

<b>Title:</b> The Construction (Design and Management) Regulations 2015 <b>PIR No:</b> PIR008 <b>Original IA/RPC No:</b> <a href="#">Click here to enter text.</a> <b>Lead department or agency:</b> HSE <b>Other departments or agencies:</b> <a href="#">Click here to enter text.</a>  Contact for enquiries: <a href="mailto:sue.brandrick@hse.gov.uk">sue.brandrick@hse.gov.uk</a>	<b>Post Implementation Review</b>
	<b>Date:</b> 01/10/2019
	<b>Type of regulation:</b> EU
	<b>Type of review:</b> Statutory
	<b>Date measure came into force:</b> 06/04/2015
	<b>Recommendation:</b> Keep
<b>RPC Opinion:</b> Green	

**1. What were the policy objectives of the measure?** (Maximum 5 lines)

Simplification of the Regulations and replacement of the ACOP with clear guidance; replacing the CDM coordinator role with a new role to embed coordination of risk management across all of the project; replacing competence duties with requirements for skills, knowledge, experience and training; increasing the threshold for notification of projects to the regulator; aligning the threshold for additional duties with the Directive; removing the exemption for domestic clients.

**2. What evidence has informed the PIR?** (Maximum 5 lines)

Consultation with CONIAC; use of CITB's surveys and panels in 2016, 2018 and 2019 for 1,500 phone interviews with employers and self-employed, and 25-30 in-depth interviews; use of HSE research with 51 SMEs and 16 domestic and small commercial clients; focus groups with HSE's construction inspectors; consultation with EU MS via SLIC and an interview with HSA, Republic of Ireland; a review of HSE and CITB administrative data, including the number of F10s.

**3. To what extent have the policy objectives been achieved?** (Maximum 5 lines)

The regulations are effectively progressing the original policy objectives. Original assumptions in respect of estimated cost savings (in particular, the removal of the CDM coordinator and embedding of the new role of principal designer) have not been realised fully. The main improvements seen so far have been the non-financially quantifiable benefits of the changes.

Sign-off for Post Implementation Review: Chief economist/Head of Analysis and Minister

***I have read the PIR and I am satisfied that it represents a fair and proportionate assessment of the impact of the measure.***

Signed: 

Date: 01/10/2019

## Further information

### **4. What were the original assumptions?** (Maximum 5 lines)

The original assumptions of the policy objectives (see 1 above) set out in the Impact Assessment of the Regulations were to increase compliance and improve health and safety in construction projects, with an estimated saving to business of £17 million per year (2018 prices) and an assumed average of three hours familiarisation time in relation to the structural simplification of the Regulations.

### **5. Were there any unintended consequences?** (Maximum 5 lines)

No unintended consequences were identified.

### **6. Has the evidence identified any opportunities for reducing the burden on business?** (Maximum 5 lines)

We did not identify any new opportunities for reducing the burden on business during our research. The purpose of the policy objectives was to facilitate better management of health and safety risks on construction projects, within that there has been the potential/opportunity for a reduction of burdens on business.

### **7. For EU measures, how does the UK's implementation compare with that in other EU member states in terms of costs to business?** (Maximum 5 lines)

Our enquiries found that EU Member States cannot say with any degree of certainty that the Directive is responsible for any increased costs to business or cost savings. However, we found that overall, the Directive has contributed to better management of risks on projects and improvements in health and safety for workers on construction sites.

## Further information sheet

<b>Title:</b> The Construction (Design and Management) Regulations 2015 <b>PIR No:</b> PIR008 <b>Original IA/RPC No:</b> HSE <b>Lead department or agency:</b> HSE <b>Other departments or agencies:</b> DWP  Contact for enquiries: <a href="mailto:sue.brandrick@hse.gov.uk">sue.brandrick@hse.gov.uk</a>	<b>Post Implementation Review</b>
	<b>Date:</b> 01/10/2019
	<b>Type of regulation:</b> Domestic
	<b>Type of review:</b> Statutory
	<b>Date measure came into force:</b> 06/04/2015
	<b>Recommendation:</b> Keep
	<b>RPC Opinion:</b> Green

