



Italy– Country Report on national food waste policy

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All the information is updated to July 31st, 2016. However, in the case of the Italy Country Report, the information related to Law 166/2016 were also included (despite it was approved in August 2016) due it is relevance in the Italian regulatory framework.

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Definitions and abbreviations

Glossary

National strategies on food waste prevention are high level plans/programmes designed as a comprehensive set of policy measures specifically addressing food waste prevention. Key sectors addressed in the plan could include local authorities, households, the hospitality industry, the retail supply chain, businesses and institutions (such as schools and hospitals) as suggested by the EU Guidelines on the preparation of food waste prevention programmes¹.

Market-based instruments are policy measures that encourage behavioural change through market signals rather than through traditional regulations. Examples include environmentally related taxes, charges and subsidies, emissions trading and other tradable permit systems, deposit-refund systems, environmental labelling laws, licenses, and economic property rights.

Regulations and regulatory instruments are governmental or ministerial orders having the force of law. Regulatory instruments are sometimes called "command-and-control"; public authorities mandate the performance to be achieved or the technologies to be used.

Voluntary agreements are alternative courses of actions such as self-regulations developed by the industry and agreements between public and private organizations generally aimed to deliver the policy objectives faster and/or in a more cost-effective manner compared to mandatory requirements.

Technical reports and main scientific articles refer to publications that report results of experimental and/or theoretical scientific investigations to enhance the body of scientific knowledge (in this case about food waste and losses).

Communication and campaigns include national "umbrella" campaigns; campaigns; short campaigns and festivals; education and training activities; contests and competitions; exhibitions, whose aim is to raise awareness on food waste. Communication includes seminars and lectures; vocational trainings; books and manuals.

Projects and other measures: refer to any other initiatives, promoted and/or delivered by any kind of organisation addressed to food waste prevention that do not fit into the previous categories.

Food waste policy mix highlights: refers to negative and positive highlights and analytical data emerging from the analysis of the policies.

¹ BIO Intelligence Service (2012) Guidelines on the preparation of food waste prevention programmes http://ec.europa.eu/environment/waste/prevention/pdf/prevention_guidelines.pdf

Abbreviations

FWM: Food waste management
FWG: Food waste generation
FWR: Food waste reduction
OFU: Optimization of food use

Other abbreviations used within the document

ABP: Animal by-products
BMW: Biodegradable municipal waste
CONOE: Mandatory National Consortium for collecting and processing animal and vegetable fats and oils
D.L.: Decree Law
D.lgs: Legislative Decree
D.P.R.: Decree of the President of the Republic
DISTAL: Dipartimento di Scienze Tecnologie agro-ALimentari (Department of Agricultural and Food Sciences)
FBAO: Fondazione Banco Alimentare Onlus
GPP: Green public procurement
HACCP: Hazard analysis and critical control points
MD: Ministerial Decree
MEC: Minimum environmental criteria
MELS: Ministry of the Environment, Land and Sea
Mipaaf: Italian Ministry of Agricultural Food and Forestry Policies
MoU: Memorandum of Understanding
NFWPP: National Food Waste Prevention Plan
NPO: Nonprofit organisation
NWPP: National Waste Prevention Programme
O.N.L.U.S.: Nonprofit organizations that carry out their activity for the purposes of charity
PAYT: Pay as you throw
PINPAS: Piano Nazionale di Prevenzione degli Sprechi Alimentari (National food waste prevention plan)
RWMP: Regional Waste Management Plan
SMEs: Small and Medium Enterprises
VAT: Value-added tax
WFD: Waste Framework Directive (Dir. 2008/98/CE)

Legenda

A1 	Primary production pre-harvest
A2 	Primary production ready for post-harvest
A3 	Processing and manufacturing
A4 	Wholesale, logistic, retail and marketing
A5 	Food preparation and consumption

Structure of the country report

- A) National strategy on food waste prevention
- B) Market-based instruments
- C) Regulations and regulatory instruments
- D) Voluntary agreements
- E) Technical reports and main scientific arts
- F) Communications and campaigns
- G) Projects and other measures
- H) Food waste policy mix: highlights

References

A) National strategy on food waste prevention

A1) PINPAS: National Food Waste Prevention Plan

With the Directorial Decree of 7th October 2013, the Ministry of the Environment, Land and Sea (MELS) passed the National Waste Prevention Programme (NWPP), in accordance with the provisions of art.29, clause 1 of the "Waste Framework Directive" (Dir. 98/2008/EC).

The Italian NWPP, in line with the "European guidelines on the preparation of waste prevention programmes"², identifies bio-waste (especially the food waste fraction) as one of the key waste streams to be targeted. Five specific "prevention measures" targeting the food waste stream are included: 1. valorisation of food industry by-products; 2. donation of unsold food from large-scale retail trade; 3. promotion of short supply chain systems; 4. promotion of voluntary eco-labelling schemes for the food service sector; 5. reduction of household food waste. In accordance with art.199 clause 3, letter r) of D.lgs 152/2006 (the so-called "Consolidated Environmental Act"), the Italian regions have been called to integrate these provisions within their Regional Waste Management Programmes (RWMP) within a year of its adoption, by October 2014³.

A few months later, embracing the European Commission's invitation to tackle the issue of food waste within National Waste Prevention Programmes (see Com. 571/2011 - "*Roadmap to a Resource Efficient Europe*"), the Italian MELS, with the technical-scientific support of the Department of Agricultural and Food Sciences (DISTAL) of the University of Bologna and the cooperation of the University spin-off Last Minute Market, gave the go-ahead to the definition of a National Food Waste Prevention Plan (also known as PINPAS). To this aim, with Decree 358/2013, the former Italian Minister of the Environment (Andrea Orlando) established the "Task Force n°.5 - *Analysis and elaboration of food waste reduction models*" within the framework of the "*Study group for the identification of political strategies and priorities*". As expressly indicated within the Decree, the term of office of the Task Force's members expired soon afterwards, at the end of the government's term. The interest toward the definition of a NFWPP was then publicly, even if not formally, reconfirmed by the new (current) Minister of the Environment who, with Decree n°185 of July 8th 2014, established the Technical-Scientific Committee for the implementation of the NWPP. The Committee (among other duties) draws up proposals addressed to the MELS aimed at preventing food waste generation within the framework of waste prevention policies.

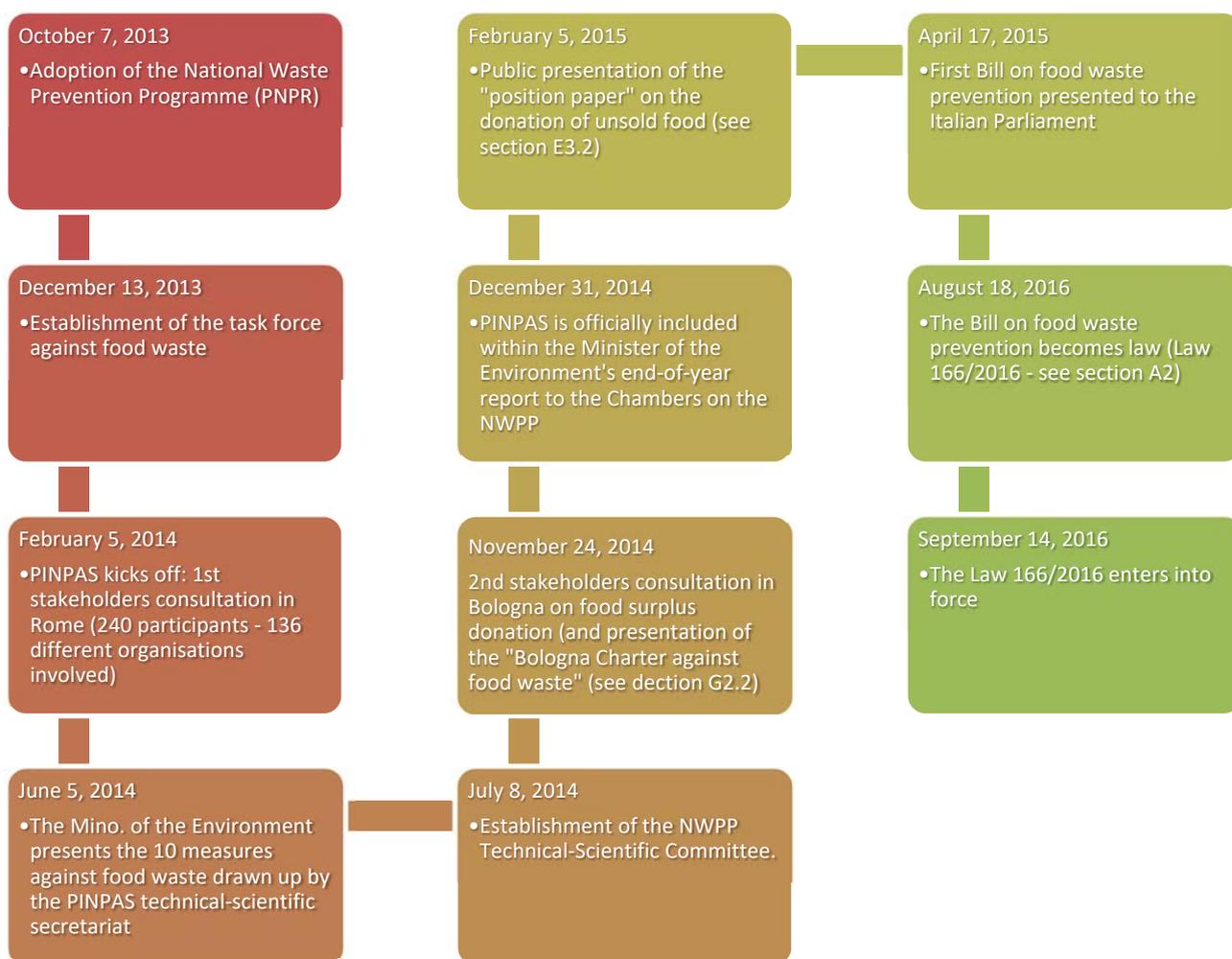
PINPAS has taken a course of actions aimed at engaging the main national food supply chain (FSC) stakeholders toward the identification of policy measures to reduce food waste. Two main summary documents were drawn up during the course of the Plan's work: the document containing the "priority actions to reduce food waste" (see section E3.1) and the "position paper on the donation of unsold food" (see section E3.2). The work was mainly developed and coordinated within a Doctorate programme at DISTAL - University of Bologna - between 2012

² BIOIS 2012: Preparing a Waste Prevention Programme - Guidance document, available at: <http://ec.europa.eu/environment/waste/prevention/pdf/Waste%20prevention%20guidelines.pdf>

³ The analysis of the food waste prevention measures contained in RWMPs and of the extent of their implementation fall beyond the scope of this Report. They are an integral part of the REDUCE project (see section G8.3) started in 2016 and funded by the Italian MELS.

and 2014 and embodied in the PhD thesis entitled “Strumenti di prevenzione e riduzione degli sprechi alimentari: un piano nazionale per l'Italia” (*Food waste prevention and reduction tools: a national plan for Italy*) (see section E4.2). Although a formal legislative act adopting the Plan has not been issued nor have economic resources been allocated to it (except for the resources allocated under the public tender described in section G13.1). The activities carried out during the PINPAS programme and the related findings and recommendations then inspired a number of bills on food waste prevention (see section A2) that led to the recent approval of Law 166/2016 on food waste and considerably raised public and media attention on the issue. The following figure shows the main steps of the PINPAS programme, up to the entry into force of the Italian law (Law 166/2016) against food waste.

Fig.1 – Milestones of the PINPAS programme



Types of implications: optimisation of food use, food waste reduction
Food supply segments involved/addressed: all.

A2) Law 166/2016 - Disposizioni concernenti la donazione e la distribuzione di prodotti alimentari e farmaceutici a fini di solidarietà sociale e per la limitazione degli sprechi (*Provisions concerning the donation and distribution of food and pharmaceutical products for the purposes of social solidarity and to limit wastage*)

Law no. 166/16 of 19 August 2016, published in Official Journal no. 202 of 30 August 2016 and entered into force on September 14, 2016, pursues (among others) the objective of reducing food waste in each stages of the food supply chain (FSC), from production to consumption. The original legislative proposal (3057) was presented to the Italian Parliament on April 17, 2015 and later (on December 17, 2015) merged, along with another six bills on the same subject, into the unified text adopted at the first reading by the Chamber of Deputies on March 17, 2016.

The law is mainly focused on the recovery and donation of surplus food generated in the different stages of the FSC for charitable purposes. The approach used in this case is broadly consistent with the one adopted during the course of PINPAS, which is aimed at fostering surplus food donation by means of simplification and harmonisation of the legal/regulatory framework governing the fiscal, procedural and health-hygiene aspects of the donation of surplus food. Unlike the French⁴ and the Romanian⁵ laws which impose the "obligation to donate", the Italian law focuses on simplification and incentives.

Among the main strengths of the law are the following:

- Transparency and wide stakeholder's involvement into the decision-making process;
- Simplification of the bureaucratic procedures required for donating surplus food (art.16);
- Clarification of several key aspects of the donation process, namely:
 - the possibility of donating food products with expired "best-before date" (art.4 clause 1): the law specifies that they can be donated provided the integrity of the primary packaging and the appropriate preservation conditions;
 - the possibility of donating bakery products not requiring thermal conditioning after 24 hours from production (art.4 clause 3): they can be donated even after 24 hours from production;
 - the possibility of donating food products with labelling errors (art. 3 clause 4): they can be donated provided that the errors are not related to the "sell-by-date" or to the substances or products causing allergies and intolerances;
 - liability burdens in the case of gleaning (art.3, clause 5): the liability for what happens in the field is on those who perform the gleaning activities, not on the farmer that owns the field.
- Donation of confiscated food products: in the case of confiscation, food products suitable for human consumption have to be donated by the competent authority (art.6);
- Widening of the potential beneficiary organizations (and, consequently, extension of the liability exemption for businesses who donate their surplus food): according to art.13 (that modifies Law no. 155/2003, the so called "Good Samaritan Law"), besides the O.N.L.U.S., as defined by art. 10 of D.lgs no. 460/1997, also "*public as well as private entities set up as non-profit entities with the aim of pursuing civic and social objectives that promote and carry out activities of general public interest*" shall be equalised, within the bounds of the service

⁴ http://www.assemblee-nationale.fr/14/dossiers/lutte_contre_gaspillage_alimentaire.asp

⁵ <http://www.romania-insider.com/romanian-mps-adopt-law-food-waste/>

provided, to final consumers in order to meet the proper state of preservation, transport, storage and use of food.

Among the main weaknesses of the law are the following:

- Lack of national food waste prevention targets;
- Limited scope/vision of the Law: the Law mainly focuses on the issue of food donation for charitable purpose, while other options are weakly taken into account;
- Limited commitment/involvement of the Italian MELS: the issue of food waste is mainly seen as an option to feed the needy instead of being contextualised within the framework of resource efficiency and waste prevention strategies;
- Lack of integration with the local and regional waste prevention planning;
- Lack of appropriate resources for the definition and implementation of food waste prevention measures/strategies at local and regional level;
- Lack of a reference framework for the definition and implementation of voluntary agreements at local, regional and national level;
- Lack of suitable tools and appropriate resources for research, quantification and monitoring;
- Lack of tools/measures aimed at facilitating dissemination and sharing of good practices and networking among stakeholders;
- Poor integration between GPP policies and food waste prevention in the “food and catering sector”;
- Lack of fiscal/economic incentives addressed to the “voluntary/non-for-profit” sector;

Types of implications: food waste reduction, food waste management.

Food supply segments involved/addressed: all.

B) Market-based Instruments

The identified market-based instruments, which, directly or indirectly affect the generation and/or the management of food waste, can be split into four different categories:

- a) Economic disincentives for disposal (landfill tax);
- b) Incentives for energy production from biomass;
- c) Tax incentives for the donation of food surplus;
- d) Tariff-instruments (waste charges/tariffs).

In Italy the landfill tax (also called eco-tax) was introduced in 1996 by art.3, clauses 24 et seq. of Law no. 549/1995 (laying down rules for the rationalisation of the public finance). The landfill tax is a special tax applied at regional level for the disposal of waste in landfills (currently also for waste incineration without energy recovery or with energy efficiency below the threshold values established in Annex II of Directive 2008/98/EC for recovery operations classified as R1 - *Use principally as a fuel or other means to generate energy*) to discourage the disposal of waste in favour of more sustainable management.. The tax is directly paid to the regions by landfill operators. The heterogeneity in the tax levels applied by regions is quite high, ranging, as an average between 1998 and 2008, from EUR 5.2 per tonne in Campania to EUR 25.8 per tonne in Piedmont (ETC/SCP, 2012)⁶. The average landfill tax for all the regions increased from EUR 14.24 per tonne in 2001 to EUR 18.84 per tonne in 2012, however, the actual average level of the tax is among the lowest compared with western European countries (EEA 2013)⁷. Moreover, the share of eco-tax revenues allocated by law to "environmental initiatives", including the waste prevention measures, is commonly used by Regions for other purposes, as already highlighted by the Technical Scientific Committee for the implementation of the NWPP Committee in 2014.⁸

As far as energy production from biomass is concerned, it is noteworthy that the regulatory framework in this area grants financial incentives for using certain types of food waste/by-products in biomass/biogas plants (see Tab.1A of Ministerial Decree no. 6/2012). As criticised by the feed industry some of these food waste streams could better be used for human consumption or for animal feed according to the food waste hierarchy.

As for the issue of surplus food donation, the Italian legislation currently provides fiscal incentives by means of two different ways:

1. it allows food business operators to recover VAT on surplus food donated to non-profit organisations (NPOs);

⁶ ETC/SCP, 2012: Fischer C., Lehner M., McKinnon D. L., 'Overview of the Use of Landfill Taxes in Europe', ETC/SCP Working Paper 1/2012, available at http://scp.eionet.europa.eu/publications/WP2012_1

⁷ European Environment Agency 2013, Municipal waste management in Italy, available at: <https://www.eea.europa.eu/publications/managing-municipal-solid-waste/italy-municipal-waste-management>

⁸ Documento CCXXIV no. 1 - XVII Legislatura "Prima relazione recante l'aggiornamento del programma nazionale di prevenzione dei rifiuti, aggiornata al 31 dicembre 2014" (*First report concerning the updating of the national waste prevention programme of December 31, 2014*), available at: <http://www.senato.it/leg/17/BGT/Schede/docnonleg/29952.htm>

2. it allows for the exclusion of the economic value of donated surplus food from the company's income so that they do not have to pay the related income taxes.

In order to benefit from this lighter regime, both food donors and beneficiaries have to comply with a number of formal compliances respectively provided by art.13 clause 4 of D.lgs no. 490/1997 and art.2, clause 2, of D.P.R. no. 441/1997.

A remarkable simplification of the different bureaucratic duties linked to surplus food donation has been introduced by Law 166/2016 (see section A2) on the basis of the challenges and opportunities highlighted in the "position paper on the donation of unsold food" (see section E3.2).

