

Delivering 21st Century Construction

Keith Waller

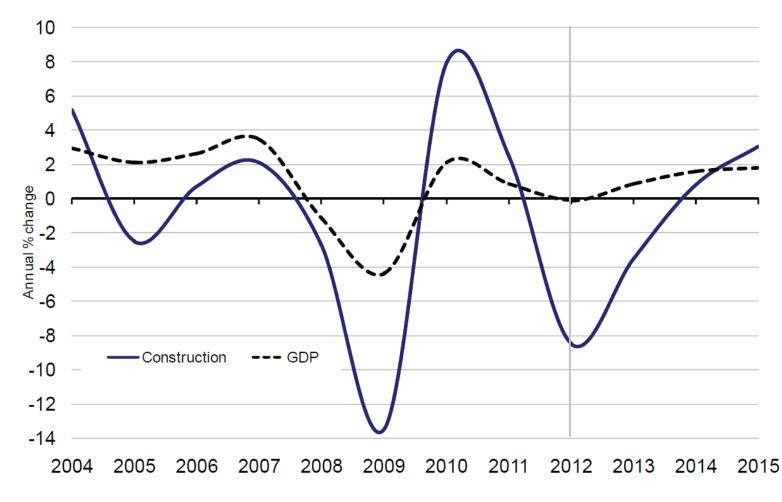
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15 January 2013

Infra	HM TREAS	ire Cost Review:	
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## Context

#### **GROWTH IN UK CONSTRUCTION OUTPUT AND GDP**

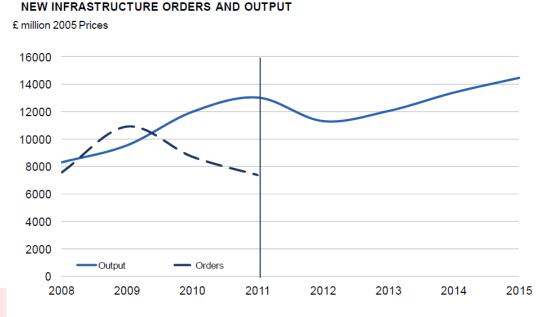


Source: ONS, Experian.



## **Analysis of Construction Forecasts**

- Shows cyclical behaviour of industry
  - Not all construction sectors responding at same rate
  - Construction forecast to decline in 2013 by circa 3.5%
- Infrastructure forecast to lead growth
  - 2012 infrastructure output down circa 13%, but orders up 38%
  - Output to grow in 2013 and beyond



HM TREASURY 2

Source: ONS, Experian.

# Autumn Statement 2011 and 2012 – consistent policy HM TREASURY Infrastructure UK HM TREASURY **AUTUMN STATEMENT 2011** National Infrastructure Plan 2011 Cm 8231 November 2011 HM TREASURY HM TREASURY Minfrastructure UK **AUTUMN STATEMENT 2012** National Infrastructure Plan: update 2012 Cm 8480



# National Infrastructure Plan - overview

- A vision for the UK's infrastructure
  - Effective planning for medium term across all sectors
  - Long-term ambitions for each sector
- Mobilising funding and financing infrastructure *investment* 
  - New approach to public private infrastructure investment PF2
  - UK Guarantees Scheme up to £40bn
  - Pension Investment Platform, Insurances, Inward Investment
  - Established Green Investment Bank £3bn capitalisation
- Focusing on delivery
  - Prioritising major projects through a new Cabinet Committee
  - Bringing down costs in planning and through the Infrastructure Cost Review



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## The vision – long-term ambitions for each sector

### Transport



Communications



Note: this is a selection from the fuller list of ambitions in the National Infrastructure Plan

Energy



#### Environmental networks





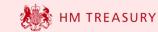
• In general, performance has risen since 2005, but so have costs

