

Healthcare waste in the EU

- a short overview



- Lack of dedicated regulation, and overriding policy
 - ✓ Infectious waste cannot be landfilled prior to treatment
 - ✓ Regulated emissions of waste incineration
 - ✓ Inclusion of healthcare waste in EMAS BEMP
 - ✗ BAT conclusions omit other treatment methods as yet
 - ✗ Nothing as yet in the Circular Economy package
- Different regulations in member states, including waste classification, and requirements for disposal
 - Not all countries have developed guidelines for the sector
 - Some countries impose mandatory incineration of infectious waste, as well as non risk waste if it is not sent to recycling – due to a landfill ban

Average healthcare waste composition

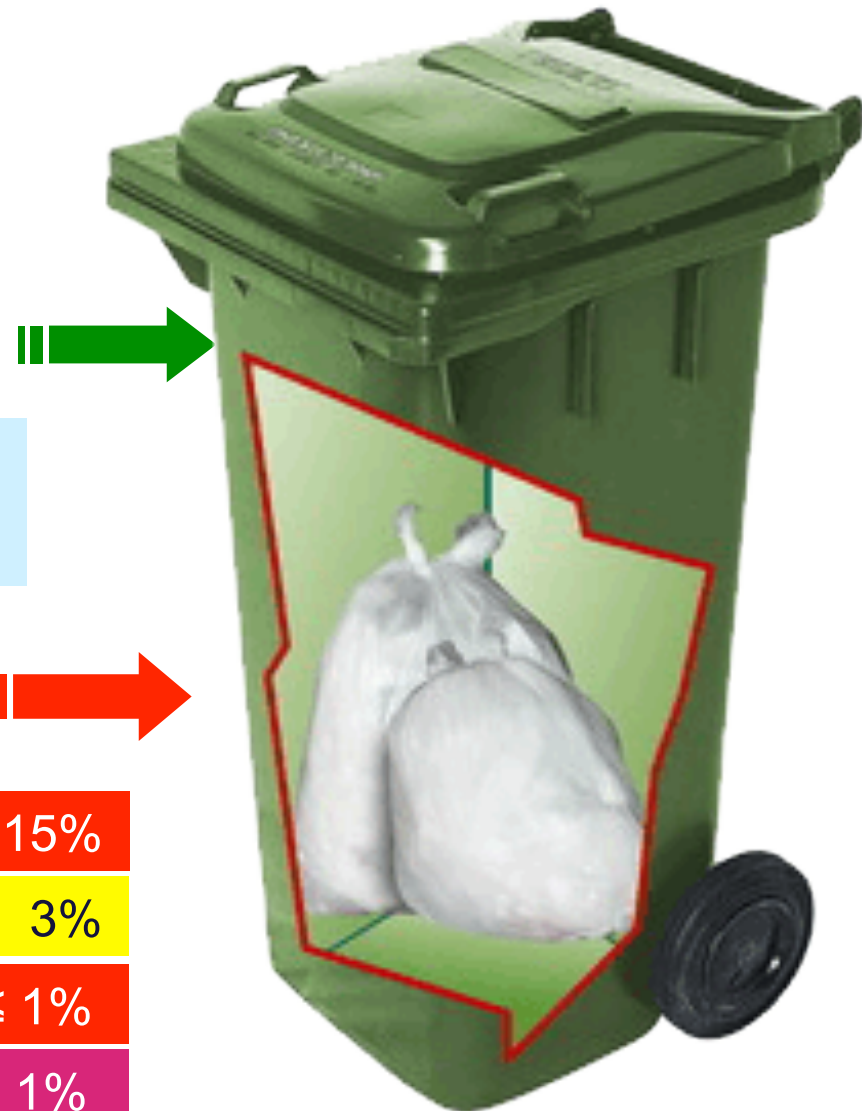


Total non risk waste $\geq 80\%$

**EU: 15 01 xx, 16 02 xx, 20 xx xx,
and 18 01 04**

**Total risk waste $\leq 20\%$
which breaks down into:**

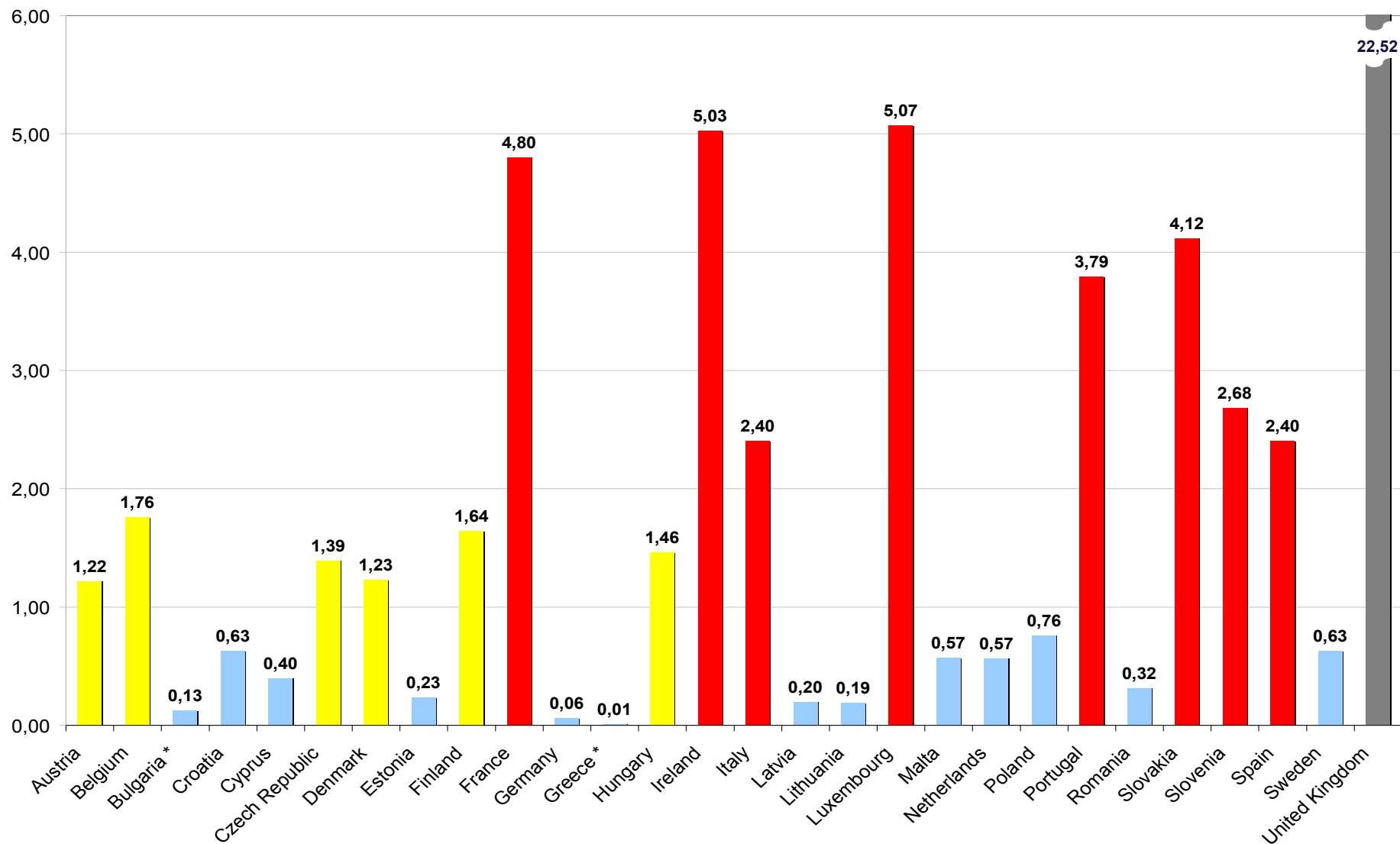
| | |
|-----------------------------------|-------------|
| Infectious waste including sharps | $\leq 15\%$ |
| Chemicals & pharmaceuticals | $\leq 3\%$ |
| Pathological waste | $\leq 1\%$ |
| Cytotoxic & radioactive waste | $\leq 1\%$ |



