



Case Study

Midland
Regional
Hospital

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Sustainable Solutions: Transforming waste management at Midlands General Hospital



WHO WAS INVOLVED IN THE PROJECT?

- **Paul Flanagan** - AES Recycling Commercial Sales Mgr
- **Paddy Lynam** - Maintenance Mgr, Midlands Regional Hospital



WHY START ON THIS JOURNEY?

- Founded in 1942, Midlands Regional Hospital, Tullamore is a major regional referral centre for Orthopedics, ENT, Oncology and Renal Services for the midlands.
- Managed by Dublin Midlands Hospital Group it has the capacity to hold 232 inpatients.
- Aligning with the hospital's broader sustainability goals and strategic vision of becoming a leader in environmental responsibility within the healthcare sector they sought a waste management provider that could implement more sustainable waste management practices, including; increased recycling rates, reduced landfill usage, and advanced waste segregation techniques and awareness programmes.
- Midlands Regional Hospital also sought to lower its carbon footprint through the use of eco friendly waste disposal methods and more efficient waste collections.
- With a reputation for managing waste in a sustainable manner, AES Recycling, through its wealth of experience, industry knowledge and use of pioneering technologies, were chosen to work with Midlands Regional Hospital, to bring more sustainable and innovative waste solutions to the facility.

INITIATIVES FOR CHANGE

A number of new initiatives were implemented;

- An in-depth waste audit was conducted across the grounds of the hospital to understand how their then current waste management system were operating, how waste was being segregated and how improvements could be made.
- Firstly a static compactor was introduced to the back of house, avoiding the facility becoming aesthetically displeasing to visitors and staff.
- The compactor's large capacity and ease of operation allows their maintenance team to empty the hospital's general waste bins into it, reducing the amount of on site collections required, a measure which in turn reduces the CO2 produced.



- To segregate bulky waste individual skips were introduced for each of the different waste types produced at the hospital including timber, metal, and general waste items which are too large to fit into the compactor such as old tables and chairs.
- All WEEE equipment is now stored in cages until they can be recycled at AES's Tullamore Civic Amenity site.
- By segregating in this manner it ensures it increases recovery and recycling rates whilst reducing waste suitable for landfill.
- Steam cleaning of bins is an integral part of the hospital's waste management & sanitation strategy, supporting infection control, environmental responsibility, and overall hygiene.
- New colour coded signage and bins were added to the hospital's back of house waste room to increase segregation amongst employees and help avoid contamination.



- Within the hospital wards there are individual waste rooms to ensure each waste streams is separated and easy to collect, whilst helping to keep the wards clean and tidy.
- All ward bins are non-touch, and use a foot pedal mechanism to open/close. This helps to avoid doctors, nurses and patients hands becoming contaminated. Each bin is coated with antibacterial coating to ensure they are easy to sanitise.
- At the hospital's reception area dual waste stream bin units were strategically placed in key locations with clearly marked colours signage to increase segregation amongst visitors.





Example of an individual ward waste rooms, with yellow bins used to collect clinical waste to ensure they are disposed of correctly.

KEY RESULTS

- Through these measures AES Recycling have helped Midlands General Hospital to optimise their disposal methods and minimise their carbon footprint.
- Through the use of high-resolution cameras, 3D sensors and near-infrared optics materials are processed, segregated and treated with those unsuitable for recovery and recycling removed to minimise landfill.
- Waste generation has reduced and recycling rates have increased significantly, helping to reduce waste disposal costs whilst maximizing resource utilization.
- Key results include;
 - Non hazardous healthcare waste decreased by 14%
 - Municipal wood has increased by 1.7%.
 - All cardboard and plastic generated are 100% recycled.
 - The dry mixed recyclables, goes to AES's state of the art MRF which uses the latest technology to segregate material into its component parts.
 - 100% of the Midlands General Hospital's general waste goes for energy recovery and generates green electricity .

WHAT'S NEXT?

- AES Recycling and Midlands General Hospital will continue to work together to drive innovative waste solutions.
- Quarterly reviews will be conducted to track progress, improve collection schedules and identify areas for improvement.
- Follow up training initiatives will be implemented to educate kitchen and office staff on how to improve waste segregation..
- Waste-to-energy solutions will be explored to reduce disposal costs and carbon emissions while generating energy.
- AES will work closely with Midlands General Hospital to develop strategies to reduce the carbon footprint associated with waste management at the hospital.
- Circular economy initiatives will be explored to minimise waste generation and maximise resource recovery within the hospital's day to day operations.
- Through ongoing monitoring, reporting, education and feedback, AES Recycling will help Midlands General Hospital optimise its waste management, reduce its costs, achieve its sustainability targets and drive continuous improvements. By implementing these practices Midlands General Hospital will continue to minimise their environmental impact, contribute to a circular economy and promote best-in-class sustainability within the medical industry.