

CASE STUDY: Axion Consulting and the British Plastics Federation (BPF) working with the NHS to recycle PVC medical devices

PVC is widely used in medical devices from IV solution bags to tubes and masks. There are approximately 1500 hospitals in the UK and it is estimated that each year, around 2,250 tonnes of PVC could be recycled by collecting oxygen masks, oxygen tubing and anaesthetic masks alone.

Against this background [Vinyl Plus](#) the voluntary sustainable development programme of the European PVC industry has commissioned resource efficiency specialists [Axion Consulting](#) and the [British Plastics Federation \(BPF\)](#) to develop a collection scheme for medical PVC items from hospitals in the UK.

Two NHS Trust hospitals have pioneered the recycling scheme:

- Queen Victoria Hospital NHS Foundation Trust, East Grinstead
- Frimley Park Hospital, Surrey

Both hospitals were already successfully recycling domestic waste including paper, card and plastic bottles. They were keen to build on their existing recycling activities by working with RecoMed to reduce the amount of recyclable PVC in their clinical waste streams.



RecoMed container filled with medical PVC devices for recycling and a RecoMed container next to a clinical waste bin.

Pilot collection scheme

When developing the recycling scheme RecoMed worked closely with members of staff at both hospitals from a number of departments including clinical teams, hotel services and environmental services.

With the help of the two hospitals RecoMed identified that PVC anaesthetic masks, oxygen masks and tubing were the most frequently used PVC devices in the hospitals and that the recovery ward was the most appropriate location for a RecoMed

container. As there is a low infection risk the PVC oxygen masks and tubing can be classed as a non-hazardous waste and are therefore suitable for recycling.

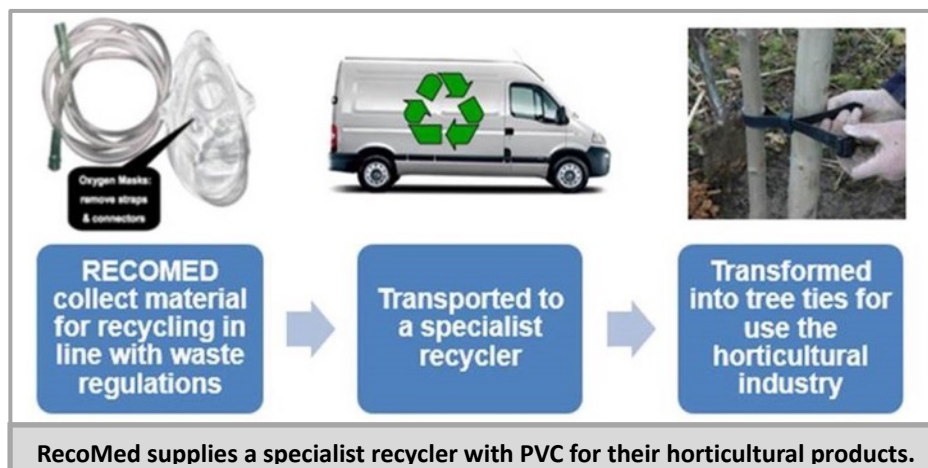
The chosen collection containers enabled the RecoMed collections to clearly stand apart from the non-infectious clinical waste bins also situated on the wards. Hotel and environmental services worked together to ensure that the daily waste collection schedule included the RecoMed bags which were then taken to a central waste hold before collection by the RecoMed team.

When setting up the scheme at each hospital the RecoMed team provided training sessions and communication material so that it was clear to the staff what could be recycled and what should not be put in the RecoMed containers.

Environmental and financial savings

RecoMed containers, communication material and collections are provided to the hospitals taking part in the scheme. The hospitals save money on waste disposal costs as this plastic would previously go to the clinical or offensive waste streams which are incinerated or sent to a specialist landfill. Instead, RecoMed gives these easily recyclable and high-quality plastics a new lease of life.

The collected plastic is shredded and supplied to a specialist recycler who produces 100% recycled horticultural products such as tree ties.



Success factors

- RecoMed has been pioneered by 2 UK hospitals.
- Clinical staff provided feedback that the process of segregating the PVC masks and tubing from the non-infectious clinical waste was easier than first presumed.
- Both hospitals are happy to have saved money on their waste disposal costs and increased their overall recycling rate. They are keen to extend the collections to more wards.
- It is estimated that each year, around 2,250 tonnes of PVC could be recycled by collecting oxygen masks, oxygen tubing and anaesthetic masks alone. RecoMed expects to increase this tonnage by working with hospitals to identify other PVC items that could be recycled.

Want to take part?

For further information on RecoMed and how you can take part please contact Hannah Burke:

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