

Impact case study (REF3b)

<p>Institution: University of Exeter</p>
<p>Unit of Assessment: Business and Management Studies</p>
<p>Title of case study: Clear About Carbon: Leading Sustainable Procurement in the Public and Private Sector</p>
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Research at the University of Exeter Business School (UoEBS) has embedded low carbon practice into the procurement policies and supply chains of several Cornish private and public sector organisations - including police and health authorities, education and council institutions. Through the Clear About Carbon (CAC) project, innovative methods to nurture leadership qualities which advance sustainable practice locally have led to those models being replicated both nationally and Europe-wide as part of the global drive to meet emissions targets. The research has contributed to sustainability initiatives led by the Department of Health and Defra, and boosted economic competitiveness of participating organisations.</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>The UK government's pledge to reduce carbon emissions by 80% by 2050 has heightened the importance of fostering a high level of carbon literacy within private businesses and the public sector. Interdisciplinary research at the UoEBS has been central to the CAC project, which is part of a European Social Fund (ESF) financed programme to develop leadership and management skills in order to reduce carbon in organizational procurement and supply chains. In collaboration with Cornwall Development Company, Duchy College Rural Business School and the Eden Project, the research team has worked with staff in Cornish organisations to create new management and leadership models that could be replicated nationally.</p> <p>The UoEBS research team, led by Professor Annie Pye (joined Exeter, 2007), has combined different research disciplines to work with Cornish organisations to bring about change in management practice. These include: leadership, purchasing and supply chain management, and environment management and sustainability. The team has also made innovative use of Action Learning Set (ALS) methodology – a structured process of experiential group learning, and developing action, through discussion and reflection – successfully and effectively to bring about change in management practice.</p> <p>In devising the ALSs, the academics drew on previous research by Pye, exploring leading and organizing, and collective sensemaking. Pye (i) reframed leadership and organizing in terms of sensemaking throughout organising, highlighting how all employees play a part in shaping direction and decision making within organisations, i.e. as shared leadership. The study was also underpinned by research carried out by Howard (joined Exeter in 2009) into lean process mapping, procurement and supply chain leadership (ii), and research into environmental management and sustainability (iii).</p> <p>The participants in the CAC research were typically middle to senior managers or procurement specialists. Participating organisations included the Devon & Cornwall Constabulary, NHS Peninsula Purchasing & Supply Alliance (PPSA), and Chaffins Foodservice plc. Forty two participants from seventeen different organisations took part in six, monthly workshops in which they were encouraged to help each other to devise ways to lower the carbon content within their supply chains. Workshops exploring process mapping also raised awareness of the potential scale of changes to existing processes, heightening participants' motivation to engage in action learning and develop change in practice. The academics gathered data on how leaders learn to solve problems and processes related to developing low carbon procurement practices, and have presented their findings in papers (for conferences and publication between 2010-2013) on the enablers and obstacles to leading such change in practice.</p>

3. References to the research (indicative maximum of six references)

Publications (i), (ii) and (iii) describe the underpinning intellectual framework which has contributed to the theoretical basis on which this empirical study has been developed. Publications (iv), (v) and (vi) reflect the outputs from the ongoing work.

- i. Pye (2005) Leading and organizing: sensemaking in action. *Leadership*, 1(1): 35-50. (new journal). This paper has been recorded by the journal as the most downloaded paper from *Leadership* in 2012-2013.
- ii. Johnsen,T, Howard M and Miemczyk, J (2009) UK defence change and the impact on supply relationships, *Supply Chain Management: An International Journal*, 14(4): 270-279.
- iii. Correia (2010). The European Charter for Sustainable Tourism in Protected Areas: different perspectives and experiences. In Lopez, D. ed. *Turismo y Gestion de Espacios Protegidos*. Valencia: Tirant Editorial lo Blanch. pp. 149-166.
- iv. Correia, Howard, Hawkins, Pye and Lamming (2013): 'Low Carbon Procurement: An Emerging Agenda', *Journal of Purchasing & Supply Management*. 19: 58–64. (2* in ABS).
- v. Hawkins, Pye, Correia and Howard (2011), 'Ethical Complexities in Low Carbon Leadership'. Peer reviewed paper presented to the International Studying Leadership Conference 2012, Bristol.
- vi. Howard, Correia, Hawkins, and Pye (2012), 'Clear About Carbon? Using Lean in Low Carbon Supply Chain Implementation'. Peer reviewed paper presented to British Academy of Management Annual Conference, Cardiff.

Research Grants (in ascending chronological order)

- (a) Prof Annie Pye: European Social Fund 'Clear About Carbon '.Project Value: £799,581. April 2009 – March 2012. Also granted a 12 month extension award Project Value: £189,484 . April 2012 – March 2013.

4. Details of the impact (indicative maximum 750 words)

In a climate of budget cuts, sustainability policies and practices often slip down organisational priority lists. However, research at the UoEBS has resulted in several public and private organisations in Cornwall implementing low carbon procurement practices, some of which are being used as exemplars elsewhere within the UK and also Europe.

Collaboration between the UoEBS and Cornwall Development Company (**a** and **5**) shaped the development of a free carbon literacy e-learning resource for private and public sector employees (<http://sd.defra.gov.uk/advice/public/nsppp/carbon-learning/>). Supported by the Department of Health, it was launched by the Defra-led National Sustainable Public Procurement Programme in September 2011 and has currently processed over 580 e-learners, including participants from several UK county councils (e.g. Blackburn) and from as far afield as Australia, South Africa and India.

