



THE EU AND THE WORLD: NEW CHALLENGES AND TRENDS

27 IDEAS FROM THE ERASMUS GENERATION

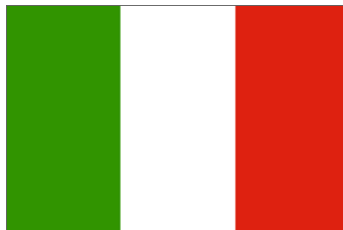
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A proposal to increase separate waste collection through better
labeling of commercial products

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ITALY



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A proposal to increase separate waste collection through better labeling of commercial products

(EU COMPETENCE:ENVIRONMENT)

PROPOSAL: To extend to any product described as “solid urban waste” in the European Waste Catalogue¹ (EWC from now on) the labeling system already provided for packaging waste by directive 94/62/EC, later modified by Directives 2004/12/EC and 2005/20/EC, and by Regulation 219/2009. To apply to any product defined as “solid urban waste” or as “packaging waste” (in directives cited above) a labeling system configured to identify whether a certain product is recyclable, and in particular to identify the correct disposal in ad hoc bins; such labeling system should be based on product components as are identified in the already existing system provided for packages. This new labeling system should be applied in every Member State for its main product types.

AIM: To facilitate EU citizens’ choice of a correct recyclable waste disposal, increasing the chances of obtaining an effective recycling of household waste and reduce noticeably costs derived from an erroneous disposal of garbage (or recyclates contamination).

Data at hand on waste collection² stress that a proper recyclable waste collection reduces waste management burden on taxpayers, while reducing the costly need of dumping grounds and incinerators in the Member States.

LEGISLATIVE COMPETENCIES:

THE EUROPEAN UNION

Directive 98/2008 on waste clarifies actual EU objectives in this sector by stating, for instance: “(29) Member States should support the use of recyclates, such as recovered paper, in line with the waste hierarchy and with the aim of a recycling society, and should not support the land-filling or incineration of such recyclates whenever possible” also, “(35) It is important, in accordance with the waste hierarchy, and for the purpose of reduction of greenhouse gas emissions originating from waste disposal on landfills, to facilitate the separate collection and proper treatment of bio-waste in order to produce environmentally safe compost and other bio-waste based materials.” The same Directive gives also a fundamental role to recycling and recyclates collection as useful instruments to protect the environment and human health. Article 3 defines the very concept of waste, organic waste, recyclates collection, recycling³. The Directive also introduces the concept of “waste hierarchy” (Article 4). As written in Commission communication 666/2005 (Taking sustainable use of resources forward: A Thematic Strategy on the prevention and recycling of waste) “Current EU waste policy is based on a concept known as the waste hierarchy. This means that, ideally, waste should be prevented and what cannot be prevented should be re-used, recycled and recovered as much as feasible, with landfill being used as little as possible. Landfill is the worst option for the environment as it signifies a loss of resources and could turn into a future environmental liability”. Recycling then is still a fundamental instrument to defend the environment, second only to prevention. Article 11, underlining the importance of recycling, states clear objectives for Member States. “Member States shall take measures to promote high quality recycling and, to this end, shall set up separate collections of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors. Subject to Article 10(2), by 2015 separate collection shall be set up for at least the

¹ A list of "solid urban waste" and "packaging waste" is present in Annex 1.

² For data see Annex 13.

³ Article 3 full text can be find in Annex 2.

following: paper, metal, plastic and glass.” In Article 11 C2 specific objectives are established⁴. Article 36 defines the sanctions against Member States⁵. Our proposal refers to this legislative context and aims to an eased and faster reaching of EU objectives for Member States on recycling, not in contrast with actual legislation but extending its disposals.

