE DATA

R4R PROJECT SCOPE - SYNTHESIS

AUGUST 2013

R4R: COMPARING DATA TO IMPROVE RECYCLING

While all European territories are subject to the same legislation, recycling performances are very diverse within the EU. However, unbiased comparisons are difficult to establish due to the fact that each territory often uses its own method and scope.

To make comparisons more consistent, R4R's partners have been working during one year to compare their reporting system and design a common method for presenting waste data; this common method will be implemented in an online tool that will allow any local or regional authority to compare and analyse its recycling performances.

The result of this work is fully explained in the document 'MUNICIPAL SOLID WASTE DATA – R4R project scope'[1] and shortly described in this document.

A COMMON SCOPE FOR MUNICIPAL WASTE

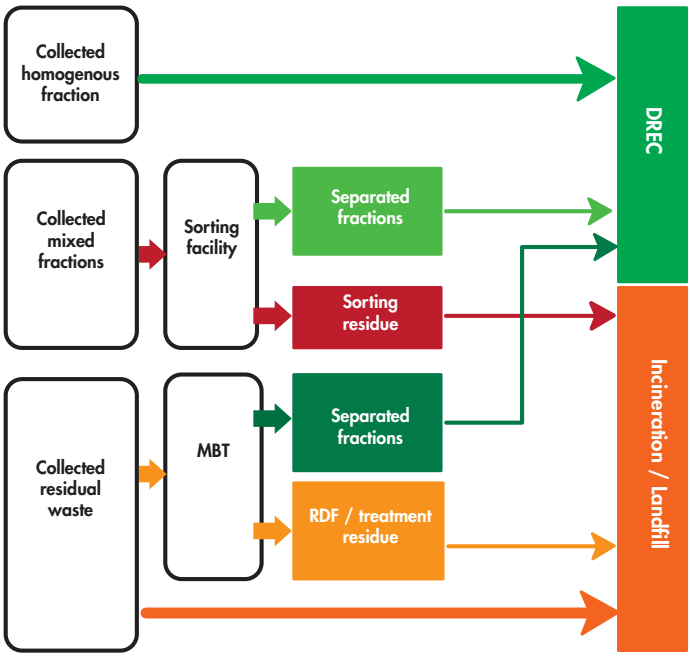
For the R4R project MSW is defined as: all the waste generated by households (regardless who collects it) plus the non-household waste collected by or on behalf of the municipalities plus similar non-household WEEE and batteries collected by or on behalf of accredited bodies.

Several fractions are excluded, such as construction and demolition waste, end-of-life vehicles, water treatment sludge and sewage sludge.
A common framework of 16 waste fractions was also determined.

DESTINTATION RECYCLING

One difficulty faced by the partnership was the inconsistent use of "sorting rate" or "recycling rate" among the 13 partners. Recycling implies separating the different materials into homogeneous fractions, which is done either by the citizens ("separation at the source") or by mechanical sorting centres. The second solution entails a contamination rate that is or is not taken into account into the statistics depending on the method in use. Moreover, data about the quantities effectively recycled in recycling plants (glass factories, paper mills…) are generally not available for local and regional authorities, especially when recycling is done abroad.

Therefore, R4R partners have agreed to define a new term: **"DREC"**, which stands for 'Destination RECycling' and includes all amounts sent to recycling facilities. The following flow chart shows the different flows considered as "DREC": homogenous fractions collected at the source and sent to recycling, but also the separated fractions that are an output of a sorting facility and an MBT installation and go to recycling. Sorting and treatment residues are not included.



In general, DREC includes:

- Municipal waste streams separated at source & collected separately (one homogeneous waste stream not mixed with other waste streams[2], collected door-to-door, via civic amenity sites…) with the purpose of recycling.
- The output from sorting facilities (including bulky waste sorting centres) going directly to facilities for recycling.
- The output from MBT installations going directly to facilities for recycling (organic fraction sent to composting, material fractions sent to recycling…).

Biological treatment (including composting and anaerobic digestion) may be classified as recycling when compost (or digestate) is used on land or for the production of growing media[3].

