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WASTE
WATCHER

Waste Watcher
Permanent Observatory on Household Food Waste in Italy
2013 Report

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SWG
Survey partner

Waste Watcher (WW)

- The observatory is under the scientific supervision of the Department of Statistics and the Department of Agro Food Sciences of the University of Bologna

- WW is a system **to improve the knowledge** and to investigate **social and behavioural reasons** and citizens lifestyles behind household food waste, in order to allow a better **implementation of public and private policies** for waste prevention and reduction, and to increase efficiency in the management of food resources

- WW allows a better understanding of household food waste through an ad hoc **survey** which collects data on attitudes, behaviours, ideas and opinions related to the food waste phenomenon, carried out by

Waste Watcher: the survey

- The sample is made up of a panel of **2000 Italian families**, stratified by official socio-demographic information (Eurostat-Istat variables)

  (The questionnaire consists of about 100 questions and it takes about 25 min)

- SWG support WW also with a more general survey on italian **values orientation** that collects moods, attitudes, behaviours and social and political orientations

- WW consists of a scientific socio-economic research based on **OPINIONS, SELF PERCEPTIONS** and **DECLARATIONS**. No objective measurement on food waste and other quantities

The Waste Watcher approach

- WW uses methodologies of identification of CAUSE and EFFECT relationship and opinion segmentations/clustering

- The main goal is **Policy Segmentation** (public and private), starting from opinions, needs and ideas of citizens

- Citizens and consumers are different: efficiency of policies and actions is maximized only if they are well targeted

- An example: household food waste reasons in Italy

Household food waste reasons

What are the reasons for household food waste?....*
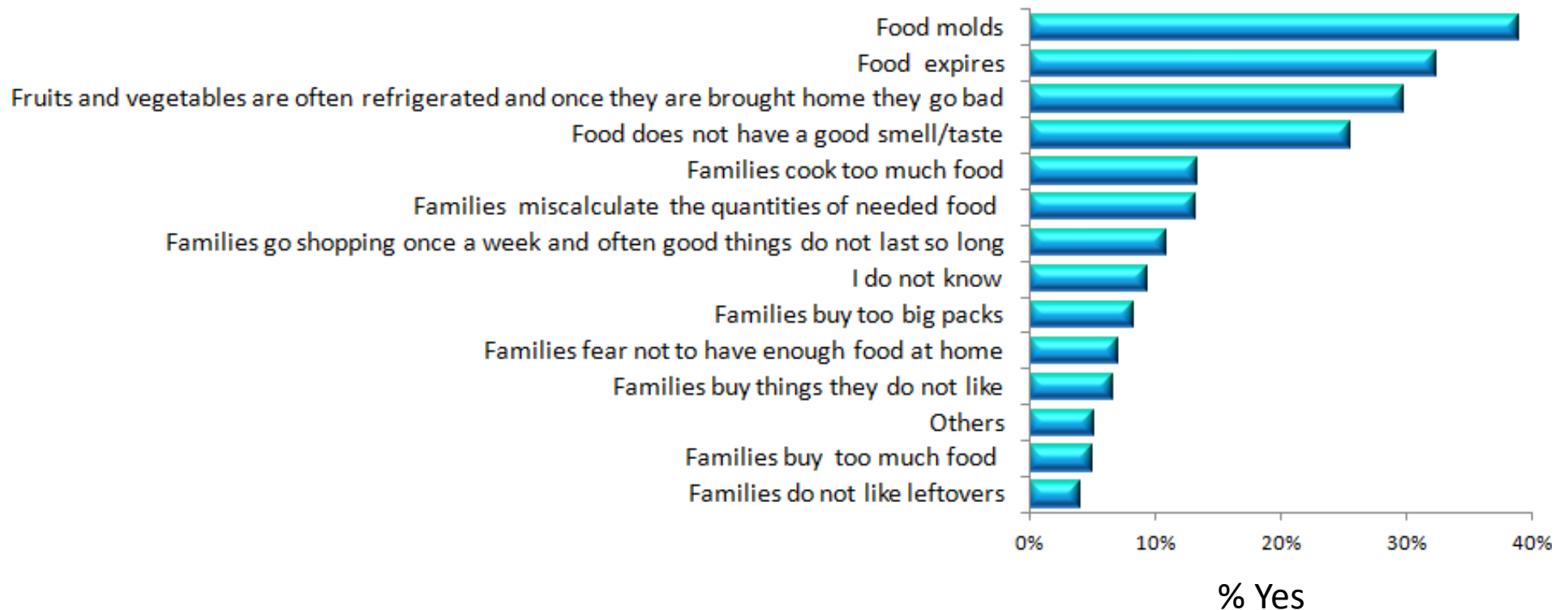
*The survey suggests 14 different reasons and each respondent could indicate more than one