As our proposal aims at the application of a labeling system already imposed on packaging over all products, some references to European legislation over packaging and packaging waste are necessary. Directive 1994/92/EC, modified later a few times, is the basis for relevant EU legislation on the matter. Such directive “aims to harmonize national measures concerning the management of packaging and packaging waste in order, on the one hand, to prevent any impact thereof on the environment of all Member States as well as of third countries or to reduce such impact, thus providing a high level of environmental protection, and, on the other hand, to ensure the functioning of the internal market and to avoid obstacles to trade and distortion and restriction of competition within the Community” and states “from an environmental point of view recycling should be regarded as an important part of recovery with a particular view to reducing the consumption of energy and of primary raw materials and the final disposal of waste”. Regarding package labels it clarifies: “Whereas, in order to minimize the impact of packaging and packaging waste on the environment and to avoid barriers to trade and distortion of competition, it is also necessary to define the essential requirements governing the composition and the reusable and recoverable (including recyclable) nature of packaging”. Packaging labels have also the aim of guaranteeing a correct disposal of waste from householders (for recycling purposes as well), we should not forget that a considerable amount of packaging waste come from householders and that are part of the “solid urban waste” category: “consumers play a key role in the management of packaging and packaging waste and thus have to be adequately informed in order to adapt their behavior and attitudes”. Article 2 points out where the Directive will be applied⁶. Article 3 C1 contains definitions of packaging and recycling⁷. Having stressed the importance of re cycling packaging waste, objectives have been fixed for Member States in Article 6⁸. Article 13 refers to users’ necessity of being informed about label’s meaning and proper collection of packaging⁹. Article 8 refers to the need of a labeling system in order to favor also packaging recycle¹⁰. Regarding Article 8 C2 on labeling system, Commission decision 129/97 which defined such system must be considered also. This decision states “Having regard to European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (1), and in particular Article 8 (2) thereof, whereas the identification system is to be voluntary at least in a first stage but subject to revision to establish whether to introduce it on a binding basis at a further stage; whereas the identification system will be periodically reviewed and, if necessary, revised in accordance with the procedure laid down in Article 21 of Directive 94/62/EC”. Article 1 describe decision’s scope and aim¹¹, while Article 2 states the legal definition of composite packaging¹². Article 3 stress the voluntary application of such labeling system for packaging “The numbering and abbreviations of the identification system are as laid down in the Annexes¹³. Their use shall be voluntary for the plastic materials mentioned in Annex I, the paper and fiberboard materials mentioned in Annex II, the metals mentioned in Annex III, the wood materials mentioned in Annex IV, the textile materials mentioned in Annex V, the glass materials mentioned in Annex VI, and the composites mentioned in Annex VII. A decision whether to introduce on a binding basis the identification system for any material or materials may be adopted in accordance with the procedure laid down in Article 21¹⁴ of Directive 94/62/EC”. Directive 94/62/EC has been modified by Directive 12/2004; most noticeable modifications are: a reference to subsidiarity and proportionality principles, assuring that this directive will respect them both; introduction of a more accurate definition of

⁴ Article 11 C2 can be find in Annex 2

⁵ Article 36 can be find in Annex 2

⁶ Article 2 can be find in Annex 3.

⁷ Article 3 C1 can be find in Annex 3.

⁸ Article 6 can be find in Annex 3

⁹ Article 13 can be find in Annex 3

¹⁰ Article 8 can be find in Annex 3

¹¹ Article 1 can be find in Annex 4

¹² Article 2 can be find in Annex 4.

¹³ Annexes to decision 129/97 can be find in Annex 5.

¹⁴ Article 21 can be find in Annex 3.

packaging in Article 1¹⁵; Article 6 modification in order to define packaging recycling objectives for Member States¹⁶; modification of Article 8 C2 incorporating the packaging identification/labeling system as defined in decision 129/97¹⁷. In the same directive are attached some examples packaging as defined in Article 1, modifying Article 3 of Directive 62/94/EC¹⁸. Some other non-substantial modifications have been made by Directive 20/2005 and Regulation 219/2009.

Our proposal is based on actual EU legislation, aiming at a wider application of such legislation to all products defined as “solid urban waste”, a category that include also, as specified in directives cited above, some packaging waste. To better achieve objectives established in such directives, we deem further EU intervention useful, providing its respect of subsidiarity and proportionality principles.

