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SCREENING OF WASTE MANAGEMENT PERFORMANCE OF EU MEMBER STATES

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BiPRO

Beratungsgesellschaft für integrierte Problemlösungen

In cooperation with



CLIENT European Commission
Directorate-General
Environment
Unit C.2 – Waste Management
Avenue de Beaulieu 29, BU29 - 06/037
1160 Brussels
Belgium

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CONSULTANT BiPRO GmbH
Grauertstraße 12
81545 Munich
Germany

CONTACT BiPRO GmbH
Telephone +49-89-18979050
Telefax +49-89-18979052
E-mail mail@bipro.de

Website <http://www.bipro.de>

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1 Executive summary

Implementation of EU waste legislation shows large differences in the EU Member States especially with regard to municipal waste management. Major discrepancies prevail particularly in the implementation and application of the Waste Framework Directive and proper transposition of EU requirements into national legislation.

The waste management performance of all EU Member States was subject to screening to identify those Member States with the largest implementation gaps, in particular in relation to municipal waste management. For screening the main elements and legal requirements stemming from EU waste directives (mainly from the Waste Framework and the Landfill Directive) were considered for the design of suitable criteria. These core elements comprise the practical implementation of the waste management hierarchy, application of economic and legal instruments to move up the waste hierarchy, sufficiency of treatment infrastructure and quality of waste management planning, the fulfilment of targets and infringement procedures. These elements were assessed by 18 criteria for each Member State taking into account information sources at EU, national or regional level. Latest available statistical data and data of former years for comparison of development within a country were extracted from the EUROSTAT database. References comprised reports published by the European Commission, the European Topic Centre on Sustainable Consumption and Production, internal working documents of EUROSTAT and the EU Commission as well as national/regional Waste Management Plans. Where available also Waste Prevention Programmes were screened.

The screening results confirmed the assumption of large differences within the EU-27 with regard to treatment of municipal waste, compliance with the WFD and Landfill Directives and application of legal or economic instruments as well as planning quality.

For each criterion two, one or zero points could be achieved, leading to maximum points of 42 for all criteria. The methodology includes weighting of results for three selected criteria related to the application of the treatment options recycling, energy recovery and disposal of municipal waste.

The screening showed three groups differing in performance as follows:

- A first group includes the ten **Member States** that are **performing above average** achieving between 31 and 39 points. The group includes AT, BE, DK, DE, FI, FR, LU, NL, SE and UK. The Member States are above average performing as regards the majority of key elements essential for good waste management – especially with regard to waste treatment, status and development of recycling of municipal waste, existence of restrictions or bans and total typical charges for landfilling municipal waste. All of these countries provide for complete collection coverage, sufficient treatment capacity and fulfilment of the targets related to biodegradable waste going to landfills. Further improvements in these Member States could include the extended use of pay-as-you-throw systems which for most only reach regional coverage. Minor deficits were identified with regard to the planning of future capacities and the compliance with technical requirements. This group of MS especially faces problems with decoupling waste production from growing consumption. Furthermore, not all MS of this group have already implemented waste prevention in environmental policies.

- The second group consists of five **average performing Member States** achieving an overall score between 19 and 25 points, consisting of ES, HU, IE, PT and SI. This group of Member States shows fairly deficits: not all households are connected to waste collection, planning of future treatment capacity is not sufficient and waste prevention yet is not on the political agenda. Furthermore, these MS show below average performance in the increase of recycling of municipal waste, treatment of municipal waste in accordance with the waste hierarchy, and the MS do not make sufficient use of economic and legal instruments to move waste up the hierarchy. Two MS of this group still need to achieve full compliance of their non-hazardous waste landfills, including fulfilment of the targets related to biodegradable waste going to landfills. The deficits in waste management are reflected by ongoing infringement procedures and court cases for almost all MS of this group.
- The third group includes the twelve **Member States with the largest implementation gaps** achieving an overall score between 3 and 18, including BG, CY, CZ, EE, GR, IT, LT, LV, MT, PL, RO and SK. This group of Member States shows severe deficits within all criteria including waste prevention policies (only PL has included a WPP chapter in the current WMP); the below average performance is also reflected in the lack of applying economic and regulatory instruments to divert waste from landfill and insufficient adaptation of existing infrastructure to EU requirements. These Member States are highly depending on landfilling, other treatment options are rarely in place. Landfilling is generally not restricted or banned for municipal waste, and therefore still a large amount of biodegradable waste is disposed of in landfills. In half of these MS not all households are served by municipal waste collection. Four MS have not increased at all the recycling of municipal waste, and another four could achieve only a moderate increase in recycling from 2007 to 2010. Furthermore, undercapacity of treatment is most likely in half of these MS. None of these MS has included a forecast on waste treatment and capacity in their WMP. If a forecast is included, it is limited to estimations of waste generation.

Results for MS with the largest implementation gaps

- **GR** (overall score of 3) showed the largest implementation gaps. Deficits are found in all areas of the management of municipal waste. Points could be achieved only for the decoupling of waste generation (which however might be based on economic crisis) and for a reported full collection coverage of municipal waste. For all other criteria the lowest score of 0 had to be applied.
- **BG** (overall score of 8) in the majority of criteria reached 0 points. Better scores were reached for decoupling, achieving the targets related to biodegradable waste sent to landfills and related ratio as well as for a low number of infringements and no cases going to court.
- **MT** (overall score of 9) also shows deficits in all kind of waste management issues. Points were achieved for five criteria (increase of recycling of municipal waste, full collection coverage, compliance of non-hazardous waste landfills as well as low number of infringement procedures and no court cases).
- **LT** (overall score of 9) has major constraints in fairly all issues of waste management. Exceptions are the existence of restrictions for landfilling municipal waste and the application of pay-as-you-throw systems as well as a moderate increase in recycling of municipal waste from 2007 to 2010. Also for LT no infringement procedures or court cases are reported. Further, the waste generation of LT is not growing as fast as the consumption, leading to further points in scoring.

- **CY** (overall score of 11) in the majority of criteria reached zero points. However, average or good scoring could be achieved for an average recycling rate, a considerable increase of recycling of municipal waste, the quality of forecast on waste generation included in the WMP and for full collection coverage. Further neither infringements nor court cases have been issued.
- **RO** (overall score of 11) for the majority of criteria shows major deficits in waste treatment according to the hierarchy and compliance with the Landfill Directive, the application of economic and legal instruments and waste management planning as well as prevention policy. However, better scores are achieved for decoupling waste generation from consumption, a moderate increase of recycling of municipal waste from 2007 to 2010, good information on waste generation and referring treatment capacity and for the quality of forecast of future waste generation and for an average rate of biodegradable waste disposed of at landfills, compared to other MS. Neither infringements nor court cases have been reported.
- **LV** (overall score of 14) achieved a good or average score for nine criteria. Major deficits comprise landfilling being the major treatment option including a high share of biodegradable waste going to landfills, insufficient collection coverage and the absence of pay-as-you-throw-systems for municipal waste. Further, the quality of forecast on waste generation and referring capacity is not sufficient. Waste prevention is not yet an issue on the political agenda. Nevertheless, LV got high scores for a relatively low waste generation compared to consumption, for good information on waste generation and referring treatment capacity and for neither having infringement procedures nor court cases. All non-hazardous waste landfills are reported to be compliant.
- **IT** (overall score of 15) reached average or good scores for half of the criteria (nine criteria). Deficits in waste management performance were identified and related to all criteria on waste management planning, non-compliant landfills for non-hazardous waste and decrease of municipal waste recycling in the last years. No national statement was submitted on request by the competent authority. Nevertheless, information extracted from the Implementation Reports and Awareness Raising Report confirmed that in certain regions of Italy undercapacity exists and can be expected for future as well. Further, zero points applied as no decoupling of waste generation is reached and no WPP or equivalent is in place. The situation is mirrored by the highest number of infringement procedures regarding the WFD and Landfill Directives which were all brought to court. However, IT is performing average in several aspects (e.g. energy recovery and recycling, adoption of restriction for landfilling of municipal waste, introduction of PAYT, average ratio of biodegradable waste going to landfills). The full score was applied for the total typical charge for landfilling municipal waste which is above the EU average, for the fulfilment of the reduction target on biodegradable waste going to landfills and for a reported full coverage of collection of waste from households. It has to be noted that there are large divergences between the northern and the southern part of Italy. As the northern part is well performing in several issues, the south has large problems, including problems of waste collection and high dependency on landfilling.
- **EE** (overall score of 17) reached average or good scores for twelve of 18 criteria. Below average performance was identified as regards recovery and disposal rates, development of recycling from 2007 to 2010, collection coverage, forecasting in the WMP as well as the absence of waste prevention policy. Average scores were achieved for the amount of municipal waste recycled, existence of restrictions for landfilling municipal waste, total typical charges for landfilling and the

introduction of regional PAYT systems, low number of infringements and court cases as well as quality of projections for future waste generation and treatment. In addition, the rates of biodegradable waste sent to landfill are average. The full score was applied for decoupling, available treatment infrastructure, compliance of non-hazardous landfills and fulfilment of the reduction targets of the Landfill Directive.

- **SK** (overall score of 17) got average or good score for the majority of criteria. Major deficits include the below average performance in municipal waste treatment (low recycling and high disposal rates), a low typical charge for the disposal of municipal waste into landfills and deficits in future planning. A WPP or equivalent is not yet in place. For several aspects Slovakia reached a medium score including rate of recovery, moderate increase of recycling from 2007 to 2010, existence of restrictions for landfilling municipal waste, the introduction of regional PAYT, compliance of existing landfills for non-hazardous waste, rate of biodegradable waste going to landfills and low number of infringements and court cases. The full score was allocated for decoupling, collection coverage and available treatment capacity and fulfilment of reduction targets for biodegradable waste going to landfills.
- **CZ** (overall score of 18) could achieve average or good score for eleven criteria. Deficits are found with regard to missing waste prevention policies, low recycling rates of municipal waste and for not having in place restrictions for landfilling municipal waste. Also the WMP does not include any information on future waste generation and treatment capacity. Further, the reduction targets on biodegradable waste going to landfills are not met; in comparison with the other MS larger amounts of this waste are landfilled. For several aspects a medium score was reached (average recovery and disposal rate, medium total charge for landfills, regional PAYT systems, compliance of landfills and infringements procedures). The full score was allocated for decoupling of waste generation from consumption, a considerable increase of recycling of municipal waste, complete collection coverage for household waste and available treatment capacity. No infringement procedures were brought to court.
- **PL** (overall score of 18) reached average or good scores for the majority of criteria (twelve criteria). Performance below average was identified with regard to the recovery rate, collection coverage as well as missing future planning on treatment capacity and forecasting. Further, the targets of the Landfill Directive are not met and in comparison with other MS larger amounts of biodegradable waste are sent to landfill. Recycling, however, is a growing treatment option, and an average score is achieved. Landfilling rate is also scored average. Further, restrictions for the landfilling of municipal waste were introduced, medium costs for landfilling are charged and PAYT systems are implemented on a regional level. The vast majority of non-hazardous landfills comply with the requirements of the Landfill Directive. Only one infringement procedure was issued. In addition, waste generation is not growing as fast as the consumption indicator. Full score was given for a chapter on waste prevention included in the WMP, a considerable increase in recycling of municipal waste, available treatment capacity and the absence of court cases.

Within the group of these twelve MS with the largest implementation gaps, it can be clearly distinguished between six MS showing major deficits for all important elements of waste management and six MS with a better performance.

GR, MT, BG, CY, LT and RO: The MS of this group show the highest landfill rates within EU 27. In most

of these MS a very high amount of biodegradable waste is still landfilled, for some MS even with growing rates. Some of these MS could only achieve better scores for the absence of infringement procedures and related cases, for the decoupling indicator, for moderate to significant increase of recycling municipal waste and for reported full coverage of households to collection systems.

IT, LV, CZ, SK, EE and PL: This group is formed by MS which show deficits in waste management especially regarding the waste management planning of future waste generation and treatment capacity as well as waste prevention. Further, still a high amount of biodegradable waste is landfilled. Also half of these MS do not have a collection system for municipal waste covering all households. Nevertheless, better performance is given for treatment of waste in accordance with the waste hierarchy – the MS are not fully depending on landfilling anymore and start with the establishment of an alternative infrastructure (except of LV which has one of the highest disposal rates within EU 27 and high shares of biodegradable waste). Four Member States of this group could achieve moderate to considerable increase in recycling of municipal waste. The existing non-hazardous landfills are mostly compliant with the EU requirements. Those MS apply legal and economic instruments to divert municipal waste from landfills. In general, they have introduced first restrictions for landfilling municipal waste, they apply a medium level of typical charges for landfilling MSW and they have implemented PAYT at regional level. Further, this group provides proper information on actual waste generation and existing treatment capacity in their WMPs.

Further it shall be noted that HU and IE are already counting for the average performing Member States but both achieve a score of 19, which means they only reached one more point in comparison to CZ and PL.

- **HU** especially shows deficits with regard to the application of restrictions for landfilling municipal waste, low total typical charges for landfilling municipal waste, insufficient collection coverage, available treatment capacity and all aspects with regard to waste management planning (currently, no national or regional WMP is in place) as well as waste prevention policy.
- **IE** has in particular problems with the fulfilment of the reduction targets for biodegradable waste going to landfills, insufficient collection coverage and decoupling. This is reflected by a high number of infringement procedures that were issued and brought to court.

However, both HU and IE show in particular average performance as regards the usage of treatment options in accordance with the waste hierarchy. The MS are not solely depending on landfilling, and recycling is a growing option.

