

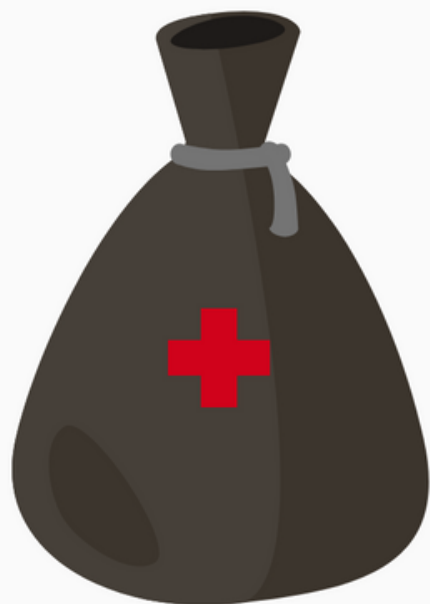


SUSTAINABLE WASTE MANAGEMENT

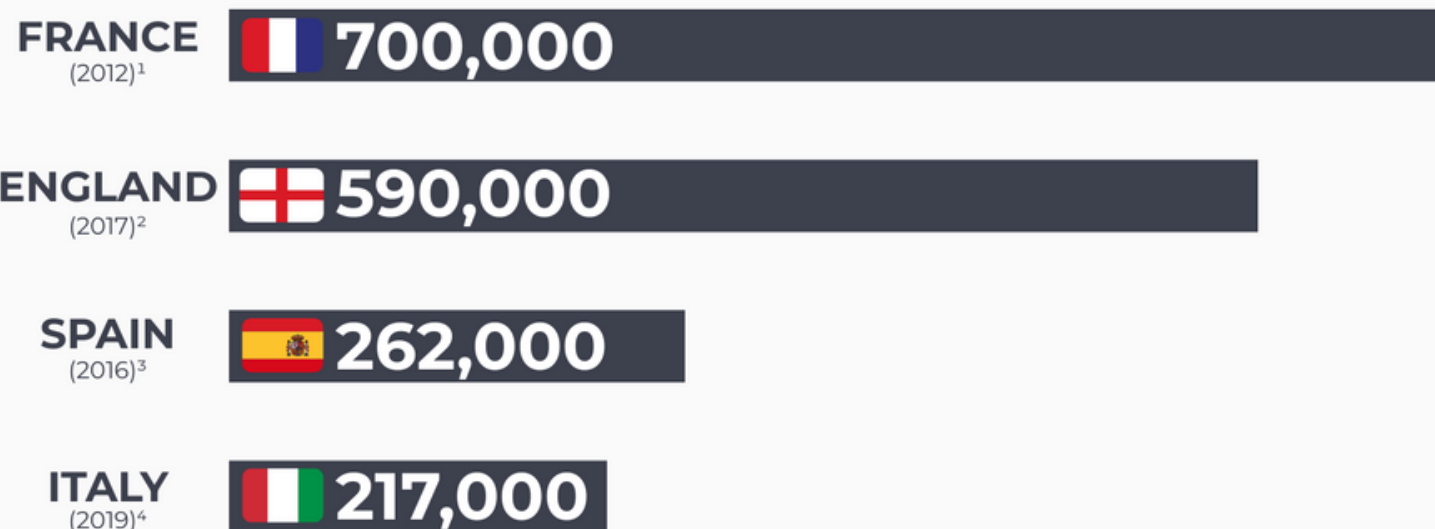
A GUIDE FOR THE
HEALTHCARE SECTOR



HEALTHCARE WASTE PRODUCTION IN EUROPE



Tonnes per year

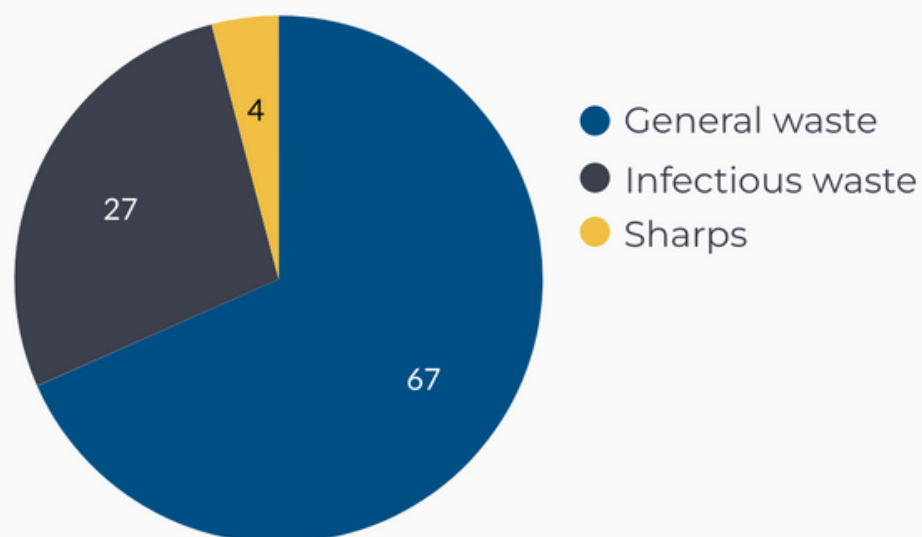


Although national data are limited, the volume of healthcare waste