

Food Waste Collection Implementation in Malta and elsewhere, and EC Directive Obligations

**ACR+ Conference: Sustainable Food &
Biowaste Management**

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Approaches Used for Collection of Food Waste

Containers

Kitchen



Kerbside



Food Waste Collection Austria



Communal Collection System Wales



Dedicated Food Waste Vehicles



Multi Compartment Vehicles



Resource Recovery Vehicle



The WasteServ Maltese Food Collection Pilots

Organic Collection Pilot Phase 1

- **5 localities**
- **12k households**
- **Before:**
 - **Either 4, 5 or 6 days per week residual collection**
- **After:**
 - **Twice weekly collection of food waste**
 - **Residual waste collection reduced by 1 or 2 days**
- **Eunomia's role: expert support in the run up to service introduction and during the pilot**



Maltese Food Waste Collection



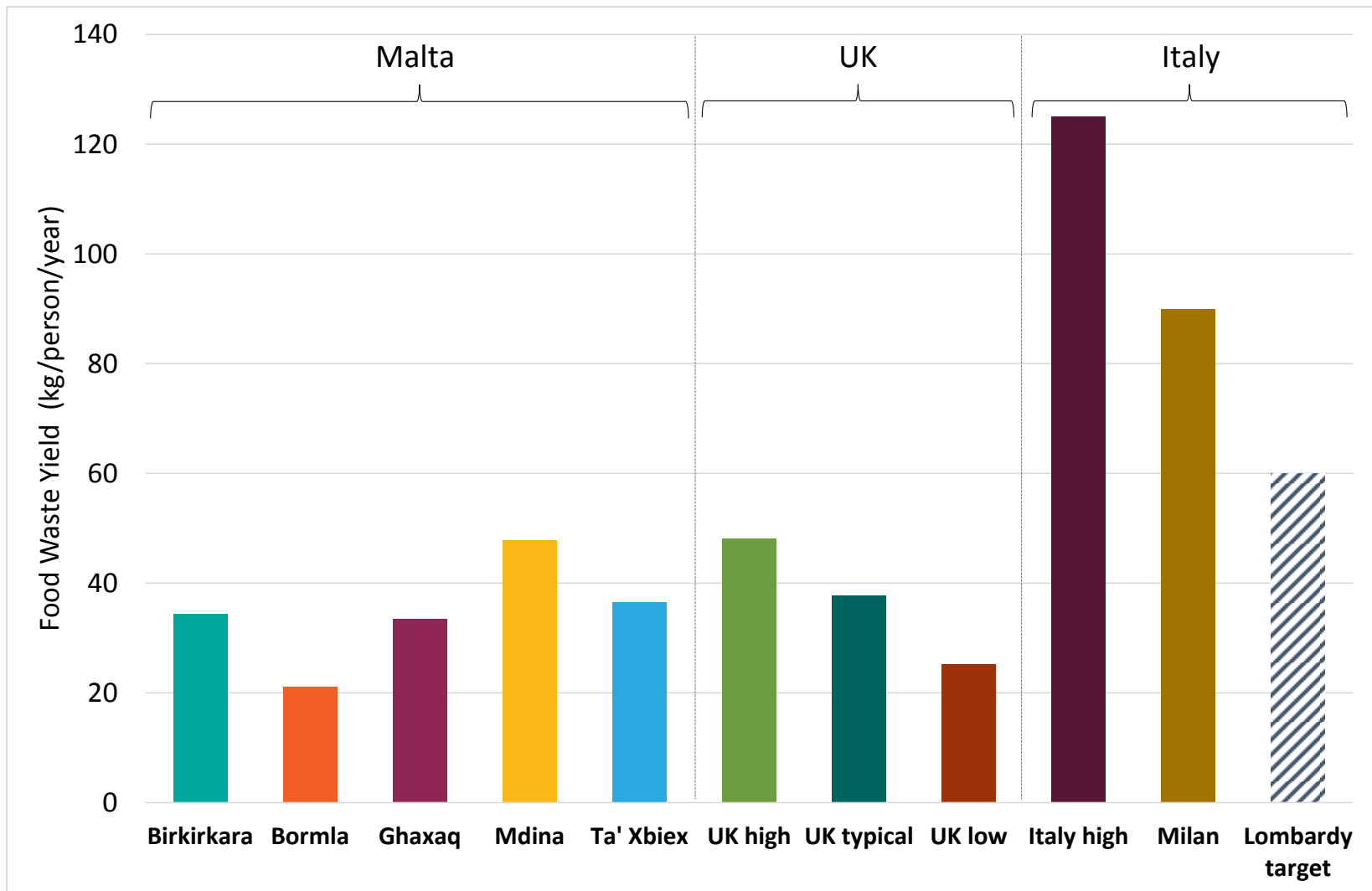
Maltese Food Waste Collection



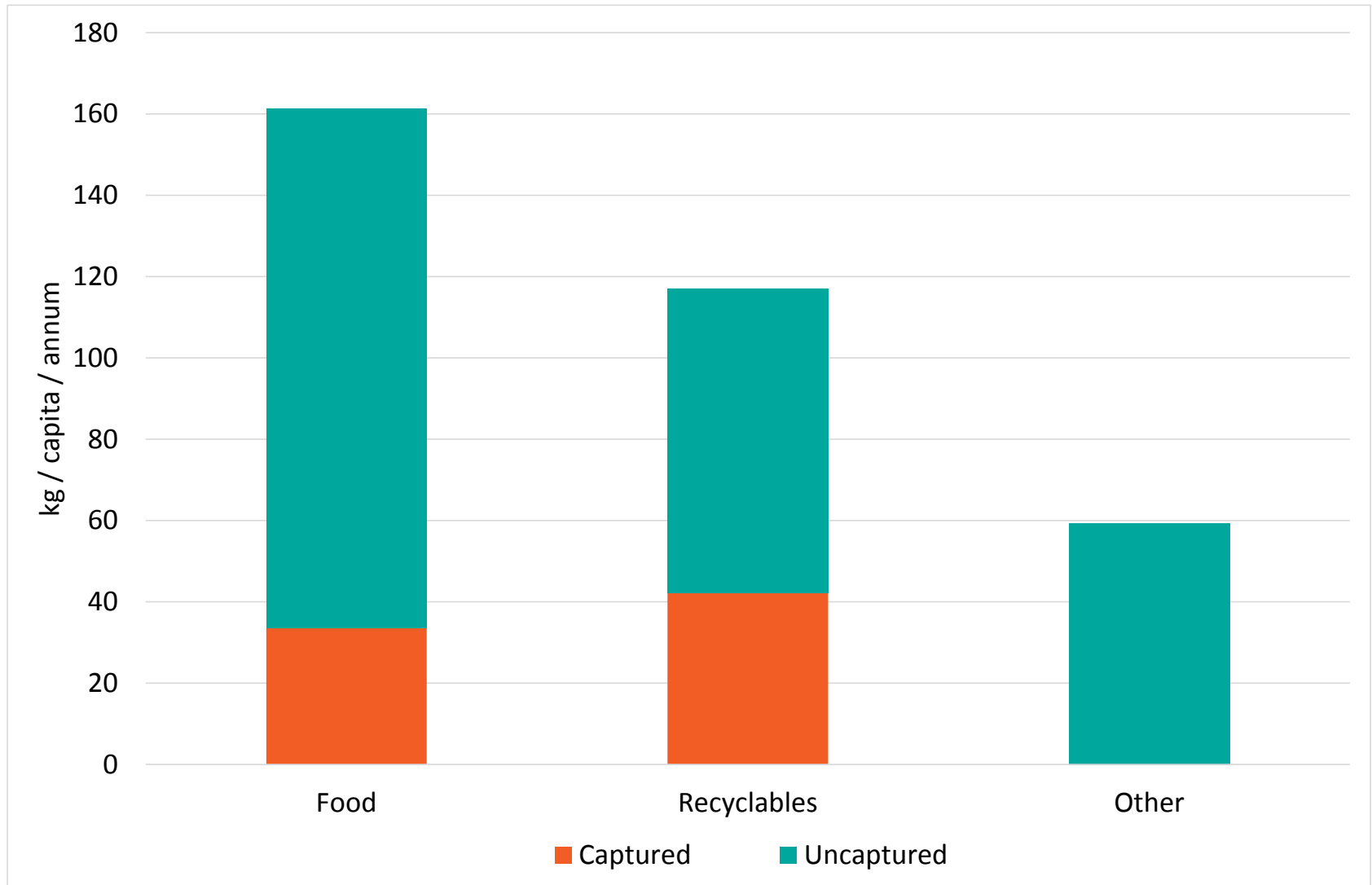
Maltese Food Waste Collection



