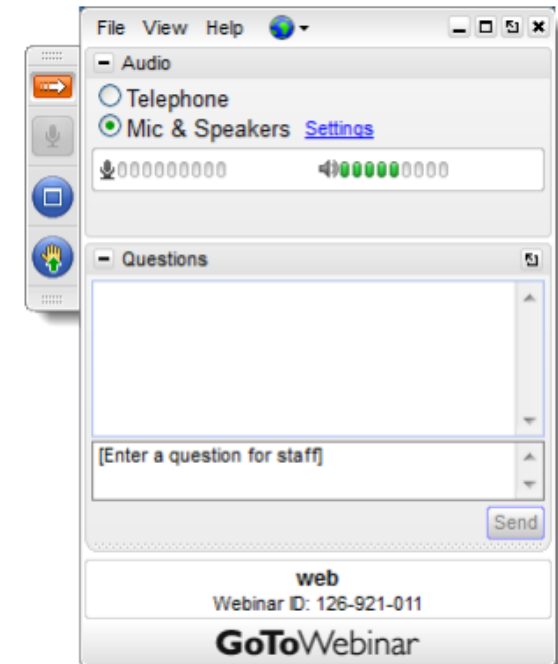


Embedding ethical sourcing into procurement on Crossrail

18 April 2016

Communicating with us

If you have a question for the one of the speakers or you experience any technical issues during the webinar please let us know in the 'Questions' section on the control panel.



Watch the recording & download the slides

The presentation slides will be available on CIRIA's website at www.ciria.org/postevent

The slides and recording will also be available on IEMA's website at www.iema.net/event-reports

Welcome



Philip Charles
Project Manager
CIRIA



Mike De Silva
Sustainability Manager
Crossrail



Jacquie Glass
Associate Dean Enterprise
University of Loughborough



Philip Charles

Project manager, CIRIA

The Crossrail Learning Legacy Programme



What is Learning Legacy?



The collation and sharing of lessons learned from major construction projects aimed at raising the bar in the industry and showcasing UK PLC

How it works



LEARNING LEGACY

Crossrail teams
Supply Chain
Technical Paper
competition
Innovations archive
Academics

Learning
Legacy
Assets



AMBASSADORS



APPLICATION

Industry



Dissemination
events
Social Media
Publications



Key Projects



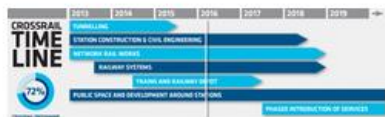
Tideway

Project-specific
knowledge
sharing





12 Learning Legacy Themes



PROJECT AND PROGRAMME
MANAGEMENT



PROCUREMENT



AUTHORISATION AND CONSENTS



LAND AND PROPERTY



HEALTH AND SAFETY



ENVIRONMENT



ENGINEERING



OPERATIONS



TALENT AND RESOURCES



EXTERNAL AFFAIRS



INNOVATION



INFORMATION MANAGEMENT
AND TECHNOLOGY



WELCOME TO THE CROSSRAIL LEARNING LEGACY WEBSITE

Learning Legacy is the collation and dissemination of good practice, lessons learned and innovation from the Crossrail construction programme aimed at raising the bar in industry and showcasing UK PLC.

The Crossrail Learning Legacy aims to share knowledge and insight, through means such as case studies and technical papers providing lessons and recommendations to help others. Documents and templates that have been used successfully on the Crossrail programme can be 'pinched with pride' by other projects, and datasets will be made available that can inform future research projects. The Learning Legacy will also showcase the experts behind the delivery of the Crossrail programme.

"Passing on the lessons and good practice that we have learned at Crossrail is an absolutely essential part of raising the bar in the delivery of major projects. With an unprecedented number of infrastructure schemes around the corner, now is the time to start sharing what we have learned so the UK can build on its reputation for delivering on time and on budget" **Andrew Wolstenholme, Chief Executive, Crossrail**

"The IPA is wholly committed to ensuring the UK's delivery of major infrastructure projects is achieved efficiently and effectively. The creation of a learning environment is vital to improving project performance, and we see Crossrail's Learning Legacy as an impressive example of best practice. We encourage all project professionals to draw on this excellent resource; the more we can learn from the experience of others the closer we will come to flawless project execution." **Tony Meggs, Chief Executive, Infrastructure and Projects Authority**

Working with Partners



- ▶ **Delivery partners** (eg, Bechtel, Transcend, Designers)
 - ◆ Contributing learning legacy papers and sharing data
 - ◆ Funding or resource support
 - ◆ Supporting dissemination
- ▶ **Academic partners**
 - ◆ Undertaking research
 - ◆ Peer review
 - ◆ Educational resource champions
- ▶ **Industry partners** (eg, APM, RICS, CE, ICE, IET, MPA, CIRIA, IOSH, BSC, etc)
 - ◆ Funding Research
 - ◆ Resource
 - ◆ Dissemination (eg, publications, events, social media, websites)
 - ◆ Peer review
- ▶ **Stakeholders** (eg, TTT, HS2, Crossrail2, TfL)
 - ◆ Single points of contact (by theme) for lessons learned/learning legacy requests
 - ◆ Dissemination into stakeholder organisations
- ▶ **Advisory partners** (eg, E&Y, KPMG, Deloitte, PWC, Nicholls)
 - ◆ Contributing insight and market intelligence to the learning legacy