	Evolution of performance		Evolution of cost	
Sector	Since 2005	Change 2010 to 2011ª	Since 2005	Change 2010 to 2011ª
Major roads	<b>^</b>	Stable	<b>^</b>	Improved
Rail	<b>^</b>	Improved	$\mathbf{+}$	Improved
Airports	$\mathbf{v}$	Stable	^	Improved
Ports	<b>^</b>	Stable	↑	Improved
Electricity	<b>↑</b>	Stable	↑	Stable
Gas	<b>^</b>	Improved	^	Stable
Communications	<b>↑</b>	Improved	¥	Improved
Water and sewerage ^₅	<b>↑</b>	No 2011 data	<b>^</b>	No 2011 data
Waste	<b>↑</b>	Stable	<b>^</b>	Stable
Flood risk management	<b>↑</b>	Improved	¥	Improved

Source: HM Treasury analysis, see Annex D for details.

^a +/- five points is classified as stable

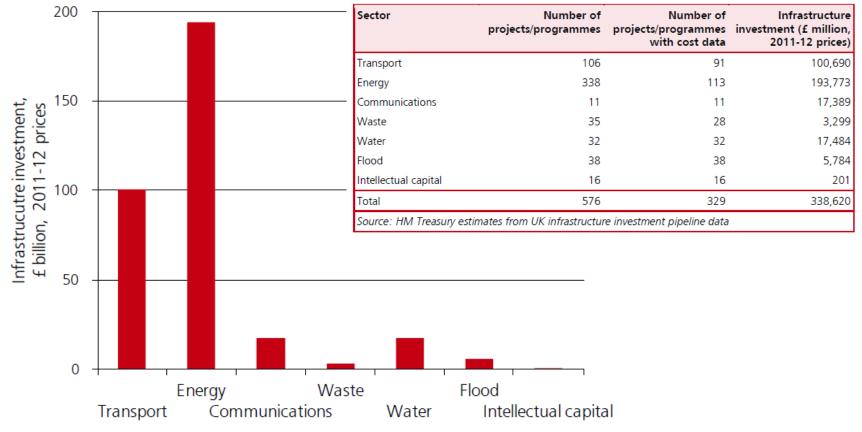
^b Data for water and sewerage are to 2010. Updated indices are not available due to significant changes in data collection by Ofwat



# **UK infrastructure investment pipeline**

2012-15 and beyond overall investment in economic infrastructure of more than £300 billion across over 500 projects and programmes

Chart 4.A: Infrastructure investment pipeline overview^a

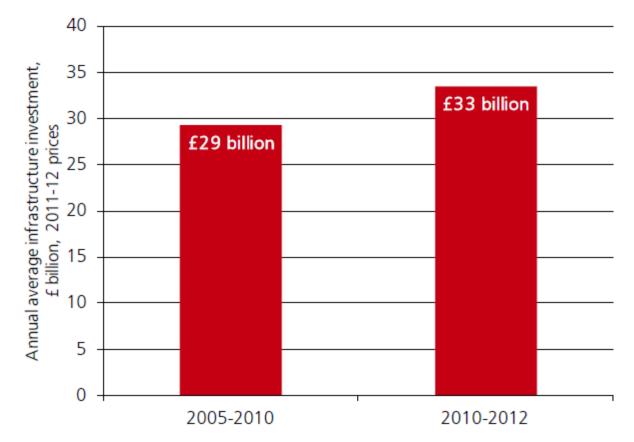


Source: HM Treasury estimates from 2012 UK infrastructure investment pipeline data



