**18 APRIL 2019**

# PROJECT INITIATION DOCUMENT (PID)

CONSTRUCTION KNOWLEDGE TASK GROUP
www.designingbuildings.co.uk/CKTG

**CKTG**
Construction Knowledge Task Group

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# 1.0    PURPOSE

The purpose of this Project Initiation Document (PID) is to define the following aspects of the Construction Knowledge Task Group (CKTG):

- The background to and purpose of the CKTG.
- The objectives of the CKTG.
- The organisation of the CKTG.
- The timescales of CKTG activities.
- The risks involved.

# 2.0    PROJECT DEFINITION

## 2.1    What is the construction knowledge gap?

The construction knowledge gap is the difference between the knowledge that is currently used by practitioners and the knowledge that would optimise industry performance.

Knowledge is a vital and expensive asset. It creates the framework within which the construction industry operates, setting the boundaries for acceptable practice, describing what practitioners need to know and defining what is possible. Significant resources are allocated to the creation of construction industry knowledge, with an increasing number of research papers, standards, regulations, policies and other guidance that are issued, revised, revoked and superseded ever more frequently.

But the industry is not maximising the value it extracts from its knowledge assets, and many of them do not affect practice on the ground. This is because practitioners and other stakeholders may be unaware of them, they may not have access to them, they may not have the time or capability to find them, or they may be in a form that is difficult to apply. As a result, the industry is less productive, less innovative and more likely to make mistakes than it could be.

## 2.2    How has the construction knowledge gap emerged?

The construction industry has tended to follow a traditional, supply-driven model for knowledge creation. Broad strategic subjects are identified by high-level assessment of what the future challenges are likely to be, then funding programmes are established to support the creation of specific pieces of knowledge within those areas.

This knowledge is then published in the form of papers, policy statements, best practice guidance, standards and so on. These publications are often long and complex and are almost always stand-alone documents in a large-scale pdf format that is copyright protected. They are not machine readable and they are published in thousands of different, disconnected locations. In some cases, they are hidden behind a sign-up barrier.

However, the emergence of the internet means that construction knowledge is no longer supply-driven by publishers, it is demand driven by practitioners performing digital searches. As a result, practitioners are using knowledge that is easy to find and access rather than the knowledge with verified provenance. This is a concern for their employers and the wider industry.

This means there are extensive untapped opportunities to ensure practitioners find the right knowledge at the right time, helping them optimise their performance, improve productivity and ensure compliance.

## 2.3    Policy context

Tackling this problem is consistent with government objectives to reduce project costs and timescales and to increase productivity;

- Construction 2025, published by the government in 2013, highlighted; a failure to capture learning and take this forward to future projects, 'patchy' collaboration between industry, academia and research organisations, limited knowledge transfer, and an 'earn or learn' dilemma faced by the self-employed.
- Digital Built Britain, published by the government in 2015, suggested that; 'Our aim must be to present the day to day user with useful easy to consume and interact with information and knowledge'.
- Modernise or Die, commissioned by the Construction Leadership Council in 2016 called for the creation of innovation hubs and centres of excellence for skills and knowledge to share ideas and best practice, inspire collaboration and showcase new opportunities.
- From Transactions to Enterprise, published by ICE's Infrastructure Client Group in 2017 highlighted the problems consultants have acquiring the knowledge and expertise needed to design the right project or identify emerging technologies.
- The Construction Sector Deal, published by the Department for Business, Energy & Industrial Strategy in 2018, called for a standard methodology for procuring for the whole-life performance of built assets supported by a single body of knowledge; 'a shared digital asset that is accessible to all and enables the rapid sharing of expertise and best practice'.
- Procuring for Value, published by the Construction Leadership Council in 2018 suggested that the widespread and consistent use of industry best practice would produce immediate productivity gains across the whole sector, and proposed the creation of a digital, industry-wide, knowledge platform, where best practice is curated, shared and challenged, that is easy to understand and that is accessible.
- The Hackitt Review published by the Ministry of Housing, Communities & Local Government in 2018 identified a lack of skills, knowledge and experience as a major flaw in the industry.

