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Chief Executive, ACE

## A diversity culture is now a must-have business imperative

For an increasing number of consultancy and engineering organisations, the talent crisis is no longer an abstraction. It's an all-too-real threat that's spurring companies, perhaps for the first time, to treat the pursuit of new talent as a vital business concern and look wider to expand their pool of recruitment opportunity.

With an ageing population in the UK, an increased global future infrastructure project pipeline and the growing attraction for graduates to work internationally in the emerging and dynamic global economies what must the engineering sector do to appeal to diverse gender and ethnic groups?

We must ask ourselves why would anyone choose a career in engineering when it is perceived as a predominantly white, male industry. Then we have to create the right messages that engage at a level that connects with those diverse audiences. At the core of our strategies we should and must foster a culture of inclusion so that everyone is welcomed and valued in our business.

No longer can a company's cultural diversity and inclusion agenda be thought of as just an HR exercise where boxes are ticked to pay lip service to a corporate function. Diversity and Inclusion needs to be embedded in



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## Imminent dash to frack means it is time to talk sense

Perception rather than fact is currently influencing the national discussion on shale gas exploitation and we need to get a more informed debate going. There is a lot of information but there is also misinformation and some very specific and technical issues that need to be addressed with the proper facts.

For example, water used for hydraulic fracturing needs to be treated before it is discharged. It is automatically assumed that this is to take out the chemicals that are added for fracking but that is not necessarily the case.

Chemical additives are included in water injected as part of fracking. Developers often do not want to identify what is added but research in the United States has identified toxic and carcinogenic substances used as additives.

However, the Environment Agency in England and Wales will require developers to use only non-hazardous additives as they will have to comply with EU legislation on groundwater protection and the Water Framework Directive. This gives confidence that it is unlikely hazardous pollutants will be included in the injected water.

Another issue often raised is the fears over methane leakage. Methane needs

our company DNA and lived through every member of our teams; from the chairman, down to project delivery and support staff.

Business Secretary Vince Cable has been banging the drum for all-women shortlists for board positions at Britain's biggest companies in his attempt to reach a target of 25 per cent female representation on FTSE 100 boards by 2015. That this is double the current representation of 12.5 per cent astonishes me. Surely the myth about the 'glass' ceiling must have been shattered by now.

In an article in the London Evening Standard recently Crossrail was proudly heralding the fact that almost 30% of its workforce is female. Now that is what I call progress. How many other engineering based organisations are prepared to stand up and sign up to an "Industry-wide Diversity Charter" and participate in annual benchmarking on their progressive diversity achievements?

Whilst I do not subscribe to a legislative approach as adopted in Scandinavia and North America, I say that "an inclusive diversity culture is not a nice to have option, but a business imperative agenda to secure UK engineering sector international competitiveness"

to be handled with care. The industry does its best to protect against leaks. The well pad is designed to ensure gas doesn't escape, pumps, compressors and valves will only emit gas if there is an emergency situation.

Finally there are the seismic risks to consider. The magnitude of such events will be low – similar to an underground train passing beneath a building. The Department of Energy & Climate Change will review all permit applications which will have to identify how seismic risks would be mitigated. This upfront risk assessment and planning will reduce risks to a minimum from induced seismicity

As far as the industry is concerned it can't answer every single question and no one can guarantee that there won't be any incident. However, the combination of over three decades of development in the US and the tighter controls and monitoring that we have in Europe, should mean that the industry is more mature and able to anticipate and deal with these kinds of issues. For shale gas to develop it is imperative that we get informed debate going.

*More on fracking: page 18*



**Richard Threlfall,**  
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## Halting investment in London is no solution to UK's widening north-south divide

*KPMG's Focus on Infrastructure, Building and Construction digital magazine featuring Sir John Armitt, HS2 director Beth West and Green Construction Bank chief executive Shaun Kingsbury will be published in April. For further details visit: [www.kpmg.com/uk/en/industry/buildingandconstruction](http://www.kpmg.com/uk/en/industry/buildingandconstruction)*



**David Rowbotham,**  
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## Training the vital young people the industry needs must be led by employers

The debate over the proposed Crossrail 2 project in London raises two critical issues that go beyond that scheme itself – the balance of investment between London and the rest of the UK, and the ability of London, or any other major city region, to invest in its own economic future.

London is and will remain the economic powerhouse of the UK for many lifetimes, and the economic strength of London is therefore in the interest of the country as a whole. But the north-south divide is widening. In 1999 31.9% of the UK's economic output came from London and the South-East. By 2011 that had grown to 36.6%, a huge shift in the economic balance of the country, according to Office of National Statistics' figures

Yet current infrastructure investment levels see London invest every two days what Greater Manchester invests in a year. Some rush to conclude that schemes

Following the CIOB's recent cross-party parliamentary report "No more lost generations: Creating construction jobs for young people" the case for our industry to do more is self-evident; 182,000 construction jobs are needed by 2018 yet only 7,280 completed a construction apprenticeship in 2013.

The report was compiled by engaging with a broad range of stakeholders and other key figures from the industry which means that it has practical ideas that should be translated into action.

Some of the key recommendations outlined in the report include:

- improving understanding in schools of the exciting career opportunities.
- making it easier for young people to find routes into the industry
- ensuring that training programmes

Last month's Budget was, as feared, a damp squib. It's been clear for some time that we need to turn the National Infrastructure Plan into a long term integrated plan. What is now clearer is the need to turn this plan into action and to integrate infrastructure policy.

We must get these initiatives off the ground and ensure the investment, regulation and other enablers are put in place by the government to allow this.

Osborne spoke around energy investment again but with no detail on how or when. Without an integrated plan or strategy, how are we to avert the long-term energy crisis the UK is facing?

And whilst new flood defence cash is welcome, it only deals with short-term

like Crossrail 2 should therefore be shelved in favour of schemes outside London, but that is self-defeating too. We must find a way to enable all our major cities to invest more in their infrastructure.

The Crossrail 2 funding solution relies on expropriating for that project a substantial proportion of the income available to London over a period of 20 years or more. That is not a sustainable solution as London retains only 7% of the money it raises. New York, by contrast, keeps 50%. That needs to change if we are not to keep lurching from one infrastructure funding crisis to the next.

And what works for London would work for the rest of the country too. The Government's City Deals are a first step towards greater financial devolution, but still tentative. If we want a thriving future for the whole of our country, we need to entrust in our major cities the income to invest in their own growth.

are better linked to the nature of jobs

- use the levers available through public-sector procurement to drive effective training and employment commitments.
- secure much greater buy-in from industry leaders to secure change.

I particularly welcome the move towards developing a more employer-led curriculum. By having training that is driven by industry need we will have programmes that deliver young people with the right skills sets that are 'fit for business' so that they can enter into work and have sustainable employment.

Employers will ultimately be employing the young people who complete their apprenticeships, so it makes sense that we play a greater role in their development.

recovery, with no reference to long-term flood prevention.

The announcement on plans to create Britain's first 'Garden City' reiterates this potential opportunity and it's great to see regeneration linked to major infrastructure development, reiterating the need for linked up policy. What Ebbsfleet demonstrates is that when we plan earlier for regeneration benefits, we turn this to action much quicker.

As the UK economy starts to grow, we cannot continue to delay investment into our ageing infrastructure. Investment needs to be turned into action and the government needs to accelerate to ensure it can deliver on its promises.