Food waste reasons: some regional peculiarities

Abruzzo	Families miscalculate the quantities of needed food
	Families cook too much food
Puglia	Families cook too much food
	Families miscalculate the quantities of needed food
Calabria	Families do not like leftovers
	Families buy things they do not like
	Families cook too much food
Campania	Families cook too much food
	Families buy too much food
	Food does not have a good smell/taste
Friuli Venezia Giulia	Fruits and vegetables are often refrigerated and once they are brought home they go bad
Piemonte	Fruits and vegetables are often refrigerated and once they are brought home they go bad
	Families go shopping once a week and often good things do not last so long
Veneto	Families buy too big packs
	Food does not have a good smell/taste
	Food molds
Umbria	Families buy too big packs

Toscana	Food molds
Lombardia	Food molds
EmiliaRomagna	Families buy things they do not like
Sardegna	Families buy things they do not like
	Families fear not to have enough food at home
Sicilia	Food does not have a good smell/taste
	Families do not like leftovers
Basilicata	Food does not have a good smell/taste
	I do not know
Liguria	Families fear not to have enough food at home
Lazio	Families go shopping once a week and often good things do not last so long
	Families buy too much food
Marche	I do not know
	Others
Molise TrentinoAltoAdige ValleAosta	in line with national data

The economic value estimate of the waste: an opinion

- *In your opinion, what is the weekly food waste amount in your family? (interval scale)*

- WW does not do an "objective" measurement on food waste, but it leaves to respondents its perception

- The declared weekly mean for each family: **7.06 euro**

- Mean has its own variability: it implies the construction of a confidence interval for a total yearly amount of about **8.4-9.0 billion euro** (0.55% of 2012 Italian GDP)

- The definition of food waste does not yet exist. It is a contended subject, often defined on a situational basis (apple peel, chicken skin…). A lot of organizations are working on it:

financed by the 7th framework programme of the European Commission

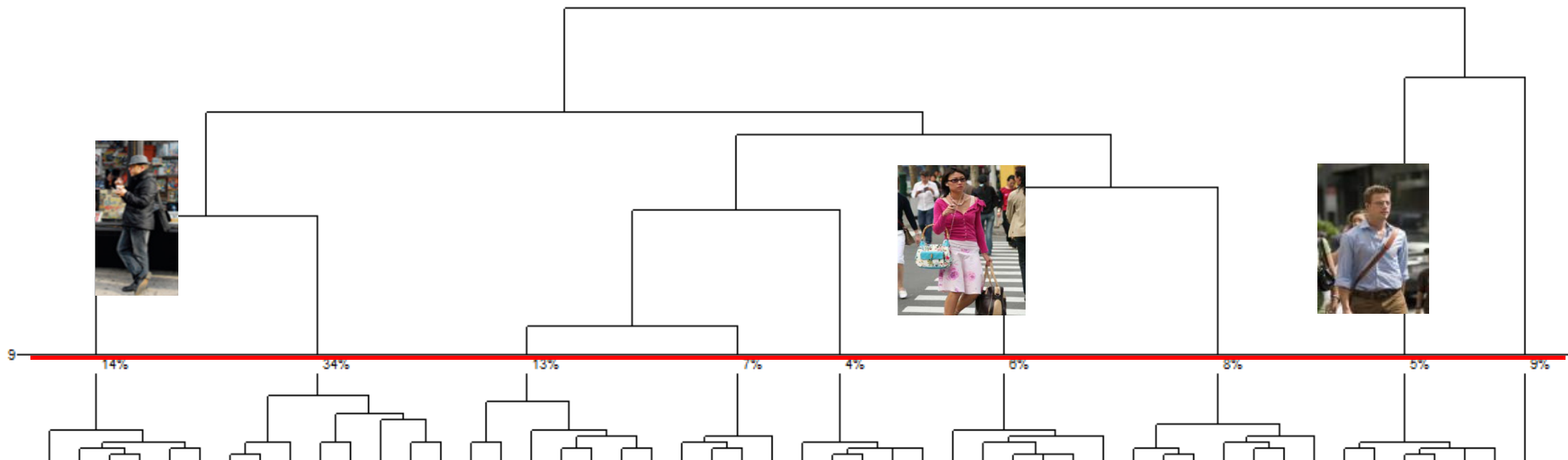# A segmention on food waste reasons: "The *Waste-Styles*"

