



Food waste reduction targets – summary of state-of-play

- Expected delivery, as a part of revision of WFD 2Q 2023
- We are at the stage or preparing an Impact Assessment of the revision of Waste Framework Directive
- Baseline data to be published on 25.X.2022



Food waste - objectives

General objective:

Improve sustainability of food systems by reducing food wastage

Specific objective:

Ensure that Member States take ambitious action to reduce food waste in their respective territories and contribute to SDG target 12.3

Possible actions to be taken by MS

- Influencing attitudes and behaviours
- Less wasteful practices in food chain (more cooperation, more food donation, more re-use as by products)
- Awareness and knowledge



Food waste reduction - policy options

1. Baseline

- 2. Set a target for food waste reduction with declination in Scope, Expression and how the targets are set
 - S1 target covering whole food supply chain, from farm gate to final consumer
 - S2 target covering only selected stages of the food supply chain (for example SDG target 12.3 sets targets at retail and consumer' levels)
 - E1 target expressed as % of food waste reduction from the baseline (2020) to target year (2030)
 - E2 targets expressed as absolute amounts, i.e. in kilograms per capita per year to be achieved by 2030
 - T1 the same target level for all Member States
 - T2 target level differentiated by Member States
 - T3 collective target on EU level based on MS contributions



3. Target(s) levels

Assessment of the economic and environmental impacts

- To be delivered with help of JRC, with use of MAGNET model
- Tool approved by Commission for impact assessment of policy scenarios.
- "A global whole-economy model used to analyse policy scenarios on agricultural economics, bioeconomy, food security, climate change and international trade."
- model MAGNET Modular Applied GeNeral Equilibrium Tool | Modelling Inventory and Knowledge Management System of the European Commission (MIDAS) (europa.eu)



Basic assumptions

- Baseline year for targets reference is 2020
- Socioeconomic assumptions based on European Commission's Global Energy and Climate Outlook (GECO), revised in 2021
- Evolution of food waste generation are based on JRC model (mass flow analysis), while future projections linked to GDP/capita (following scientific recommendations)
- No additional impact are accounted from the other linked legislation on waste (food waste reporting, separate collection of biowaste) or food (ongoing FIC regulation).
- Costs to be attributed based on the data gathered during consultations, in case of gaps literature data.

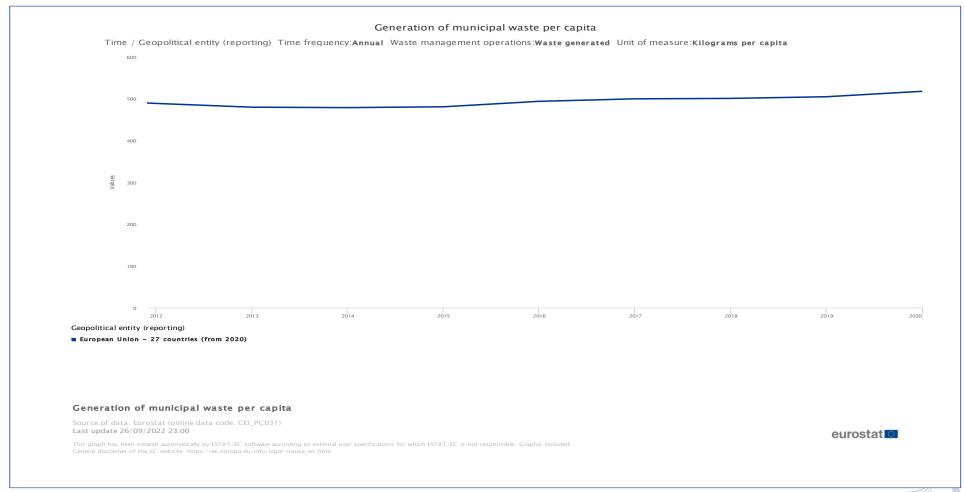


Consultations and baseline

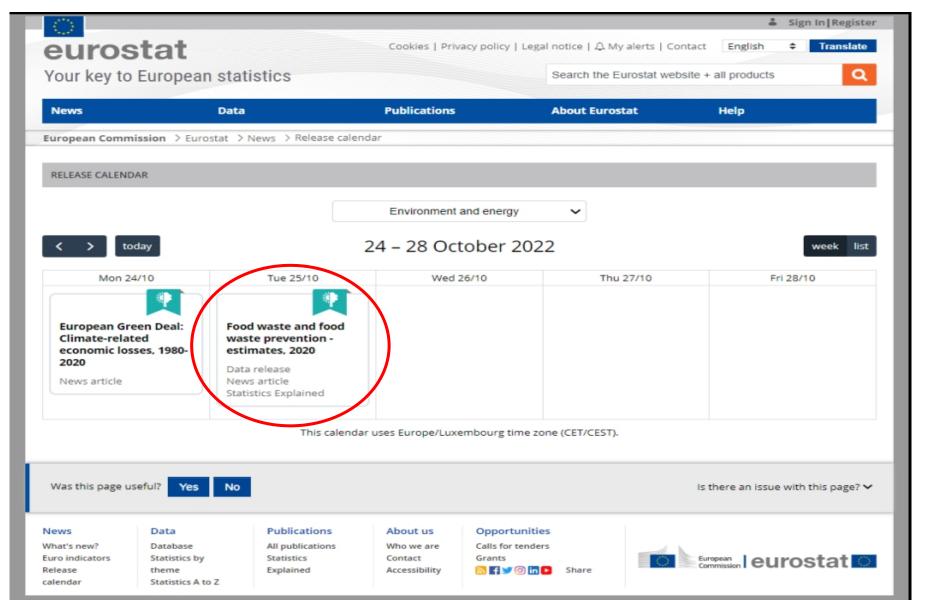
- Legislative proposal will be supported by impact assessment including <u>public consultation</u>
 - Inception impact assessment published October 2021
 - Open public consultation finalized in August 2022
 - targeted surveys and interviews were conducted in April-June and August-October 2022. Focus was on cost and efficiency of actions on food waste reduction
- **Baseline data** has been reported by 30 June 2022 (2020 is the first reference year), were validated by Eurostat and will be published on 25 October.