Dissemination Events



Theme	Event	Date	Speaker
Environment	Ethical Sourcing Webinar	18 April	Mike de Silva
PPM-Procurement	2025 – Driving the Vision	25 April	Martin Buck
Environment	Institute of Acoustics – Acoustics on Large Infrastructure Projects	10 May	Andrew Bird, Colin Cobbing

► And many more to come





learninglegacy@crossrail.co.uk



Mike De Silva

Sustainability Manager, Crossrail

◀ Crossrail: Collaborating on ethical sourcing

- ◀ Dr. Mike de Silva, Bechtel Ltd,
- ◀ Crossrail Sustainability Manager

Contractual Requirement



The *Contractor* shall ensure that in Providing the Works it complies with the following minimum requirements (derived from the Ethical Trading Initiative Base Code) and shall use reasonable endeavours to ensure that subcontractors and suppliers of any tier comply with these minimum requirements.

Ethical Trading Initiative

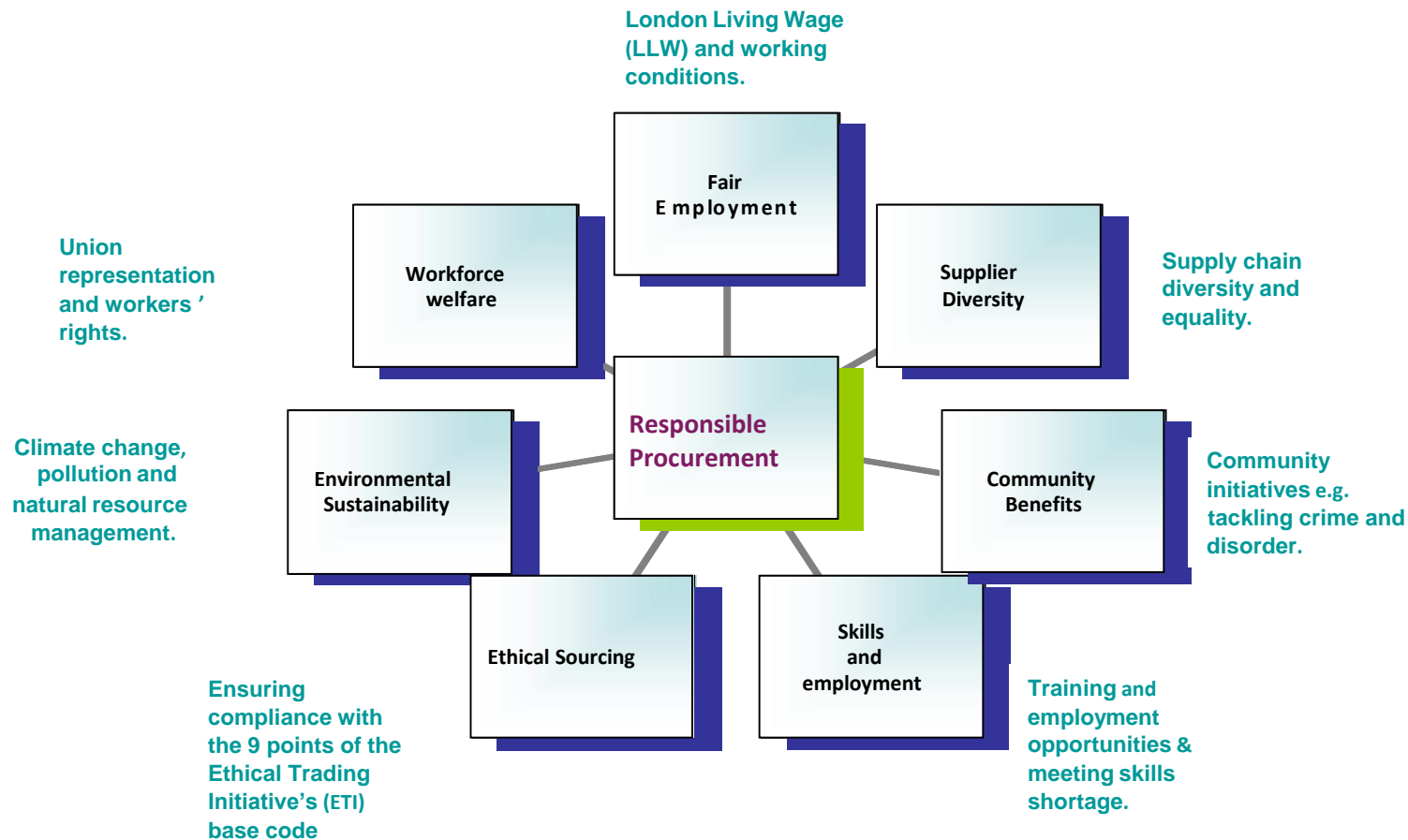


The ETI Base Code

The Code is based on the internationally recognised standards of the International Labour Organisation (ILO), the UN agency responsible for labour standards.

