GIRI members' forum:

Better knowledge means fewer errors

Guest speaker: **Dr Gregor Harvie**
Co-founder and director of Designing Buildings Wiki

14th December 2020 1.30pm

Working together to eliminate error,
by industry, for industry.

GIRI
Get It Right Initiative

getitright.uk.com @GIRI_UK @GIRI

Online forum: housekeeping

- Presentation is being recorded and will be posted on our YouTube channel
- ‘Raise hand’ to speak.
- Use chat box to share ideas.
- Microphones – muted unless speaking. Host will mute if necessary.
- Cameras – off, but switched on if possible when speaking.

Today’s agenda

- GIRI update and feedback from previous forums
- Better knowledge means fewer errors
- Q&A discussion
- Summary of key observations

GIRI update: Cliff Smith

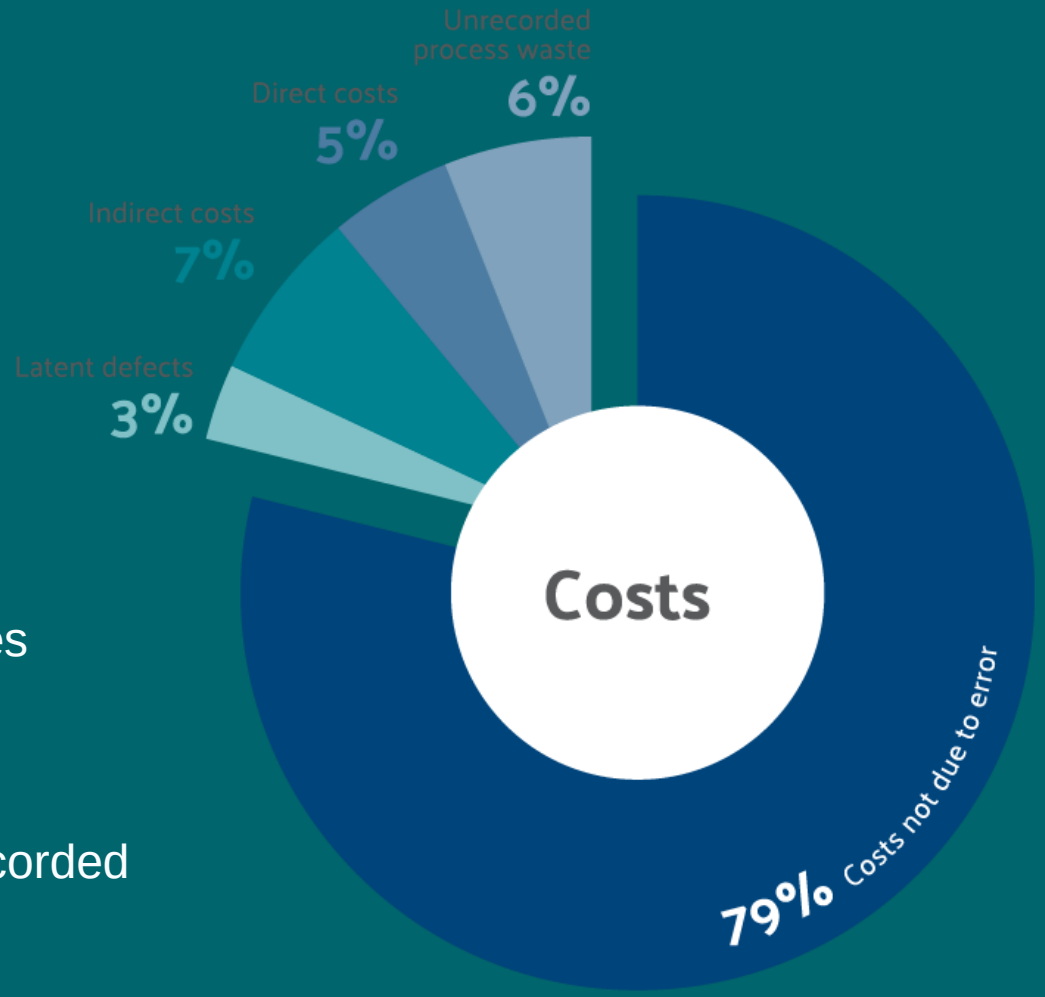
Wasted spend on error

Direct costs of error (5%)
resources used in correcting an error

Indirect costs of error (7%)
Resources used in follow on work and costs to other parties

Unrecorded process waste (6%)
Errors occur, are identified and corrected without being recorded

Latent defects (3%)
remain in place after client acceptance and any 'defects liability period' has passed



GIRI
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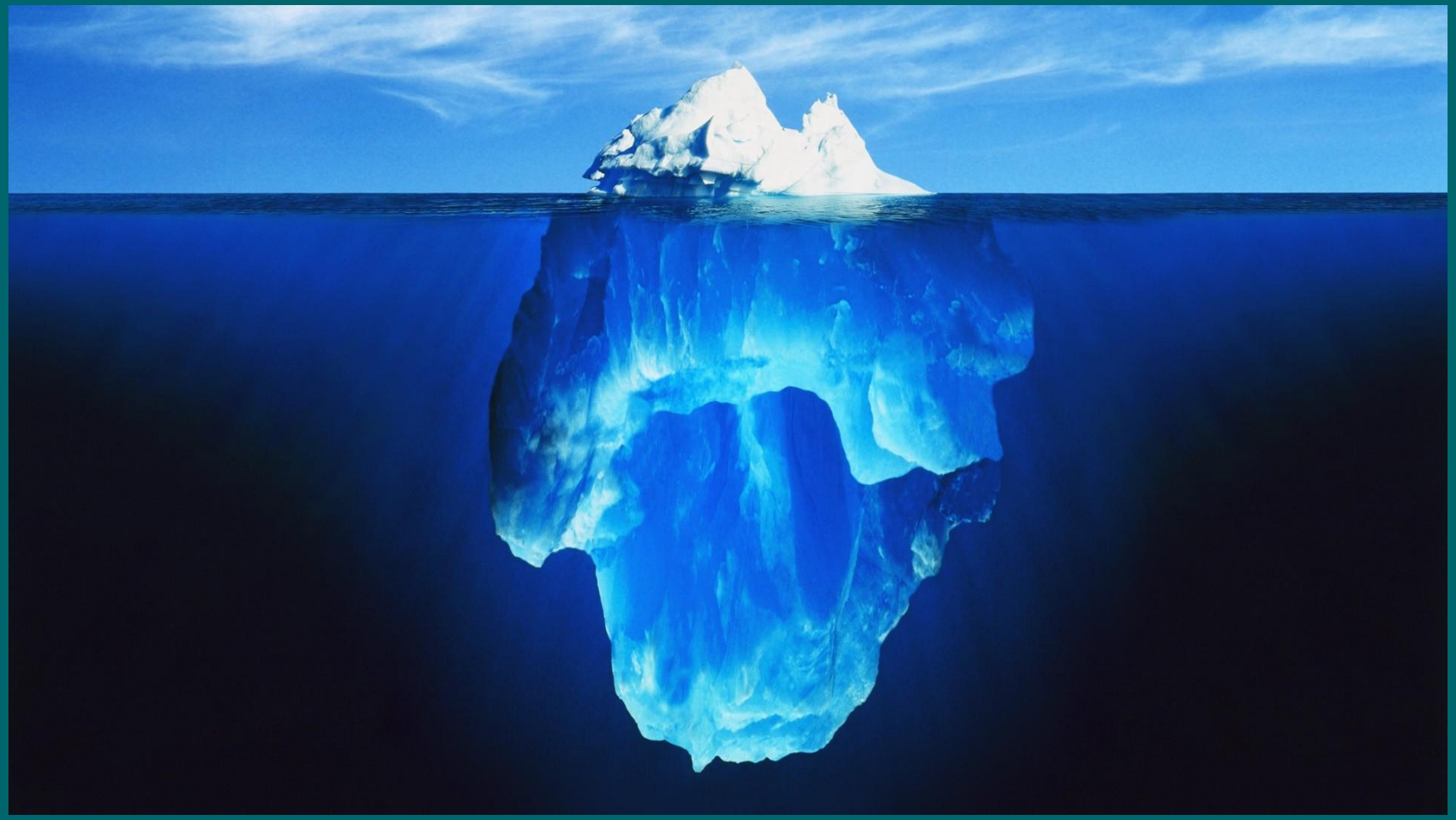