## 2.4    Industry response

On 21 September 2017 Designing Buildings Ltd held an event at RSH+P's offices in the Leadenhall Building to launch a new report 'Fit for purpose?' exposing the widening knowledge gap in the construction industry.[1]

On 9 May 2018, 20 industry representatives met at the offices of BuroHappold to discuss the problems posed by the construction knowledge gap and to consider whether there was support for tackling those problems collaboratively.[2] This was followed up by an industry survey which found 93% of respondents believed tackling the construction knowledge gap was 'very important' or 'extremely important' for the industry.[3] 22 individuals from 20 different organisations said they would like to be part of a task group to tackle the construction knowledge gap.

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[1] https://www.designingbuildings.co.uk/wiki/Fit_for_purpose_-_Big_data_reveals_the_construction_knowledge_gap
[2] https://www.designingbuildings.co.uk/wiki/Construction_knowledge_gap_meeting
[3] https://www.designingbuildings.co.uk/wiki/Knowledge_gap_survey_responses

## 2.5    Construction Knowledge Task Group

The first meeting of the CKTG took place on Friday 28 September in the London Offices of CIOB.

The CKTG includes representatives of institutes, associations and the wider industry.

Its objective is:

> *To optimise the creation and dissemination of documented, practical, applicable knowledge that enhances productivity and supports compliance by making it as easy as possible for practitioners and other industry stakeholders to:*
>
> - *Find the right knowledge when it is needed.*
> - *Access that knowledge.*
> - *Extract the maximum value from that knowledge.*

Members of the Construction Knowledge Task Group (CKTG) have been asked to sign a Memorandum of Understanding (MoU) which formalises the basis on which they will work together to achieve this objective. A copy of the MoU and a list of members can be found at Appendix 4.1.

## 2.6    Industry survey

During November 2018, the CKTG invited construction industry practitioners to take part in a survey to help understand how knowledge is used by the industry and how it can be improved.

Key findings included:

- More than a third of practitioners do not have easy access to the knowledge they need to do their job.
- Practitioners use less-trusted knowledge sources more frequently than more-trusted knowledge sources because they are easier to find and access.
- Cost and sign-up forms are significant barriers to accessing knowledge, particularly for SMEs.
- Practitioners are unaware of much of the knowledge that is available, they are overwhelmed by how much knowledge there is and frustrated by how fragmented it is.
- There is a 'them and us' culture separating those in the knowledge loop from those stuck on the outside.
- There is a need for quick and straightforward access to knowledge on demand.

## 2.7     Workstreams

In response to the findings of the survey the CKTG established three workstreams:

- **Workstream 1 - Indexing construction knowledge:** How should construction knowledge be "tagged" so that it is easier to identify specific types required by practitioners?
- **Workstream 2 - Finding construction knowledge:** Could new search tools be developed to help practitioners find the knowledge they need when they need it?
- **Workstream 3 - Accessing construction knowledge:** Is it possible to co-ordinate subscriptions, sign up forms, memberships and pay walls so it is easier to access multiple knowledge sources through one search query.

## 2.8     Definition of success – KPI's

In the short term, the following KPIs have been identified;

- The number of CKTG meetings.
- Attendance at CKTG meetings.
- The number of meetings held by Workstreams.
- Attendance at Workstream meetings.
- Delivery of Workstream progress reports to the CKTG.
- Progress towards definition and then completion of Workstream objectives.

In the longer term the success of the CKTG will be determined by the ease with which practitioners are able to find and access the knowledge they need to do their job, and then to extract value from that knowledge. The KPI's for measuring that will be dependent on the solutions developed, but might include:

