

## Workshop for Construction Quality Knowledge

**Held at:** Chartered Quality Institute, 2<sup>nd</sup> Floor, Chancery Exchange, 10 Furnival St, London, EC4A 1AB



**CONSTRUCTION SIG**  
Chartered Quality Institute

**No.:** 64

**Date:** Wednesday, 18<sup>th</sup> September 2019

### Attendance List

Name	Company	CWG Role	Attended	Attended via Skype	Apologies	Not Attended
Mike Buss	Taylor Woodrow	Chairperson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tony Hoyle	Retired	Deputy Chair: CQK	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Karen McDonald	Skanska	Deputy Chair: QP Training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Keith Hamlyn	Retired	Secretary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jonny Montgomery	Shirley Parsons	Membership / Communications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gavin Avery	BAM		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Susannah Clarke	PMI		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Berni Daplyn	VVB		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Paul Greenwood	Greenwood Consultants		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Luca Fiderio			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colin Harley	KBR		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eric Loh	J Murphy and Sons		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Giorgio Mannelli	Nuvia		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greg Faria	Heathrow Airport		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ian Mills	Balfour Beatty		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Keith Lucas			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kevin Rogers	Mott MacDonald		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oliver Shadbolt	NG Bailey		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Richard Strugnell	HS2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Peter East	ISG		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Graham Taylor	Qualitas Consulting		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nicky Wells	EMICO		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indi Bansal			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Carmen Musat			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Helen Ball			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Jonathan Buckett	United Living		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mike Duff	Network Rail		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Future Planned Meetings:** (In the light of an agreement in the Steering Committee meeting, meets will likely be moved to a Thursday .

Notification of any change will be given in plenty of time but be aware. (

16 October 2019

08 January 2020

01 April 2020

13 November 2019

05 February 2020

29 April 2020

11 December 2019

04 March 2020

27 May 2020

### Useful Links:

ConSIG: [www.consig.org](http://www.consig.org)

Designing Buildings Wiki: <https://www.designingbuildings.co.uk/wiki/Home>

Twitter: <https://twitter.com/ConSIGCQI>

LinkedIn: <https://www.linkedin.com/groups/4698737>



<b>1 Governance: a) Strategy b) Roles &amp; Responsibilities c) Meeting arrangements etc.</b>
<p>The Workshop for the CQK retains a focus of developing articles for its own website and for the Designing Buildings WIKI (DBW). The drive is for competency. This represents no change in direction for the Workshop.</p> <p>There will be a need to examine the strategy in the near future, with a view to expanding its brief to cover further activities.</p>
<b>2 Update from Chairperson on key matters from Steering Committee</b>
<p>An important aspect that was discussed at the last meeting was the move of the Annual General Meeting to the 16<sup>th</sup> of October. This AGM is for the whole ConSIG and not just the Working Group.</p> <p><b>POST MEETING NOTE:</b> The ConSIG AGM has been rescheduled provisionally for Wednesday 4<sup>th</sup> December, 2019. This is to facilitate strategic planning prior to the AGM.</p> <p>The other aspect concerned training. Events are in the process of being planned, but workloads have militated against bringing them to fruition. The Working Group needs to consider planning and executing events.</p>
<b>3 Update from Chairperson on key matters relevant to the Chartered Quality Institute</b>
<p>There were no significant updates other than the development of material for World Quality Day.</p> <p><b>POST MEETING NOTE:</b> A presentation for World Quality Day presentation has been produced by ConSIG which will be issued out and can be adapted by each organisation to suit. This was reviewed in the Steering Committee meeting 18/9/19. An additional slide is to be added providing information on the ConSIG and the CQI logo is to be replaced with the ConSIG logo. Once updated, the revised presentation will be made available to CWG members.</p>
<b>4 Update from other ConSIG Working Groups</b>
<p><b>4.1 WG-01 “Cost of Quality”:</b></p> <p>This WG is requesting assistance from long term maintainers and insurance companies who can help by providing information on the long-term impact of construction defects. [No further update]</p> <p><b>4.2 WG-02 “Common Defects” .</b></p> <p><b>4.2.1</b> The aspiration is to have a ConSIG webpage on the CQI Common Defects website. This has been presented to the Steering Committee, who have provided comments. Contact has been made with the developer, who has returned recently after being out of the country.</p> <p><b>NOTE:</b> It was noted in passing that a volunteer was needed to assist with the task of developing the WG’s website.</p> <p>Mike Duff joined the Working Group as a member at this meeting [Action closed]</p> <p><b>4.2.2</b> Once we have clarified how the set up will work for the Common Defects Booklet, it will be able to be determined how the roll out will work (e.g. ‘drip-fed’) [No change]</p> <p><del><b>4.2.3</b> IM agreed to provide a summary of the output of the ICE meeting on “Getting It Right – How to improve productivity” slated for Wednesday the 10<sup>th</sup> of April. [No change] [ACTION IM] [Action deleted as agreed KH]</del></p> <p><b>4.2.4</b> Measuring Quality Performance Working Group (GIRI) [provided by GA]</p> <p>As each organisation has its own unique method for collecting defect data and they are unlikely to wish to share the results openly, this action has been closed.</p> <p><b>4.2.5</b> Courses have been run on Leadership and on Interfaces by GIRI. Those attending found the information useful.</p> <p><b>4.3 WG-04 “Contract Quality Standards”:</b></p> <p>[No update]if</p> <p><b>4.4 WG-05 “Construction Quality Professional Training”.</b></p> <p>This Work Group has made the greatest progress. It has been working with the CQI to create modules on Quality in Construction. These could be useful for non-Quality professionals, although some may struggle if they have little or no background.</p> <p>MB showed the syllabus which will be used by CQI Approve Training Providers to develop the course. This is due to be ratified at the Steering Committee Meeting 18/9/19. A first cohort is due to go through the module at Skanska in October this year. An article is due to be published in Quality World to promote the course.</p> <p>A new working Group may be established to develop further courses.</p>



