

Impact template (REF3a)

<p>Institution:</p> <p>Writtle College</p>
<p>Unit of Assessment:</p> <p>UoA 6: Agriculture, Veterinary and Food science</p>
<p>a. Context</p> <p>Research produced by the Centre for Equine and Animal Science (CEQAS), the Centre for Economics and Ecosystem Management (CEEM), the Postharvest Technology Unit (PHT) and from Crop Science (CS) is broad in nature and serves several industries of the land-based sector. Therefore, research carried out by these research groups has had an impact on several stakeholders.</p> <p>For example, PHT has worked with national and international farmers as well as one of the big four supermarkets in the UK (Morrisons) to produce research on the development of packaging to improve the shelf life of produce and reduce waste. This has translated in economic gains for the producers. CEEM has worked with foreign government agencies and charities to develop and implement management strategies to preserve the biodiversity of several regions of the world including Central America (Costa Rica), Eastern Europe (Ukraine, Russia) and Asia (China and South Korea) among others.</p> <p>The Centre for Equine and Animal Science has worked in close relationship with regional farmers (e. g. Albyns Farm and Lord Rayleigh’s Terling farm in Essex; Rodwell Dairy in Suffolk); animal collections (e.g. Aspinall Foundation, Colchester Zoo) and with industry (e.g. Cambridge Temperature Concepts, Omnisense, BOCM Pauls), to advance different aspects of farm, captive and companion animal management and improving the welfare of animals. Staff from Crop Science have had interaction with companies (e.g. Chingford Fruit Limited) to improve the storage of the crops and with ornamental plant specialist companies (e.g. Thompson and Morgan) to research the breeding/propagation of plants</p>
<p>b. Approach to impact</p> <p>The College collaborates with several institutions in the UK and abroad for research and has a long tradition of creating industrial links. Staff from the Centres are encouraged to contact the non-academic beneficiaries, to develop and to maintain these relationships. A database with industrial links is kept centrally within the HE schools in the case that the original member of staff that developed the relationship leaves. Some staff are also engaged in consultancy, knowledge transfer and outreach. Consultancy, professional practice and knowledge transfer activities are recorded in annually-updated staff curriculum vitae and discussed during Periodic Development Review</p>

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meetings. Work is reported to Research Committee which monitors and follows the potential impact that the research can achieve.

Research undertaken by the Unit has primarily a 'near market', practitioner focus as well as informing and underpinning the curriculum. The Unit's links with industry, whether through professional accreditation of current programmes, engagement with industry as part of the curriculum, or via alumni forging successful careers and continuing to engage with the College, enrich the knowledge base and relevance of the research environment. These are highlighted through the College's flagship magazine Arena and on the College's website as well as referenced in relevant media relations opportunities.

Evidence of current work undertaken that is leading to impact (and that are not featured in the impact case studies) include the development of a research project on animal welfare for which CEQAS received BBSRC major funding and is working in collaboration with Omnisense. Collaboration with the Aspinall Foundation and Colchester Zoo has produced a number of conference presentations at the BIAZA Research Symposium and the Primatological Society of Great Britain. Other collaborations include research projects with the Organisation of the British Beef and Sheep Industry (EBLEX) on the development of reliable measures on cattle sent to slaughter. The Centre also cooperates with Cambridge Temperature Concepts on the development of a device to predict accurately fertility in dairy cattle. PHT is working with Morrisons and Sharpak (one of the two punnet suppliers in the UK) on the development of postharvest technology to reduce food waste. The research mentioned above is being carried out in the specialist College infrastructure, such as laboratories, farm, animal units, etc.

c. Strategy and plans

Research has become a significant part of the HE Strategy at Writtle College and teaching is underpinned by research and scholarly activity. The College has committed to the implementation of the Research Strategy with the purpose of not only increasing the research activity, but also ensuring that this activity leads to impact. This in turn will enhance the delivery of Postgraduate and Undergraduate education at the Schools. These commitments have contributed to the development of the research profile of the College.

The Unit recognises that the value of its research activities will be reflected on making a positive impact to the industries it serves by increasing commercial consultancy and research and employer-responsive training. The Research Strategy 2014-2020, which will be implemented shortly, recognises the importance of impact on its research activities. Nevertheless, the importance on maintaining relationships with non-academic beneficiaries has been recognised

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since the implementation of the previous Research Strategy (2008-2013). In both documents, the need for staff to create and maintain relationships with non-academic beneficiaries is emphasised, as evidenced in the impact case studies (REF 3b) and section e on REF 5 Environment template.

The Centres are also aware of the current tendencies on the allocation of funds for research by different funding organisms. Therefore, the College has highlighted on the importance of collaborations not only with other Higher Education Institutions but also with industrial stakeholders, and in this way is ensuring to meet national and international demands on Agriculture, Veterinary and Food Sciences.

d. Relationship to case studies

The development of relationships with foreign government agencies to implement either a solution to the reduction of postharvest waste of "*Pomme d'amour*" tomatoes, or to develop a management plan (MARISCO) to preserve the biodiversity in several countries (Impact case studies) relate directly to the College's strategy and plans to achieve impact on its research activities.

These case studies demonstrate how members of staff have recognised international needs and have approached different stakeholders to offer solutions by implementing their individual research under the remit of the land-based industries. In the case of the Postharvest case study, it also demonstrates how the Unit has followed closely the development of the results implemented several years after the original trials were conducted to test the effect of the Returnable Plastic Crates in reducing waste and increasing financial gain to farmers in North Mauritius.

The Centre for Econics and Ecosystem Management case study also evidenced how the unit's approach has been developed. The collaboration of CEEM with another Higher Education Institution (Eberswalde University) has created synergy to convince both government and non-government agencies to work together to offer a solution on the issues of conservation of biodiversity, highlighting the impact that both HEIs can have on government policy changes.

Thus the Unit has demonstrated that a commitment to excellent research can create a positive and significant impact. As a consequence, the College is raising its profile, fulfilling its aim to be recognised for the excellence of its research in specialist fields within the land based sector and also demonstrating a growing impetus for its research activity, a cultural shift towards research informed teaching and public engagement over recent years, and the serious commitment that research is at the heart of Writtle's HE objectives for excellence.