

Wales Institute for Sustainable Education,
CAT, Machynlleth

The Wales Institute for Sustainable Education (WISE) is an ambitious building project designed not just to create a state-of-the-art environmental education centre, but to teach and inspire at every stage of its construction and development.

- 200 seat lecture theatre
- seminar rooms
- common room / bar
- laboratory
- workshops
- reception facilities
- extension to the restaurant
- study-bedrooms for 48
- offices
- toilets, demonstrating a range of water / sewage technologies

The construction will enlarge on the palette of ecological materials and constructions developed at CAT. The lecture theatre is a 7.2m high drum of rammed earth blocks surrounded by a highly glazed sunspace, and will be ventilated via a ground source heat exchanger.

The other constructions are of highly-insulated timber frame filled with an experimental bio-composite construction. Energy systems include and inter-seasonal solar heating array, a photovoltaic roof and a bio-fuels combined heat and power installation. All spaces have high levels of daylighting supplemented by very low-energy lighting.

Client: Centre for Alternative Technology
Location: Machynlleth, Powys
Design: 2002 - 2006
Build: 2006 - 2008
Cost: £3.2m
Area: 2060m²
Status: Detailed Design