in Europe is significant and varies across European countries.

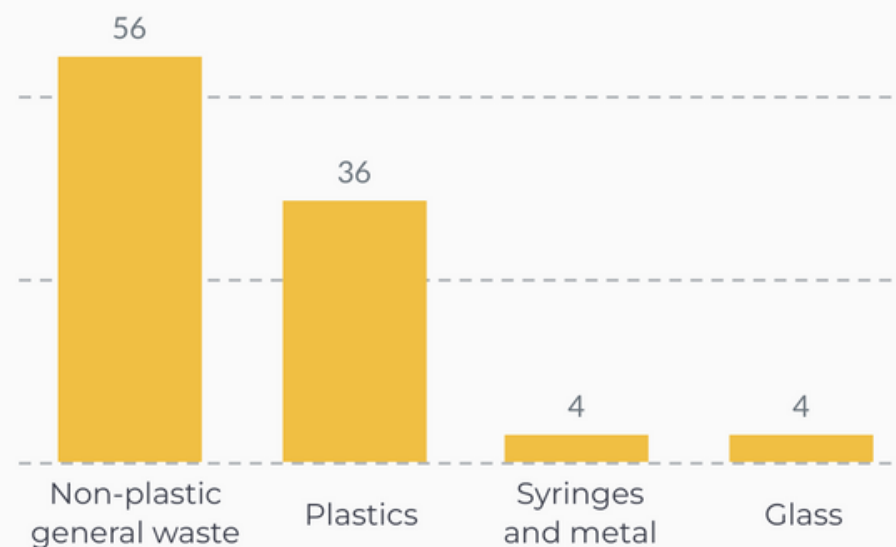
Healthcare waste composition (data from 78 countries, published 2000 – 2020)⁶

• Types of healthcare waste (%)*

*Figures have been rounded and so do not add up to 100%



• Composition of healthcare waste (%)