GIRI

Get It Right Initiative

Root causes of error

- Inadequate planning (from task through to project level)
- Late design changes
- Poorly communicated design information
- Poor culture in relation to quality
- Poorly coordinated and incorrect design information
- Inadequate attention paid in the design to construction
- Excessive commercial (financial and time) pressures
- Poor interface management and design
- Ineffective communication between team members
- Inadequate supervisory skills

“Any part of this sector who thinks they can survive by standing still or defending their current territory is sadly mistaken”

Dame Judith Hackitt

Strategic aim of GIRI

To improve construction productivity and quality by eliminating error.

Recent GIRI forums

- Checking procedures and how they impact on error reduction
- Behaviours to prevent error
- Creating and maintaining a positive culture
- Working with a changing supply chain & materials

Better knowledge means fewer errors

Dr Gregor Harvie

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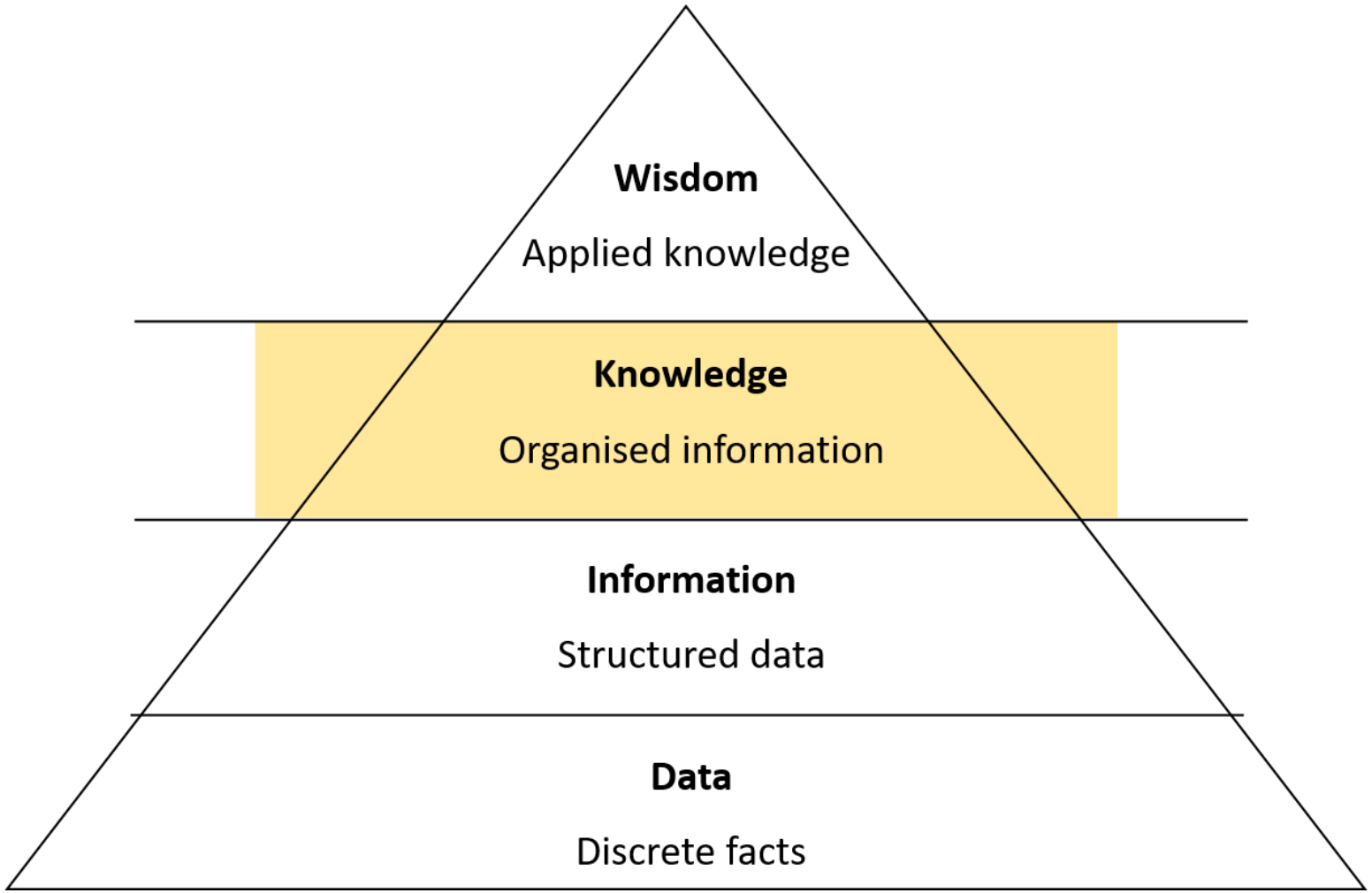
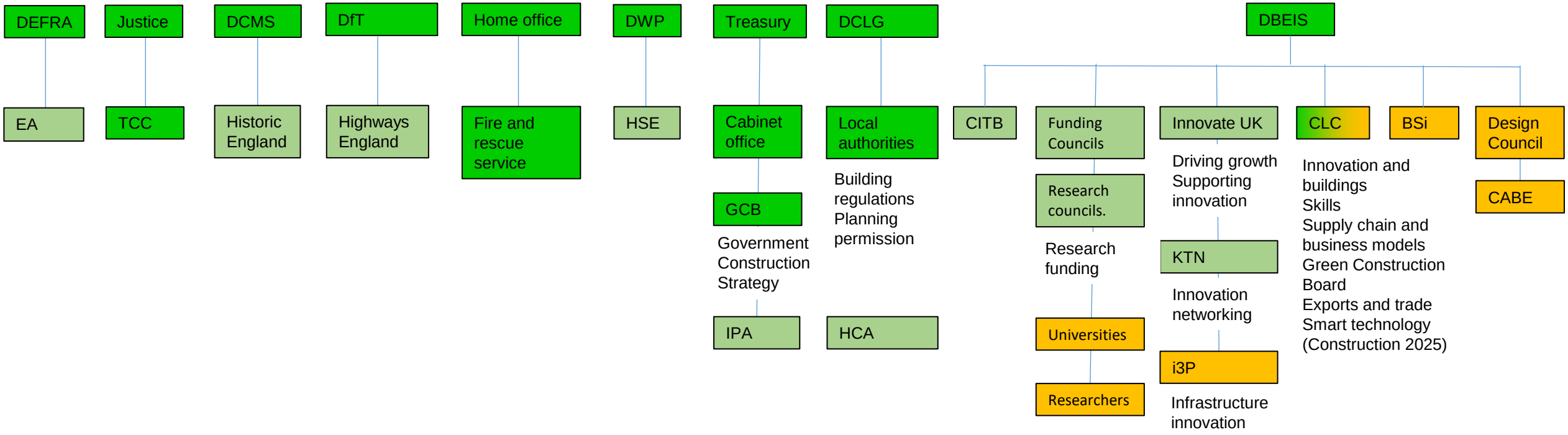