- Employment is freely chosen
- Freedom of association and the right to collective bargaining are respected
- Working conditions are safe and hygienic
- Child labour shall not be used
- Living wages are paid
- Working hours are not excessive
- No discrimination is practised
- Regular employment is provided
- No harsh or inhumane treatment is allowed

GLA's Responsible Procurement Themes



Barriers to Implementation



How deep should we go?

We can transfer the risk to suppliers

Risks are too far down the supply chain...

I need resource!

Where do I start?

Do we need to...?

Our marketplace is not the public mass market

Collaboration



- ▶ The Crossrail Ethical Supply Chains in Construction working group



Balfour Beatty



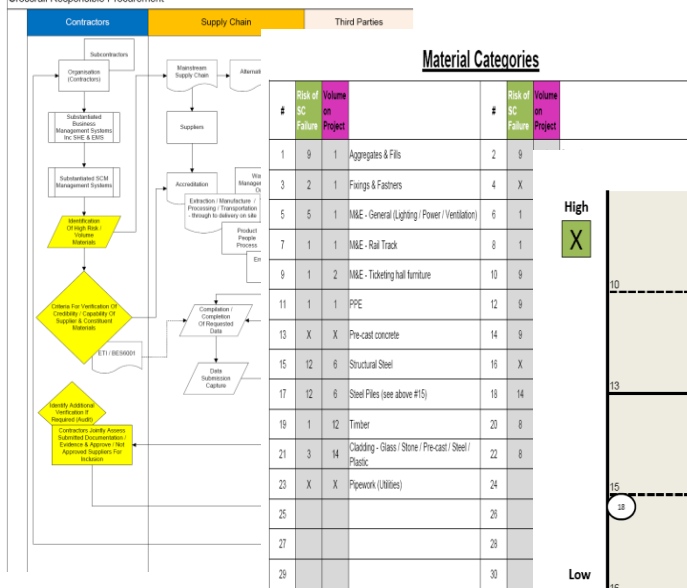
**MORGAN
SINDALL**

LAING O'ROURKE

Implementation



Crossrail Responsible Procurement



Material Categories

#	Risk of SC Failure	Volume on Project	#	Risk of SC Failure	Volume on Project
1	9	1	Aggregates & Fills	2	9
3	2	1	Fittings & Fasteners	4	X
5	5	1	M&E - General (Lighting / Power / Ventilation)	6	1
7	1	1	M&E - Rail Track	8	1
9	1	2	M&E - Ticketing hall furniture	10	9
11	1	1	PPE	12	9
13	X	X	Pre-cast concrete	14	9
15	12	6	Structural Steel	16	X
17	12	6	Steel Piles (see above #15)	18	14
19	1	12	Timber	20	8
21	3	14	Clothing - Glass / Stone / Pre-cast / Steel / Plastic	22	8
23	X	X	Pipework (Utilities)	24	
25				26	
27				28	
29				30	

High
X

Low
Y

Green

Pink

XX

Volume of

Risk of Supplier

Importance

Volume of

Risk of Supplier

Importance

Volume of

Risk of Supplier

Importance

Volume of

Risk of Supplier

Importance

Commodity Group	Supplier Name	Trade Association Details	Ethical sourcing policy Y/N	Policy reflected in their SPN and/or supplier selection processes Y/N	Do they carry out their own audits on their supply chain covering EIT, basecode or similar?	How often do they audit?	If they do carry out their own audits, what are the findings?	What happens if they are not happy with the findings?	If the supplier uses other methods to ensure ethical sourcing
Aggregates	Conco, HCM, BRC, Express		Y	Y	Y	Once a year			
Aggregates Industries			Y	Y	Y	Once a year			
Cement			Y	Y	Y	Once a year			
Hanson			Y	Y	Y	Once a year			
Lafarge Aggregates Ltd	MPA - The Concrete Centre - Guy Thompson		Y	Y	Y	Once a year			
London Concrete			Y	Y	Y	Twice a year			
London Premix			Y	Y	Y	Once a year			
Western Group			Y	Y	Y	Once a year			
Tarmac			Y	Y	Y	Once a year			
Timber Trade Federation			Y	Y	Y	Once a year			
FEC			Y	Y	Y				
FEPC			Y	Y	Y				
Fittings & Fasteners									
Station Fit Out	No response								
Steel									
Stone / Paving	Burton								
Mechanical & Electrical	TRIS PIPING SYSTEMS								
Pipe / Hse	Manitex								

February 2011

Motivation:

Ethical sourcing was part of the Responsible Procurement contractual requirements, which the contractors were consistently failing to satisfy. A couple of the contractors did produce their own versions of supply chain risk mapping that showed promise, potential and process but no rigour.