### Introduction

1. This report is the Health and Safety Executive's (HSE) Post Implementation Review (PIR) of the Construction (Design and Management) Regulations 2015 (the Regulations) (S.I. 2015 No. 51) setting out the effectiveness of the new regulatory regime.
2. This PIR is the evaluation tool that fulfils the statutory requirement to review the Regulations at least every 5 years. This PIR report should be published on [legislation.gov.uk](http://legislation.gov.uk) before 6 April 2020.
3. The overall purpose of the PIR is; to assess whether the Regulations are achieving the original policy objectives, whether the objectives remain appropriate, if legislation is still required and if so, whether it can be improved to reduce burdens on business. For EU-derived requirements, the PIR considers and takes account of how European Directive 92/57/EEC (the Directive) has been implemented in other Member States.
4. HSE's Regulation Committee (RC) agreed an adjustment in approach to handling the PIR findings, in light of potentially significant developments generated by:
  - The EU withdrawal;
  - The outcomes of the Government's response following the Hackitt review, and;
  - The Grenfell public inquiry.
 RC agreed that this PIR would be published as an interim review report with conclusions carried forward for future consideration alongside the wider policy outcomes of the above.

5. Advice from Government Legal Department (GLD) supported this approach as the wider policy outcomes are all matters that are likely to have some effect on the Regulations. It is reasonable for HSE to caveat any interim indications / conclusions that may be affected by these processes.
6. Given the interim nature, RC agreed that the PIR could be published earlier than April 2020. However, due to additional time required to gather evidence to support the Review, it might not be possible to publish significantly before the statutory deadline.

### **What were the policy objectives of the measure?**

7. The aims of the Regulations were to simplify arrangements for regulating health and safety in the construction industry in Great Britain and to aid clarity and reduce burdens on construction businesses by enabling effective and proportionate management arrangements in support of the Government's growth agenda, while ensuring that the Directive had been implemented.
8. The original policy objectives set out as key changes in Impact Assessment No: HSE0079 were:
  - (A) Shortening and structural simplification of the Regulations and the removal of the Approved Code of Practice (ACOP) and its replacement with straightforward guidance aimed at specific industry sub-sectors;
  - (B) Removal of CDM coordinator (CDMC) role and its replacement with a new role;
  - (C) Removal of the detailed framework for the assessment of individual and corporate competence;
  - (D) Tightening of the condition used to trigger notification of a construction project to the competent authority;
  - (E) Alteration of the conditions used to trigger a raft of additional duties; and
  - (F) Removal of the exemption from client duties for domestic clients, implemented by using a 'deeming' approach.

### **What evidence has informed the PIR?**

9. We have assessed the extent to which the Regulations met their policy objectives of maintaining or improving health and safety and lowering project costs. Our research focused on a series of key questions including:
  - Are the Regulations the best way to maintain health and safety in this sector?
  - How does the UK's implementation compare with that in other EU Member States in terms of costs to business? and
  - What, if any, are the cost savings that result from the changes?A full list of the research questions can be found at Appendix 1.

10. We adopted a mixed research methodology approach, consisting of primary quantitative and qualitative research and secondary analysis of research reports and administrative data. The methods employed were:
- Consultation on changes since the evaluation of the CDM 2007 Regulations – The PIR covered the entirety of the Regulations, not just the changes made in 2015. However, as a thorough evaluation of CDM 2007 had taken place in 2012, it was considered proportionate to evaluate whether unchanged CDM provisions between CDM 2007 and CDM 2015 were still valid. This was carried out via a survey distributed through the Construction Industry Advisory Committee (CONIAC) to seven key stakeholder bodies (see Appendix 1 for details);
  - Construction Industry Training Board (CITB) survey waves during 2016, 2018 and 2019 consisting of 1,500 structured telephone interviews with employers and self-employed in construction trades and professional services sectors;
  - CITB qualitative research waves during 2016, 2018 and 2019 involving its regular employer panel consisting of 25-30 in-depth interviews. These covered firms from across the UK consisting of sole traders to large companies employing thousands of staff working in general construction and specialist fields as well as civil and structural engineering, building surveying, engineering design and architecture;
  - Use of HSE construction micro-business research commissioned to improve understanding of smaller construction businesses' and clients' needs, perceptions, attitudes and behaviours towards health and safety where 51 small businesses and 16 domestic and small commercial clients were involved in face-to-face and telephone interviews;
  - Focus groups with 13 experienced regulatory inspectors - 11 from HSE, 2 from ORR - across two sessions (London and Liverpool) in March 2019;
  - Consultation with EU Member States involving a semi-structured interview with Republic of Ireland's (RoI) Health and Safety Authority Senior Construction Inspector and a series of questions to the Senior Labour Inspectors knowledge sharing site (SLIC-KSS) to which 18-member states responded;
  - A review of administrative data from HSE and CITB web statistics in relation to guidance and HSE's data in relation to the number of F10 (Notification of construction project) forms.
11. Using different methods of collecting data from a wide range of stakeholders and other sources has given us a comprehensive picture of how the requirements of the Regulations were addressed in practice. We have used the combined evidence to answer the various research questions and to allow for any issues raised in the survey to be explored further in the analysis. The full details of the analysis are available in the Evidence Summary Report in Appendix 1.