# Funding and financing – public /private investment

Average annual infrastructure investment in the UK, public and private

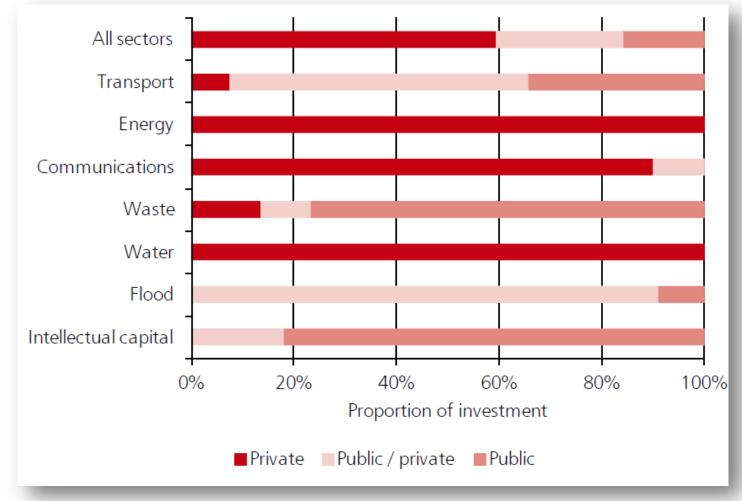


Source: HM Treasury estimates using data from company accounts, regulators, Office for National Statistics and government departments



# Funding and financing – public /private investment

## Most UK infrastructure investment is already led by the private sector



Source: HM Treasury analysis.

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## Focusing on delivery – prioritising major projects

- The Government has identified 40 projects and programmes that are of national significance and critical for growth
- Cabinet Committee, chaired by the Chief Secretary to the Treasury, to tackle poor coordination and planning and regulatory hold ups to ensure delivery

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Transport	
Roads	
Highways Agency programme in construction – pre-2010 Spending Review	New Lower Thames crossing
Highways Agency managed motorways programme – Spending Review projects	Mersey Gateway Bridge
Highways Agency trunk road improvements programme – 2010 Spending Review projects	Local transport projects – funded at or before 2010 Spending Review
Highways Agency – Autumn Statement package	Local authority major transport schemes – development pool projects
Alternative approaches to resolving issues along the A14 corridor	i de la construcción de la constru
Public transport	
Crossrail	Reading upgrade programme
Thameslink	High Speed Two (subject to consultation)
Rail infrastructure and rolling stock enhancement	Northern rail connectivity (Liverpool-Newcastle including Northern Hub)
East Coast Main Line	Intercity Express Programme
Great Western Electrification	London Underground investment programme
Kings Cross Station improvements	Northern Line Extension to Battersea
Airports	
Gatwick capital investment programme	Heathrow capital investment programme
Ports	
Ports – container terminal projects	Ports – renewable energy projects
Local infrastructure funding programmes	
Growing Places Fund	Regional Growth Fund
Energy	
Electricity generation – new nuclear investment	Electricity generation – wind energy investment
Carbon Capture and Storage investment	Electricity and gas transmission and distribution investment
Electricity generation – gas investment (CCGT)	Smart meters
Electricity generation – biomass investment	
Communications	
4G mobile auction and rollout	Fixed broadband investment – private and public
Rural mobile coverage	Urban broadband fund
Water and sewerage and flood risk managem	ent
Thames Tideway Tunnel	Flood and coastal erosion risk management programme (including Thames Estuary 2100)

## **Delivery Progress**

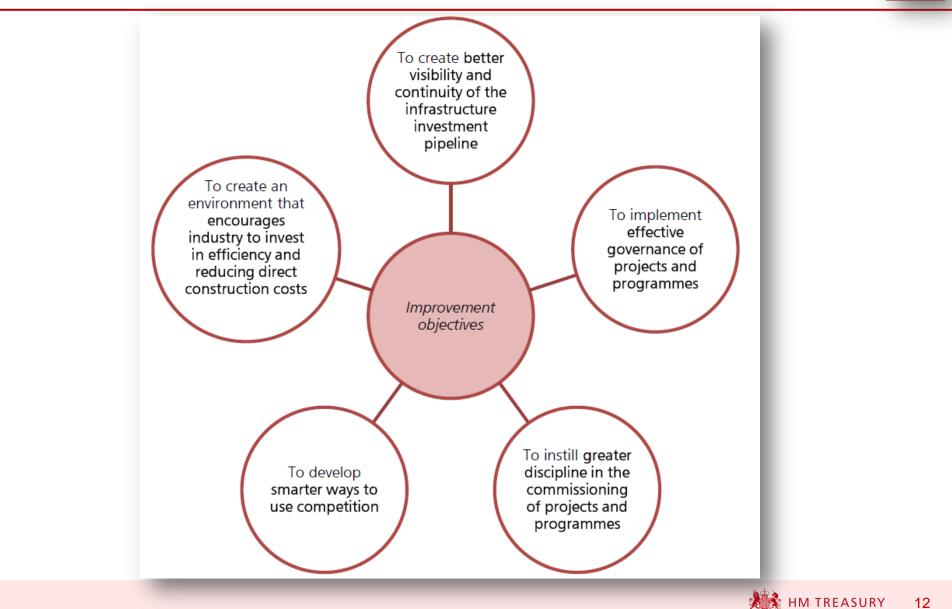
- Key commitments in AS 2011 delivered:
  - Energy Bill published
  - High Speed 2 decision
  - £9.4bn investment in rail network
  - Offshore Wind Programme Board formed
  - Major new investments in highways network
  - Flood defence programme