Action:

The contractors engaged at the time were invited to a workshop intended to address the reasons for the lack of compliance and collectively produce a solution.

Methodology:

A third party was used to facilitate the [workshop](#). The event was interactive so as to engage the contractors rather than have them listen to speakers and go away with actions. They were posed an obvious question – "What are the barriers to mapping ethical sourcing risks in your supply chain?". The brainstorming by the breakout groups were collated, discussed and rationalised. A second, unannounced, part of the exercise was to consider what would help them overcome those barriers they identified in the earlier exercise. This keeps the contractors interested and attentive as they are allowed and encouraged to speak out. This enables a more natural 'buy-in' by the participants as they will have, effectively, contributed to the outcome.

Outcome:

1. Brainstorm map of exercise 1. "What are the barriers to mapping your supply chain?"
2. Brainstorm map of exercise 2. "How can those barriers be overcome?"
3. A unanimous opinion by the participating contractors that Crossrail should lead and facilitate a working group to enable the contractors to collaboratively address ethical sourcing. This was agreed under the premise that Crossrail would only be a pilot project for the working group and the experience would be used to reflect back into their respective organisations to address ethical sourcing holistically.

Lessons Learnt:

- In order to create an initiative and establish willing participation, arrange a workshop with the potential members facilitated by a 3rd party (ideally a consultant with expertise in the relevant field in question)
- Pose the problem at hand as the question of the workshop exercise in order for everyone to understand the issues around the problem.
- Pose a follow-up question soliciting possible solutions to the issues raised in the first exercise. The participants should not be made aware of this question in order to prevent possible engineering of the answers to the first exercise.
- Prior to the workshop, some options should be prepared as possible proposals to the audience or to stimulate discussion in case there is no conclusive outcome.

Outputs



Best Practice Social Audit Requirements for Crossrail				
SECTION A	SECTION B	SECTION C	SECTION D	
Who undertakes the audit? To satisfy us that the the auditor's ability to undertake a social audit is sound, the auditor shall provide evidence against all of the following requirements. They need to be able to demonstrate that:	When is the audit undertaken? To satisfy us that the the audit is undertaken at the appropriate time/interval, the auditor shall provide evidence against at least three of the following requirements as a minimum.They need to be able to demonstrate that:	What content is included in the audit To satisfy us that the the audit contains the appropriate information, the auditor shall provide evidence against all of the following requirements.The audit report needs to include:	How is the audit conducted? To satisfy us that the the audit is undertaken in the appropriate manner, the auditor shall provide evidence against all of the following requirements.The audit needs to include:	Advisory Comments
Primary Requirements	Primary Requirements	Primary Requirements	Primary Requirements	
A1.They are trained to audit, competent to audit and certified to do so.	B1.An audit is undertaken every 18 months as a minimum. (Based on initial audit findings, the auditor can adapt and undertake more flexible audits)thereafter as required	C1.Date of the audit	D1.A factory/site visit.	Allow sufficient time Needs to be undertaken as an educational process (it is still a new concept) Applaud excellence Improvement plans are imperative and evidence should demonstrate that they are being acted upon. Encourage engagement and transparency Establish achievable goals Protect confidentiality
A2.There is no conflict of interest; that they can be impartial while undertaking the audit.	B2. (Based on initial audit findings), they can adapt and undertake more flexible audits thereafter as required.	C2.Signature of Director	D2.Anonymous feedback from auditees should be possible (eg Private interviews/meetings with staff, in the absence of supervisors)	
A3.They have an understanding of the culture in which the organisation is based.	B3. Either the buyer or supplier has arranged an audit prior to concluding the order.	C3.The use of compliant question set such as the SEDEX-SMETA auditing template shall be used	D3. Confirmation that the auditee organisation has been pre-notified of the criteria for assessment	
A4. They have attended a prior briefing or have prior knowledge of in-country issues and/or commodity issues.		C4.A list of risks, highlighted in the report, with an action plan in place, with time frames.		
		C5. An account of whether the organisation has any processes for social compliance (e.g. procedures/policies).		
		C6.An account of how the auditor has made allowance for any important and relevant differences in culture.		
		C7.An account of any previous non-compliance and actions taken to address this (where this is not the first audit).		
Secondary Requirements	Secondary Requirements	Secondary Requirements	Secondary Requirements	
A5. Management may engage third party auditors (must be from an organisation recognised by a European or US based certification agency)	B4.Although unannounced audits are considered preferable, it is recognised that this practice may not be practical. Therefore audit notification period should be minimised such that preferential abnormal practices cannot be easily implemented.	C8.An account and suitable recognition of other existing 3rd party certification schemes that may be in place.	D5. Confirmation that the duration of the audit has been based on an assessment of risk.	
A6. They have specific knowledge pertinent to the product/process/system being audited.	B5. Aligned to existing audit schedule where possible to ease disruption	C9.A clear focus on areas which are known to be poor.		
A7. They have specific competence in Social Auditing	B6.Additionally, audits to be undertaken post organisational changes of auditee company /Legislative changes	C10.Justification if a "pick&mix" of the overall question set to provide a "snapshot" is used.		
Must meet all primary requirements	Must meet all primary requirements	Must meet all primary requirements	Must meet all primary requirements	MANDATORY
Secondary Requirements				
Score 3/3	Score 3/3	Score 3/3	Score 1/1	Score 10/10 EXCELLENT
Score 3/3	Score 2/3	Score 3/3	Score 1/1	Score 9/10 GOOD
Score 3/3	Score 1/3	Score 3/3	Score 1/1	Score 8/10 PASS