### **Assessment of risks or uncertainties in evidence base / Other issues to note**

12. Our main concern in planning our research was to balance the need for a robust evidence base for the PIR against the resources required to carry out the research. We initially considered wide-ranging engagement with the construction industry e.g. country- and sector-wide focus groups and/or commissioning a large-scale bespoke survey of the industry. Both these options carried

disproportionately high costs and would be burdensome on businesses. We decided on a more proportionate approach using HSE's extensive stakeholder networks. This approach is detailed in para 10 above.

13. We recognise that there are risks and uncertainties associated with our chosen approach. These were:

- Using CONIAC for elements of the PIR ensures that a senior sector strategic view is captured, masking potential differences between sub-sectors of the industry. Speaking to businesses in each respective sub-sector would, however, be disproportionately resource intensive. CONIAC as a single point of contact is a more efficient way of obtaining views from significant sub-sectors of the industry;
- CONIAC may not be fully representative of the industry and may be biased against sub-sectors e.g. self-employed who are not members of trade associations or are 'hard to reach'. CONIAC does include some trade associations that represent a portion of the 'hard to reach' groups. Furthermore, the self-employed were picked up in the CITB survey and hard to reach groups were also picked up in the Insight research. Our assessment is that the approach we took adequately considered the views of SMEs and the self-employed;
- Utilising a third-party survey for data collection could mean that the direction of the survey work would not meet HSE's desired objectives. However, the CITB survey is a long established, well-regarded and highly successful panel survey, independent of HSE. If HSE tried to replicate its structure and reach in a bespoke survey it would be hugely costly and no more representative. Using third parties to assist offered more benefits than risks.

14. Our view is that our research approach was sound, placed a proportionate burden on affected businesses and yielded high quality information, meeting the evidential needs of the review.

### **To what extent have the policy objectives been achieved?**

15. The key findings from the survey results (see Appendix 1) show that the impact of the Regulations has been broadly beneficial for management of health and safety risks on construction projects and confirms that they are considered effective in protecting workers on site.

16. Around half of businesses which had heard of CDM 2015 believed that it had had a positive impact, with a third answering that it has made no difference. The most frequently mentioned positive impact was an increased profile and awareness of health and safety in the business, mentioned by 90% of those where health and safety changes had made a positive impact to the business. Other regularly mentioned advantages were the changes having formalised their health and safety processes (79%) and that incidents had been reduced or safety

improved (77%). For a third (32%), the positive change was that less time was needed to be spent on health and safety issues.

17. The vast majority of respondents believed that the duties protecting workers and the reduction of risks could not be achieved with a system that involved less regulation.
18. The research did not identify any direct examples of unintended consequences relating to this PIR. The extent to which the policy objectives have been achieved is as follows:

**(A) Shortening and simplification of Regulations and the removal of the ACOP and its replacement with straightforward guidance aimed at specific industry sub-sectors**

19. The Regulations have been shortened and simplified by removing the additional duties in Part 3 of the previous iteration of the Regulations (CDM 2007) that applied to dutyholders working or associated with projects that met the notification threshold. The Regulations have been simplified by providing consistent requirements to all dutyholders irrespective of notification threshold and where more than one contractor is, or is likely, to work on a construction project. The ACOP has been withdrawn and replaced by HSE legal series guidance (L153) and Industry guidance for specific dutyholders. Nearly half (48%) of firms questioned in the CITB Wave 16 survey indicated that they or their colleagues had accessed guidance on the CDM 2015 regulations. Of those who had accessed the guidance, over three quarters (76%) said that there was nothing unclear or missing from the guidance material produced by HSE and CITB.