The UoEBS's research (**iv**, **v**, **vi**) shaped part of a new national NHS carbon reduction strategy - Procuring for Carbon Reduction (P4CR) - which seeks to reduce the organisation's carbon footprint, of which 60% comes from procurement. Academics used workshops to help senior managers from the NHS-PPSA (**1**) (which manages £700m of expenditure for 17 NHS trusts) to embed low carbon criteria into its procurement strategy. Several PPSA cases studies were included in DEFRA's carbon literacy e-learning resource, which was incorporated into the P4CR. With advice and discussion with the UoEBS, the PPSA developed a Benefits Tracker Tool that

compares cash savings, carbon savings and time savings for public contracts. Since April 2012, the tool has been used to calculate financial and carbon savings in all PPSA procurement contracts.

Via a programme of ALSs, the UoEBS has helped prioritise sustainability at Devon & Cornwall Constabulary, despite the force losing over 1200 staff in 2011/12. The Constabulary confirmed that the research project has enabled them to implement changes far quicker than if working independently. For example: most stations in the region now employ a sustainability champion to oversee low carbon processes; an award scheme for best practice was launched at the Force Sustainability Day (March 2012) and highlighted other notable achievements, including the reduction of heating across the Force's estate by two degrees, saving £150,000 annually; introduction of solar heating panels at sites, and contracts for scrap metal recycling; development of a sustainability checklist for each station (set to be rolled out nationally); and car sharing to reduce their fleet by 20%. This was featured in the official UK police magazine Billboard, raising awareness nationally. The ALSs also facilitated change in the Constabulary's catering procurement policy, resulting in a local, organic food company winning a tender to supply catering services to the regional headquarters. The Constabulary's Estates Procurement Manager (2) stated that the ALS have helped him to draw up a new green building policy and embed low carbon criteria in procurement, as well as clarifying the areas of his work where change is necessary. As a consequence of these actions, Devon and Cornwall Police recently received the "Most Sustainable Public Sector Organisation in Emergency Services" award and credited CAC as being a significant partner in this achievement.

Cornwall College Group (CCG) (3) drew on the ALSs to overhaul its procurement system, combining the separate processes for each of its six campuses into one more efficient policy. The college's senior management purchased a new e-procurement system in 2012, with the cost of the system expected to be recouped several times over through long-term savings. The IT department of the College made significant savings through decreasing the number of servers used (leading to a reduction in energy costs from £62K to £4K), reducing the size of its computer fleet by 10% (with an associated energy saving of £13.5K) and through changing its equipment replacement policy (making savings of £9K per year). A change in the College's print management process resulted in:

- a 60% reduction in the number of devices
- an increase of duplex printing from 5% to 67%, saving £40K and 4m sheet of paper
- a reduction of colour printing from 25% to 8%
- waste reduction through deletion of non-collected print jobs, saving £70K and 2m sheets of paper
- an estimated energy saving of £20K per annum
- a change in staff travel policy, to encourage inter-campus travel by bus or train

As a result of the ALS, Eden Project (4) restructured its procurement processes to better reflect the sustainable ethos of the organisation - the Sustainable Buying Policy subsequently established within this department is intended to be rolled out throughout Eden.

The UoEBS's research has improved the ability of Cornish SMEs to respond to the low carbon agenda, particularly in securing contracts with public purchasers. The ALS methodology was adapted into one-day 'Carbon Leadership' roundtable programme in 2011 for senior managers from ten SMEs in Cornwall. The first West Cornwall Food Manufacture Low Carbon Roundtable, jointly organised with CCG, continues to sit with regional businesses to discuss current sustainability issues. The business support manager of Chaffins Foodservice has embedded sustainable processes into the company's operations and described the workshops as the "...best two hours of my working life".

UoEBS academics have actively disseminated research outcomes to practitioners. They organised seminars for the South West branch of the Chartered Institute of Purchasing & Supply (CIPS), the Institute of Directors and the Carbon Matters conference for Cornish businesses in 2011. In

addition, the team also developed a shorter form of dissemination called Roundtables in Carbon Leadership in order to reach SMEs which could not afford the ALS time commitment. Feedback from participants included comments such as: “It’s been very inspiring.....I’m going away now with something I can work on, and that’s really good”. The team has published articles in The European Financial Review (circulation of over 71,000) in January 2012 and Supply Management, the CIPS magazine (circulation over 43,000), in February 2012. Coverage of the roundtables has been earmarked for publication by ESF-Works, an online platform that showcases policy and practice lessons from the 2007-2013 ESF programmes in the UK. These all supplement a European dimension to the research impact. The CAC project is unique in using ALS to meet low carbon economy challenges via procurement practices, and in 2011 received an ESF Sustainable Development Specialist Project Leader Award, and in 2012 a Cornwall Works WISE Award for Innovation.

5. Sources to corroborate the impact (indicative maximum of 10 references)

1. **Procurement Director; NHS-Peninsula Purchasing and Supply Alliance** *Corroboration of change through development of a benefits tracker tool and also impact of the P4CR implementation in NHS, and its use in procurement contracts*
2. **Procurement Category Manager; Devon & Cornwall Police Constabulary** *Corroboration of how the ALS identified changes in procurement, and the resultant improvements recognised by the award received.*
3. **Acting Chief Executive; Cornwall College Group** *Corroboration of the changes implemented and savings made as a result of the ALS.*
4. **Procurement Director; Eden Project** *Corroboration of the change to procurement policy and practices that resulted from participation in the ALS.*
5. **Carbon Policy Officer (now Procurement Officer at Cornwall Council); Cornwall Development Company (CDC)** *Corroboration of the changes and improvements to procurement and supply chain leadership and management at CDC and now Cornwall Council.*
6. **Clear About Carbon (2012)** *Raising carbon literacy* [online] Available at: <http://www.clearaboutcarbon.co.uk/index.php>