NB: Scoring does not indicate the performance of the audited facility, only the robustness of the audit process

- ▶ Material traceability
- ▶ EMS
- ▶ H&S Management System
- ▶ Greenhouse gas emissions
- ▶ Energy use
- ▶ Resource use
- ▶ Waste prevention & management
- ▶ Water abstraction
- ▶ LCA
- ▶ Ecotoxicity
- ▶ Transport Impacts
- ▶ Employment & skills
- ▶ Local communities
- ▶ Business ethics

Outputs



Page 1 of 4

Commodity Group

Concrete

This commodity group covers concrete and concrete products.

What are the risks/issues associated with this commodity group

Concrete was considered as a high priority area, largely because of the sheer volume of the material that would be used across the Crossrail project. Because of its large volume the responsible procurement of concrete also has a significant implication on BREEAM credit MATS i.e. a failure to demonstrate that concrete is responsibly sourced could negatively impact on the BREEAM credit. It was acknowledged that concrete is one of the more simple supply chains to understand, but would assist in mapping out the process to investigate more complex supply chains.

Trade Associations

The Concrete Centre

(British Cement, British Precast Concrete Federation, British Ready-Mixed Concrete Association, Cement Admixtures Association, Cementitious Slag Makers Association, Quarry Products Association, UK Quality Ash Association, Concrete Industry Sustainable Construction Forum)

Certified schemes covering Responsible Procurement

BES 6001

The concrete industry is largely covered by certified management systems such as ISO 9001, ISO 14001 and OHSAS 18001 systems which are also a key requirement within BES 6001.

Investigations into Supply Chain

Concrete, when procured in the EU is a locally sourced material so its constituents are both traceable and subject to the comprehensive EU regulatory framework. The concrete industry state that it is committed to continued investment to maintain its leadership in this area and a 2020 target of 95% has been established for this performance indicator.

The industry also states that ready-mixed concrete is the leading product sector within the concrete industry in delivering responsibly sourced products. In 2011 almost 96% of its products were certified to BES 6001

FH, 28th January 2013

Start | Inbox - MikeDeSilva@cro... | Sustainability & Consent... | vinci construction logo - ... | ESCIC - \\Remote | APRES Presentation 27... | Commodity_Group_... | 17:14

Commodity Sheets

- ▶ Concrete
- ▶ PPE
- ▶ Timber
- ▶ Reinforcing Steel
- ▶ Stone & paving
- ▶ Fit out materials
- ▶ Mechanical & electrical



Commodity Sheet details

- ▶ What are the risks associated with the commodity group
- ▶ Trade associations
- ▶ Certified schemes covering responsible procurement
- ▶ Investigation into supply chain
- ▶ Proposed actions for mitigation
- ▶ Result of mitigation
- ▶ Residual supply chain risks



Collaboration with the wider industry



- ▶ UKCG (now part of Build UK)
- ▶ Supply Chain Sustainability School
- ▶ BRE
 - ◆ BES 6001
 - ◆ M&E working group
- ▶ CARES
- ▶ APRES

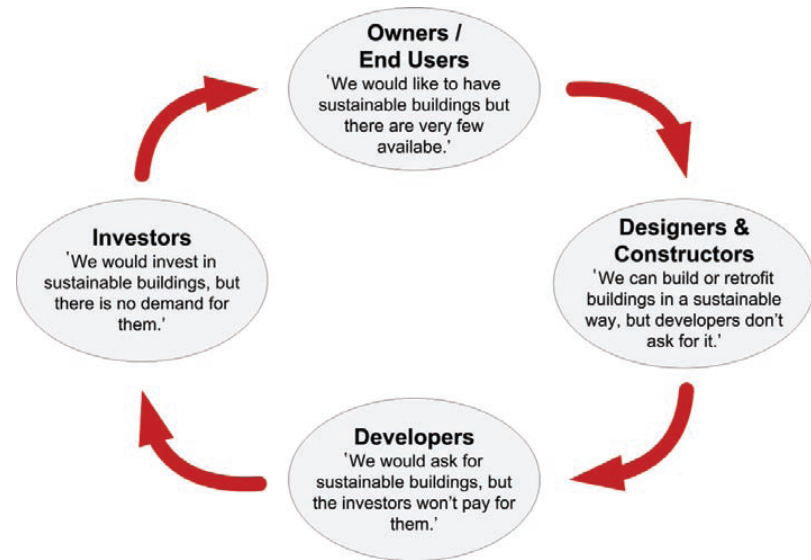


- ▶ Construction Products Association
- ▶ Concrete Centre
- ▶ Achilles
- ▶ SIG
- ▶ Arnold Laver
- ▶ Marshalls
- ▶ Interface
- ▶ Construction Fixings Association
- ▶ BASEC
- ▶ Mining companies
- ▶ SEDEX
- ▶ Ecovadis
- ▶ ETI



