

MONITOR: ICE REVIEW

ICE review

A review of recent developments at the Institution of Civil Engineers by ICE president David Balmforth. For further information please contact the communications office on +44 20 7665 2107, email communications@ice.org.uk or visit www.ice.org.uk/news-public-affairs.

Promoting learning from nature

A paper published in the September 2015 issue of ICE's *Bioinspired, Biomimetic and Nanobiomaterials* science journal showing how civil engineers continue to learn from nature generated widespread media coverage.

Researchers at the Dalian University of Technology in China reported their investigations into the silent flying ability of owls in the journal. It is commonly known that owls are able to glide almost silently to their prey due to a unique feather structure. This has long been of interest to the engineering community as we seek to apply the owl's noise-reduction mechanisms to other purposes that benefit society, such as wind turbines and aerodynamic damping systems.

Using laser-displacement sensors and high-speed cameras, the new work revealed that owls' abilities are more superior than previously thought – as well as gliding silently they can also suppress the vibrations that occur when they flap their wings.

UK newspapers including *The Guardian*, *The Times* and *The Independent* covered the story, as well as BBC Radio 4's *Best of Today* podcast and BBC Breakfast. The story also appeared in the UK regional press, technology press and international publications such as *Delhi Daily News*.



An ICE journal article on owl feathers was widely reported (Mike Bridger, Shutterstock.com)



ICE has advised the UK government to protect infrastructure spending

Encouraging long-term investment

ICE has called on the UK government to avoid spending cuts that offer a short-term advantage but undermine the country's infrastructure's contribution to long-term prosperity, productivity and resilience.

In our submission ahead of the November 2015 government spending review, we welcomed the government's commitment to invest £100 billion in infrastructure. We also challenged the construction industry to play its part by driving innovation, upskilling the workforce and finding ways to deliver more with less.

But we urged the government to support the construction industry's transformation by taking a strategic view when making decisions on spending. In particular we believe the 6 year £2.3 billion investment plan for flood defences should be protected to build Britain resilience. We also recommended protecting the £15 billion investment for the road network.

But protecting investment for new infrastructure is only part of the solution, and we called on the government to ensure the maintenance of existing infrastructure is also factored into spending plans.

Seeking funding for learning centre

ICE is inviting the construction industry to help fund a new state-of-the-art learning and exhibition centre as part of our 'Shaping the World' appeal.

The appeal's patron Princess Anne held a dinner at Buckingham Palace in July in support of the new centre, which will be used by the public, schools and engineers. ICE has already committed £350 000 towards funding the project and is inviting industry to contribute as well.

The learning and exhibition centre, which will open in 2016 at ICE's London headquarters, will have building information models of major civil engineering designs, three-dimensional printers for children to create replicas of iconic structures, and interactive touch screens for them to make decisions on how to solve problems.

Collectively we can help to promote and facilitate innovation and motivate the next generation to step into our dynamic profession, so I sincerely hope the construction industry will partner with us and help to bring this vision to life.

To find out more please contact jeanette.grose@ice.org.uk.



Princess Anne and ICE president David Balmforth promoting the new ICE centre