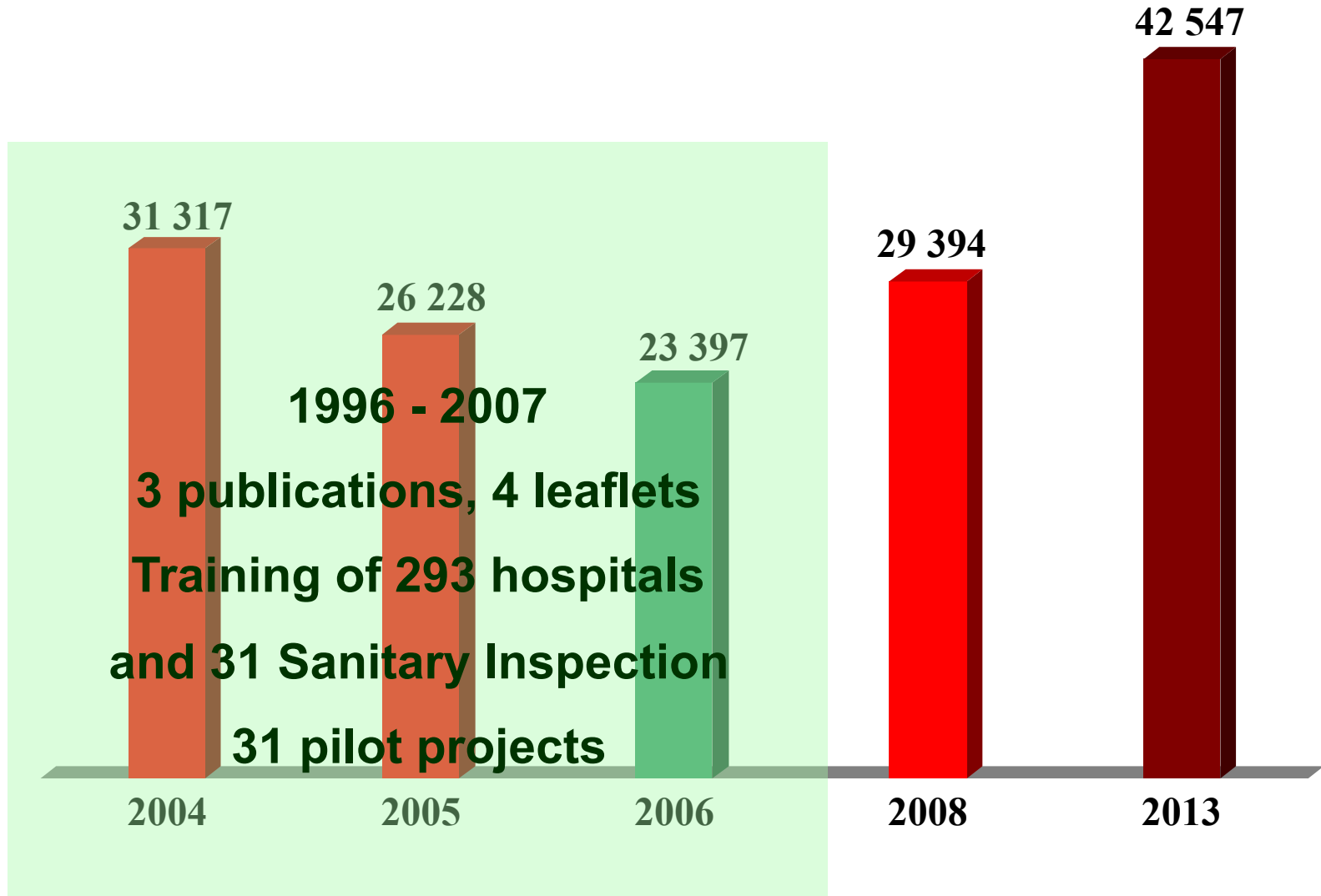


- Code 18 01 04 of the European list of waste has created doubts concerning classification of some healthcare waste, problems with their recycling, and costs of treatment
 - Outside EU this waste is classified and handled as packaging or municipal waste
- Eurostat statistics on healthcare waste generation no longer exists
 - Since 2014 Eurostat publishes the statistics together with hazardous chemical waste generated by other sectors thus they are useless!
 - Latest available data is from 2010

Infectious waste generation rate in EU in 2010 [kg/bed/day]



Example: Infectious waste generation in Poland [tons/a]