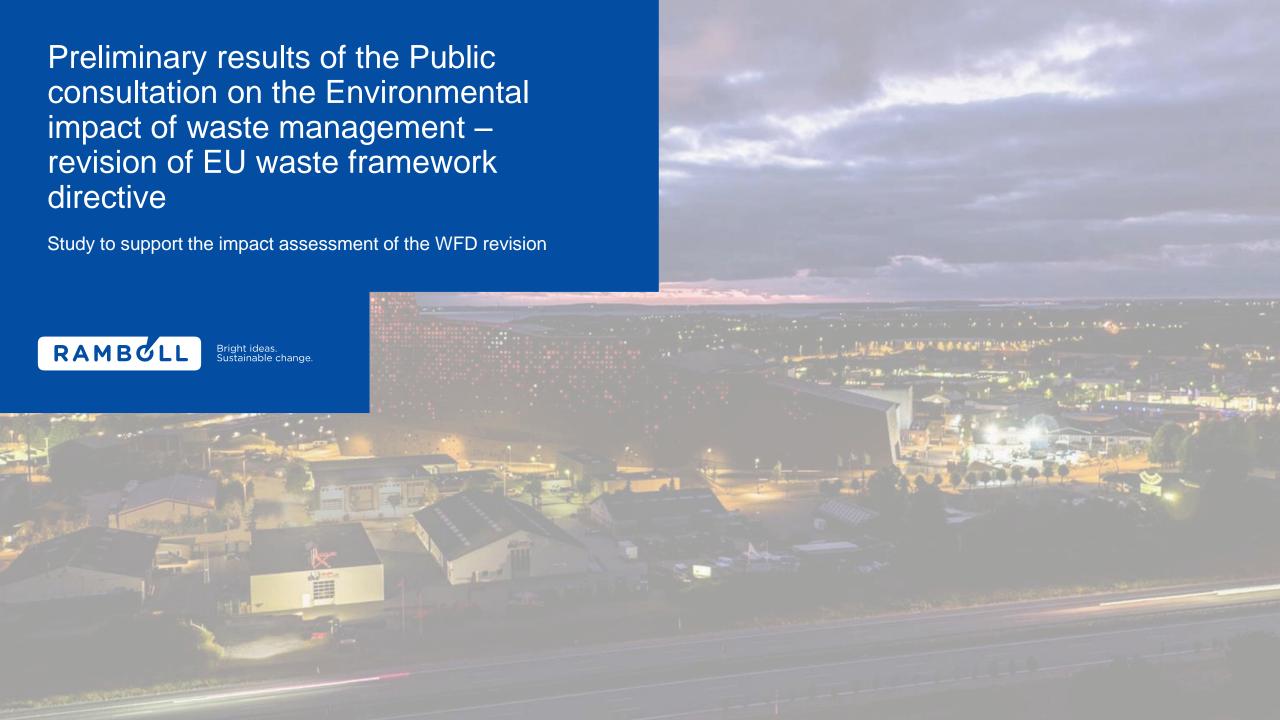
Municipal waste generation (Eurostat) - proxy baseline so far?









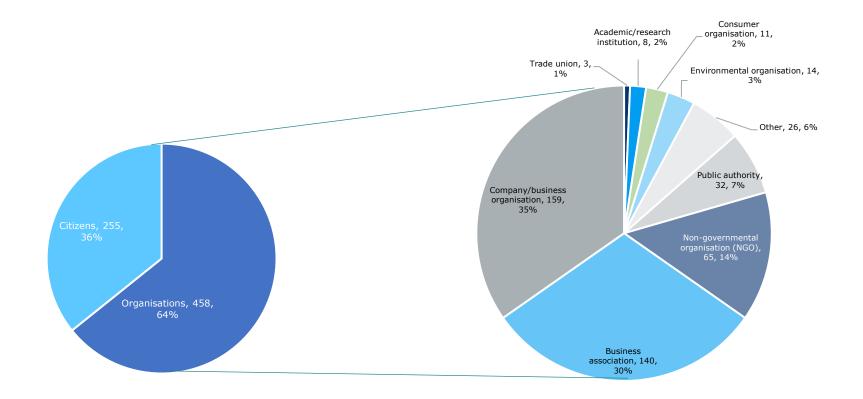


Public consultation on revision of the Waste Framework Directive (WFD)

- Aimed to collect additional evidence in context of the targeted revision of WFD (including food waste)
- One of several strands of consultation activities for the impact assessment including interviews with selected stakeholders, workshops and meetings as well as targeted surveys to collect specific data from stakeholders.
- Consultation via EU Survey from 24 May 24 August 2022 on the 'Have Your Say' Platform.
- 731 responses; in addition, 207 respondents uploaded written contributions
- Factual summary report is pending publication