**(B) Removal of CDM coordinator (CDMC) role and its replacement with a new role**

20. The CDMC role has been removed from the Regulations and a new role of principal designer (PD) has been provided which improves the embedding of pre-construction (design) health and safety coordination in construction projects from inception. The research indicates that, overall this has led to improved health and safety coordination on construction projects. However, the expected cost savings have not yet been realised.

**(C) Removal of detailed framework for competence for the assessment of individual and corporate competence**

21. The regulation requiring construction players to be competent has been removed and replaced with a requirement that dutyholders possess the requisite skills, knowledge and experience (SKE) (and for individual training) for the roles for which they are being appointed. Where a body corporate is appointed into regulated roles they are required to demonstrate the organisational capability to undertake and accept that role. Industry response to this change is evolving and understanding how this duty will be discharged continues to develop. Our research found that the ability to appoint flexibly is influenced by wider pressures regarding construction skills availability. Card schemes and prequalification processes remain popular across the industry to demonstrate compliance with the SKE and training requirements. Employers reported a continuing shortage of

sufficiently skilled workers, although all the businesses interviewed offered some form of training to bridge the skills gap.

**(D) Tightening of the condition used to trigger notification of a construction project to the competent authority**

22. The notification threshold has been tightened so that it is only triggered when construction work on a construction site lasts longer than 30 days and has more than 20 workers working simultaneously at any point in the project or exceeds 500-person days. The research shows that this threshold has reduced the number of projects meeting the notification threshold by 20% during the period of the PIR, reducing bureaucracy - particularly for SMEs.

**(E) Alteration of the conditions used to trigger a raft of additional duties**

23. The conditions used to trigger a raft of additional duties under Part 3 of CDM 2007 have been removed by uncoupling the additional duties to notification threshold. This has simplified the Regulations and provided similar duties to all projects where more than one contractor is or is likely to work on a project. Overall there appears to be a high level of understanding of roles and responsibilities under CDM 2015 across the piece, with 89% of those construction employers and allied professionals who were aware of the changes saying that they understood the changes to roles within construction projects either very (32%) or quite (57%) well, compared to 10% who understood them 'not very' (8%) or 'not at all' (1%) well (see Table 13 of Appendix 1).

**(F) Removal of the exemption from client duties for domestic clients, implemented by using a 'deeming' approach**

24. The Regulations have removed the exemption to domestic clients by redefining the dutyholder and has provided for a 'deeming' approach to client duties by which the duty automatically passes to the contractor or the principal contractor or the PD where there is a written agreement that the PD will fulfil these roles. These changes provide for consistency with the EU Directive and the objectives of UK construction policy. Again, our research indicated that the CDM changes are to be considered alongside wider industry considerations. For example, research among micro-businesses indicated that the way different contractors were appointed, and client budgetary constraints were key influencers on health and safety coordination and decision making.

**What were the original assumptions?**

25. The original estimate of an average of three hours for familiarisation in the IA was based on discussions with stakeholders. Research into the accessibility of the guidance showed that only a very small percentage found the guidance difficult to understand. However, the evidence is that familiarisation with the new guidance took an average of 14 hours, including attendance at training courses.
26. Table 1 below sets out the original assumptions as estimated in the IA as part of a breakdown of the costs of each of the key changes in the Regulations and how they compare with the revised PIR estimates. For consistency these have been converted to 2018 prices.



**Table 1: Summary of Costs and Benefits**

Assumption	Equivalent annual costs (£millions, 2018 prices)	
	CDM 2015 IA	Revised PIR estimates
(B) Removal of the CDM coordinator (CDMC) role and its replacement with a new role	-£24.8	£ 7.5
(C) Removal of the explicit competence requirement	Nil	-
(D) Tightening of the condition used to trigger notification of a construction project to the competent authority	-£3.3	-£0.9
(E) Alteration of the conditions used to trigger for additional duties	£ 0.4	£0.3
(F) Removal of the exemption for domestic clients	£10.6	£10.8
<b>TOTAL</b>	<b>-£ 17.0</b>	<b>£17.8</b>