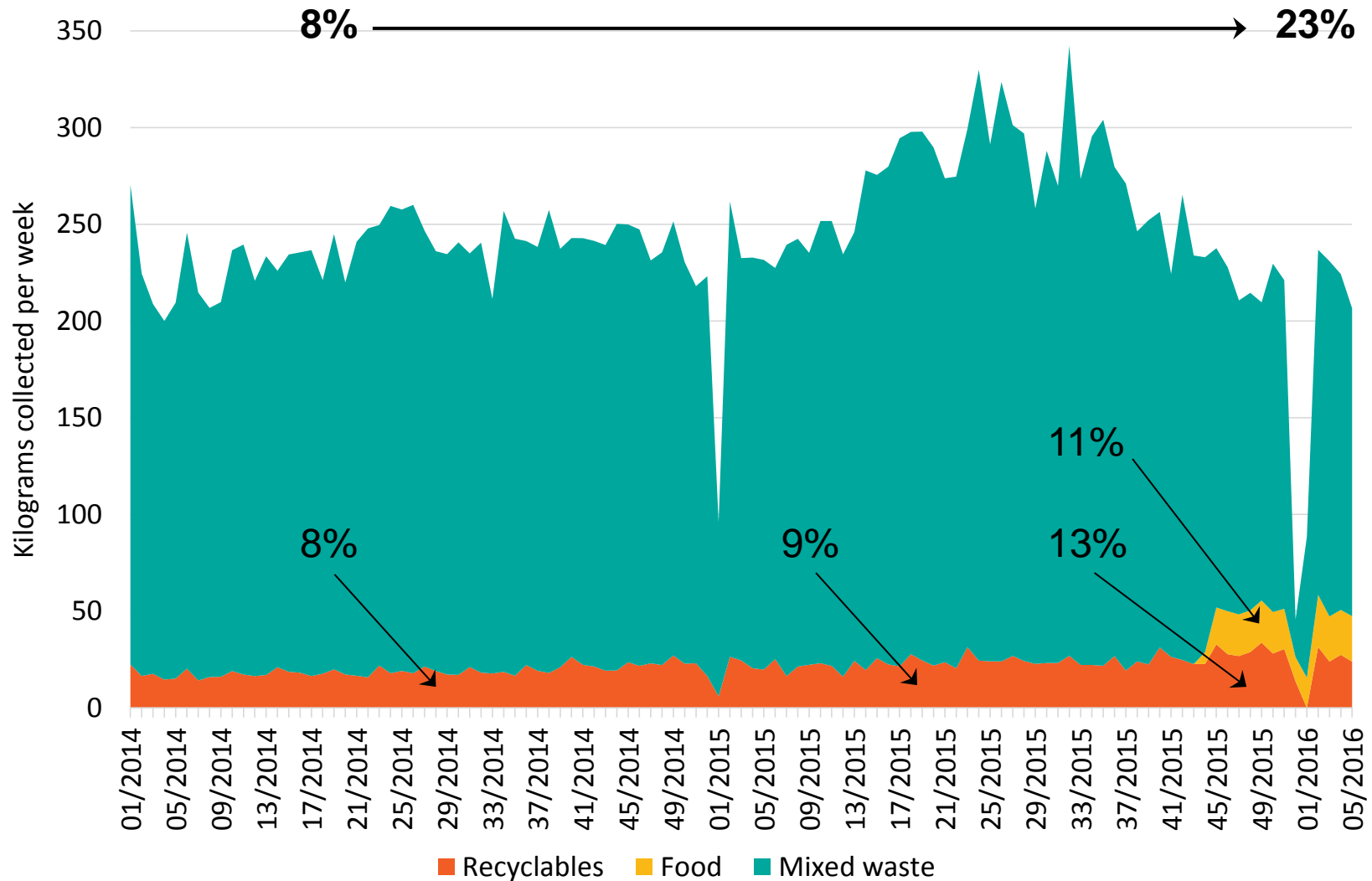
Comparison of Food Waste Yields



Phase 1 Capture Rate Analysis



Impact on Collected Waste Over Time



Observations Relating to Participation

2 food and 2 residual collection days per week

Unique close-knit locality

	Birkirkara	Bormla	Ghaxaq	Mdina	Ta' Xbiex	Total
Participation Rate %	60%	37%	43%	81%	71%	54%
Average Daily Presentation Rate (Set-out Rate) %	38%	23%	31%	38%	48%	35%

2 days per week food collection
3 days per week residual collection (down from 4)