Finally, we should mention the fiscal instruments linked to municipal waste taxation: with the approval in December 2015 of the sc. "*Environmental Annex to the stability law 2014*" (Law no. 221/2015), municipal councils are allowed to grant a reduction on the municipal waste tax to domestic and non-domestic users implementing waste prevention measures without recurring to general taxation (see art. 36). This aspect is also explicitly addressed by Law 166/2016, and, in particular, in art. 17 which reads: "*The following sentence is added to Art 1, clause 652, of Law December 27, 2013, no. 147: 'To non-domestic users including commercial, industrial, professional and productive activities in general, who produce or distribute foodstuffs, and directly or indirectly transfer these food items free of charge to the needy or for animal feed use, the municipal council **may** apply a waste charge reduction coefficient proportional to the duly certified amount of the goods withdrawn from sale for donation purposes.'*"

Table 1 schematically shows the market-based instruments identified in the national legislative landscape:

Table1. Italy's market-based instruments and related implications on food waste along the food chain

Law	Description	Types of implications	Main FSCS involved
Landfill tax (the sc. Eco-tax)			
Law no. 549 of December 28, 1995 - art.3 clause 24 et seq.	Art.3, clause 24 et seq. of Law no. 549/1995 introduces and regulates the so called "eco-tax", a special tax (cashed in by Regions) applied to waste dumped in landfills (currently also in incineration plants with low -or without- energy recovery). The tax feeds a "regional environmental fund" addressed, among other things, to encourage waste prevention, including, though not explicitly, food waste prevention measures.	FWM	A2  A3  A4  A5 
Law no. 221 of December 28, 2015 (the so called " <i>Environmental</i> ")	Art.34 of Law no. 221/2015 amends the "eco-tax legislation" in order to:	FWM	A2  A3 

<p><i>Annex to the Stability Law 2014</i>) - art.34, clause 1 ad 2</p>	<ul style="list-style-type: none"> • extend the taxation also to waste sent to incineration plants without energy recovery or with energy efficiency below the threshold values established by Annex II of the WFD for R1 recovery type - "Use principally as a fuel or other means to generate energy" (art.34 - clause 1); • extend the share of the eco-tax to be used for environmental purposes. In particular clause 2 allocates the entire revenue (not just 20% as it was before) to the "regional environmental fund". <p>Currently, however, the absence of reporting obligations often leads to using these resources for general purposes rather than for waste prevention and environmental protection.</p>		<p>A4 </p> <p>A5 </p>
Incentives for energy production from biomass			
<p>Ministerial Decree of July 6, 2012</p>	<p>Tab.1A of MD. no. 6/2012 lists all types of waste/by-products eligible for incentives which are used to produce energy in biomass/biogas plants. It must be noted that some of the "food waste" typologies included in Tab.1A could better be used for human consumption or for animal feed according to the "food waste hierarchy".</p>	<p>FWG</p>	<p>A1 </p> <p>A2 </p> <p>A3 </p> <p>A4 </p> <p>A5 </p>
<p>Law no. 221 of December 28, 2015 - art.13, clause 1</p>	<p>Clause 1 of art.13 expands the list of by-products eligible for incentives when used in biomass/biogas plants for energy recovery. It adds the following items to the list provided by Tab.1A of D.M. 6/2012:</p> <ul style="list-style-type: none"> • by-products from processing sugars through fermentation process; • by-products from processing or refining vegetable oils; • by-products from production and processing sugars from non-food biomasses. 	<p>FWM</p>	<p>A3 </p>
Fiscal measures for the donation of food surpluses			
<p>Ministerial Decree no. 9084 of August 28, 2014: "<i>National provisions regarding the approval and</i></p>	<p>According to art.17 clause 1 a), fruit and vegetables produce withdrawn from the market - under the provisions of art.34, clause 4 a) and b) of EU Regulation 1308/2013 - can be donated free of charge</p>	<p>FWR</p>	<p>A2 </p>

<i>control of fruit and vegetable producer organisations and their associations, operational funds and programs"</i>	for charitable purposes. In this case, the related EU financial contribution is raised from 50 to 100%.		
Presidential Decree no. 633 of October 26, 1972 - art.10	The free supply of goods whose production and trade is the company's direct purpose in favour of NPOs are VAT-exempt transactions, in accordance with art.10, number 12, of D.P.R. no. 633/1972 provided that a number of requirements established by art.2, clause 2, of D.P.R. no. 441/1997 are met.	FWR	A2  A3  A4  A5 
D.lgs no. 460 of December 4, 1997 "Reform of tax discipline for non-commercial entities and non-profit organisations of social utility."	D.lgs no. 460/1997 recognizes a specific category of nonprofit charitable organizations: the O.N.L.U.S. (Organizzazioni non Lucrative di Utilità Sociale). Art.13, clause 2 of D.lgs 460/1997 establishes that the economic value of foodstuffs and pharmaceutical products whose production or trade is the company's direct purpose, which are donated to the O.N.L.U.S. as an alternative to the usual elimination from the market does not contribute to the company's income. As a result, donors are not required to pay income taxes on unsold but still edible/usable products donated to these organisations.	FWR	A2  A3  A4 
Law no. 133 of May 13, 1999 (VAT exemption for products donated to NPOs)	Under art.6, clause 15, of Law no. 133 of May 13, 1999, unsold food products or non marketable products (due to the lack of, or errors in packaging, labelling, weight, or due to other similar reasons as well as due to closeness to the expiry date) transferred free of charge to public bodies, associations or foundations whose sole purpose is assistance, charity, education, study or research and to NPOs, and by them picked up at the business premises, are considered destroyed for the purposes of VAT. This provision allows the donating company to deduct the VAT paid on the purchased products.	FWR	A2  A3  A4  A5 
Tax reliefs on the waste charge and pay as you throw (PAYT) schemes			

<p>Law no. 147 of December 27, 2013 (the s.c. 2014 Stability Law) - art.1, clauses 639 to 668</p>	<p>The so called "Stability Law" for 2014 (Law 147/2013) introduces and regulates (art.1, clause from 639 to 668) a new taxation system for the municipal waste management service (the "TARI" system). Up to the coming into force of the "Environmental Annex to the stability law" (Law no. 221 of December 28, 2015), according to art.1, clause 659 of Law no. 147/2013, municipalities could not provide tax reliefs on the waste charge linked to waste prevention measures. The necessary budget to provide such an incentive to waste prevention should have been covered by the general taxation system. This situation has greatly discouraged the introduction of tax reliefs linked to waste (including food waste) prevention measures.</p>	<p>FWM</p>	<p>A3  A4  A5 </p>
<p>Law no. 221, of December 28, 2015 - art.36 "provisions to foster food waste prevention policies"</p>	<p>Art.36 of Law no. 221/2015 amends the 2014 Stability Law giving municipalities the right to introduce tax breaks linked to waste prevention measures within their municipal regulation on waste management. It also states that these tax breaks shall be proportionate to the quantity of waste not produced (Law 147/2013, clause 659, new letter <i>e-bis</i>)</p>	<p>FWM</p>	<p>A3  A4  A5 </p>
<p>Law no. 221 of December 28, 2015 - art.37 "Waste treatment by means of aerobic composting"</p>	<p>Art.37 contains specific provisions aimed at incentivising home-composting, both at individual and community level. Clause 1 of art.37 establishes that users performing "home-composting" shall benefit of a reduction on the waste tax.</p> <p>In particular, the provision applies to:</p> <ul style="list-style-type: none"> • domestic users who perform individual aerobic composting of their organic waste (both kitchen waste and green waste); • non-domestic users who perform individual aerobic composting of organic waste coming from farming activities and the nursery sector. 	<p>FWM</p>	<p>A2  A5 </p>
<p>Law no. 221 of December 28, 2015 - art.38 (Provisions to foster bio-waste composting)</p>	<p>Art.38 pursues similar objectives to those of art.37. However, unlike art.37, clause 1 (that establishes the obligation for municipal councils to grant a reduction on the waste charge to those performing</p>	<p>FWM</p>	<p>A2  A3 </p>

	<p>"home-composting"), art.38 clause 1 specifies that municipalities can (not shall) grant a reduction on the waste charge to users (domestic and non-domestic) that perform composting of their own organic waste. This is the main inconsistency within the text of the Law.</p>		<p>A4  A5 </p>
<p>Law no. 147 of December 27, 2013, - art.1 clause 655</p>	<p>Art.1 clause 655 of the 2014 Stability Law confirms that, for educational institutions, the tax regime referred to in art. 33-bis of D.lgs no. 248 of December 31, 2007 (converted into law after amendment by Law no. 31 of February 28, 2008) continue to apply. Art 33-bis, on this matter, states that costs for the recovery and disposal of municipal solid waste from state schools, are under the responsibility of the Ministry of Education who directly pays to municipalities a flat-rate sum valued at 38,734 million euros, regardless of the quantity of waste produced. Therefore, tax reliefs linked to waste prevention measures (including food waste prevention measures) cannot be applied to state schools, given that the costs of the waste management service are directly paid by the Ministry of Education and established on a flat-rate basis.</p>	FWM	<p>A5 </p>
<p>Law no. 147 of December 27, 2013 - art.1 clause 667</p>	<p>Art.1 clause 667 of the 2014 Stability Law provides for the establishment of a national regulation setting criteria for the development by municipalities of accurate measuring systems for the amount of waste delivered to the public service. As yet, this regulation has not been passed. While the adoption of this regulation is still pending, several Italian municipalities have already introduced local PAYT (pay as you throw) schemes and some regions (e.g. the Emilia-Romagna region) has planned a gradual shift toward this system in all the municipalities in the forthcoming years (before 2020). The lack of the national regulation has effectively delayed the implementation by municipal councils of PAYT schemes that have been demonstrated having a positive effect, both in terms of separate collection and reduction of waste generation.</p>	FWM	<p>A3  A4  A5 </p>

C) Regulations and regulatory instruments

At the national level, the set of rules that may (positively or negatively) affect the generation of food waste (or the way food waste is managed), are generally (but not always) based on or influenced by the EU. The EU Regulations in particular, as binding legislative acts, must be applied in its entirety at national level and do not require national legislation to bring the relevant provisions into force. These regulations, therefore, are not generally referred to in this document (they are widely reported and analysed within the FUSIONS Report "Review of EU legislation and policies with implications on food waste" published in July 2015⁹, except where provisions or guidelines for their uniform implementation in Italy have been adopted. EU Directives, on the contrary, require to be transposed into national law and are therefore mentioned in this section. Hereafter, in order to facilitate the reading, the Italian "regulatory instruments" (including the transposition of EU Directives into national law) that have a potential impact on the generation/management/reduction of food waste are grouped within the following policy areas:

- Waste management;
- Management of by-products;
- Management of animal by-products;
- Production of feed for animal nutrition;
- Fishing: discards and landing obligations;
- Food safety and hygiene;
- Surplus food donation;
- Green public procurement and mass catering.

In regards to waste management, the national legislation is based on Part IV of D.lgs no. 152/2006 (the so-called Code on the Environment) which transposes the Waste Framework Directive (WFD - Dir. 98/2008/EC) in Italy (through the amendments introduced by D.lgs no. 205 of March 12, 2010). It also has to be mentioned the D.lgs no. 36/2003 implementing Directive 1999/31/EC on the landfill of waste which, among other things, introduces in Italy the EU targets on bio-waste landfilling. In both cases, there are no notable differences on the subject of food waste in relation to the rules contained in the corresponding European Directives. It could be worth mentioning art.184-bis of D.lgs no. 152/2006 on the definition of by-products and art.233 that confirms the role of the National Consortium for the collection and processing of exhausted vegetable oils and animal fats (CONOE) already established by art.47 of D.lgs no. 22/97, widely known in Italy as the "Ronchi" Decree.

As far as animal by-products (the management of which is governed by European Regulation 1069/2009 and Regulation 142/2011) is concerned, we highlight the Ministry of Health's guidelines¹⁰ aimed at guaranteeing uniform application throughout the country of the aforementioned European health standards and the regulation scheme that puts some products, mainly animal fats, on the list of biomass products that can be used for energy purposes provided by the Italian Code on the Environment (D.lgs. no. 152/2006).

⁹ The Report can be accessed at the following address:

<http://www.eu-fusions.org/index.php/download?download=221:d31-review-of-eu-legislation>

¹⁰ Guidelines for the application of Regulation 1069/2009 of the European Parliament and Council of October 21, 2009 laying down health rules concerning animal by-products not intended for human consumption and repealing (EC) Regulation 1774/2002.

Similarly, with regard to the requirements for feed hygiene dictated by EC Regulation no. 183/2005, the respective national guidelines have been highlighted in Table 2.

As for the fishing industry, we highlight the Mipaaf's Circular no. 26500 (of December 23, 2014) on the entry into force from January 1, 2015 of the landing obligation for "under-sized" fish products introduced by EU Regulation no. 1380/2013. The marketing for human consumption of any fish product which is smaller than the minimum reference size continues to be illegal in Italy even after the entry into force of the cited Regulation, in accordance with art.7, clause 1, letter b) of D.lgs no. 4/2012.

With regards to food safety and hygiene, consideration must be given to Law no. 283/1962 that governs, among other things, the "bad state of preservation of foodstuffs" and to D.lgs no. 155/1997 (subsequently repealed by D.lgs no. 193/2007 according to EC Regulation no. 852/2004) that introduced in Italy the obligation to implement the HACCP protocol for all food business operators.

Particular attention should also be paid to the regulatory instruments that have an impact on the donation of surplus food. We highlight in particular the Good Samaritan Law (law no. 155/03 "*Regulation for the distribution of food products for the purpose of social welfare*" published in the Official Gazette No. 150 from July 1, 2003), promoted by Fondazione Banco Alimentare O.N.L.U.S., that has been recognised¹¹ as one of the EU Member States' best practices to foster food donation.

On the matter of GPP (Green Public Procurement) it has to be stressed that, with the entry into force on February 1, 2016 of the "Environmental Annex to the Stability Law (Law no. 221/2015), public bodies, including their central purchasing bodies, are required to adopt the minimum environmental criteria (MEC) for the categories of products and services addressed by the National Action Plan on GPP. A special section in Table 2 highlights the implications of such an obligation in relation to canteen and catering services tenders, and, in particular, on the regulatory aspects of the service directly linked to the issue of food waste. We also point out the national guidelines on catering issued by the Ministry of Health, which represent the main reference for public administrations for drawing up school and hospital catering tenders in Italy.

Table 2 - Regulations and regulatory instruments

Law	Description	Types of implications	Main FSCS involved
Waste management			
D.lgs no. 152/2006 and subsequent amendments and additions	Waste management in Italy is governed by Part IV - <i>Rules on waste management and rehabilitation of polluted sites</i> - of D.lgs no. 152/2006 ("The Code on the Environment") transposing the WFD in Italy (through the changes introduced by D.lgs no. 205 of March 12, 2010). We note in particular that art. 180 clause 1-bis transposes the EU obligation (art.29	FWM	A2  A3  A4  A5 

¹¹ Clementine O'Connor, Manuela Gheoldus, Olivier Jan (2014), Comparative Study on EU Member States' legislation and practices on food donation

<http://www.eesc.europa.eu/?i=portal.eno.events-and-activities-eu-food-donations>

	of the WFD) to adopt a National Waste Prevention Programme by December 12, 2013. Regions are entrusted (art. 196) to draw up, adopt and update their regional waste management plans accordingly. D.lgs no. 152/2006 also requires MELS to draw up - by December 31 of each year - a report detailing the update, critical issues and implementation status of the NWPP. Recently, D.lgs no. 152/2006 has been amended by Law no. 221/2015; the changes introduced by this law with effects on the generation/management of food waste have been individually presented in the present document.		
D.lgs 152/2006 - art. 233 (Mandatory National Consortium for collecting and processing animal and vegetable fats and oils - CONOE)	C.O.NO.E. was established by art. 47 of D.lgs no. 22/97 (sc. "Ronchi decree"). Art. 233 of D.lgs no. 152/06 confirms the existing Consortium and the related roles. The Consortium shall in particular, ensure the proper collection, transport, storage, treatment and reuse of animal and vegetable exhausted fats and oils.	FWM	A5 
D.lgs no. 36 of January 13, 2003	D.lgs no. 36/2003 implements the European Directive 1999/31/EC on the landfill of waste. It transposes the EC objectives to reduce biodegradable municipal waste (BMW) sent to landfill and requires regions to adopt specific BMW diversion programmes.	FWM	A3  A4  A5 
Management of by-products			
D.lgs 152/2006, art. 183, clause 1, letter qq), and art. 184-bis	By-products, by definition, are not waste. It is a category not mentioned in the first European directives on waste and currently regulated at EU level by art.5 of the WFD and at national level by art. 184-bis of D.lgs no. 152/2006. This is, de facto, derogation from the general rule, provided a number of conditions set out in the definition are met. A considerable margin of interpretation remains in the distinction between waste and by-products; it has however to be noted that the draft European directive on waste contained in the circular economy package presents a proposal to amend the legal framework	FWM	A2  A3 

	on by-products in order to harmonise and simplify its application.		
Management of animal by-products (SOA)			
Guidelines for the application of Regulation 1069/2009 of the European Parliament and the Council of October 21, 2009 laying down health rules concerning animal by-products not intended for human consumption and repealing (EC) Regulation 1774/2002	These Guidelines, approved on February 7, 2013, are intended to guarantee the uniform application throughout the country of the health rules concerning animal by-products (ABP) laid down by Regulation no. 1069/2009 and Regulation no. 142/2011. Food industry "by-products" classifiable as ABP cannot be used for human consumption and, in certain cases, can (or should) be sent out for disposal (e.g. by incineration, co-incineration, landfilling) as waste.	FWM	A3 
Draft regulation on " <i>inclusion of crude or refined products consisting mainly of glycerides of animal origin in Annex X, Part II, Section 4, clause 1, part five of D.lgs 152/2006</i> "	By virtue of the regulation (signed in March 2016 by the Minister Galletti), these materials, mainly consisting of animal fats, may be used for combustion in energy production facilities outside of the existing legislation on waste.	FWM	A3 
Production of feed for animal nutrition			
Guidelines for the application of (EC) Regulation 183/2005 of the European Parliament and of the Council on feed hygiene	Regulation (EC) 183/2005 establishes the requirements for feed hygiene, from their primary production up to their use as feedstuffs for livestock intended for human consumption. Following the entry into force of this Regulation, the Italian Ministry of Health issued Note Prot. DGVA - XI bis/38255/P of October 27, 2005, which sets out the various models to be used by the business operators to carry on their current activity or to undertake a new one. Subsequently, the Ministry of Health issued Nota Prot. 45950-P-18da9/1 of December 28, 2005, entitled " <i>Application of Regulation (EC) 183/2005 of the European Parliament and of the Council on feed hygiene - Guidelines</i> ", which partially modified the forms that workers in the feed sector use for communication with	FWG	A3 

	the relevant authorities and provides additional guidelines on the application of the aforementioned European Regulation.		
Fishing: discards and landing obligation			
D.lgs no. 4 of January 9, 2012 - art 7, clause 1	Before the entry into force of Regulation (EU) No. 1380/2013 the catching, landing and transshipment of fish smaller than the minimum size were prohibited. The marketing for human consumption of any fish product which is smaller than the minimum reference size continues to be a criminal offence even after the entry into force of the cited Regulation, in accordance with art.7, clause 1, letter b) of D.lgs no. 4/2012.	FWG	A2 
DPR 1639/68 - art.91 "Prohibition to hold undersized organisms"	Under DPR no. 1639/68 it is illegal to hold fish, crustaceans and molluscs smaller than the sizes established by law.	FWG	A2 
Food safety and hygiene			
Law no. 283/1962: "Hygiene control of the production and sale of foodstuffs and beverages"	The law identifies several criminal behaviours in the food sector, including the distribution of foodstuffs in poor state of preservation or potentially harmful to human health (see. art. 5). To date, the destruction of foodstuffs (even when perfectly edible) has often been based on a purely formal assessment, without ascertaining the true state of preservation of the products.	FWG	A2  A3  A4  A5 
Italian Criminal Code - art. 444	Art. 444 of the Penal Code establishes punishments for the distribution of substances intended for consumption which, although not counterfeit or adulterated, are dangerous to public health.	FWG	A2  A3  A4  A5 
D.lgs no. 155/97 (HACCP)	It transposes into the Italian law Directive 93/43/EEC on the hygiene of foodstuffs, subsequently repealed by Regulation 852/2004. D.lgs no. 155/1997 was subsequently repealed by D.lgs no. 193/2007 according to the provisions of EC Regulation 852/2004, which introduced in Italy the HACCP system. HACCP can be defined as a management system in which food safety is addressed through the analysis and control of biological,	FWG	A2  A3  A4  A5 

	chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product.		
Surplus food donation			
Law no. 147 of December 27, 2013 - art. 1 clause s 236-237	Law no. 147/2013, while reconfirming the special status of O.N.L.U.S., has set essential safety requirements for food donation. According to art.1 clauses 236 and 237, both O.N.L.U.S. and food donors (i.e. food business operators, including those operating in hospitals, nursing facilities and schools) <i>"shall ensure a proper state of conservation, transport, storage and use of the donated food products, each according to its own responsibility"</i> . In line with the flexibility provided by Regulation (EC) no. 852/2004, the O.N.L.U.S., as Food Banks, are expected to comply with these requirements also by means of drafting a national guide to good practice.	FWG	A2  A3  A4  A5 
Law no. 155 of June 25, 2003 (the sc. "Good Samaritan Law")	According to Law No. 155/2003, the O.N.L.U.S. are considered as "final consumers" as it relates to liability and responsibility arising from food safety rules.	FWR	A2  A3  A4  A5 
Green public procurement (GPP) and mass catering			
Law no. 221 of December 28, 2015 (Environmental Annex to the 2014 Stability Law) - art. 18	Art.18 of Law no. 221/2015 made GPP mandatory in Italy. It introduced the obligation for public authorities (including central purchasing bodies) to include in public tenders at least the technical specifications and the contractual clauses contained in the Minimum Environmental Criteria (MEC) for the categories of products and services addressed by the National Action Plan on GPP. In particular, for the category "Food and Catering Services", this obligation applies to at least 50% of the tender's value. As for food waste, this obligation only involves compulsory reporting every six months of the <i>"approximate amount of food not consumed during the period"</i> and of the <i>"measures taken to reduce those amounts."</i> However, there are currently no	FWR	A5 

	uniform reporting methods for food waste data. Moreover, it has to be noted that despite the obligation introduced by Law no. 221/2015, the inclusion of award criteria within public tenders for surplus food donation still remains voluntary based.		
National guidelines on school catering published in the Official Journal no. 134 of June 11, 2010	The national guidelines on school catering of the Ministry of Health point out that school menus have to be prepared on the basis of LARN (Reference Levels of Intake of Nutrients and Energy) prepared by the Italian Society of Human Nutrition (SINU) that define, among other things, the qualitative standards of the portions. The fourth revision of the LARN, published in October 2014, eighteen years after the last revision, provides new reference values of energy and nutrients for different categories of persons, including infants, children and adolescents. With regard to infants, children and adolescents, changes from the previous version of the LARN of 1996 are, in some cases, substantial and suggest, among other things, a reduction of protein and carbohydrate-derived energy intake. Strict observance of the LARN in school catering might notoriously lead to food waste, given the general tendency of school children not to finish their meals.	FWG	A5 
National guidelines on hospital and assisted-residence catering, published in the Official Journal no. 37 of February 15, 2011	The hospital and assisted-residence catering services in Italy have to be provided according to the relevant guidelines of the Ministry of Health. It has to be noted that the food waste issue is poorly taken into account within the guidelines that foresee leftovers monitoring just for the purpose of assessing the patient's level of nutrition.	FWG	A5 
National guidelines for paediatric hospital catering approved in the State-Regions Conference on 18 December 2014.	The paediatric hospital catering service in Italy has to be provided in accordance with the relevant guidelines of the Ministry of Health. As in the previous case, it has to be stressed that the issue of food waste is only considered from the clinical point of view and not in relation to the economic and environmental impacts it generates.	FWG	A5 

D) Voluntary agreements

The programme agreements have been introduced for the first time into the Italian legislation by art.15 of the Law no. 241 of 7 August 1990, and, later, by D.lgs 8 August 2000 no. 267. They have been applied for many years in the environmental field and, in particular, the field of waste management. D.lgs no. 152/2006 considers the programme agreements (see art.206 "*Agreements, programme contracts, incentives*") as general tools for the implementation of waste management/prevention policies, with particular attention to the agreements signed by the Ministry of the Environment and the competent authorities with public bodies, businesses and associations.

In the field of food waste, the implementation of voluntary agreements has been recognised within PINPAS as one of the main tools to foster the adoption of food waste prevention measures among food business operators. The seventh "priority action" included within the ten "priority actions to reduce food waste" (see section E3.1) explicitly asked the national policymakers to set up sectoral guidelines addressed to regional and local authorities on the definition and implementation of voluntary agreements for the prevention of food waste. Despite such guidelines has not been developed by the Italian MELS, it has to be noted that the issue of voluntary agreements has been taken into account within the recent Law on food waste prevention (see section A2). Art. 9, clause 4 of the Law no. 166/2016, indeed, is intended to foster the adoption by Regions of voluntary agreements with the aim "*to promote responsible behaviours and virtuous practices to reduce food waste and to provide caterers with reusable containers made of recyclable material, suitable to enable customers to take away their own leftovers*". Specific, additional resources (one million euro both for 2017 and 2018) have been earmarked by art. 12 for these initiatives under the Fund already established by art.2, clause 323, of Law no. 244/2007¹².