*As a result of the screening of waste management performance it is proposed to cover the following Member States **BG, CZ, GR, EE, IT, LT, LV, PL, RO and SK** with the particular support within this contract (assessment of problems and reasons, preparing roadmaps, seminars with competent authorities). For **IT** regional focus should be the southern part. **CY and MT** and probably also **IE and HU** should be addressed by other measures outside of this project (e.g. pilot projects etc.)*

Table 1: Overview of scoring of each criterion and overall score for each Member State (order according to achieved overall score)

EU MS	Criterion																		Overall score
	1.1 Decoupling	1.2 WPP	1.3 Amount of municipal waste recycled	1.4 Amount of municipal waste recovered (energy recovery)	1.5 Amount of municipal waste disposed	1.6 Development of municipal waste recycling	2.1 Existence of ban/restrictions for the disposal of municipal waste into landfills	2.2 Total typical charge for the disposal of municipal waste in a landfill	2.3 Existence of pay-as-you-throw (PAYT) systems for municipal waste	3.1 Collection coverage for municipal waste	3.2 Available treatment capacity for municipal waste	3.3 Forecast of municipal waste generation and treatment capacity in the WMP	3.4 Existence and quality of projection of municipal waste generation and treatment	3.5 Compliance of existing landfills for non-hazardous waste	4.1 Fulfilment of the targets related to biodegradable municipal waste going to landfills	4.2 Rate of biodegradable municipal waste going to landfills	5.1 Number of infringement procedures – WFD and Landfill Directives	5.2 Number of court cases – WFD and Landfill Directives	
AT	0	2	2D	2D	2D	2	2	1	2	2	2	2	2	2	2	2	2	2	39
NL	0	2	2D	2D	2D	2	2	2	2	2	2	2	2	2	2	2	2	2	39
DK	0	0	2D	2D	2D	2	2	2	2	2	2	2	2	2	2	2	2	2	37
DE	1	0	2D	1D	2D	2	2	2	2	2	2	2	1	2	2	2	2	2	36
SE	1	2	2D	2D	2D	2	2	2	1	2	2	0	0	1	2	2	2	2	35
BE	1	2	2D	2D	2D	2	2	2	1	2	2	0	0	2	2	2	1	1	34
LU	0	0	2D	2D	2D	2	2	2	1	2	2	0	0	2	2	2	2	2	33
UK	1	2	2D	1D	2D	2	0	1	1	2	2	2	1	1	2	1	2	2	32
FI	1	2	1D	2D	1D	0	1	1	2	2	2	2	1	1	2	2	2	2	31
FR	1	2	1D	2D	2D	1	1	1	1	2	2	2	1	1	2	2	1	1	31
SI	2	0	2D	1D	1D	2	1	2	2	0	2	0	0	0	2	1	1	2	25
ES	2	0	1D	1D	1D	1	0	1	1	2	2	0	0	1	2	1	1	1	21
PT	0	2	0	2D	1D	1	0	0	0	2	2	2	2	2	0	0	1	1	21
HU	1	0	1D	1D	1D	2	0	0	1	0	0	0	0	2	2	1	2	2	19
IE	0	2	1D	1D	1D	1	1	2	1	0	2	2	0	2	0	0	0	0	19
CZ	2	0	0D	1D	1D	2	0	1	1	2	2	0	0	1	0	0	1	2	18
PL	1	2	1D	0D	1D	2	1	1	1	0	2	0	0	1	0	0	1	2	18
EE	2	0	1D	0D	0D	0	1	1	1	0	2	0	1	2	2	1	1	1	17
SK	2	0	0D	1D	0D	1	1	0	1	2	2	0	0	1	2	1	1	1	17
IT	0	0	1D	1D	1D	0	1	2	1	2	0	0	0	0	2	1	0	0	15
LV	2	0	0D	0D	0D	1	1	1	0	0	2	0	1	2	0	0	2	2	14
CY	0	0	1D	0D	0D	2	0	0	0	2	0	0	1	0	0	0	2	2	11
RO	2	0	0D	0D	0D	1	0	0	0	0	2	0	1	0	0	1	2	2	11
LT	2	0	0D	0D	0D	1	1	0	1	0	0	0	0	0	0	0	2	2	9
MT	0	0	0D	0D	0D	2	0	0	0	2	0	0	0	2	0	0	1	2	9
BG	2	0	0D	0D	0D	0	0	0	0	0	0	0	0	0	2	1	1	2	8
GR	1	0	0D	0D	0D	0	0	0	0	2	0	0	0	0	0	0	0	0	3

Note: Scores for the criteria 1.3, 1.4 and 1.5 (marked with 'D') are doubled for overall scoring.

2 Background and objectives

Proper legal implementation, application and practical enforcement of EU waste legislation are key priorities of EU environmental policy, in order to comply with the obligation of the EU Commission to ensure and oversee the application of EU legislation according to the Treaty of the European Union (TFEU). Implementation of EU waste legislation, however, shows large differences in the EU Member States. In particular, there exist major discrepancies in the implementation and application of the Waste Framework Directive¹ (WFD), defining the basic principles of environmentally sound management of waste. In addition, the transposition of EU requirements into national legislation or the definition of sustainable waste management policy does not ensure environmental sound management in actual practice in part of the EU Member States.

This wide disparity between Member States prevents the EU economy as a whole, and its recycling and waste management industry in particular, from reaping the benefits of proper implementation.

The Report on the Thematic Strategy on the Prevention and Recycling of Waste², published in 2011 by the European Commission, states that the proper implementation and enforcement of the EU acquis remains a priority and related monitoring at Member States level will be performed. In this context, especially relevant provisions of the WFD and compliance with the targets set out by EU waste legislation will be closely observed. In addition, the Commission committed itself to support Member States in developing appropriate strategies and policies. For the improvement of the state of implementation and related waste management, additional measures need to be taken at EU level, taking into account the development of proactive verification procedures and an early warning system on the basis of the national waste management plans. Against the background of still increasing waste amounts, deficits in waste management and vast discrepancies in Europe, the European Commission has defined the objective to strengthen the proper implementation of EU waste legislation, support waste prevention policies and to move towards a European recycling society.

The project '*Support to Member States in improving waste management based on assessment of Member States' performance*' aims at assisting the European Commission in the practical implementation of the conclusions of the 'Report on the Thematic Strategy on the Prevention and Recycling of Waste'. Further, the project aims at contributing to the improvement of the waste management practices in Member States in accordance with the principles of EU waste legislation.

The first task of the project is to identify a set of objective assessment criteria for the screening of waste management practice in all Member States, based on current legal requirements³. The methodology will be applied within the project in order to **screen the current waste management performance** of all EU Member States. As part of the project the ten Member States with the largest implementation gaps shall be identified for further analysis and elaboration of individual roadmaps containing country specific recommendations for the improvement of the waste management situation.

¹ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3)

² Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Thematic Strategy on the Prevention and Recycling of Waste (SEC(2011) 70 final, 19.1.2011)

³ Document "Assessment criteria for the screening of all EU Member States' waste management performance" together with the Annex providing details on information sources and applied data.

3 Methodology

The waste management performance of all EU Member States will be screened alongside a set of criteria reflecting the main elements and legal requirements stemming from the Directives in the field of waste management, in particular from the WFD.

The screening will have a strong focus on municipal waste as the implementation of the waste legislation regarding municipal waste shows largest implementation gaps.

Based on the project outline of the European Commission the criteria for the screening include the following five elements:

1. Compliance with the waste management hierarchy reflecting the real situation;
2. Existence and application of economic instruments to support waste management according to the waste hierarchy;
3. Existence and quality of an adequate network of treatment facilities and future planning for municipal waste;
4. Fulfilment of the targets for diversion of biodegradable waste from landfills;
5. Number of court cases or infringements concerning non-compliance with the EU waste legislation.

The screening report is based on the criteria and methodology described in the document “Assessment criteria for the screening of all EU Member States’ waste management performance” together with the Annex providing details on information sources and applied data. For better understanding, explanations on applied criteria and scoring as well as information sources are repeated within this screening report.

Altogether 18 criteria covering the above five elements have been elaborated to assess the waste management performance of the EU Member States.

4 Results

4.1 Compliance with the waste management hierarchy reflecting the real situation

4.1.1 Criterion 1.1: Level of decoupling of municipal waste generation from household final consumption expenditure

Background	<p>Decoupling of waste generation from the economic evolution is one key objective to achieve the overall targets of the WFD. Recital 40 of the WFD states,</p> <p><i>“(...) Waste prevention and decoupling objectives should be developed covering, as appropriate, the reduction of the adverse impacts of waste and of the amounts of waste generated.”</i></p> <p>It is further outlined that in future decoupling will play an even more important role. The issue then will be addressed by setting particular decoupling objectives, stated in Article 9 (c) of the WFD. The screening within consists of the assessment of the level of decoupling of MSW from the level of private consumption by calculating the ratio between municipal solid waste generation over time with private consumption indicators over time.</p>
Scoring	<p>All 27 MS will be ordered descending (highest decoupling rate first)</p> <p>9 MS with highest rate: 2 / 9 MS with medium rate: 1 / 9 MS with lowest rate: 0</p>
Source	<ul style="list-style-type: none"> – Calculation according to methodology and decoupling indicator [EC 2011a]. Evolution of (bio-) waste generation/prevention and (bio-) waste prevention indicators, Annex F, chapters 7.4 and 7.14. In order to take into account decreasing driving forces the formula has been adapted as follows: – $D_{y-5 \rightarrow y} = b(DF)_{y-5 \rightarrow y} - b(EP)_{y-5 \rightarrow y}$ <ul style="list-style-type: none"> – $D_{y-5 \rightarrow y}$ = the decoupling indicator for a time interval of five years from y-5 to y – $b(EP)_{y-5 \rightarrow y}$ = the slope of the linear regression of the waste generation (environmental pressure) over the last five years EP expressed as an index with y-5 = 100 – $b(DF)_{y-5 \rightarrow y}$ = the slope of the linear regression of the private consumption expenditure (driving force) over the last five years DF expressed as an index with y-5 = 100 – $D > 0$: decoupling $D \sim 0$: coupling $D < 0$: reverse decoupling – EUROSTAT statistics on municipal waste generation [env_wasmun], on private consumption [nama_co3_k] and on demography [demo_pjan] [EUROSTAT 2012b]. – Time series from 2000 to 2010 are included in calculation.

Results

The decoupling indicator examines how a driving force is linked or coupled to an environmental impact.

The driving force used for this criterion is derived from the final consumption expenditure of households by consumption purpose - COICOP 3 digit - expressed as millions of Euro, chain-linked volumes, reference year 2000 (at 2000 exchange rates), and divided by the number of inhabitants to have an average private consumption figure. The impact of specific large costs that are not related to waste generation, i.e. actual and imputed house rental, water supply and miscellaneous services, electricity, gas and other fuels, hospital services, transport services, social protection, insurance, financial services and other services, are excluded from the calculation. Other goods and services are included although it may be sometimes doubtful whether they may or may not contribute to municipal waste generation: e.g. education (often waste from schools is included in municipal waste collection) and transport means.

The **environmental pressure** used for this exercise is municipal waste generation, because longer time series are available.

For interpretation of the results the following notes have to be taken into account.

- MS with a lower but increasing degree of consumption often score better than MS with a high level of consumption. The higher the consumption level the more difficult to achieve decoupling. This could be an effect of more frequent re-use in MS with lower consumption and a higher tendency to discard in richer MS.
- Prevention policy and waste management policy are not yet effective in enhancing decoupling; front-running MS however might succeed in moving from 'worse' to 'average' or might achieve an increasing trend of decoupling.
- The level of decoupling is generally decreasing, except for a few Member States (BE, IE, IT, MT, NL, AT, SK and SE). The economic crisis, especially visible in the last two indicators (2005-2009 and 2006-2010), tends to lead to decreasing decoupling.
- Limited data availability or inconsistent data hamper the analysis for BG, PT, IE and SK.

Score of 2 for MS showing best decoupling rates (9 MS):

BG, CZ, EE, ES, LV, LT, RO, SI and **SK** according to the calculation all show decoupling tendencies and have in comparison to the other MS the best decoupling indicator.

Score of 1 for MS showing medium decoupling rates (9 MS):

BE, DE, GR, FR, HU, PL, FI, SE and **UK** also show decoupling, however compared to the other MS to a lower extent.

Score of 0 for MS showing lowest decoupling rates (9 MS):

AT, DK, IE, IT, CY, LU, MT, NL and **PT** show the lowest decoupling rates, mostly leading to reverse decoupling or coupling.

4.1.2 Criterion 1.2: Existence of own waste prevention programme (WPP) or equivalent existence in WMP or other (environmental) programmes

Background	<p>According to Article 29 (1) of the WFD,</p> <p><i>“Member States shall establish, in accordance with Articles 1 and 4, waste prevention programmes not later than 12 December 2013.</i></p> <p><i>Such programmes shall be integrated either into the waste management plans provided for in Article 28 or into other environmental policy programmes, as appropriate, or shall function as separate programmes. If any such programme is integrated into the waste management plan or into other programmes, the waste prevention measures shall be clearly identified.”</i></p> <p>The deadline for preparation of waste prevention programmes is still ahead. However, a number of Member States have taken relevant actions to set up coordinated programmes on a national level. Therefore, it is assessed whether such programmes exist as waste prevention programme, part of waste management plan or other environmental programmes.</p>
Scoring	<p>Does a waste prevention programme exist? Does an equivalent exist in WMP or other (environmental) programmes?</p> <p>YES: 2 / NO: 0</p>
Source	<ul style="list-style-type: none"> – [BiPRO 2008-2011] Reports of awareness events related to EU waste legislation – Waste prevention programmes of MS – Waste management plans of MS – Other (environmental) programmes covering waste prevention <p><i>Only WPPs and WMPs officially adopted and in force will be factored for the screening.</i></p>

Results

Waste prevention is the highest priority in the waste hierarchy. Until 2013 MS are obliged to establish a waste prevention programme (WPP) as own plan or integrated in the WMP including waste prevention objectives, existing prevention measures and the evaluation of the usefulness of the examples indicated in Annex IV of the WFD or other measures. About one third of the MS have already established a WPP as an own programme or integrated it in their WMP. Other MS are still in the phase of elaboration.

Score of 2 for MS where WPP (or equivalent) already exist (10 MS):

FR, IE and PT have already drawn up an own WPP; the WPP of **AT** is integrated in its WMP.

AT, FI, NL, PL and SE have included their WPP as an own chapter in the WMP.

The regions of **BE** and **UK** have either drawn up own WPPs or have included the information in the WMP.

Score of 0 for MS where no WPP (or equivalent) exist (17 MS):

BG, CY, CZ, DE, DK, EE, ES, GR, HU, IT, LT, LU, LV, MT, RO, SI and SK do not have either a WPP in place or an integration of WPP into the WMP.

