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UNU-VIE SCYCLE
Sustainable Cycles Programme

Municipal Waste Statistics Challenges

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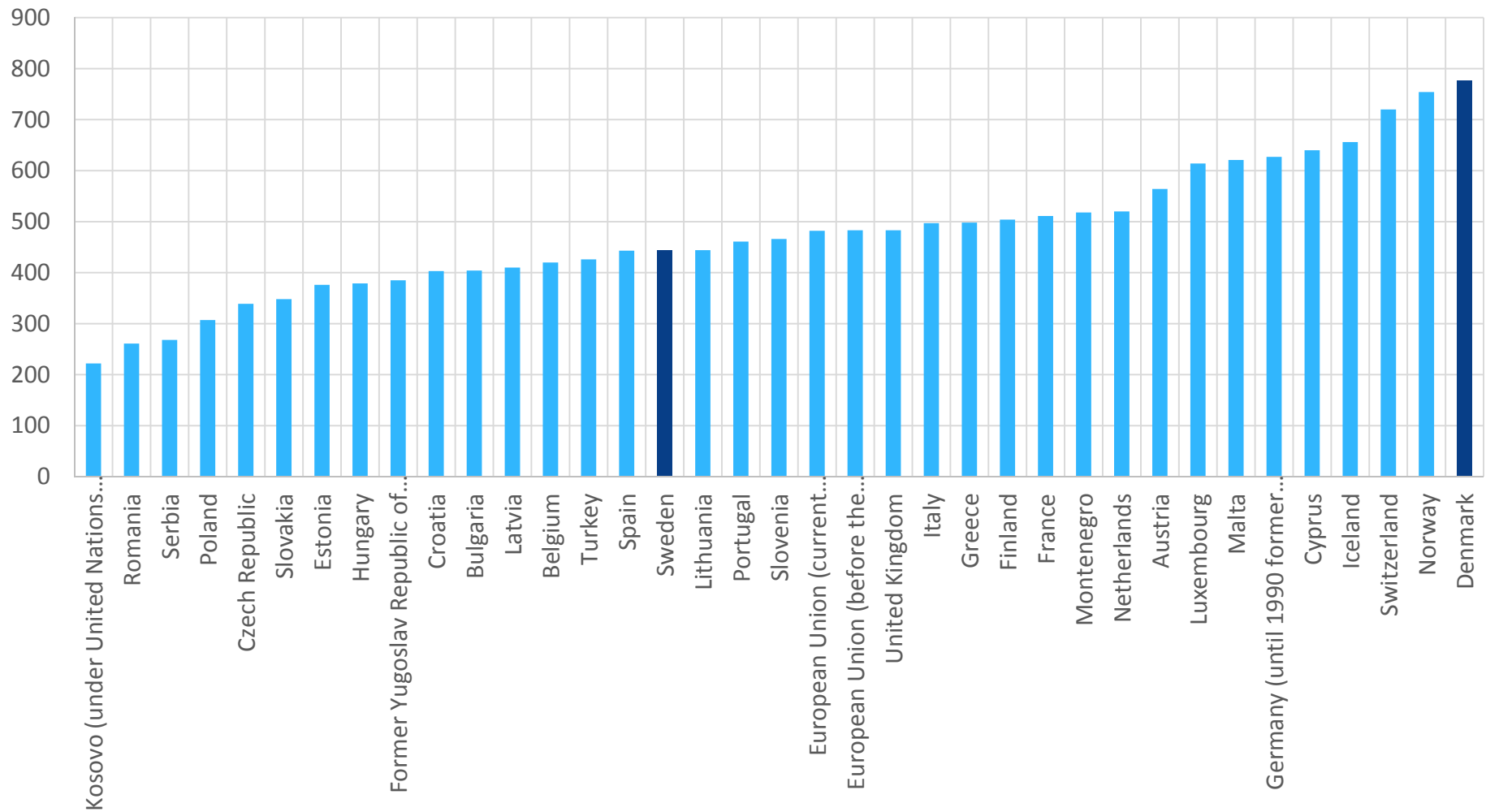
Programme



