

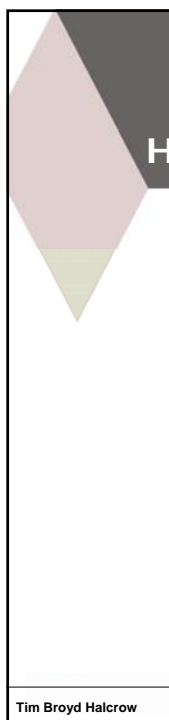
ice
Institution of Civil Engineers
Halcrow

Defending Critical Infrastructure

Tim Broyd
Group Director of Technology & Innovation, Halcrow
Chair of Policy Panel, ICE
11 November 2009

ice.org.uk
Registered charity number 210252
Charity registered in Scotland number SC038629

FST 11nov09



Halcrow

ice
Institution of Civil Engineers
Halcrow

- Independent, UK-based engineering design consultancy
- Diverse market sectors, approximately 80% infrastructure, 20% property
- Global view – 50% of work is overseas
- Projects include:
 - High Speed 1
 - St Petersburg Flood Barrier
 - Yas Island infrastructure
 - HA MAC (Managing Agent Contractor) provision

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Institution of Civil Engineers

- Registered charity – Royal Charter 1828
- Aim since Chartership to ‘foster and promote the art and science of Civil Engineering’
- 80,000 members worldwide
- Policy Panel issues reports and other material providing detailed evidence-based analysis of policy issues affecting civil engineering and the built environment

State of the Nation Reports

- Issues with significant national policy implications, within ICE competence



eg Capacity and skills
Transport
Defending Critical Infrastructure



Related reports, eg
Flooding
Carbon Capture and Storage

Why study critical infrastructure?

- A recurring theme of our recent policy work
- Experience of 2007 floods
- Ageing assets and networks
- Security Register



What is critical infrastructure?

- Assets which if destroyed or seriously disrupted would cause major disruption to the service being provided
- For the purposes of this report, the goal of defending critical infrastructure is assuring the continuation of UK plc



State of the Nation: inquiry format

- ICE solicited responses for written evidence from over 200 stakeholders and organisations in January 2009
- Held evidentiary hearings with key stakeholders
- Obtained evidence from over 70 stakeholders



Main threats

- System failure
- Climate change
- Terrorism



System failure

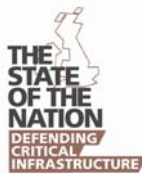


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Climate change



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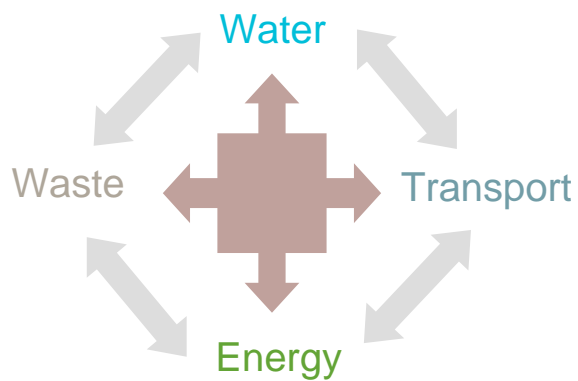
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Terrorism



THE
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Interdependency



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The need for an overview

- SoN report published on 24 June 2009
- It recommended that the government creates a single point of authority for infrastructure to:
 - coordinate the work of the agencies responsible for dealing with individual sectors and threats
 - Recognise interdependency



Planning

- A circuitous UK planning system has long delayed the delivery of many crucial pieces of infrastructure
- Without reform the UK is in danger of not having the infrastructure it needs to operate



Inadequate regulatory remit

- Government must give a wider remit to sector regulators to include improvements to infrastructure resilience



ICE recommendations

- A single point of authority to coordinate infrastructure resilience (Infrastructure UK?)
- A strong Natural Hazards Team
- A wider regulatory remit, to include infrastructure resilience
- Delivery of effective planning regime



September 2009

Financing the UK's infrastructure

When infrastructure is properly financed, planned, and prioritised the economic and social benefits always outweigh the initial costs. However during the current challenging economic climate securing the funding required for these projects has never been more difficult. At the same time with new power stations urgently required, and projects such as high speed rail supported by the main political parties, securing the capital to ensure timely delivery has never been more important.

A National Infrastructure Investment Bank

What is needed is a source of long term financing that supports projects that will strengthen UK competitiveness and help with the transition to a low carbon economy. A National Infrastructure Investment Bank (NIIB), initially capitalised by government and then able to use the government's AAA rating to raise funds on international

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Funding UK infrastructure

- There is an established ROI to UKplc for investment in infrastructure
- UK infrastructure funding has been in decline for more than a decade
- Funding is mainly from public sector sources – but tough times ahead
- A National Infrastructure Investment Bank (NIIB) is worth considering. Relevant experience in Nordic countries and USA (potentially 10:1 leverage on public sector sources)



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The Times, 10 Nov 2009

was "well-advanced".

UK Infrastructure: The Institution of Civil Engineers has called for the Government to create an infrastructure investment bank to protect funding for crucial construction projects. The submission, backed by Lord Kinnock, the former European Transport Commissioner, Vince Cable, deputy leader of the Liberal Democrats, and Will Hutton, the economist, warns that cutting spending on roads, railways and power stations will delay economic recovery.

Liam O'Boyle, Tony Douglas