4.1.3 Criterion 1.3: Amount of municipal waste recycled (material recycling and other forms of recycling including composting)

Background	<p>The waste hierarchy is included in Article 4(1) of the WFD and represents one core element of the Directive as it ranks waste management options according to their environmental impact. The Article reads:</p> <p><i>The following waste hierarchy shall apply as a priority order in waste prevention and management legislation and policy: (a) prevention; (b) preparing for re-use; (c) recycling; (d) other recovery, e.g. energy recovery; and (e) disposal.</i></p> <p>Within this criterion, the share of municipal waste recycled is assessed, including material recycling and other forms of recycling, e.g. composting.</p> <p>Waste management in accordance with the waste hierarchy is a key requirement of the WFD. Therefore particular importance is given to this criterion by applying weighting.</p>
Scoring	<p>How much municipal waste is recycled in a particular year (in %)?</p> <p>All 27 MS will be ordered descending (highest % of municipal waste recycling first)</p> <p>9 MS with highest rate: 2 / 9 MS with medium rate: 1 / 9 MS with lowest rate: 0</p> <p>Weighting is applied for the criterion; for overall scoring the received score is doubled.</p>
Source	<p>– EUROSTAT statistics on amount of municipal waste treated and recycled [EUROSTAT 2012a]</p> <p>Most recent data available is of 2010.</p>

Results

For 2010 the rate of municipal waste recycled (material recycling and other recycling, including composting) ranges from 0 % to 70 % based on the figures for municipal waste *treatment* provided by EUROSTAT. The recycling rate is calculated with the amount of municipal waste recycled and total amount of municipal waste treated (which differs in some cases from total amount of municipal waste generated).

Score of 2 for MS with highest recycling rates (9 MS):

AT, BE, DE, DK, LU, NL, SE, SI and UK are the nine countries with the highest recycling rates (above 39 %).

Score of 1 for MS with medium recycling rates (9 MS):

CY, EE, ES, FI, FR, HU, IE, IT and PL are presenting the MS with – compared to other MS – medium rates of recycled municipal waste (between 19 % and 39%).

Score of 0 for MS with lowest recycling rates (9 MS):

CZ, GR, MT, LT, LV, PT and SK still show low rates of municipal waste recycling (below 19 %). For **RO** the recycling rate amounts to 1.3 % and for **BG** the recycling rate is zero.

4.1.4 Criterion 1.4: Amount of municipal waste recovered (energy recovery)

Background	<p>The waste hierarchy is included in Article 4(1) of the WFD and represents one core element of the Directive as it ranks waste management options according to their environmental impact. The Article reads:</p> <p><i>The following waste hierarchy shall apply as a priority order in waste prevention and management legislation and policy: (a) prevention; (b) preparing for re-use; (c) recycling; (d) other recovery, e.g. energy recovery; and (e) disposal.</i></p> <p>Within this criterion, the share of municipal waste recovered is assessed, meaning incineration with energy recovery – as incineration with energy recovery is a favourable option compared to disposal (incineration without energy recovery and landfilling).</p> <p>Waste management in accordance with the waste hierarchy is a key requirement of the WFD. Therefore particular importance is given to this criterion by applying weighting.</p>
Scoring	<p>How much municipal waste is recovered (energy recovery) in a particular year (in %)?</p> <p>All 27 MS will be ordered descending (highest % of municipal waste recovery first)</p> <p>9 MS with highest rate: 2 / 9 MS with medium rate: 1 / 9 MS with lowest rate: 0</p> <p>Weighting is applied for the criterion; for overall scoring the received score is doubled.</p>
Source	<p>– EUROSTAT statistics on amount of municipal waste treated and recovered (energy recovery) [EUROSTAT 2012a]</p> <p>Most recent data available is of 2010.</p>

Results

For 2010 the rate of municipal waste recovered (energy recovery) ranges from 0 % to 54 % based on the figures for municipal waste treatment provided by EUROSTAT. Recovery rate is calculated with amount of municipal waste recovered and total amount of municipal waste treated (which differs in some cases from total amount of municipal waste generated).

Score of 2 for MS with highest recovery rates (9 MS):

DK, SE, NL, BE, LU, FR, AT, PT and FI are the nine countries with the best recovery rates (above 17 %).

Score of 1 for MS with medium recovery rates (9 MS):

CZ, IT, DE, UK, HU, SK, ES, IE and SI are presenting the MS with – compared to other MS – medium rates of recovered municipal waste (between 1 % and 16 %).

Score of 0 for MS with lowest recovery rates (9 MS):

LT has a recovery rate of 0.1 %. **RO, PL, MT, LV, GR, EE, CY and BG** have no recovery at all.

4.1.5 Criterion 1.5: Amount of municipal waste disposed (deposit onto or into land and incinerated without energy recovery)

Background	<p>The waste hierarchy is included in Article 4(1) of the WFD and represents one core element of the Directive as it ranks waste management options according to their environmental impact. The Article reads:</p> <p><i>The following waste hierarchy shall apply as a priority order in waste prevention and management legislation and policy: (a) prevention; (b) preparing for re-use; (c) recycling; (d) other recovery, e.g. energy recovery; and (e) disposal.</i></p> <p>According to the waste hierarchy disposal is the least favourable option, therefore the share of municipal waste disposed of is assessed, waste incineration without energy recovery and landfilling.</p> <p>Waste management in accordance with the waste hierarchy is a key requirement of the WFD. Therefore particular importance is given to this criterion by applying weighting.</p>
Scoring	<p>How much municipal waste was disposed of (deposit onto or into land and incinerated without energy recovery in a particular year in %)?</p> <p>All 27 MS will be ordered ascending (lowest % of MSW disposal first)</p> <p>9 MS with lowest rate: 2 / 9 MS with medium rate: 1 / 9 MS with highest rate: 0</p> <p>Weighting is applied for the criterion; for overall scoring the received score is doubled.</p>
Source	<p>– EUROSTAT statistics on amount of municipal waste treated and disposed of (deposit onto or into land and incinerated without energy recovery) [EUROSTAT 2012a]</p> <p>Most recent data available is of 2010.</p>

Results

For 2010 the rate of municipal waste disposed of (deposit onto or into land and incinerated without energy recovery) ranges from 0.4 % to 100 % based on the figures for municipal waste treatment provided by EUROSTAT. Disposal rate is calculated with amount of municipal waste disposed of and total amount of municipal waste treated (which differs in some cases from total amount of municipal waste generated).

Score of 2 for MS with lowest disposal rates (9 MS):

AT, BE, DE, DK, FR, LU, NL, SE and **UK** are the nine countries with the lowest disposal rates (below 49.5 %).

Score of 1 for MS with medium disposal rates (9 MS):

CZ, ES, FI, HU, IE, IT, PL, PT and **SI** are presenting the MS with – compared to other MS – medium rates of disposed municipal waste (between 49.5 % and 75 %).

Score of 0 for MS with highest disposal rates (9 MS):

BG, CY, EE, GR, MT, LT, LV, RO and **SK** are the nine countries with the highest disposal rate whereat the disposal rate of **RO** is over 98% and the disposal rate of **BG** is 100%.

4.1.6 Criterion 1.6: Development of municipal waste recycling (material recycling and other forms of recycling including composting)

Background	<p>The waste hierarchy is included in Article 4(1) of the WFD and represents one core element of the Directive as it ranks waste management options according to their environmental impact. Recycling is after prevention and preparation for re-use the most favourable option.</p> <p>Specific targets for recycling are specified in Article 11 (2) reading that:</p> <p><i>by 2020, the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased to a minimum of overall 50 % by weight</i></p> <p>Targets have to be reached only by 2020, however, recycling infrastructure has to be developed step-by-step. Therefore, development of recycling rates of the past years is assessed showing whether recycling is increasingly used as treatment option of municipal waste.</p>
Scoring	<p>What was the development of recycling of municipal waste during the last three years (in %)?</p> <p>Recycling rate increased min. 5 % or total rate is min. 40 % over the last three years: 2</p> <p>Recycling rate increased over the last three years, but increasing rate is below 5 %: 1</p> <p>Rate of recycling is decreasing or zero in last three years: 0</p>
Source	<p>EUROSTAT statistics on amount of municipal waste treated and recycled [EUROSTAT 2012a]</p> <p>Data from 2007 to 2010 have been compared.</p>

Results

The development of recycling of municipal waste ranges from a notable increase with a maximum of 16.3 % to a decrease with a maximum of -10 % comparing the recycling rates of 2007 to 2010. The majority of the MS improved recycling in the last years. However, in seven MS recycling rates decreased in the period observed.

Score of 2 for MS where recycling rate increased on more than 5 % or rate is stable above 40 % in the last three years (14 MS):

AT, BE, DE, DK, LU, NL and SE show stable recycling rates of above 40 % in the period 2007 to 2010.

CY, CZ, HU, MT, PL, SI and UK considerably increased the recycling rate over the last three years. Most notable is PL with an increase from about 9 % in 2007 to approximately 26 % in 2010. Also the recycling in HU, CY and SI shows remarkable development; increasing rates are 7 % and more.

Score of 1 for MS where recycling rate increased in the last three years, but increasing rate is below 5 %: (8 MS):

ES, LT, LV, FR, IE, PT, RO and SK increased the recycling rates during the period observed; however, the rates are below 5 %. It has to be noted that out of those Member States ES, FR and IE already reached comparable high rates (more than 30 % recycling).

Score of 0 for MS where recycling rate is decreasing or zero in the last three years (5 MS):

BG, EE, FI, GR and IT: The recycling rate is decreasing between 2007 and 2010. The largest reduction of recycling is shown by IT with a falling rate of approximately 10 % (from 44 % in 2007 to 34 % in 2010). BG reports no recycling at all; recycling rate reported is 0 for all years.

4.2 Existence and application of legal and economic instruments to support waste management according to the waste hierarchy

4.2.1 Criterion 2.1: Existence of nationwide ban/restrictions for the disposal of municipal waste into landfills

Background	The Landfill Directive includes in Article 5(1) the obligation for the Member States to “ <i>set up a national strategy for the implementation of the reduction of biodegradable waste going to landfills</i> ” Bans and restrictions, e.g. on pre-treatment conditions for the landfilling of municipal waste are an essential measure to provide for sustainable management of municipal waste, in particular for diverting biodegradable waste from landfills. Nevertheless, such restrictions can only be implemented if sufficient alternative treatment infrastructure and capacity are available. Within the criterion the existence of a ban or restrictions for the disposal of municipal waste into landfills is assessed.
Scoring	Is a ban / are restrictions for the disposal of municipal waste applied? Landfill ban: 2 / Restriction: 1 / Neither ban nor restrictions: 0
Source	<ul style="list-style-type: none"> – [ETC/SCP 2012] Overview of the use of landfill taxes in Europe – [EC 2012] Use of economic instruments and waste management performances – Additional information provided by Competent Authority of MS

Results

The majority of Member States has introduced a ban or some kind of restrictions (e.g. on pre-treatment conditions, sorting, etc.) for landfilling municipal waste. In 10 MS, however, disposal of municipal waste in landfills is possible without any restrictions.

Score of 2 for MS with a ban for the disposal of municipal waste (7 MS):

AT, BE, DE, DK, LU, NL and **SE** have introduced a ban on landfilling municipal waste.

Score of 1 for MS with restriction(s) for the disposal of municipal waste (10 MS):

EE, FI, FR, IE, IT, LT, LV, PL, SI and **SK** have some kind of restrictions with regard to the disposal of municipal waste in landfills.

Score of 0 for MS with no ban/restriction for the disposal of municipal waste (10 MS):

BG, CZ, ES, HU, PT, RO and **UK** neither have a ban nor restrictions for the disposal of municipal waste in landfills.

For **CY, GR** and **MT** no information is available whether a ban or restrictions are in place.

4.2.2 Criterion 2.2: Total typical charge for the disposal of municipal waste in a landfill

Background	<p>According to the study [EC 2012], “[...] there is a relationship between higher total landfill charges and lower percentages of municipal waste being sent to landfill.”</p> <p>The study differentiates between <i>landfill taxes</i>, as a levy charged by a public authority for the disposal of waste which is often nationwide but may differ regionally, and <i>gate fees</i>, as a charge individually set by the operator of the landfill for the provision of the service. The typical charge for the disposal of municipal waste in a landfill is assessed. The term is referring to the sum of the prevailing level of tax and the gate fee, therefore representing the total cost of landfilling.</p>
Scoring	<p>How much is charged for landfilling municipal waste (€/t)?</p> <p>9 MS with highest rate: 2 / 9 MS with medium rate: 1 / 9 MS with lowest rate: 0</p>
Source	<ul style="list-style-type: none"> – [ETC/SCP 2012] Overview of the use of landfill taxes in Europe – [EC 2012] Use of economic instruments and waste management performances – Additional information provided by Competent Authority of MS – Sum of prevailing level of tax and gate fee⁴

Results

The total typical charge for the disposal of municipal waste in a landfill varies very widely between the EU-27.

Score of 2 for MS with highest typical charges for landfilling municipal waste (9 MS):

In the descending order **SE, LU, DE, NL, IE, IT, BE, SI** and **DK** the total typical charges are the highest.

Score of 1 for MS with medium typical charges for landfilling municipal waste (9 MS):

In the descending order **AT, PL, UK, FI, FR, EE, ES, LV** and **CZ** the total typical charges are on a medium level in comparison to the two other groups.

Score of 0 for MS with lowest typical charges for landfilling municipal waste (9 MS):

In the descending order **HU, GR, MT, LT, PT** and **SK** the total typical charges are the lowest within the EU. **BG, CY** and **RO** join this group as no data are available.

⁴ The term ‘typical charge’ is applied according to (EC 2012) defined as the sum of the prevailing level of tax and the gate fee, therefore representing the total cost of landfilling (page 42).

4.2.3 Criterion 2.3: Existence of pay-as-you-throw (PAYT) systems for municipal waste

Background	<p>Article 14 of the WFD reads that “<i>In accordance with the polluter-pays principle, the costs of waste management shall be borne by the original waste producer or by the current or previous waste holders.</i>” The ‘Pay as you throw systems’ (PAYT) are an economic instrument to implement the polluter-pays principle.</p> <p>PAYT as defined in the study [EC 2012] comprise of:</p> <ul style="list-style-type: none"> – Volume-based schemes (the choice of container size); – Sack-based schemes (the number of sacks set out for collection); – Frequency-based schemes (frequency with which a container is set out for collection) – Weight-based schemes (the weight of material collected in a given container) <p>The study [EC 2012] states that a well-implemented PAYT system covering the whole territory of a MS might positively influence the amount of waste generated in households and increase recycling and composting rates. Therefore it is assessed whether PAYT are introduced in the MS and whether the whole national territory is covered or not.</p>
Scoring	<p>Is a PAYT system for municipal waste in place?</p> <p>Yes, covering the whole territory: 2 / Yes, not covering all municipalities: 1 / No: 0</p> <p><i>In case no information is available in the consulted reference document, a score of 0 applies.</i></p>
Source	<ul style="list-style-type: none"> – [EC 2012] Use of economic instruments and waste management performances – Additional information provided by Competent Authority of MS – Pay-as-you-throw (PAYT) systems for municipal waste

Results

The vast majority of Member States has introduced PAYT systems. However, only in few Member States such systems are established nationwide in practice.