Wisdom
Applied knowledge
Knowledge
Organised information
Information
Structured data
Data
Discrete facts

Stuff that is published

- Legislation / regulations
- Policy
- Standards / codes
- Definitions / guidance / best practice
- Research / innovations
- Case law / case studies / lessons learned
- News / commentary
- Contracts / specifications

The construction industry



CIC
Institutes

NBS
Specification

CIRIA
Research

BRE
Research
Constructing Excellence
NPBE

Build UK
Contractors

NIC
Infrastructure

CPI
Production Information

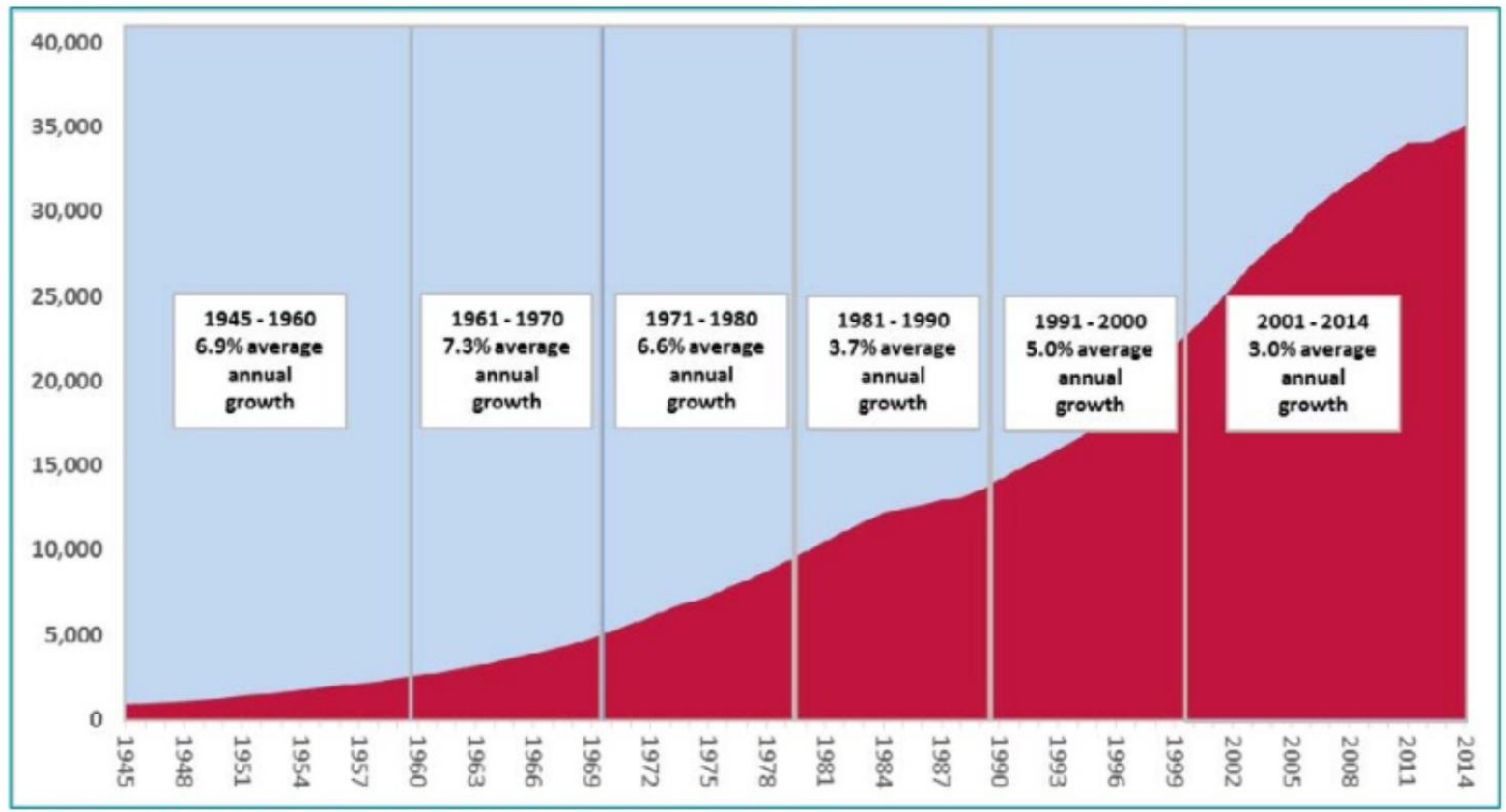
SFC
Reform

BBA
Certification

DBW
Knowledge sharing

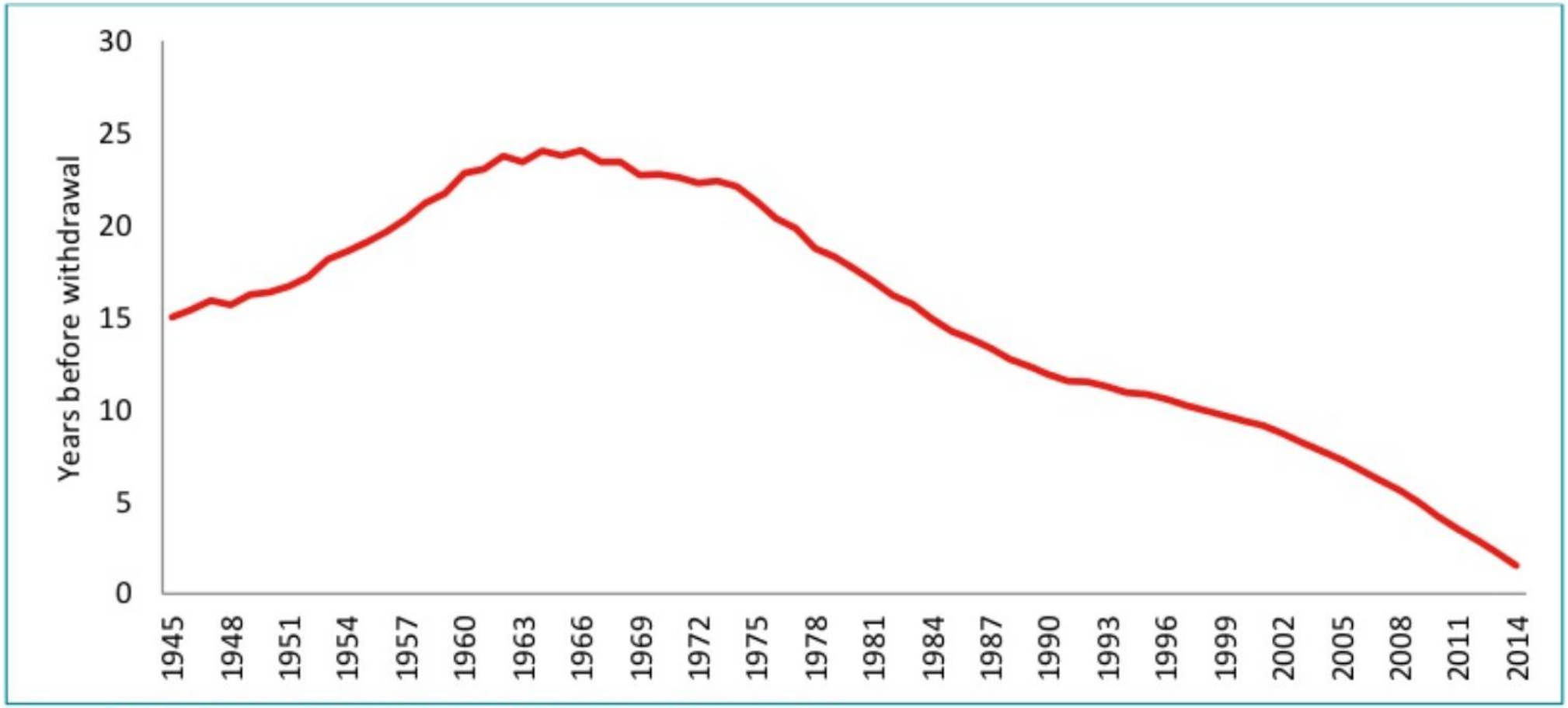
CCS

Figure 8: Net stock of standards in the BSI Standards Catalogue, 1945 to 2014

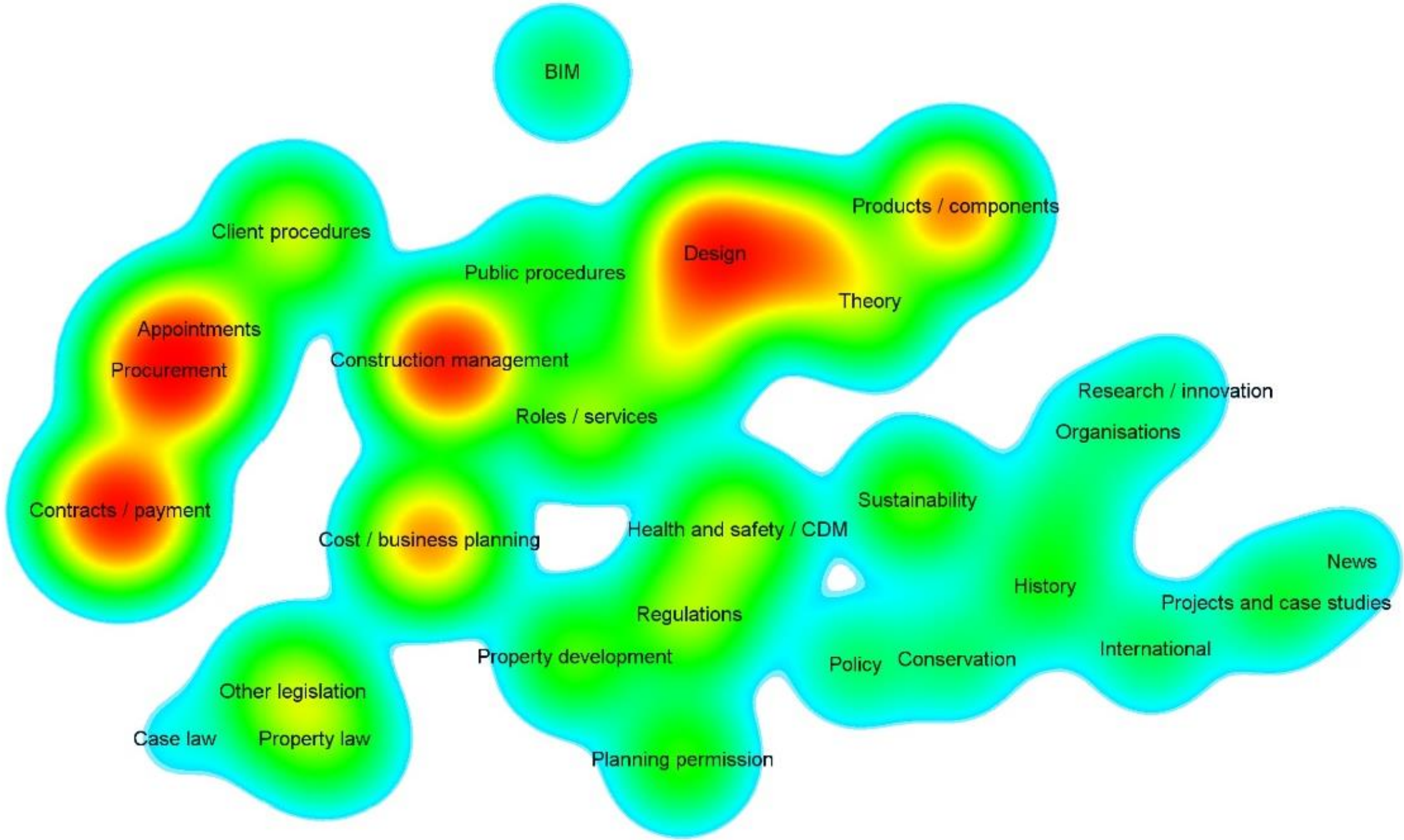


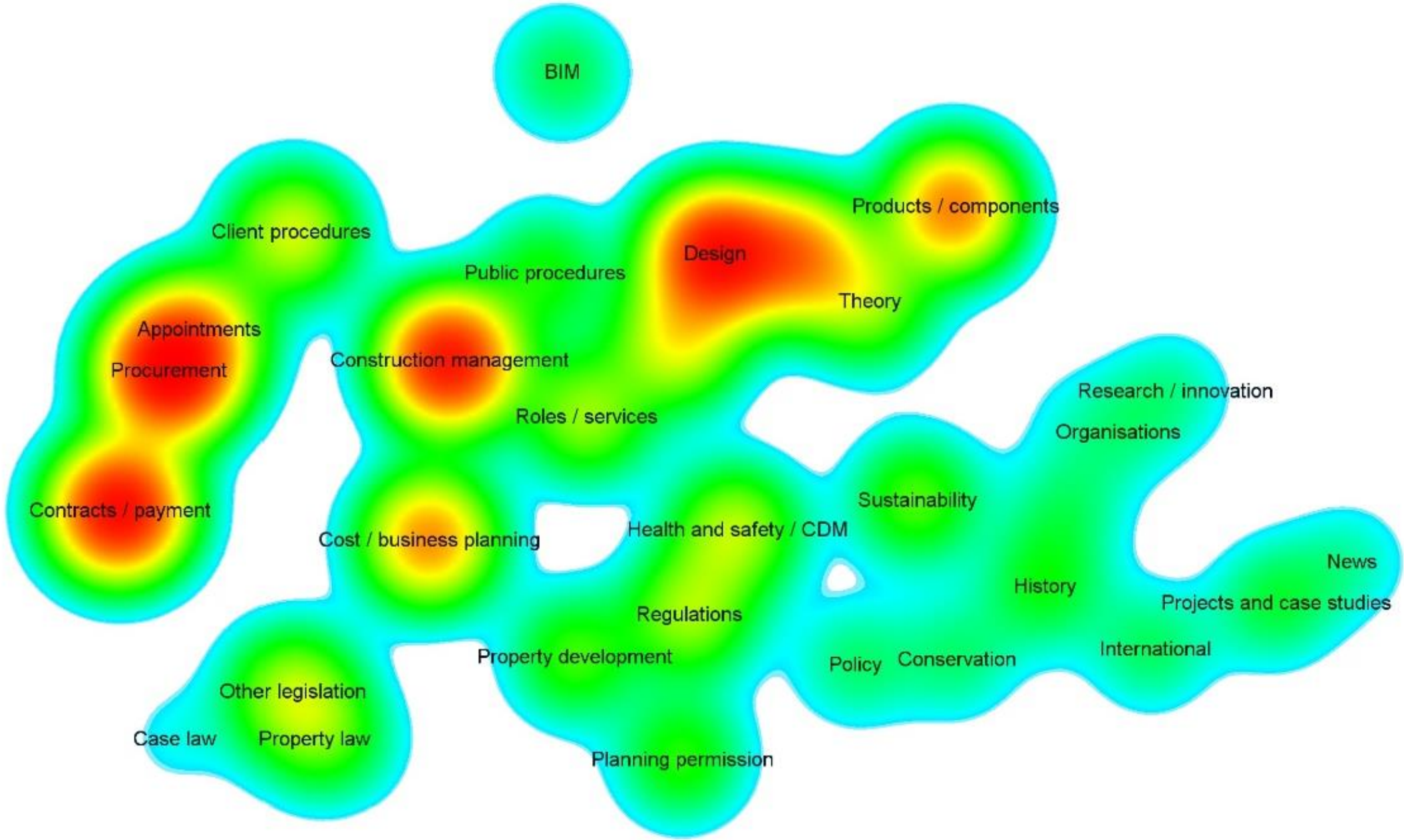
Source: BSI British Standards Online (BSOL) database, Cebr analysis

