

Selective Collection Of The Organic Waste In Tourist Areas



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Manifesto for proper food waste management in the Mediterranean Basin

1

This Manifesto focuses on food waste collection and recycling, having acknowledged the priority of the strategies of source reduction, human consumption and animal feeding (reduction of food wastage) which come further up the waste hierarchy.

We acknowledge that bio-waste (mainly food waste and vegetable waste) is a strategic part of the Municipal Solid Waste (MSW) stream that has to be managed properly in order to contribute to sustainable environmental waste management, and reduce greenhouse gas (GHG) emissions from open-dumps and landfills. Effective recycling of bio-waste (which forms the largest fraction of the MSW stream) can turn a clean waste source into a renewable resource, easily available organic soil improver / fertilizer that can effectively improve properties of Mediterranean soils, as well as acting as a carbon sink.

We highlight the fact that bio-waste recycling is conceived as a waste treatment process that starts from separately collected bio-waste and turns it primarily into a quality compost, but also into a fuel (biogas) and digestate.

The stabilized organic waste obtained from residual waste in mechanical biological treatment (MBT) plants is excluded from this strategy. Nevertheless, we recognise MBT plants as a suitable approach for residual waste treatment, especially when later converted to quality composting facilities.

Signatories to the manifesto agree on the following key points /statements and commit to



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promote and spread these principles when interacting with policy makers and other stakeholders as well as to incorporate and implement these strategies when possible:

2

1. Drivers

A clear policy addressing bio-waste prevention, reuse, separate collection and appropriate recycling at regional, national and international level is a key element to promote effective local municipal waste management strategies.

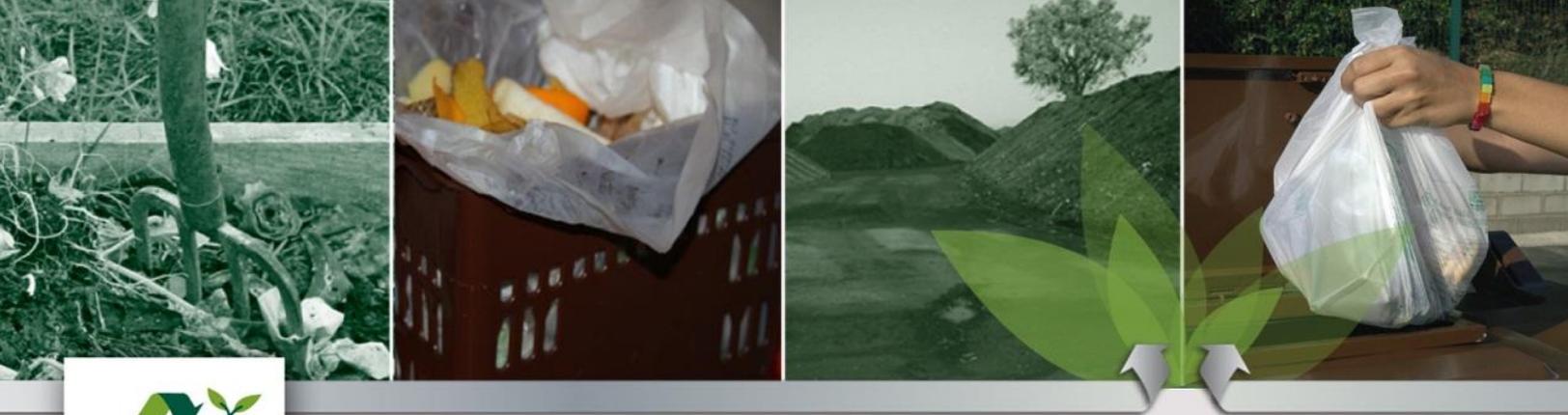
Commitment: signatories to this Manifesto commit to support the introduction of appropriate drivers for prevention, reuse and separate collection and recycling of bio-waste as part of regional/national strategies for MSW management.

Suggestion: One of the most appropriate drivers is the introduction of specific recycling targets for bio-waste, giving priority to food waste that has to be minimized in residual waste. These targets should become mandatory in a reasonable timeframe. To promote bio-waste recycling, landfill and incineration taxes or bans on biowaste disposal combined with incentives can be introduced as first drivers..

2. Targets

Defining clear targets for bio-waste collection and/or recycling are always an advantage to steer regional/ national strategies to reduce the amounts of bio-waste to be disposed of.