Score of 2 for nationwide implemented PAYT systems (4 MS):

AT, DE, FI and SI have introduced PAYT systems nationwide in practice.

Score of 1 for regionally implemented PAYT systems (16 MS):

BE, CZ, DK, EE, ES, FR, HU, IE, IT, LT, LU, NL, PL, SE, SK and **UK** have regionally established PAYT systems. The regional coverage may vary in this category from implementation to a limited extent covering only some geographical area or a minor share of population to large parts of the territory or households served with such PAYT systems.

Score of 0 for having no PAYT systems (7 MS):

BG, CY, GR, LV, PT and **RO** have not yet established PAYT systems. For **MT** no information is available.

4.3 Existence and quality of an adequate network of treatment facilities and future planning for municipal waste management

4.3.1 Criterion 3.1: Collection coverage for municipal waste

Background	<p>According to Article 13 of the WFD,</p> <p><i>“Member States shall take the necessary measures to ensure that waste management is carried out without endangering human health, without harming the environment and, in particular:</i></p> <p><i>(a) without risk to water, air, soil, plants or animals;</i></p> <p><i>(b) without causing a nuisance through noise or odours; and</i></p> <p><i>(c) without adversely affecting the countryside or places of special interest.”</i></p> <p>Further, the principle of self-sufficiency (Article 16 of the WFD) is related to the proper recovery and disposal of MSW that can only be achieved by appropriate collection of waste. In accordance with Article 3(9) of the WFD, waste collection is an integral part of waste management, i.e. Member States are required to comply with the EU provisions and to provide for the establishment of appropriate waste collection infrastructure.</p> <p>In this context, the collection coverage is a crucial indicator to evaluate whether the waste collection infrastructure in place is adequate. In some Member States not the entire population has access to sufficient waste collection services. In particular, this concerns rural and remote areas which are not provided with such services. If waste is not collected properly, and no 100 % collection coverage is reached, such waste will most likely be disposed of without environmental controls, illegally buried, dumped, burned or stored. Deficits in collection of waste result in uncontrolled abandoning of waste, unused resources and severe impacts on the environment.</p>
Scoring	<p>Does 100 % collection coverage exist?</p> <p>No: 0 / Yes: 2</p>
Source	<ul style="list-style-type: none"> – [EUROSTAT 2010] Study on collection coverage (population served by municipal waste collection); most recent data available is of 2010 – [UNEP 2011] for IE; most recent data is of 2005

Results

In 2010 the collection rate ranged from 70 % to 100 % in EU 27, whereas in two thirds of the countries the total population was already served by municipal waste collection.

Score of 2 for MS with 100 % coverage rate (18 MS):

AT, BE, CZ, DK, DE, GR, ES, FR, IT, CY, LU, MT, NL, PT, SK, FI, SE and **UK** have a collection coverage of 100 %.

Score of 0 for MS below 100 % coverage rate (9 MS):

For **BG, LT, SI, HU, LV, PL, EE** and **RO** the collection coverage is below 100 %. For **IE** no data are available for 2010. According to data from UNEP [UNEP 2011] for IE the collection coverage was 76 % in 2005.

4.3.2 Criterion 3.2: Available treatment capacity for municipal waste in line with the EU waste legislation (including disposal and incineration)

Background	<p>According to Article 16 (1) of the WFD,</p> <p><i>“Member States shall take appropriate measures [...] to establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households [...]”.</i></p> <p>Article 28 (3) specifies that the following information shall be contained in a WMP:</p> <p><i>“(a) the type, quantity and source of waste generated [...]; and</i> <i>(b) existing waste collection schemes and major disposal and recovery installations [...].”.</i></p> <p>Proper treatment infrastructure and sufficient capacity for the municipal waste generated is a basic condition for environmentally sound waste management and needs to be in place in all Member States and covered by the waste management planning.</p>
Scoring	<p>Is information about capacity available? / Does an undercapacity exist? Undercapacity: No: 2 / Yes: 0</p> <p><i>In case no information is available in the reference documents, a score of 0 applies.</i></p>
Source	<ul style="list-style-type: none"> – Waste management plans of MS – If WMPs are not containing the necessary information [EC 2012b] WFD Implementation Report 2007-2009 and [EC 2012e] Implementation Report on the Landfill Directive 2007-2009 will be reviewed. – [BiPRO 2008-2011] Reports of awareness events related to EU waste legislation – For comparison EUROSTAT statistics on municipal waste generation and [EUROSTAT 2012] Information on landfill and incineration capacity are consulted. – For the assessment of this criterion the main aspects of the methodology from [BiPRO 2006] and [BiPRO 2011] will be applied in the frame of the objective of the project. <p>Only WMPs officially adopted and in force will be factored for the screening.</p>

Results

For the majority of Member States it is most likely that currently there does not exist an undercapacity for the treatment of municipal waste. The majority of national or regional WMPs includes proper information on municipal waste generation and treatment.

Score of 2 for information on capacity is available and undercapacity is not likely (20 MS):

AT, BE, CZ, DK, EE, ES, LU, NL, PT and **SK** provide within their national or regional WMPs data on waste generation and referring treatment capacity. Based on this data, it is most likely that there does not exist an undercapacity.

For **FI, IE, LV, PL, RO, SE, SI** and **UK** it is also most likely that there does not exist an undercapacity, based on the information provided in the implementation reports ([EC 2012b] and [EC 2012e]).

DE and **FR** provided a national statement. Based on the statement it is most likely that there does not exist an undercapacity.

Score of 0 for information on capacity is not available / undercapacity is most likely (7 MS):

For **BG, CY, GR** and **MT** the information included in the WMP and further is not sufficient to assess existing treatment capacity for municipal waste. However, according to information provided in the implementation reports [EC 2012b], [EC 2012e] and other information sources it is most likely that an undercapacity exists. For **CY** no data has been reported in these reports.

For **HU** and **LT** information provided in WMPs and other information sources is not sufficient to assess whether an undercapacity exists. Besides, for **HU** no official WMP is currently in place.

IT did not provide a national statement, however based on further information sources ([EC 2012b] and [BiPRO 2007-2011]), an undercapacity is most likely at least in some regions of the country.

4.3.3 Criterion 3.3: Forecast of municipal waste generation and treatment capacity in the WMP

Background	<p>According to Article 28 (3) of the WFD, waste management plans shall contain:</p> <p><i>“(c) an assessment of the need for new collection schemes, the closure of existing waste installations, additional waste installation infrastructure in accordance with Article 16 [...]</i></p> <p><i>(d) sufficient information [...] on the capacity of future disposal or major recovery installations”</i></p> <p>Proper treatment infrastructure and sufficient capacity planning are basic conditions for environmentally sound waste management in the future. A forecast for future waste generation and referring treatment capacities needs to be included in the waste management planning.</p>
Scoring	<p>Is undercapacity to be expected according to information contained in the WMP?</p> <p>No: 2 / Yes: 0</p> <p><i>In case no information is available in the WMP, a score of 0 applies.</i></p>
Source	<ul style="list-style-type: none"> – Waste management plans of MS (Disposal and recovery treatment capacity) – For the assessment of this criterion the main aspects of the methodology from [BiPRO 2006] and [BiPRO 2011] will be applied in the frame of the objective of the project. <p>Only WMPs officially adopted and in force will be factored for the screening.</p>

Results

The majority of national or regional WMPs do not include forecasts as regards municipal waste generation and treatment capacity.

Score of 2 for inclusion of forecasts (9 MS):

AT, DE, DK, FI, FR, IE, NL, PT and **UK** provide within their national or regional WMPs/national statements relevant information on future amounts of municipal waste generation for several years as well as treatment capacity. Available data allows estimating that in these MS no undercapacity for treatment of municipal waste is likely to exist in future.

Score of 0 for non-inclusion of forecasts (18 MS):

BE, BG, CY, CZ, EE, ES, GR, HU, LT, LU, LV, MT, PL, RO, SE, SI and **SK** do not provide forecasts in their national or regional WMPs, and no judgement on the available future capacity can be made. However, on the basis of other information sources it can be estimated that for several of these Member States no undercapacity is to be expected.

IT did not provide a national statement. Information from the Implementation Reports and Awareness Raising Reports highlights the regional differences in waste management performance; according to this information future undercapacity might still be an issue of concern in some regions in future.

4.3.4 Criterion 3.4: Existence and quality of projection of municipal waste generation and treatment in the WMP

Background	<p>Sufficient capacity for future waste generation is crucial as investments in related infrastructure are high and require comprehensive and well targeted coordination and long-term planning. Member States are obliged to include information on the capacity of future disposal or major recovery installations in their waste management plans (Article 28(3) (d) of the WFD). According to previous projects assessing the quality of national and regional WMPs of EU Member States [BiPRO 2006] and [BiPRO 2011], the following information should be included in a WMP referred to as a high quality plan:</p> <ul style="list-style-type: none"> – Explaining forecast methodology – Containing development over time (time series) – Covering the whole geographical entity – Illustrating data within charts, maps, graphs, tables, indicators and ratios <p>For the assessment of the quality of the forecast included in the WMP main aspects of the methodology from [BiPRO 2006] and [BiPRO 2011] will be applied in the frame of the objective of the project.</p>
Scoring	<p>Is information on the future development of municipal waste generation and treatment in the territory included in the WMP?</p> <p>Yes, in high quality: 2 / Yes: 1 / No: 0</p> <p><i>High quality in this regard means that information is contained in the WMP, applying e.g. charts, graphs, figures, indicators, ratios, development over time, etc. Further the geographical entity has to be covered in sufficient quality. If the information is sufficiently contained but quality is less convincing, the score of 1 will be achieved.</i></p> <p><i>In case no information is available in the consulted reference documents, a score of 0 applies. In case five or more regional plans exist, a statement provided by the Competent Authority will be the information basis. Quality aspects in this case cannot be applied, and the score of 1 applies.</i></p>
Source	<ul style="list-style-type: none"> – Waste management plans of MS – For the assessment of this criterion the main aspects of the methodology from [BiPRO 2006] and [BiPRO 2011] will be applied in the frame of the objective of the project. <p>Only WMPs officially adopted and in force will be factored for the screening.</p>

Results

The majority of national or regional WMPs do not include forecasts as regards municipal waste. If WMPs include projections, the quality of forecasting municipal waste generation and treatment varies considerably among the EU Member States and their regions. In most cases information included is general and concentrates on projections of generation. The methodology is rarely explained, and modelling scenarios are rarely included.

Score of 2 for high quality forecasts (4 MS):

AT, DK, NL and **PT** provide within their national WMPs relevant information on future amounts of municipal waste generation for several years as well as treatment planned. This includes in particular estimates on change in waste generated and its composition as well as recovery and disposal operations. Partly various scenarios based on different estimates of changing consumption pattern, population growth, technological progress etc. are presented in the WMPs. The methodology applied is in general well explained and reproducible; illustration of forecast is provided by editing of statistical data in charts, tables and for development over time in time series. The entire geographical territory is considered.

Score of 1 for inclusion of forecasts (8 MS):

DE and **FR** provided national statements where quality aspects cannot be screened equally to information presented in WMPs, and automatically the score of 1 applies.

CY, EE, FI, LV, RO and **UK** provided within their national or regional WMPs relevant information on generation and/or treatment of municipal waste generated, but not with a full range of details. In part, the information included only focused on waste generation and treatment of biodegradable fractions of (municipal) waste. In particular, forecasting of the management of municipal waste generated is missing in the WMPs, which mainly focus on projection of generation.

Score of 0 for non-inclusion of forecasts (15 MS):

BE, BG, CZ, ES, GR, HU, LT, LU, MT, PL, SE, SI and **SK** do not provide for forecasts in their national or regional WMPs.

IE and **IT** did not provide a national statement, and therefore a score of 0 applies.

4.3.5 Criterion 3.5: Compliance of existing landfills for non-hazardous waste with the Landfill Directive

Background	Compliance of landfills is essential to provide for environmentally safe disposal of waste in landfills according to the Landfill Directive. Therefore the compliance of existing landfills with EU waste legislation , in particular with the requirements of the Landfill Directive, is assessed.
Scoring	Which percentage of landfills for non-hazardous waste is compliant with the requirements of the Landfill Directive (in %)? 100 %: 2 / at least 75 %: 1 / below 75 %: 0
Source	[EC 2012e] Waste Implementation Reports on Landfill Directive 2007-2009

Results

A large group of 13 Member States reported that all existing landfills for non-hazardous waste are compliant, followed by a group of eight Member States with at least 75% of compliant landfills in this category. Only six Member States reported smaller shares of compliant landfills for non-hazardous waste.

Score of 2 for 100 % compliance (12 MS):

AT, BE, DE, DK, EE, HU, IE, LV, LU, MT, NL and **PT** have reported that all landfills for non-hazardous waste that are in operation comply with the requirement of the Landfill Directive.

Score of 1 for at least 75 % compliance (8 MS):

CZ, ES, FI, FR, PL, SE, SK and **UK** have reported shares of compliance that are above 75 %.

Score of 0 for below 75 % compliance (7 MS):

BG, CY, GR, IT, LT, RO and **SI** have reported shares of compliance that are below 75 %.

