

Government Construction Supplier Conference

19 January 2012

BIS Conference Centre, 1 Victoria Street, London

Programme

8.45 – 9.15	Coffee/tea on arrival	
9.15 – 9.30	Paul Morrell, Government Chief Construction Adviser	Welcome and update on progress re Construction Strategy
9.30 – 9.45	Stephen Dance, Head of Public Sector Markets, Infrastructure UK	Update on National Infrastructure Plan 2
9.45 – 10.00	Q&A re the above	
10.00 – 10.30	John Frankiewicz, Chief Executive, Willmott Dixon Capital Works	Developing the supply chain
10.30 – 11.00	Refreshment break	
11.00 – 11.30	Chris Slezakowski, Strategic Sales Director, SIG plc Wendy Frampton, Technical Sales and Omega Manager, Armstrong World Industries	Supply chain development – the supplier's role
11.30 – 12.15	Table discussions	On theme of supply chain development
12.15 – 12.55	Feedback to plenary	
12.55 – 1.00	Paul Morrell	Closing remarks
13.00 – 13.45	Sandwich lunch	



HM TREASURY



Infrastructure UK

National Infrastructure Plan

Construction Supplier
Conference 19 January 2012

Stephen Dance
Infrastructure UK





Outline

1. A vision for the UK's infrastructure
 - a) Extensive performance and cost analysis
 - b) Long-term ambitions for each sector
2. Funding and financing infrastructure investment
 - a) New approach to private investment
 - b) New investment worth £2.7bn
3. Focusing on delivery
 - a) Prioritising major projects through a new Cabinet Committee
 - b) Bringing down costs in planning and through the Infrastructure Cost Review





1a. The vision – performance and cost analysis

Sector	Evolution of performance since 2005	Evolution of cost since 2005		Capacity access and availability	Asset or capacity utilisation	Service quality and reliability	Asset condition
Major roads	↑	↑	Major roads	→	→	↑	↑
Rail	↑	→	Rail	↑	↓	↑	↑
Airports	↓	↑	Airports	↓	--	↓	--
Ports	↑	↑	Ports	→	↓	↑	--
Electricity	↑	↑	Electricity	↑	↑	↑	↓
Gas	↑	↑	Gas	↑	↑	↓	→
Communications	↑	↓	Communications	↑	--	↑	--
Water and sewerage	↑	↑	Water and sewerage	↑	↑	↑	↑
Waste	↑	↑	Waste	↑	↑	↑	↑
Flood risk management	↑	↓	Flood risk management	↑	--	--	↑





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Infrastructure UK

Transport



Energy



Communications



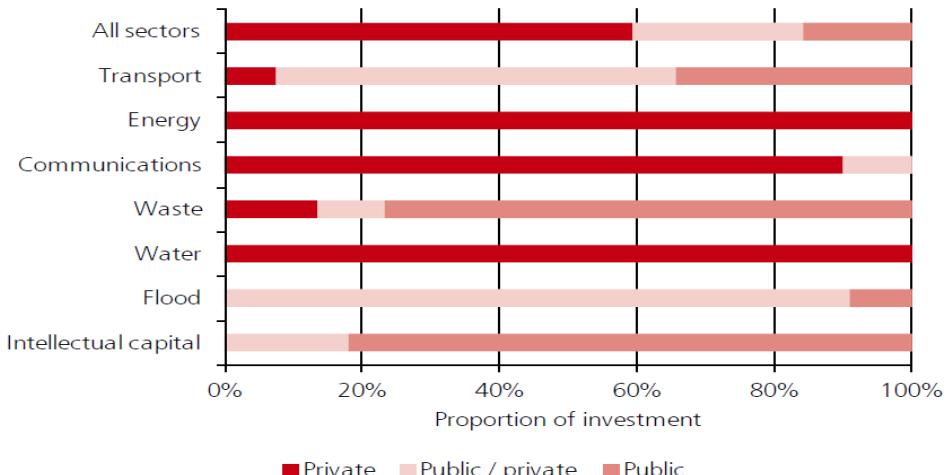
Environmental networks





2a. A new approach to private investment

Most UK infrastructure investment is already funded by the private sector



The Government is taking a new strategic approach to mobilise further private finance

- new investors
- new sources of revenue
- more flexibility for local authorities
- using guarantees



Source: HM Treasury analysis.