WW has realized a segmentation of Italian citizens based on food waste reasons they self-declared to be determinant in their experience of food throwing away

FOOD WASTE REASONS	% YES
Food molds	38.9%
Food expires	32.3%
Fruits and vegetables are often refrigerated and once they are brought home they go bad	29.7%
Food does not have a good smell/taste	25.6%
Families cook too much food	13.3%
Families miscalculate the quantities of needed food	13.2%
Families go shopping once a week and often good things do not last so long	10.9%
I do not know	9.3%
Families buy too big packs	8.3%
Families fear not to have enough food at home	7.0%
Families buy things they do not like	6.6%
Others	5.2%
Families buy too much food	5.0%
Families do not like leftovers	4.0%

Only at the 5th position an answer where citizens feel guilty on their food waste, saying "I cook too much". Instead, reasons are much more related to food preservation, which do not reflect a wrong behaviour of the consumers.

A segmention on food waste reasons: "The *Waste-Styles*"

- Starting from the combination of all possible waste reasons, such as they are naturally generated from the set of respondets, it was possible to identify 9 "natural" group of respondents ("the Waste Styles")

- The segmentation has been realized applying a cluster algorithm: in this sense, respondents in each group suggest the same combination of food reasons

9   14%   34%   13%   7%   4%   6%   8%   5%   9%

A segmention on food waste reasons: "The *Waste-Styles*"

The table shows the 9 Waste-Styles, with a correspondent evocative name that describes each of them
Groups have been ordered on the basis of economic value of household waste

		WEEKLY DATA IN EUROS	
	%weight	household waste	pro-capita waste
the sensory person, who waste only when forced	34.4	4.81	1.75
the unawared person, belonging to the fringe of the society	8.6	4.84	1.89
the isolated and nostalgic person, without precise reasons	5.2	5.06	2.19
the "big" shopping costumer, fan of fresh food	14.2	6.97	2.96
the fanatic for "cooked and eaten"	3.7	7.98	3.16
the excessive cook	12.7	8.16	2.94
the disillusioned from packaging	6.6	9.66	3.74
the disappointed experimenter	6.2	10.52	4.39
the obsessed accumulator	8.4	12.16	4.29
GENERAL MEAN		**7.06**	**2.71**

It follows a description of each group with the *clouding* tecnique: eache waste-style is described by a cloud of the characterizing waste reasons where the bigger the word the highest is the statistical significance. Words in reverse side represent reasons that charactherized the group in a negative way

"The *Waste-Styles*"
with waste UNDER the mean (60%)

the sensory person, who waste only when forced

buying things you do not like
fear of not having enough food
food with a bad smell/taste
dislike of leftovers
food molds
others
shopping once a week_good things do not last so long
buying too much food
food expires
I do not know
refrigerated fruits and vegetables go bad
miscalculation of needed food

the unaware person, belonging to the fringe of the society

I do not know
too big packs
refrigerated fruits and vegetables go bad
buying too much food
cooking too much food
shopping once a week_good things do not last so long
dislike of leftovers
others
food with a bad smell/taste
food expires
fear of not having enough food
buying things you do not like
food molds
miscalculation of needed food

the isolated and nostalgic person, without precise reasons

food molds
miscalculation of needed food
food with a bad smell/taste
others
food expires
too big packs
buying things you do not like
shopping once a week_good things do not last so long
refrigerated fruits and vegetables go bad
cooking too much food

the "big" shopping costumer, fan of fresh food

buying too much food
food molds
too big packs
dislike of leftovers
buying things you do not like
shopping once a week_good things do not last so long
refrigerated fruits and vegetables go bad
others
food with a bad smell/taste
fear of not having enough food
cooking too much food
I do not know food