#### Figure 2.A: Infastructure delivery progress around the UK and Autumn Statement 2012 capital announcements NATIONAL PROGRAMMES Five year Rail Investment Plan from 2014-19, supporting £9.4 billion of investment 4G spectrum auction beginning December 2012, some services have already been rolled out on existing spectrum An additional £120 million for building new flood defences Providing certainty for low carbon power generators by setting funding for the Levy The Government has secured state aid clearance for the rollout of rural broadband and Control Framework to 2020 BT is continuing with its roll out of superfast broadband The UK Guarantees Scheme will provide up to £40 billion of guarantees nationally **NORTHERN IRELAND** NORTH EAST Rail, roads, local transport, water, flood and Completed: Tees Multimodal Bio-Frieght Terminal waste - devolved to the Northern Ireland Starting soon: Sunderland Strategic Transport Corridor -Executive 2013 New funding announced: Additional capital New funding announced: A1 Upgrade Works Lobley Hill allocation of £132 million (£64 million) New funding announced: Super-connected cities - Derry/Londonderry NORTH WEST YORKSHIRE AND THE HUMBER - SCOTLAND Starting soon: Blackburn Pennine Reach Rapid Rail, roads, local transport, water, flood Completed: East Coast Mainline York Holgate Junction Scheme - work completed, and planning approvals obtained Bus Transport Scheme - 2013 and waste - devolved to the Scottish Government for North Doncaster Chord Under construction: Carrington power station - Gas (CCGT) Investment: financial close Under construction: Whitelee Starting soon: Beverley Integrated Transport Scheme – work Onshore Wind Farm – 217MW achieved, completed by 2016 starts in 2013 extension complete New funding announced: Super-connected New funding announced: A160/180 Immingham dualling New funding announced: cities - Salford Additional capital allocation ■ Under construction: M62 J25-30 — due to complete in 2013 of £394 million Under construction: A6182 White Rose Way Improvement. New funding announced: Works - due to complete 2013 Super-connected cities -New funding announced: A1 Leeming to Barton — Aberdeen and Perth converting dual carriageway into 3 lanes (£314 million) New funding announced: Super-connected cities – York WEST MIDLANDS -- EAST MIDLANDS Starting soon: Darlaston Access Improvement Starting soon: Loughborough Road Scheme to enhance road access to the area - 201. Improvements - work starts early 2013 Starting soon: Worcester Integrated Transport Starting soon: London Road bridge, Derby -Project - 2013 work starts 2013 Under construction: M6 J5-8 expected to Under construction: Nottingham Tram complete in 2014 Extension – opens to public in 2014 Under construction: Midland Metro Birminghan ■ Under construction: A43 Corby Link – due to Extension – expected to complete in 2015 complete in 2014 New funding announced: M6 J10A to 13 New funding announced: M1 J28 to 31 accelerated delivery pilot (part of £95 million accelerated delivery pilot (part of £95 million scheme) scheme) New funding announced: M40 J12 works New funding announced: Super-connected (£10 million) cities - Derby New funding announced: Super-connected cities - Coventry WALES - EAST OF ENGLAND Roads, local transport, water, flood Under construction: East Coast Mainline and waste - devolved to the Welsh Enhancements - Hitchin flyover Government Starting soon: A11 Fiveways to Thetford – 2013 Enhanced capital allowances have been Under construction: M1 J10-13 Improvements made available at two additional sites New funding announced: A5-M1 new link road within Welsh Enterprise Zones at Ebbw (£127 million) Vale and Haven Waterway New funding announced: J30 M25 Starting soon: Pen y Cymoedd improvement works (£150 million) onshore wind farm - development consent granted May 2012 New funding announced: Super-connected New funding announced: Additional cities - Cambridge capital allocation of £227 million New funding announced: Superconnected cities - Newport SOUTH WEST -LONDON SOUTH EAST Starting soon: Bexhill-Hastings Link Road – 2013 Starting soon: Camborne Pool Redruth Completed: Thameslink – Blackfriars station Infrastructure project – 2013 upgrade now reopened Under construction: A23 Handcross to Completed: Underground Investment -Warninglid – due to complete in 2014 Under construction: M4/M5 managed motorway scheme - due to complete in spring Jubilee, Victoria and Metropolitan line upgrades Under construction: Reading Station Upgrade 2014 Programme - new high level western concourse Under construction: Crossrail – 1,300m Under construction: Kingskerswell Bypass tunnelling from Royal Oak and road bridges in position due to complete in 2015 New funding announced: M3 J2 to 4A New funding announced: Northern Line accelerated delivery pilot (part of £95 million New funding announced: A30 Temple to Extension to Battersea – providing a UK scheme) Carblake dualling works (£30 million) Guarantee to support the £1 billion investment

