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UNU-VIE SCYCLE
Sustainable Cycles Programme

Municipal Waste Statistics Challenges

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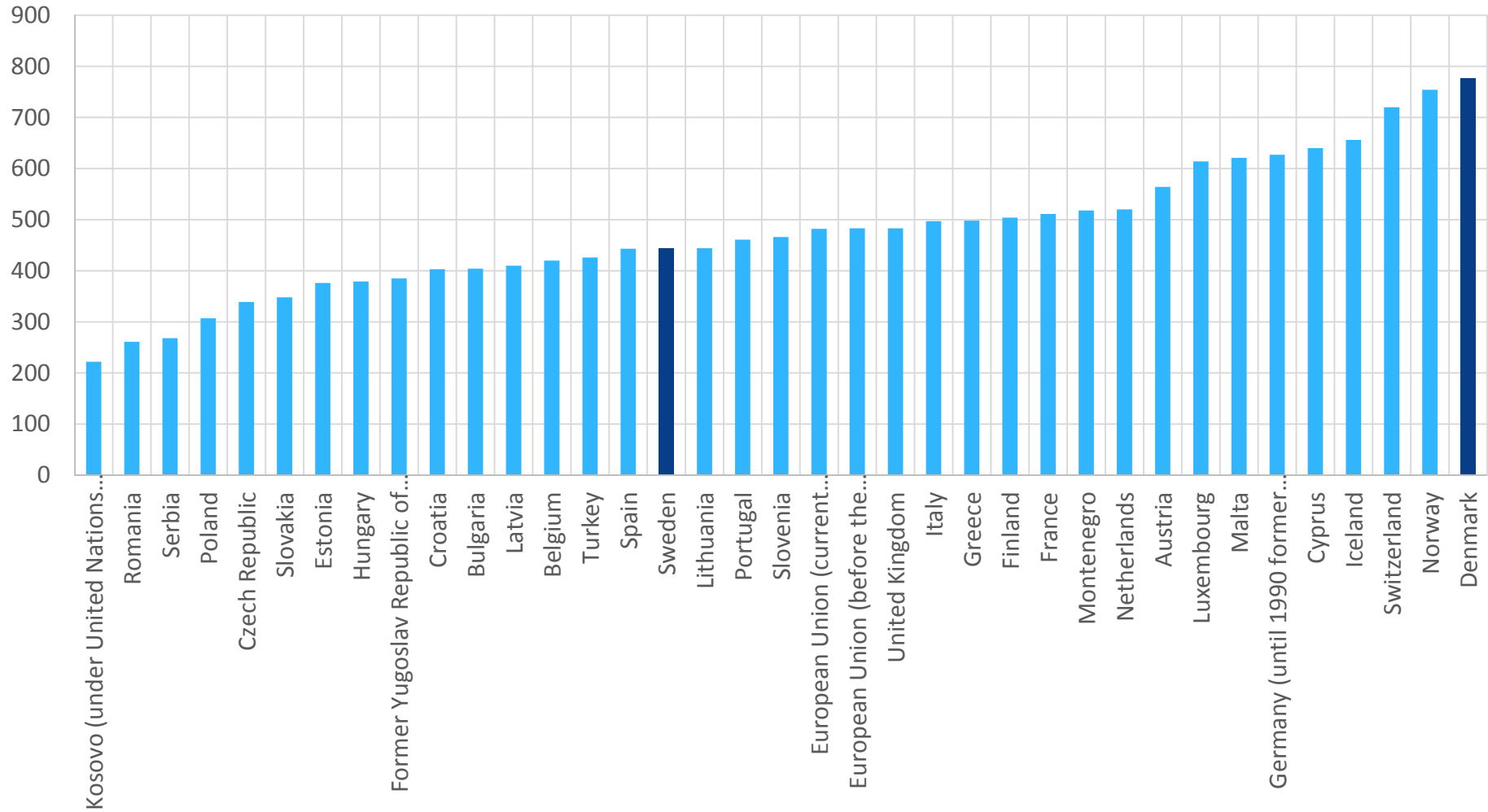
SCYCLE

Programme



Results - MSW

Total MSW in kg/inhabitant



MSW Coverage in 16 EU countries

Waste	hazard	01 - 02 / A01-A03	03 /B	04 - 13 / C10-C33	14 /D	15 -16 / E36-E39	17 /F	18 / G- U_X_G46 77	19 / G4677	20 / EP_HH	20 / HH, share by EWC-Stat
08.41 - Batteries and accumulators wastes	NHAZ							8		10	0.0%
08.41 - Batteries and accumulators wastes	HAZ							9		11	0.0%
09 (not 9.11, 9.3) - Animal and vegetal wastes	NHAZ							11		14	9.4%
09.11 - Animal waste of food preparation and products	NHAZ										
09.3 - Animal faeces, urine and manure	NHAZ										
10.1 - Household and similar wastes	NHAZ	6	7	7	7	8	7	13	6	16	68.1%
10.2 - Mixed and undifferentiated materials	NHAZ							11		10	2.7%
10.2 - Mixed and undifferentiated materials	HAZ							6			0.0%
10.3 - Sorting residues	NHAZ										
10.3 - Sorting residues	HAZ										
11 (not 11.3) - Common sludges (excluding dredging spoils)	NHAZ									6	0.1%
11.3 - Dredging spoils	NHAZ										
12.1 to 12.5 (not 12.4) - Mineral wastes	NHAZ							6		10	2.2%
12.1 to 12.5 (not 12.4) - Mineral wastes	HAZ										0.0%
12.4 - Combustion wastes	NHAZ										
12.4 - Combustion wastes	HAZ										
12.6 - Contaminated soils and polluted dredging spoils	HAZ										
13 - Solidified, stabilised or vitrified wastes	NHAZ										
13 - Solidified, stabilised or vitrified wastes	HAZ										
total - Total Waste	TOTAL										100%