A thorough analysis of the voluntary agreements promoted/delivered by local authorities (regions, provinces, municipalities) aimed at fostering the prevention of food waste falls outside the scope of this research. Nevertheless, the initiatives of the Emilia-Romagna Region (see section D1) and Lombardy Region (see sections D2 and D3) concerning the distribution sector deserve to be cited along with the voluntary initiative promoted by ECR Italy (D4), the association that brings together the leading brands and modern distribution companies in Italy.

Lastly, it must be highlighted that many of the initiatives mentioned in sections G5 and G6 have been developed and implemented under program agreements between local authorities and businesses, or are the result of voluntary initiatives delivered by agri-food industry companies (see in particular G6.16.1 for the distribution sector and G6.16.8 for the catering sector).

¹² The original Fund (20 million euro/year) has been established in 2008 by art.2, clause 323, of the Law no. 244/2007 under the Ministry of the Environment. The Fund is intended to support programme agreements and public tenders aimed at fostering the prevention of waste and the development of new recycling technologies. However, as highlighted earlier by the Italian Court of Auditors the available resources in the past have not been properly used for that purpose neither have adequate monitoring actions on how these resources were used and on the results achieved been put in place.

D1) Emilia-Romagna Region: voluntary agreement with commercial distribution companies - Memorandum of Understanding on the donation of surplus food (and non-food) to charities

In line with the provisions of the Regional waste management/prevention Plan, with deliberation no. 731 of 26 May 2014 the Emilia Romagna Regional Government adopted the "*collaborative agreement between Emilia-Romagna Region, ATERSIR and Legacoop Emilia-Romagna aimed at the elaboration of proposals and project ideas aimed at preventing the production of waste and at its recovery in the mass retail channel*" (hereinafter "general agreement"). The general agreement undertook to define further thematic agreements with special emphasis on: the development of a regional environmental certification scheme addressed to the retail outlets; the development of a voluntary agreement to encourage donation of surplus food to charities.

While the development of the environmental certification scheme has already concluded, work on the thematic agreement on food donation is still in progress, including the definition of uniform criteria at the regional level for granting reductions in waste tax to those companies donating their surplus food for charitable purposes.

Types of implications: food waste reduction

Food supply segments involved/addressed: wholesale, logistic, retail and marketing

D2) Lombardy Region: Memorandum of Understanding of the experimental project "Virtuous territorial networks against food waste"

On July 24, 2015 the Lombardy Region approved the Memorandum of Understanding of the experimental project '*Virtuous territorial networks against food waste (municipal councils, large retail, non-profit organizations)*', according to the provisions of the Regional Waste Prevention Programme'. The project aims at reducing the production of waste, especially food waste; it is addressed to mass distribution chains, non-profit organizations and municipal councils who are asked to evaluate possible incentives/tax reliefs linked to the donation of surplus food.

Types of implications: food waste prevention

Food supply segments involved/addressed: wholesale, logistic, retail and marketing

D3) Lombardy Region: Memorandum of Understanding between Lombardy Region and Lombardy Foundation for the Environment

Memorandum of Understanding for "*the implementation of the regional waste management and remediation plan also in relation to the fight against food waste*". The financial commitment of Lombardy Region is 260,000 euro.

Types of implications: food waste reduction

Food supply segments involved/addressed: wholesale, logistic, retail and marketing

D4) ECR Italia

Since 2013 the manufacturing and distribution companies belonging to the Association ECR Italia have established a working group to address the issue of food waste, focusing on the aspects

affecting the interface processes and seeking solutions and viable paths to reduce food waste. Within the framework of this working group two different guideline documents addressing the issue of food waste in the retail sector have been drafted (see sections E6.4 and E6.5)

Types of implications: food waste reduction

Food supply segments involved/addressed: wholesale, logistic, retail and marketing

E) Technical reports and main scientific articles

No technical reports have been published or commissioned by the Italian Government, however national literature on food waste accounts for a number of articles, books and reports published by universities, foundations, research centres and non-governmental organizations. Below, the main research and technical reports addressing the food waste prevention issue in Italy have been highlighted, broken down in the following categories:

- ISI/Scopus publications;
- other scientific publications and reports;
- ministerial reports/positions;
- PhD thesis (2012-2016);
- books;
- guidelines;
- other reports of national importance.

E1) ISI/Scopus Publications

E1.1 - Cicatiello, C., Franco, S., Pancino, B., Blasi, E. (2016), The value of food waste: An exploratory study on retailing, Journal of Retailing and Consumer Services, Vol. 30

This paper aims at measuring the extent of food waste in the retail sector as well as its environmental, social and economic value. To do so, the study analyses the results of a food waste recovery project held in an Italian supermarket and, by drawing on the data collected in this case study, it performs an evaluation of the value of the wasted food. Despite the many limitations of such preliminary research, the results provide useful information for retailers aiming at developing strategies against food waste and improving the sustainability of their business.

DOI: 10.1016/j.jretconser.2016.01.004

Types of implications: food waste reduction

Food supply segments involved/addressed: Wholesale, logistic, retail and marketing.

E1.2 - Principato, L., Secondi, L., Pratesi, C.A. (2015), Reducing food waste: An investigation on the behaviour of Italian youths, British Food Journal, Vol. 117 (2)

The purpose of this paper is to assess the knowledge of youths concerning food waste as well as to identify factors that influence changes in behaviour concerning food wasted and planning shopping for preventing it. The data used were collected from a sample of 233 students at Roma-Tre University in Italy. Probit models were specified to identify factors affecting food waste reduction in both pre-shopping and consumption phases. Results show that the more aware youths are concerning food waste, the more likely they are to reduce leftovers. In contrast, the concern about food freshness increases waste. A greater awareness of the consequences of food wasted increases the likelihood that youths will make a shopping list.

DOI: 10.1108/BFJ-10-2013-0314

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

E1.3 - Secondi, L., Principato, L., Laureti, T. (2015), Household food waste behaviour in EU-27 countries: A multilevel analysis, Food Policy, Vol. 56

Starting from the analysis of the main regulations and initiatives at various administrative levels and by introducing a two-level framework for modelling complex household food waste behaviour, this paper aims at investigating the behaviour of EU-27 citizens towards food waste by referring to the 2013 Flash Eurobarometer survey (no.388). The multilevel statistical perspective enabled authors to jointly consider factors at both individual and contextual levels as potential variables associated with food waste. Firstly, by analysing territorial variability it was possible to identify groups of countries characterized by similar behaviour patterns and therefore target them according to the need and exigency of public policy interventions. Secondly, at the individual level it was observed that people living in towns and large cities tend to produce more waste thus emphasizing the need of diversifying policy interventions at the local level according to the extent of urbanization. Moreover, education level, sorting practices, attitudes and concern regarding food waste proved to be associated with individuals' behaviour towards food waste. Thirdly, public-private partnerships as well as targeting community-based interventions to address food waste should be encouraged.

DOI: 10.1016/j.foodpol.2015.07.007

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

E1.4 - Falasconi, L., Vittuari, M., Politano, A., Segrè A. (2015), Food waste in school catering: An Italian case study, Sustainability (Switzerland), Vol. 7 (11)

This paper investigates food waste in school catering services focusing on six schools located in the municipality of Verona (Italy). It aims to quantify food waste, as a measure of food catering inefficiency, to identify the main causes, and to suggest a set of prevention and reduction interventions. For these purposes food waste is defined as all the products discarded from the food chain while still preserving their nutritional value and complying with safety standards. The work shows a significant level of inefficiency in the school catering services, measured by the amount of food processed and still perfectly edible, but not served during the meals. On average more than 15% of the overall processed food is wasted. Among the causes identified in this study, four of them were more relevant than others because of their implications and impact on prevention: the lack of attention to dietary habits, the rigid food procurement specifications, the menu composition, and the meal presentation.

DOI: 10.3390/su71114745

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

E2) Other scientific publications and reports

E2.1 - Sert, S., Garrone, P., Melacini, M., Perego, A. (2016), Surplus Food Redistribution for Social Purposes: The Case of Coop Lombardia, in Raffaella Cagliano, Federico F. A. Caniato, Christopher G. Worley (ed.) Organizing Supply Chain Processes for Sustainable Innovation in the Agri-Food Industry (Organizing for Sustainable Effectiveness, Volume 5) Emerald Group Publishing Limited, pp.153 - 173

This chapter highlights factors, such as stakeholder engagement and changes in operating processes, which can enable retailers to implement an alternative approach to recovering and redistributing fresh surplus food. A successful fresh surplus food redistribution program was identified as part of a larger research project on food waste and redistribution. The "Buon Fine"

program of a large Italian retailer (Coop Lombardia) was described by two senior executives who were interviewed for four hours using a semi-structured questionnaire. Collected information was triangulated with corporate reports and other publications.

Available at: <http://www.emeraldinsight.com/doi/abs/10.1108/S2045-060520160000005015>

Types of implications: food waste reduction

Food supply segments involved/addressed: wholesale, logistic, retail and marketing;

E2.2 - Sert, S., Garrone, P., Melacini, M., Perego, A., (2015), Surplus food redistribution for social purposes: analysis of critical success factors, in Envisioning a future without food waste and poverty, Wageningen Academic Publishers

The issue of surplus food management has been raised in several scientific articles but has not been analysed deeply, so far, in a satisfactory way. In particular, redistribution of surplus food is highly recommended but the critical success factors to save food in upstream stages of the food supply chain are not studied. The purpose of this paper is to explore the main critical factors for managing surplus food, in particular for redistributing food for human consumption.

Types of implications: food waste reduction

Food supply segments involved/addressed: processing and manufacturing; wholesale, logistic, retail and marketing; food preparation and consumption.

E2.3 - Segrè, A., Gaiani, S., Falasconi, L., Vittuari, M. (2014), Household food waste in Italy, in CIHEAM Watch Letter 30 - Food Waste and Losses in the Mediterranean

The report on household food waste in Italy is largely based on a survey conducted in the frame of Waste Watcher, the Italian Observatory on Food Waste, an initiative developed thanks to the collaboration of the Department of Agricultural and Food Sciences of the University of Bologna, Last Minute Market and SWG. The results of the survey - based on answers provided by a sample of the Italian population - provide insights on the causes and impacts of food waste at household level.

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

E2.4 - Garrone, P., Melacini, M., Perego, A. (2014), Surplus food recovery and donation in Italy: the upstream process, British Food Journal, Vol. 116 (9)

This paper offers quantitative evidence on how surplus food, i.e. safe food that is not sold to the intended customers, is generated and recovered within Italian manufacturing and retail firms. The paper shows the process through which the food supply chain firms come to donate surplus food to Banco Alimentare (Food Bank).

Types of implications: food waste reduction

Food supply segments involved/addressed: processing and manufacturing; wholesale, logistic, retail and marketing.

E2.5 - Garrone, P., Melacini, M., & Perego, A. (2014), Opening the black box of food waste reduction. Food policy, 46, 129-139.

This paper addresses the multifaceted concept of food supply chain sustainability by presenting a model of surplus food generation and management (called ASRW, Availability-Surplus-Recoverability-Waste), which encompasses the integrated food supply chain (i.e. business, environmental and social players). The model was developed using a bottom-up approach, by

conducting 30 exploratory case studies and iterating theory development and data analysis. Three confirmatory case studies, from different food supply chain stages, are also presented to demonstrate how the model can be used to identify food waste reduction strategies.

Types of implications: food waste reduction

Food supply segments involved/addressed: processing and manufacturing; wholesale, logistic, retail and marketing; food preparation and consumption.

E2.6 - Garrone, P., Melacini, M., Perego, A., & Pollo, M. (2012), Food waste reduction: empirical findings from the Italian food supply chain.

The paper explores the Italian food supply chain with a focus on the analysis of "Surplus Food", i.e. the edible food that is produced, manufactured, retailed or served but for various reasons is not sold to/consumed by the intended customer. The Italian food industry provides the empirical setting. The paper adds to research on sustainable management of the food supply chain and food security in developed countries in two ways. First, it addresses the multifaceted concept of the sustainable management of the food supply chain by developing a conceptual model of the integrated food supply chain (i.e. business, environmental and social players). Second, it uses the model to empirically analyse how SF is generated and managed throughout different supply chain stages and sectors.

Types of implications: food waste reduction

Food supply segments involved/addressed: processing and manufacturing; wholesale, logistic, retail and marketing; food preparation and consumption.

E 3) Ministerial reports/ government positions

E3.1 - Azzurro, P., Giordano, C., Segrè, A., (2014), PINPAS: Piano Nazionale di Prevenzione degli Sprechi Alimentari: le azioni prioritarie per la lotta allo spreco (PINPAS: National Food Waste Prevention Plan - the priority actions to fight food waste) [In Italian]

The document, drafted by the technical-scientific secretariat of the National Food Waste Prevention Plan (PINPAS) coordinated by Prof. A. Segrè, highlights the key measures to be taken at national level to counter the food waste phenomenon. The measures described in the document take inspiration from an extensive consultation with the main stakeholders of the Italian agri-food industry and were presented to the press by the Minister G. Galletti and the Coordinator of PINPAS A. Segrè on the occasion of World Environment Day on June 5, 2014. Point 5 concerning the donation of food surpluses, was further developed and explored in the "position paper on the donation of surplus food" (see section E3.2).

Types of implications: food waste reduction

Food supply segments involved/addressed: processing and manufacturing; wholesale, logistic, retail and marketing; food preparation and consumption.

E3.2 - Azzurro, P. (2015), La donazione degli alimenti invenduti, verso la semplificazione normativa (The donation of unsold food, towards regulatory simplification) [In Italian]

As part of the work of PINPAS (the National Food Waste Prevention Plan), in preparing the initiative of 24 November 2014 in Bologna entitled "Stop food waste - feed the planet: the Bologna paper against food waste", a consultation of the Plan's stakeholders was performed, with a specific focus on the regulatory framework governing the donation of unsold food in Italy.

The document gathers and summarises the point of view of the parties who participated in the consultation, highlighting the specific critical issues raised and the proposals made. The contents of the document have been widely set out in the contents of the bill on the countering of food waste currently before the Senate.

Types of implications: food waste reduction

Food supply segments involved/addressed: processing and manufacturing; wholesale, logistic, retail and marketing; food preparation and consumption.

E4) Recent doctorate thesis (2012-2016)

E4.1 - Giordano, Claudia (2016), Assessing household food waste in Italy: a methodology for detecting drivers and quantities, [Dissertation thesis], Alma Mater Studiorum Università di Bologna. Research doctorate in Agricultural, Environmental and Food Science and Technology, 27th Cycle.

The study proposes a methodology for estimating household food waste. It combines different tools based on diaries, questionnaires and waste composition analysis. The results show that food waste data based on diaries and questionnaires are generally substantially underestimated.

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

E4.2 - Azzurro, Paolo (2015), Strumenti di prevenzione e riduzione degli sprechi alimentari. Un piano nazionale per l'Italia (*Tools for preventing and reducing food waste. A national plan for Italy*), [Dissertation thesis], Alma Mater Studiorum University of Bologna. Research doctorate in Agricultural, Environmental and Food Science and Technology, 27th Cycle. [In Italian]

The study is part of the collaboration initiated between the Department of Agricultural and Food Sciences of the University of Bologna and the Italian Ministry of Environment, Land and Sea Protection in order to outline proposals for the definition of a National Food Waste Prevention Plan (NFWPP). The work, carried out through an extensive consultation of the main national stakeholders has led, among other things, to: the identification of a set of priority measures to fight food waste (presented to the press by the Minister of the Environment in June 2014); the publication of a "position paper" on regulatory simplification for donation of surplus food; the Ministerial initiative "Bologna Charter against food waste"

Types of implications: food waste reduction

Food supply segments involved/addressed: all.

E4.3 - Gaiani, Silvia (2013), Lo spreco alimentare domestico in Italia: stime, cause ed impatti (*Household food waste in Italy: estimates, causes and impacts*), [Dissertation thesis], Alma Mater Studiorum University of Bologna. Research doctorate in Economy and Agricultural, Environmental and Food Policy, 24th Cycle. [In Italian]

Many are the reasons why food is wasted at household level: it could be due to a general lack of awareness, personal attitudes of individuals, the ability to manage, plan, and store food but also to the socio-economic situation of families and their cultural references. In order to analyse and quantify household food waste in Italy and shed light on dissimilar data which have so far emerged from various studies carried out by national research centers, associations and non-governmental organizations, the thesis - after presenting data at global, European and Italian

level - focuses on the examination of data derived from a questionnaire on domestic waste that was completed by 3,087 Italians between November and December 2012. The socio-economic survey was realized in collaboration with the European Commission (DG JCR, Institute for Health and Consumers Protection) and the Karlsruhe Institut für Technologie. The questionnaire was uploaded on SurveyMonkey, an online platform that is particularly useful when it comes to examining self-selected samples. The main aims of the thesis and of the survey were the identification of quantitative data about how much is wasted and what is wasted, the identification of social causes, values, behaviour and lifestyle that lead to food waste, the economic impact of food waste on families' budget and the development of consumer profiles through the cluster analysis.

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

E4.4 - Scotto, Anastasia Lidia (2012), Impatto ambientale dei rifiuti e degli sprechi agroalimentari in Europa e in Italia (*Environmental impact of waste and agrifood waste in Europe and Italy*), [Dissertation thesis], Alma Mater Studiorum University of Bologna. PhD in International cooperation and sustainable development policies, 24th cycle [In Italian]

The study provides an estimation of greenhouse gas emissions linked to food waste generation and management at EU and national level. The calculation of greenhouse gas emissions has been done using NAMEA matrices (National Accounting Matrices Including Environmental Accounts) that include economic and environmental data. The NAMEA matrixes were then analyzed by using an econometric method called EE-IOA (Environmentally Extended Input-Output Analysis). The result indicates what percentage of greenhouse gas emissions in Europe and in Italy depends on the emissions associated with food waste.

As for Italy, moreover, the emissions associated with waste and food waste were compared with the target set by the Kyoto Protocol in order to analyze the possible impact of improving the efficiency of the food chain on the achievement of the target set by international agreements.

Types of implications: food waste reduction

Food supply segments involved/addressed: all.

E5) Books

E5.1 - Segrè A., Vittuari M., (2013), Il libro verde dello spreco in Italia: l'energia (*The green book of food waste in Italy: energy*), Edizioni Ambiente [In Italian]

The study focuses on the nexus between food waste and energy. It provides an estimation of the energy "embedded" in wasted food at national level.

Types of implications: optimization of food use, food waste reduction, food waste management.

Food supply segments involved/addressed: all

E5.2 - Segrè A., Falasconi L., (2012), Il libro blu dello spreco in Italia: l'acqua (*The blue book of food waste in Italy: water*), Edizioni Ambiente [In Italian]

The study focuses on the nexus between food waste and water. It provides an estimation of the water "embedded" in wasted food at national level.

Types of implications: optimization of food use, food waste reduction, food waste management.

Food supply segments involved/addressed: all.

E5.3 - Segrè A., Falasconi L., (2011), Il libro nero dello spreco in Italia: il cibo (*The black book of food waste in Italy: food*), Edizioni Ambiente [In Italian]

The study focuses on food waste quantification analysing food losses and waste along the food chain. It estimates the quantity of food products discarded by producers and producers' organisations, manufacturers and processing companies, wholesale producers' markets, and by the different actors in the retail system. Moreover, an estimation of the environmental, economic, social and nutritional impacts is presented.

Types of implications: optimization of food use, food waste reduction, food waste management.
Food supply segments involved/addressed: all.

E5.4 - Costa P., Ferlan C., Villafiorita A. (2013), Chi porta da mangiare? Il cibo tra eccessi e scarsità (*Who brings the food? Food between excesses and scarcity*), Fondazione Kessler [In Italian]

This book explores different historical, sociological, ethical, technical, religious aspects of the food universe using several forms of scientific communication including images and recipes.

Types of implications: optimization of food use, food waste reduction, food waste management.
Food supply segment involved/addressed: all.

E5.5 - Garrone P., Melacini M., Perego A. (2012), Dar da mangiare agli affamati. Le eccedenze alimentari come opportunità (*Feed the hungry. Surplus food as an opportunity*), Guerini e Associati, Milano [In Italian]

This volume presents the findings of a research project carried out by Politecnico di Milano and Fondazione per la Sussidiarietà in 2011, and benefited from a close collaboration with Fondazione Banco Alimentare O.N.L.U.S.¹³ and Nielsen Italia¹⁴. The study focuses on surplus food, meaning edible food products that for various reasons are not purchased or consumed by consumers or people for whom they were produced, processed, distributed, served or purchased. The reasons for the generation of surplus food can be different and are carefully described and classified in the volume. Once surplus food has been defined and analysed in the different stages of the food supply chain, food waste is defined as surplus food that cannot be recovered for human consumption (social perspective), for feeding animals (zoo-technical perspective), for the production of goods or energy (environmental perspective). Food waste does not include production and processing of scraps as well as surplus food placed in secondary markets.

The analysis is correlated by 100 in-depth case studies of Italian companies in the processing, distribution and catering stages; 15 interviews with experts and descriptive case studies in the agriculture-farming stage; analysis of primary and secondary information from public sources in the agriculture-farming stage; a specific focus on the end consumer, in collaboration with Nielsen, and the development of a survey on a sample of 6,000 Italian households, which were stratified in terms of geographical location, income, composition and other characteristics.

Types of implications: food waste reduction, food waste management.
Food supply segments involved/addressed: all.

¹³ Italian Banco Alimentare Network Foundation: <http://www.bancoalimentare.it/>.

¹⁴ Nielsen is a leading global information and measurement company: <http://www.nielsen.com/>.

E6) Guidelines on surplus food donations

E6.1 - Caritas Italiana, Fondazione Banco Alimentare O.N.L.U.S. (2015), Manuale per corrette prassi operative per le organizzazioni caritative (*Guidelines for surplus food recovery by charitable organisations*)

The guidelines, validated by the Ministry of Health, are mainly addressed to charitable organisations involved in the recovery of surplus food generated by food operators.

Types of implications: food waste management and food waste reduction

Food supply segments involved/addressed: wholesale, logistic, retail and marketing; food preparation and consumption.

