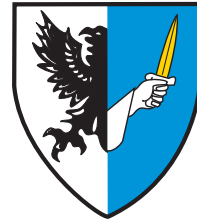




CASE STUDY:

CONNACHT GAA CENTRE OF EXCELLENCE



About the Connacht GAA Centre of Excellence

The Connacht GAA Centre of Excellence (CoE) is located in Began, Co Mayo, and has a total site area of 85 acres.

The site includes the main building, which has a floor area of 1200sqm and houses changing rooms, offices, a canteen, meeting & conference rooms and a healthcare centre, as well as the Air Dome, which contains a full-size indoor GAA field, a running track, a gym and a portable stand. The CoE site has five grass pitches and one astroturf pitch, with a 2.5km floodlit walkway around the site.

The Challenge

The challenge for the Connacht GAA Centre of Excellence was to develop a new centre that would serve the needs of the local and GAA community and would showcase innovation and best practice in sports facility design while minimising any harmful impact on the natural environment.

The planning for the Centre of Excellence was based on the three pillars of financial, social and environmental sustainability and the big challenge for Connacht GAA was to ensure objectives across all three pillars were included in all stages of planning and management of the Centre of Excellence.

The Solution

The solution for Connacht GAA was to ensure that sustainability goals were embedded in both structures and practices at the Centre of Excellence through the development of a Sustainability Roadmap for the site.

Energy management was identified as a priority for the Centre from the very start – focussing on good energy management would save money, would reduce the Centre's carbon footprint and

would ensure that the Centre was safe, warm and welcoming for visiting teams and for members of the community all year round.

To ensure that this commitment to energy sustainability was engrained into the culture and management of the facility, the Centre's team held week Energy and Sustainability briefings, which later evolved into the Connacht GAA Biodiversity and Sustainability Committee.





The Actions: Energy Actions:

- The main building is designed for energy efficiency, ensuring that energy losses are kept to a minimum.
- A building management systems measures energy use in real time and displays this on screens throughout the building.
- Connacht GAA set up an SEAI Sustainability Energy Community (SEC) to support energy awareness and planning, with the Centre of Excellence at its heart.
- There is a 150kW solar PV installation on the CoE roof – even on a poor autumn day the CoE electricity demand is covered by this on-site generation.
- A second solar PV array has been installed. This is a ground solar array of 150kW and any surplus electricity from the solar PV arrays will generate revenue when exported to the grid through a Category B Export Licence Awarded by the ESB.
- All internal building lighting and external lighting in the car park and on the walkways is LED and is controlled by sensors, timers and photocells to ensure that lighting is in use only when needed.
- There are two 22kW EV car chargers on site that are powered by site solar panels when solar power is available.

Other Sustainability Actions

- Rainwater is harvested from the main CoE building. There is 72,000l rainwater storage on site and all toilets are fed by harvested water.
- Low-flow valves, solenoids and sensors are installed on all tanks and toilets.
- There are 25,000 native trees planted on site – 17,000 of these have been planted since 2021.
- The site is home to a number of beehives and to habitats for wild bees and other insects, installed in collaboration with schools from the local area.
- There is 2.5km of community walkway around the site, with pollinator-friendly wildflowers and shrubs planted along many of its stretches.



The Impact

- Significant financial savings have been made through the energy management systems, where energy use is monitored in real time and where unexpected or unnecessary energy use can be immediately identified as well as through the upgrading to LED of interior and exterior lighting and the installation of sensors and timers.
- The electricity generated from the solar PV arrays means that on many days most of the site's electricity comes from renewable sources. The new ground array will generate revenue for the site.
- The Centre's walkways are used by members of the local community, in an area where road walking can be quite dangerous, especially in the darker winter months.
- The Centre's biodiversity projects were a great opportunity for collaboration in the community – local volunteers came out to plant the trees on site and hugely enjoyed the participation, engagement and sense of involvement at a time when the ban on indoor gatherings was having a serious impact on the health and well-being on many members of the community.
- The sustainability projects at the Connacht GAA Centre of Excellence have inspired clubs and county boards to follow suit. Following the experiences in Bekan, clubs around Mayo have come together to set up a Mayo GAA Sustainable Energy Community (SEC), Castlebar Mitchels and the Mayo County Board have launched a climate action and sustainability strategy for MacHale Park and Mayo County Board have organised a series of sustainability workshops, delivered by expert partners in the Connacht GAA Centre of Excellence. Connacht GAA intends to role out these initiatives to county boards across Connacht in 2023



The Partners

- The Sustainable Energy Authority of Ireland (SEAI) and ATU Sligo were central to the Centre's energy planning and projects.
- Tobin Engineers and Future Fit were key partners in the planning and realisation of the Centre of Excellence's energy projects.
- The Climate Action Regional Offices and Mayo County Council gave Connacht GAA great support and guidance in identifying and developing sustainability projects.
- The team at the Centre of Excellence worked closely with Teagasc and local schools on the Centre's biodiversity projects.
- The Regional Waste Management Offices advised and supported the Centre in setting up sustainable waste management practices.
- The Community Water Officer from the Local Authority Waters Programme (LAWPro) supported the centre with guidance on biodiversity and water quality projects.

Secrets to Success at the Connacht GAA Centre of Excellence

- **Measuring and Monitoring:**
Measuring energy and water use at the site was crucial to the Centre of Excellence's sustainability projects – understanding energy and water use enabled the team to identify where they could make savings and where to make worthwhile investment in longer-term projects.
- **Small Steps to Success:**
The sustainability achievements at the Centre of Excellence came about after careful planning and in small steps. Connacht GAA set out a long-term roadmap and started with small and simple actions like energy efficiencies and biodiversity planting and built up to more ambitious projects over time.
- **Partnerships:**
All of Connacht GAA's projects and initiatives were developed and delivered in partnership with local authorities, specialist bodies, independent experts and members of the local and GAA community.

What next for Connacht GAA

- Plans are being developed for the harvesting of rainwater from the surface of the Air Dome.
- Launch of our Energy Master Plan in November 2022 gives a formal detailed plan for the next 10 years. It includes heat pumps, LED and wind and solar renewable projects.
- One action for example is that floodlights on the external pitches are to be upgraded to LED.
- The Centre is engaging with waste authorities in the development of a site waste management plan to prevent and manage waste on-site.
- Tree-planting and biodiversity projects are ongoing.
- Challenges remain for the decarbonisation of the site – currently air and water are heated by natural gas.



Read more about Green Club projects at: gaa.ie/greenclub