to extend the Northern Line

New funding announced: Super-connected cities – Brighton & Hove, Oxford and Portsmouth

## **Improving Delivery - Key themes**



# Focusing on delivery – efficiency and innovation

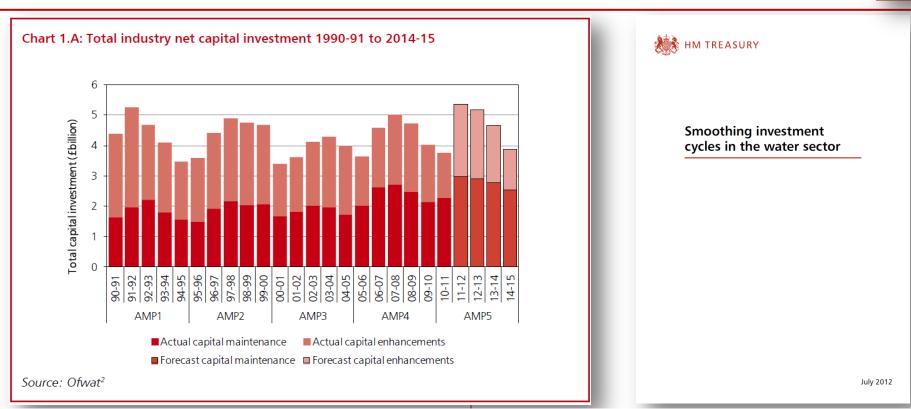
## **Implementing the Cost Review**

The Government has:

- published the construction and infrastructure pipelines
- committed to streamlining procurement processes and better engagement with suppliers
- started driving out duplication and redundancy in technical standards
- begun working with industry to build skills and capability to meet investment pipeline