E6.2 - Emilia Romagna Region (2014), Linee guida per il recupero, la distribuzione e l'utilizzo di prodotti alimentari per fini di solidarietà sociale (*Guidelines for the recovery, distribution and use of food products for charitable purposes*) [In Italian]

Guidelines on surplus food donation formally adopted by the Emilia-Romagna Region on March 2014

Types of implications: food waste management and food waste reduction

Food supply segments involved/addressed: wholesale, logistic, retail and marketing; food preparation and consumption.

E6.3 - Last Minute Market (2013), Linee guida: Dallo spreco alla solidarietà (*Guidelines: From waste to solidarity*) [in Italian]

Guidelines on food management and preservation addressed to volunteers involved in surplus food rescue projects/organisations.

Types of implications: food waste management and food waste reduction

Food supply segments involved/addressed: wholesale, logistic, retail and marketing; food preparation and consumption.

E6.4 - ECR Italy (2014), Prevenzione e trattamento delle eccedenze alimentari: le linee guida ECR (*Surplus food prevention and management: ECR guidelines*) [in Italian]

ECR Italia is an association founded in 1993 whose members include some of the leading mass distribution and food industry companies. ECR, together with food industry and distribution companies, set up a working group to address the issue of food waste, focusing on the aspects that affect the interface processes between the food industry and distribution companies. The Guidelines describe a collaborative approach for preventing food surpluses. It also provides practical examples of tools for process control and monitoring.

Types of implications: food waste management and food waste reduction

Food supply segments involved/addressed: processing and manufacturing; wholesale, logistic, retail and marketing.

E6.5 - ECR Italy (2014), La gestione dell'eccedenza alimentare: una guida per le aziende della filiera (*The management of food surplus: guidelines for supply-chain companies*)

An insight on how to manage surpluses, possible models and main barriers to overcome to reduce the incidence of wastage.

Types of implications: food waste management and food waste reduction

Food supply segments involved/addressed: processing and manufacturing; wholesale, logistic, retail and marketing.

E 7) Other Reports of national relevance

E7.1 - Waste Watcher - Permanent Observatory on Household Food Waste

2015 Household food waste - Report 2015 [In Italian]

2014 Household food waste - Report 2014 [In Italian]

2013 Household food waste - Report 2013 [In Italian]

These reports build on scientific socio-economic research based on opinions, self-perceptions and declarations of a sample of 2.000 Italian families. The reports focus on attitudes and behaviours of Italian households towards food, food waste generation and management.

Types of implications: food waste management and food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

E7.2 - Oricon (2015), Gli sprechi alimentari nella ristorazione scolastica: un'indagine esplorativa (Food waste in school catering: an exploratory investigation) [In Italian]

Oricon is the observatory on catering created by Angem, The National Association of catering companies whose members include some of the sector's leading companies.

The report details the main results of the survey on the food waste phenomenon in school catering conducted by the Oricon Study Centre in 2015.

Types of implications: food waste management and food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

E7.3 - Garrone, P., Melacini, M., Perego, A. (2015), Il recupero delle eccedenze alimentari. Dalle parole ai fatti (Surplus food management against food waste: the recovery of food surplus. From words to actions) [in Italian]

The publication, which is the result of the Politecnico di Milano's research for the Banco Alimentare, provides an overview of food waste in Italy and details the estimated volumes of surplus food generated at the different stages of the supply chain and their corresponding management methods. The data presented in the book are the result of an update to 2015 of the quantification already performed in 2011.

Types of implications: food waste management and food waste reduction

Food supply segments involved/addressed: all

E7.4 - IPSOS (2012), Gli sprechi alimentari in Italia (Food waste in Italy): Report for Save the Children [in Italian]

Research carried out by IPSOS on behalf of the "Save the Children" Association on household food waste.

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

F) Communication and campaigns

The main communication and awareness raising campaign on the subject of food waste in Italy is undoubtedly the one promoted and delivered since 2010 by Last Minute Market (see section F1.1). The campaign, along with the public and institutional attention gained through the activities of PINPAS (before), the Milan EXPO 2015 (after) and, more recently, by the legislative path culminated in the approval of Law 166/2016 (see section A2) has considerably raised media attention to the issue of food waste, leading to the development and delivery of many local communication and awareness-raising initiatives. Following, the surveyed initiatives are briefly presented. They obviously represent only a small part of the growing number of communication and awareness raising initiatives recently launched throughout the country. The communication/awareness-raising initiatives and projects expressly/mainly addressed to school pupils are listed in section G1.

F1) Campaigns of national relevance

F1.1 - Un anno contro lo spreco (A year against waste)

Launched in 2010 by Last Minute Market and the Department of Agricultural and Food Sciences of the University of Bologna, "A year against Waste" is a multiannual communication campaign aiming at raising awareness among citizens, institutions and businesses on the causes and consequences of food waste. The campaign is targeted at different audience segments (general public; children; local, national and European institutions; businesses) and includes a number of communications tools and initiatives such as publications and books; conferences and public meetings; theatrical performances; food waste prevention awards; public lunches and dinners with recovered food products etc.

<http://www.sprecozero.it/>

Types of implications: food waste reduction

Food supply segments involved/addressed: all.

F 2) Other communications and awareness raising initiatives

F2.1 - #100volticontrolospreco

Social communication campaign sponsored by Slow Food and Nova Coop (May 2015), which aims at involving the under 30s age group and supermarket customers in the fight against food waste.

<http://www.vivicoop.it/100-volti-contro-lo-spreco/>

Types of implications: food waste reduction

Food supply segments involved/addressed: wholesale, logistic, retail and marketing; food preparation and consumption.

F2.2 - #FoodSavingBEC

Initiative launched by the Bocconi University, in collaboration with Milan EXPO 2015, the Ministry of Agriculture and the European Commission. The initiative brought to Milan about 200 university students from around the world for a week of study, teamwork and challenges on food waste issues.

<http://www.foodsavingbec.com/>

Types of implications: food waste reduction
Food supply segments involved/addressed: all.

F2.3 - Alimentiamoci di buone regole: partecipiamo ad una corretta alimentazione (Let's feed ourselves with good rules: let's join a right nutrition)

Awareness-raising campaign launched in August 2014 and ended on 31 October 2014 funded by Lazio Region and delivered by some among the main consumer associations in Lazio: Cittadinanzattiva Lazio, Movimento Consumatori Lazio and Confconsumatori Lazio. The campaign mainly covers the subjects of nutrition, food consumption and healthy lifestyles including the issue of food waste.

<http://bit.ly/1RO2KZ3>

Types of implications: food waste reduction
Food supply segments involved/addressed: food preparation and consumption.

F2.4 - Confood: compra qualità, risparmia in casa (buy quality save at home)

Competition for creative ideas launched by Confconsumatori in 2014 addressed to young people aged between 18 and 30, dealing with their first food shopping experiences. The competition was open from December 2013 to March 31, 2014 and included the issue of food waste at the household level.

<http://www.conffoodinventa.it/>

Types of implications: food waste reduction
Food supply segments involved/addressed: food preparation and consumption.

F2.5 - Don't play with food

Initiative promoted by the Milan Civic School of Cinema toward EXPO 2015. The Students have been asked to design and develop commercials to say "no to food waste".

<http://www.lifegate.it/persone/news/la-scuola-di-cinema-contro-lo-spreco-alimentare>

Types of implications: food waste reduction
Food supply segments involved/addressed: food preparation and consumption.

F2.6 - Gustocosi

Project carried out in 2009 by Slow Food in collaboration with Comieco (the National Consortium for the Recovery and Recycling of Cellulose-based Packaging) on the reduction of waste (including food waste) in private kitchen and in catering services.

<http://bit.ly/1CrLWIN>

Types of implications: food waste reduction
Food supply segments involved/addressed: food preparation and consumption.

F2.7 - Il nostro spreco quotidiano (Our Daily Waste)

Educational pamphlet on the topic of food waste created in 2012 by Slow Food in collaboration with the Italian Ministry of Agriculture and Forestry.

<http://www.slowfood.com/sloueuropa/wp-content/uploads/sprechi.pdf>

Types of implications: food waste reduction
Food supply segments involved/addressed: food preparation and consumption.

F2.8 - Insieme per non alimentare lo spreco (*Together to stop feeding waste*)

Promoted in 2014 by WWF and the retail chain Simply Market (Auchan Group) within the programme "One planet food", this initiative was focused on sustainable food. The goal of the initiative was raising awareness among consumers and offering advice and tips on how to reduce food waste at home (by proper planning of expenditure, labelling reading, good storage of food etc.)

<http://www.wwf.it/news/?8340/Insieme-per-non-alimentare-lo-spreco>

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

F2.9 - Premio Vivere a Spreco Zero (*Living with Zero Waste Award*)

The "Living with Zero waste" award was established in 2013 by Last Minute Market, as part of the fourth edition of the "A year against waste" campaign (see section F1.1). In the 2014 and 2015 editions, the award was entirely devoted to the subject of food waste prevention in order to shed light on the most interesting and replicable initiatives.

<http://bit.ly/premiosprecozero>

Types of implications: food waste reduction

Food supply segments involved/addressed: all.

F2.10 - Scaduti? Aspetta a buttarli (*Past the expiry date? Wait before throwing them away*)

Information campaign carried out by Altroconsumo in 2014. The campaign, targeted to citizens, focused on the issue of food waste generated at household level due to confusion on the meaning of the different date labels.

<http://bit.ly/1Djzd6l>

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

F2.11 - Una buona occasione (*A Good Opportunity*)

Dated 2012, the project "A Good Opportunity" is funded by the Piedmont Region, the Val d'Aosta Region and the Italian Ministry for Economic Development. The initiative is still ongoing, developed and delivered in partnership with: University of Torino, Slow Food, Last Minute Market, the "CinemAmbiente" movie festival, the "Istituto Zooprofilattico", the Environmental Museum "A come Ambiente", several large retailers and Associations of Consumers. "A Good Opportunity" is mainly focused on food waste prevention; large part of the work is dedicated to increasing knowledge and awareness on food labels.

<http://www.unabuonaoccasione.it/>

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

F2.12 - Uniti contro lo spreco (*United against waste*)

Awareness-raising campaign for the prevention of food waste, the re-use of leftovers and the redistribution of surplus food launched in October 2015 by Piedmont Region as part of the "A good opportunity" project.

<http://www.regione.piemonte.it/notizie/piemonteinforma/diario/uniti-contro-lo-spreco.html>

Types of implications: food waste reduction

Food supply segments involved/addressed: food preparation and consumption.

G) Projects and other measures

In recent years a growing number of initiatives focused on the food waste issue have been launched in Italy. As already highlighted in section F), the "A Year against waste" campaign launched in 2010 by Last Minute Market (see section F.1.1) and, later, the media attention raised through PINPAS, Milan Expo 2015 and by the legislative process toward Law 166/2016 has led to a marked acceleration in the emergence and spreading of food-waste related initiatives. At least 20 different IT platforms (applications for mobile phones and / or web platforms) expressly aimed at reducing food waste (see section G11) were launched; at least 17 different projects were launched to encourage the use of the doggy-bags in the catering sector (see section G5); initiatives for the recovery of surplus food for charitable purposes (see section G6), communication campaigns (see section F2) and school targeting education/awareness-raising projects (see section G1), to name but a few examples, have all multiplied. At the institutional level, over 700 Italian municipal councils have signed the charter of commitment against food waste "Charter for a network of zero-waste local authorities" (see section G2.1) that led in 2015 to the establishment of the Sprecozero.net association (see section G3.1); at least 15 Italian Regions (out of 20) have passed (or are about to pass) specific regional laws on food waste, mainly focused on the recovery of surplus food for charitable purposes (see section G12); in 2014, the Italian Ministry of Environment promoted the "Bologna Charter against food waste" (G2.2), later merged into the Milan Charter (G2.3), and in 2015, for the first time, allocated 500,000 Euros for research, communication and awareness-raising activities on the issues of food waste prevention (see section G13.1).

The following paragraphs provide a brief description of some recent projects and initiatives on the issue of food waste implemented in the national territory. The identified initiatives have been divided into 15 different categories; general communication/awareness-raising initiatives are excluded, as they have already been presented in section F.

G 1) Educational projects targeting schools

G1.1 - A scuola con gusto (*At school with taste*)

Educational programme launched in 2007 focused on food, taste and sensory education. The project is promoted and delivered by the City Council of Viareggio in collaboration with ASP (Azienda Speciale Pluriservizi), the Association "Centre for Training, Research and Communication on sensorial, food and taste-related education" of Prato and the school catering company. The project includes an action called "*Regulation of the distribution of food products for charitable purposes*" that allows for the recovery and donation of surplus food from school canteens alongside educational activities for students, teachers, families and local communities on food culture, food waste reduction, and solidarity.

<http://www.centroeducazionegusto.it/formazione/progetti/a-scuola-con-gusto/>

G1.2 - Best Food Generation, la Tribù dell'Expo (*Best Food Generation, the Expo Tribe*)

Award sponsored by Rio Mare in collaboration with Milan Expo 2015 addressed to the Italian primary schools' children. Overall, 1,202 educational districts were involved, for a total of around 3,000 elementary schools and some 8,000 school classes throughout Italy. The project started in February 2012 and ended in 2016.

<http://www.riomare.it/iniziative/progetti-speciali/progetto-scuole/>

G1.3 - Comune di Asti (*Asti Municipality*)

A good practice for the reduction of food waste in school catering was tested over the last nine years in a primary school of the municipality of Asti. The possibility of extending the good practice to all schools in Asti Municipality is currently being assessed.

<http://comune-info.net/2015/10/mense-scolastiche-spreco-zero/>

G1.4 - Comune di Cremona (*Cremona Municipality*)

A range of measures aimed at reducing food waste in school canteens were implemented by the Cremona municipal authority in 2015. Apart from the donation of surplus, these measures concern the organisational and management aspects of the canteens, the implementation of educational programs and the monitoring of wasted food.

<https://www.comune.cremona.it/node/458651>

G1.5 - EASE: Una scuola sostenibile (*A sustainable school*)

This Project (2013-2014) involved several schools within the City of Verona. It included the monitoring of children's behaviour toward the three aspects of sustainability (environmental, social, and economic). Among other activities, the project included the measurement of food waste in school canteens.

http://bit.ly/progetto_ease

G1.6 - EXPOsto di gusto: un decalogo per un'alimentazione sana, sostenibile, A SPRECO ZERO (*Taste EXPO: a decalogue for a healthy, sustainable, ZERO WASTE diet*)

This project, carried out between October 2013 and June 2014, was promoted by the cultural Association Aleph, the "Da Vinci" and "Pascoli" high schools of the Gallarate municipality, and five municipal councils of the Varese province (Lombardy Region). The project involved eight high schools, four kindergartens and 22 primary schools through the implementation of integrated food education programmes in order to promote informed choices and behaviours on food.

<http://bit.ly/1DYK19m>

G1.7 - Formichine salvacibo. Diario scolastico contro lo spreco alimentare (*Food-saving small ants. School diary against food waste*)

Contest promoted since 2014 by the Italian Association "Eco dalle Città" open to all public primary schools in the City of Milano. The contest rewards the most interesting, useful and creative initiatives to fight food waste.

<http://bit.ly/formichine>

G1.8 - Frigo a spreco zero (*Zero waste fridge*)

Contest sponsored since 2013 by the Bologna municipal authority in collaboration with Last Minute Market in the framework of the "A year against waste" campaign; it is open to all schools in Bologna and rewards the most interesting, useful and creative initiatives to fight food waste at home.

<http://bit.ly/frigoaSprecoZero>

G1.9 - Lotta agli sprechi alimentari (*Fight against food waste*)

School contest organised in 2014 by the Association "Soroptimist International d'Italia" in the municipality of Venice.

<http://bit.ly/1DoYfBF>

G1.10 - Good food bag

This initiative was launched in 2014 by the environmental association "Legambiente". It mainly consists in the promotion and distribution of a "no-waste bag" for taking away food leftovers in school canteens and restaurants.

<http://www.legambiente.it/good-food-bag>

G1.11 - Io mangio tutto: no al cibo spazzatura (*I eat everything: no to junk food*)

Educational program aimed at primary schools and kindergarten promoted by ActionAid since 2012. The program aims at developing children's awareness on the value of food and on the difficulties that a large part of humanity has in obtaining it. It was implemented in about 400 schools nationwide and in some cases included the monitoring of food waste. The programme is free, structured into several modules, and uses a teaching kit (also available on the web) which can be directly used in the classroom by teachers.

<http://www.progettoscuola.expo2015.org/expo-2015/ong/action-aid>

G1.12 - Io non spreco! (*I do not waste!*)

Educational initiative promoted by "Milano Ristorazione" and the Milan City Council in 2014. It consists in the distribution, in the primary schools of the City, of "save food bags" to take home leftover non-perishable products, such as fruit, bread and desserts.

<http://bit.ly/1pwEaOI>

G1.13 - Io spreco, tu sprechi, egli spreca (*I waste, you waste, he wastes*)

Contest addressed to the students of secondary schools of Piedmont and Aosta Valley Regions, held in the framework of the "A good opportunity" project (see section F2.11).

<http://www.unabuonaoccasione.it/it/partecipa/concorso-scuole>

G1.14 - Junior MasterChef - missione zero Sprechi (*Junior MasterChef - zero waste mission*)

Project promoted since 2015 by Sky Italy and carried out in cooperation with Last Minute Market and the media producer Magnolia. The project targets primary and secondary schools. All lessons are available for free on the website juniormasterchef.sky.it together with multimedia materials for teachers to support teaching activities on the issues of food waste and respect for food.

<http://juniormasterchef.sky.it/2015/03/27/junior-masterchef---missione-zerosprechi/>

G1.15 - Just Eat It

Awareness-raising campaign on food waste addressed to the schools of the Piedmont Region, in the framework of the "A good opportunity" project (see section F2.11).

<http://www.istruzioneepiemonte.it/?p=10907>

G1.16 - La mensa che vorrei (*The canteen I would like*)

Educational project on the right to food financed under the "Feed the planet" initiative, launched by the Cariplo Foundation, Milan Municipality, and Lombardy Region. The project aims at improving the quality, sustainability and the safety of school canteens in 50 Italian and Brazilian schools, by raising Lombard citizens' and students' awareness of the issues of food waste, right to food, and sustainability of canteens, and getting them involved in these issues.

<https://www.actionaid.it/informati/notizie/la-mensa-che-vorrei>

G1.17 - Missione Piatto Pulito (*Clean Plate Mission*)

Educational programme on the reduction of food waste in school canteens and, more generally, on the issues of prevention, separate collection and recycling of waste, implemented by the

company "Social Services Osimana". The project (carried out during the school year 2011/2012 and repeated the following year) was conceived for students, teachers and canteen staff in the primary schools of the municipality of Osimo (Ancona Province, Marche Region).

<http://bit.ly/piattopulito>

G1.18 - Ogni briciola ha valore (*Every crumb counts*)

Communication initiative promoted in 2013 by the eight catering companies, members of the Oricon's Mass Catering and Nutrition Observatory. This initiative was aimed at raising awareness among pupils of kindergartens and primary schools of the importance of eating properly and avoiding wasting food. Overall, Oricon's members serve about 8,200 state schools, providing over 162 million meals a year.

<http://bit.ly/ognibriciolahavalore>

G1.19 - OltreBampè

EU-funded project under the "Italy-France Maritime" programme, which involves the districts of Lucca, Sassari, Genoa and Upper Corsica. The project aimed at strengthening the role of agri-food SMEs, by promoting the development of short supply chains and the innovation in school catering models. Within the project, specific initiatives aimed at recovering surplus food from school catering for charitable purposes were started. The project started in 2013 and ended in 2015.

<http://www.comune.genova.it/content/progetto-oltrebamp%C3%A8>

G1.20 - Memorandum of Understanding between the Lombardy Region and the Regional Schools Office for Lombardy, Prot. No. 194 of 01.13.2015

Memorandum signed in January 2015, aimed at promoting environmental education in the schools of the Lombardy Region, with particular attention to food waste. April 2016 saw the end of a series of nine meetings (started in April 2015) on the issue of food waste.

<http://bit.ly/1S50TmI>

G1.21 - Risparmiamo il Pianeta (*Let's save the Planet*)

Teaching programme for schools of all kinds and levels promoted by the Foundation for Financial Education and Education to Saving, in cooperation with the Foundation "Barilla Center for Food and Nutrition" (BCFN). The program is divided into four modules to be carried out in class, consisting of informative as well as practical activities.

<http://www.risparmiamoilpianeta.it/>

G1.22 -R.I.U.S.A. Riduzione Udine Spreco Alimentare (*Reduction of Food Waste Udine*)

Educational project on food waste prevention targeted to schools, promoted by the municipality of Udine and delivered by the University spin-off Last Minute Market.

<http://udine2013.openmunicipio.it/acts/cgdeliberations/1508/>

G1.23 - ZerØspreco, zerØfood waste

Awareness-raising campaign on food waste sponsored by the Aosta Valley and Piedmont Regions, launched on the World Food Day 2015 (October 16). The initiative represents a execution of the project "A good opportunity" (see section F2.11). In 2014/2015, the awareness-raising actions in schools involved nearly ten thousand students from Piedmont and Valle d'Aosta in more than 80 secondary schools. In the school year 2015/2016, the initiative was instead aimed at the students of the third, fourth and fifth years of primary school and of all years of secondary schools in the Aosta valley and Piedmont, and consisted of 166 training sessions.

<http://bit.ly/1S49X9U>

G2) Charters, protocols and covenants against food waste

G2.1 - Carta per una rete di enti territoriali a spreco zero (*Charter for a network of zero-waste local authorities*)

Launched by Last Minute Market within the "A year against waste 2010" campaign, it has been subscribed to date by more than 700 Italian municipal councils. Signatory municipalities are committed to implement 10 actions against food waste inspired by the European Parliament resolution on food waste of January 2012.

<http://www.unannocontrolospreco.org>

G2.2 - Carta di Bologna contro lo spreco alimentare (*Bologna Charter against food waste*)

Initiative promoted by MELS, and implemented thanks to the collaboration between the Minister and the Technical and Scientific Secretariat of the National Plan for the Prevention of Food Waste (PINPAS). The Charter was presented during the conference "*Stop food-waste, feed the Planet*" held in Bologna, on November 24, 2014.

<http://www.minambiente.it/comunicati/ambiente-lunedì-galletti-lancia-lotta-europea-sprechi-alimentari>

G2.3 - Carta di Milano (*Milan Charter*)

Global Charter of principles on the subjects of sustainable food, access to food, and food waste presented during Expo 2015. As regards the food waste issue it embodies the principles of the Bologna Charter.