1 HAS (2012). [La réduction des déchets hospitaliers en pratique.](#)

2 NHS (2018). [Health and the environment.](#)

3 Redacción Médica (2016). [717 toneladas de basura hospitalaria al día.](#)

4 Panorama della sanità (PS) (2021). [In Italia produciamo 200 mila tonnellate di rifiuti sanitari.](#)

5 DH (2020). [Tri des déchets : "Les hôpitaux bruxellois doivent s'améliorer".](#)

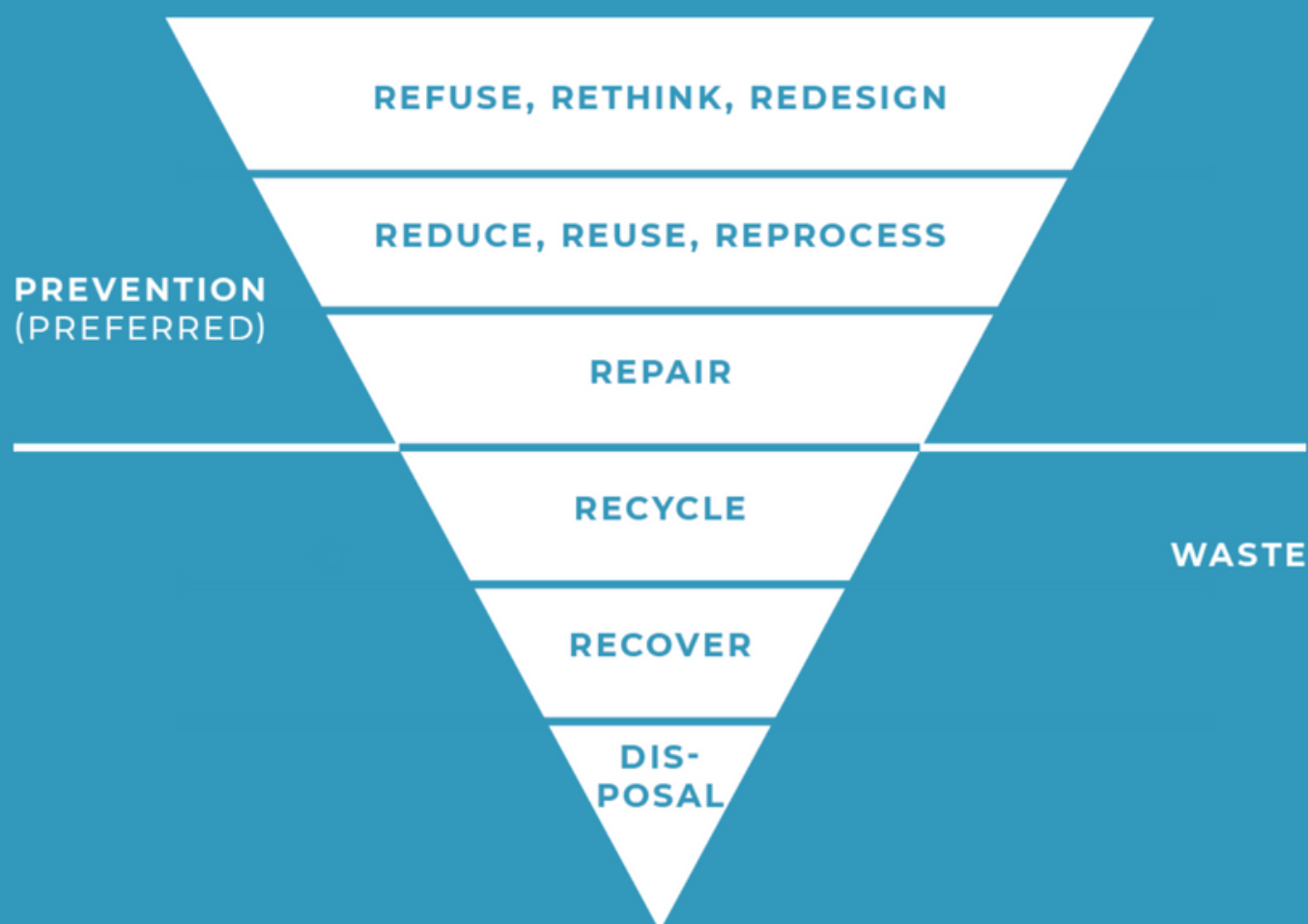
6 Singh, et al. (2021). [Medical waste: Current challenges and future opportunities for sustainable management.](#)

PREVENT WASTE SEGREGATE WASTE

In line with the waste hierarchy, **waste prevention is the optimal waste management solution** – reduce unnecessary use and choose reusables and reprocessing where possible.¹

Approximately **27% of all healthcare waste is classified as hazardous**, requiring specialised, often expensive treatment.²

Over 30% of waste classified as hazardous could be uncontaminated waste. Proper segregation of hazardous and non-hazardous material could reduce the former to 15% of the total waste.^{3,4}



¹ HCWH Europe (2021). [Measuring and reducing plastics in the healthcare sector.](#)

² Singh, et al. (2021). [Medical waste: Current challenges and future opportunities for sustainable management.](#)

³ Green Healthcare (2018). [Healthcare risk waste.](#)

⁴ Global Green and Healthy Hospitals (GGHH) (2020). [Waste guidance document for members.](#)

PHASE DOWN INCINERATION

Incineration (including waste-to-energy) is the most harmful plastic disposal method. Phasing out waste incineration has been a priority issue for HCWH since its formation in 1996.