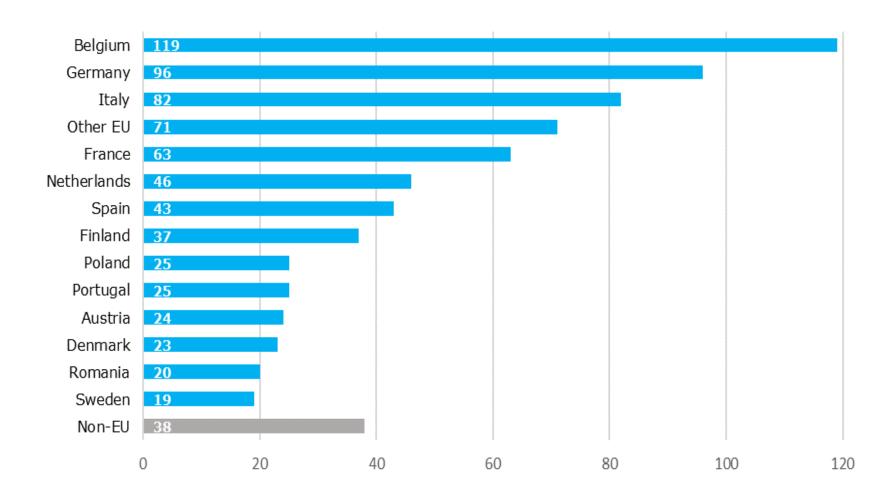


Stakeholder categories distribution





Stakeholder countries distribution

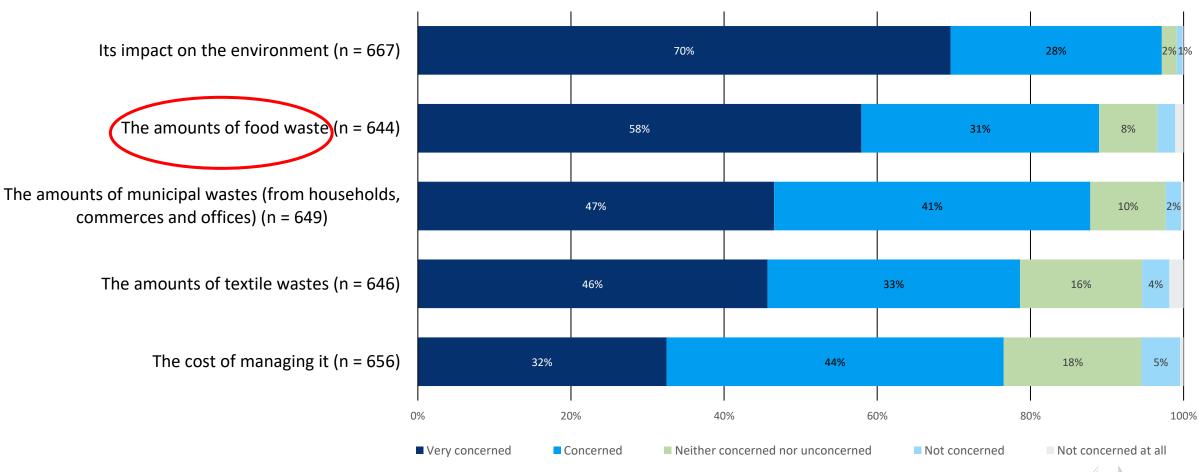




1. Preliminary results across all stakeholder groups



A) Regarding the volumes of wastes generated, please indicate to what extent are you concerned about the following:





E) To what extent do you agree with the following statements?

My employer has in place effective measures to prevent waste generation in 10% 25% 8% 12% the workplace (n = 619) The EU has in place effective measures to 5% 11% 5% 28% prevent waste (n = 673) My country/local authority has in place effective measures to prevent waste (n = 23% 18% 8% 649) 25% 75% 50% 100% ■ Strongly agree ■ Neither agree nor disagree Disagree Strongly disagree ■ Do not know Agree

> European Commission

F) To what extent do you agree with the following statements on possible EU measures to improve waste prevention?

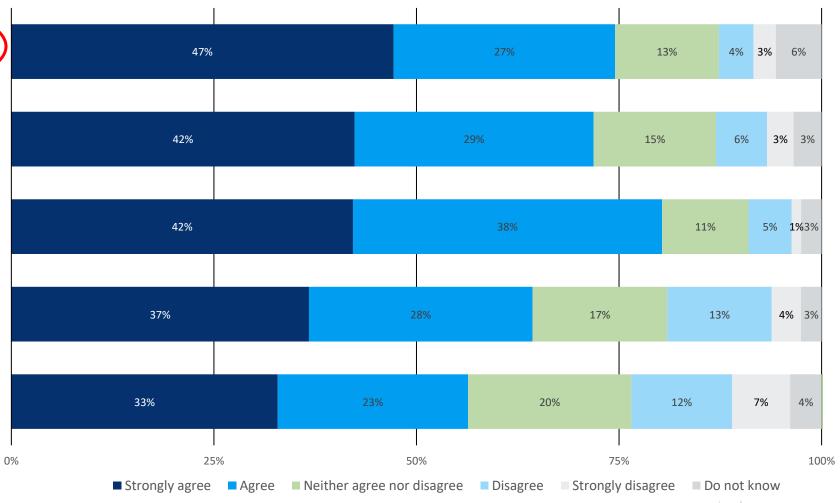
I am in favour of legally binding food waste reduction targets (n = 655)

I am in favour of increasing use of economic instruments to prevent waste generation (e.g., "Pay As You Throw" taxes) (n = 668)

I am in favour of more detailed data collection in order to measure the impact of prevention measures (n = 676)