<http://carta.milano.it/>

G2.4 - Carta del Cibo Sano e Sostenibile (*Charter of healthy and sustainable food*)

The Charter was presented during Expo 2015, in September, sponsored by the Calabria Region and the Natural Parks of Aspromonte, Pollino and Silas, and signed by the National Parks of Gargano, Cilento, Five lands, Nebrodi and Etna, and by Federparchi (the Italian Federation of Parks and Natural Reserves). It aims at promoting the reduction of food waste, the production and marketing of sustainable food, the spread of sustainable agriculture and animal husbandry, the education to sustainable food and waste reduction, the involvement of the local population in the conversion to or encouragement of sustainable food production, the maintenance of local administrations in areas at risk of depopulation.

<http://www.ntacalabria.it/wp-content/uploads/2015/09/carta-del-cibo-sano-e-sostenibile.pdf>

G2.5 - Don't Waste Our Future!

A joint European Manifesto of young people and local authorities to promote food waste reduction and the global right to food. It was presented in October 2015 within the context of Expo 2015.

<https://www.dontwaste.eu/>

G2.6 - Protocollo di Milano (*Milan Protocol*)

Over the course of 2014, the Foundation "Barilla Center for Food and Nutrition" (BCFN) developed the Milan Protocol, whose objective was to raise awareness among governments, institutions and public opinion about the urgent need to take action toward a more sustainable global food system.

<http://www.protocollodimilano.it/>

G2.7 - Urban Food Policy Pact (Ufpp)

International Covenant of Mayors on the theme of sustainable food and food waste led by Milan City Council.

<http://www.foodpolicymilano.org/urban-food-policy-pact/>

G3) Networks of Local Authorities against food waste

G3.1 - Sprecozero.net

The Sprecozero.net association was officially established at the beginning of 2014. It mainly aims at promoting, disseminating and sharing food (and non food) waste prevention practices among Italian local authorities. The association pursues the programme started in 2010 with the "Charter for a network of zero-waste local authorities". The founding members are the municipality of Sasso Marconi (Bologna district) and Last Minute Market. A Memorandum of Understanding among MELS, National Association of Italian Municipalities (ANCI) and Sprecozero.net Association was signed in Bologna on November 24, 2014, with the aim to foster the wider involvement of the Italian public authorities to the network. In May 2016 around 40 municipalities (plus the Piedmont Region) had already joined the Association.

<http://www.sprecozero.net>

G4) Initiatives in the "primary production" sector

G4.1 - Melasi

Melasi is a trademark of the Melinda Consortium used to commercialize, at a reduced price, apples not reaching the commercial standards provided by the consortium for the marketing of Melinda brand products. The Melasi brand was created in 2008, following exceptional hailstorms that hit about 50% of the fruit-growing areas of the Trentino valleys where the 5,200 smallholders of the Consortium grow the apples marketed under the Melinda brand.

<http://www.melasi.it>

G4.2 - Belle nel cuore: imperfette fuori, belle dentro (*Beautiful in the heart: imperfect outside, beautiful inside*)

In 2015, the company Antonio Ruggiero S.p.A. launched the potatoes and onions line "*Belle nel cuore*". This is a line of "imperfect" potatoes and onions (as for shape and colour) available on the market on the whole national territory as of September 2015.

<http://www.antonioruggiero.com/it/prodotti/belle-nel-cuore>

G5) Initiatives for promoting the use of "doggy-bag" in the food service sector

A number of projects focused on promoting the use of "doggy bags" within the food service sector were implemented in recent years. The aim of these projects is to raise both consumer and business awareness on the scale of restaurant food waste, alongside offering viable alternatives for diners and restaurants. Seventeen different initiatives have been identified so far:

G5.1 - Attenzione allo spreco (*Focus on wastage*)

Initiative launched in November 2015 by the company TecnoBox in collaboration with the Sicily Region and the University of Palermo. As of December 2015, the company has already distributed 2,000 doggy-bags made of Air-Box, a recyclable patented material suitable for both wet and dry foodstuffs.

<http://www.tecnobox.net/attenzione-allo-spreco-doggy-bag/>

G5.2 - Borsa antispreco (*Anti-waste bag*)

Initiative launched in February 2016 by Coldiretti (National Farm Independent Farmers' Confederation). It provides for the distribution of "no-waste bags" in agritourisms and restaurants to allow customers to take home food leftovers.

<http://bit.ly/1UJ173G>

G5.3 - Circuito eco-vaschette (*Eco-containers network*)

Experimental project started in 2012 by the Rimini District in the framework of a Memorandum of Understanding among the province, the local health authority and the associations of the catering and agritourism sector. The project consisted of the distribution of take-away containers to a panel of restaurateurs who took part to the project. Currently, the project is no longer active, not having passed the experimental stage.

<http://www.punto3.info/news/progetto-eco-vaschette-la-provincia-di-rimini>

G5.4 - Eco-ristorazione aquilana - Family bag (*Aquilan Eco-Catering - Family bag*)

Project started in February 2016 as a result of a Memorandum of Understanding among L'Aquila municipality, the municipal multi-service company (Aquilana Società Multiservizi), Slow Food, and the professional associations of retailers Confcommercio, Confesercenti, CAN, and "Agenzia per lo Sviluppo".

<http://bit.ly/1ReDMCt>

G5.5 - Ecoristoranti (*Eco-restaurants*)

The Eco-restaurants project is the result of an agreement between the Covar14 consortium (consortium of 19 municipalities located south-west of Turin, with a total of 260,000 inhabitants) and the restaurateurs of the same area, based on an idea, and with the support of the ERICA cooperative. In May 2015 it had over 60 participating restaurants in 18 municipalities.

<http://www.ecoristoranti.it/>

G5.6 - Family bag

Initiative launched in December 2015 as a result of a partnership among MELS, CONAI (National Packaging Consortium), Unioncamere Veneto, and a number of associations representing public authorities. The initiative sees Padua as a "pilot" district at the national level and essentially consists of providing restaurants and trattorias with design containers to be delivered to customers who wish to take their leftovers home. Unioncamere Veneto identified 100 restaurants which have been delivered an initial supply of Family bags made of recycled materials provided by the national packaging recycling consortiums: (Corepla - plastic), (Cial - aluminum), (Comieco - paper and cardboard), (Rilegno - wood), and (Ricrea - steel).

<http://www.conai.org/notizie/presentato-il-progetto-family-bag>

G5.7 - Il buono che avanza (*The good food that exceed*)

Project set up by the association "Cena dell'Amicizia O.N.L.U.S." (which takes care of homeless people in Milan) to reduce food waste in restaurants, trattorias, cafeterias and catering chains through the dissemination of "doggy-bags". Since April 2015, thanks to the collaboration with Edenred (the company which invented the Ticket restaurant® meal voucher), this service has been extended nationwide. Edenred is committed to provide all its local affiliates (about 150,000) with food saving containers.

<http://www.ilbuonocheavanza.it>

G5.8 - Legacciola Project

Project promoted by Slow Food and the Ecologicpoint association in collaboration with the Municipality of Narni - Department of the Environment. Launched in November 2014 within the context of the European Week of Waste Reduction 2014 it addresses the reduction of food waste in the food service sector by providing a compostable "doggy-bags" to local restaurants and the related communication materials.

<http://www.ecologicpoint.com/index.php/ridurre-i-rifiuti/80-legacciola-project-a-terni>

G5.9 - Mangio eco (*I eat ecologic*)

The "I eat ecologic" network was launched on March 3, 2015 in the Piedemont Region as part of the C3-po project. Restaurateurs adhering to the network are provided with kits of informative materials and a number of biodegradable containers ("doggy-bags"), to allow customers to take home their leftovers.

<http://c3-po.eu/>

G5.10 - Non buttare, porta a casa (*Don't waste it, take it home*)

Since 2014, the chain "Fratelli La Bufala" has provided a foldable box to the customers who want to take home their leftover pizza. The "Fratelli La Bufala" chain has around a hundred pizzerias all over Italy.

<http://www.egnews.it/non-buttare-porta-a-casa/>

G5.11 - Pesaro città contro lo spreco (*Pesaro, town against wastage*)

Campaign launched on February 5, 2016 by the municipality of Pesaro in collaboration with Last Minute Market to promote the diffusion of C-box (container for taking home leftovers) in local restaurants.

<http://bit.ly/21DeD9u>

G5.12 - Re BOX

Project started in January 2016 by the start-up, Malvida, a company based in Turin (Piedemont Region). At the core of the project there is "Re FOOD", a recyclable design container for taking home leftovers.

<http://www.re-box.it/>

G5.13 - Repeat box

Repeat box is a project conceived in 2013 by the students of the "Sustainability and food production in Italy" class held by the Umbra Institute (in Perugia). It was officially launched on February 5, 2014. The project involves local restaurants in promoting the use of a container, made of sugarcane processing waste for taking food leftovers home.

<http://www.repeatbox.org/>

G5.14 - Rigustami a casa (*Enjoy me again at home*)

One of the first initiatives in this field promoted since 2011 by the Autonomous Province of Trento as part of the "eco-catering" project.

<http://www.eco.provincia.tno.it/approfondimenti/pagina9.html>

G5.15 - RICIBIAMO: chi ama il cibo non lo spreca (*those who love food don't waste it*)

Project set up in 2013 in Piacenza by the network "Piace Cibo Sano - Like Healthy Food" and the Mathis restaurant (Fiorenzuola d'Arda-PC), in collaboration with the Piacenza Chamber of Commerce. The project aims at investigating, understanding and exploring the theme of food

waste in the catering sector, and at proposing solutions to reduce food waste, including the distribution of containers for taking leftovers home.

<http://bit.ly/1ReNDIr>

G5.16 - Se avanzo mangiatemi (*If it exceeds, eat it*)

Project promoted in 2015 by Comieco (the National Consortium for the Recovery and Recycling of Cellulose-based Packaging) in collaboration with Slow Food Italy. Restaurants and trattorias adhering to the project are provided with design “doggy bags” to be used by their customers for taking leftovers home. In November 2015 more than 150 restaurants located in the Lombardy Region and in the City of Rome had already joined the network.

<http://www.comieco.org/doggy-bag-se-avanzo-mangiatemi/>

G5.17 - Tenga il resto (*Keep the change*)

Campaign started on October 29, 2014 by the Monza municipality and carried out in collaboration with Confcommercio Monza and the National Consortium for the Recovery of Aluminium Packaging (Cial). In the restaurants, canteens, etc. that display the slogan “Keep the change!” (a symbol of adherence to the campaign), customers are encouraged to take their leftovers home. The initiative was extended to the city of Arezzo in April 2015 and to the city of Pordenone on December 21, 2015.

<http://www.cial.it/news/tenga-il-resto/>

G6) Initiatives for collection of surplus food for charitable purposes (by Region)

G6.1 - Abruzzo Region

G6.1.1 - Coldiretti-Caritas Agreement

Memorandum of Understanding signed in March 2016 between Coldiretti and Caritas for the collection and redistribution of surplus food from the Pescara “Campagna Amica” food market.

<http://bit.ly/1pK1z6D>

G6.2 - Calabria Region

G6.2.1 - Lamezia Terme

Memorandum of Understanding sponsored by the Soroptimist club of Lamezia Terme, together with Siarc (Association of Food Industries and Collective Catering) and Caritas Diocesana for the recovery, for charitable purposes, of the surplus food cooked by the hospital catering services.

<http://www.calabrianews.it/15078-2/>

G6.3 - Campania Region

G6.3.1 - La Campania ha un cuore grande (*Campania has a big heart*)

Pilot project launched in April 2015 by the Department for Social Policies of Campania Region. It aims at promoting the recovery, for charitable purposes, of surplus food (and non-food) products.

<http://www.sviluppocampania.it/la-campania-ha-un-cuore-grande>

G6.3.2 - Collaboration agreement between Naples City Council and Legacoop Campania

Collaboration agreement, signed in December 2014 for the recovery and redistribution of surplus food generated by the retail sector.

<http://bit.ly/1Mm1Np9>

G6.4 - Emilia Romagna Region

G6.4.1 - Bologna: Progetto ristorazione (*Bologna: Catering project*)

Since 2013 the project allows for the recovery and redistribution of surplus food (cooked but not served) generated by the Sant'Orsola-Malpighi Hospital in Bologna. The project was set-up with the technical support of Last Minute Market.

<http://bit.ly/1pXhOND>

G6.4.2 - Ferrara: Last Minute Market Project

Since 2003 the project allows for the recovery and redistribution of surplus food from large and small-scale retailers in the city of Ferrara. Donors benefit from municipal waste management tax reductions proportionally to the amount of donated products. The project was set up by the Municipality of Ferrara with the technical support of Last Minute Market.

<http://www.comune.fe.it/index.phtml?id=2300>

G6.4.3 - Cibo Amico (*Friendly Food*)

The project, born from collaboration between Hera Group and Last Minute Market, provides for the recovery and redistribution of surplus food from the Hera Group's canteens. In 2012, the project involved 1,200 Hera Group's employees (from Bologna, Ferrara, Granarolo, Imola and Rimini) and five NPOs that house around 270 people in seven facilities. In the same year, about 10,000 full meals were donated, representing around 4,400 kg of food.

http://www.gruppohera.it/gruppo/com_media/news/pagina364.html

G6.4.4 - Modena: Pane quotidiano (*Modena: Daily bread*)

Initiative launched and supported by the Department for Economic Development of the Modena municipality and approved by the City Council. It aims at preventing the wastage of bread: in the evening, the NPOs Open Door (Porta Aperta) and Portobello collect unsold bread at Modena's participating retailers. The project (and its brand "Ethical & Typical - Daily Bread") is governed by a Memorandum of Understanding (signed on May 20, 2014) among the municipality of Modena, the NPOs, and baker professional associations.

<http://bit.ly/1D5pl66>

G6.4.5 - Modena: Etico & Tipico (*Modena: Ethical & Typical*)

Quality label promoted by the Modena municipality aimed at supporting and promoting local retailers adopting socially responsible behaviours, including the donation of surplus food.

<http://comune.modena.it/eticoetipico>

G6.4.6 - Modena: Portobello - Emporio Sociale (*Modena: Portobello - Social Emporium*)

Portobello is a community project that involves citizens, businesses, associations and institutions. The project leader is the Modena Association for Voluntary Services (Associazione Servizi per il Volontariato Modena -ASVM-), which coordinates a network of 24 members from the voluntary sector and more than 50 partner institutions, companies and associations. The project includes an Emporium, accessible through the Social Services office of the Modena municipality, which issues a special card to beneficiaries.

<http://www.portobellomodena.it>

G6.4.7 - Parma: Azione solidale (*Parma: Solidarity action*)

Launched in 1999, Solidarity Action is a non-profit initiative of the Solidarity Association, which deals with the recovery and redistribution of surplus food products to charitable associations.

<http://www.solidarietaO.N.L.U.S..org/index.html?pg=7&id=1>

G6.4.8 - Parma: ParmaNonSpreca! (*Parma does not waste*)

Project for the recovery, for charitable purposes, of surplus food generated throughout the food supply chain. It was launched in 2015 through a Memorandum of Understanding among Cariparma Foundation, Solidarity Forum, "Emporio Market Solidale", Caritas Parma, Consorzio di Solidarietà Sociale, Parma district and the Parma municipality.

<http://www.piattaformaparma.it/>

G6.4.9 - Parma: Progetto Emporio (*Parma: Emporium project*)

Project launched in 2009 by 24 associations grouped in the NPO CentoperUno, financed by the regional tender Co.Ge (Special Fund for Volunteerism) and Cariparma Foundation. In addition, the project is financed both by the Parma district and the Parma municipality.

<http://www.emporioparma.org/>

G6.4.10 - Parma: Più doni, meno rifiuti (*Parma: the more you donate, the less you waste*)

The project deals with the recovery and redistribution of surplus food from local retailers. It was set up in 2010 following the signing of the "Parma Protocol", a Memorandum of Understanding among Federdistribuzione, the "Banco Alimentare - Emilia Romagna" foundation, the municipality of Parma, the Parma Health Authority and Enia. The agreement also provides for a reduction of the tax on waste disposal for the companies which donate their surplus food.

G6.4.11 - Parma: Progetto Social Market (*Parma: Social Market Project*)

Launched in 2005, the Social Market Project is an initiative of the Social Cooperative Eumeo, supported by the District of Parma and Cariparma Foundation, in collaboration with the municipality of Parma. It involves a number of retail partners (mainly large retailers) to the benefits of 15 local charitable institutions. According to the data provided by the project, the "average" quantity of food recovered and redistributed every year amounts to around 200 tons.

<http://bit.ly/1cCVUbj> | <http://bit.ly/1E9MnoW>

G6.4.12 - Piacenza: Piacenza solidale (*Piacenza solidarity*)

Project for the recovery and redistribution of unsold food products sponsored by the municipality and by the district of Piacenza, in collaboration with Enia and the Piacenza Association of Retailer. According to the information collected, about 85 tons of food was recovered in 2013.

<http://bit.ly/1PY7D3Q>

G6.4.13 - Emilia-Romagna Region - Last Minute Market Project

Project sponsored by the Department of Trade, Tourism and Quality of Tourist Areas. Apart from the name of the project, Last Minute Market indicates the spin-off company of the University of

Bologna that coordinates the activities of collection of surplus food (and non-food) in the Emilia-Romagna Region. The project, implemented in the framework of the General Regional Intervention Programme 2013 and funded by the Ministry of Economic Development, allowed for the recovery of more than 600 tons of food and 40,000 prepared meals in over 40 municipalities in 2013 only.

<http://bit.ly/2cVPFUK>

G6.4.14 - Emilia-Romagna Region: Voluntary agreement with retailers on the donation of surplus food (and non-food)

In line with the guidelines of the Regional Waste Management/Prevention Plan, with the resolution 731 of May 26, 2014, the regional government of Emilia Romagna adopted the *“Collaborative agreement between Emilia-Romagna Region, ATERSIR and Legacoop Emilia-Romagna aimed at the elaboration of proposals and project ideas for preventing the production of waste, and for recovering it in the mass retail sector”*. This agreement foresees the definition of further agreements on subjects like the environmental performance of large retailers' selling points, and the re-use of surplus food (and non-food) for charitable purposes. A detailed agreement on the donation of surplus food is currently under definition. The latter will provide uniform criteria at the regional level for granting discounts on the waste management tax to shops (both large and small-scale traditional retailers) that donate their unsold products (food and non-food) for charitable purposes.

G6.4.15 - Mercato di Ravenna: recupero dell'invenduto (Ravenna market: recovery of unsold food)

Initiative started in late December 2015 in collaboration with the Departments of Social Policies and Environment of Ravenna Municipality and Hera Group. It foresees the daily collection of surplus food from the open-air market of the city. The recovered food is used for preparing meals for needy people.

<http://bit.ly/1pvypHO>

G6.4.16 - Reggio Emilia: Remida Food

The project, coordinated by Reggio Emilia Municipality and Province was launched in 2007. In 2011, almost 93 tons of food were recovered and redistributed in the city and about 100 in the province, including hot meals. The project partners are Reggio Emilia Local Health Authority, which trains volunteers to ensure high food safety and hygienic standards, and the multi-services company Iren, which grants a discount on the waste tax to donating supermarkets.

<http://bit.ly/1E9PxJ5>

G6.4.17 - Rimini: Emporio Solidale (Rimini: Solidarity Emporium)

Active since April 2016, the Rimini's solidarity emporium draws inspiration from Modena's Portobello project. The project, set up within the context of a Memorandum of Understanding for the fight against food waste, arose from collaboration between institutional actors and associations in the Rimini province. All residents in the province with an Equivalent economic status indicator (ISEE) below 7,500 euros who are registered at the job centre are eligible for accessing the service.

<http://www.emporiorimini.it/>

G6.4.18 - Emporio il Melograno (*Sassuolo: Melograno Emporium*)

The project has the same characteristics and operating methods of the Modena's Portobello Project. It opened in Sassuolo (Modena province) in April 2014.

<http://www.emporiomelograno.it/>

G6.4.19 - Il Pane e le Rose - Emporio Sociale (*Soliera: Bread and Roses - Social Emporium*)

The project has the same characteristics and operating methods of the Modena's Portobello Project.

<http://www.ilpaneelerosesoliera.it/>

G6.5 - Friuli-Venezia Giulia Region

G6.5.1 - Prevenzione e riduzione dei rifiuti mediante il riutilizzo a fini sociali di prodotti invenduti (*Prevention and reduction of waste through reuse of unsold products for charitable purposes*)

Active since 2012, this project is funded by the Autonomous Region of Friuli-Venezia Giulia. It was designed and delivered in collaboration with the social organization Animaimpresa and with Last Minute Market.

<http://bit.ly/1S8m6sb>

G6.5.2 - Trieste recupera (*Trieste recovers*)

NPO founded in August 2015 in order to recover and redistribute unsold food products approaching the expiration date from shops and supermarkets.

<http://www.triesterrecupera.it>

G6.6 - Lazio Region

G6.6.1 - Monte Compatri: Progetto "Alimentiamo" (*"We Feed" project*)

Project aimed at recovering and redistributing surplus food for charitable purposes. It arises from a program agreement voted by the municipal council in February 2016.

<http://bit.ly/1SOCfQh>

G6.6.2 - Il pane a chi serve (*The bread to whom who need it*)

Project started in 2011 by the Christian Association of Workers (ACLI) and the Union of Bakers of Rome's Confederation of Commerce, with the support of the City of Rome. It deals with the recovery and redistribution of surplus bread and bakery products through local associations.

<http://acliroma.it/a-chi-serve/>

G6.6.3 - Roma produttiva e solidale: la Rete delle Eccedenze Alimentari (*A productive and supportive Rome: Food Surplus Network*)

Project sponsored by the Departments of Productive Activities and of Social Policies and Subsidiarity, with the participation of voluntary organisations, NPOs, trade associations, and large retailers. The Memorandum of Understanding "Productive and supportive Rome", which created the "Surplus Food Network", was signed in Rome in August 2014.

<http://bit.ly/1pXnC9K>

G6.7 - Liguria Region

G6.7.1 - Buon Mercato (*Cheap food*)

The project was set up in 2005 within the framework of the "*Action programme against inequality and poverty*", promoted by La Spezia Municipality. It includes 25 members among institutions, trade unions and NPOs.