Figure 11: Average years before standard withdrawal, by published year, 1945 to 2014, smoothed



Source: BSI British Standards Online (BSOL) database, Cebr calculations


BIM
Products / components
Client procedures
Design
Public procedures
Theory
Appointments
Construction management
Procurement
Research / innovation
Roles / services
Organisations
Sustainability
Contracts / payment
Health and safety / CDM
Cost / business planning
News
History
Projects and case studies
Regulations
International
Property development
Policy
Conservation
Other legislation
Case law
Property law
Planning permission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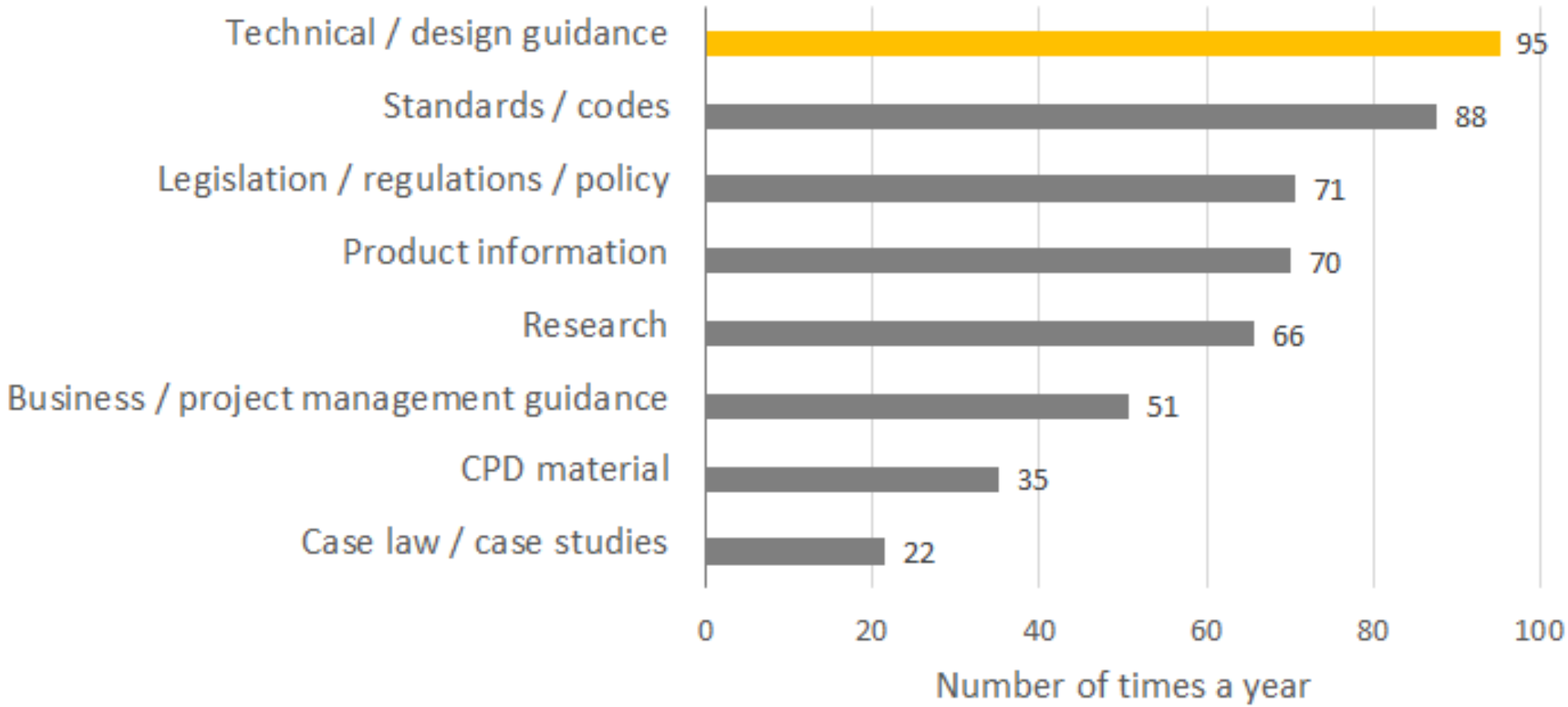
International
Property development
Policy
Conservation
Other legislation
Case law
Property law
Planning permission