ITALY

EU Directives we referred to (in both waste management and packaging waste) were adopted in Italy by “Decreto legislativo” 152/2006, modified by “Decreto legislativo” 205/2010. Analyzing some articles over recycling or separate waste collection we noticed that Italy treasures such instruments as much as the EU and fixed the same objectives, aiming to an increase of both. Article 184 detail a definition of urban waste¹⁹. Article 181²⁰ defines objectives to obtain an increase of recycling for urban waste like paper, plastic, glass, metal and lumber. Article 205²¹ states that in every “ambito territoriale ottimale” (adequate territorial area) must be assured the separate collection of waste; it also establish minimum percentages of recyclates to achieve. In order to assure achievement of such objectives, dumping grounds price increases are provided for those communalities that don’t respect them. Article 182 C2 regarding waste management states “waste sent to landfills or incinerators must be reduced as much as possible in both volume and mass, empowering prevention and reuse, recovery and recycling activities²²”. Article 225 C1²³ about packaging states that CONAI²⁴ is obliged to elaborate a yearly “general program of prevention and management of packaging and packaging waste” providing measures to achieve recycling and recovery objectives, among others. Such objectives are defined in Article 220²⁵, of which paragraph C1 specify: “in order to conform to principles stated in article 219, users and producers must achieve recycle and recovery final objectives for packaging waste, in conformity of communitarian legislation specified in Annex E in the fourth part of this decree²⁶”. Annex E represent objectives already described in Directive 12/2004/EC. Article 219²⁷ of “decreto legislativo” states principles on which is based packaging and packaging waste management; among them the following: “b) incentives for recycling and recovery of raw materials, development of separate collection of packaging waste and market opportunity promotion to encourage usage of materials obtained by packaging recycled and recovered²⁸” and “d) incentives to collection of used packaging and separate collection of packaging waste from consumers²⁹”. Further instructions specify that consumers must receive some information, packaging labels meaning amongst them. Paragraph C5 of the above article refers to labeling obligation for all packaging, conformed to standards adopted by the European Commission in Decision 129/92. Again, about packaging waste is Article 222, stating “Public administration must organize adequate separate collection systems in order to permit to consumers to separate packaging waste from household waste and from others packaging types. In particular: a) must be granted homogeneous coverage of the whole territory of each “ambito territoriale ottimale”, bearing in mind geographical context; b) separate collection service must be managed following efficiency, efficacy and economization criteria, and in

¹⁵ Packaging definition by directive 12/2004 can be find in Annex 6

¹⁶ Directive 62/94 modifications can be find in Annex 6.

¹⁷ Directive 62/94 modifications can be find in Annex 6.

¹⁸ Annexes to directive 12/2004 can be find in Annex 6.

¹⁹ Article 184 can be find in Annex 7.

²⁰ Article 181 can be find in Annex 7.

²¹ Article 205 can be find in Annex 7.

²² Unofficial translation provided by the author.

²³ Article 225 C1 can be find in Annex 7.

²⁴ CONAI stands for Italian National Packaging Consortium.

²⁵ Article 220 can be find in Annex 7.

²⁶ Unofficial translation provided by the author.

²⁷ Article 219 can be find in Annex 7.

²⁸ Unofficial translation provided by the author.

²⁹ Unofficial translation provided by the author.

coordination with other waste management³⁰". The "decreto legislativo" make distinctions between State, Regions and Communalities competencies in the matter, as detailed in articles 195, 196 and 198. Amongst State competencies are the following: "h) guidelines for measures apt to encourage rationalization of waste collection, separation and recycle; q) indication of general criteria for organization and actuation of urban waste separate collection³¹". Amongst Regions competencies is the following: "b) regulation of waste management, comprehensive of separate collection of urban waste, even hazardous ones, following a general criteria of separation between food, vegetal or animal waste (or other proportions of high humidity waste) and other waste³²". Amongst Communalities competencies is the following: "c) modalities of separate collection, transport of urban waste and assimilates in order to guarantee a neat management of different waste kinds and promote their recycle³³".

TODAY'S PROBLEMS

Notwithstanding the emphasis put in both legal systems on the importance of promoting separate collection of urban waste and packaging in order to favor an increase of recycling, some difficulties persist for the average European citizen to carry out a correct separate collection. Such obstacles are of practical nature, regarding the correct collection of urban waste; as a harmonized labeling system to find out where a certain product belongs to one of the typologies of products present in directive 2008/98/EC (plastic, glass, metal, wood) does not exist, it is not easy to place such product in its correspondent bin for separate collection (if present). Also some products' nature is hardly recognizable at once. Displaying exact descriptions of a product's composition, and therefore a product's recyclability in its present form is a crucial help to avoid misplacement. Diversities present in waste separate collection methods among Member States, and inside them as well, do not help consumers, particularly those who need to move in different places. Our proposal's aim is to remedy such obstacle by proposing the application of a certain colored label, corresponding to one of the product typologies detailed above. Applying the same label showing composition and typology of a product on already existing litter bins dedicated to separate collection, a reduction, if not the complete elimination, of garbage disposal will be possible. We propose application of a European system provided for in Directive 2004/12/EC regarding packaging and packaging waste to point out which material a certain product is made of.