<http://bit.ly/1pFhmUe>

G6.7.2 - C.R.E.A. - Centro Recupero Eccedenze Alimentari (*Center for the Recovery of Food Surpluses*)

Project promoted by the Saint Benedict Community in close collaboration with the Genoa Municipality. It deals with the collection and redistribution of surplus food from small, medium and large retailers.

<http://www.progettocrea.org/>

G6.7.3 - Santo Stefano di Magra: Santo Stefano Spreco Zero (*Santo Stefano Zero Waste*)

Project launched in 2014 by the Municipality, together with Red Cross, Conad, Caritas, and Camst. In 2015, over 8 tons of food and over 3 thousand litres of milk were collected and redistributed by Red Cross volunteers.

<http://bit.ly/236ae1u>

G6.8 - Marche Region

G6.8.1 - Falconara: Falconara contro lo spreco alimentare (*Falconara against food waste*)

Project of Falconara municipality aimed at reducing food waste in the school catering sector. The project, disclosed in April 2016, provides for uneaten fruit and bread to be taken home by children, for surplus cooked food to be recovered for charitable purposes, and for leftovers to be used as animal feed (in kennels).

<http://www.anconatoday.it/politica/falconara-spreco-alimentare-food-bag-falconara.html>

G6.8.2 - Provincia di Pesaro Urbino: Basta sprechi (*Province of Pesaro and Urbino: Stop Wastage*)

Project launched in March 2012 by the Province of Pesaro and Urbino, in collaboration with Marche Multi-Services S.p.A., Aset S.p.A., and Last Minute Market srl. The project deals with the recovery and redistribution of unsold food products within the provincial territory.

<http://bit.ly/1LC5zzM>

G6.9 - Lombardy Region

G6.9.1 - Foodsaving Expo

In collaboration with Milan Expo 2015 and Cascina Triulza, and the NPO Banco Alimentare, the surplus food recovered within the exhibition site of Expo Milan 2015 was redistributed to charitable organizations. In six months, FBAO recovered 49.939 kg of surplus food (fruit, vegetables, dairy products, bread, sandwiches, dry products like pasta, flour, legumes, etc.) that were donated to about 240 charitable organizations in Milan.

G6.9.2 - Mantova: Accordo di programma per il recupero delle eccedenze alimentari della grande distribuzione (*Mantua: framework agreement for the recovery of surplus food from large-scale retail stores*)

Framework agreement signed in March 2015 between the Mantua Province, the Christian Association of Workers (ACLI), large-scale retailers and NPOs.

https://www.provincia.mantova.it/cs_context.jsp?ID_LINK=41&area=37&id_context=10637

G6.9.4 - Milano: Progetto RECUP - Zero Sprechi (Milan: RECUP - Zero Waste project)

Project of the association "whyZ" launched in December 2015 in the municipality of Milano. It aims at recovering surplus food products (especially fruit and vegetables) after closure of municipal markets, in order to redistribute them among the elderly and needy residents of the neighborhood.

<http://recupmilano.blogspot.it>

G6.9.5 - Regione Lombardia: Protocollo di intesa del progetto sperimentale "Reti territoriali virtuose contro lo spreco alimentare" (*Lombardy Region: Memorandum of Understanding of the experimental project "Virtuous territorial networks against food waste*)

Approved in July 2015 by the Regional Government of Lombardy the Memorandum of Understanding is aimed at fostering surplus food donation within the framework of the Regional waste prevention programme.

<http://bit.ly/1Wq0JWN>

G6.9.6 - Regione Lombardia: Progetto per ridurre lo spreco alimentare e attuazione del Piano di bonifica aree inquinate (*Lombardy Region: Project to reduce food waste and to implement the recovery plan for polluted areas*)

Collaboration agreement between the Lombardy Region and the Lombardy Foundation for the Environment (FLA) aimed at implementing the regional waste management and remediation plan.

<http://bit.ly/1E3qXrh>

G6.10 - Piedmont Region

G6.10.1 - Biella: "Biella Solidale" (*Biella Solidarity*)

Project launched by the Biella Local Health Authority in 2014. It deals with the recovery, for charitable purposes, of surplus cooked meals produced in the hospital canteen. Approximately 360 first courses, 630 main courses, 660 side dishes, and 30 kg of bread are delivered each month, accounting for about 4 tons a year.

<http://bit.ly/1SSWM9A>

G6.10.2 - Torino: Progetto "Fa bene" (*Turin: "Good for Health" project*)

The project was launched in 2013 by the cultural NPO Plug Creativity, together with the social cooperative Liberitutti and with the contribution of the Turin Caritas Observator. It deals with the recovery of surplus food generated by three local markets in the municipality of Turin. The beneficiary subjects are involved in the project also through "voluntary" activities addressing the local community. The project has been recently implemented in other municipalities within the

Turin province (Collegno and Moncalieri), with the names "Fa bene diffuso" and "Tutt'altra pasta".

<http://www.fabene.org/>

G6.10.3 - Lago Maggiore Green Meeting

Project launched in 2014 by the Lago Maggiore Meeting Industry, thanks to an agreement between the Italian and Swiss agencies for the promotion of tourism in the area. The project foresees the organisation of low-environmental-impact events, with particular focus on food waste reduction. Banco Alimentare Foundation, through the project "Siticibo", deals with the recovery and redistribution of surplus breakfast food, bread, cakes, pastries and cookies in the hotels that have joined the agreement.

http://www.illagomaggiore.com/it_IT/home/congressi

G6.11 - Sardinia Region

G6.11.1 - Alimentis

Project launched in 2006 by the Sardinia Regional Work Agency with the technical support of Last Minute Market.

<http://www.sardegna sociale.it/index.php?xsl=342&s=46148&v=2&c=3074>

G6.12 - Sicily Region

G6.12.1 - Palermo: AddioSpredo (*GoodbyeWastage*)

Association created in 2015 in Palermo for the recovery and redistribution of surplus food generated by local businesses (bars, restaurants, supermarkets, bakeries etc.).

<http://addiospreco.it/>

G6.12.2 - Palermo: Contro ogni spreco (*Against all wastage*)

Project launched in February 2016 in Palermo, which aims at recovering and redistributing, for charitable purposes, fruit and vegetable surpluses generated by the city market. The project is supported and coordinated by the Palermo municipality.

<http://bit.ly/100JacY>

G6.13 - Tuscany Region

G6.13.1 - Accordo tra Regione, Azienda regionale per il diritto allo studio e Comuni di Firenze, Pisa e Siena (Agreement between Tuscany Region, Regional Agency for the Right to Education and Cities of Florence, Pisa and Siena)

The agreement was signed in 2015; it deals with the recovery and redistribution of surplus food from university canteens. It was later extended to the regional administration canteens, thanks to the collaboration among the catering service company (Camst), Banco Alimentare, and Caritas.

<http://bit.ly/1q2vcjo>

G6.13.2 - Empoli: Ma.Ri.Sa. - Mangia e Risparmia in Salute (*Eat and Save Health*)

The Ma.Ri.Sa. project, led by the Local Health Authority of Empoli, tackles the problem of food waste in the school and hospital catering sector. It foresees a number of actions, including (but not limited to) the recovery of surplus food.

<http://bit.ly/1LIYj5a>

G6.13.3 - Massarosa: Cibo salvato, cibo donato and "Last Food" (*Saved food, donated food and "Last Food"*)

Projects promoted by the Massarosa Municipality (Lucca Province) launched in December 2012 respectively addressed to the recovery of surplus food from school canteens and food retailers.

<http://bit.ly/1RAML6r>

G6.13.4 - Pisa

Agreement between Coldiretti and Caritas signed in June 2015 for the recovery and redistribution of surplus food from the Coldiretti Farmer's Market

<http://www.pisatoday.it/cronaca/accordo-lotta-spreco-alimentare-coldiretti-caritas-pisa.html>

G6.13.5 - Pontedera

Project started in January 2016 by the Pontedera Municipality for the recovery and redistribution of surplus food in school canteens.

<http://bit.ly/1IW0J4M>

G6.13.6 - Scandicci: Progetto "Bidoniamo lo spreco" (*Let's trick the wastage project*)

Project launched in February 2016 by the Scandicci Municipality aimed at reducing food waste in school canteens. It provides for the recovery, for charitable purposes, of non served meals, and gives children the opportunity to take uneaten bread and fruit home.

<http://bit.ly/1MDRWuV>

G6.14 Trentino Region

G6.14.1 - Perché il cibo non finisca nei cassonetti (*So that food does not end up in bins*)

Project of the association "*Trentino Solidale*" launched in 2009. It involves over 200 volunteers who collect surplus food from more than 250 collection points (from large supermarkets to small village shops) with 17 vehicles and delivers it to 26 distribution points located throughout the province.

<http://bit.ly/trentinosolidale>

G6.15 - Veneto Region

G6.15.1 - + Cibo - Spreco (+ Food - Waste)

Project launched in November 2014 by Etra SpA aimed at recovering and redistributing surplus food from large retailers. The results of the first eight months of operation, presented in September 2015, showed a reduction of food waste of about 30 tons, which account for around 140,000 Euros.

<https://www.etraspa.it/tag/cibo-spreco>

G6.15.2 - Conegliano Municipality: Memorandum of Understanding among Conegliano Municipality (Treviso Province), the association of consumers Adiconsum and the Italian association of vending machines Confida.

The protocol includes the free distribution, for charitable purposes, of the products close to the expiry date.

<http://bit.ly/1Sd4UEf>

G6.15.3 - Treviso Municipality

Project of the Treviso Municipality, started in april 2016 dealing with the recovery, for charitable purposes, of surplus food from municipal school canteens.

<http://bit.ly/1qJd4Md>

G6.15.4 - Food Recovery

Initiative launched in September 2015 by the Municipalities of Padua and Cadoneghe dealing with the recovery and redistribution of surplus food from school canteens.

<http://bit.ly/1pFkmAe>

G6.15.5 - Terviso: E.A.T. Eccedenze Alimentari Treviso (*Treviso Surplus Food Project*)

The Cooperative "*Solidarietà*" of Montebelluna (Treviso Province), in collaboration with the association "*Amici della Solidarietà*" deals with the recovery and redistribution of surplus food since 2006 and promotes initiatives to raise awareness about the importance of reducing wastage. Since 2011, its activities include the recovery and redistribution of fruit and vegetables produce withdrawn from the market under the EU market-management scheme.

<http://bit.ly/1Rv3PdW>

G6.15.6 - Re.T.E Solida

Re.T.E Solida is promoted by the Christian Associations of Workers (ACLI) of the Provinces of Padua and Rovigo, and supported by the "Cassa di Risparmio of Padua e Rovigo" Foundation, in collaboration with Padua Municipality, Padua Province, Rovigo Province, Padua Prefecture, Padua Caritas and other public and private NPOs. The project deals with the recovery of cooked meals (since 2009), unsold food from large retailers (since 2014), and agricultural products from producers' organisations (since the end of 2014).

<http://www.worldsocialagenda.org/5.6-Eccedenze-e-recupero/>

G6.15.7 - REBUS Recupero Eccedenze Beni Utilizzabili Solidalmente (*Recovery of Usable Surplus Goods for Charitable Purposes*)

Designed in 2003 by "Carpe cibum" (now "Last Minute Market"), and implemented by the Christian Association of Workers (ACLI) of the Province of Verona since 2004, it evolved into a stand-alone project, replicable in other areas. Initially, the project focused on the recovery of surplus food from school canteens; then, it was extended to the catering and food retail sectors. Beyond Verona, the project has been adapted and replicated in many other Italian cities, including Vicenza, Mantua, Ancona, Belluno, Bergamo, Padua and Rovigo.

<http://www.acliverona.it/r-e-b-u-s-1/news/index>

G6.15.8 - Qui non si butta via niente (*We don't throw anything away here*)

Project aimed at recovering surplus food from school canteens, launched on an experimental basis, in collaboration with the association "Betania", in the Municipality of San Giovanni Lupatoto (Province of Verona) from March to June 2014.

<http://bit.ly/NONSIBUTTAVIANIENTE>

G6.16 - Supra-regional Projects

G6.16.1 - COOP: Progetti "Buon fine", "Brutti ma buoni" e "Spreco utile" (*"Happy ending" - "Ugly but good" - "Useful wastage" Projects*)

"Happy ending", "Ugly but good" and "Useful wastage" are the three names under which the different cooperatives of the COOP system carry on unsold food recovery and redistribution projects in Italy since 2003. According to the data provided by ANCC-COOP (the National Association of Consumer Cooperatives - COOP) as for 2013, the total value of food annually donated by the over 500 participating stores exceeds 22 million euros, representing around 4,000 tons of products. These projects are carried out in 75 out of 108 of Italian provinces, reaching about 150,000 people through 906 voluntary associations.

<http://www.e-coop.it/documents/4036288/6973749/Buon+Fine.pdf>

G6.16.2 - CONAD

Even if it was not possible to obtain aggregated data at the national level on the amount of unsold food products donated by the CONAD system, its commitment in this field is widely acknowledged. CONAD distributes its surpluses through different chains and organizations: the most used food recovery networks in Centre-Northern Italy are those of Reggio Emilia (ReMiDa Food), Parma (Social Market) and Piacenza (Piacenza Solidale), while in the Provinces of Bologna, Forlì-Cesena, Ferrara, Modena, Ravenna and Rimini CONAD mostly operates through Last Minute Market.

G6.16.3 - DESPAR

According to the MD of Despar North-West, Paul Klotz, in 2015 Despar North-West recovered and distributed food for a total value of 4 million Euros through Last Minute Market and Banco Alimentare. The retailer group coupled each of its shops (219 Despar, Eurospar and Interspar in the Regions of Veneto, Emilia Romagna, Friuli-Venezia Giulia and Trentino-Alto Adige) with an association that regularly recovers and redistributes the unsold but still edible food.

http://bit.ly/despar_recuperi

G6.16.4 - Empori solidali e social market (*Solidarity emporiums or social market*)

The "solidarity emporiums", sometimes called "social markets", provide a service of distribution of basic goods, organised like a real supermarket. Within the Emporiums, beneficiary people can obtain free food and, in some cases, non-food products, in compliance with the rules set by the charitable associations that elaborated the project. The products available within the emporiums usually come from donations, purchase but also from the recovery of unsold products from retailers. In Italy, these emporiums have been active since 2008. In 2015, the National Directorate for Voluntary Services (CSVnet), surveyed about 60 emporiums (which support about 60 thousand needy people) throughout the national territory. Sixteen regions (nine in the South, 23 in the Centre and 27 in the North) have at least one emporium. An interactive map

showing the location of the different emporiums in Italy can be accessed at this web site:
<http://bit.ly/1FG7aRZ>.
https://bit.ly/caritas_emporio_solidarieta

G6.16.5 - Equoevento O.N.L.U.S.

Equoevento O.N.L.U.S. was born in Rome in 2014; it deals with the recovery of unconsumed food from weddings, conferences and similar events. According to the data provided by the organisation, in the first six months of activity, surplus food from 80 events was collected, distributing about 6,000 meals to 300 charitable organisations in Rome.

<http://www.equoevento.org/>

G6.16.6 - Food for good: from meetings to solidarity

Project sponsored by Federcongressi, in collaboration with the NPOs Banco Alimentare and Equoevento aimed at recovering and redistributing surplus food from conferences, conventions, seminars and other events.

<http://www.federcongressi.it/pagine/foodforgood.php>

G6.16.7 - Rete Banco Alimentare (*Food Bank Network*)

The Fondazione Banco Alimentare O.N.L.U.S. (hereinafter, "FBAO"), through its network of 21 Food Banks in Italy (hereinafter, "Food Bank Network"), is committed to fight against food waste and to feed the most deprived. The FBAO was established in Italy in 1989 and since 1990 it has been a member of the European Federation of Food Banks (FEBA). The mission of the Food Bank Network consists in the daily recovery of surplus food from all the sectors the food supply chain (agriculture, production, distribution and food service) and its daily redistribution to 8,103 charitable organizations that assist 1,558,250 of deprived people in Italy. In addition, the Food Bank Network distributes food products received from the European Union. In 2015 the Food Bank Network recovered about 40,448 tons of surplus food and collected 14,965 tons of donated food products, of which 9,201 tons during the National Food Collection Day. The Food Bank Network also recovered 1,043,351 portions of ready meals and 319 tons of bread, fruit and fresh products from the food service, company and school canteens. In 2015 it is estimated the recovery of 75,000 tons of food products and 1,100,000 ready meals. The activity of the Food Bank Network is possible thanks to the daily commitment of 1,843 volunteers.

<http://www.bancoalimentare.it/>

G6.16.8 - Frutta Urbana (*Urban Fruit*)

Created by the NPO Linaria, "Urban Fruit" is the first Italian project dedicated to the mapping, collection and free distribution of fruits grown in cities. The project is implemented in collaboration with the Food Bank Network, organizing courses and workshops. It has three main objectives: to serve as a model for healthy and sustainable nutrition; to promote community participation in order to create and share urban orchards; to protect biodiversity by imagining new functions of the public space. It is currently active in Rome and Milan.

<http://www.fruttaurbana.org/>

G6.16.9 - Last Minute Market (LMM)

Last Minute Market is a spin-off company of the University of Bologna committed to waste prevention and reduction that has been operating on the entire national territory during the last

10 years. It assists companies and public administrations in designing, implementing and monitoring projects for the recovery of unsold or non-marketable food (and non-food) products. It also deals with research, training and analysis of data on waste, and promotes a wide range of communication initiatives to raise awareness on the issue of food waste. Its main initiatives include the campaign "A year against waste", the Waste Watcher Observatory, the prize "Living with Zero Waste", the Charter for a network of zero waste local authorities, and the association Sprecozero.net. Together with the Department of Agricultural and Food Sciences of the University of Bologna, LMM has been one of the partners of the FUSIONS project.

<http://www.lastminutemarket.it>

G6.16.10 - Pasto Buono (*Good Meal*)

Project aimed at recovering unsold food from the catering sector for charitable purposes. It was launched in 2007 by the QUI Foundation (non-profit organisation supported by the QUI! Group) in Genoa, then spread in several Italian cities (Genoa, Milan, Rome, Palermo, Cagliari, Florence, Civitavecchia, Naples, Florence and Mantua). In 2014, a national-level partnership for the collection of meals from the restaurants of the Tirrenia ferry company was set up. Among other methods, the project uses a "social card" that allows the beneficiary to collect the food directly at the location of the catering company in order to consume it at home.

<http://www.pastobuono.it>

G6.16.11 - Siticibo

Siticibo is a programme managed by Fondazione Banco Alimentare O.N.L.U.S. with the aim of recovering fresh and cooked food products, a very perishable category of food but with a high nutritional value, and redistributing them to charitable organizations that assist people and families in need. The program has been running since 2003. The food products recovered with this programme come from two sectors: distribution and food service. It concerns cooked but not served food products, unsold or unused fresh food products like fruits and vegetables, bread and pastries. In a few hours, they are delivered and consumed at soup kitchens, shelters, residential communities, and primary care centres. This programme is carried out daily by volunteers through a logistics network of vans that transport food where it is most needed, in compliance with hygiene and food safety legislation ensuring that food is safe and healthy. This programme was born in Milan and then spread to other cities in different regions.

<http://www.bancoalimentare.it/it/node/2473>

G7) Discounted sale of products close to the expiration date in the retail sector

Initiatives promoted by several companies of the retail sector. An example is the project "The pleasure not to waste" (*Il piacere di non spreca*), that involves 275 large-scale retailers in the Piedmont and Aosta Valley Regions. The retailers involved in the project set up a space dedicated to the products close to the expiry date, that are sold at a discounted price.

<http://bit.ly/2dsNoiA>

G8) National initiatives and research projects on food waste

G8.1 - Agrifood and the SOFIA project

Agrifood is a National Technological Cluster promoted by the association of food businesses Federalimentare - Confindustria and by the Consortium of the Emilia-Romagna Region ASTER, in response to the Communication of the Ministry of Education, University and Research of May 30th, 2012. Among the projects that are part of the cluster there is "SOFIA". It deals with the

reduction of waste, the use of by-products for food and non-food applications, and the reduction of the environmental impacts of the agri-food industry, from production to the final consumer.

<http://bit.ly/1SdUJiQ>

G8.2 - Foodsaving: innovazione sociale per il recupero delle eccedenze alimentari (*social innovation for the recovery of surplus food*)

Research project started in 2014 and led by the Research Centre for the Management of Health and Social Assistance of the University Bocconi in Milan (CERGAS), in collaboration with the Postgraduate School in Business and Society at the Catholic University of Milan (ALTIS), the Polytechnic of Milan, Banco Alimentare, and three Italian SMEs. It aims at studying the initiatives for the recovery of surplus food for charitable purposes implemented by profit and non-profit organizations in Italy and Europe. The regions surveyed belong to the World Regions Forum: Lombardy (Italy), Catalonia and Madrid (Spain), Baden-Wurttemberg (Germany) and Rhone-Alpes (France). The project aims at contributing to the progress of the research on social innovation, social enterprise models, corporate social responsibility, and the environmental and social impact of surplus food management. Moreover, it aims at supporting policymakers by drawing up empirical evidence on the virtuous systems of management of surplus food.

http://www.foodsavingproject.it/wps/wcm/connect/Site/FoodSaving_it/Home/

G8.3 - REDUCE: Ricerca, EDUcazione, ComunicazionE: un approccio integrato per la prevenzione degli sprechi alimentari (*Research, Education, Communication: an integrated approach to prevention of food waste*)

Ongoing project coordinated by the Department of Agricultural and Food Sciences of the University of Bologna, and funded by the MELS with the resources allocated by the Tender attached to Ministerial Decree 265 of November 11th, 2014 (see section G13.1). The project consists of 12 actions, including research activities, communication and awareness-raising actions and support to the regional planning for the prevention of food waste.

<http://www.sprecozero.it/cose-il-progetto-reduce/>

G8.4 - Risparmia(ti) lo spreco (*Save the wastage*)

Project promoted by the Lombardy Region, and managed by Adiconsum, Cittadinanzattiva, and the Regional Committee of the Movement of Consumers of the Lombardy Region. In the framework of this project, a survey was conducted by the Association for Consumer Protection, with the support of the Scientific Committee of Expo 2015 between June and July 2015. The survey aimed at assessing how Lombard families prevent food waste and manage surplus food at home.