Some inconsistency in use of the service

Recommended Next Steps

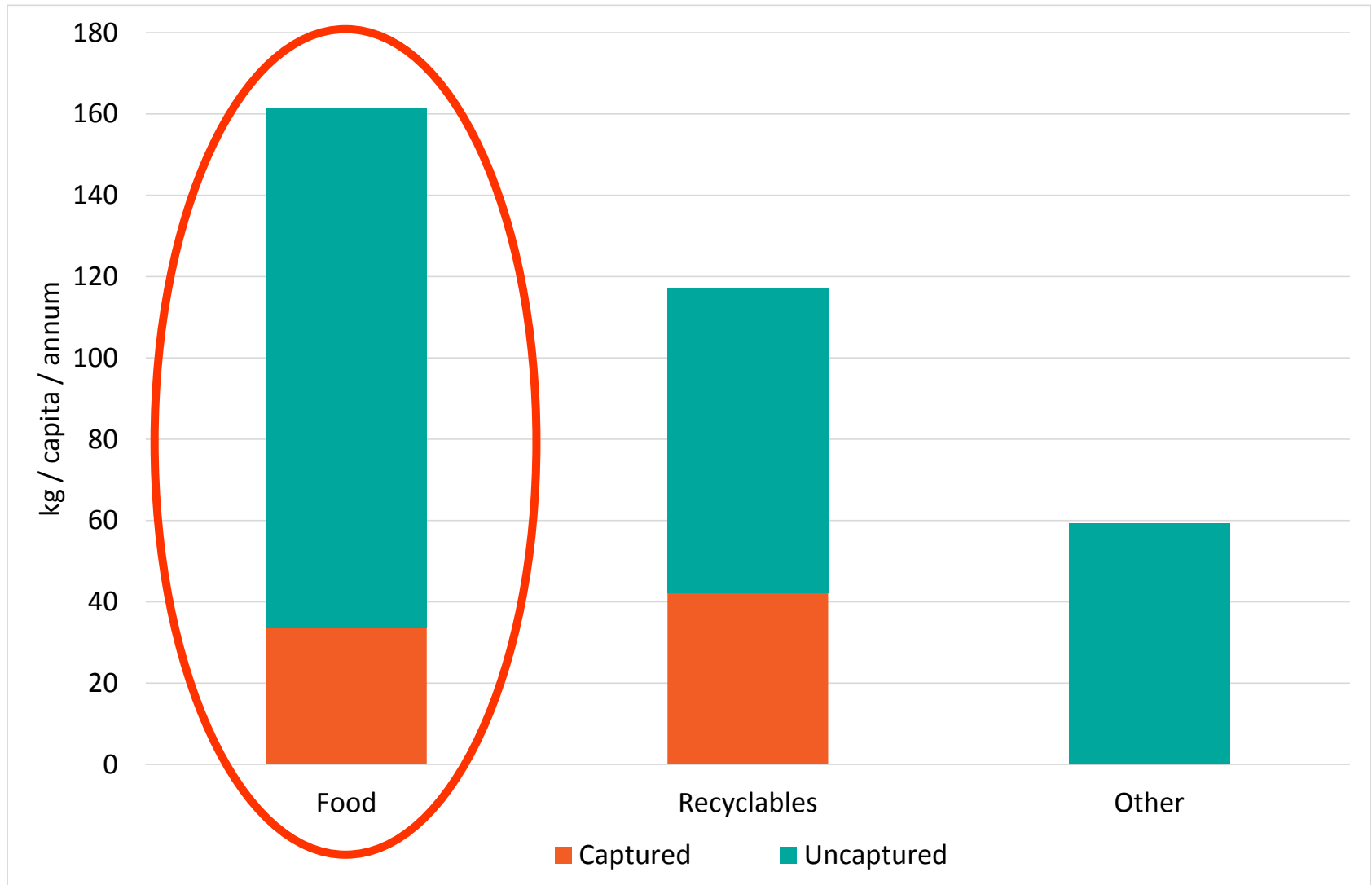
- **Consider how best to encourage participation**
 - **Financial or system disincentives (or both)?**
- **Have a play around with containers and alternate collection frequencies**
- **Food waste from commercial businesses**
- **Extend service provision more widely across the country:**
 - **Project should be tested on a regional level**
 - **Treatment operations - switch to source segregated material**