£2.7 billion of new investment:

£1 billion on roads

£1.4 billion on rail

£170 million on local transport

£100 million on broadband

Note: around £1 billion of the investment in railways is funded by Network Rail.



NATIONAL PROGRAMMES

- Improving mobile coverage in the UK up to 99% of the population
- Urban broadband fund to create up to 10 "super-connected cities"
- Network Rail investment to tackle problems on the network more quickly
- Network Rail investment to improve the railway network including bringing forward bridge renewals, enhancing access to stations and improving resilience to winter weather
- Centres for Offshore Renewable Engineering
- Road Pinch Point Fund to ease bottlenecks and improve safety
- Additional funding for local authority major transport projects
- Additional funding for local transport

NORTHERN IRELAND

- Transport, energy, water, flood and waste – devolved to the Northern Ireland Executive
- Belfast: Super-connected city funding

NORTH WEST

- Electrification of the Transpennine Express
- M56 at Manchester Airport link road to A6 south of Stockport
- Completion of Westway gateway Enabling Scheme at Port Salford
- Expansion of Mersey Multimodal port
- Crewe Green Link Southern Section
- Manchester Cross City Bus
- Rochdale Interchange
- Mersey Gateway Bridge
- Reinstating Todmorden Curve

SCOTLAND

- Rail, roads local transport, water, flood and waste – devolved to the Scottish Government
- Edinburgh: Super-connected city funding

WEST MIDLANDS

- M6 managed motorway scheme between Birmingham and Manchester
- A45 Westbound Bridge (Solihull) – Replacement bridge over the West Coast Main Line close from Birmingham Airport on the A45 strategic corridor into Birmingham
- Evesham Bridge Maintenance (Evesham) – Rebuilding of the main bridge into Evesham from the South
- A45/A46 Tollbar End improvement scheme
- A45 Corridor (Dawson Parkway to M42 junction 6) diversion

WALES

- Roads, local transport, water, flood and waste – devolved to the Welsh Government
- Power station development consents granted (Anglesey Aluminium Biomass)
- Cardiff: Super-connected city funding

SOUTH WEST

- Bus Rapid Transit scheme from Ashton Vale to Temple Meads (Bristol)
- Kingskerswell By pass (Devon/Torbay)
- South Bristol Link Phases 1&2
- Hinckley Point C – new nuclear planning application accepted by the Infrastructure Planning Commission

LONDON

- North Line extension to Battersea
- Acceleration of M25 junction 23 to 27 scheme
- Thames Tideway Tunnel
- Super-connected city funding

NORTH EAST

- Electrification of the Transpennine Express
- Tees Multimodal Bio-Freight Terminal

YORKSHIRE AND THE HUMBER

- Accelerating M1 junction 39 to 42 scheme
- A164 Humber Bridge to Beverley
- A18-A180 Link (NE Lincolnshire)
- A6182 White Rose Way Improvement Scheme (Doncaster)
- Access York Park & Ride – Two new park and ride sites
- Leeds Rail Growth – Two new railway stations: Kirkstall Forge and Appleby Bridge
- Supertam additional vehicles (Sheffield)
- Electrification of the Transpennine Express
- Improved access to the Sheffield Gateway
- Power station development consents granted (Ferrybridge; Thorpe Marsh; Immingham; Selby; Westermost Rough)
- Humber Bridge toll reduction