Ref: Greenpeace

- ▶ Who should take the lead?
- ▶ *“The more buyers at the top of the chain that ask for higher standards, the more power the NHS has to change things at the manufacturing end”.*



(adopted from Cadman, 2000, taken from RICS)

What we want to avoid



Photo: Palani Mohan/Swedwatch 2007.

Rife in the electronics industry



- Breaking of national & international laws
- Company codes of conduct
 - Living conditions
 - Below-standard wages
 - Exposure to toxic chemicals
 - Child labour
 - Impossible production targets
 - High staff turnover

Democratic Republic Congo



- 80 per cent of the population earns less than one dollar per day.
- Average life expectancy is 44 years.
- Every fifth child dies before the age of five.
- A large part of the population is suffering from malnutrition.
- There is a chronic lack of drugs and medical equipment.
- 40 per cent of the population is illiterate.
- Only 24 per cent of the children start school.

Conflict & High Risk Minerals

- Aluminium
- Copper
- Nickel
- zinc
- Tin
- Tantalum
- Gold
- Tungsten
- Gallium



Photo: Global Witness/Swedwatch 2007

A complex issue



- Not just where products are assembled.
- The supply chain extends to thousands of small factories that supply components.
- Supply of raw materials – eg Congo, Rwanda and Burundi,

The common response



“it is difficult to trace provenance and we cannot influence the extractive industry since, as individual companies, we only use limited amounts of metals in our products”

- However, as a whole the electronics industry uses a quarter of the world's cobalt.
- Include the extractive industry level in supply chain management

The Electronics Industry Citizenship Coalition (EICC)
- industry partnerships are important to address the challenges it faces.

“Unless a brand company has an exclusive pipeline for raw materials, this is an area where collaboration is important and necessary in order to make meaningful progress”.

John Gabriel, chairman of the EICC and supply chain responsibility manager at IBM (2009)

Are we doing the right thing?



“I am sure that the work being undertaken and the output generated via this group will set a benchmark for other areas of the construction industry to aspire to in the future”.

Daniel Bull

Procurement Manager, Balfour Beatty Construction Services

Resources available



On the Crossrail Learning legacy website

<http://learninglegacy.crossrail.co.uk>

Some Final Thoughts



“Do you want to be associated with material/product procurement decisions that can be traced back to unethical working practices used in their manufacture? If the answer is yes, then do nothing.

If the answer is no, then don't wait for others to solve the problem for you. Demonstrate leadership and help to resolve the problem.

In doing so, you can contribute to a better society and also be amongst some of the leading built environment client, contractor and supplier organisations”.



Jacqui Glass

University of Loughborough



Loughborough
University

Overview and update

Professor Jacqueline Glass @profjacquiglass



Our link to the Crossrail legacy



ESCIC: Ethical supply chains in construction

APRES: conference presentations

Joint research



Ask yourself this question...

“Do you know where
your materials come
from?”

The landscape in construction



Product standards

Responsible sourcing

APRES

Action Programme for Responsible Sourcing – research and knowledge exchange



Legislation (Timber & Modern Slavery)



Supply chain systems?
Ethical sourcing?
More, not less?