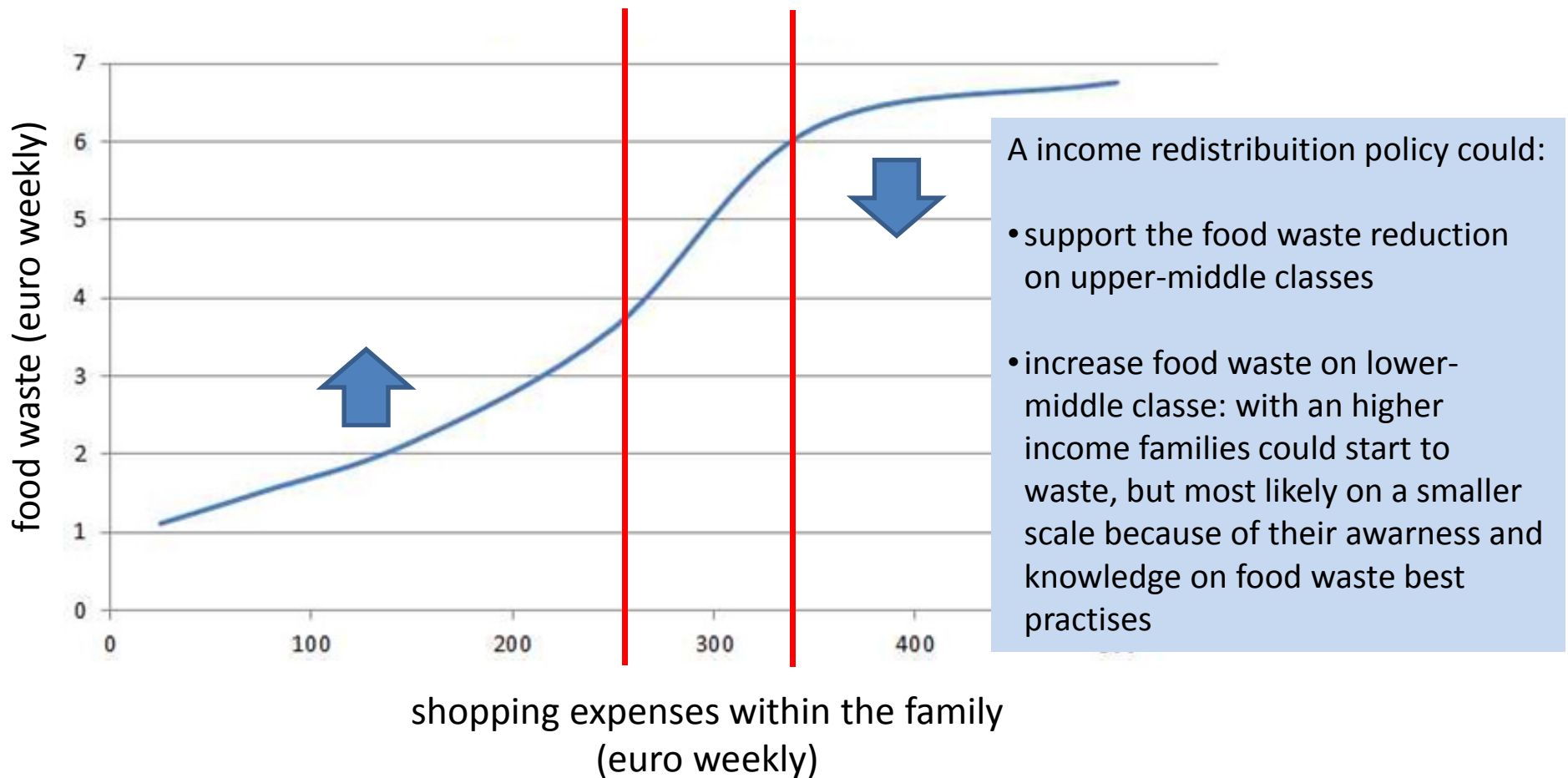# "The *Waste-Styles*"
with waste OVER the mean (40%)

A segmention on food waste reasons: "The *Waste-Styles*"

- The "virtuous" group consists of "ordinary" Italians (perhaps a little mediocre), with very a simple and sober lifestyle (even too much simple), not rich at all, sometimes pessimistic, but somehow happy, with no stress. They follow the common anti-waste best practises.

- The no-waste behaviour is also linked to marginal and self-isolated conditions: they do not waste because they have low awareness about consumption and their overall condition

- In line with the general mean, the group of who blames waste on "modern marketing", poor products quality and poor food preservation. They have a medium-high standard of living, but stressed from the ménage

- The non-virtuous 5 groups have an intrinsic well-being: waste is due to their lifestyle, their relation with food, and an high elasticity to market demands

Elasticity of food waste on shopping expenses

Food waste pre-capita and shopping expenses net of household size effect
question: How much does your family pay for the shopping every week?

A income redistribuition policy could:

• support the food waste reduction on upper-middle classes

• increase food waste on lower-middle classe: with an higher income families could start to waste, but most likely on a smaller scale because of their awarness and knowledge on food waste best practises

food waste (euro weekly)

shopping expenses within the family (euro weekly)

THANK YOU!

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