- Repeating the survey undertaken in 2018 to determine whether there has been an improvement.
- An increase in the frequency with which knowledge from trusted sources is accessed.
- The adoption of processes, protocols, tools or standards developed by the CKTG.
- The reach of external communications to raise awareness of the issues identified by the CKTG.
- The extent of engagement by industry stakeholders.
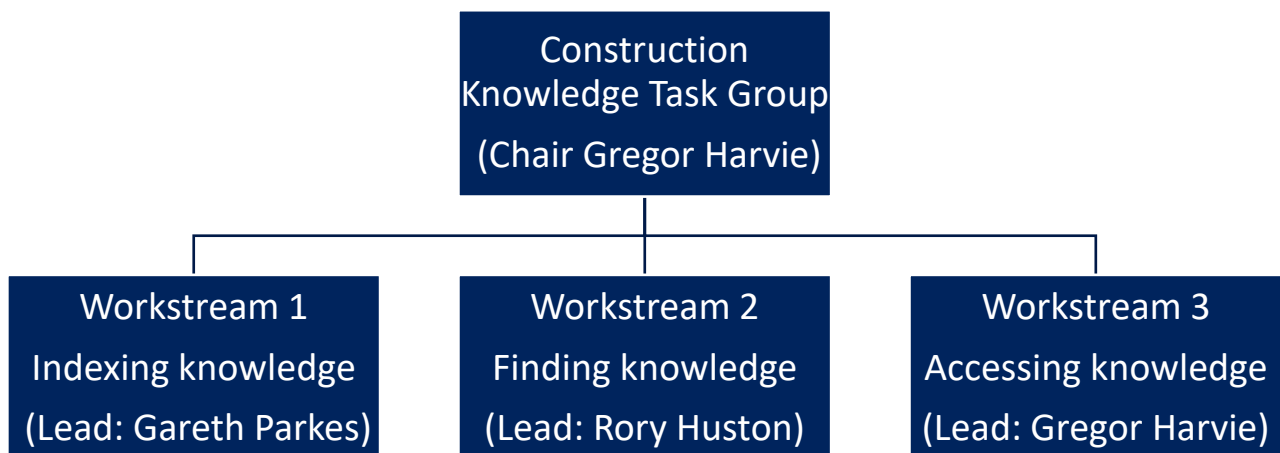
# 3.0    PROJECT ORGANISATION

## 3.1    CKTG

CKTG members meet on a regular basis to discuss workstream progress, identify and resolve issues and opportunities and allocate additional tasks and actions.

## 3.2    Workstreams

Each workstream has been set up with a small team of CKTG members. Workstream Leads are responsible for co-ordinating meetings, compiling reports for the CKTG and managing actions assigned to Workstream Members.