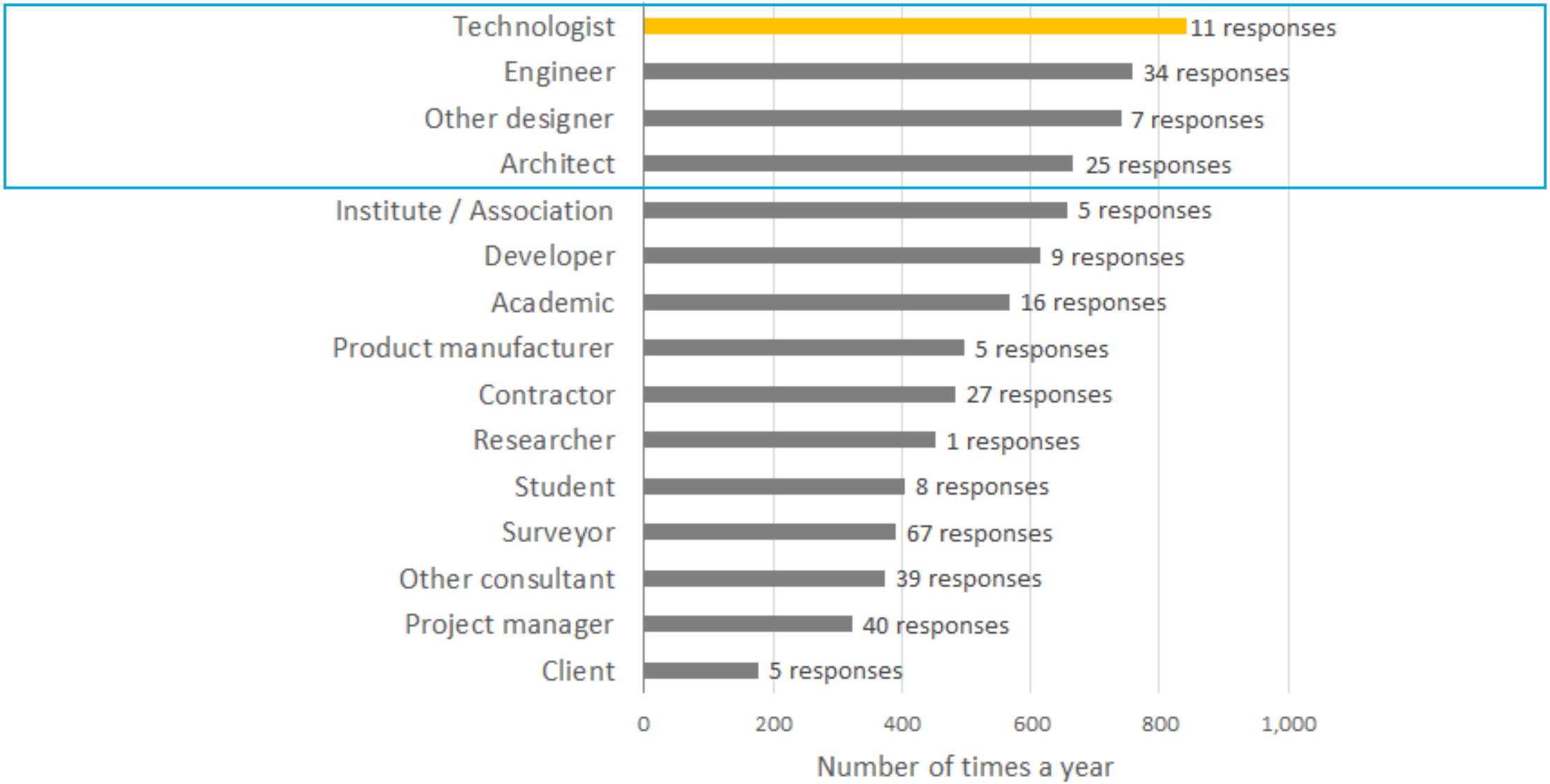
Construction Knowledge Task Group

AEC3 UK
AHMM
Arup
BRE
BSi
BSRIA
CIAT
CIBSE
CIOB
Constructing Excellence
Construction Leadership Council
Cundall
Designing Buildings Wiki
Hoare Lea LLP
i3P
ICE
IHS Markit
Invennt
Loughborough University.
Mace
Pearson UK Ltd
Polypipe
RIBA
RICS
Rider Levett Bucknall
SRM
Stroma
Taylor & Francis Group
The Get It Right Initiative
UKGBC
University of Dundee

What types of construction industry knowledge do you refer to?

