

INTERNATIONAL GEOSYNTHETICS SOCIETY, UK CHAPTER

16TH INVITATION LECTURE

Jointly with the British Geotechnical Association

Godfrey Mitchell Theatre, Institution of Civil Engineers,
One Great George Street, Westminster, London SW1P 3AA

Wednesday 18th October 2017 at 18:00

and afterwards in the ICE Café/Bar sponsored by

MACCAFERRI

**Global Challenges, Geosynthetic Solutions
and Counting Carbon**

Professor Neil Dixon, *Loughborough University*

Synopsis

Our planet is experiencing unprecedented change. The global challenge is to provide an acceptable standard of living for all without using up natural resources and causing irreparable damage to the planet's climate. The new United Nations programme *Transforming our world: the 2030 Agenda for Sustainable Development* came into effect in January 2016, and established 17 Sustainable Development Goals.



At the 2015 United Nations Climate Change Conference, Paris, a global agreement was made to set a goal of limiting global warming to less than 2 °C compared to pre-industrial levels. The agreement was made legally binding by countries in April 2016 and the new challenge is for nations to develop, disseminate and adopt practices that deliver sustainable development. Against this backdrop of international agreements and goals, the geosynthetics industry has the potential to play a prominent role in providing solutions that help to deliver the vision of global sustainable development.

The lecture will discuss the drivers for change in the way infrastructure is delivered and will challenge the geosynthetics industry to play a key role in reducing carbon emissions and dealing with the consequence of climate change. As an example, it will detail a framework for calculating embodied carbon of construction solutions that incorporate geosynthetics in comparison to other solutions, and highlight the common pitfalls of such analyses.

Biography: Professor Dixon has been a university academic for over 25 years and has 35 years of experience in geotechnical engineering research and practice for which he has been awarded multiple prizes for publications and innovation. He has authored over 150 refereed publications in the areas of geosynthetic applications, sustainable construction, landfill barrier design guidance, slope failure mechanisms, amongst many others.

He played a leading role in the development of UK practice in waste containment system design through co-authoring the Environment Agency reports on landfill stability. He has acted as a consultant, legal expert witness and he currently leads development of the acoustic emission landslide monitoring method using Slope ALARMS sensors.

Prof Dixon is also part of iSMART UK research consortia, and was a member of the Future Resilient Transport Networks (FUTURENET) project team. He was an elected Council Member of the International Geosynthetics Society for 8 years, is a past Chairman of the UK Chapter and is part of the Infrastructure Slopes: Sustainable Management and Resilience Assessment.



This event will be broadcast online, details for which will be available prior to the meeting.

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