

## Editorial

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In his book *Good to Great* Jim Collins (2001) says that for an enterprise to become great it has to discover its 'hedgehog concept'. This is the interception of three circles: what you are deeply passionate about, what you can be better than anybody else in world at and what drives your economic engine.

Identifying this core and committing to it is the only path to sustainable success. Few companies manage that, which is why there are many good companies and very few great ones. Looking at the Institution of Civil Engineers, one realises that, without knowing it, that good engineer Bryan Donkin found his hedgehog concept. The first briefing in this issue (Dunn, 2013) is on an article written by the grandson of Bryan Donkin, Bryan Jnr. Bryan Jnr died before becoming a great engineer, but much of his research is still worthwhile reading, having helped the development of the iron and steel industries at the beginning of last century.

The main source of energy for use in space heating in the UK is natural gas. Goodier *et al.* (2013) present a more sustainable and efficient alternative: seawater heating. They offer a comparison between one such system in The Hague, the Netherlands and another in Portsmouth, UK. The article debates the drivers and barriers for the further use of this technology, concluding that government barriers have to be overcome if this technology is to be widely implemented.

Bozhinova *et al.* (2013) present a historical view of hydropower converters with head differences below 2.5 m (VLH). Their literature review presents a number of technologies and several promising concepts currently in development. Starting with different types of water wheels, interesting aspects are highlighted regarding efficiency of VLH engines. The authors introduce significant ideas such as the Archimedes screw, the hydrostatic pressure converter and the gravitational vortex converter. Amongst the conclusions is that old technologies can be employed today at sites up to 300 kW in size.

Drew and Rigby (2013) offer an impressive description of one of the largest offshore wind farms in the world. With 160 turbines of 3–6 MW class, Gwynt y Môr will generate energy equivalent to the domestic needs of about 400 000 homes. The paper describes a myriad of details which make up this project. It concludes on a positive note by presenting the offshoots of

this venture, including job creation, increased engineering expertise, reduction in greenhouse gas emissions, a £690 000 tourism package and other community benefits.

This issue ends with an article by Rosenow and Eyre (2013) analysing the UK Green Deal and Energy Company Obligation policies. Institutional changes and the implications of a new finance mechanism for energy efficiency are considered. The best source of energy is precisely the one which we save – the concept of the virtual power station is magical as each unit of energy saved through efficiency is freely available for the market. Amongst the many interesting concepts discussed, it is worth mentioning the plan to take between 125 000 and 250 000 households out of fuel poverty by 2023. The paper ends by showing that the Green Deal proposal meets the criteria of a good piece of legislation and is certainly a 'hedgehog concept'.

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