Commitment: signatories of the Manifesto commit to support the introduction of targets for food waste collection and recycling, besides other targets on bio-waste as a whole or on green waste only.



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3

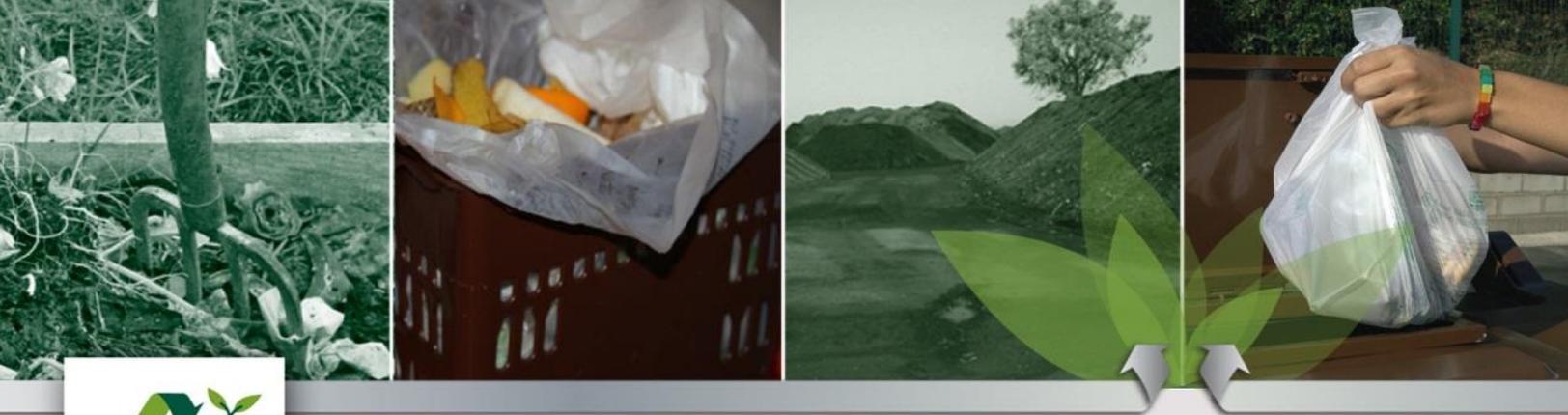
Suggestion: For Southern Mediterranean countries, authorities could target at first the assimilated waste fraction with a particular focus on HORECA, cantines, caterers, public market waste, supermarkets. For Northern Mediterranean countries, and more developed situations, a feasible nationwide/regional target is 60-80 kg/ca/y or 50-60% of the estimated generation of food waste (excluding garden waste) including also collection from households.

3. Collection scheme: food waste vs. green waste

In the first instance, food waste should be addressed, especially in Southern Mediterranean countries, due to its typical larger presence inside MSW as compared to garden and park waste. Properly managing food waste fraction gives a significant contribution in ameliorating local hygienic condition, reduces nuisance of MSW management and constitutes an excellent feedstock for quality compost production which however needs green waste or other bulking agent (in case it is addressed to composting).

Commitment: signatories of the Manifesto commit to support separate collection schemes of bio-waste, focusing specifically on food waste.

Suggestion: implement dedicated food waste collection in order to minimize costs and capture higher amounts; consequently the remaining organic matter (OM) in the residual waste to be collected will be drastically minimized and therefore allow for less frequent collection. Green waste, where generated in large amounts, should be addressed in a different way supplying bulking material for home and community composting or composting facilities.



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4. Separate collection model: kerbside vs. bring schemes

Twenty years of on-field experience and technical research in MSW management show that the most effective and convenient scheme for delivering food waste is kerbside (door-to-door). Long-term experience in kerbside collection of food waste is already in place in both urban and rural areas of Mediterranean countries especially in Italy, including some dense urban areas (Milano), small and medium municipalities (e.g. in Catalonia, Basque country, Navarra), Tourist Resorts (Djerba\Tunisia) and Islands (Sardinia). This scheme has also proved to be practical, environmental and economical in most situations.