4.4 Fulfilment of the targets for diversion of biodegradable municipal waste from landfills

4.4.1 Criterion 4.1: Fulfilment of the targets of the Landfill Directive related to biodegradable municipal waste going to landfills

Background	<p>According to Article 5(2) subparagraphs a, b and c of the Landfill Directive:</p> <ul style="list-style-type: none"> – By 2006 biodegradable municipal waste going to landfills must be reduced to 75 % of the total amount (by weight) of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised EUROSTAT data is available; – by 2009 such waste must be reduced to 50 % of the total amount (by weight); – by 2016 such waste must be reduced to 35 % of the total amount (by weight). <p>Many Member States have negotiated specific transitional periods for this target, extending the deadlines for the fulfilment of targets for four years to June 2010.</p> <p>It will be assessed, however, whether the first target (reduction to 75 %) has been fulfilled by the Member States. Further specific transitional periods of Member States will not be taken into account.</p>
Scoring	<p>Is the first target on reducing biodegradable municipal waste disposed of in landfill reduced to at least 75 % fulfilled?</p> <p>Yes: 2 / No: 0</p>
Source	<ul style="list-style-type: none"> – [EC 2012a] Background data on fulfilment of targets <p>Most recent data available is of 2009; for BG, IE, LV, PL and SK data of 2008 is applied. For BE data of Flanders region is available only.</p>

Results

In 2009, most of the EU MS achieved the targets for the reduction of biodegradable municipal waste going to landfills according to the deadlines provided in the Landfill Directive – some MS have been outperforming the targets. However, there are ten MS which yet could not reduce biodegradable municipal waste disposed of in landfills to 75 %.

Score of 2 for achieving the first target of 75 % reduction (17 MS):

AT, BE, DE, DK, SE, NL and **LU** have very low rates of biodegradable municipal waste going to landfills and have already reached the 2016 target. **FR, FI, HU, ES, EE** and **UK** with rates below 50 % reached the 2009 target. **SI, IT, BG** and **SK** have rates below 75 % and therefore achieved the first target set in the Landfill Directive.

Score of 0 for not achieving the first target of 75 % reduction (10 MS):

PT, LV, LT, IE, PL, CZ, MT, GR, CY and **RO** all have a rate below 75 % of biodegradable municipal waste landfilled and thus did not reach the first target set for the reduction of biodegradable municipal waste.

It has to be noted, however, that **RO** and **PT** reported a rate for 2009 being very close to that target, and it is likely that they fulfilled targets in 2010.

4.4.2 Criterion 4.2: Rate of biodegradable municipal waste going to landfills

Background	According to Article 5(1) of the Landfill Directive Member States shall set up a national strategy for the implementation of the reduction of biodegradable waste going to landfills. In order to measure the effectiveness of the national strategies the actual rate of biodegradable waste going to landfills is assessed . Thus specific transitional periods of Member States will not be considered.
Scoring	All 27 MS will be ordered ascending (lowest rate first) (in %) 9 MS with lowest rate: 2 / 9 MS with medium rate: 1 / 9 MS with highest rate: 0
Source	– [EC 2012a] Background data on fulfilment of targets Most recent data available is of 2009 ; for BG, IE, LV, PL and SK data of 2008 is applied. For BE data of Flanders region is available only.

Results

In 2009, the rate of biodegradable municipal waste going to landfills ranged from 0 % to 144 % based on the figures for biodegradable municipal waste produced in 1995 (or the latest year before 1995 for which standardised EUROSTAT data is available).

Score of 2 for MS with lowest rates of biodegradable waste landfilled (9 MS):

AT, BE, DE and **DK** have effectively implemented a landfill ban for combustibles/biodegradables and therefore do not dispose of such wastes within landfills anymore. **SE** and **NL** have very low landfilling rates (below 10 %); **LU, FR** and **FI** rates lie below 40 %.

Score of 1 for MS with medium rates of biodegradable waste landfilled (9 MS):

HU, ES, EE, UK, SI, IT, BG, SK and **RO** are presenting the MS with – compared to other MS – medium rates of biodegradables going to landfills.

Score of 0 for MS with highest rates of biodegradable waste landfilled (9 MS):

PT, LV, LT, IE, PL, CZ still show high rates of biodegradables going to landfills. For **MT, GR** and **CY** the rates are exceptionally high, and rates are even higher than the figures for biodegradable municipal waste produced in 1995.

4.5 Number of infringement procedures and court cases concerning non-compliance with the EU waste legislation

4.5.1 Criterion 5.1: Number of infringement procedures – WFD and Landfill Directive

Background	<p>Infringement procedures play an essential role in ensuring the correct application of EU legislation by the Member States. It is a crucial instrument for the European Commission to fulfil their task of supervising the application of EU legislation, according to Article 17 of the Treaty on European Union (ex-Article 211 TEC).</p> <p>For each Member State, the number of infringement files in the field of waste legislation will be considered, which gives evidence that the Commission considers a failure in compliance. Infringement files are defined as those in which at least the first step in legal action under Article 258 TFEU has been taken through issuing a letter of formal notice. As the screening concentrates on municipal waste management, the number of infringements for non-conformity and incorrect application of national transposition measures regarding the Landfill Directive and the Waste Framework Directives (Directive 75/442; 91/156; 2006/98 and 2008/98) is assessed.</p>
Scoring	<p>How many infringements do the MS have?</p> <p>MS with 0 infringements: 2 / MS between 1 and 4 infringements: 1 / MS with 5 infringements and more: 0</p>
Source	<p>– [EC 2011] Annual report on monitoring the application of EU law. Most recent data available is of 2010.</p>

Results

In 2010, all together 45 infringement procedures have been issued concerning the Landfill Directive and the Waste Framework Directives (Directive 75/442; 91/156; 2006/98 and 2008/98). The infringements range from 0 to 13 procedures per Member State.

Score of 2 for MS not having infringement procedures (13 MS):

AT, CY, DE, DK, FI, HU, LT, LU, LV, NL, RO, SE and **UK** did not have any infringement procedures.

Score of 1 for MS having between 1 and 4 infringement procedures (11 MS):

BE, BG, CZ, EE, MT, PL and **SI** each count one infringement. **ES, FR, PT** and **SK** count between two and four procedures.

Score of 0 for MS with 5 infringement procedures and more (3 MS):

GR, IE and **IT** had in 2009 five infringement procedures or more.

4.5.2 Criterion 5.2: Number of court cases – WFD and Landfill Directive

Background	<p>The files brought to court reflect the Commission’s estimation whether a Member State has failed to remedy a situation of non-compliance (which could be evidence that the case at hand is a type of failure which cannot easily be remedied, or which gives evidence of a lack of priority within one Member State to quickly correct failure of compliance).</p> <p>For each Member State the number of cases in the field of waste legislation is assessed that have been brought to the Court of Justice of the European Union by the Commission. The number of cases brought to court includes non-communication measures and non-conformity measures regarding MS' compliance with EU Directives. As the screening concentrates on municipal waste management, the number of cases brought to court for non-conformity and incorrect application of national transposition measures regarding the Landfill Directive and the Waste Framework Directives (Directive 75/442; 91/156; 2006/98 and 2008/98) is assessed.</p>
Scoring	<p>How many infringements were brought to the CJEU?</p> <p>MS with 0 cases: 2 / MS between 1 and 4 cases: 1 / MS with 5 cases and more: 0</p>
Source	<p>– [EC 2011] Annual report on monitoring the application of EU law.</p> <p>Most recent data available is of 2010.</p>

Results

32 infringement cases were brought to the Court of Justice of the European Union by the Commission in the field of waste legislation as regards the Waste Framework Directives (including “old” WFDs) and the Landfill Directive. Per Member State this counts for 0 to 13 court cases. However, the majority of MS did not have any court cases.

Score of 2 for MS not having cases brought to court (18 MS):

AT, BG, CY, CZ, DE, DK, FI, HU, LT, LU, LV, MT, NL, PL, RO, SE, SI and **UK** did not have any court cases.

Score of 1 for MS with 1 to 4 cases brought to court (6 MS):

BE, EE, ES and **SK** had one case each; **PT** and **FR** had two and three cases respectively.

Score of 0 for MS with 5 cases and more brought to court (3 MS):

GR, IE and **IT** had five cases or more.

5 Annex I: Overview on data and scoring

Table 2: Overview of information used per criterion and Member State

Cri-terion	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	3.5	4.1 / 4.2	5.1	5.2
MS	Decoupling indicator	WPP in place	% Recycling	% Recovery	% Disposal	%- Recycling	Ban / Restrictions	€/t Charge	PAYT	% Coverage	WMP	WMP	WMP	% Compliance	% Target	Infringements	Cases
AT	19	Yes, own chapter in WMP	69.8	29.5	0.7	>40 recycling	Ban	96	Yes, nationwide	100	See Table 2	See Table 3	See Table 4	100	0.0	0	0
BE	18	Yes, own chapter in WMP	61.8	36.8	1.4	>40 recycling	Ban	118.50	Yes, regionally	100				100 ⁵	0.0	1	1
BG	4	No	0.0	0.0	100.0	0.0	No	No data	No	98.2				16	70.3	1	0
CY	23	No	19.8	0.0	80.2	7.0	No data	No data	No	100				1	144.4	0	0
CZ	7	No	16.6	15.5	67.9	5.7	No*	36	Yes, regionally	100				89	98.2	1	0
DE	14	No	61.8	14.3	23.8	>40 recycling	Ban	140	Yes, nationwide*	100				100*	0.0	0	0
DK	22	No	42.3	54.3	3.5	>40 recycling	Ban	107	Yes, regionally	100				100	0.0	0	0
EE	5	No	23.8	0.0	76.5	-2.4	Restrictions	52	Yes, coverage unknown	79				100	48.4	1	1
ES	9	No	33.1	9.1	57.9	2.5	No	44.75	Yes, regionally	100				90	47.3	3	1
FI	13	Yes, own chapter in WMP	32.8	17.5	49.7	-2.8	Restrictions	89.40	Yes, nationwide	100				95	38.5	0	0
FR	17	Yes, own WPP	34.9	32.4	32.6	3.0	Restrictions	80.50	Yes, regionally	100				99	37.8	3	3
GR	12	No	18.3	0.0	81.7	-1.8	No data	23.50	No	100				56 ⁶	108.1	7	5
HU	11	No	21.4	9.8	68.7	8.7	No	35	Yes, regionally* ⁷	92.4				100	46.0	0	0
IE	21	Yes, own WPP	38.8	4.1	57.1	2.3	Restrictions	120	Yes, regionally	76 ⁸	See Table 2	See Table 3	See Table 4	100 ⁹	92.7	6	5
IT	24	No	34.1	15.1	50.7	-9.6	Restrictions	120	Yes,	100	3	59.3	13	13			

⁵ Data of implementation report 2004-2006 on the Landfill Directive as no (complete) data included in implementation report for the reporting period 2007-2009.

⁶ Data of implementation report 2004-2006 on the Landfill Directive as no (complete) data included in implementation report for the reporting period 2007-2009.

⁷ Hungarian competent authority stated that national legislation provides the frame for the nationwide applied PAYT systems for municipal waste. The organization and maintenance of the public service of municipal waste is the responsibility of the local government. Therefore the practical implementation of PAYT nationwide is not guaranteed and it is assumed by the consultant that PAYT are in place partly.

⁸ Data for 2005; no more recent data available for IE.

⁹ Data of implementation report 2004-2006 on the Landfill Directive as no (complete) data included in implementation report for the reporting period 2007-2009.

European Commission

Interim Report Annex 4: Screening of waste management performance of EU Member States
Support to Member States in improving waste management based on assessment of Member States' performance

Cri-terion	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	3.5	4.1 / 4.2	5.1	5.2
MS	Decoupling indicator	WPP in place	% Recycling	% Recovery	% Disposal	% Recycling	Ban / Restrictions	€/t Charge	PAYT	% Coverage	WMP	WMP	WMP	% Compliance	% Target	Infringements	Cases
									regionally								
LT	1	No	5.4	0.1	94.5	1.5	Restrictions	16.25	Yes, regionally* ¹⁰	94				61	85.6	0	0
LU	25	No	46.8	35.5	17.7	>40 recycling	Ban	149.48	Yes, regionally	100				100	15.7	0	0
LV	3	No	9.4	0.0	90.7	3.9	Restrictions	38	No	85				100	84.3	0	0
MT	26	No	13.7	0.0	86.3	6.9	No data	20	No data	100				100	106.1	1	0
NL	20	Yes, own chapter in WMP	60.7	38.9	0.4	>40 recycling	Ban	132.49	Yes, regionally	100				100	5.0	0	0
PL	16	Yes, own chapter in WMP	25.6	0.0	74.4	16.3	Restrictions *	94.50	Yes, regionally ¹¹	79.8				82	93.6	1	0
PT	27	Yes, own WPP	18.8	19.4	61.9	1.7	No	14	No	100				100	78.4	2	2
RO	2	No	1.3	0.0	98.7	0.7	No	No data	No	70				28	76.0	0	0
SE	15	Yes, own chapter in WMP	49.8	49.3	1.0	>40 recycling	Ban	155.50	Yes, regionally	100				88	1.9	0	0
SI	6	No	41.2	0.9	58.0	7.0	Restrictions	116.50	Yes, nationwide* ¹²	93.1				58	52.1	1	0
SK	8	No	8.9	9.8	81.3	2.3	Restrictions	6.80	Yes, regionally*	100				90	73.3	4	1
UK	10	Yes, all regions own WPP / chapter	39.1	11.6	49.3	5.3	No	91.20	Yes, regionally	100				83	49.0	0	0

* Information provided by the national/regional competent authority.

¹⁰ Lithuanian competent authority stated that theoretically implementation is nationwide. It is estimated by the consultant that a 100% coverage is not likely.

¹¹ Information provided by the Polish competent authority.

¹² The competent authority indicated a coverage of 95.6% which was estimated by the consultant to be acceptable as "nationwide".