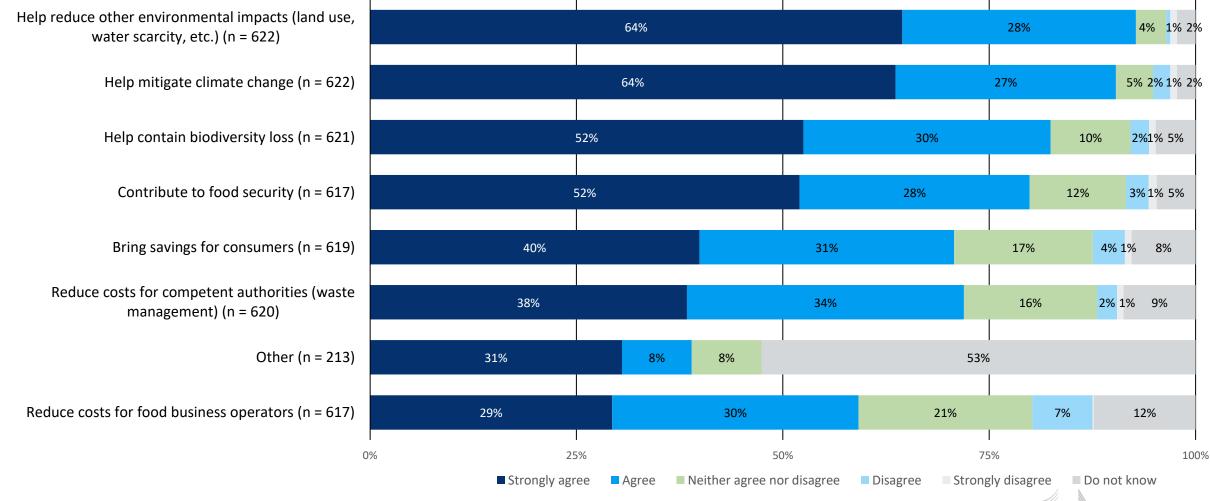
I am in favour of legally binding quantitative targets to increase reuse of products (n = 667)

I am in favour of legally binding waste generation reduction targets (e.g., a maximum amount of kg of waste per inhabitant per year or a percentage reduction of current waste levels) (n = 669)

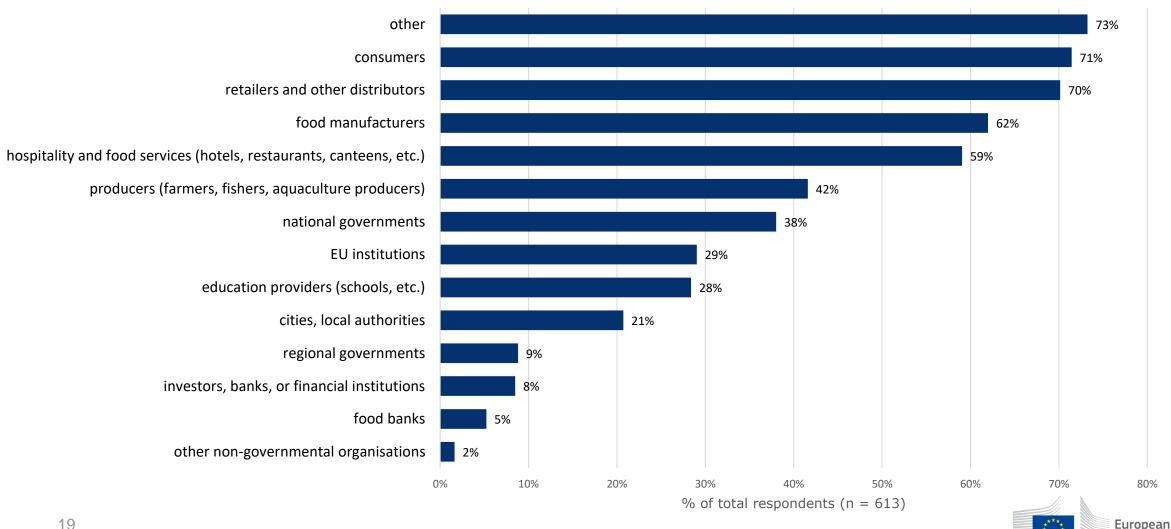




G) The EU's Farm to Fork Strategy seeks to enable the transition to a sustainable food system that is fair, healthy and environmentally-friendly. It aims in particular to reduce the environmental and climate footprint of the EU food system, to protect citizens' health and ensure the livelihoods of economic operators. Taking action to reduce food waste is critical to achieving sustainable food systems. Please indicate if you agree that reducing food waste can lead to the following benefits:



H) Fighting food waste requires action from multiple actors across the food supply chain and beyond. According to you, who needs to take more action to reduce food waste? (please select up to 5 actors from the list below)



Commission

I) Food waste reduction initiatives may encounter several challenges. For each of the items listed below, please indicate how important you consider these challenges to be

Consumers need to adopt new habits in order to reduce food waste (e.g. improved food management skills) (n = 625)

Businesses need to make food waste prevention part of their business operations (n = 622)

Ensuring sufficient action is taken at the pace needed to reach global commitments (i.e. halve food waste by 2030) (n = 622)

Ensuring no compromise on food safety (n = 621)

Ineffective cooperation between key players (e.g. farmers and retailers) (n = 614)

Consumers' acceptance of possible reduction in food choices (e.g. simpler menu options, less options available at store closure) (n...

