

# Personal reflections on the ecodesign journey in Wales



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## Introduction

Following our sustained programme of ecodesign activity in the last 10 years the WAG has provided funding, through the Materials Action Programme, to establish Ecodesign Centre Wales (EDCW). EDCW focuses on capacity building<sup>1</sup> for ecodesign and the development of environmentally superior products and services in Wales.

The first core activity of EDCW is phase II of the Ecodesign Initiative which began in September 2006. The initiative will promote creative approaches to resource efficiency through enabling and facilitating the required cultural change in industry, education, the Business and Environment (B&E) support network and other key stakeholders. The initiative will lay the foundations for any future capacity building activities of EDCW.

This article outlines our ecodesign journey to date. It presents the basis for a joined up multi-stakeholder approach to establishing the business and policy case for ecodesign. It concludes with a brief overview of where EDCW would like Wales to be by 2020.

## Context

My ecodesign journey started in the late '80s in Ireland when I undertook two research projects into waste recycling and design for assembly while I had a short stint recycling electronic waste. In the early '90s, while working for Alps Electric Ltd. as part of a multi-disciplinary design team developing computer devices, I began to investigate how environmental decisions could be integrated into the design and development process through taking a life cycle thinking approach. This ecodesign approach seems obvious now but at the time it was not part of mainstream discussion or thinking. Fascinated, I decided to undertake a PhD in ecodesign at the University of Glamorgan (Wales) in the mid '90s. My findings stressed the need to take a multi-stakeholder approach to ecodesign. During a short-term employment at Swansea University in 2000/01 I began to conceptualise how we could start mainstreaming ecodesign in Wales. To support this I undertook case studies of two Small and Medium Sized Enterprise (SMEs) from the electronics sector. I found that with the exception of a few multinationals (e.g. Panasonic and Sony) and a few niche producers' ecodesign thinking and practice was relatively non-existent in Wales.

In 2001, Gavin Cawood of Design Wales<sup>2</sup> introduced ecodesign to the service. Along with working full-time as part of the core Design Wales team to achieve their targets, my aim from the outset was to take a long-term strategic approach to ecodesign in Wales through raising awareness and changing behaviour. The core message was, and still is, 'ecodesign is simply good design and simply good business practice'. This was against a backdrop of a lack of a formal Welsh product oriented policy, ever diminishing landfill space, a dominant 'end-of-pipe' culture and SMEs accounting for more than 95% of all firms. Following an initial focus on industry, I began to recognise that the real keys to moving forward are stakeholder engagement, partnership building and capacity building focusing on five key groups:

- government
- business and environment support
- industry
- education & research
- NGOs and general public

In 2003 the WAG launched the Welsh Business and Environment Action Plan (BEAP). The plan sought to stimulate economic growth through innovation and environmental best practice. The focus was predominantly on 'end-of-pipe' clean up, but the plan gave some initial recognition to ecodesign. It called for Design Wales and Arena Network to undertake a Welsh pilot study. I drafted an initial proposal for a feasibility study into a Welsh ecodesign initiative in late 2003. This was supported with strategic advice to the WAG. In parallel a pan-Wales University student ecodesign competition was launched and numerous projects were undertaken with industry (through my role as a design advisor). This included the award winning TinyLab™ developed by Riochem™ Ltd ([www.riochem.com](http://www.riochem.com)). This case study clearly demonstrates that small companies can rise to the ecodesign challenge.

## Ecodesign Initiative Phase I

In 2005 the WAG and the Welsh Development Agency (WDA)<sup>3</sup> agreed to fund the feasibility study (Phase I). With an ecodesign team of two (Simon O'Rafferty, an ecodesign researcher, joined) we moved from the service approach (offered by Design Wales) to an initiative. This proved to be a significant step forward. To support this phase of the initiative a small advisory team made up of members from the WAG and the WDA was established. The input of the panel, in particular from Chris Hale and Aled Davies, proved crucial over the next 18 months.

As part of this study we undertook a number of key activities between February 2005 and September 2006. This included mapping the existing B&E support network against a product life cycle and undertaking an international best practice study. Around this time and in partnership with the WAG, we widened the remit of a public/private partnership<sup>4</sup> to include all new and impending EEE legislation.

## International best practice study

Over the last decade there have been a number of public sector initiatives and regional interventions seeking to encourage the application of ecodesign by SMEs. It is clear from the low levels of long-term application of ecodesign that these forms of interventions failed to filter through to companies outside the initial scope of the initiatives. Through undertaking an international best-practice study we identified reasons for these failures by analysing the initiatives and interventions. It became clear that to overcome previous shortcomings in public sector interventions we would have to take a far more integrated approach.

## Our ecodesign vision

In late 2005 we set a clear ecodesign vision (Table 1). We believe that an ecodesign led nation would have a number of characteristics including:

- internationally recognised ecodesign exemplars
- clusters of design led 'growth' companies
- 'sustainable' public/private partnerships
- sustainable public procurement
- upskilled business and environment support network and design community
- sustainable industry-based 'business to business' mentor network

## Vision

An internationally renowned ecodesign led nation within the next 15 years

Ecodesign embedded as a sustainable competitive core value within all relevant government strategies and support services, Welsh industry, the Welsh design community, education and academia

Table 1: Vision

This vision was supported by an ecodesign initiative model fit for Wales and two core strategy documents. Ministerial buy-in followed and was a key milestone for ecodesign in Wales. From the outset our belief has been that funding would have to come directly from the WAG if ecodesign is to really become part of the long-term mainstream agenda.