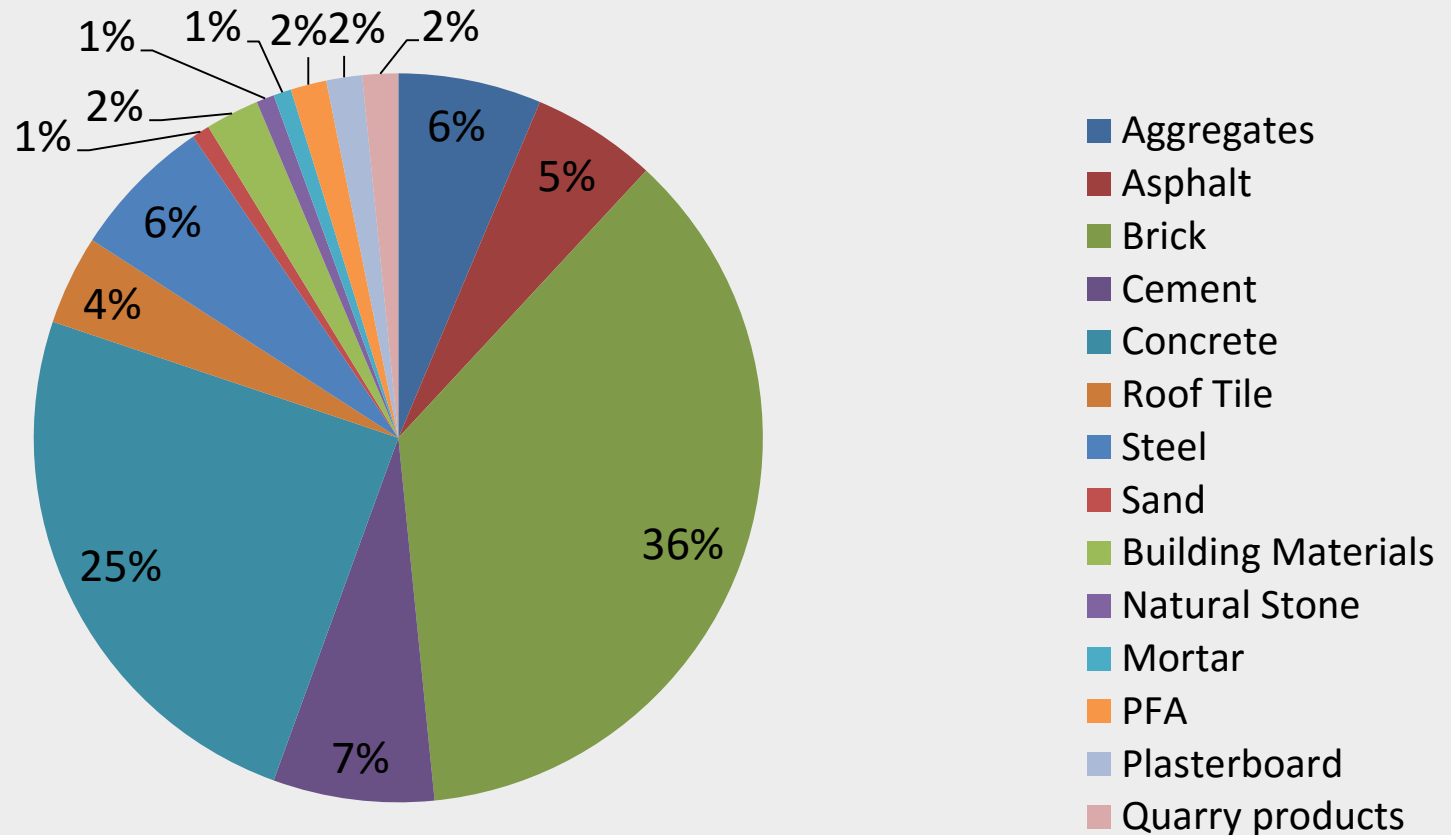
What's next?

Our portfolio: 2009-date



Our research: understanding uptake, influencing standards and practices

BES6001: number of certified products (2008-2013) (n=126)



Upstill-
Goddard et al,
2015, ICE
Engineering
Sustainability
journal.

Recent outputs

- **An ethical sourcing portfolio for construction**
- Aims to extend engagement
- Goes beyond responsible sourcing and into specification
- Manifesto: 10 pledges to embed ethical sourcing:
<http://apres.bre.co.uk/docs/Manifesto-Ethical-Sourcing.pdf>



EPSRC
Pioneering research
and skills

Now, ask yourself...

“Do you know where
your people come
from?”

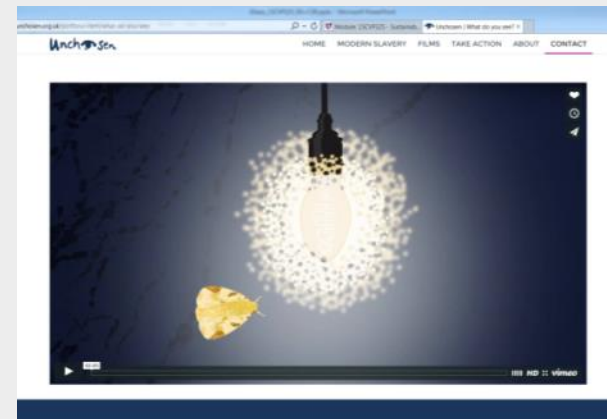


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#InspiringWinners since 1909