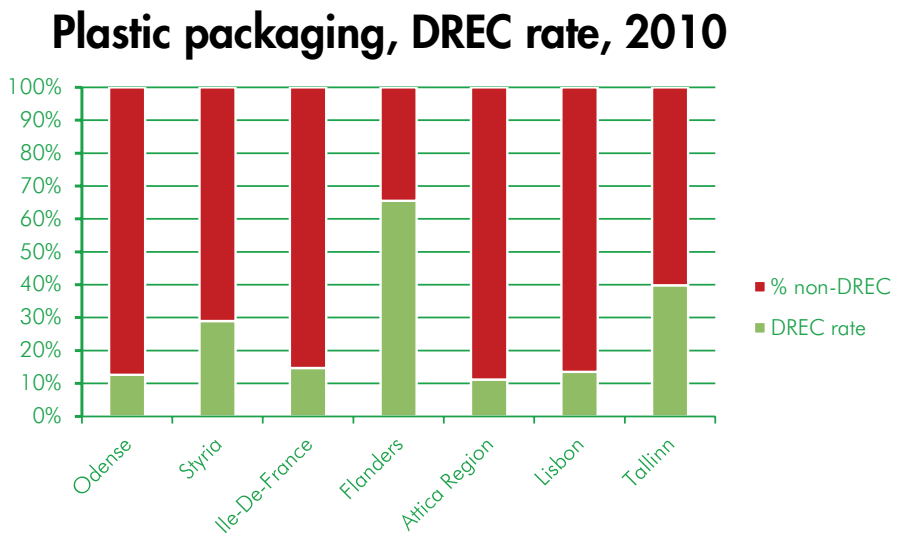
1 http://www.regions4recycling.eu/upload/public/Reports/R4R_municipal-solid-waste-scope.pdf
2 One of the following waste streams: P&C,metal,glass,plastic,multilayer packaging,bio-waste,wood,textiles,tyres,used cooking oils,mineral oils,WEEE,batteries,medicines,(other) hazardous waste.
3 Green Paper on the management of bio-waste in the European Union (COM/2008/0811 final)

INDICATORS AND ONLINE TOOL

This method ensures a common scope, a consistent terminology and the exclusion of contaminated fractions from the calculation of recycling performances. Partners have designed several indicators allowing comparing and analysing their data, allowing to see how fractions are sorted out, the quantities sent to recycling or the potential remaining in residual waste.

In the R4R online tool (under development), regions will be able to report data about municipal solid waste following the R4R methodology. The indicators (such as the DREC rate) will be calculated to compare performances between regions.

Which regions have high recycling rates and where is improvement possible? Have a look at the following graph[4]:



This graph shows plastic packaging waste sent to recycling (i.e. sorted at the source or going out sorting centres) in green. The parts in red represents plastic packaging remaining in residual waste, in contaminated fractions out of sorting facilities, as well as sorted fractions that are still sent to incineration or landfill (possibly due to contamination).

In some regions plastic packaging is collected separately (plastic not mixed with other materials), in other regions mixed packaging waste is collected and sorted out in a sorting facility. It may also be an output of a sorting facility for bulky or residual waste or the output of an MBT installation. To objectively compare performances, it is essential to include all these different options in "DREC".

The online tool will also allow to go beyond comparisons: users will be allowed to identify comparable territories (i.e. with similar local specificities) and identify the instruments in use in territories with high performances.

R4R is a 3-year Interreg IVC project (January 2012-December 2014), bringing together the following partners: ORDIF, ACR+, OVAM, Odense Waste Management, Lisbon City Council, Exfini Poli, Limerick/Clare/Kerry Region, Federal State Government of Styria, Tallinn City, Waste Agency of Catalonia (ARC), Municipality of Sofia, City of Zagreb, Ilfov County Council. The main objectives are to ease comparisons among European territories in order to optimise data collection and benchmark recycling performances, as well as to combine them with legal, technical, economical and communicative waste management tools. This will allow the identification of effective practices to optimise municipal waste recycling.

4 Data are provisionally. Composition analysis of residual waste is necessary to calculate this indicator.

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www.regions4recycling.eu