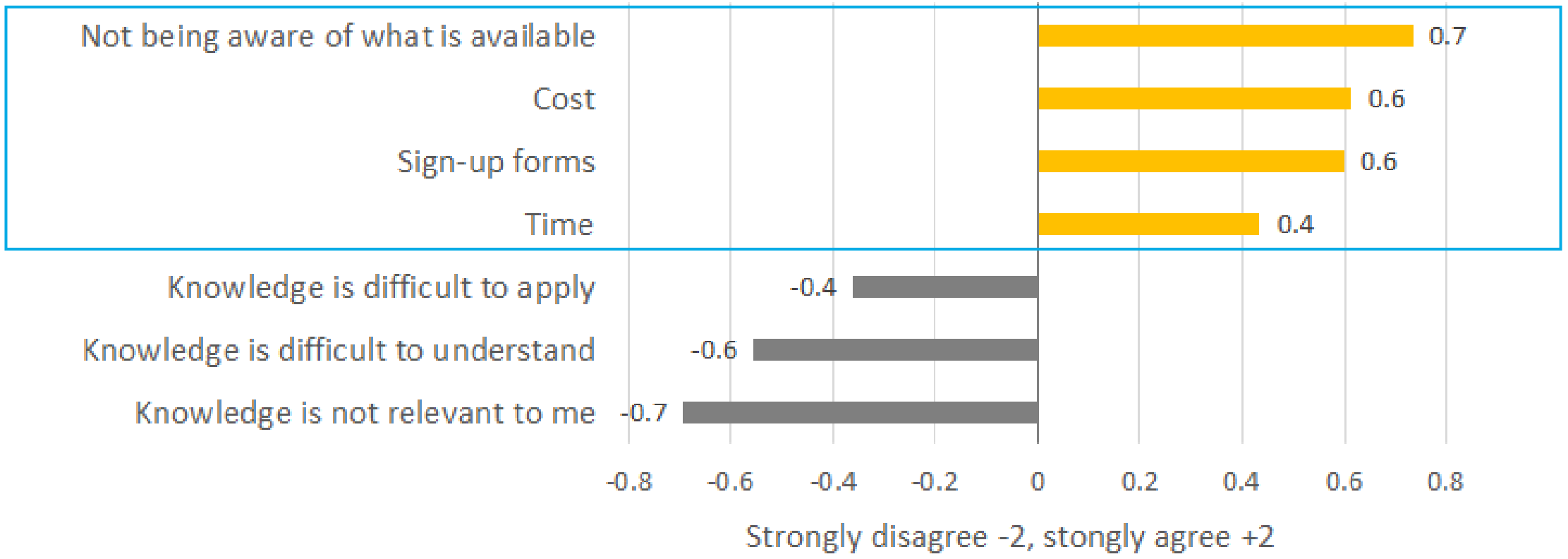


Frequency that knowledge is referred to

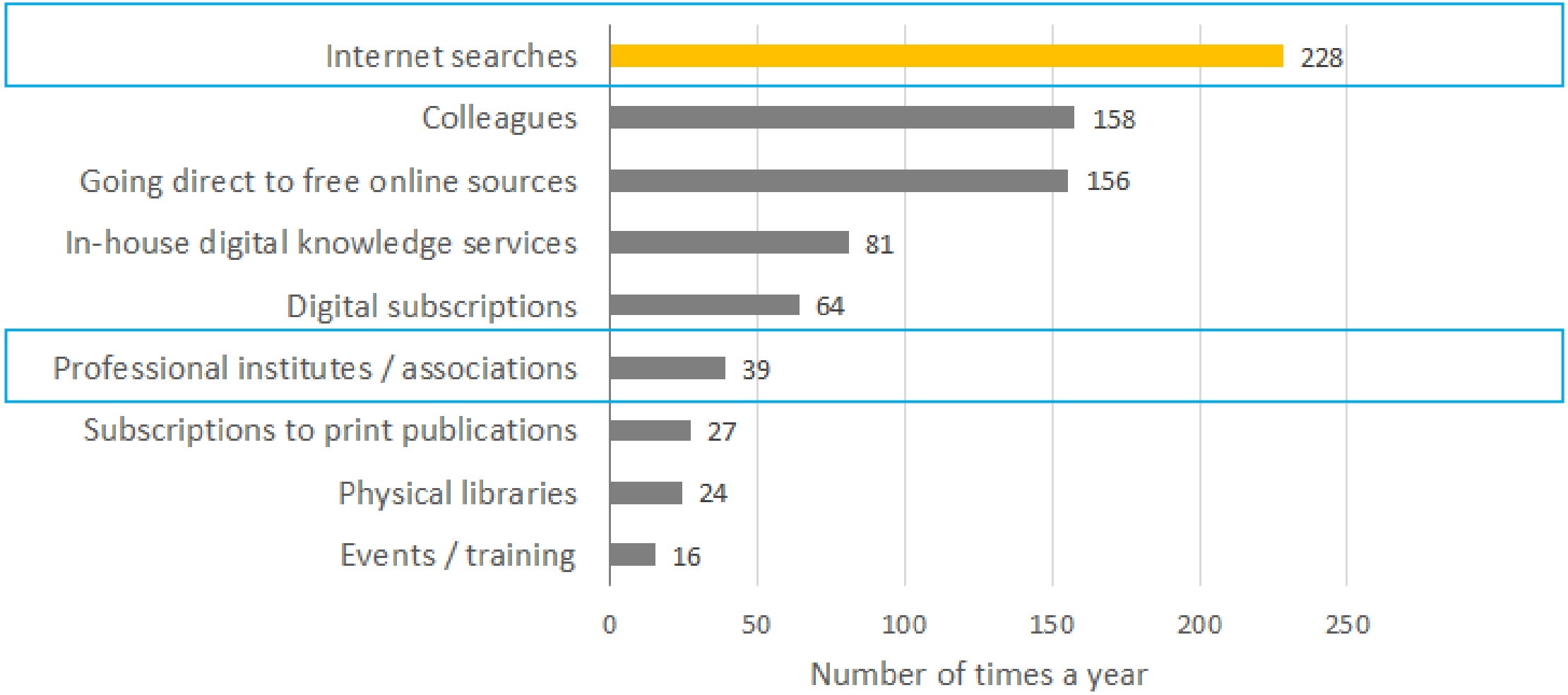


Do you have easy access to all the knowledge you need to do your job?

Do any of the following barriers prevent you from accessing or using the knowledge you need?

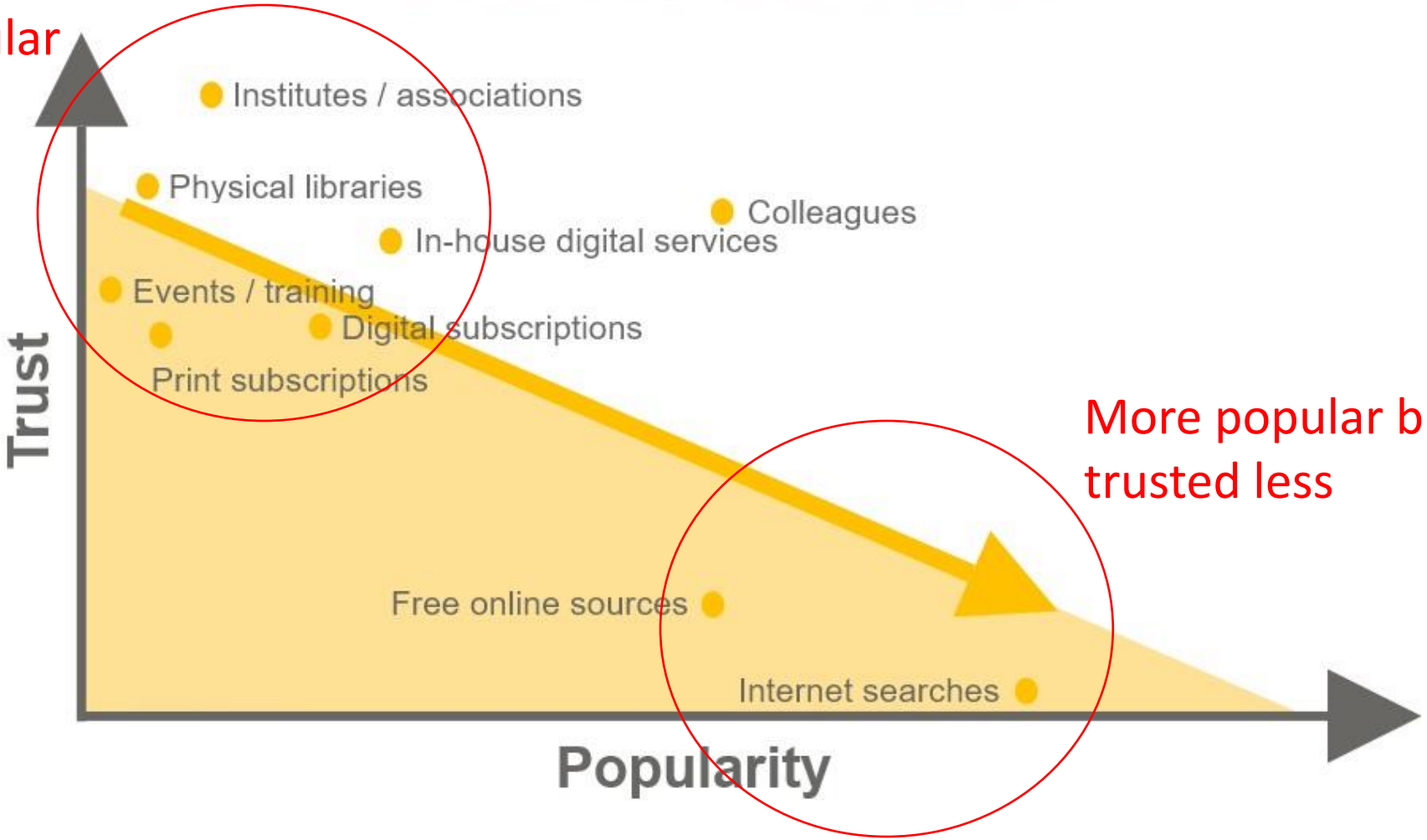


Where do you find the knowledge you need?