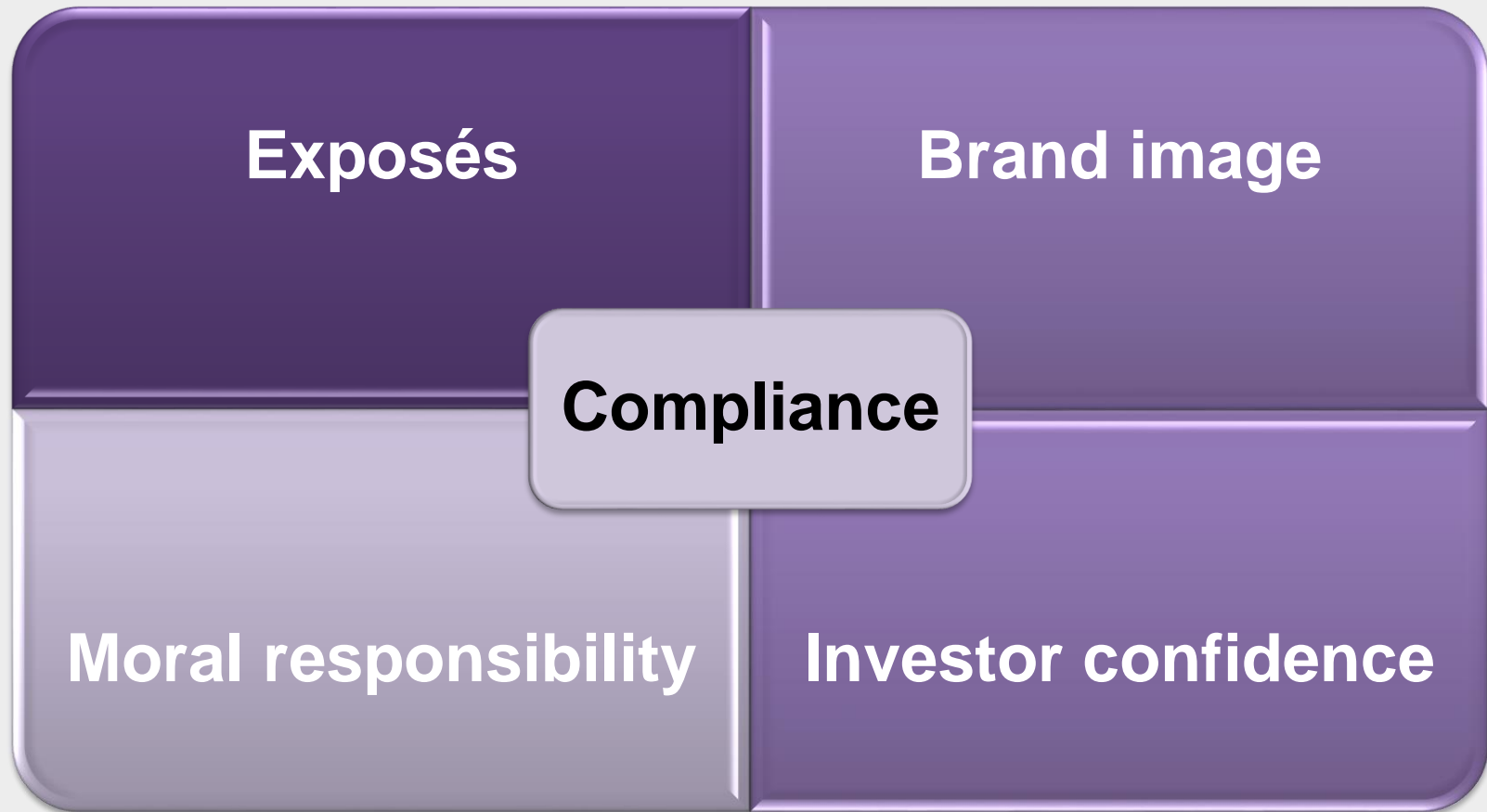
Everyone's talking about it

- The UK Modern Slavery Act 2015:
http://www.legislation.gov.uk/ukpga/2015/30/pdfs/ukpga_20150030_en.pdf



- <http://www.unchosen.org.uk/portfolio-item/what-do-you-see/>
- E-learning on the MSA from Loughborough University/Responsible Solutions available soon.

Why should MS matter to you?



Ethical Labour Standard



- BRE convened a group of stakeholders in January; grown from 30 to nearly 80.
- Initial document drafted; full draft in May. Planning a launch on 5th July in London.
- Anyone interested is welcome to contribute; please contact Dr Shamir Ghumra:
shamir.ghumra@bre.co.uk
- BRE have also funded a PhD student to address traceability in the supply chain.

Forthcoming handbook



- Authoritative guidance underway
- **Responsible sourcing: a handbook for the construction industry**
- 27 stakeholder organisations, including: BRE, Crossrail, Environment Agency, Gatwick, Heathrow, HS2, Highways England, Tideway.
- Two major parts:
 - Introduction and context
 - Product sheets – designed for procurement/ commercial teams
- Launch late 2016, at the 6th APRES conference (November)



Loughborough
University

Overview and update

Professor Jacqueline Glass @profjacquiglass



Q & A



Philip Charles
Project Manager
CIRIA



Mike De Silva
Sustainability Manager
Crossrail



Jacqui Glass
Associate Dean Enterprise
University of Loughborough

Thank you for attending

The slides and recording will be published on IEMA's website at www.iema.net/event-reports . Slides are also available on CIRIA's website at www.ciria.org/postevent

Upcoming webinars

The inside track to ISO 20400

17 May 2016 13.00 – 14.00

Environmental good practice. The role of site-based staff

21 April 2016 12.30 – 13.30