SOME EXAMPLES ABOUT INTER-STATE DIVERSITIES AND INTERNAL DIVERSITIES (IN ITALY)

Let's make a few examples of difficulties shown above. In Italy some Communalities or "comunità montane" chose to fight the problem of recyclable waste misplacement through publication and diffusion of "eco dizionari"; such "dizionari" present a list of various kind of urban waste and show the proper manner to collect them through specially provided litter bins. In Annex 8 we present the "eco dizionario" of "comunità Montana Feltrina". The detailed list of common products helps the citizen to understand how to collect products made of mixed materials or of indiscernible origin (a proper distinction of various types of "paper", most of them not recyclable, is not easy to make. I.e. carbon paper, greaseproof paper, glossy paper). The municipality of Florence, on the other hand, did not give to its citizens such a detailed list, and on given instructions about waste separate collection only a few dozen common products are present. Many other Italian municipalities do not provide any kind of information. Florence's instructions are given in Annex 9. We noticed that the same kind of waste is to be disposed in two different containers, depending on how local authorities choose to organize their separate collection³⁴. With respect to municipalities' waste management, there is no need nor possibility to interfere from an European level, given the need to respect proportionality and subsidiarity principles while considering harmonizing interventions. Such problems can be solved by

³⁰ Unofficial translation provided by the author.

³¹ Unofficial translation provided by the author.

³² Unofficial translation provided by the author.

³³ Unofficial translation provided by the author.

³⁴ About such particular waste, we noticed that aseptic packaging like tetra pak are to be disposed together with paper and cardboard waste in "comunità Feltrina", but in Florence separate collection guidelines such waste is to be disposed of together with plastic and glass waste.

adding specific indications about proper product disposal; it is feasible through a new labeling system applied on product and litter bins, chosen arbitrarily by a competent agency.

Some diversities emerge even between Member States; as examples, we analyzed separate collection in three cities: Berlin, London, Brussels:

- London: In Hackney district a door to door urban waste collection is provided only for street level properties' residents. Separate collection is organized through 3 different litter bins: a green one dedicated to tetrapak, plastic and glass containers, paper, fabric, aerosol, etc.: a blue one dedicated to organic waste; a brown one dedicated to garden waste like flowers, plants, etc. (more info showed at Annex 10). In the same district a diverse separate collection is organized for estate and high rise properties' residents: two litter bins are provided, one dedicated to paper recycling, the other to plastic, glass, cans etc. (Annex 11 shows bins differentiation)
- Berlin: Separate collection is organized through 4 different litter bins: brown for organic waste, blue for paper, yellow for plastic materials, tetrapak included (even if in few districts a dedicated litter bin is not present and collection is made through yellow sacks), grey for undifferentiated household waste. Glass collection is organized through three kinds of containers, dedicated to green, brown and uncolored glass.
- Brussels: separate collection is organized door to door, and yellow sack (or litter bins) are provided for paper waste; blue sack are for plastic, cans and tetrapak. Two litter bins are dedicated to glass collection: a white one for uncolored glass and a colored one for colored glass.

THE EUROPEAN LABELING SYSTEM FOR PACKAGING

The Labeling System explained in Decision 97/129/EC has been integrated by technical decision adopted by European Committee of Standardization (CEN from now on), CEN/CR 14311:2002, proposing usage of graphic symbols to identify some packaging materials. Graphic symbols detailed in Annex A of CEN report are a pure graphic representation of the nature of packaging materials and do not imply recyclability or reusability of them. Alphanumerical codes detailed in Decision 97/129/EC can be associated with such graphic symbols identifying packaging materials, as reported in CEN document "Packaging – Marking and material identification"³⁵. Other international technical codes exist, like UNI EN ISO 11469 which details components percentages of plastic products, still using European symbols; or UNI EN ISO 14021 which allows producers' pro-environment assumptions self-controlled through application of symbols like Mobius Loop, that is a declaration of product's recyclability without further information. Member States sometimes release environmental certifications, like Germany's Blue Angel Mark (released by German Institute for quality and certification), showing whether a product has been approved for its environmental qualities during various phases (production, disposal, etc.); even the EU can, following Regulation 1980/2000, release its own environmental label (named Ecolabel) given, on a voluntary basis, to those products respecting some criteria established at a European level.