Obligations

Key EC Obligations for Malta

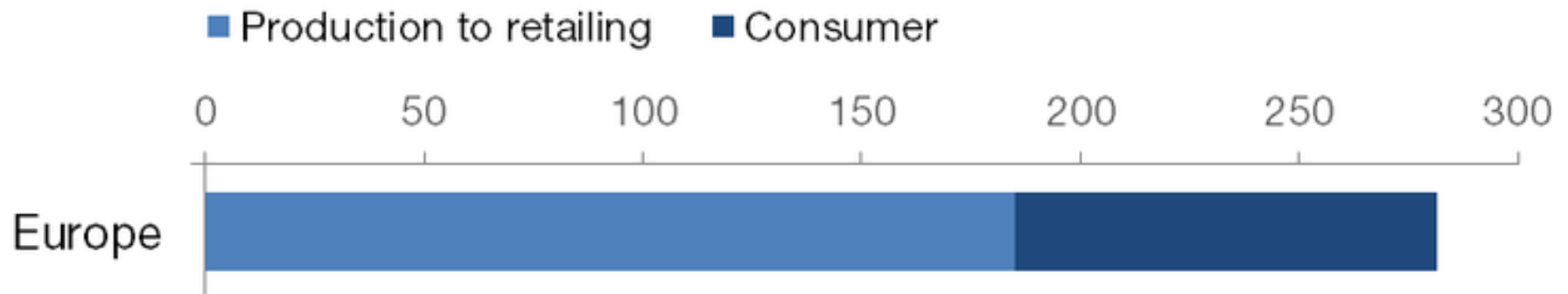
- **1995 Landfill Directive**
 - Reduction in organic waste to landfill (targets through to 2020)
- **2008 revised Waste Framework Directive**
 - Art. 4: Waste hierarchy must be applied
 - Art. 11: 50% reuse & recycling of household dry recyclables by 2020
 - Art. 22: Separate collection of biowaste for composting / digestion, and use of environmentally safe products
- **2016 Circular Economy Package – draft Directive on Waste**
 - Art. 9: Prevention of food waste
 - Art. 11: 60% MSW reuse and recycling by 2030, 65% by 2035
 - Art. 22: *“separate collection of bio-waste where technically, environmentally and economically practicable”*

Phase 1 Capture Rate Analysis (again)



Wastage within the food supply chain

Per capita food losses and waste, kg/year:



Source: The Food and Agriculture Organization of the United Nations (FAO)

Concluding Remarks

- **Of the food purchased by residents of Malta...**
 - 22% to the waste stream
- **Household waste contains**
 - 52% food
- **Upstream food wastage**
 - At least as significant as consumer waste



Prevention



Collection and treatment