Poland: 'Infectious' waste bags 12 years ago



18 01 04

15 01 05

15 01 01

18 01 04 18 01 03*

15 01 02

18 01 03*

46,8%

18 01 04

Poland: 'Infectious' waste bags 1 year ago



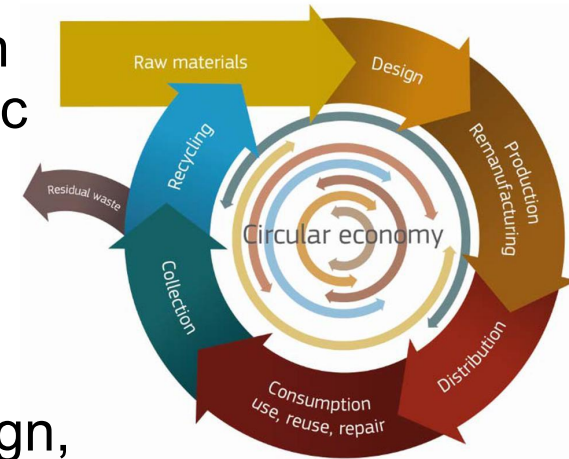


- EC sponsored projects but lack of their wide and consequent implementation
 - A few pilot projects on healthcare waste treatment, including development of non incineration technologies
 - EU-HCWM project: National Occupational Standards and Vocational Educational Training Programmes for Healthcare Waste Management <http://www.hcwm.eu>
- EC also sponsored poorly developed project in the 14 Pacific Island countries in between 2013-2015
 - Push for delivery of 28 non compliant waste incinerators
 - Lack of project adjustment after intervention of HCWH, GAIA, and IPEN

Paradigm change: Circular Economy



- On December 2nd, 2015 European Commission has started negotiation of a package of strategic legislation called Circular Economy
- It aim is to change linear economy into circular one by closing the loop of a product life cycle - starting from extraction of virgin materials, design, production, use, recovery and recycling when it becomes *waste* (secondary raw material)
- It should strengthen and make more coherent implementation of compliance in products policy, guidance on industrial emissions, consumers protection against unfair practices, interface between chemicals, products and waste legislation



Slow

long life of products

Tight

no superfluous use of resources, and waste generation

Local

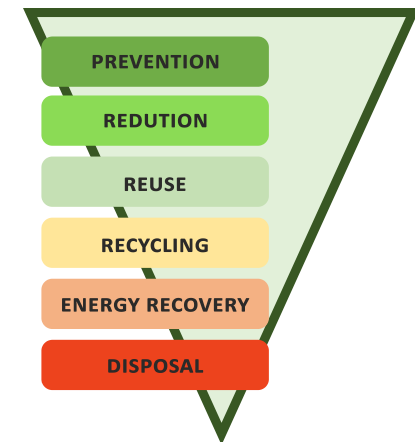
territorial hierarchy

Clean

non toxic

Proposed new targets within Circular Economy package

- As yet, the most defined targets concern municipal solid waste:
 - by 2025 60% recycling of MSW, and 65% of packaging
 - by 2030 65% recycling of MSW, and 70% of packaging
 - by 2030 max 10% landfilling of MSW
 - ban on disposal of recyclable waste
 - *limit of waste incineration up to 30%*
- Separate collection of bio-waste *where technically, environmentally and economically practicable*
- By 2030 reduction of (plastic) marine litter, and food waste [*both by 50% from 2014 levels*]
- *Overall waste prevention target?*



Circular Economy and Health Care

First of all it should address:



Phase out of Carcinogenic, Mutagenic and Reprotoxic substances (CMRs) and Endocrine Disrupting Chemicals (EDCs), like brominated flame retardants, BPA, phthalates, and PVC



Improved assessment and control of nano materials



Design for re-use and recycling of medical products and packaging ⇒ *multilayer, multimaterial, PVC*



Substantial reduction, and full treatment of pharmaceutical residues



Proper treatment of infectious and hazardous HCW

Proposed areas for common activities



- ✓ Research on current situation concerning waste generation rate, and means of disposal
- ✓ Development of guidelines on healthcare waste classification and management
- ✓ Development of guidelines for Circular Economy, like best practice examples and their economic evaluation
- ✓ Training for health care professionals and decision makers
- ✓ Lobbying for improved BAT conclusions for selection of treatment methods
- ✓ Pilot waste reduction projects

Thank you

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