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MB demonstrated the specification for the Foundation Module that will be provided to training Providers for the development of certified courses. A first cohort is due to go through the module at Skanska in October this year. An article to accompany the course will be developed to accompany the course.

A new Working Group will be convened to develop the Intermediate Module, although many of the members of the existing Working Group are likely to be recruited into it.

It was noted that the CIOB also run a two day course. This reviewing it from the Working Group considered that the CIOB course is more concerned with concept, whereas the ConSIG course was more practical. Contact had been made to see if it would be possible to amalgamate the two courses.

MB advised the CIOB also runs a two day course. A representative from the ConSIG Working Group attended to observe. It has been concluded and agreed with CIOB, the CIOB course provides a basic understanding of quality and associated concepts. The ConSIG / CQI Course is more focussed towards how quality should be managed. It has therefore been agreed the two courses compliment each other and it might be feasible to offer one combined CIOB / CQI qualification for non-Quality professionals for those attending 4 No. days of training. This is currently being reviewed with CQI / CIOB.

**POST MEETING NOTE:** The ConSIG ratified the training syllabus at the SC meeting 18/9/19. The exam papers for the course are now to be developed. A pilot course has also been proposed. Karen McDonald (Working Group Chair) is to review setting this up. Organisations from the ConSIG have committed to provide attendees representative of those who might attend as well as more experienced quality professionals to enable appropriate feedback to be provided.

Potentially, the ConSIG course could have a certificate for successful completion that, together with the CIOB course and/or other courses, could lead to a qualification for non-Quality professionals.

The aspiration is that organisations should insist on completion of the appropriate level of qualification for their Quality staff in a manner that is equivalent to IOSH or NEBOSH for Health and Safety specialists.

**5 Events Information**

5.1 The Events Programme still to be finalised. Further consideration is being given to running events outside London/South East. [No change]

5.2 The date for the Annual General Meeting (AGM) has been set for the 16th of October. It will be an evening meeting.

**POST MEETING NOTE:** The ConSIG AGM has been rescheduled provisionally for Wednesday 4<sup>th</sup> December, 2019. This is to facilitate strategic planning prior to the AGM.

