

Case Study - Sligo University Hospital

On-site Composting

HSE Capital & Estates
Sustainable Infrastructure Office



We're taking climate action

Background

Sligo University Hospital has been awarded the Green Campus Flag. The hospital installed a composting machine on-site to turn food waste from the hospital into compost. The composter currently takes 20 tonnes per year, about one third of the food waste generated at the 357 bed hospital. It is planned to use the compost throughout the hospital grounds.



**IRELAND IS COMMITTED TO
REDUCING FOOD WASTE
BY 50% BY 2030**



Food is added via the chute. A shredder chops the food waste.



Wood pellets are added automatically when food waste is added; usage is approx. 14 kg per week.

The Process



The first chamber is where composting takes place, while the second chamber is for ripening.

Rotors in both chambers turn automatically to mix and aerate the compost. The material spends 2 weeks in each chamber, taking 4 weeks in total.



The end compost product is removed here and is used on campus.



The carbon filter bed to remove odours from the air

What can be added:

- ✓ Raw & cooked food
- ✓ Meat
- ✓ Fish
- ✓ Egg cartons
- ✓ Egg shells
- ✓ Coffee grinds
- ✓ Fruit and veg peels
- ✗ Compostable bags (as they can wrap around the blades)



The composter is located outside the hospital to the rear of the kitchen.

There is a larger model which can handle about twice the amount, 40 tonnes per year, but at 5.3m long, this required a larger foot print than was available

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INFORMATION DETAILS:



Annual Operating Costs:

Approx. €2,250:



- **Electricity:**

Approx. €400 per year
(945 kWh units per year,
at €0.43 per unit)



- **Wood Pellets:**

Approx. €600 per year



- **Annual Maintenance Fee:**

€1,250 (one full maintenance service
in the year and all call outs)



Processing Time:

SUH is running the unit at a slower rate
than the design value, and plans to process
up to **20 tonnes of food waste per year** in
the composter.



Compost product:

The composter will produce 1 kg of
compost for every 3 kg of material that
is put into the unit. So 20 tonnes of food
waste will produce around **7 tonnes of
compost per year**.



Savings in Brown Bin Costs:

approx. €3,400 per year
(~20 tonnes at €169/tonne)



Net Savings:

€1,150 per year

Things to consider:

- A 3-phase electricity supply.
- While there is no liquid effluent from
the unit, being located near a sewer is
**convenient for venting the carbon
bed to air.**



Advice for others:

Keep the operation of the unit to
one or two staff members, and
try to get them to take ownership.



Other Benefits

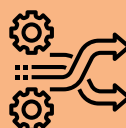
Carbon emissions from the transport of
food waste to a neighbouring county are
avoided

- Reduces food waste amounts sent off-site
- Contributes to green campus activities



Staff Time:

An estimated **maximum 4 man-hours**
per month to add the food waste, and to
transfer and remove the compost on a
fortnightly basis.



Day to day operation:

The one difference for staff is that they
now split the compostable **bags of food
waste into the composter** compared to
the practice of placing food waste bags
straight into the brown bin.

For further information contact: climate.action@hse.ie