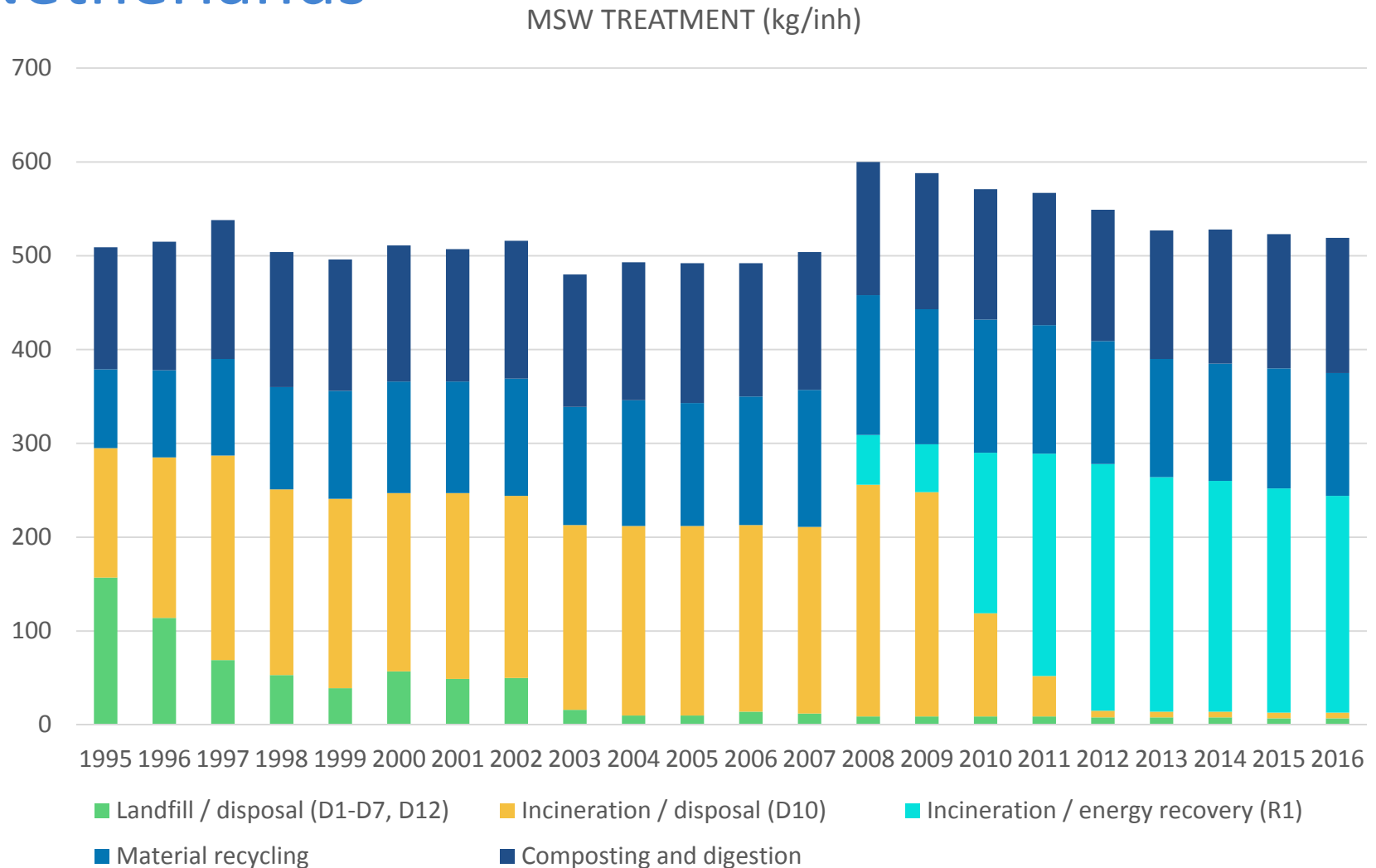
Legend and Notes:

	6 to 9
	10 to 13
	>13

Main conceptual problems

- Nature of the stats
- Municipal policies define outcomes
- Comparability of waste generation in kg/inh across countries still limited
 - coverage of materials (packaging waste) and sources (commercial waste)

Example: Treatment in the Netherlands



Challenges in developed countries

- All can compile data
- But most challenges in cross country analysis
- Household waste (similar in nature) of services sector differs per country
 - E.g. tourism
 - Day time population higher than actual population
- Garden waste (back garden vs collection and composting)
- Coverage of waste differs
- Advanced (complex) waste management systems
 - Sorting, pre-treatment steps
 - Imports/exports
- Small countries → working vs living population

Challenges in emerging and developing countries

- Coverage of waste differs among countries
- Definition of waste differs across countries
- Compile city to national data
- Unregistered population (effects denominator)
- Lack of resources for statistical staff to compile data
- Lack of training and capacity development
- Waste collected managed (or dumped) outside the formal sector

Conversion of units

- Unit of measurement (tonnes, or cubic metres).
- No universal conversion factor between volume and mass
- waste content differs so much from one country to another.
- Sometimes countries measure waste in volume and then apply a conversion factor based on sampling.
- Usually countries require weigh stations to weigh garbage collection trucks, but of course weigh stations are expensive.
- Weighing waste while wet (heavier) or dry (lighter)

MSW

- What are the challenges in Kazakhstan?