5.3 The Portakabin event was held 12/4/19. The feedback was very positive. Jonny Montgomery will write a summary for the website. [No change] ~~[ACTION JM]~~ [Action deleted as agreed]

**6 Membership / Communications: Update from the Membership / Communication Secretary**

6.1 The graphical representation of the statistics for membership of the ConSIG will be made available for discussion at the next meeting

6.2 The Nuclear Special Interest Group (NucSIG) is due to present to the Steering Committee 18/9/19 on the Nuclear Next Generation (NNG). This is a specialist interest group of younger members set up to promote quality in the nuclear sector. The ConSIG is reviewing creating a similar group for Construction.

**POST MEETING NOTE:** The NucSIG presented to the SC 18/9/19. A Construction Next Generation (CNG) is to be established. A working group is to be established to set up CNG comprised of select younger members. Bethany McCulloch (Head of Quality, Careys) will be the SC ambassador for the CNG providing guidance / assistance.

The Nuclear Special Interest Group (NucSIG) is due to present to the Steering Committee in the meeting that followed this one. The aspiration is to set up a similar structure to that of the ConSIG.

**7 Website Update**

An update to reflect the training has been provided.

**8 Construction Quality Knowhow**

**8.1 Article production**

8.1.1 Twenty seven articles have been published including 2 templates. there are 2,785 views by 1,945 users in the last calendar month and 44,652 views to 20 September since the first articles were added in September 2017.

8.1.2 Articles that have been Published

The following articles have been published since the previous meeting:



- a. Digital Quality Management in Construction (originally titled Digital Construction / BIM).

8.1.3 Articles for Steering Committee Approval

None at this time

8.1.4 Articles with Comments following ConSIG CWG Review

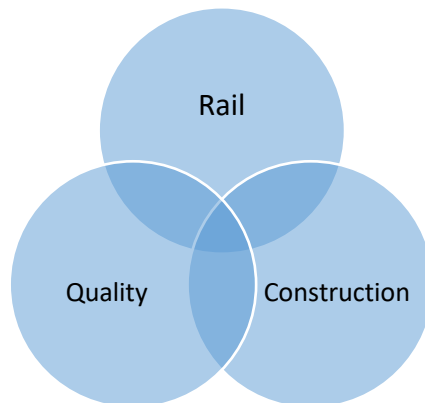
- a. Quality Management Systems. This article is to be reviewed against the existing article on the DBW with a view to determining whether to replace the one in DBW or to combine elements of both. [ACTION GT]. KH to act on the decision as appropriate. [No change]
- b. Accreditation and Certification Bodies. The article was presented to the Working Group and altered during the meeting, being short. The updated article is attached to these minutes and will be offered for acceptance at the next meeting. A copy of the policy statement is awaited. It is suggested that CQI Legal should still be requested to review [ACTION KH/TH/CQI Legal]

8.1.5 Articles for ConSIG CWG Panel Review

- a. Mechanical and Electrical Engineering. The panel review is in progress. [ACTION TH]
- b. Lean Construction. Document has been written by Stuart Anwyl and reviewed by Tony Blanch. Jim Taylor-Rose is to be asked to act as a second review according to the revised procedure described in 9.1.1 above. [ACTION TH] [No change]

8.1.6 Articles in the Pipeline

- a. Cost of Quality. This article has been received by TH. This article is under review by WG01 "Cost of Quality" and HB. Possibly available for CWG acceptance in late August/early September. [ACTION TH].
- b. Defects Management/Control of Non-Conformity. This article is under peer review. This article is expected at the end of October. [ACTION MB/IM/PE/CH]. [No change]
- c. Checklists. Luca Fiderio to write and Keith Hamlyn to review. Date to be advised. [ACTION LF/KH] [No change]
- d. Benchmarking. Author has been confirmed as Jon Adshead. MB to review. This article is expected by the end of July, subject to JA's other commitments. [ACTION JA/MB] [No change]
- e. Temporary Works Design. KR has been confirmed as author with KH as reviewer. Anticipated for review by KH at end of September with a view to offering it to the Working Group on 16 Oct 19. [ACTION KR/KH]
- f. Checking and Approval in Design. KR has been confirmed as author with TH and KH as reviewers. This article is expected at the end of November. [ACTION KR/TH/KH]
- g. Building Control and Regulations. The author and reviewer have not yet indicated a target date. [ACTION TH]. [No change]
- h. Rail. MB resented his vision for a series of rail construction-centric articles. The Network Rail working group has now been set up as an amalgamation with the Network Rail Supplier Engagement Group. They are also looking at competence with a view to developing a Body of Rail Quality Knowledge. It was agreed that action should be taken to liaise with this Group to avoid parallel development of articles and to share knowledge. [ACTION KH & MD]



The intention is to examine that triangle that sits as a subset to each of the three circles above. A simple overview was considered the most appropriate, as the detail for the rail supply chain is well catered for in network rail Standards, specifications and contract documents.