European Commission

Interim Report Annex 4: Screening of waste management performance of EU Member States
Support to Member States in improving waste management based on assessment of Member States' performance

Table 3: Summary of information on criterion 3.2 (Available treatment capacity for municipal waste in line with the EU waste legislation)

MS	Summary statement
AT	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is included in the WMP. It is most likely that there exists no undercapacity.</p> <p>A list of all waste treatment facilities in Austria for 2010 is available providing a complete overview on the recovery and disposal facilities as well as other waste processing facilities such as plants for sorting. Inter alia, the capacity is indicated for single facilities (e.g. incineration facilities) and for Austria as a whole. Mass flow charts are included in the plan providing a detailed overview of all treatment options and single steps of treatment of municipal waste including statistical data. Quantities disaggregated according both to Federal Province level and waste fractions, as well as recovery and disposal are included in the WMP. The quality of presenting the data is excellent, and no undercapacity is to be expected in Austria.</p>
BE	<p>Taking all three regions into account, data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on export/import of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>Brussels region operates one incineration plant. As the amount of municipal waste to be incinerated has decreased progressively in the past years, rather overcapacity exists.</p> <p>Data on waste generation and referring capacity is available and consistent with EUROSTAT data.</p> <p>Data is not complete and outdated in the WMP. Other documents, however, are available that give a more recent overview of existing capacity. Available, though scattered data, indicate that overcapacity exists for current waste generation.</p> <p>Information on Walloon region includes data on incineration and landfilling capacity. Available, though scattered data, indicate that overcapacity exists for current waste generation.</p> <p>For the Flanders region information on incineration capacity is included. Capacity was sufficient to import waste from the other regions; rather overcapacity exists.</p>
BG	<p>Data on generation of municipal waste is available in the WMP; information on referring capacity is scarce. Data on export/import of municipal waste is not included in the WMP. Information to properly assess existing capacity is not sufficient. Based on other information sources available, undercapacity for the treatment of municipal waste is likely, as the majority of landfills are not conform with EU legislation.</p> <p>Data in the WMP includes information on municipal waste generation and only some data on capacity and quantities landfilled per year. [EC 2012b] states that Bulgaria is highly dependent on landfilling and that full self-sufficiency is not reached for municipal waste. Further many uncontrolled waste dump sites have been identified in Bulgaria.</p>
CY	<p>Data on generation of municipal waste is outdated; information on referring capacity is not available. Information that neither import nor export of municipal waste takes place in Cyprus is included in the WMP. Information to properly assess existing capacity is not sufficient. However, based on other information sources it is most likely that capacity is not sufficient.</p> <p>[EC 2012b] states that the strategic WMP of Cyprus anticipates the establishment of further disposal installations. For domestic solid waste, a disposal installation is under operation serving one district out of five, one more is under construction to serve two more districts, and further two are under study to serve one district each. Further disposal installations for different types of waste are under consideration. Also [EC 2012e] includes information that Cyprus has 104 landfills for non-hazardous waste and only one complies with the Directive. Based on this information it is assumed that undercapacity exists.</p>
CZ	<p>Data on generation of municipal waste and referring capacity is available but outdated. Some data on export of municipal waste is included in the WMP. Information to properly assess existing capacity is not sufficient. However, additional information leads to the conclusion that there is no undercapacity.</p> <p>The WMP states that the capacity for landfilling of municipal waste is adequate for the near future (see Chapter 2.3, page 11). However, the available data is quite old (i.e. 2001), as is the total municipal waste generation figure (4,747 kt in 2002). Even though it has been reported that CZ is fully self-sufficient in waste disposal and that in the period from 2007-2009 no waste was exported for disposal [EC 2012b], no data has been reported for remaining landfill capacities [EC 2012e]. The WMP also does not contain data for remaining landfill capacities in CZ. Based on this it is not possible to appropriately assess whether undercapacity exists. The Competent Authority, however, provided information that capacity for landfilling in the Czech Republic is sufficient until 2050/60 and rather the problem of overcapacity in terms of landfilling exists. However, capacity on alternatives (e.g. incineration) has to be built up in the coming years.</p>

MS	Summary statement
DE	<p>As 16 regional WMPs are in place in Germany, assessment is based on a statement provided by the Ministry of Environment. Data about actual treatment capacity is well documented at regional and national level. Data on export/import of municipal waste is not included in the statement. It is most likely that there exists no undercapacity.</p> <p>Data about actual treatment operation plants and capacity is well documented at regional and national level. The statement says that “the available treatment capacity for municipal waste in Germany is sufficient for more than ten years. There is no capacity overload, rather a small overcapacity in incineration.” Information includes capacity data for landfills and incinerators.</p>
DK	<p>Data on generation of municipal waste is not included in the WMP. However, data on capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>Data on capacity is given for landfilling and incineration. However, data is partly inconsistent, as on the one hand the WMP indicates a remaining landfill capacity of around 6,820 kt for mixed waste for 2012 and on the other hand DK reported a remaining capacity for non-hazardous waste of 8,953 kt in 2009. The total capacity of incinerators is almost completely utilised (in 2008 even 222 kt temporarily stored). Nevertheless, undercapacity is not expected due to the available landfill capacity for non-hazardous waste.</p>
EE	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>The WMP provides information on the municipal waste generation and treatment via landfilling. Incineration of municipal waste is not yet existent. Estonia is to a large extent dependent on landfilling as a major waste treatment option. The WMP investigates possibilities on the introduction of an alternative treatment infrastructure. Data on actual capacity is included in the WMP, but information on remaining capacity of landfills is not included in the WMP. However, the implementation report on the Landfill Directive [EC 2012e] included data on remaining capacity for landfill, which indicates that enough capacity should be available. Data on import and export of waste was not included in the national waste management plan.</p>
ES	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>According to the data on capacity and amounts treated by incineration or landfilled, the capacity available is sufficient to properly manage municipal waste generated within Spain. Comprehensive information for the capacity and treatment in the Autonomous Regions is provided even if regional plans are in place. The country is still depending to a large extent on landfilling, but in the national WMP investments into other alternative treatment infrastructure are given in detail. The plan for municipal waste management (II Plan Nacional de Residuos Urbanos 2007-2015 - II PNUR) is included in the national waste management plan (Annex I of PNIR).</p>
FI	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>Further annual throughput for 2006 is provided in the WMP. No data regarding capacity are available in the WMP. But according to the National Implementation Report on the Landfill Directive [EC 2012e] the remaining capacity for non-hazardous waste landfills in 2009 amounted to 39,780 kt. Therefore, it is expected that undercapacity does not exist.</p>
FR	<p>As 101 WMPs for non-hazardous waste exist in France at Province level, assessment is based on a statement provided by the Ministry of Environment. Data about actual treatment capacity is well documented at regional and national level. It is most likely that there exists no undercapacity.</p> <p>Data on national level exists to the extent necessary to judge existing capacity. Current incineration and landfill capacity is about 40 million tons per year. So, currently there is no undercapacity. In some provinces, though, this will be the case in future years due to closure of landfills.</p>
GR	<p>Data on generation of municipal waste and information on referring capacity is available, but is outdated. Data on import/export of municipal waste is not included in the WMP. Information to properly assess existing capacity is not available. Based on other information sources available, undercapacity for the treatment of municipal waste is likely, as the majority of landfills are not conform with EU legislation.</p> <p>The implementation report on the Landfill Directive [EC 2012e] states that Greece is self-sufficient for municipal waste, however, it also includes information that only one of the total of 71 landfills for non-hazardous waste complies with the Directive.</p>

MS	Summary statement
HU	<p>Data on generation of municipal waste is available. Data on referring capacity only includes information on actual throughput. Data on export/import of municipal waste is included in the draft WMP. However, no actual WMP is in place, the available one is not confirmed by the government. Therefore, information to properly assess existing capacity is not available.</p> <p>Capacity data only includes the annual throughput and no information about existing capacity. Based on this data, capacity cannot be judged. Further, a WMP is not in place.</p>
IE	<p>In Ireland eleven regional WMPs are in place. To assess the situation on a national level a national statement was requested by the Department on Environment, Community and Local Government. However, such a statement was not provided. Based on information provided in other information sources, it is most likely that there exists no undercapacity.</p> <p>Within [EC 2012b] Ireland states that the development of an integrated and adequate network of disposal installations is carried out through the WMP. Each area determines the level of facilities required for future needs. The National Waste Report for 2008 published by the EPA (available at http://www.epa.ie/downloads/pubs/waste/stats/EPA_National_Waste_Report_2008.pdf) includes all necessary data including total and remaining capacities for the existing landfills in Ireland.</p>
IT	<p>In Italy WMPs exist on a regional level (20 regional) and on a provincial level (110 provinces). To assess the situation on a national level a national statement was requested by the Ministry of Environment. However, such a statement was not provided. Based on information provided in other information sources, it is most likely that there exists undercapacity.</p> <p>Available information on Italy shows that there are large differences amongst the regions. There are regions with large undercapacity problems, as the region of Naples. Other regions do have sufficient installations for the treatment of municipal waste in place, for instance the region Lazio (with the capital Rome). Exemplary figures are available for some regions, however information is not sufficient to picture the situation of Italy as a whole. Further in [EC 2012b] Italy delivers figures for “total urban waste” for 2007 and 2008. According to these figures, in 2007, 73,000 tons of such waste out of the total generated 32.5 million tons were exported for disposal. In 2008, total urban waste generated was 32.5 million tons, of which 187,000 tons were disposed of abroad. The extent of self-sufficiency amounts to 99.8% (2007) and 99.4% (2008). Moreover, [BiPRO 2007-2011] contains the information that in some regions of Italy temporary long-term storage increased because of capacity constraints.</p>
LT	<p>Data on generation of municipal waste is not available. Data on referring capacity is scarce. Data on export of municipal waste is not included in the WMP. Information to properly assess existing capacity is not sufficient.</p> <p>Data on waste generation and referring capacity is not available. No sufficient information is included in the WMP. Even though [EC 2012e] does include some reported numbers, it is not possible to appropriately assess whether undercapacity exists. In [EU 2012b] a degree of self sufficiency of 67.9 % is reported in 2009.</p>
LU	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>The current figures indicate rather overcapacity with a remaining capacity of about 18 kt of the existing incinerator, and a remaining capacity of more than 1 mio m³ in landfills.</p>
LV	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>In the national WMP only few data are available on capacity, mainly for the amount landfilled in one reference year (2004). No data on other treatment options such as incineration with or without energy recovery was found (presumably because not yet existent for municipal waste in the country). Also for the predominant management option landfilling no data on total or remaining capacity is provided. However, statements made in the implementation report on the Landfill Directive [EC 2012e] show that sufficient capacity is available.</p>
MT	<p>Data on generation of municipal waste is available but outdated. Information on referring capacity is scarce. Data on import/export of municipal waste is not included in the WMP. Information to properly assess existing capacity is not sufficient, however based on other information sources it is most likely that undercapacity exists.</p> <p>In the national WMP only few figures on the current situation are available, such as on the municipal waste generation for one reference year (2003) and the total capacity of the landfill for municipal waste. Fluctuations in municipal waste generation were expressed in percentage points and not in absolute numbers, making it difficult to retrieve further conclusions. Treatment of municipal waste is based on landfilling; however, no data was available on the remaining treatment capacity in the WMP. The WMP discusses the possibility of establishing waste incineration in Malta. In the WMP there is only an indication that, due to expected increase of the total amount of waste which would go to landfill,</p>

MS	Summary statement
	<p>the capacity of the Ghallis landfill would be exhausted in short time. However, the implementation report on the Landfill Directive [EC 2012e] provides the information on the remaining capacity, which would not be sufficient. No statistical data on the import and export regime was provided.</p>
NL	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>The WMP of the Netherlands provides a good example for the setting and the description of the general policy and principles and the structuring of a WMP taking generally into account the new provisions of the WFD (in particular the waste hierarchy). However, specific data and absolute figures (on capacity and planning, indicators provided with numbers, import/export, capacities of treatment facilities other than landfilling and thermal treatment) are not easy to extract or are not provided, and comparability in terms of data (e.g. with the former WMP) is difficult. Categorisation is not always similar to EU statistics (e.g. division between consumer waste and trade/service/government waste) and makes a comparison difficult. No data on export/import statistics was identified. In order to increase the overall transparency of the document it would be helpful to include an overview chapter providing aggregate data (e.g. divided by waste sources). Waste treatment based on incineration is the prevailing method, and landfilling is to a lesser extent existent. It can be reasonably assumed that the available treatment capacities are sufficient for municipal waste generated.</p>
PL	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>Some information on treatment capacity is included in the WMP. However, there seems to be a discrepancy between municipal waste generated and treated (e.g. 12,101 kt generated, 9,345 kt treated in 2008). According to the WMP, the total treatment capacity for municipal waste, excluding landfilling, is 3,334.6 kt (including 42 kt for incineration). Landfilling is the major treatment option for municipal waste; however, no data was available on the remaining treatment capacity in the WMP. The implementation report on the Landfill Directive [EC 2012e] provides information on the remaining capacity for landfills, which seems to be sufficient taking into account the amounts of annually generated municipal waste. In the WMP it is indicated that Poland has no sufficient infrastructure for recovery and incineration of municipal waste, including biodegradable waste.</p>
PT	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>Portugal provides within both plans information on generation and treatment of waste and related capacity. Details on the capacity are provided for landfill (for waste from "urban origin") and co-incineration (for non-hazardous waste), but not specifically for incineration with energy recovery. The remaining capacity needed to be retrieved from data available, e.g. for single landfills operating and co-incineration plants. The maximum capacity of the co-incineration plants is not indicated for all plants in the same comparable entity (i.e. in max. weight per year and max. weight per hour, which is not comparable as the maximum operational hours per year are not given). No statistical data are provided for import and export of municipal waste. Within the plan it is stated that the country has sufficient treatment capacity for non-hazardous and hazardous waste generated within the national territory.</p>
RO	<p>Data on generation of municipal waste is available but outdated. Information on referring capacity is scarce. Data on import/export of municipal waste is not included in the WMP. Information to properly assess existing capacity is not sufficient, however based on other information sources it is most likely that no undercapacity exists.</p> <p>Data on referring capacity is not included sufficiently in the WMP. Only data on waste incineration capacity is included. However within [EC 2012b] a list on facilities planned for 2009 is included. It states that 25 landfills are compliant with the Landfill Directive, other 101 are not compliant, but are granted a transition until 2017. Further the waste implementation report on the Landfill Directive [EC 2012e] includes a number of 80,000 kt remaining capacity on landfilling. Based on this information a rough judgment can be made stating that undercapacity is not likely.</p>
SE	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>The Swedish WMP provides information on waste generation and annual throughput for 2008. Data on existing capacity is not provided. In [EC 2012b] Sweden reports that it has a remaining capacity for non-hazardous waste to landfills of 40,516 kt. Sweden states in its WMP that, in order to meet the aims of the new WFD and the LD, there has been a substantial expansion of treatment capacity, especially waste incineration. During the financial crisis and recession 2008-2010 waste production decreased. The decreased amount of waste, in combination with the strong expansion of treatment and recovery installations, has led to a shortage of waste to incinerators. Therefore Sweden imports waste from Norway to use its capacity. According to this information it is expected that an undercapacity does not exist.</p>

