

# Belfast Metropolitan College Construction and Refurbishment Belfast Met e3 Campus at Springvale

## Section 1 About the project

### Summary

Belfast Met opened its £18 million high-specification, ultra high-tech campus in September 2012. The BREEAM "Excellent" e3 (employability/entrepreneurship/ economic development) facility is designed to enhance the employability skills of students and stimulate enterprise through business incubation and innovative development programmes. It is also intended to foster enhanced approaches to commercial and economic development using leading edge technologies and advanced approaches to teaching and learning. Designed to accommodate up to 500 users on a daily basis, e3 houses specialist zones dedicated to digital media, manufacturing technology, catering, business incubation, SME training and renewable technologies. The holistic design approach included transformation of toxic/contaminated land, waste recycling, sustainable energy source design and significant carbon reduction measures. This impressive and highly innovative facility will provide unique curriculum and learning opportunities for further and higher education and for research and development throughout Belfast and across Northern Ireland.

### Project partners

Client	Belfast Metropolitan College
Architect	Ostick & Williams
Project Manager	Raymond DeLargy, Dept of Estate & FM, BMC
Building Contractor	Bowen Mascott JV
M+E Consultant	White Young Green (WYG)
M+E Contractor	Schoffield Building Services/RED Electrics
Structural Engineer	White Young Green

## Section 2 The results

### The problem

The site for the project was originally designated (1996) as a new education campus (the Springvale Educational Village) for a joint venture between the University of Ulster and the then Belfast Institute of Further and Higher Education (later to become Belfast Metropolitan College). The original project was proposed to



### Profile

- F & HE College
- 30,000+ students (includes full and part time students)
- 1200+ staff
- Urban Location

### Category supported by



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house in the region of 1500 full time further and higher education students in an area of the city of Belfast that had experienced extreme social deprivation and serious civil unrest. In October 2002 the University unilaterally withdrew from the project due to internal difficulties. Belfast Metropolitan College was left with a significant challenge to rescue the failed flagship project and to provide a sustainable alternative that would be of benefit to the community and the province. Due to its chequered history the area now required a public and sustainable commitment to regeneration. BMC met this challenge and developed highly innovative proposals that would provide significant support to our students, the community and local commerce/industry.

## The approach

Belfast Metropolitan College has a strong track record of supporting the ecological agenda and promoting environmental solutions that will result in better and more sustainable ways of working and living for both our staff and students. Against this background the BMC Department of Estate and FM, under the leadership of Greig Twaddle, set a target of procuring and delivering a project that would not only feature a highly sustainable building, incorporating leading edge technologies, but would also provide an innovative approach to the education and learning process. The integrated design approach was to develop a model to drive economic regeneration and stimulate enterprise across the city and beyond.

## Our goals

Our mission is "to deliver outstanding education and skills that will transform lives and contribute to the economic success of Belfast and Northern Ireland". Our goal for this project was to build a highly innovative and environmentally sustainable facility that would define a new approach to stimulating the Northern Ireland economy through the development of skills, support for business incubation/regeneration, leading edge research and community reconciliation.

## Obstacles and solutions

Toxic contaminated brownfield site (including Japanese Knotweed).	<ul style="list-style-type: none"> <li>• Integrated design approach to produce a rejuvenated, thriving eco-friendly environment; strategically incorporated as a main College campus.</li> </ul>
Building located on community interface.	<ul style="list-style-type: none"> <li>• Community stakeholder groups set up; Springfield Community Forum.</li> <li>• Monthly newsletter during construction to local residents.</li> <li>• Building seen as a catalyst for further development in the area.</li> </ul>
Contractor went into administration before completion.	<ul style="list-style-type: none"> <li>• College engaged immediately with administrator.</li> <li>• Agreement reached with subcontractors to complete outstanding works.</li> <li>• Partnerships developed with subcontractors.</li> </ul>
Project had very small contingency fund.	<ul style="list-style-type: none"> <li>• Change control process set up to monitor expenditure.</li> <li>• Clear project governance structures put in place.</li> <li>• Exemplar model developed for project financial management.</li> </ul>

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## Performance and results

- BREEAM "Excellent".
- BRE calculation achieved 52% improvement over notional building.
- Rainwater harvesting systems – 100% of grey water requirement.
- Roof mounted PV panel array - 4000kw/hrs per annum.
- Heat recovery in all AHU's – up to 60% above industry standard.
- 5kw wind turbine system.
- Recycled 99% of waste produced from landfill (while recycling 100% of available hardcore on site and totally eradicating ground contamination).
- Designed approach to halve carbon footprint – 52% achieved.
- 40% design reduction in energy consumption – 58% achieved.
- CIBSE "best in sector" sustainable energy source design.

## Section 3 The future

### Lessons learned

The team involved with the delivery of the project has discovered the clear benefits of unwavering determination and resolute perseverance. The flagship project, initially abandoned as a result of lack of funding within and from a partner organisation, was eventually completed because of the individual and collective resolve of Belfast Met staff, particularly from the Department of Estate and FM. The E&FM team undertook to deliver the project, on programme and within budget, in spite of significant external threats and challenges. The importance of communicating regularly with all key stakeholders and setting in place strong governance procedures were also key learning outcomes.

### Sharing your project

The project has been the subject of significant media coverage and events have included:

- Formation of Strategic Networks/Partnerships.
- Sustainability conferences.
- Visits by NI political representatives (NI Assembly, Belfast Lord Mayor, NI Secretary of State).
- Filmmakers events.

These events have significantly raised the profile of the e3 Campus and of the Belfast Metropolitan College as an education provider with environmental sustainability at the core of its activity.

### What has it meant to your institution to win a Green Gown Award?

The Belfast Metropolitan College is an organization totally committed to incorporating environmental sustainability into all of our resources and activities and winning this award is one of the highest accolades we have achieved. It shows the extent of our commitment and determination, provides a huge boost to our staff and students and accentuates our sustainability credentials.

### Further information

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