The target audience was seen to consist of:

- Staff entering Rail Construction as a first job
- Staff or organisations entering Rail from other disciplines
- Staff within the Rail Industry moving between disciplines
- Staff within the Rail Industry wanting a refresher.

The basis of the approach was to start with the Quality requirements of the Principal Contractors Licence and the requirements of relevant NR and TfL standards.

Initially, it was essential to make contact with the RailSIG as well as senior management within NR. This latter is necessary so that specialist staff in NR can be approached to write and review articles that would be submitted for Working Group approval in accordance with the standard procedure.

- TH reminded the meeting that the first three articles, including ITPs and Lifts and Escalators, were now two years old and should be subject to review.

## 9 Any other business

- 9.1 TH will retire from his role later this year. The hunt for a volunteer is still on-going. [No change]

Artificial Intelligent software used by DBW has identified a number of concepts within the ConSIG articles which have not been explained but have appeared in articles without an explanation of what the term meant. HB agreed to look at the list and propose some suitable short definitions. It was agreed that definitions from ISO specifications, such as ISO 9000, should be the first port of call. [ACTION HB] [No change]

- 9.2 Off-site manufacture.

PE stated that the industry is moving towards manufacturing more off site within a factory environment. He was not sure that the full benefit has been realised yet, but as the swing to off-site continues the industry will expect the benefits of manufacturing style quality control and the resulting improvement in product quality, reduced defects, reduced cost of quality, etc.

The questions to be discussed at the next meeting in October is this:

- How do we expect this to affect the Construction Quality Professionals and those charged with the responsibility for product quality (e.g. Project managers, construction managers, building services managers, etc.)
- How will these individuals cope with supplier audits where the systems employed are frequently process controls, rather than product-based controls. E.g. the process management assures that quality rather than quality being inspected in.
- Taking the example of a factory that is producing a component and is using SPC for instance. Would the typical construction person be able to properly evaluate the process to ensure that it will produce complaint product?

Typically, the current process is probably Factory Acceptance.

- 9.3 Funding has been provided for the development of the videos related to the articles as part of the second year of the budget. JM has set up the option to prepare the first two videos with MB. Inspection & Test Plans and Quality Cultures will be used as the pilots, as it is they are most popular article as shown in the statistics. The intention is to confirm the concept before calculating the overall costings with the sub-contractor. There will need to be a discussion around which articles should be the subject of videos. Ideally, all the videos will be filmed in one session to minimise set-up costs and then to publish them at a rate of one per month on the website. The order of delivery will be as per the tracker. It was noted that the article on Building Regulations is due in November, which suggests the potential date for filming and the first release in January next year. [No change]

- 9.4 CIOB Quality Code

The approach that has been taken by CIOB is probably suitable for a Tier 1 Supplier to use as a sector-specific overview. There would not appear to be any overlap between what they have presented and the output of the Working Group, as our articles are more specific. It has some good points but needs to be reviewed to confirm that there are no conflicts technically with our articles.

### Topics for discussion at the next meeting are to include the following:

- The statistics of membership of the ConSIG
- Off-site manufacture.

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- c. The CIOB approach
- d. The draft World Quality Day presentation (attached as a separate file)