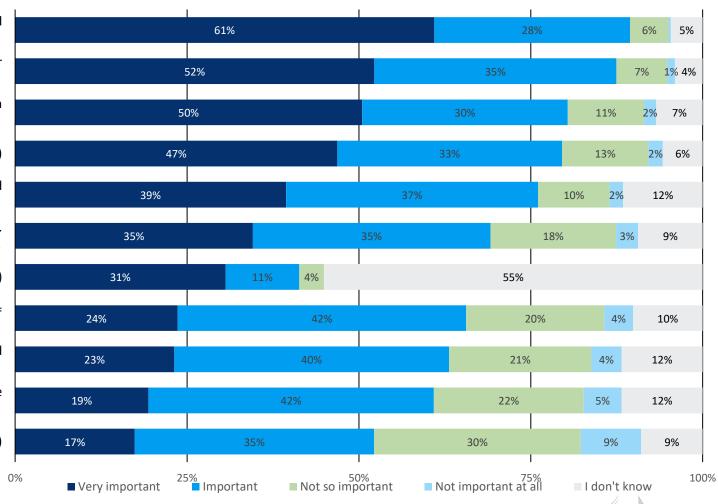
Other (n = 196)

Difficulty in monitoring compliance with food waste targets (n = 622)

Difficulty in collecting data on food waste levels and related impacts (n = 618)

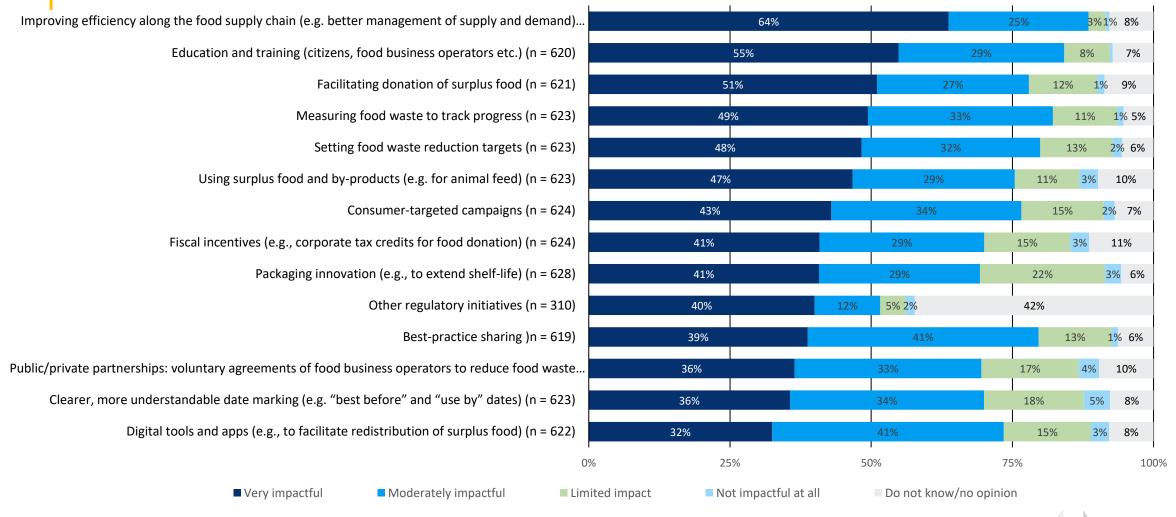
Lack of evidence and best practice to identify the most effective actions (n = 619)

Costs associated with food waste prevention (n = 615)





J) Which measures do you consider to be the most effective in reducing food waste? Please indicate for each measure below, its possible level of impact.





Thank you



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Data collection on food waste prevention: results from surveys to MS and stakeholders

Joint Research Centre

EU Platform on FLW meeting

20/10/2022

Content

- Context of the surveys
- Survey to EU Member States
 - Characteristics
 - Main results
- Survey to stakeholders
 - Characteristics
 - Main results



Context of the surveys

- Farm to Fork Strategy: the Commission will propose legally binding targets to reduce food waste across the EU, by end 2023.
- On-going impact assessment for defining the reduction targets.
- Targeted consultations: Surveys to Member States and stakeholders to collect data on FW prevention actions in terms of:
 - Food waste prevented amount
 - Economic cost
 - Social aspects (e.g., jobs, volunteers, training)



Survey to Member States

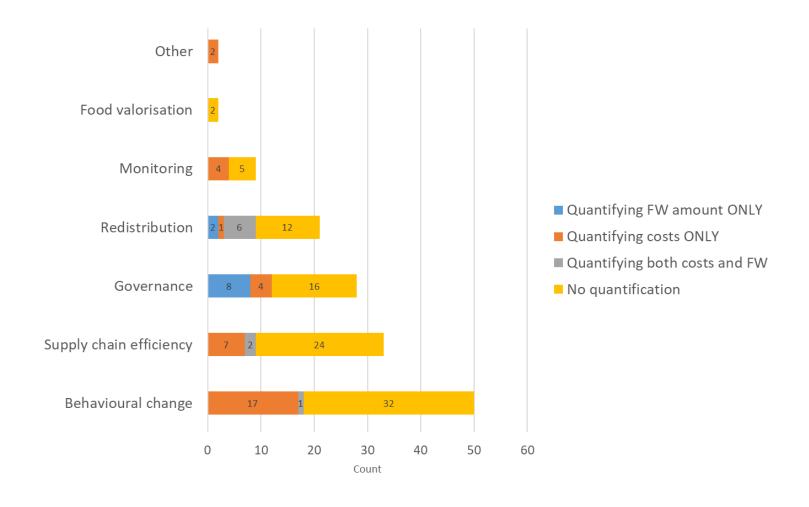


Member States survey characteristics

- Method: compilation of a table sent by email
- Data collection: March April 2022
- Number of collected initiatives: 20 countries



