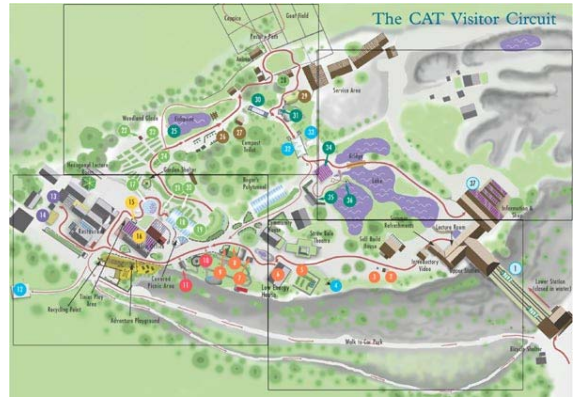


CENTRE FOR ALTERNATIVE TECHNOLOGY

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The Centre for Alternative Technology (CAT) is now 28 years old. It is a social enterprise with the aim of promoting a wide range of sustainable systems and technologies. Its combined slogan/mission-statement is INSPIRE, INFORM, ENABLE. It is based in a former slate quarry in Central Wales, with a usable area of about 5ha.

Organisationally CAT is a worker's co-operative, owned by its permanent staff, who are collectively the responsible management. Legally and financially it is divided into two parts, a charity and a public limited company, but these are managed as a single entity. There are currently 46 full members of the co-operative, 23 associate members, varying numbers of contract staff, and also seasonally varying numbers of casual workers—in many cases our own teenage children. In high summer the payroll is about 120. The permanent staff all receive equal wages. Originally most staff lived on the CAT site, and indeed the original intention was some kind of 'ecovillage'. This is no longer the case, but some staff and many volunteers make up a small resident community on the site, of about 15.



The funicular railway that brings visitors from reception to the main site, operated by gravity and water

A large part of the organisation's income is derived from tourism, with around 75,000 visitors a year. Entrance fees provide 20%, sales of meals in the Restaurant and books and products in the Shop generate about 25%. Mail-order and e-sales are growing fast, currently contributing 20%. The rest of the income is derived from courses, publications, consultancy, research funds, membership fees, grants/donations and rent. On the expenditure side, wages account for over 50%, even though wage levels are low by prevailing standards—about two thirds of the median UK wage. The total annual turnover is about £3 million sterling, making CAT by far the largest enterprise in its region. There is no direct support from the British government.

water-balanced funicular railway that brings visitors from the car park up to the main site. It is open all year round. In addition to day visitors, residential educational programmes have always been important at CAT, and there have been many innovations. Perhaps the most significant of these is the Eco-Cabins, where young people stay for periods of up to a month with their own site services, a 24-volt electricity system powered by ambient renewables, space heating with wood, water heating with solar, an aquatic plants sewage treatment system and so on. Higher education is developing especially fast, with a master's level course being taught in conjunction with a British university (with 60 students in 2001-2, now accredited until 2006), and growing links with institutions in Japan, especially universities. Plans are now well advanced for a new accommodation/teaching/research complex to be built in phases from 2003-6.

The Publications department runs a successful small publishing house with around 100 titles, mostly written by our own staff. There are many collaborative deals with other publishers and distributors. Other media are being developed, such as CD-ROMs and videos, but perhaps the ever-growing CAT web site is the most successful, having won several prizes.

The information service operates at several levels from free drop-in, telephone, post or e-mail queries to full-scale consultancies. After so many years the database is enormous. Running a free service requires careful thought about how to fund it.

CAT has all the expected features of a busy tourist attraction, plus some unusual items such as the



Aquatic-plant waste-water treatment facility, used also for teaching and research

CAT has also acted as a 'nursery' of small businesses, some now fully independent of the parent organisation. These include



Dulas Engineering, one of CAT's daughter companies, located in the Eco-Business-Park in the nearby town of

- A vegetarian café in the nearby town of Machynlleth
- A shop for supplies of healthy foods and other products, also in Machynlleth
- A company to run a 600kW wind generator near the main site, which is a teaching tool but also generates about £50,000 a year in electricity sales to the national grid.
- Two renewable energy companies, both based near Machynlleth. One, Dulas Engineering Ltd, operating mostly in developing countries, with a staff of 20 and a turnover similar to CAT itself. The other, Ecogen Ltd, initiates renewable energy schemes in the UK, principally with wind and biomass. It has 85MW of installed capacity to its credit, and another 125MW soon to be commissioned
- An electronic instrument company, Aber Instruments Ltd, designing and manufacturing a wide range of high-tech products.

It is probably fair to say that the presence of CAT has had a strong influence on the surrounding area, making the region a natural centre for green initiatives. The most recent of these is the Dyfi Eco-Valley Partnership which aims to 'ecologise' the entire watershed of the River Dyfi and has brought together a wide range of public and private bodies, including three Local Authorities, several NGOs, central government agencies and private citizens. This is important because it is part of the new thinking in regional development: not to compete with other regions for inward investment by fickle multinationals, but to generate local enterprises, if necessary with the aid of development grants, adding value by 'synergies' between different sectors. A recent initiative has been the setting up of a renewable energy company owned by local people, whose first investment is a 75kW wind-generator whose output CAT has guaranteed to purchase.



The wholefood vegetarian restaurant.

In research and development, a great deal of experience has been gained



The Eco-cabins with autonomous servicing, designed for residential training. They can accommodate up to 36

in energy management and local electricity systems. Recent innovations have been a 13kW building-integrated, grid-linked PV roof; and a district heating system that combines active solar with biomass, linked by a heat main. In buildings there have been successful new applications of renewable materials such as structural earth, straw and sheep's wool. In sanitation there are novel designs for dry toilets and rapid-separation of solids and liquids. In waste management there has been a unique programme of research in optimising home composting, resulting in improved methods and equipment. In horticulture the most recent research (in collaboration with the local university) concerns non-copper-based treatments for late blight in potatoes.

After a quarter-century of struggle and slow progress, CAT is increasingly recognised as a valuable resource by business, government and academia. A period of accelerated growth, development and diversification appears likely.