

Sharpsmart's reusable sharps containment system is not only proven to be the best sustainable alternative to single-use disposal containers, but also ensures that its NHS customers meet the requirements of the NHS Procurement Strategy and The Climate Change Act (2008) to reduce CO<sub>2</sub> emissions by 80 per cent by 2050.

A life cycle assessment study performed to compare reusable sharps containers with single use containers on 10 sites across the UK proved that, the introduction of the Sharpsmart system demonstrated an average 32 per cent sharps waste reduction and an average 91 per cent reduction in CO<sub>2</sub> emissions year on year.

The 12-month study was performed by Sharpsmart and Waterman Environmental and compared the use of single use sharps bins and Sharpsmart Reusable Collectors at Sheffield Teaching Hospitals NHS Foundation Trust, University Hospital of North Staffordshire NHS Foundation Trust, Winchester & Eastleigh Healthcare NHS Trust and Chesterfield Royal Hospital NHS Foundation Trust.

# CUTTING CARBON NOW

CO<sub>2</sub> life cycle assessment evaluation proves 91 per cent reduction using reusable sharps containers at ten UK hospitals



CO<sub>2</sub> to produce and dispose of the sharps packaging material than it does to meet its end goal of disposing of the medical sharps.

All CO<sub>2</sub> generating phases of the Sharpsmart service were also considered in the study which included manufacture of raw materials and Sharpsmart containers, transport of the containers throughout

reduce the amount of goods or services consumed/procured.

- Unnecessary wastage can be created through overstocking.
- Lack of operational management control or poor supply chain practices.
- Sharpsmart's reusable sharps containers are supplied in an optimised range of sizes, enabling you to select the container

best suited to your needs but minimising the number and types of containers required.

- The Sharpsmart range includes point-of-use and bulk disposal units (where high volumes of sharps are produced).

### Reduce 'in use' emissions

- Focussing on embedded CO<sub>2</sub> emissions associated with goods and services can help reduce whole life costs as well as the carbon footprint.
- The Sharpsmart/Waterman commissioned Life Cycle Carbon Footprint demonstrated significant carbon savings using Sharpsmart, compared to the industry standard single-use sharps containers.

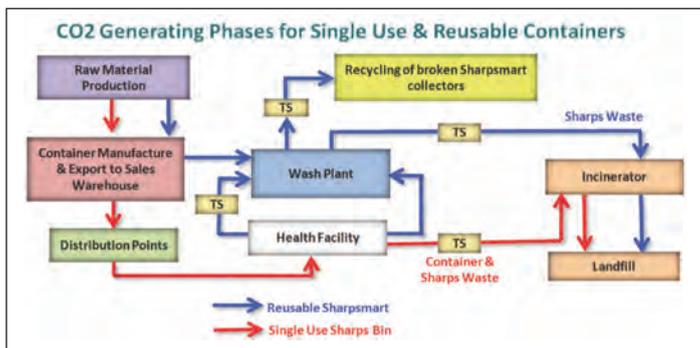
### Substitute and Innovate

- It is often possible to meet a need in a different way which effectively reduces the carbon footprint.
- Substituting Sharpsmart reusable sharps containers for the conventional single-use disposable containers can deliver average lifetime CO<sub>2</sub> reductions of 91 per cent per year.
- This helps deliver the 80 per cent total emissions reduction required by the NHS to comply with the Climate Change Act 2008.

### Supply Chain Management

- Sharpsmart utilises its purpose designed Washsmart system to empty, clean and sanitise the reusable Sharpsmart containers and manage all logistical aspects of the service from one of its three UK processing facilities in the North, Midlands and South of England.
- This ensures localised coverage of customer sites, minimising CO<sub>2</sub> generation throughout the in use phase of the service.

The Sharpsmart systems and



Being a reusable sharps safety device the Sharpsmart system eliminates the need to incinerate the packaging (sharps container) which, as the 10 site study proved, constitutes approximately 32 per cent of the sharps waste stream. In addition, the CO<sub>2</sub> emissions associated with the manufacture and transport of raw material and finished goods is massively reduced (by 91 per cent).

The outstanding conclusion of the 10 site study was that there is significantly more CO<sub>2</sub> generated during the manufacturing and disposal phase of the single use bin than is generated to dispose of the sharps waste which they are designed to hold. In other words, the NHS generates more

manufacture, supply and return to processing sites, the cleaning of the units and the recycling of expired Sharpsmart units.

The NHS procurement toolkit **Procuring for Carbon Reduction** sets out a hierarchy of interventions that should be considered when purchasing goods and supplies.

The Sharpsmart reusable sharps containers are proven to reflect this commitment towards the environment by meeting these procurement interventions at every stage and will provide an immediate attainment of the targets set out in the Climate Change Act (2008) as follows:

### Reduce Demand

- The most effective way to reduce carbon emissions is to

the associated auditing system, Auditsmart, ensures compliance with NHS Safe Management of Healthcare Waste Guidelines (HTM 07-01) and a bespoke specifically designed life cycle assessment study tool will support the NHS Procurement Strategy by consistently demonstrating that significant reduction in greenhouse gas emissions are achieved from the initial stages of the procurement process by utilising data gathered from over 40 Sharpsmart user sites across the UK.

Sharpsmart provides an ongoing commitment towards safety, sustainability, value and regulatory compliance.

For more information, call the UK head office on 01388 810310, e-mail [info@sharpsmart.co.uk](mailto:info@sharpsmart.co.uk) or visit [www.sharpsmart.co.uk](http://www.sharpsmart.co.uk)

**ENQUIRY NO. 600**

Average CO <sub>2</sub> Reductions Based on 10 Site Validated Reports								
Beds	Sharps Waste Reduction (t)	% Sharps Waste Reduction	Co <sub>2</sub> Reduction Yr 1 (t)	% CO <sub>2</sub> e Reduction Yr 1	Co <sub>2</sub> Reduction Yr 2 (t)	% CO <sub>2</sub> e Reduction Yr 2	Co <sub>2</sub> Reduction 10 Yrs(t)	ave % CO <sub>2</sub> e Reduction 10 Yrs
100	1.80	32%	12	84%	13	91%	132	91%
200	3.59	32%	24	84%	26	91%	263	91%
300	5.39	32%	36	84%	40	91%	395	91%
400	7.19	32%	48	84%	53	91%	526	91%
500	8.98	32%	61	84%	66	91%	658	91%
600	10.78	32%	73	84%	79	91%	789	91%
700	12.58	32%	85	84%	92	91%	921	91%
800	14.37	32%	97	84%	106	91%	1052	91%
900	16.17	32%	109	84%	119	91%	1184	91%
1000	17.97	32%	122	84%	132	91%	1315	91%