<http://www.adiconsumlombardia.it/progetti/>

G8.5 - Messina: SAVE - Tecnologie e modelli operativi per la riduzione degli Scarti Alimentari e il trattamento e la Valorizzazione della frazione Edibile del rifiuto solido urbano finalizzati alla gestione sostenibile della filiera alimentare urbana (*Operative technologies and models for the reduction of food waste and the treatment and use of the edible fraction of municipal solid waste aimed at the sustainable management of the urban food chain*)

Project promoted by the University of Messina and funded by the Ministry of Education, University and Research in the framework of the Smart Cities programme. The project, ended in December 2015, mainly focused on the valorisation of food by-products coming from the agri-food chain for feed production.

<http://bit.ly/1pYo4op>

G8.6 - SIFooD - Science and Innovation Food District

Association set up by Whirlpool in 2012, which brings together companies from the food sector (production, processing, storage, transport, marketing, re-use) interested in sharing research and innovation projects on food waste reduction.

<http://www.sifood.eu/>

G9) Food waste monitoring projects

G9.1 - MISTRAL: Misura Italiana dello Spreco a Tavola e del Rifiuto Alimentare (*Italian Measurement of Table Waste and Food Waste*)

Project born in the framework of the 2012 Master in Complex Actions organised by the International School for Advanced Studies (SISSA) of Trieste in collaboration with the Universities of Trieste and Udine and the Lombardy and Friuli-Venezia Giulia Regions. The project mainly addresses food waste generated by households and consists in the distribution of a questionnaire on eating habits and a "waste diary" aimed at collecting primary data on food waste in a systematic manner.

<http://www.sprecoalimentare.it>

G9.2 - Waste Watcher - National Observatory on food waste

Project promoted by Last Minute Market, together with the Department of Agricultural and Food Sciences of the University of Bologna and the market research firm SWG. It aims at investigating the social and behavioural reasons behind household food waste, including citizens' lifestyles, in order to allow better design and implementation of public and private policies for waste prevention and reduction, and to increase efficiency in the management of food resources. It consists of periodic socio-economic surveys on opinions, self-perceptions and declarations. The sample is made up of a panel of 2,000 Italian families, stratified by socio-demographic variables; the questionnaire consists of about 100 questions.

http://www.lastminutemarket.it/media_news/waste-watcher/

G10) Valorization of the by-products of food industry

G10.1 - AIDEPI Associazione delle Industrie del Dolce e della pasta Italiane (*Association of Italian Confectionery and Pasta Industries*)

In 2003, with the help of its technical committees, AIDEPI drafted specific guidelines for the management of by-products to be delivered to the animal feed industry.

<http://www.aidepi.it/sviluppo-sostenibile.html>

G11) Food-sharing projects, apps, and web platforms for the prevention of food waste

G11.1 - Avanzi popolo

Consumer-to-consumer food sharing web site born in Bari on April 2015 and developed in collaboration with the association Ino.Cono.Tra. It was funded by the Apulia Region in the framework of the initiative "Puglia Social Capital".

<http://www.avanzipopolo.it>

G11.2 - BeeApp

App launched by Rome Food Bank in collaboration with Telecom Foundation in March 2015.

<http://www.key4.it/beeapp/>

G11.3 - Breading

Breading is an online app launched in October 2014 that facilitates donation of surplus bread at the baker's and in shops. The app allows bakers to send a text or an online message with the amount they have left over at the end of the day. Thanks to geolocation, an alert is sent to the nearest voluntary associations (those registered with the service) for them to arrange collection at the shop. A system of QR codes allows a single booking. It can be accessed through both computers and smartphones.

<http://breading.foundation/>

G11.4 - Bring the Food

This extremely simple app was developed by researchers at the Bruno Kessler Foundation in Trento, together with the Fondazione Banco Alimentare. The experiment began in 2012, in the Autonomous Province of Trento, in collaboration with the Food Bank of Trentino Alto Adige O.N.L.U.S. It then moved to the City of Milan in collaboration with the Food Bank Association of Lombardy, "Danilo Fossati" O.N.L.U.S. The Food Bank is given the role of "watchdog": it can check credit, monitor requests and authorize the collection and redistribution of food detected in the network.

<http://www.bringfood.org>

G11.5 - Cos'ho in frigo (What's in the fridge)

App for iPhone and iPad created by Kiwi Labs srl and addressed to consumers. It elaborates cooking recipes on the basis of leftovers available in the fridge.

<https://itunes.apple.com/it/app/cosho-in-frigo-idee-e-ricette/id470210143>

G11.6 - Europe Saves Food

Web platform launched in april 2015 by the computer engineer Nicola Ferrari. It allows agri-food companies (food processing, distribution, catering, etc.) that have surplus food to get in contact with local NPOs, "ethical purchasing groups" (*gruppi di acquisto solidale*) and food banks.

<http://www.europesavesfood.org/>

G11.7 - Famezero (Zero-Hunger)

App of the Caritas organization that allows for matching demand and supply of unsold food to be distributed to needy people by Caritas centres and parishes. It started operating in December 2014.

<http://www.famezero.com/>

G11.8 - Frigok

App for Android devices launched by Bofrost, a retailer specialized in frozen food. It allows for controlling the expiry dates of the products stored in the fridge or freezer, thus reducing food waste.

<https://play.google.com/store/apps/details?id=com.mobe.bofrost>

G11.9 - I - Food share

Web platform developed by the NPO "I Food Share" (IFS) enabling consumers, retailers and manufacturers to offer their surplus food free of charge.

<http://www.ifoodshare.org/>

G11.10 - LastMinuteSottoCasa

LastMinuteSottoCasa offers a new live-marketing formula that allows shops with a surplus of food products to instantly and easily inform people nearby. The project and the related web site

and mobile app were launched in December 2014 by LMSC srl, a startup created in the I3P incubator of the Polytechnic school of Turin. Merchants with surplus food products are able to quickly and easily inform consumers located in the vicinity who can enjoy ongoing "last minute" promotional sales. The app and the website enable consumers to indicate the area for which they wish to receive proposals in real time and for what type of store, so that they receive only offers for «right next door» (sotto-casa).

<http://www.lastminutesottocasa.it/>

G11.11 - MyFoody

MyFoody is an Italian startup founded in 2014 in Milan. Through MyFoody's Platform (launched in May 2015), food manufacturers and retailers can sell their surplus food products at a discounted price.

<http://www.myfoody.it/>

G11.12 - Nextdoorhelp

Next Door Help is an IT platform for sharing surplus food among people. Through the online platform users can publish or look for a geolocated announcement thus having the chance of exchanging food surpluses and preventing them from going to waste.

<http://www.nextdoorhelp.it/>

G11.13 - Ratatouille

App for smartphones designed for facilitating the sharing of surplus food from home refrigerators, currently available at Apple stores. The idea came out from four boys from Treviso, winners of the HACKathon101 award. Ratatouille uses geolocation to display a map of the nearest fridges. It can give the expiry date for each food shared, and the times and days to go and collect it. What sets this app apart is that it is also in contact with youth hostels and student lodgings, where they are accustomed to sharing leftover food.

<http://www.ratatouille-app.com/>

G11.14 - S-Cambia Cibo (Ex-Change Food)

Web site created in 2013, thanks to the collaboration among Petricorstudio, SocialLAB Guglielmo Apolloni, and Indicanet and currently managed by RESILIA, a research and development cooperative. The project, supported by Coop Adriatica, allows ordinary citizens to put products approaching their expiry date on the network to be shared with other users.

<http://www.scambiacibo.it/>

G11.15 - Salvacibo (SaveFood)

Smartphone app that alerts consumers when a food product present in their home is approaching its expiry date, simultaneously providing information on how to store it or how to use it in recipes. The project is still under construction.

<http://www.edisonstart.it/idee/progetto-salvacibo>

G11.16 - Second Opportunity

Smartphone app disclosed in the framework of "ReStartApp 2015". It signals the promotions on products approaching their expiry date, and provides tools integrated in the smartphone to help consumers plan their spending and ensure that the food stored at home does not expire without being consumed.

<http://www.gobeyond.info/idee/second-opportunity>

G11.17 - Social Food

Application for computer and smartphone designed (but not yet realised) by the Piedmont NGO LVIA in order to facilitate the gleaning by volunteers of the farm products remained in the field. A pilot implementation took place in the territory of Lagnasco (Province of Cuneo), in collaboration with the producers' association Ortofrutta Italia and the Piedmont Region.

<http://withyouwedo.telecomitalia.com/projects/661/social-food-scendi-in-campo>

G11.18 - UBO App

Smartphone application created in the framework of the project "A good opportunity", and disclosed to the public in July 2015. It provides suggestions and information on how, where and for how long to store food, as well as on the right amount of food to buy and eat.

<http://www.unabuonaoccasione.it/it/app>

G11.19 - Senza Spreco (*Without Waste*)

Project of the cooperative "Le Mele di Newton", designed to favour the matching of demand and supply of surplus food throughout the food chain. The testing phase began in June 2015, and is still in progress. The platform enables all subjects involved in the production, distribution, processing and sale of food to sell surplus products at a discount to individuals and companies, or to donate them to charity organizations.

<http://www.senza-spreco.it/>

G11.20 - Una rete in APPoggio (*A supporting Network*)

Computer application developed by the Academy of Free Hardware and Software of Ivrea (Province of Turin) on the initiative of the Inter-municipality Union of Social Services (Ciss 38) and of voluntary associations of the province. Disclosed on May 1st, 2016, it aims at favouring the matching, for charity purposes, of demand and supply of food surpluses generated by local firms.

<http://www.retedisostegno.org/>

G12) Legislative initiatives of regional authorities on food waste

Below are the main regional laws on food waste. Fifteen out of 20 Regions have approved (or are about to approve) a law on the subject; 12 of them started their legislative procedures between 2015 and 2016. This section does not take into account the measures for preventing food waste adopted within the Regional Waste Prevention Plans, and the Regional Plans for the Reduction of Biodegradable Urban Waste (RUB) Destined to Landfills.

G12.1 - Abruzzo Region

Regional Law No. 4 of 12 January 2016 "Fight against food waste" (*Lotta agli sprechi alimentari*)

<http://www.nonprofitonline.it/docs/normative/5448.pdf>

G12.2 - Basilicata Region

Regional Law No. 26 of 11 August 2015 "Contrasto al disagio sociale mediante l'utilizzo di eccedenze alimentari e non" (Contrasting social hardship through the use of surplus food and non-food)

<http://www.nonprofitonline.it/docs/normative/5103.pdf>

G12.3 - Calabria Region

Draft Regional Law No. 27/X[^] - Norme per la promozione dell'attività di recupero e redistribuzione delle eccedenze alimentari per contrastare la povertà e il disagio sociale (*Rules*)

for the promotion of recycling and redistribution of surplus food to tackle poverty and social hardship).

<http://bit.ly/1RzkGpS>

G12.4 - Campania Region

Regional Law No. 5 of 6 March 2015 - Interventi regionali di riconversione delle eccedenze alimentari (*Regional surplus food conversion operations*).

<http://bit.ly/1MCfPmF>

G12.5 - Emilia Romagna Region

G12.5.1 - Resolution of 28 April 2016

The Commission "Territory, Environment and Mobility" unanimously approved a resolution presented by the legislative majority which commits the Regional board to "start feasibility studies for the purpose of reallocating goods, and food products that are still edible but were discarded, getting businesses and the 'Permanent Regional Table for Social Economy' involved, in order to elaborate a plan to reduce at maximum food waste, and promote sustainable economic models".

<http://bit.ly/1Wv3mIO>

G12.5.2 - Regional Law No. 16 of 5 October 2015 [Disposizione a sostegno dell'economia circolare, della riduzione dei rifiuti urbani, del riuso dei beni a fine vita, della raccolta differenziata e modifiche alla legge regionale 19 agosto 1996 no. 31 (disciplina del tributo speciale per il deposito in discarica dei rifiuti solidi)] (*Provisions in support of circular economy, the reduction of municipal waste, the reuse of goods at end of life, waste sorting, and amendments to Regional Law No. 31 of 19 August 1996 (special charge for depositing solid waste in landfills)*)

The law aims (among other things) "to encourage projects and activities to reduce food waste" (see article 1, clause 7, letter c). Anticipating what was later provided by article 36 of Law No. 221 of 28 December 2015 ("Environmental Annex to the Stability Law 2014"), it foresees the possibility of introducing, within the regional norms on the waste management tax, a discount for firms that implement actions aimed at preventing food waste, especially those for charitable and social purposes.

<http://bit.ly/RER-LR16-2015>

G12.5.3 - Regional Law No. 12 of 6 July 2007 - Promozione dell'attività di recupero e distribuzione di prodotti alimentari ai fini di solidarietà sociale (*Promotion of the recovery and distribution of food for charitable purposes*)

<http://bit.ly/1Fpcl1y>

G12.6 - Lazio Region

Draft Regional Law No. 125 of 22 January 2014 - Last Minute Market: Lo spreco diventa risorsa (*Last Minute Market: waste becomes resource*)

<http://bit.ly/1APazcM>

G12.7 - Liguria Region

Draft Regional Law No. 66 of 15 February 2016 - Recupero degli alimenti a fini di solidarietà e lotta allo spreco (*Recovery of food for charitable purposes and for fighting waste*)

<http://bit.ly/1Q7O3zQ>

G12.8 - Lombardy Region

G12.8.1 - Regional Law No. 34 of 6 November 2015 - Legge di riconoscimento, tutela e promozione del diritto al cibo (*Law for recognition, protection and promotion of the right to food*)
<http://bit.ly/dirittoalcibo>

G12.8.2 - Regional Law No. 25 of 11 November 2006 - Politiche regionali di intervento contro la povertà attraverso la promozione dell'attività di recupero e distribuzione dei prodotti alimentari a fini di solidarietà sociale (*Regional policies for acting against poverty through the promotion of the recovery and distribution of food for charitable purposes*)
<http://bit.ly/1Mv6oaG>

G12.9 - Marche Region

Regional Law No. 39 of 3 December 2012 - Promozione dell'attività di recupero e distribuzione delle eccedenze alimentari e non alimentari per contrastare la povertà e il disagio sociale (*Promotion of the recovery and distribution of surplus food and non-food for fighting poverty and social hardship*)
<http://bit.ly/1vDbc3d>

G12.10 - Piedmont Region

G12.10.1 - Regional Law No. 12 of 23 June 2015 - Promozione di interventi di recupero e valorizzazione dei beni invenduti (*Promotion of actions for the recovery and valorisation of unsold goods*)
<http://bit.ly/1IAtQ13>

G12.10.2 - Resolution of the Regional Board No. 20-1673 of 6 July 2015 - Adesione della Regione Piemonte all'Associazione senza fini di lucro Sprecozero.net (*Participation of the Piedmont Region to the NPO Sprecozero.net*)
<http://bit.ly/1X6oTYX>

G12.11 - Apulia Region

Regional Bill "Recupero e riutilizzo di eccedenze alimentari" (*Recovery and reuse of surplus food*)
<http://www.barlettalive.it/news/Politica/446745/news.aspx>

G12.12 - Sardinia Region

Motion No. 159 of 24 June 2015 "sulle perdite e sprechi alimentari in Sardegna e sul loro recupero e utilizzo ai fini di implementare politiche di inclusione sociale e sistemi di welfare innovativi" (*on food losses and waste in Sardinia and on their recovery and reuse for implementing social inclusion policies and innovative welfare systems*)

The motion asks the President of Sardinia Region "to take action for implementing in the Region a food waste policy by means of legislation, in line with the most advanced laws on the matter".
<http://consiglio.regione.sardegna.it/XVLegislatura/Mozioni/Moz159.asp>

G12.13 - Sicily Region

Bill proposed by the regional parliament on February 10, 2016.
<http://bit.ly/1RnnvgJ>

G12.14 - Tuscany Region

Regional Law No. 32 of 25 June 2009 - Interventi per combattere la povertà ed il disagio sociale attraverso la redistribuzione delle eccedenze alimentari (*Measures to contrast poverty and social hardship through the redistribution of surplus food*)

<http://bit.ly/1Bk28aD>

G12.15 - Veneto Region

G12.15.1 - Motion No. 104 of 9 February 2016 - La Regione si faccia promotrice contro lo spreco alimentare (*The Region should promote the fight against food waste*)

<http://bit.ly/1SfXE8V>

G12.15.2 - Regional Law No. 11 of 26 May 2011 - Interventi per combattere la povertà e il disagio sociale attraverso la redistribuzione delle eccedenze alimentari (*Measures to contrast poverty and social hardship through the redistribution of surplus food*)

<http://bit.ly/1E3rARz>

G13) Funding Initiatives for the prevention of food waste

G13.1 - Public tender for the allocation of funding to state universities for projects and programmes on the prevention of food waste

Tender annexed to Ministerial Decree No. 265 of 11 November 2014 and published in the Official Gazette No. 22 of January 28, 2015. It allocates over € 500,000 to national public Universities to finance a food waste prevention project consistent with the objectives of the National Waste Prevention Programme and the National Food Waste Prevention Plan. The funds made available by the tender come from the "Fund for the promotion of measures to reduce and prevent waste production and for the development of new recycling technologies" established by article 2, clause 323 of Law No. 244 of 24 December 2007.

<http://www.minambiente.it/bandi/bando-pubblico-prevenzione-spreco-alimentare>

G13.2 - ComoNExT: Tenders for the selection of innovative ideas aimed at the establishment of start-ups engaged in food waste reduction

Tender launched in 2015 by ComoNExT, science and technology park from Lombardy Region, in collaboration with Science & Innovation Food District (SiFood). The four business projects aimed at reducing food waste selected through the tender are awarded services and a loan of € 30,000 each.

<http://comonext.it/bando-sifood-comonext/>

G13.3 - Chamber of Commerce of Florence: Tender - Recupero prodotti alimentari e ortofrutta a scopo sociale (*Recovery of food, fruit and vegetables for social purposes*)

In 2014, the Chamber of Commerce of Florence allocated € 50,000 to support projects aimed at recovering surplus food in favour of people at risk of social exclusion and poverty.

<http://www.fi.camcom.it/>

G13.4 - Valle d'Aosta Region: Tender - Emporio Solidale (*Solidarity Emporium*)

In December 2015, the Regional Administration approved a pilot tender for the management of a solidarity emporium in 2016-2017. The initiative was born in the framework of the inter-institutional working group for the redistribution of surplus food, created in September 2013.

<http://bit.ly/1PsZRei>

G14) Green procurement in the public administration

G14.1 - Interministerial Decree of 11 April 2008

With the inter-ministerial decree of 11 April 2008, later revised in April 2013, Italy adopted the "National Action Plan for sustainable consumption of public administration" (PAN GPP).

It foresees the definition of minimum environmental criteria (CAM¹⁵) for 11 categories of products and services (see clause 1127 of Law No. 296 of 2006 "Financial law 2007"), including the category "food and catering services". The plan set a target of 50% of green purchases over the total purchases (in value), to be achieved by 2014. All the public actors involved are invited to adopt GPP practices in order to facilitate the procurement of goods, services and works that have a limited impact on the environment and are not harmful for human health.

http://www.minambiente.it/sites/default/files/archivio/allegati/GPP/PAN_GPP.pdf

<http://bit.ly/21QDTJj>

G14.2 - Ministerial Decree of 25 July 2011

With the Ministerial Decree of 25 July 2011 (published on the Official Gazette No. 220 of 21 September 2011), the MELS established the CAMs for the category "food and catering services". The CAMs are divided in "core (di base)" and "award (premianti)" criteria. A tender is defined as "green" (with respect to the goals set by the National Action Plan) if it combines all "core" criteria and meets the "conditions of execution/contractual clauses" mentioned in the decree. The CAMs for "food and catering services" take into account the food waste issue either among the "award" criteria (optional for the purpose of accounting the tender as "green"), or among the "contractual clauses" (required for the purpose of accounting the tender as "green") in particular:

- clause 5.4.3 - Destinazione del cibo non somministrato - (*destination of unserved food*): the "core" criteria foresee "the possibility of assigning scores to the bidder who commits to recover unserved food and deliver it to NPOs that distribute foodstuff to needy people for charitable purposes [...]"
- clause 5.5.1 - Rapporto sui cibi somministrati e sulla gestione delle eccedenze alimentari (*Report on served food, and on the management of surplus food*): reporting, every six months, both the "approximate amount of food not consumed during the period" and the "actions taken to reduce these amounts" is included among the contractual clauses. It is worth noting that neither qualitative information (on the types of surplus products) nor uniform quantification and reporting methods are required.

<http://bit.ly/1MxQ1gQ>

G15) Others

G15.1 - Memorandum of Understanding among the Ministry of Environment, the National Association of Italian Municipalities (ANCI), and the association Sprecozero.net

MoU signed on 24 November 2014 in Bologna, within the framework of the initiative "Stop food waste - feed the planet: The Bologna charter against food waste", sponsored by the Italian Ministry of Environment. The MoU mainly aims at promoting among Italian municipalities the subscription to the Sprecozero.net association (see section G3.1)

<http://bit.ly/Sprecozero-MATTM>

G15.2 - Decree Law No. 83 of 22 June 2012 - Misure urgenti per la crescita del Paese (Urgent measures for the economic growth)

Article 58 of D.l. 83/2012 establishes - under the national agricultural paying agency (AGEA) - a fund for the financing of national food distribution programs to the most deprived (the so called Most Deprived fund). It also provides for the adoption, by the end of June of each year, by

¹⁵ The "Minimum Environmental Criteria" represent "measures aimed at integrating environmental sustainability requirements in the procedures for the procurement of goods and services by the public administration".

decree of the Ministry of Food, Forestry and Agricultural Policies, in consultation with the Ministry of International Cooperation and Integration, of the annual distribution programme, which identifies the products, the charity organisations involved, and the operating procedures. This fund has been also recently used¹⁶ (10 million euro) for purchasing raw milk withdrawn from the market and processing it into UHT-milk to be donated to the the most deprived.