Results - MSW

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Total MSW in kg/inhabitant



MSW Coverage in 16 EU countries

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| 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:

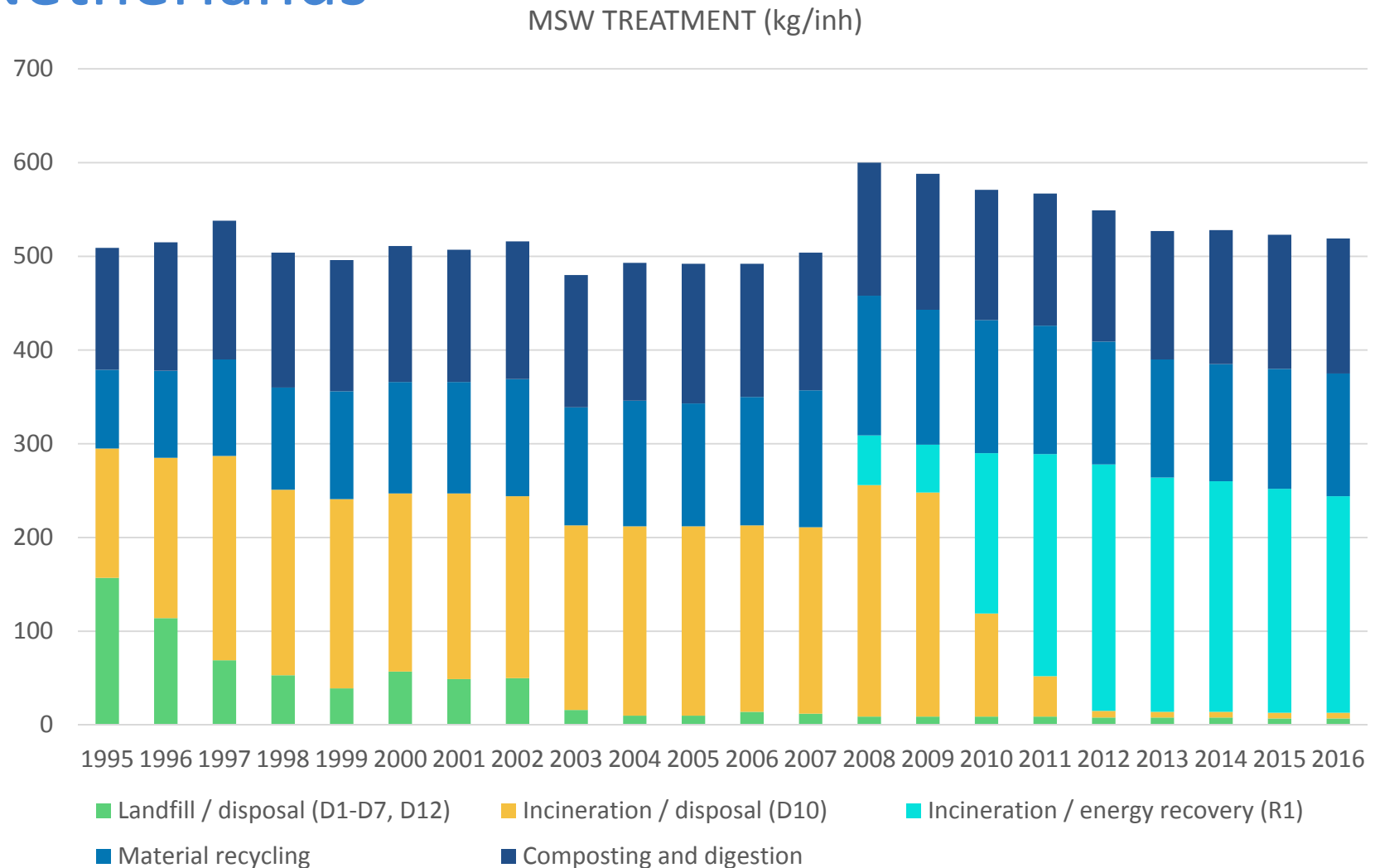
| | |
|--|----------|
| | 6 to 9 |
| | 10 to 13 |
| | >13 |

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

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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

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- What are the challenges in Kazakhstan?