MS	Summary statement
SI	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>Municipal waste accounts for around 865 kt/y in Slovenia (2006 data). The WMP indicates that sufficient landfilling capacity is available for total waste generated. In addition, Slovenia reported a remaining capacity for landfills of 7,390 kt/y in 2009 [EU 2012e], which can be regarded as sufficient considering that around 800 kt of municipal waste are landfilled annually. In addition the report provides information regarding incineration of waste, and at least for D10 operations the permitted capacity of approximately 800 t/y is indicated within the report. With regard to R1 waste treatment operations, only the total amount of incineration plants operating in Slovenia is given. Nevertheless, considering that the dominant treatment option in Slovenia is landfilling of waste, it can be concluded that undercapacity is not to be expected.</p>
SK	<p>Data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on import/export of municipal waste is not included in the WMP. It is most likely that there exists no undercapacity.</p> <p>Municipal waste accounted for around 1,745 kt/y in Slovakia in 2009. Most of the generated municipal waste was landfilled (i.e. 1,431 kt). The WMP indicates that the remaining landfilling capacity is sufficient in 2009. With regard to incineration with and without energy recovery only the annual throughputs are presented in the WMP. Nevertheless, considering the large remaining capacity for landfilling of municipal waste, undercapacity is not to be expected in SK.</p>
UK	<p>Taking the five regions into account, data on generation of municipal waste and referring capacity is available and consistent with EUROSTAT data. Data on export/import of municipal waste is not included (except for the case of Gibraltar) in the WMP. It is most likely that there exists no undercapacity.</p> <p>In England around 43 % of municipal waste is landfilled, approximately 10 % is incinerated. England reported a remaining capacity for landfills of 746,636 kt in 2009 [EU 2012e], which can be definitely regarded as sufficient considering the annual throughput of municipal waste in England.</p> <p>Scotland provides information on both waste generation and treatment options with related remaining capacities. Details provided for the landfilling remaining capacities and annual throughput indicate that the undercapacity does not exist for future disposal. The information cannot be directly retrieved within the WMP and needs to be further followed in the additional separate documents published by SEPA, which are in general linked in the WMP. Based on data there is no undercapacity.</p> <p>The Northern Ireland WMP provides rather general information; however, data is available at referring separate documents. Most of municipal waste is landfilled. The Northern Ireland Environmental Agency (NIEA) reported to be in a position to report on the treatment capacity after reviewing information submitted by operators in their annual reports in February 2011 [EU 2012e].</p> <p>The WMP of Wales provides data on municipal waste generation and treatment; data is annually updated as links are included in the sector plan. The WMP provides comprehensive information on treatment even for single sub-regions but does not include data on remaining capacity of landfills or total capacity available for incineration. The national implementation report of UK included data on remaining capacity for landfill (data only available summed up for England and Wales), which confirm that enough capacity should be available. No data on import or export are included in the sector plan.</p> <p>Gibraltar is a special case, as its area is very small. It exports all its municipal waste to a landfill in Spain, where recyclable waste is mechanically and manually separated for recovery, with the remaining fraction going to landfill.</p>

Table 4: Summary of information on criterion 3.3 (Forecast of municipal waste generation and treatment capacity in the WMP)

MS	Summary statement
AT	Forecast includes an evaluation of the type, quantity and source of waste generated within the entire geographical territory, and the development of waste streams in the future for several waste streams not only covering municipal waste. An estimate was made of the change in waste generated and the recovery and disposal of the waste streams described in the Federal Waste Management Plan 2011 up to the year 2016. No undercapacity is to be expected due to the information included in the WMP, providing for careful planning and sustainable waste management.
BE	Two of three regional plans do not include concrete projections of future waste generation or treatment, and partly only rough estimations on investments into treatment infrastructure are included. Even if for Belgium as a whole no undercapacity is to be expected, taking into account other information sources and previous planning, the information gaps in the regional WMPs on waste generation and treatment do not allow the formulation of a statement whether sufficient capacity will be available in future.
BG	Regional planning and investments will probably provide for sufficient capacity until 2020. However, the national WMP does not include relevant information on future waste generation and treatment. Due to these information gaps in the WMP no statement can be made whether sufficient capacity will be available in future.
CY	The WMP includes a forecast of waste generation until 2015 but does not provide information on treatment and available capacity. Even if for Cyprus as a whole no undercapacity is to be expected in future, taking into account the ongoing construction of a waste incineration facility with a capacity of 340.000 t/a, which shall start operation in 2016, the information gaps in the WMP on waste generation and treatment do not allow the formulation of a statement whether sufficient capacity will be available in future. Currently, undercapacity is a severe problem.
CZ	No relevant information is included in the WMP. Therefore, it is not possible to assess whether undercapacity is to be expected.
DE	Data on future waste generation and treatment options is well known at regional and national level. The statement says that "the available treatment capacity for municipal waste in Germany is sufficient for more than ten years. There is no capacity overload, rather a small overcapacity in incineration." Further, "Germany is developing methods to avoid landfilling municipal waste. 100 % of residual waste was and will be treated in incinerators or through bio-mechanical waste treatment." Further, "the generation of municipal waste was relatively stable in the last 10 years, while GDP grew by app. 12 % (relative decoupling)".
DK	The WMP includes a forecast for total waste, which is not further differentiated for municipal waste. The forecast of treatment and related capacity is also made for total waste and not differentiated for municipal waste. Forecast is made for the years 2012, 2016 and 2020 (for 2020 only remaining capacity), providing precise data for different recovery and disposal operations. According to the forecast, undercapacity is not to be expected for mixed waste for 2012 and also for 2020.
EE	The WMP includes concrete projections of future waste generation but not for treatment and remaining capacity. Therefore, it is not possible to assess whether undercapacity is to be expected.
ES	No relevant information is included in the WMP.
FI	Information on waste generation and annual throughput for 2016 is provided in the WMP. No data regarding capacity are available in the WMP. It is stated that the aim of Finland is to stabilise the amount of municipal waste and to ensure that the trend will be downwards by the year 2016. Furthermore, a substantial number of waste incineration plants and other treatment facilities are at the planning stage in Finland. According to this information and the data from the National Implementation Plan (remaining capacity for non-hazardous landfills in 2009: 39,780 kt) an undercapacity is not expected.
FR	Following estimates of the Ministry of Environment, only 31 provinces are sure to have sufficient capacity by 2015. Sufficiency of 31 others will depend on the realisation of all planned projects. Other provinces face insufficiency by 2015. The number of sufficient provinces rises, though, when a waste prevention target of 15 % is met. France as a whole will have sufficient capacity. If all planned projects are realised, total capacity (incineration + landfilling) will be in the order of about 38 million tonnes/year by 2015.
GR	The WMP does not include a forecast for waste generation or treatment. Even if for Greece as a whole no undercapacity is to be expected in future, taking into account other information, e.g. from regional WMPs and planned projects, the information gaps in the WMP on waste generation and treatment do not allow the formulation of a statement whether sufficient capacity is available in future.
HU	No WMP is in place. There are no data on future capacity presented in the draft WMP. Only a projection of the waste

MS	Summary statement
	generation and treatment for 2009 to 2014 is presented without further details on the installations.
IE	In Ireland eleven regional WMPs are in place. To assess the situation on a national level a national statement was requested by the Department on Environment, Community and Local Government. However, such a statement was not provided. Based on information provided in other information sources, it is most likely that undercapacity is not to be expected. The National Waste Report for 2008, published by the EPA (available at http://www.epa.ie/downloads/pubs/waste/stats/EPA_National_Waste_Report_2008.pdf), states that, based on the landfill disposal rate for 2008, there is enough capacity to last until 2020. The National Waste Report 2009 confirms that the remaining consented capacity for municipal waste is 28 million tonnes. Further licenses for several incinerators have been issued, however plants (at the end of 2008) were still under construction.
IT	No national statement was provided. Information included in [EC 2012b] and [BiPRO 2007-2011], however, indicate that future undercapacity is likely, especially in some regions of Italy.
LT	No relevant information is included in the WMP.
LU	The WMP does not include projections of future municipal waste generation or treatment. Even if for Luxembourg as a whole no undercapacity is to be expected, taking into account other information sources and the planned new incinerator, which will have a higher total capacity than the previous one, the information gaps in the WMP on waste generation and treatment do not allow the formulation of a statement whether sufficient capacity will be available in future.
LV	The forecast only includes data on municipal waste generation and not for future treatment capacity. For most of the waste streams no information on future developments and generation is provided. The two provided estimations on household waste and biodegradable waste thereof are differing and not comprehensive. As such, no statement can be made whether enough capacity for the estimated future generation of municipal waste will be available.
MT	No relevant information is included in the WMP
NL	The WMP provides forecast information on the municipal waste generation and treatment capacities. No undercapacity is to be expected according to outlined planning treatment capacity for the future. Also, landfilling is not an applicable option for the treatment of municipal waste in the future.
PL	No relevant information is included in the WMP.
PT	Information on municipal waste generation is included, but details on future treatment capacity are limited. No undercapacity is to be expected in Portugal according to outlined investments and planning for the future.
RO	Information in the WMP does only consider an estimation of waste generation in 2013. No projections on treatment capacities are included in the WMP. Therefore, no statement can be made whether sufficient capacity will be available in future.
SE	The WMP does not include projections of future municipal waste generation or treatment. Even if for Sweden as a whole no undercapacity is to be expected, taking into account other information sources, the information gaps in the WMP on waste generation and treatment do not allow the formulation of a statement whether sufficient capacity will be available in future.
SI	No relevant information is included in the WMP.
SK	No relevant information is included in the WMP.
UK	The majority of regions consider relevant future planning based on forecasts for municipal waste generation. Information on future treatment capacity is very well elaborated in some regions but lacks details and explanation in other regional WMPs. Data included in the WMP provide for sufficient capacity in future.

Table 5: Summary of information on criterion 3.4 (Existence and quality of projection of municipal waste generation and treatment)

MS	Summary statement
AT	Relevant information is included in the WMP and provides details on generation and treatment. Forecast includes an evaluation of the type, quantity and source of waste generated within the entire geographical territory and development of waste streams in the future. An estimate was made of the change in waste generated and the recovery and disposal of the waste streams described in the Federal Waste Management Plan 2011 up to the year 2016.
BE	Only one regional WMP contains relevant information; this regional WMP does not provide a full range of details. The effect of prevention, as taken into account, is rather ambitious.
BG	No relevant information is included in the WMP.
CY	Relevant information is included in the WMP but does not provide a full range of details and only focuses on the forecast of waste generation. The methodology is explained, and the whole national territory is covered, providing details on future municipal waste generation per region. The forecast is illustrated with graphs and tables.
CZ	No relevant information is included in the WMP.
DE	A national statement has been provided by the Competent Authority as an information basis, as in Germany five or more plans exist. Quality aspects in this case cannot be applied. In this case the score of 1 applies.
DK	Relevant information is included in the WMP, providing comprehensive projections for both waste generation and treatment and related remaining capacity in future. The forecast is available for mixed waste only and not specifically for municipal waste. The methodology is explained in detail for waste treatment (FRIDA model). Incineration capacities are available for 2006, 2008, 2012, 2016 and 2020. Forecasts for landfilling are made for the entire time period 2013-2020. The entire geographical area is covered. Figures can also be accessed for different regions.
EE	Relevant information is included in the WMP but does not provide a full range of details with regard to treatment, as forecasting only addresses waste generation. The methodology applied is not explained, but the forecast is well illustrated by charts, graphs and tables, and indicators are used. The development over time is projected in time series, and the entire national territory is covered.
ES	No relevant information is included in the WMP.
FI	Relevant information is included in the WMP but does not provide a full range of details. Forecast data for 2016 are listed in a table, but no time series are provided, and also the forecast methodology is not explained.
FR	A national statement has been provided by the Competent Authority as an information basis, as in France five or more plans exist. Quality aspects in this case cannot be applied. In this case the score of 1 applies.
GR	No relevant information is included in the WMP.
HU	There is no WMP in place. Relevant information is included in the draft WMP but does not provide a full range of details. Only the projections for the years 2009-2014 are presented in a table.
IE	No national statement was provided.
IT	No national statement was provided.
LT	No relevant information is included in the WMP.
LU	No relevant information is included in the WMP.
LV	Relevant information is partly included in the WMP but does not provide a full range of details (mainly focusing on waste generation and treatment of biodegradable fractions of waste). Treatment options to be considered as (future) waste management options are not elaborated in detail.
MT	No relevant information is included in the WMP.
NL	Relevant information is included in the WMP and provides a full range of details. The WMP provides information on the size, composition and management of the waste that is expected during the planning period of the WMP. It also takes into account waste management that took place in the recent years. The WMP provides for a brief review of numerical figures in 2006 (ch 7.2), presents scenarios for the total waste supply from 2006 to 2021 (ch 7.3), and finally provides developments and relationships between recovery and disposal operations in the period from 2006 to 2012 (ch 7.4). The scenarios and forecasts are based on estimates of the development of the growth and composition of the population, changes in

MS	Summary statement
	spending patterns, the trend towards a service economy, the use of technologies for efficient production, etc.
PL	No relevant information is included in the WMP.
PT	Relevant information is included in the WMP and provides a full range of details. Two scenarios were modelled to forecast future waste generation for the period 2005 to 2016 and to adopt specific waste policy objectives. The methodological approach is well explained and does not only provide the estimations but also annual growth rates. The illustration includes charts, tables and graphs.
RO	Relevant information is included in the WMP for waste generation only. Charts are included on the evolution of population against the quantity of generated waste, evolution of municipal waste per inhabited environment, evolution of municipal and household waste. The methodology is not explained, and no time series are provided. No information on regional level is considered for the forecast.
SE	No relevant information is included in the WMP.
SI	No relevant information is included in the WMP.
SK	No relevant information is included in the WMP.
UK	Relevant information is included in all regional WMPs, but not in all regional WMPs a full range of details is provided on treatment capacity.