<http://www.gazzettaufficiale.it/eli/id/2012/08/11/12A08941/sg>

G15.3 - Interministerial Decree of 17 December 2012 - Indirizzi, modalità e strumenti per la distribuzione di derrate alimentari agli indigenti (*Guidelines, methods and instruments for the distribution of foodstuffs to the needy*)

In order to strengthen the system of food distribution to needy people, the decree introduced a "Permanent coordinating table among institutions, charity organisations and agri-food sector operators" under the Ministry of Food, Forestry and Agricultural Policies. This table promotes initiatives for incentivising activities consistent with the purposes of the decree, according to article 7, clause 2. The Decree also set the rules for managing the national "Most Deprived fund" (see section G15.2).

<http://www.gazzettaufficiale.it/eli/id/2013/02/22/13A01488/sg>

¹⁶ For more information look at http://www.repubblica.it/economia/2016/04/26/news/latte_indigenti-138518017/

H) Food waste policy mix: highlights

Italy has recently passed a national law expressly aimed at preventing and reducing (edible) food waste (Law 166/2016). The final text was approved on August 19, 2016 and entered into force on September 14, 2016 after some 16 months from the first bill on the matter. The main strengths and weaknesses of the law are highlighted in section A2.

Until the definitive approval of the law, the main rules regulating surplus food donations in Italy were: (1) the "Good Samaritan Law" (law 155/2003), which, as for the liability deriving from the norms on food safety, equates the NPOs that carry out free distribution of surplus food to needy people for charitable purposes with final consumers; (2) the laws recalled in section B), letter c) of this report, which equate (for tax purposes) the free donation of non-marketable foodstuffs with the destruction of goods, enabling VAT recovery on donated products.

As for taxes on municipal waste management services, it is worth mentioning the recent introduction into the national legislation (see art. 36 of the so-called Environmental Annex to the Stability Law 2014 - law 221 of December 28th, 2015) of the **possibility** (for municipalities) to grant tax breaks for non-domestic users implementing waste prevention measures, including (although not explicitly mentioned) food waste prevention ones, such as the donation of surplus food. Beyond the above-mentioned rules, no policy instruments specifically aimed at the prevention of food waste had been adopted at the national level until the adoption of Law 166/2016. Nevertheless, a number of different tools and initiatives have been adopted by local authorities (Regions, Provinces, Municipalities) in the framework of waste prevention¹⁷ or poverty reduction policies: in particular, it is worth mentioning the role of Regions (around two thirds of the Italian Regions have passed, or are about to pass, specific regional laws expressly aimed at fighting food waste and improving surplus food donation) and of Municipalities (over 700 municipalities have signed the "zero waste charter" [see section G2.1], an initiative that led to the establishment of the association Sprecozero.net [see section G3.1], that received in 2015 the support of the Italian MELS and of the National Association of Italian Municipalities (ANCI) in the framework of the Memorandum of Understanding mentioned in section G15.1). Moreover, it must be highlighted the extraordinarily rich and diverse mix of projects and initiatives on the issue of food waste promoted and implemented by a number of organisations (local administrations, businesses, associations, academic institutions, etc.): apart from a few "historical" organisations which have been active in the field of surplus food recovery (namely Last Minute Market, Fondazione Banco Alimentare O.N.L.U.S., COOP Italia) most of the initiatives mentioned in sections F) and G) were set up in the last five years, amidst growing media attention on the subject of food waste. The communication campaign "A year against waste" (see section F1.1), launched in 2010 by Last Minute Market, the activities carried out within the PINPAS pathway (see section A1) and, lastly, the Milan EXPO 2015 are among the main elements leading to the growing attention of the media on this issue. The initiatives and projects listed in sections F (Communications and campaigns) and G (Projects and other measures), although they are only part of the initiatives actually implemented in Italy on the matter, provide a clear picture of how interest in the issue has been growing over the last few years, with a marked acceleration between 2014 and 2016.

Figure2. Italy's Policy Mix at September 2016

¹⁷ In accordance with article 199, clause 3, letter r) of D.lgs 152/2006, Italian Regions have to conform their regional waste management plans to the instructions on waste (and food waste) prevention contained in the National Waste Prevention Programme.



* Voluntary agreements have been only established and implemented at the Regional and local levels. No Voluntary agreements focused on food waste prevention exist at the national level.

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Law 166/2016 - Disposizioni concernenti la donazione e la distribuzione di pro-dotti alimentari e farmaceutici a fini di solidarietà sociale e per la limitazione degli sprechi (*Provisions concerning the donation and distribution of surplus food and pharmaceutical products to charities and for wastage reduction*)

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Available at: <http://bit.ly/1RFXQI9>

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Linee guida per l'applicazione del regolamento 1069/2009 del parlamento europeo e del Consiglio del 21 ottobre 2009 recante norme sanitarie relative ai sottoprodotti di origine animale e ai prodotti non destinati al consumo umano e che abroga il regolamento (CE) 1774/2002 (*Guidelines for the application of Regulation 1069/2009 of the European Parliament and the Council of October 21, 2009 laying down health rules concerning animal by-products not intended for human consumption and repealing (EC) Regulation 1774/2002*)

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Available at: <http://www.emeraldinsight.com/doi/abs/10.1108/S2045-060520160000005015>

This chapter highlights factors, such as stakeholder engagement and changes in operating processes, which can enable retailers to implement an alternative approach to recovering and redistributing fresh surplus food. Methodology/approach - A successful fresh surplus food redistribution program was identified as part of a larger research project on food waste and redistribution. The “Buon Fine” program of a large Italian retailer (Coop Lombardia) was described by two senior executives who were interviewed for four hours using a semi-structured questionnaire. Collected information was triangulated with corporate reports and other publications.

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Available at: <http://www.sussidiarieta.net/it/node/1144>

E6 - Guidelines on food surplus donation

Caritas Italiana, Fondazione Banco Alimentare O.N.L.U.S. (2015), Manuale per corrette prassi operative per le organizzazioni caritative (*Guidelines for surplus food recovery by charitable organisations*)

Available at: <http://www.bancoalimentare.it/en/node/3879>

Emilia Romagna Region (2014), Linee guida per il recupero, la distribuzione e l'utilizzo di prodotti alimentari per fini di solidarietà sociale (*Guidelines for the recovery, distribution and use of food products for charitable purposes*) [In Italian]

Available at: <http://bit.ly/1RknYjJ>

Last Minute Market (2013), Linee guida: Dallo spreco alla solidarietà (*Guidelines: From waste to solidarity*) [in Italian]

Available at: <http://bit.ly/1pyBF54>

ECR Italy (2014), Linee guida: Prevenzione e trattamento delle eccedenze alimentari (*Guidelines: Surplus food prevention and management*) [in Italian]

Available at: <http://bit.ly/ECR-Italy1>

ECR Italy (2014), La gestione dell'eccedenza alimentare: una guida per le aziende della filiera (*The management of food surplus: guidelines for supply-chain companies*)

Available at: <http://bit.ly/ECR-Italy2>

E7 - Other reports of national relevance

Waste Watcher - Permanent Observatory on Household Food Waste

2015 Household food waste - Report 2015 [In Italian]

2014 Household food waste - Report 2014 [In Italian]

2013 Household food waste - Report 2013 [In Italian]

Available at: http://www.lastminutemarket.it/media_news/waste-watcher/

Oricon (2015), Gli sprechi alimentari nella ristorazione scolastica: un'indagine esplorativa (*Food waste in school catering: an exploratory investigation*) [In Italian]

Available at: <http://oricono.it/wp-content/uploads/2015/11/Indagine-esplorativa-Sprechi-scuole.pdf>

Garrone, P., Melacini, M., Perego, A. (2015), Il recupero delle eccedenze alimentari. Dalle parole ai fatti (*Surplus food management against food waste: the recovery of food surplus. From words to actions*) [in Italian]

Available at: <http://www.bancoalimentare.it/it/spreco-alimentare-dalle-parole-ai-fatti>

IPSOS (2012), Gli sprechi alimentari in Italia (*Food waste in Italy*): Report for Save the Children [in Italian]

Available at: http://www.ipsos.it/pdf/Gli_sprechi_alimentari_in_Italia_Save_The_Childreno.pdf

APPENDIX 1 - List of all organisations' websites cited within the Report

- Accademia dell'hardware e del software libero di IVREA <http://accademialibera.altervista.org>
- Acli provinciali di Padova e Rovigo <http://www.aclipadova.it>
- Acli provinciali di Verona <http://www.acliverona.it>
- Acli di Roma - Associazioni Cristiane Lavoratori Italiani - associazione di promozione sociale <http://acliroma.it>
- Actionaid <https://www.actionaid.it>
- Adiconsum <http://www.adiconsum.it>
- Agenzia per lo sviluppo - Azienda speciale della camera di commercio dell'Aquila <http://www.agenziasviluppoaq.it>
- Aleph - Associazione culturale <http://www.associazionealeph.it>
- ALTIS (Alta scuola impresa e società dell'Università Cattolica di Milano) <http://altis.unicatt.it>
- Altroconsumo <http://www.altroconsumo.it>
- Animaimpresa - Associazione di promozione sociale <http://www.animaimpresa.it>
- Aquilana Società Multiservizi (Asm) <http://www.asmaq.it>
- Amici della Solidarietà - Associazione <http://www.amicidellasolidarieta.it>
- ANCC-COOP (Associazione Nazionale Cooperative di Consumatori - Coop) <http://www.e-coop.it/ancc>
- Anagramma s.r.l. <http://www.myfoody.it>
- Animaimpresa <http://www.animaimpresa.it>
- Arcidiocesi di Lucca <http://www.diocesilucca.it>
- Arcidiocesi di Siracusa <http://www.arcidiocesi.siracusa.it>
- Aset S.p.A. - Azienda Multiservizi del Comune di Fano <http://www.asetservizi.it>
- Associazione Betania O.N.L.U.S. <http://www.associazionebetaniaO.N.L.U.S..org>
- Associazione culturale Plug Creativity <http://www.plugcreativity.org>
- Associazione Linaria <http://www.linariarete.org>
- Associazione Servizi per il Volontariato Modena (ASVM) <http://www.asvm.it>
- Associazione Soroptimist International d'Italia <http://www.soroptimist.it>
- ASTER <http://www.aster.it/>
- ATERSIR - Agenzia Territoriale per i Servizi Idrici e i Rifiuti della Regione Emilia Romagna (*Emilia-Romagna region's water and waste services agency*) <http://www.atersir.emr.it>
- Azienda Ospedaliera Sant'Orsola-Malpighi <http://www.aosp.bo.it>
- Azienda per i Servizi Sanitari n.4 "Medio Friuli" <http://www.aas4.sanita.fvg.it/it/index.html>
- Azienda Sanitaria Locale di Biella <http://www2.aslbi.piemonte.it>
- Azienda Sanitaria Locale 11 di Empoli <http://www.usl11.toscana.it>
- Azienda Servizi Sociali Osimana <http://www.asso-osimo.it>
- Azienda Speciale Pluriservizi (ASP) di Viareggio <http://www.aspviareggio.it>
- Azienda USL di Reggio Emilia <http://www.ausl.re.it>
- Azione Solidale <http://www.solidarietaO.N.L.U.S..org>
- Bofrost <https://www.bofrost.it>
- Camera di Commercio di Firenze <http://www.fi.camcom.gov.it>
- Camera di Commercio di Piacenza - <http://www.pc.camcom.it>

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- Camera di Commercio di Siracusa <http://www.sr.camcom.gov.it>
 - Campagna Amica <http://www.campagnamica.it>
 - Camst <http://www.camst.it>
 - Cascina triulza <http://cascina.fondazionetriulza.org>
 - Caritas <http://www.caritasitaliana.it>
 - Caritas di Padova <http://www.caritaspadova.it>
 - Cena dell'Amicizia O.N.L.U.S. <http://www.cenadellamicizia.it>
 - CentoperUno O.N.L.U.S.
<http://www.forumsolidarieta.it/associazioni/volontariato/cento.aspx>
 - Centro di Formazione, Ricerca e Comunicazione sull'educazione sensoriale, alimentare e del gusto di Prato <http://www.centroeducazionegusto.it>
 - CERGAS (Centro di Ricerche sulla Gestione dell'Assistenza Sanitaria e Sociale dell'Università Bocconi di Milano) <http://www.cergas.unibocconi.it>
 - CiAl- Consorzio Imballaggi in Alluminio <http://www.cial.it>
 - CinemAmbiente <http://www.cinemambiente.it>
 - Ciss 38 - Consorzio intercomunale dei servizi socio-assistenziali <http://www.ciss38.it>
 - Cittadinanzattiva Lazio <http://www.lazio.cittadinanzattiva.it>
 - Cittadinanzattiva Lombardia <http://www.cittadinanzattivalombardia.com>
 - Civica Scuola di cinema di Milano <http://www.fondazionemilano.eu/cinema>
 - Cna - Confederazione Nazionale dell'Artigianato e della Piccola e Media Impresa
<http://www.cna.it>
 - Co.Ge (Fondo speciale per il volontariato) <http://www.coge.emiliaromagna.it>
 - Coldiretti <http://www.coldiretti.it>
 - Comieco - Consorzio nazionale recupero e riciclo imballaggi a base cellulosica
<http://www.comieco.org>
 - ComoNEXT <http://comonext.it>
 - Comunità di San Benedetto al Porto <http://sanbenedetto.oodlesofmedia.com>
 - Conai - Consorzio nazionale Imballaggi <http://www.conai.org>
 - Confcommercio <http://www.confcommercio.it>
 - Confcommercio di Monza - <http://www.confcommerciomonza.it>
 - Confconsumatori <http://www.confconsumatori.it>
 - Confida - Associazione nazionale distribuzione automatica <http://www.confida.com>
 - Confindustria <http://www.confindustria.it>
 - Confesercenti <http://www.confesercenti.it>
 - Consorzio melinda <http://www.melinda.it/il-consorzio/il-consorzio.html>
 - CONAD <http://www.conad.it>
 - CONAI - Consorzio Nazionale Imballaggi <http://www.conai.org>
 - Consorzio di solidarietà sociale di Parma - <http://www.cssparma.it>
 - COOP <http://www.e-coop.it>
 - Coop. Erica <http://www.cooperica.it>
 - Cooperativa sociale Eumeo <http://bit.ly/eumeo>
 - Corepla - Consorzio nazionale per la raccolta il riciclaggio e il recupero degli imballaggi in plastica
<http://www.corepla.it>
 - Covar 14 <http://www.covar14.it>
 - Croce Rossa Italiana <http://www.cri.it>
 - CSVnet - Coordinamento Nazionale dei Centri di Servizio per il Volontariato
<http://www.csvnet.it>
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- Day-Gruppo Up <http://www.day.it>
 - Dipartimento di Scienze e Tecnologie Agroalimentari (DISTAL) - Università di Bologna <http://www.distal.unibo.it>
 - Eco dalle Città <http://www.ecodallecitta.it>
 - Ecologicpoint - <http://www.ecologicpoint.com/>
 - ECR Italia - <http://gs1it.org/chisiamo/ecr-italia>
 - Emporio Market Solidale - Parma <http://www.emporioparma.org>
 - Endered <http://www.edenred.it>
 - Enìa SPA - Azienda Multiservizi <http://www.eniaspa.it>
 - Equoevento O.N.L.U.S. <http://www.equoevento.org>
 - Emporio Market Solidale di Parma - <http://www.emporioparma.org>
 - Etra SpA <https://www.etraspa.it>
 - Eumeo - Cooperativa sociale <http://bit.ly/eumeo>
 - Facoltà di Scienze della Formazione dell'Università degli Studi di Udine
 - Federalimentare <http://www.federalimentare.it>
 - Federcongressi <http://www.federcongressi.it>
 - Federdistribuzione <http://www.federdistribuzione.it>
 - Federparchi - Federazione Italiana Parchi e Riserve Naturali <http://www.federparchi.it>
 - Fondazione Banco Alimentare O.N.L.U.S. <http://www.bancoalimentare.it>
 - Fondazione Banco Alimentare Emilia Romagna O.N.L.U.S. <http://www.bancoalimentare.it/en/emilia>
 - Fondazione Barilla Center for Food & Nutrition <https://www.barillacfn.com>
 - Fondazione Bruno Kessler <http://www.fbk.eu>
 - Fondazione Cariparma <http://www.fondazionecrp.it>
 - Fondazione Cariplo <http://www.fondazionecariplo.it>
 - Fondazione Cassa di Risparmio di Padova e Rovigo <http://www.fondazionecariparo.net>
 - Fondazione per l'Educazione finanziaria e al Risparmio <http://www.feduf.it>
 - Fondazione Lombardia per l'Ambiente - <http://www.flanet.org>
 - Fondazione Telecom <http://www.fondazionetim.it>
 - Forum Solidarietà <http://www.forumsolidarieta.it>
 - Fratelli la Bufala <http://www.fratellilabufala.eu>
 - Gruppo Hera <http://www.gruppohera.it>
 - Gruppo Iren <http://www.gruppoiren.it>
 - In.Con.Tra - Associazione di volontariato <http://www.associazioneincontra.net>
 - I Food Share (IFS) - Associazione <http://www.ifoodshare.org>
 - In.Con.Tra - <http://www.incontrabari.it>
 - Indicanet <http://www.indicanet.it>
 - Istituto Zooprofilattico <http://www.izsto.it>
 - Kiwi Labs s.r.l. <http://www.kiwi-labs.com>
 - Lago Maggiore Meeting Industry <http://www.illagomaggiore.com>
 - Last Minute Sotto Casa (LMSC) srl <http://www.lastminutesottocasa.it>
 - Last Minute Market <http://www.lastminutemarket.it>
 - Le Mele di Newton - Cooperativa <http://lemeledinewton.it>
 - Legacoop Campania <http://www.legacoopcampania.it>
 - Legacoop Emilia Romagna <http://www.emilia-romagna.legacoop.it>
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- Legambiente <http://www.legambiente.it>
 - Liberitutti - Cooperativa sociale <http://www.consorziokairos.org/liberitutti>
 - LVIA - Associazione di solidarietà e cooperazione internazionale <http://www.lvia.it>
 - MACA - Museo A Come Ambiente <http://www.acomeambiente.org>
 - Magnolia <http://www.magnoliatv.it/>
 - Marche Multiservizi S.p.A. - Azienda Multiservizi <http://www.gruppomarchemultiservizi.it>
 - Milano Ristorazione <http://www.milanoristorazione.it>
 - Ministero dell'Ambiente, della Tutela del territorio e del Mare (MATTM) <http://www.minambiente.it>
 - Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR) <http://hubmiur.pubblica.istruzione.it>
 - Ministero delle Politiche Agricole e Forestali (Mipaaf) <https://www.politicheagricole.it>
 - Ministero dello Sviluppo Economico (MISE) <http://www.sviluppoeconomico.gov.it>
 - Movimento Consumatori Lazio <http://www.movimentoconsumatori.lazio.it>
 - Movimento Consumatori Lombardia <http://www.movimentoconsumatorilombardia.it>
 - Nielsen Italia <http://www.nielsen.com>
 - Nova Coop <http://www.e-coop.it/web/nova-coop>
 - OriCoN - Osservatorio Ristorazione Collettiva e Nutrizione <http://oricon.it>
 - Ortofruit Italia - Organizzazione di produttori di ortofrutta <http://www.ortofruititalia.org>
 - Osservatorio Caritas Torino <http://www.osservatoriocaritastorino.org>
 - Parco dell'Aspromonte <http://www.parcoaspromonte.gov.it>
 - Parco del Pollino <http://parcopollino.gov.it>
 - Parco della Sila <http://www.parcosila.it>
 - Parco del Gargano <http://www.parcogargano.gov.it>
 - Parco del Cilento <http://www.cilentoediano.it>
 - Parco delle Cinque Terre <http://www.parconazionale5terre.it>
 - Parco dei Nebrodi <http://www.parcodeinebrodi.it>
 - Parco dell'Etna <http://www.parcoetna.it>
 - Petricorstudio <http://petricorstudio.it>
 - Piace Cibo Sano <http://www.piacecibosano.com>
 - Plug Creativity <http://www.plugcreativity.org>
 - Policlinico Universitario di Udine <http://aou.udine.it>
 - Politecnico di Milano <http://www.polimi.it>
 - Porta Aperta O.N.L.U.S. <http://www.porta-aperta.it>
 - Portobello - Emporio sociale di Modena <http://www.portobellomodena.it>
 - QUI Foundation <http://www.quifoundation.it>
 - QUI! Group <http://www.quigroup.it/>
 - RESILIA <http://www.resiliaweb.it>
 - Ricrea - Consorzio nazionale riciclo e recupero imballaggi in acciaio <http://www.consorzioricrea.org>
 - Rilegno - Consorzio nazionale per la raccolta il recupero e il riciclaggio degli imballaggi in legno <http://www.rilegno.org>
 - Rio Mare http://www.boltongroup.net/en-ww/brands/food_products/riomare
 - Siarc - Società industrie alimentari e ristorazioni collettive <http://www.siarc.it>
 - Sky Italia <http://www.sky.it>
 - SISSA (Scuola Superiore di Studi Avanzati) di Trieste
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- <https://www.sissa.it>
 - Slow Food <http://www.slowfood.it>
 - So.La.Re.Sito web non disponibile
 - SocialLAB <http://sociallab.bologna.it/>
 - Solidarietà - Cooperativa sociale <http://www.ceodsolidarieta.it>
 - SWG <http://www.swg.it>
 - TecnoBox <http://www.tecnoBox.net>
 - Terranostra - <http://www.terranostra.it>
 - Trenino solidale - Associazione <http://www.trentinosolidale.it>
 - Trieste Recupera <http://www.triesterecupera.it>
 - Umbra Institute <http://www.umbra.org>
 - Unioncamere Veneto <http://www.unioncameredelveneto.it>
 - Unione Commercianti Piacenza <http://www.unionecommerciantipc.it>
 - Unione panificatori - Confcommercio Roma <http://www.confcommercioroma.it>
 - Università Bocconi di Milano - <http://www.unibocconi.it>
 - Università di Bologna - <http://www.unibo.it>
 - Università Cattolica <http://www.unicatt.it>
 - Università di Messina <http://www.unime.it>
 - Università di Torino <http://www.unito.it>
 - Università di Trieste <https://www.units.it>
 - Università di Udine <http://www.uniud.it>
 - Whirlpool <http://www.whirlpool.com>
 - WhyZ <http://www.whyz.biz>

All links cited in the references have been accessed for the last time on July 15, 2016.