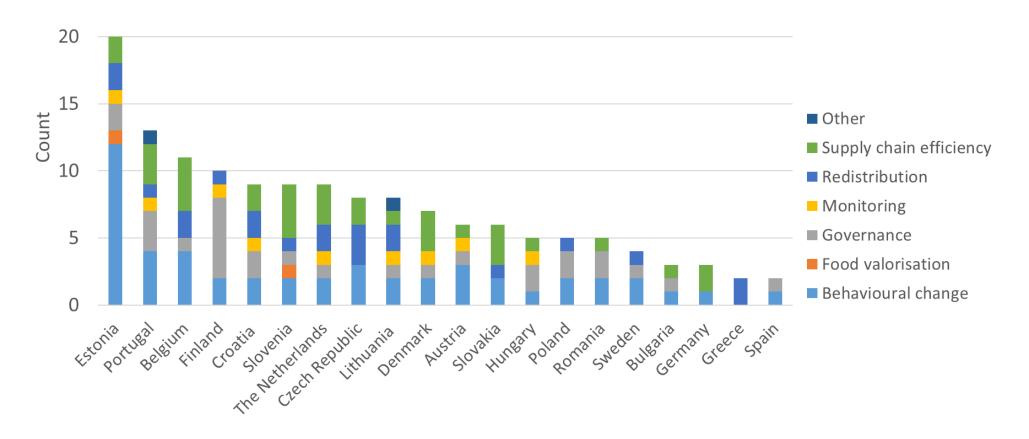
Food waste prevention initiatives by type



145 initiatives reported



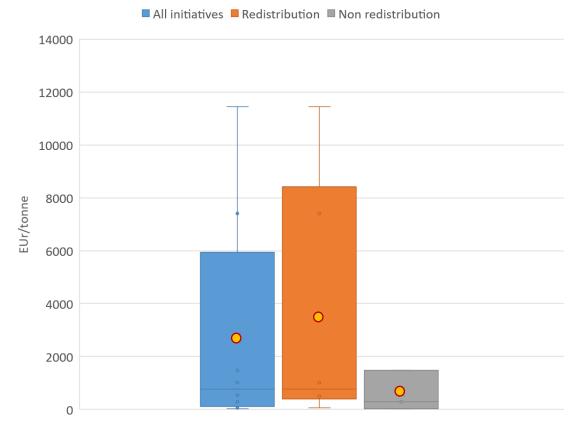
Number of initiatives reported by MS



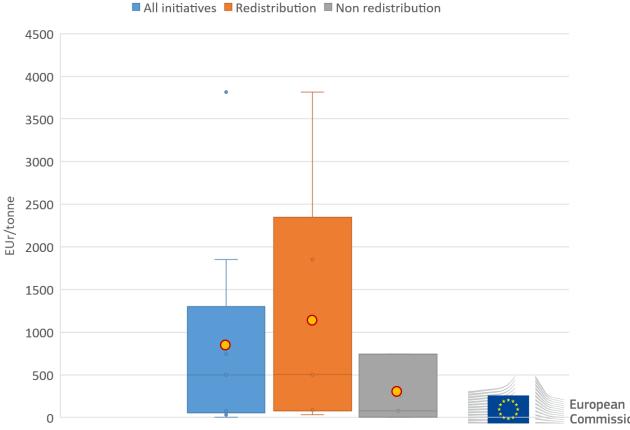


Cost analysis

Distribution of <u>total</u> cost per tonne of prevented food waste



Distribution of <u>annual</u> cost per tonne of prevented food waste



Survey to other Stakeholders



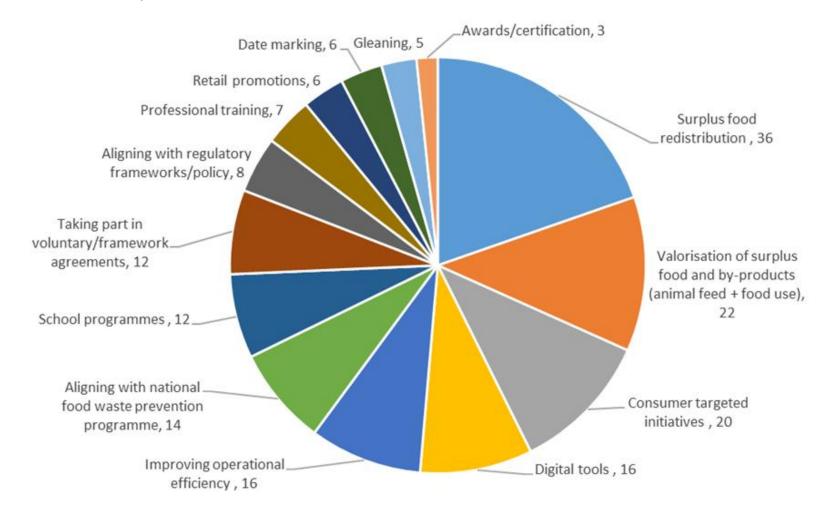
Stakeholders survey characteristics

- Method: questionnaire through EU survey
- Data collection: April-June 2022
- Number of collected initiatives: 62 from 21 countries



