

# The Engineering and Technology Education Partnership

*Collaborating to give young people the knowledge, skills and habits of mind for success*



Professors Bill Lucas and Adrian Oldknow are delighted to announce the formation of the Engineering and Technology Education Partnership (ETEP), a collaboration between the Centre for Real-World Learning at the University of Winchester and the Centre for Innovation in Technological Education. Over the coming years ETEP will be working with schools to introduce the kinds of teaching and learning methods best suited to the development of engineers, scientists and technologists.

In an acclaimed piece of research – *Thinking like an Engineer: implications for the education system* – for the Royal Academy of Engineering, Bill Lucas and colleagues demonstrated that, if we want to have more engineers, then we need to start teaching in ways which encourage young people to think like engineers. The same principle, we believe, is true for all of the disciplines represented in the STEM and related subjects such as Art, Computing, Geography and Sports.

At the core of the ETEP approach is the use of innovative and dynamic teaching and learning methods including the use of:

- challenging cross-curricular group projects using rigorous problem-solving
- the engineering design process
- engagement with practising engineers, scientists and technologists
- communities of practice using action research and supported by digital technologies
- opportunities to learn beyond school.

ETEP will support schools and colleges to develop learners aged 5-19 to think and act creatively, find and solve problems, collaborate, make things, apply technology and demonstrate the kinds of habits of mind and skills urgently needed by employers. ETEP will provide teachers and managers in 5-19 education with the know-how and support they require together with the tools to evaluate what they are doing. In 2014/5 ETEP will provide professional development and resources. It will work with industry, academics/experts to develop, pilot and evaluate an inspiring range of projects.

England is in a very strong position to introduce such a reform with the new National Curriculum providing an excellent opportunity for schools to rethink their approaches to teaching STEM subjects more creatively. ETEP is committed to help bring about the reform in ways which are sustainable and which can be implemented quickly, with minimal disruption and within a modest budget. In 2015/2016 ETEP will seek to roll-out the process to all 5-19 education providers in the UK.

With our two Centres, ETEP's founding partners include Activate Learning, Aspirations Academy Trust, Association of School and College Leaders, Autodesk Education, Chichester Academy Trust, Hamilton Trust, Park House School, Semta, Surrey Satro and Winchester Science Centre.

The ETEP invites other like-minded organisations, companies and schools to join them.

## Notes to Editors

1. For more information contact [bill.Lucas@winchester.ac.uk](mailto:bill.Lucas@winchester.ac.uk) and/or [adrian@ccite.org](mailto:adrian@ccite.org) or visit [www.ccite.org](http://www.ccite.org), [www.winchester.ac.uk/realworldlearning](http://www.winchester.ac.uk/realworldlearning) and [www.expansiveeducation.net](http://www.expansiveeducation.net).

2. To read *Thinking like an Engineer* go to <http://www.raeng.org.uk/publications/reports/thinking-like-an-engineer-implications-full-report>.