EAST MIDLANDS

- Lincoln Eastern Bypass
- A43 Corby Link Road
- Hucknall Town Centre Improvement Scheme
- London Road Bridge (Derby)
- Widening the A5032 between Nottingham, the M1 and Nottingham East Midlands Airport
- M1/M6 Junction 19 major road improvements
- Development consent granted for a scheme to improve the A1 at Elkesley
- Widening the A14 Kettering Bypass between junctions 7 and 9

EAST OF ENGLAND

- Power station development consents granted (Gasworks Energy Centre Combined Cycle Gas Turbine)
- New Lower Thames Crossing
- A14 in Cambridgeshire
- M1 Junction 10a improvement

SOUTH EAST

- M25 in Surrey – managed motorway scheme
- Replacement of Northern Road Bridge (Portsmouth)
- New M275 Tipner Interchange (Portsmouth)
- 130 additional carriages for the Southern rail franchise in south London
- New rail link between Oxford and Bedford



40 priority projects and programmes

New Cabinet Committee to focus on delivery

Address poor coordination and planning and regulatory hold ups, and focus commercial expertise

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	
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 management	
Thames Tideway Tunnel	Flood and coastal erosion risk management programme (including Thames Estuary 2100)



Early Involvement of the Supply Chain

BiS 1 Victoria Street

19th January 2012





FOCUS, SPECIALISATION AND SERVICE



SIG

Working as a team

Experiences supplying University Hospital Birmingham

University Hospital Birmingham

- Replacement teaching hospital on existing site
- PFI project £545million build cost
- Awarded to Balfour Beatty in 2006
- M&E by Haden Young
- Five year, six phase build
- Thirty years hard FM by Consort



Balfour Beatty

Scale of project

- Largest acute new build facility outside London
- Three mental health buildings
- Handover to start 2008
- 40 phases
- Residential neighbourhood
- Facility to remain operational throughout



SIG Group locations in the Birmingham area



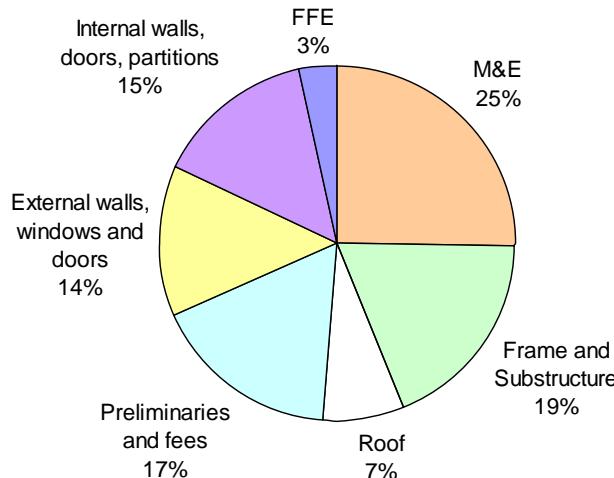
Key considerations

SIG able to provide

- Multiple product ranges
- Delivery service
- Credit facilities to installation contractors (typically SMEs)
- Scale; financial security, **compliance** and continuity
- Specialist knowledge
- Agile, local response
- Major project expertise