### Ecodesign Centre Wales

With a core team of four (Iain Cox and Bibiana Estrada Bonilla joined in autumn 2006) and initial funding for two years, EDCW is separate from Design Wales and the other key stakeholders<sup>5</sup> with a clear affiliation to 'Team Wales'<sup>6</sup>. EDCW is not a new business support service. Boundaries have been outlined through a transparent brand and communication strategy and through clearly defining our core propositions.

Our aim is to deliver an initiative that focuses on capacity building for effective ecodesign to happen across Wales. To achieve this aim EDCW must perform the following functions:

- Continue to establish the business and policy case
- Support the development of environmentally superior products and services
- Continue to work with key stakeholders to deliver the ecodesign initiative
- Generate research to inspire wider industry / educational establishments and influence future WAG policy.
- Offer new approaches to intervention by offering creative approaches to resource efficiency
- Offer new holistic ways of project tracking that include both quantitative and qualitative measures

To establish the business case we believe that you need to start on a small scale, understand your market, build the right team and develop relevant sector specific approaches. We recognise that it will be a slow and challenging journey but we firmly believe that an inclusive, partnership approach can achieve the desired cultural change.

### Ecodesign Initiative Phase II

The initiative has four main elements:

- 1) Demonstration:** EDCW will encourage the development of environmentally conscious products and/or services. It began with a study which identified Welsh SMEs whose growth potential could be enhanced through implementing ecodesign.
- 2) Education:** EDCW will provide specialist support to Welsh universities currently offering product design degrees.
- 3) Research / international best practice:** To maintain the relevance and competence of EDCW a programme of continuous research has been embedded in our activities.
- 4) Promotion:** EDCW will communicate the benefits of ecodesign to Welsh industry and other key stakeholders and raise the profile of our ecodesign activities to international stakeholders. We will not focus on promoting EDCW.

### Tracking

EDCW is developing key performance indicators (KPIs) to track the demonstration element. These will be a mix of qualitative and quantitative measures. The quantitative measures will reflect the sector specific priorities, for example legislative requirements. The qualitative measures will reflect "soft" issues in terms of growth potential and managerial attitudes to design-led environmental best practice. EDCW will also be tracking the success of other aspects of the initiative through longitudinal analysis and detailed evaluations.

### The immediate future

We are confident that ecodesign thinking will be embedded in the next phase of strategy documents following the BEAP. We are also confident that other policy documents such as the WAG waste strategy will begin to take a more holistic life cycle perspective. We recognise that while our vision is mix of idealism and passion we firmly believe that it can be achieved if a partnership approach is taken, from policy through to developing practical sustainable solutions. Everyone must take individual responsibility to achieve the desired change. Phase II of the ecodesign initiative is clearly about putting the initial foundations in place for embedding ecodesign as a sustainable competitive core value. We believe that we have the right internal and external team to do this. We recognise that while it is a huge challenge the opportunities are great. Through working in partnership we believe Wales can lead the way.

### Conclusion

EDCW believes that ecodesign has a critical role to play in Wales' long-term vision for sustainability. Government and all other key stakeholders need to take a long-term approach if we are to achieve the desired change. We recognise that we need a lot more practical SME case studies (particularly from small companies) to clearly demonstrate the business case for sustainability. We also recognise that for every success there will also be failures. You cannot change everyone. There is no obvious 'silver bullet' for engagement in ecodesign. The key message is to take time to reflect and learn from these journeys, bringing the key lessons forward to other situations, but also always continue to believe that anything is possible! We need appropriate intervention, 'fit for purpose', that focuses on qualitative as well as quantitative indicators. Our ecodesign achievements to date have been built on a shared belief that we can make a real difference. This is the start of the next phase of our ecodesign journey! Let's enjoy it.

### Acknowledgement

The people and organisations we should acknowledge are numerous. We have mentioned some already, but we are especially grateful to the WAG for their ongoing support and belief in our novel complementary approaches to intervention and capacity building.

<sup>1</sup> Capacity building aims to develop and enhance institutional and individual capabilities, in this case, to effectively address ecodesign and life cycle thinking.

<sup>2</sup> Funded by the WAG Design Wales provides free and independent design advice to Welsh industry. Design Wales is based at the National Centre for Product Design & Development Research (PDR) at the University of Wales Institute, Cardiff (UWIC).

<sup>3</sup> The Welsh Development Agency is now part of the WAG.

<sup>4</sup> To prepare for WEEE and RoHS legislation the WAG set-up a multi-stakeholder focus group in 2004.

<sup>5</sup> Research has indicated that the success of EDCW relies on it being perceived as independent by those stakeholders it seeks to work alongside.

<sup>6</sup> "Team Wales" seeks to involve the public, private, academic and voluntary sectors in economic development activities.