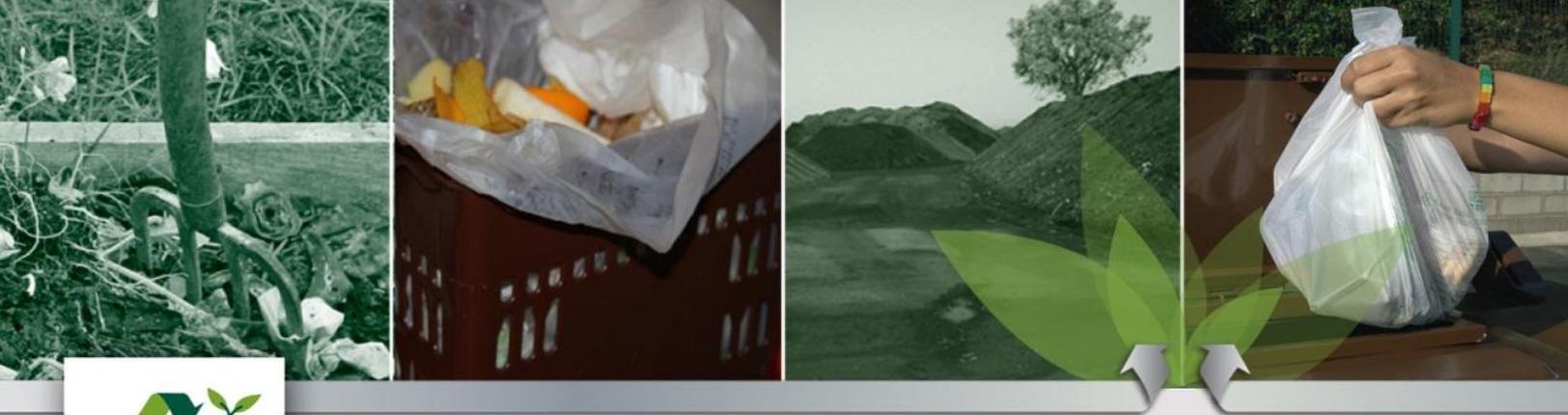
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Commitment: signatories shall support the development of comfortable and appropriate food waste collection schemes, also from an environmental and economic point of view, giving preference to kerbside systems, wherever feasible.

Suggestion: Municipalities should exchange good-working trial cases so to capitalize on existing best-practices. Collection schemes should allow the checking of waste at the point of production/waste producer, so to minimize impurity levels and maximize bio-waste quantities, as well as user identification. Community composting can play an important role when recycling facilities are not available and especially in Southern Mediterranean countries.

5. Impurities

Impurities (any kind of non-compostable foreign materials present in the biowaste separate collection stream) can become a critical factor for effective high quality compost production, hence they must be minimized at source. This can be done by means of informing citizens, use of effective and hygienic tools given to waste producers, quality control, traceability and most importantly awareness activities.



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Commitment: signatories commit themselves to support collection schemes that minimize impurities at source and implement any kind of control & traceability mechanism on impurities of biowaste separate collection.

5

Suggestion: surveys and experts agree that local authorities should provide households and commercial activities at a minimum with free tools for enhancing user-friendliness in bio-waste collection and to avoid impurities. Basic tools shall include a kitchen caddy and whenever possible, compostable bags with quality check at the kerbside.

6. Participation

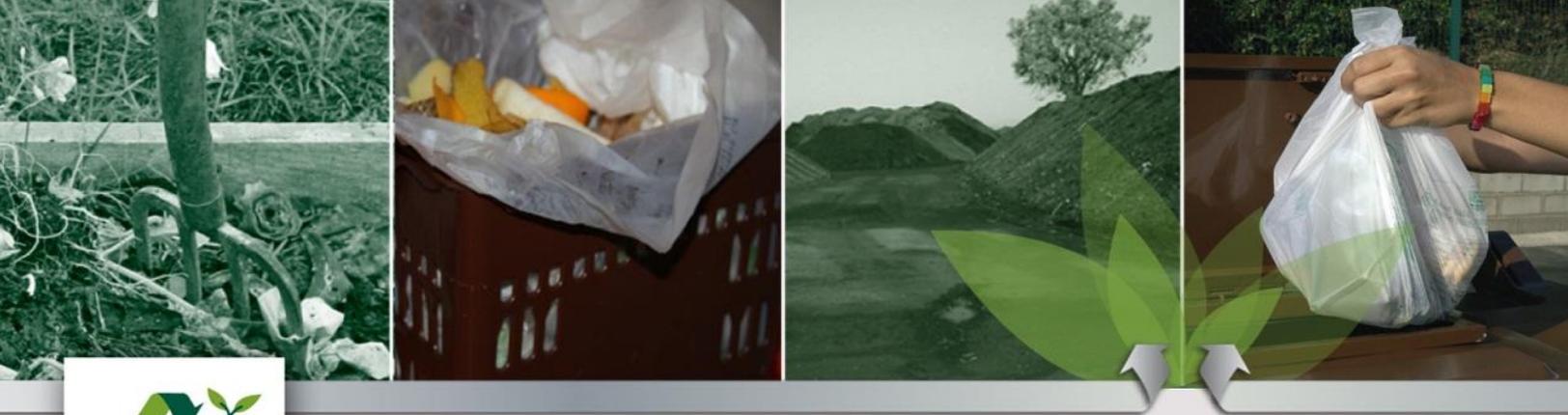
Citizens participate to bio-waste collection if they are involved in a scheme, which gives them clear information and instructions, proper, useful and easy-to-use tools, some economical incentives, and evidence of the outcomes of the recycling process.