Those kind of labels, however significant, do not show any detailed information over the nature of materials used for a certain product and over its proper destination during separate collection phase.

OUR PROPOSAL










A solution to difficulties outlined above could be found in making the European labeling system for packaging and packaging waste mandatory for all kind of products defined as urban waste. To have a detailed knowledge of a product's materials could be useful to identify if a certain waste is inscribed in one of those typologies in which a separate collection is usually organized. As the European Union already stressed the importance of an increase in waste recycling, and introduced a labeling system to reach such objective for packaging waste, we think that a wider application of such system to other kind of waste will increase chances to reach such objectives. Notwithstanding, information given over a product composition (in particular for composite products) does not assure a common citizen about its recyclability, nor helps him

³⁵ Such labeling codes can be find in Annex 12.

to achieve a proper disposal of waste during separate collection. The introduction of distinctive colors could be useful, first, to show whether a product is recyclable; second, to link certain colors to certain product typologies previously collected separately could increase chances that a citizen will not misplace waste while doing separate collection. Free choice is still given, to any competent authority in each Member State, to organize and manage separate collection as it wishes, through many different litter bins or few ones gathering more kind of recyclable waste, or through door to door collection. It will only be necessary to apply to litter bins colors and product codes appropriate to which kind of waste should be collected there. If such system would be applied in all Member States, all European citizens would know where to dispose their waste wherever they happen to be.

A labeling example for most common products.

COLORS SAMPLES

| | | | |
|---|---------------------------|---|-----------------------|
|  | NOT RECYCLABLE WASTE |  | PLASTIC |
|  | GLASS |  | SCRAP METAL |
|  | PAPER – CARDBOARD |  | MULTILAYER PACKAGING* |
|  | WOOD |  | TEXTILE |
|  | ORGANIC - BIODEGRADABLE** | | |

* Multilayer packaging can be divided in 3 typologies as shown in European codification: those mainly composed of paper, those mainly composed of plastic, those mainly composed of glass. If majority of such products could be recycled it would be useful to distinguish between them with 3 similar but unique colors for each typology. If this is not the case, recyclable multiplayer products could maintain a single color.

**Products of this typology cannot be labeled, of course; a label could be applied over its packaging, referring to the product it contain, but we do not deem such application as needed. Organic materials are actually easily recognized and citizens do not need such information to identify them. Therefore it is not useful to apply any alphanumerical code nor a color on such products. The brown color showed above could however be applied at the dedicated litter bin so to ease its location. Some products should however be disposed of together with organic waste even if they are not easily distinguished as biodegradable: bioplastic bags are an example of it; however such products are actually of little significance (there are too few of them) and their inclusion in such labeling system is not critical.

WASTE TYPOLOGY

LABELING SAMPLES

Tin Cans containing drinks



GLASS

GREEN LABELS

White (water bottles)



Glass (wine bottles)



Brown (beer bottles)



PAPER AND CARDBOARD

YELLOW LABELS

Cardboard (appliances packaging)



Fast-food packaging



Paper bags



PLASTIC

BLUE LABELS

Water bottles



Ketchup squeeze-bottles



POLIACOPIATI

BOLLINO DI COLORE VIOLA

Tetra Pack (milk aseptic carton)



Biscuit packaging (i.e. Mulino Bianco package)***



Questo simbolo sarà applicato: o sul recipiente per la raccolta della carta/cartone; o nel recipiente per l'indifferenziato.

***Some waste cannot be recycled and therefore a red label should be applied on them. However in a few cases some products could be recycled, but not every competent authority does recycle them. For example, in Italy in "comunità montana Feltrina" biscuit packaging can be collected through paper bin and recycled; this is however not true for all Italian municipalities. In this case it is obvious that such material could be recycled, but is not done thanks to local authorities' organization/capability. If that is the case, such product will not receive the red label, but the authority will have to advise its citizens by putting this product label over the litter bin destined for non- recyclable waste.