Incinerators emit more CO₂ per megawatt-hour than coal, gas, or oil power plants.¹



Waste incineration releases pollutants into air, soil, and water such as dioxins, heavy metals, and particulate matter. Up to 30% of the waste incinerated becomes toxic ash.²



These pollutants can cause respiratory diseases and cancers as well as damage immune and reproductive systems.³



In Scotland, the COVID-19 pandemic led to an increase in incineration of hazardous healthcare and biological waste of 3900%.⁴

28%

of **all waste**
in Europe is
incinerated⁵

42%

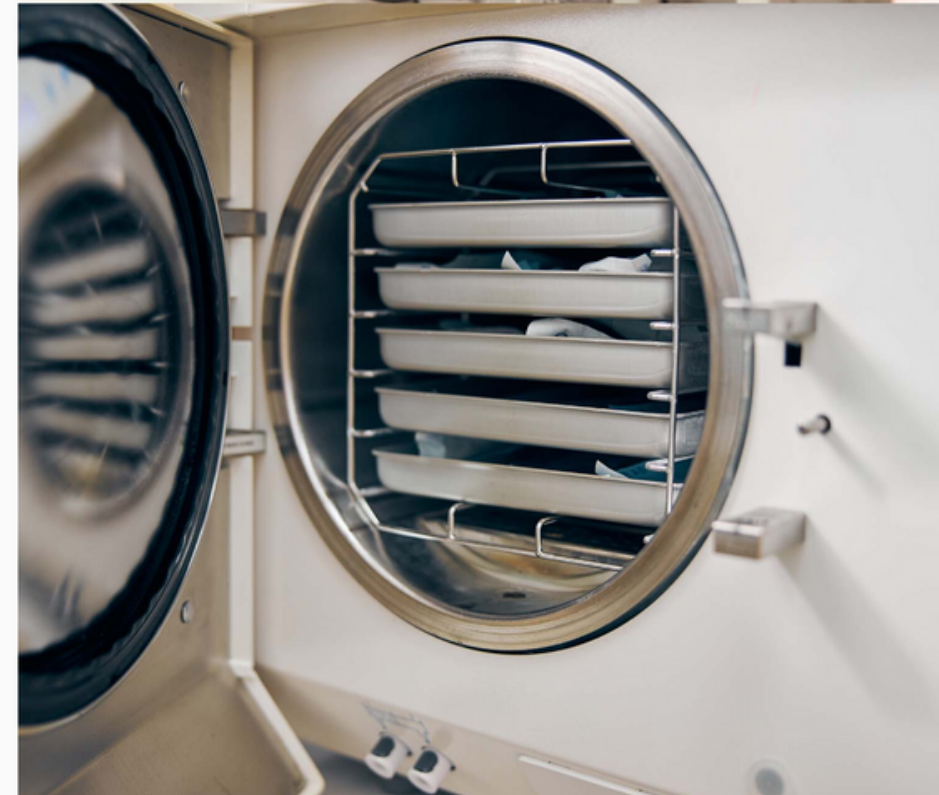
of **plastic waste**
from Europe is
incinerated⁶

1 GAIA (2012). [Incineration: Myths vs facts about 'waste-to-energy'](#).
2 IPEN (2015). [After incineration: The toxic ash problem](#).
3 ZWE (2015). [Air Pollution from Waste Disposal: Not for Public Breath](#).

4 SEPA (2021). [Waste incinerated in Scotland - 2020](#).
5 EEB (2019). [Europe's waste problem in numbers](#).
6 CIEL (2019). [Plastic & Health: The hidden costs of a plastic planet](#).

NO-BURN WASTE TREATMENT

- ✓ Prioritise lower-impact treatment alternatives for hazardous healthcare waste, e.g. autoclaving, microwaving, steam treatment integrated with internal mixing, or chemical treatment.¹
- ✓ The healthcare waste treatment technologies database can help you identify alternatives to incineration [medwastetech.info](https://www.medwastetech.info)



¹ HCWH Europe (2020). [Sustainable healthcare waste management in the EU Circular Economy model.](#)

TOXIC-FREE FUTURE



Carcinogenic, mutagenic, toxic, or hazardous substances should be excluded from products and services used in healthcare to avoid pollution from products' end-of-life.



Materials containing toxic chemicals should not be recycled to prevent legacy toxics from contaminating new products.¹



PVC-free medical devices should be prioritised and PVC recycling should be avoided.²

TRANSPARENT RECYCLING

Ensure that your recycling processes are transparent and that you know where and how your waste is treated.

Learn more about best practice in plastic reduction and management in our toolkit: *Measuring and reducing plastics in the healthcare sector.*²

In the case of plastic, for example, there is insufficient capacity within the EU to recycle all of it and plastic waste is commonly shipped to other countries that might lack recycling infrastructure.¹