Commitment: signatories commit themselves to support initiatives to spread knowledge and awareness about bio-waste collection and recycling to the maximum possible extent.

Suggestion: At municipal level Southern Mediterranean Countries should combine at least public awareness activities with specific agreements with the main bio-waste generators (e.g. HoReCa, markets), while more advanced municipalities and Northern Mediterranean Countries may also consider innovative financial tools like PAYT charges applied on residual waste.

7. Type & size of composting facilities

In Northern Mediterranean countries and Urban Areas centralized medium and large scale facilities already operate at the best, in both urban and rural areas, and the economical



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6

sustainability is guaranteed by the gate fee, besides the market value of compost.

In rural and non-dense areas there is a potential also for low tech and low cost solution, to guarantee economic affordability and this can apply especially in Southern Mediterranean Countries. Micro-scale facilities for community composting can play an important role especially in suburban and rural areas where intensive collection is still not feasible, and also increase the environmental awareness of their users.

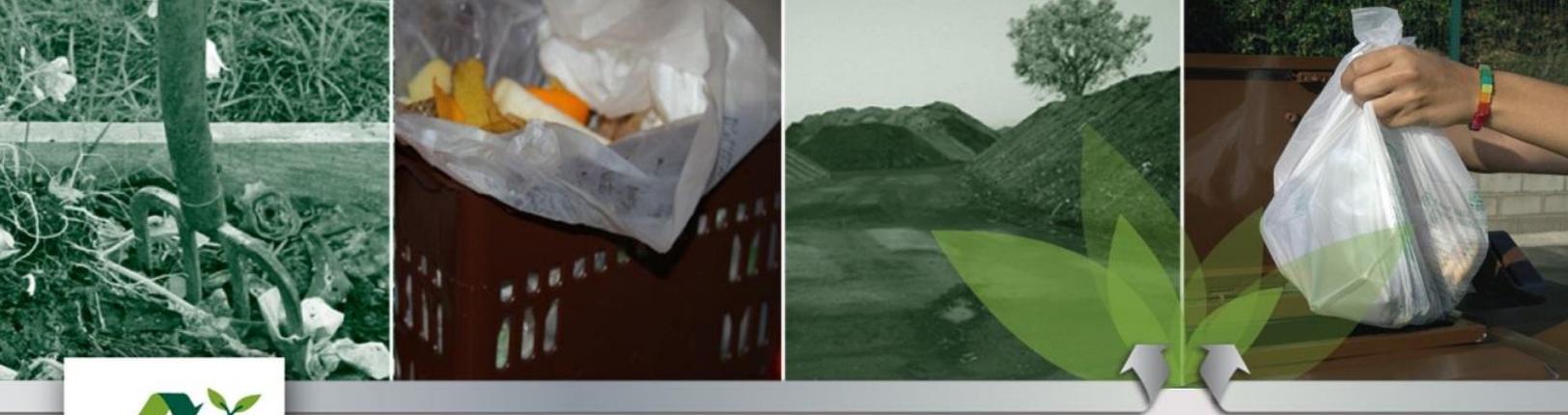
Small-scale approaches can ease to involve local farmers as clients and users for compost, also considering ongoing desertification process of soils in the Med countries.

Commitment: signatories commit to support all kind of initiatives aimed at developing a steadily developing bio-waste recycling capacity, to be economically and technically sustainable in the long term.

Suggestion: Decentralised small scale solutions –which demands for a very clean biowaste material– should be implemented where a large scale industrial facility is still not economically and environmentally feasible; actually large-scale plants allow for higher treatment capacities of bio-waste, covering a higher population area. Their viability can be improved by simply optimising logistics of transport at the collection stage.