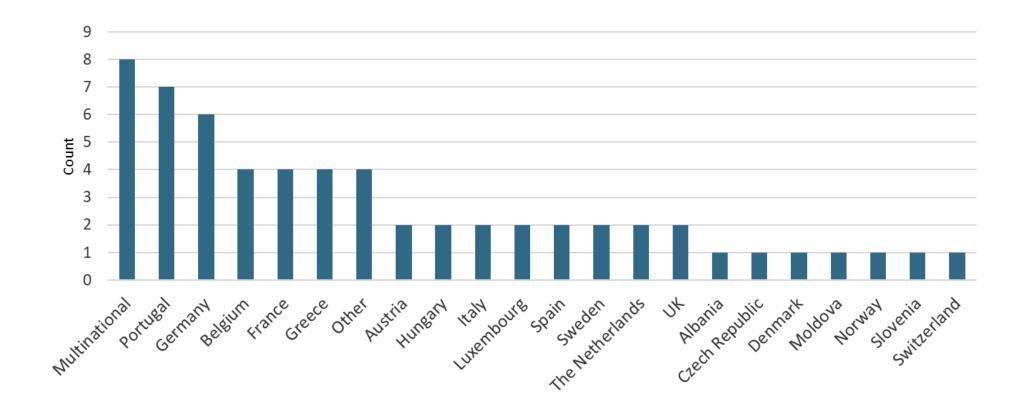
Number of initiatives by initiative type

(multiple answers allowed)





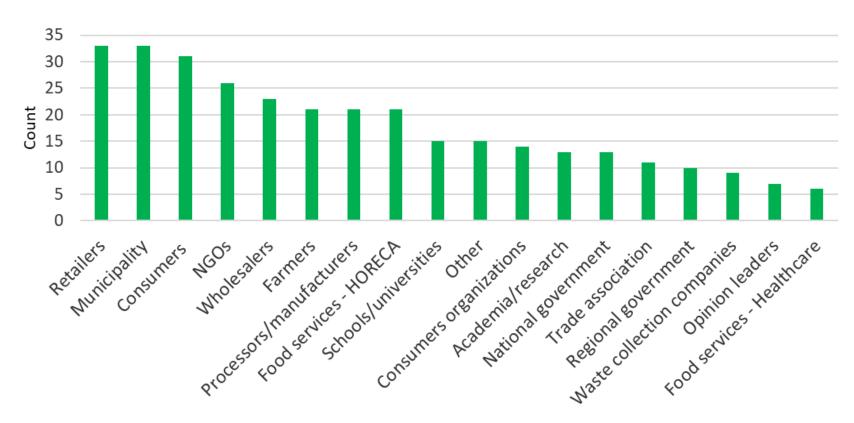
Number of initiatives by country





Number of initiatives and type of stakeholder involved

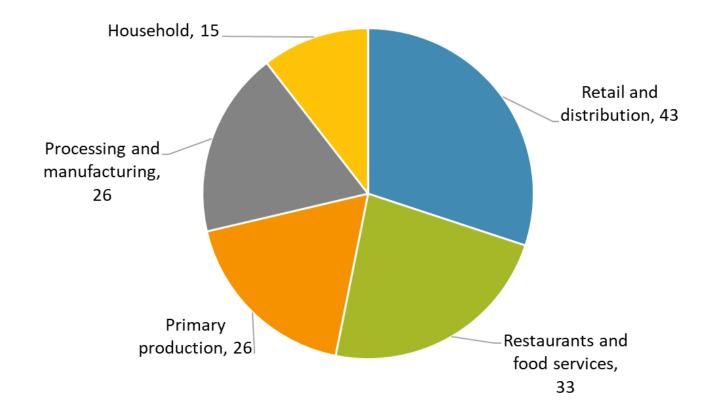
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Number of initiatives by targeted life cycle stage

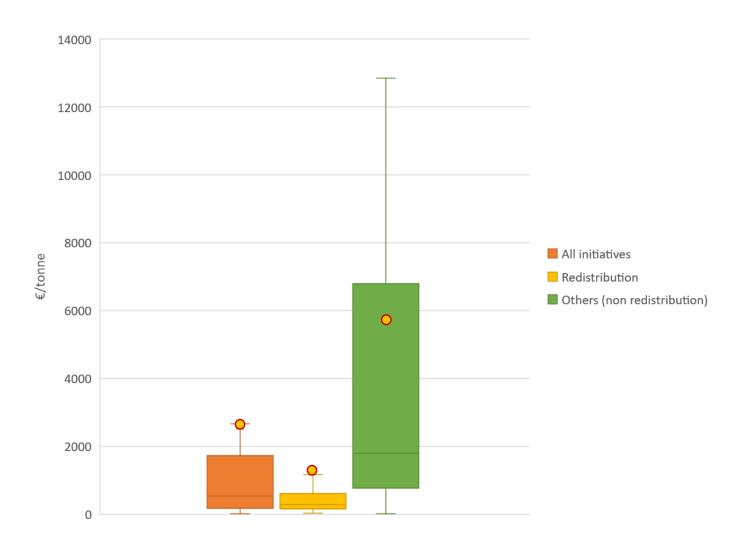
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Cost analysis

Distribution of <u>annual</u> costs of initiatives per unit of avoided food waste (the graph does not show outliers)





Comparison between data on consumers targeted initiatives and data from the literature