The most popular knowledge sources are also the least trusted

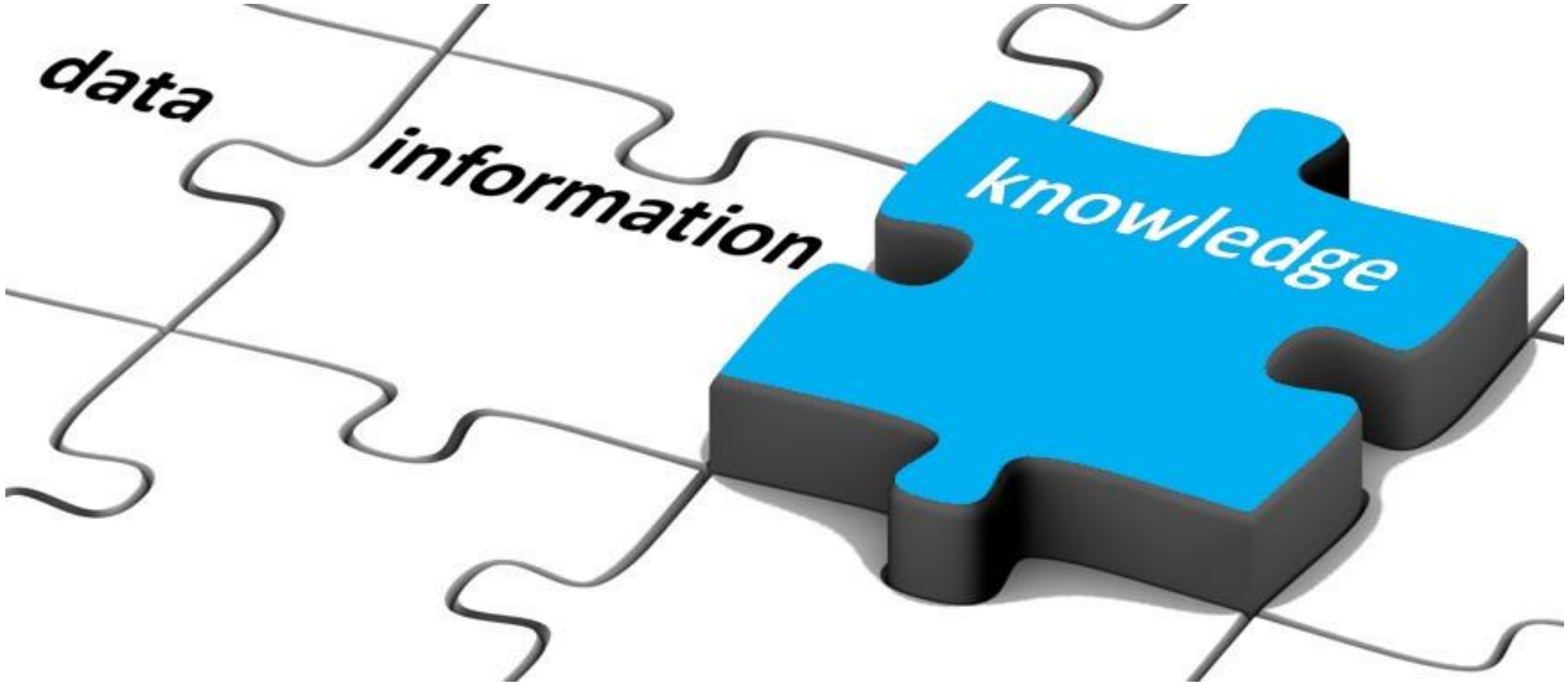
Trusted more but less popular



More popular but trusted less

Why does it matter?

- The Get It Right Initiative estimates that avoidable errors cost the industry between £10 billion and £25 billion a year.
- The IPA's Transforming Infrastructure Performance identified a £15 billion productivity opportunity in construction.
- The Hackitt Review called on the industry to raise and assure competence levels.


data
information
knowledge

The current position

Level 0	Level 1	Level 2a	Level 2b	Level 3
Paper Printed documents sitting on shelves.	**Digital** Digital versions of printed documents on siloed servers, often with restricted access.	**Searchable** All industry knowledge can be searched intelligently with a single query.	**Accessible** All industry knowledge can be accessed using a single log in.	**Smart** Knowledge can be accessed by project systems, based on each team members current activities.
Practitioners have to know they need to know something. They then need to know about, and have access to the right physical document. This requires extensive duplicated libraries.	Practitioners need to know about, and have access to the right digital document. This requires multiple subscriptions to, and searches of, many fragmented knowledge sources.	Practitioners still need to know that they need knowledge - but when they do, and they have access to it, they find the best knowledge faster.	Practitioners do not have to repeatedly log into and out of multiple, fragmented systems to find what they need.	Critical knowledge can be 'pushed' to practitioners automatically when they need it - so they don't need to know there is something they need to know.

CKTG

Construction Knowledge Task Group

purl.org/dck/spec

Specification for Discoverable Construction Knowledge

VERSION ONE

1. Introduction

This standard was initiated by the Construction Knowledge Task Group (CKTG) to improve access to knowledge by making it more discoverable.

In February 2020, a project commenced to develop an open standard that will allow practitioners to identify the relevant knowledge resources in the contexts in which they are needed.

The project aimed to create a common standard for the way knowledge is described, to make it easier to identify the right knowledge in every situation. This included the type, source, audience and application of the knowledge.

Overall, the more universal the standard is, the more useful it will be. The principle is that it is an open standard, whether or not the knowledge it is used to describe is released openly. To do this, we have leveraged existing open standards and classification systems, and avoided creating new ones as far as practicable.

The specification is designed to be adopted by anyone, including professional institutions, publishers, research bodies and businesses to describe knowledge in a consistent way, so that others may build indexes and tools that signpost the most relevant content to practitioners.

The specification is built on the key principles of making knowledge more discoverable and improving access.

We call it, "Discoverable Construction Knowledge".

Adopting the Discoverable Construction Knowledge standard will:

- Improve searchability, making all knowledge more easily discoverable and accessible by practitioners.
- Enable better curation and management of knowledge, so it can be collated, organised, queried, filtered, integrated into software and systems and pushed to practitioners, whatever its source.
- Enable the creation of tools to extract the maximum value from all knowledge and integrate it with industry data and information.

1.1. Technical Authoring

Technical authoring for version 1.0 has been undertaken by Barbal Limited.

This project was funded by the Lloyd's Register Foundation with the support of the Open Data Institute.

1.2. Scope

This specification defines a standard to make construction knowledge discoverable. This reflects the goal established by the Construction Knowledge Task Group (CKTG) whose aim is to make it as easy as possible for practitioners and other industry stakeholders to:


Designing Buildings Wiki
Preliminaries in construction

www.toureiffel.paris › ...

The OFFICIAL Eiffel Tower website: tickets, news, info...

All the practical information you need for your visit to the **Eiffel Tower**: buy a ticket (Rates: 16 to 25 € maximum for adults and 4 to 12,5 € for children and young ...

The Tower · Eiffel Tower Ticket · Prices & Times · 1st Floor

www.toureiffel.paris › The Eiffel Tower › The Tower

History & construction of the Eiffel Tower - OFFICIAL Website

Origins and Construction of the **Eiffel Tower**. It was at the 1889 Exposition Universelle, the date that marked the 100th anniversary of the French Revolution, that ...

Construction: 150 workers in the Levallois-P... **Duration**: 2 years, 2 months and 5 days of ...
Design: 18,038 metallic parts

Gustave Eiffel · The universal exhibition · History of the restaurants

Images for eiffel tower

drawing | wallpaper | night | paris | beautiful | clip art

More images for eiffel tower — Report images

People also ask

- What is the purpose of Eiffel Tower?
- How many floors is the Eiffel Tower?
- Who made the Eiffel Tower and why?
- What is at the top of the Eiffel Tower?

Feedback

Eiffel Tower

Website | Directions | Save | Call

4.6 ★★★★½ 245,055 Google reviews

Tower in Paris, France

The Eiffel Tower is a wrought-iron lattice tower on the Champ de Mars in Paris, France. It is named after the engineer Gustave Eiffel, whose company designed and built the tower. Wikipedia

Located in: Champ de Mars

Address: Champ de Mars, 5 Avenue Anatole France, 75007 Paris, France

Height: 300 m, 324 m to tip

Construction started: 28 January 1887

Hours: Open · Closes 12:45AM

Architects: Stephen Sauvestre, Maurice Koechlin, Émile Nouguier

⚠ Hours or services may differ

Suggest an edit

Questions & answers

Ask a question

Q: On which floor is the ice rink?

A: First floor! ;)

(158 more answers)

See all questions (3402)

Popular times

Wednesdays

Live: Less busy than usual

Send to your phone — Send

What can you do?

- Don’t think the job is done when the specification is written.
- Will everyone actually access and apply the knowledge they are supposed to?
- It is better to underestimate what people know than to overestimate it.
- Sharing what you know helps others and improves the industry.
- If you create any knowledge, adopt the Specification for Discoverable Construction Knowledge.

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gregor.harvie@designingbuildings.co.uk

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