## 3.3    Project structure

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          Construction
       Knowledge Task Group
      (Chair Gregor Harvie)
```

| Workstream 1 | Workstream 2 | Workstream 3 |
| Indexing knowledge | Finding knowledge | Accessing knowledge |
| (Lead: Gareth Parkes) | (Lead: Rory Huston) | (Lead: Gregor Harvie) |

## 3.4    Reporting and communications

This PID will be updated after CKTG meetings to cover:

- Workstream progress.
- Escalation items.
- Key risks / issues.
- Items requiring external support, influence or review.

Each Workstream Lead is to complete or update a template report after each workstream meeting and submit it to the CKTG Chair, to cover:

- Workstream objectives.
- Strategy.
- Outputs.
- Timeframe.
- Resources needed.
- Interfaces with other Workstreams or the CKTG.

At present no external communications plan is in place however all external communications must be authorised by the CKTG Chair prior to issue.

## 3.5     Programme

It is difficult at this early stage to determine timescales for completion of the CKTG's objectives however individual workstreams have been tasked with identifying key milestones and these will be fed back to the CKTG and actively monitored and assessed as the project progresses.

A baseline programme will be prepared on completion of the initial Workstream meetings, confirmation of objectives and agreement of Workstream timelines.

## 3.6     Risk management

The following assumptions have been made:

- This project is not being duplicated elsewhere within the industry. Further engagement with industry bodies is required to ensure there is no duplication of effort.
- All member organisations will be able to commit resources in line with the MoU contained at Appendix 4.1
- No investment is currently required to develop outline solutions. The individual workstreams will be responsible for identifying and scoping the requirement for any capital investment to develop solutions further and this will be reviewed and managed by the CKTG. It is likely that financial resources will be required in the future.

The initial formulation of the Risk Register shall be carried out by the CKTG Chair and Workstream Leads through informal communications due to the low level of risk currently envisaged for the project. As and when workstreams identify a need for capital investment more formal risk management processes will need to be implemented and managed by the Workstream Leads.

An initial Risk Register is provided at Appendix 4.2.

# 4.0 APPENDICES

## 4.1 Memorandum of understanding

Memorandum of understanding
Between

Construction Knowledge Task Group
And

Construction Knowledge Task Group Members

The Construction Knowledge Task Group (CKTG) was established in 2018 and includes representatives of UK construction industry institutes, associations, consultancies, contractors and suppliers.

This memorandum of understanding provides a basis on which the CKTG and its members are undertaking a project to make it as easy as possible for construction industry stakeholders to:

- Find the right knowledge when it is needed.
- Access that knowledge.
- Extract the maximum value from that knowledge.

This memorandum of understanding should be read in conjunction with the CKTG Project Initiation Document (PID) which summarises the priorities and objectives of the CKTG and the Workstreams that undertake its activities.

**The Opportunity**

Construction industry knowledge is a vital and expensive asset. It creates the framework within which the industry operates, setting the boundaries for acceptable practice, describing what practitioners need to know and defining what is possible. Significant resources are allocated to the creation of that knowledge, with an increasing number of research papers, standards, regulations, policies and other guidance that are issued, revised, revoked and superseded ever more frequently.

The UK construction industry leads the world in the management of data and information. However, the industry has not optimised the way it manages its knowledge, and much of the knowledge it creates does not affect practice on the ground.

The emergence of the internet means knowledge is no longer supply-driven from the top down by knowledge producers. It is now demand-driven from the bottom up by knowledge consumers performing digital searches. This has created extensive untapped opportunities to ensure practitioners find the right knowledge at the right time, helping them optimise performance, improve productivity and ensure compliance.

**Principals**

The members of the CKGT believe that addressing this challenge will support government and industry objectives to reduce project costs and timescales and to improve productivity.

In pursuing this goal, they agree to:

- Work together to achieve the objectives of the CKTG.
- Dedicate time and resources to help achieve the objectives of the CKTG.
- Attend and engage in meetings, workshops and other activities of the CKTG and its workstreams.
- Actively encourage engagement and participation from wider industry stakeholders.

This Memorandum of Understanding expresses the hope and intention of members to develop their existing co-operation, based on mutual respect and understanding. It will continue for a period of two years and will be reviewed at the end of that period and then extended, adapted or terminated as required.

**Members**

| | | |
|---|---|---|
| AEC3 UK | Cundall | RICS |
| AHMM | Designing Buildings Wiki | Rider Levett Bucknall |
| Arup | i3P | Skanska |
| BRE | ICE | SRM |
| BSRIA | IHS | Stroma |
| CIAT | Invennt | The Get It Right Initiative |
| CIBSE | Mace | UKGBC |
| CIOB | Polypipe | University of Dundee |
| Constructing Excellence | RIBA | |

Name …………………………………………..

Organisation …………………………………..

Role ………………………………………….

Date …………………......…………………………

Signature …………………………………………..

## 4.2    Risk register

| Risk | Probability (1-3) | Impact (1-3) | Severity (2-6) | Action |
|---|---|---|---|---|
| All members of the CKTG are volunteers from member organisations, this creates potential issues around sufficiency of resource and timescales to complete. | High (3) | High (3) | 6 | The MoU seeks to address an element of this by asking members to commit to a level of engagement with the project. |
| Lack of progress results in loss of momentum. | High (3) | High (3) | 6 | A small number of "easy wins" would help build momentum and engagement both with CKTG members and wider construction industry stakeholders. |
| There are no financial resources allocated to this project. As workstreams develop sub-projects in relation to their objectives capital investment is likely to be required. | High (3) | High (3) | 6 | This will be addressed in more detail once these projects become known and are defined. |
| Proposed solutions are perceived to threaten existing business models. | Medium (2) | High (3) | 5 | Develop a stakeholder management plan. |
| Technical solutions are required that are beyond the capability of the CKTG members. | High (3) | Medium (2) | 5 | Recruit new members, or secure funding to contract the required services. |
| Duplication of effort with other industry initiatives. | High (3) | Medium (2) | 5 | Publicise activities and consult widely to identify related initiatives. |
| Chair / Workstream Leads do not have sufficient time / resource to carry out their roles. | Medium (2) | Medium (2) | 4 | Monitor performance and appoint deputies / replacements if necessary. |
| Members do not have sufficient time / resource to undertake required tasks. | Medium (2) | Medium (2) | 4 | Monitor performance and reallocate tasks if necessary. |