# **Pipeline – Addressing cyclicality**

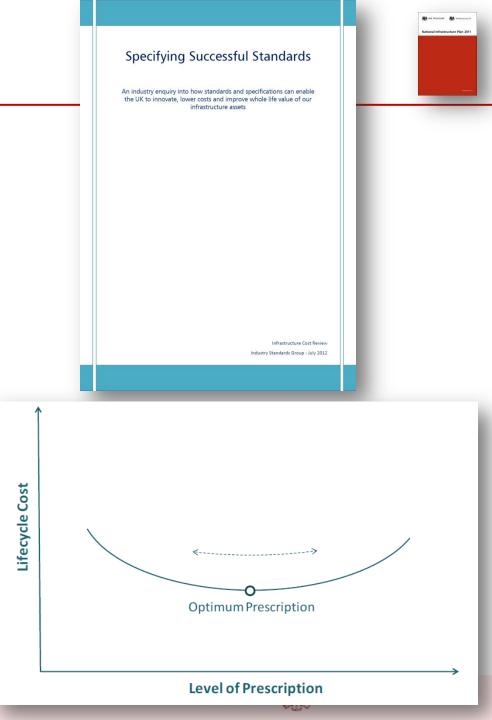


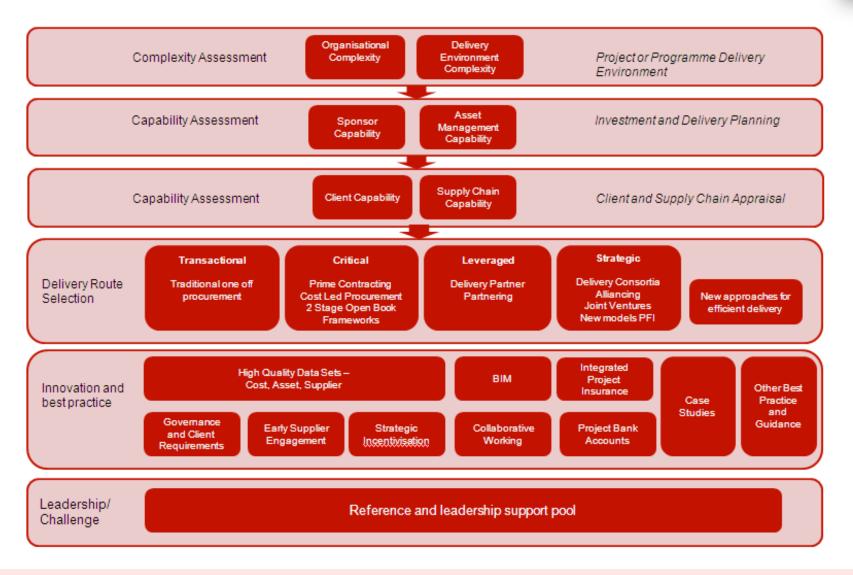
- Even with published pipeline cyclical effects undermine optimum performance
- Estimated impact in water sector alone is 3-5% lower productivity, loss of between 20,000 and 40,000 jobs each five year period
- Actions set out to incentivise smooth investment profile



# **Standards**

- Report published July 2012
- Evidence of clients getting smarter at simplifying their requirements
  - LU, NR
- Still pockets of poor practice
  - Midland Quarry Products supply asphalt to local authority highways clients
  - Same overarching highways standards, but MQP produce 270 different asphalt mixes
- Action plan now being implemented







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# **Building Capability**

- Having published pipelines how should we use them?
- Example: Tunnelling analysis April 2012
  - Industry, clients and government producing a co-ordinated approach to build capability
- Industrial Strategy for Construction, under Peter Hansford, being prepared for Summer 2013
  - A vision for UK construction
  - Build skills and capability to meet pipeline
  - Improve procurement and delivery
  - Innovative modern methods
    - BIM, DFMA
  - Low Carbon, Low Cost



# Summary

- There remain a number of key challenges
  - Pipeline short term volumes
  - External pressures Eurozone and global economic climate
- However:
  - Strong government focus on infrastructure delivery at the highest level
    - New Cabinet Committee keeping cross Whitehall focus on delivery
    - Increasing levels of investment in economic infrastructure in line with NIP
  - An targeted approach to build capability to meet published pipelines
    - Industrial Strategy for Construction
  - Cost Review principles being embedded in project delivery

Backed by:

- A long term, sustainable need to invest in UK's economic infrastructure





HM TREASU	e Cost Review:					
	HM TREASURY					
	National Infrastructure Plan 2011					
	HM TREASURY KINFrastructure UK					
	National Infrastructure Plan: update 2012					



National Infrastructure Plan

http://www.hm-treasury.gov.uk/infrastructure_nip.htm

Infrastructure Cost Review

http://www.hm-treasury.gov.uk/iuk_cost_review_index.htm