8. Compost quality and marketing

Quality, among other criteria, plays a major role in developing a market and increasing revenues from composting, hence it needs to be addressed as a basic strategic goal when promoting compost. A positive list of bio-waste accepted as input material combined with setting quality criteria (and certification) for produced material can significantly enhance the quality of the compost and its marketing. Independent certification agents/organizations are important to enforce a quality assurance scheme for compost.



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It is also important to promote the role and benefits of compost with respect to other lower grade materials (sludges, biostabilised organic waste from MBT) that are sometimes allowed to be directly applied to the soils under national non-updated legislations with lower requirements and controls than for compost.

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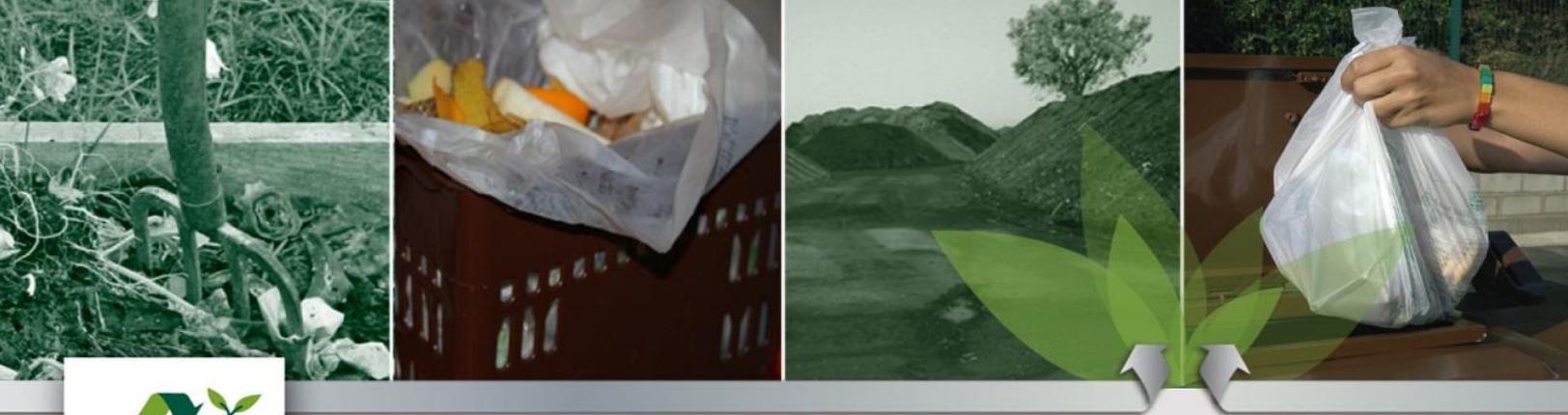
Commitment: signatories commit to support all initiatives to support compost production from separate collection of bio-waste, and that intend to assure quality for compost to finally promote a real compost market preferably with proximity criteria.

Suggestion: In Southern Mediterranean countries, where compost is still largely unknown, considerable efforts should go for communication campaigns and information directed at potential compost users. Those are however useful also in Northern Mediterranean countries, where a good quality assurance scheme and certification helps to give a positive perception of the compost itself therefore enforcing the market for quality compost.

9. Regional cooperation

Strategically cooperation between different countries should be based on knowledge sharing and capacity building by common training, addressing technicians and decision makers. The database of best practices is currently so huge, but needs to be evaluated and exploited in a common network.

Commitment: signatories of the Manifesto commit to support local authorities and other stakeholders in actively joining a knowledge platform for bio-waste management in the Med Countries.



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Suggestion: For a consistent development of food waste management and recycling strategies in Med Countries, a common platform for knowledge-sharing comes first and allows local initiatives to clearly define the needs for technical assistance so to start pilot projects. The development of a national and international compost market may come as a consequence, aimed also at the reduction of peat import.

8

10. Monitoring and benchmarking

Generally speaking, obtaining political support is key in order to develop proper strategies, in every country combined with the implementation of systematic monitoring of the results of bio-waste collection schemes, functioning facilities and surveying the evolution of compost markets.

Commitment: signatories of the Manifesto should encourage environmental authorities (at regional or national level) and commit themselves to monitor activities and promote the inclusion of bio-waste recycling (possibly focusing on food waste) into the development of environmental strategies and disseminate the already existing good practices.

Suggestion: Specifically in Southern Mediterranean countries, a specific role is played by the informal sector, where it may help implementing low cost collection solutions even at the household level as well as at the other steps of bio-waste management.

Barcelona, February 2015.