**Next Meeting:** The next meeting will take place on the 16<sup>th</sup> of October 2019.



## Accreditation of Conformity Assessment (Certification) Bodies

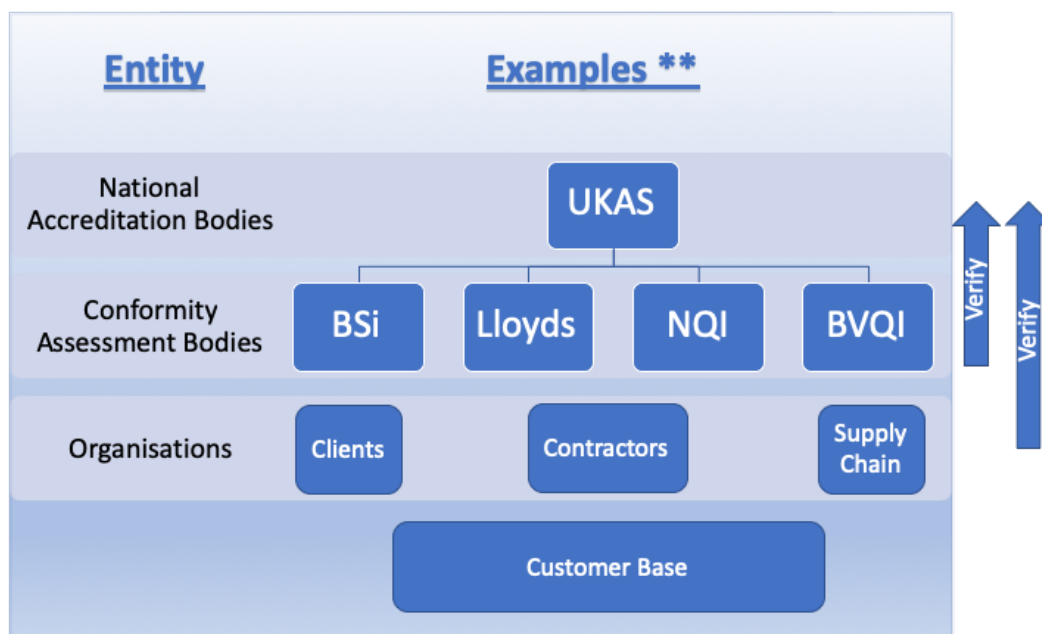
### Summary

Conformity Assessment or Certification Bodies hold registers of organisations that they have audited and have been shown to conform to the requirements of one or more internationally recognised specifications, such as ISO 9001.

National Accreditation Bodies provide recognition that a Conformity Assessment Body is conducting itself in a manner that demonstrates competence and impartiality in undertaking registration of organisations. A list of National Accreditation Bodies can be found at:

[https://www.iaf.nu/articles/IAF\\_MEMBERS\\_SIGNATORIES/4](https://www.iaf.nu/articles/IAF_MEMBERS_SIGNATORIES/4)

National Accreditation Bodies hold lists of the Conformity Assessment Bodies they have accredited which can be used to confirm that they really have been accredited.



\*\* (UK organisations only shown. There are equivalents in many other countries.)

This diagram shows the relationships between the various entities and the opportunities for verifying conformity.

### Alternative 1

“Purchasers of goods or services can gain confidence when procuring from a supplier that has been registered by an Accredited Conformity Assessment Body that its management system is operating in accordance with the specification(s) as stated on its certificate with the result that the goods and/or services will meet requirements. Confirmation should be obtained that the registration covers the scope of work, product or material to be supplied. The evidence leading to that confidence may not be as strong where a Non-Accredited Conformity Assessment Body has been employed by the organisation and may lead to unforeseen risk to delivery of goods or services. Purchasers can confirm that the supplier has been formally registered to the appropriate standard with an accredited Conformity Assessment Body by referring to the National Accreditation Body website for its list of accredited Conformity Assessment Bodies.”

### Alternative 2

“The evidence leading to that confidence may not be as strong where a Non-Accredited Conformity Assessment Body has been employed by the organisation and may lead to unforeseen risk to delivery of goods or services. Purchasers can confirm that the supplier has been formally registered to the appropriate standard with an accredited Conformity Assessment Body by referring to the National Accreditation Body website for its list of accredited Conformity Assessment Bodies.

This can help provide greater certainty the goods and / or services with meet requirements. It is important to also check the registration covers the scope of work, product or material to be supplied. “

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Organisations selecting Conformity Assessment Bodies to register their organisations should review the Chartered Quality Institute policy on the use of Non-Accredited Conformity Assessment Bodies, which is to avoid them. This can be found at:

[Link to Policy Statement when published]

Further explanation of the reasons behind this policy can be found at:

<https://www.quality.org/knowledge/world-accreditation-day-special-dangers-cowboy-certification>