Potential to Supply



Based on a £20million building



Source	Source: CPA/NSCC/Miller Nov 2006	%	Value	% Materials	Value mats	SIG as % to value	EG packages	SIG value
Ignore prelims and external works								
Substructure	6.52%	£1,832,120	40%	£732,848	2%	Slab components	£36,642	
Frame and upper floors	10.65%	£2,992,650	40%	£1,197,060	10%	F/P £320k; colour	£299,265	
Roof	7.22%	£2,028,820	40%	£811,528	20%	Single ply £400k	£405,764	
Stairs	1.66%	£466,460	40%	£186,584	10%	Architectural glass	£46,646	
External walls, windows and doors	13.56%	£3,810,360	40%	£1,524,144	2%		£76,207	
Internal Walls and partitioning	4.43%	£1,454,720	40%	£373,449	30%		£373,449	
Internal doors	2.32%	£65,920	40%	£24,374	65%		£423,748	
Wall finishes	2.13%	£1,124,330	40%	£179,559	15%		£89,780	
Floor finishes	3.93%	£1,104,330	40%	£441,732	10%	Screeed £80k, RA	£110,433	
Ceiling finishes	1.84%	£517,040	40%	£206,816	40%		£206,816	
Furniture and fittings	3.4%	£1,020,200	40%	£372,800	10%	Reception furn £8k	£97,226	
Sanitary appliances	0.1%	£4,500	40%	£1,800	0%		£0	
Services installation	1.10%	£509,100	40%	£203,640	0%		£0	
Disposal installations	0.60%	£168,600	40%	£67,440	0%		£0	
Hot and cold water installations	1.07%	£30,670	30%	£9,200	0%		£0	
Space heating air treatment and venti	8.2%	£1,515,320	40%	£565,320	5%		£94,416	
Electrical installation	5.1%	£8,600	40%	£3,440	0%		£0	
Gas installation	0.11%	£30,910	40%	£12,364	0%		£0	
Lift installations	2.52%	£708,120	80%	£566,496	2%		£14,162	
Protective installations	0.10%	£28,190	40%	£11,240	0%		£0	
Communications installations	2.87%	£806,470	40%	£322,588	0%		£0	
Specialist installations (BMS)	1.24%	£348,440	40%	£139,376	0%		£0	
Builders work in connection	1.74%	£488,940	20%	£97,788	0%		£0	
	82.89%	£23,292,090	43%	£10,062,329	23%		£2,274,555	

23% of total material cost from SIG

	% of building cost	% of materials
SIL/CPD	3.2%	7.3%
SCP	0.6%	1.3%
SIGRGS	1.7%	4.0%
LS	1.8%	4.2%
CPD	1.2%	2.9%
KOMFORT	1.2%	2.8%
	9.8%	22.6%



CEILING SYSTEMS

Between us, ideas become reality®

Queen Elizabeth University Hospital, Birmingham

The Key to Supply Chain – the Supplier's Role

The Manufacturer

Armstrong®

Between us, ideas become reality®

Armstrong World
Industries Ltd

Partners

Challenges/Solutions

Outcome

Moving Forward

- Manufacturer of suspended ceiling systems
- Plants in the U.K., on the Continent and Worldwide
- Comprehensive product portfolio
- Specialist products for health environments
- New to supply chain in 2006 - Balfour Beatty one of the first
- Commitment to recycling
- Partnership with SIG for supply
- Omega sub contractor programme
 - Recent introduction of Green Omega
- 2 Recent awards
- Now for the case study





Project Partners

Ceiling Manufacturer:
Armstrong World Industries



Architect:
Building Design Partnership (BDP)



Main Contractor:
Balfour Beatty Construction Ltd



Ceiling Distributor:
CPD Distribution part of the SIG Group



Titan
Ceilings Ltd

Specialist Ceiling Contractor:
Titan Ceilings Ltd



- Project size – 120,000m² ceilings
 - Early & ongoing communication between parties, managing capacity
- Time scale
 - Communication between parties, just in time deliveries
- Budget constraints
 - Clear & agreed material cost strategy formed very early
- Service & fittings integration
 - Lighting, curtain track systems, partitions etc
- Performance requirements
 - Anti-microbial paint finish, ISO 5 Clean Room, acoustic comfort
- Recycling of off-cuts
 - Balfour Beatty's commitment for ceilings realised

Recycling Challenges

- Finding the correct place and manner of storage on site
- Originally bags came back to the plant with non-ceiling waste
- Introduced a different screening system, on site and at Armstrong's plant in Team Valley



- No ceiling tile waste to landfill
- 42 tonnes of off-cut ceiling tile waste was recycled into new tiles.
- Tiles produced from the off-cuts used in designated “green rooms”

From an article on the project

The University Hospital, Birmingham construction joint venture was given an award by the Chartered Institute of Waste Management for outstanding site management of waste – a direct result and recognition of the hard work put in by all involved. It is certain that the practices that have been put in place will play a significant role in the future of waste management.