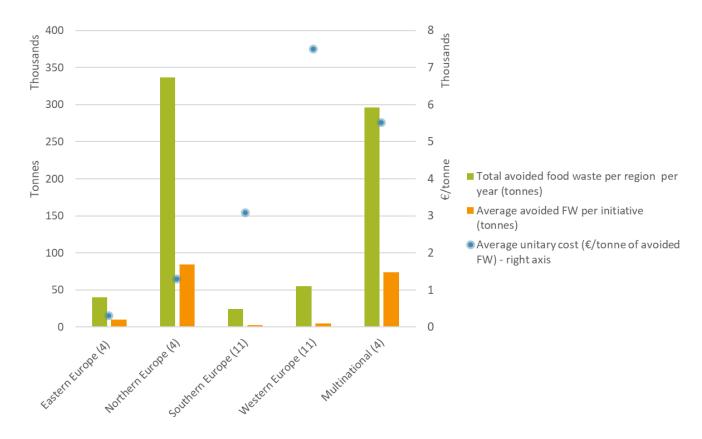
Data from literature review	Unit	Min value	Mean value	Media n	Max	N° of data points
Total costs	thousan d €	0.50	537.31	23.00	5500	12
Yearly amount of avoided food waste	tonne/y ear	1.00	287.47	7.28	756	5
Total cost per tonne of food waste avoided	thousan d €/tonne	0.10	0.53	0.50	0.89	5

Consumer targeted initiatives (from survey)	Unit	Min	Mean	Media n	Max	n° of data point s
Number of initiatives						8
Harmonized costs to set up	thousand €/years duration	0.05	27.8	2.25	153.8	6
Maintaining costs	thousand €/year	12	168.3	25	739.7	5
Total costs	thousand €/year	0.05	168	15.68	24.75	6
Yearly amount of avoided food waste	thousand tonnes	0.002	6.37	0.97	24	5
Maintaining cost per tonne of food waste avoided	thousand €/tonne*ye ar	0.002	2.32	1.36	6.57	4
Setting up cost per tonne of food waste avoided	thousand €/tonne	0.002	1.09	0.133	4.09	4
Total cost per tonne of food waste avoided	thousand €/tonne*ye ar	0.008	1.21	0.39	0.76	3



Cost analysis by geographic region

Total food waste prevented by the initiatives, related unitary cost and average prevented food waste per initiative, considering four European regions and initiatives applied in more than one countries (multinational).





Limits of the study and conclusion



Limitations of the study

- Lack of quantitative:
 - Economic cost
 - Food waste prevented data
- There are some outliers identified bringing the average high
- Difficulties in differentiating initiatives among life cycle stages



Conclusions

- We observe some issues in the monitoring of these initiatives
- The cost/tonne of FW prevention actions shows a large variability and this is generally higher than the values reported in the literature
- Redistribution initiatives were the most cost-effective in the stakeholders survey, while for Member States it were other type of initiatives



Thank you



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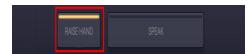


Comments? Questions?

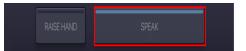


1. Request the floor:

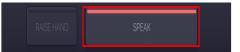
Click on RAISE HAND (YELLOW = you have indicated your wish to take the floor)



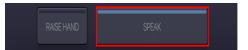
Wait until we give you the floor (BLUE = microphone is open but muted)



Click on SPEAK to start speaking (RED = microphone is active and you can speak)



Click on SPEAK again to mute after you have finished (BLUE = microphone is muted)



2. **Technical issue?** Please refer to the Interactio guidelines or send an email at <u>SANTE-FOOD-WASTE@ec.europa.eu</u>



Cost analysis for the set "all initiatives"

All initiatives	Unit	Min	Mean	Median	Max	n° of data points
Total number of initiatives						62
Harmonized costs to set up	thousand €/years duration	0	48.9	6	700	45
Maintaining costs	thousand €/year	0	1871	90	37431	43
Total costs	thousand €/year	0	1730	101	37432	50
Yearly amount of avoided food waste	thousand tonnes	0.001	11.3	0.30	265	42
Maintaining cost per tonne of food waste avoided	thousand €/tonne*year	0	2.12	0.49	25	31
Setting up cost per tonne of food waste avoided	thousand €/tonne	0	0.43	0.009	5.56	30
Total cost per tonne of food waste avoided	thousand €/tonne*year	8	2.62 (0.99)*	0.55	30.56 (6.79)*	32

^{*}in brackets, values excluding outliers, i.e. higher than 8 thousand \in



Cost analysis for the set "surplus food redistribution initiatives"

Food redistribution initiatives	Unit	Min	Mean	Median	Max	n° of data points
Number of initiatives						30
Harmonized costs to set up	thousand €/years duration	0	27.8	3.1	200	20
Maintaining costs	thousand €/year	0	3073	237.5	37431	22
Total costs	thousand €/year	0	2961	200	37432	23
Yearly amount of surplus food redistributed	thousand tonnes	0.001	17.86	1.79	265	22
Maintaining cost per tonne of food redistributed	thousand €/tonne*year	0.003	1.32	0.29	15.96	18
Setting up cost per tonne of food redistributed	thousand €/tonne	0	0.19	0.008	2.28	15
Total cost per tonne of food redistributed	thousand €/tonne*year	0.03	1.41 (0.47)	0.29	18.23 (2.67)	18



Cost analysis for the set "Others- non surplus food redistribution initiatives

Other initiatives (all non-food redistribution initiatives)	Unit	Min	Mean	Median	Max	n° of data points
Number of initiatives						32
Harmonized costs to set up	thousand €/years duration	0	41.6	7.0	500	24
Maintaining costs	thousand €/year	0	769.7	35.78	12636	23
Total costs	thousand €/year	0	688	13.6	12643	25
Yearly amount of avoided food waste	thousand €/tonnes	0.002	3.15	0.095	24.0	13
Maintaining cost per tonne of food waste avoided	thousand €/tonne*year	0	3.41	1.005	25.0	13
Setting up cost per tonne of food waste avoided	thousand €/tonne	0.001	1.001	0.055	5.56	13
Total cost per tonne of food waste avoided	thousand €/tonne*year	0	5.73 (1.97)	1.74	30.56 (6.79)	12