Table 6: Overview of scoring of each criterion and overall score for each Member State (alphabetic order)

EU MS	Criterion		1.1 Decoupling	1.2 WPP	1.3 Amount of municipal waste recycled	1.4 Amount of municipal waste recovered (energy recovery)	1.5 Amount of municipal waste disposed	1.6 Development of municipal waste recycling	2.1 Existence of Ban/restrictions for the disposal of municipal waste into landfills	2.2 Total typical charge for the disposal of municipal waste in a landfill	2.3 Existence of pay-as-you-throw (PAYT) systems for municipal waste	3.1 Collection coverage for municipal waste	3.2 Available treatment capacity for municipal waste	3.3 Forecast of municipal waste generation and treatment capacity in the WMP	3.4 Existence and quality of projection of municipal waste generation and treatment	3.5 Compliance of existing landfills for non-hazardous waste	4.1 Fulfillment of the targets related to biodegradable municipal waste going to landfills	4.2 Rate of biodegradable municipal waste going to landfills	5.1 Number of infringement procedures – WFD and Landfill Directive	5.2 Number of court cases – WFD and Landfill Directive	Overall score
	1.1 Decoupling	1.2 WPP																			
AT	0	2	2 D	2 D	2 D	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	39
BE	1	2	2 D	2 D	2 D	2	2	2	2	1	2	2	0	0	2	2	2	2	1	1	34
BG	2	0	0 D	0 D	0 D	0	0	0	0	0	0	0	0	0	0	2	1	1	2	2	8
CY	0	0	1 D	0 D	0 D	2	0	0	0	2	0	0	0	1	0	0	0	2	2	2	11
CZ	2	0	0 D	1 D	1 D	2	0	1	1	2	2	0	0	1	0	0	1	2	2	2	18
DE	1	0	2 D	1 D	2 D	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	36
DK	0	0	2 D	2 D	2 D	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	37
EE	2	0	1 D	0 D	0 D	0	1	1	1	0	2	0	1	2	2	2	1	1	1	1	17
ES	2	0	1 D	1 D	1 D	1	0	1	1	2	2	0	0	1	2	2	1	1	1	1	21
FI	1	2	1 D	2 D	1 D	0	1	1	2	2	2	2	2	1	1	2	2	2	2	2	31
FR	1	2	1 D	2 D	2 D	1	1	1	1	2	2	2	2	1	1	2	2	1	1	1	31
GR	1	0	0 D	0 D	0 D	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
HU	1	0	1 D	1 D	1 D	2	0	0	1	0	0	0	0	0	2	2	1	2	2	2	19
IE	0	2	1 D	1 D	1 D	1	1	2	1	0	2	2	0	2	2	0	0	0	0	0	19
IT	0	0	1 D	1 D	1 D	0	1	2	1	2	0	0	0	0	0	2	1	0	0	0	15
LT	2	0	0 D	0 D	0 D	1	1	0	1	0	0	0	0	0	0	0	0	2	2	2	9
LU	0	0	2 D	2 D	2 D	2	2	2	1	2	2	0	0	2	2	2	2	2	2	2	33
LV	2	0	0 D	0 D	0 D	1	1	1	0	0	2	0	1	2	0	0	2	2	2	2	14
MT	0	0	0 D	0 D	0 D	2	0	0	0	2	0	0	0	2	0	0	1	2	2	2	9
NL	0	2	2 D	2 D	2 D	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	39
PL	1	2	1 D	0 D	1 D	2	1	1	1	0	2	0	0	1	0	0	1	2	2	2	18
PT	0	2	0 D	2 D	1 D	1	0	0	0	2	2	2	2	2	2	0	0	1	1	1	21
RO	2	0	0 D	0 D	0 D	1	0	0	0	0	2	0	1	0	0	1	2	2	2	2	11
SE	1	2	2 D	2 D	2 D	2	2	2	1	2	2	0	0	1	2	2	2	2	2	2	35
SI	2	0	2 D	1 D	1 D	2	1	2	2	0	2	0	0	0	0	2	1	1	2	2	25
SK	2	0	0 D	1 D	0 D	1	1	0	1	2	2	0	0	1	2	1	1	1	1	1	17
UK	1	2	2 D	1 D	2 D	2	0	1	1	2	2	2	2	1	1	2	1	2	2	2	32

Note: Scores for the criteria 1.3, 1.4 and 1.5 (marked with 'D') are doubled for overall scoring.

6 Annex II: Information sources

6.1 Overview on available and screened national and regional waste management plans

MS or Region	WMP	Time scope	Link
AT	Federal Waste Management Plan <i>BAWP - Bundesabfallwirtschaftsplan</i>	2011-2017	http://www.bundesabfallwirtschaftsplan.at/
BE - Flanders	Implementation Plan for Environmentally Responsible Household Waste Management	2008-2015	http://www.ovam.be/jahia/Jahia/cache/off/pid/176?actionReq=actionPubDetail&fileItem=1591
BE - Wallonia	Waste Plan Wallonia (Horizon 2010) Le Plan Wallon des Déchets	1998 until the new plan Horizon 2020 is adopted	http://environnement.wallonie.be/rapports/owd/pwd/index.htm
BE - Brussels	Waste Prevention and Management Plan	since 2010	http://www.bruxellesenvironnement.be/uploadedFiles/Contenu_du_site/Professionnels/Formations_et_s%C3%A9minaires/Conf%C3%A9rence_Pre-waste_2011_(actes)/w-brusselsenvironnement-wasteplanEN.pdf
BG	National Waste Management Programme <i>НАЦИОНАЛНА ПРОГРАМА ЗА УПРАВЛЕНИЕ НА ДЕЙНОСТИТЕ ПО ОТПАДЪЦИТЕ ЗА ПЕРИОДА</i>	2009-2013	http://www.moew.government.bg/recent_doc/waste/NWMP_2009-2013_FINAL.doc
CY	National Strategic Solid Waste Management Plan of Cyprus <i>Στρατηγικό Σχέδιο Διαχείρισης Στερεών Αποβλήτων στην Κύπρο</i>	since 2003	http://ucm.org.cy/DocumentList-stratigiko_schedio_diacheirisis_ton_stereon_apovliton_stin_kypro_%28teliki_ekthesi_iounios_2002%29,21,Greek
CZ	National Waste Management Plan of the Czech Republic	2003-2013	http://www.mzp.cz/C125750E003B698B/en/waste/\$FILE/waste_management_plan.pdf
DK	Waste Strategy <i>Regeringens Affaldsstrategi</i>	2009-2012	http://www.mst.dk/NR/rdonlyres/747FBCE2-A3D4-444F-BF60-D1747C36516D/0/Endelig1delafAffaldsstrategi200912.pdf (Part 2009)) http://www.mst.dk/NR/rdonlyres/5944D6BF-C455-4A94-A7D1-9062ED0173A0/0/Affaldsstrategi10.pdf (Part 2010)
EE	National Waste Management Plan <i>RIIGI JÄÄTMEKAVA</i>	2008-2013	http://www.envir.ee/orb.aw/class=file/action=preview/id=1075105/RIIGI+J%C4%44TMEKAVA+2008-2013.pdf
ES	National Integrated Waste Plan	2007-2015	http://www.icog.es/files/PNIR3.pdf

European Commission

Screening of waste management performance of EU Member States

Support to Member States in improving waste management based on assessment of Member States' performance

MS or Region	WMP	Time scope	Link
	<i>Plan Nacional Integrado de Residuos (Pnir)</i>		
FI	Towards a Recycling Society – The National Waste Plan for 2016	2009-2016	http://www.environment.fi/download.asp?contentid=102639&lan=en
GR	Measures and Terms for Solid Waste Management. National and Regional Plan <i>Μέτρα και Όροι για τη Διαχείριση Στερεών Αποβλήτων. Εθνικός και Περιφερειακός Σχεδιασμός (ΚΥΑ Η.Π. 50910/2727/2003)</i>	since 2003	www.elinyae.gr/el/lib_file_upload/b1909_2003.pdf
HU	No national waste management plan in force	n/a	There is no national WMP in force. There is only a draft National Waste Management Plan for 2009-2014, published in March 2010: http://www.kvvm.hu/index.php?pid=1&sid=1&hid=2597
LT	National Strategic Waste Management Plan, amended December 2010 <i>Valstybinis Strateginis Atliekų Tvarkymo Planas</i>	2007-2013	http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=388766&p_query=&p_tr2=2&p_hil=&p_sess=&p_no=1
LV	National Waste Management Plan <i>Atkritumu apsaimniekošanas valsts plāns</i>	2006-2012	http://www.varam.gov.lv/lat/likumdosana/normativie_akti/?doc=14572
LU	General Waste Management Plan <i>Plan général de gestion des déchets</i>	2010-2016	http://www.environnement.public.lu/dechets/dossiers/pggd/pggd_plan_general.pdf?SID=cbafe0ec45acfd2b12c95902bad67c4af
MT	Waste Management Plan for the Maltese Islands	2008-2012	http://www.mrra.gov.mt/files/uploaded/files/Waste%20Management%20Plan%20for%20the%20Maltese%20Islands.pdf
NL	National Waste Management Plan <i>Landelijk afvalbeheerplan 2009-2021</i>	2009-2015 with a prognosis up to 2021	http://www.lap2.nl/sn_documents/downloads/01%20Beleidskader/versie%202010-02%20%281e%20wijziging%29/beleidskader-00-compleet_2010-02-16.pdf
PL	The National Waste Management Plan <i>Krajowego planu gospodarki odpadami</i>	2011-2014 Outlook 2015- 2022	Polish National Waste Management Plan: http://monitorpolski.gov.pl/MP/2010/s/101/1183 English summary on Polish National Waste Management Plan: http://www.mos.gov.pl/g2/big/2010_10/30301f2dd17722c5e79fdc0a955bbe53.pdf
PT	National waste management plan <i>Plano Nacional de Gestão de Resíduos</i> Strategic plan for urban solid waste <i>Plano Estratégico para os Resíduos Sólidos Urbanos</i>	2011-2020 2007-2016	http://www.apambiente.pt/concursos/TGR/Documents/PNGR_2011-2020.pdf (the document available is only a draft version no longer accessible under this link) http://www.maotdr.gov.pt/Admin/Files/Documents/PERSU.pdf

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MS or Region	WMP	Time scope	Link
RO	National Waste Management Plan <i>Planul National de Gestionare a Deseurilor</i>	2003-2013 Revision every 5 years	http://www.anpm.ro/upload/3827_PNGD.pdf
SE	National Waste Management Plan <i>REMISSUTGÅVA 2011-09-12 - Från avfallshantering till resurshushållning</i>	2012-2017	http://www.naturvardsverket.se/upload/20-om-naturvardsverket/remisser/2011/Ny-nationell-avfallsplan/Remissutgava-nationell-avfallsplan-110912.pdf
SI	Operational programme of waste disposal with the aim of reducing quantities of biodegradable waste <i>Operativni Program Odstranjevanja Odpadkov s ciljem Zmanjšanja Količin Odloženih Biorazgradljivih Odpadkov</i>	since 2008	http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/zakonodaja/okolje/varstvo_okolja/operativni_programi/op_odpadki_biorazgradljivi.pdf
SK	Waste management plan of the Slovak Republic <i>Program odpadového hospodárstva Slovenskej republiky na roky</i>	2011-2015	http://www.minzp.sk/files/oblasti/odpady-a-obaly/poh/poh2011-2015/poh-sr-2011-2015.pdf http://www.minzp.sk/files/oblasti/odpady-a-obaly/poh/poh2011-2015/priloha_01.pdf (Annex 1) http://www.minzp.sk/files/oblasti/odpady-a-obaly/poh/poh2011-2015/priloha_02.pdf (Annex 2) http://www.minzp.sk/files/oblasti/odpady-a-obaly/poh/poh2011-2015/priloha_03.pdf (Annex 3) http://www.minzp.sk/files/oblasti/odpady-a-obaly/poh/poh2011-2015/priloha_04.pdf (Annex 4) http://www.minzp.sk/files/oblasti/odpady-a-obaly/poh/poh2011-2015/priloha_05_06.pdf (Annex 5, 6)
UK - England	Government Review of Waste Policy in England 2011 Waste Strategy for England 2007	since 2011	http://www.defra.gov.uk/publications/files/pb13540-waste-policy-review110614.pdf http://www.defra.gov.uk/statistics/environment/waste/ http://www.defra.gov.uk/statistics/files/mwb201011_statsrelease.pdf http://archive.defra.gov.uk/environment/waste/strategy/strategy07/documents/waste07-strategy.pdf
UK - Wales	Towards Zero Waste. One Wales: One Planet. The Overarching Waste Strategy Document for Wales Municipal Sector Plan Part 1	since 2010 since 2011	http://wales.gov.uk/docs/desh/publications/100621wastetowardszeroen.pdf http://wales.gov.uk/docs/desh/publications/110310municipalwasteplan1en.pdf
UK - Scotland	Scotland's Zero Waste Plan	since 2010	http://www.scotland.gov.uk/Resource/Doc/314168/0099749.pdf
UK - Northern Ireland	Towards Resource Management The Northern Ireland Waste Management Strategy 2006 - 2020	since 2006	http://www.doeni.gov.uk/towards_resource_management.pdf
UK - Gibraltar	Gibraltar Waste Management Plan 2011	2011-2013	http://www.environmental-agency.gi/pdf/Gibraltar_waste_management_plan_2011.pdf

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Table 8: National waste prevention programmes available as separate programmes (and not included in WMPs or other environmental programmes)

MS or Region	WPP	Time scope	Link
FR	Waste Prevention Programme <i>Prévention de la production de déchets</i>	since 2004	http://www2.ademe.fr/servlet/KBaseShow?sort=-1&cid=96&m=3&catid=23839
IE	National Waste Prevention Programme – Prevention Plan 2009-2012	2009-2012	http://www.epa.ie/downloads/pubs/waste/prevention/Prevention%20Plan%202009-2012%20FINAL2.pdf
PT	Waste Prevention Programme <i>Programa de Prevenção de Resíduos Urbanos</i>	2009-2016	http://www.apambiente.pt/Destaques/Paginas/PlanodePreven%C3%A7%C3%A3odeRes%C3%ADduosUrbanos%28PRU%29.aspx (the document available is no longer accessible under this link)
UK Northern Ireland	Framework for Waste Prevention in Northern Ireland	since 2005	http://www.doeni.gov.uk/niea/wasteprevention_2.pdf
UK Scotland*	Household waste prevention action plan	since 2007	http://www.scotland.gov.uk/Resource/Doc/166848/0045564.pdf

*Scotland's Zero Waste Plan gives priority to waste prevention, and the Scottish Government committed to develop a Waste Prevention Programme by the end of 2010 (Annex A of the WMP, available at: <http://www.scotland.gov.uk/Publications/2010/06/08092645/6>)

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