There is also the additional environmental benefit of specifying Armstrong Bioguard ceilings. At the end of their life the tiles at Birmingham hospital can be fully recycled back into the Armstrong “End of Life” recycling scheme!

Jim Duffy (Head of Environment and Quality), Balfour Beatty Construction Northern, anticipates that major building contractors and customers could soon make on-site recycling mandatory. He said,

"This major project identified ceiling tile cut offs as an item that would be unacceptable to send to landfill. The project pushed the boundaries with Armstrong and Titan and all three parties agreed to trial the recycling scheme. Having overcome some initial challenges in the first year, the trials success and failures have been reviewed and actions put in place to improve the volume of recycled material in the second year of the trial. Having the commitment to trial the scheme on a non contractual basis was a great step forward. Committing to improve the recycling process is a great testimony to all parties. The challenge for the future is making this the norm "

Pinderfields – Pontefract – Tameside - Salford

Peterborough Hospital completed (featured on BBC Radio Cambridge)
Southern General in Glasgow underway
and now moving to schools too.

QE Hospital delivered

- On time
- Within budget
- Fit for purpose
- Minimum impact on the environment.

Key savings realised for the project

<u>Package</u>	<u>Package Estimate</u>	<u>Materials cost 1</u>	<u>Materials cost 2</u>	<u>Saving</u>	<u>%</u>
Doorsets	£5,000,000	£4,770,000	£4,200,000	£570,000	11.9%
Ceilings	£3,000,000	£1,780,000	£1,500,000	£280,000	15.7%
Komfort wards	£1,750,000	£1,180,000	£985,000	£195,000	16.5%
Komfort theatres	£1,000,000	£750,000	£505,000	£245,000	32.7%
M&E insulation	n/a	£315,000	£300,000	£15,000	4.8%
Dry Lining	£17,500,000	£6,930,000	£5,775,000	£1,155,000	16.7%
TOTAL	£28,250,000	£15,725,000	£13,265,000	£2,460,000	15.6%



Outcome

Sales to UHB £15million+ over 3 years

- Project completed on time, with three phases 12 months ahead of schedule
- Balfour Beatty is a strong advocate of early involvement

Experience used to mutual advantage on other projects:

- Pontefract and Pindersfields PFI hospitals
- Northern Batch hospitals
- Derby and Stoke BSF waves
- A national agreement to supply products to all sites

Key messages

- Involve the supply chain as early as possible
- Consult with added value suppliers
- Commit to a plan or method of working
- Log key gains from collaborative activity
- Build gains by transport of learning to other projects



Armstrong®

SIG

FOCUS, SPECIALISATION AND SERVICE

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Questions for table discussion

All tables to answer Q1 and Q6, plus one other (as allocated).

1. **All tables:** Should Primes (meaning main/tier 1 contractors, construction managers etc) be striving to build settled, collaborative supply chains, or is opportunistic tendering on a project by project basis still an attractive business model?
2. **Tables 1 and 5:** If the answer to Question 1 is "sometimes", what are the characteristics of a business, service or product that differentiate it from a commodity purchase and argue for a settled relationship?
3. **Tables 2 and 6:** What are the elements of a supplier's business (eg training, health and safety etc) that a Prime might/should show an interest in, and where does/might this lead to a shared development programme?
4. **Tables 3 and 7:** What are the barriers to developing a settled supply chain - eg caused by the structure of the industry, the requirements/procurement practices of clients, the instincts/skills of suppliers etc?
5. **Table 4:** How can suppliers share their ideas for cost reduction/value enhancement in an environment that protects their IP whilst maintaining some competitive pressure?
6. **All tables:** Should (public sector) clients get involved in this (and if so, how?), or should it be left to the Primes?