27. The most significant impacts in terms of potential cost benefit in the IA were; (B) the removal of the CDMC role and its replacement with a new role; (D) the change in the requirements for notifications to the competent authority; and (F) the removal of the exemption for domestic clients.
28. In respect of objective (B) - removal of the CDMC role and its replacement with a new role - embedding and internalising the coordination of project health and safety in the pre-construction phase by the introduction of the new role of principal designer (PD) has not realised the cost savings initially anticipated in the IA. The evidence suggests that the costs of coordination appear to have stayed roughly the same or increased slightly. This is partly due to an initially limited and under developed resource of PD service providers and additional fees required by those providing such services, but also due to a significant proportion of coordination support continuing to be sourced externally.
29. The aim of the objective was for better coordination and liaison between the different parties involved and ultimately better health and safety outcomes. Having an internal member of the project team delivering the coordination function rather than an external party was also expected to deliver significant cost savings.
30. As the PD role develops and project leaders increasingly coordinate functions from within their own resource rather than rely on third party provision, it is anticipated that costs will fall.
31. The IA estimated that this change would result in an equivalent **annual saving to businesses of approximately £25 million**. However, the PIR Evidence Review indicates strongly that the construction sector has not experienced the expected savings and the revised PIR estimates an equivalent **annual cost to businesses of £7.5 million**. To give some perspective, this is approximately 7% increase in total coordination costs and less than 0.1% increase in total project costs.

32. The Evidence Review suggests that overall health and safety coordination has improved under the Regulations. It is also likely that savings will be realised in future as coordination becomes internalised and better embedded within construction projects.
33. Objective (D) - the change in the requirements for notifications to the competent authority - was affected to align the notification threshold with the Directive. The IA estimated that this change would thereby **reduce the number of projects needing to be notified to HSE by 50%** resulting in an **annual cost saving of approximately £3 million**.
34. The average annual number of notifications since the Regulations was compared with the average annual notifications for the five years prior, **suggesting a 20% reduction in the number of notifications. The 20% reduction has resulted in an estimated annual cost saving of around £0.9 million.**
35. The PIR Evidence Review shows a sharp fall in notifications following the introduction of the Regulations. However, ONS data shows that there was actually an increase in construction new orders around the time of the introduction of the Regulations. So, we can be confident that at least a significant proportion of the fall is due to the change in the notification threshold.
36. Further cost / benefit analysis can be found in Appendix 2.

**Has the evidence identified any opportunities for reducing the burden on business?**

37. The research did not identify any new opportunities for reducing the burden on business. The overarching policy objective was to facilitate better management of health and safety risks on construction projects, within that there has been the potential / opportunity for a reduction in burdens on business.

**For EU measures, how does the UK's implementation compare with that in other EU Member States in terms of costs to business?**

38. As was the case in the UK, most, if not all, Member States already had legislation in place implementing the Directive.
39. Analysis of the evidence gathered towards informing the PIR from the 19-Member States (including RoI) who responded to the question of *whether implementation led to any significant costs or savings* shows:
- Ten did not respond to the specific question;
  - Five responded saying there was no data available or not collected;
  - Two could not answer for other reasons; and
  - Two said the requirements of the Directive **had or may result in additional financial costs.**

40. Only one Member State who responded referred to **cost savings** following the implementation but that this was *strictly limited to those cases where the role of Project Supervisor is also assumed by the Client* (or in other words internalised).
41. Analysis of responses to the question of *what overall impact has the Directive had on health and safety on construction sites* shows:
- Seven did not respond to the specific question;
  - One did not know due to many variables;
  - One could not answer for other reasons; and
  - Ten responded positively with comments including; improved health and safety conditions on sites; decreasing numbers of accidents, work-related diseases and deaths in construction; changes in culture; better coordination of parties in different phases of projects; and businesses improving health and safety management procedures.
42. The PIR evidence shows that Member States cannot say with any degree of certainty that the Directive is responsible for any increased costs to businesses or cost savings. However, the evidence shows that overall, the Directive has contributed to better management of risks on projects and improvements in health and safety for workers on construction sites.

**What next steps are proposed for the Regulations (e.g. remain/renewal, amendment, removal or replacement)?**

43. The PIR should normally include next steps for the Regulations, in terms of renewal, amendment, removal or replacement. However, in the interests of proportionality, the project team considers it prudent to defer decisions on potential changes identified by the PIR process until the implications and opportunities of the EU withdrawal, the proposals for reform of the building safety regulatory system following the Hackitt review and the Grenfell public inquiry can be taken fully into account. The review has been carried out as planned but with the caveat that interim conclusions only would be published. The conclusions will then be carried forward for further consideration alongside the wider policy outcomes.
44. HSE's Better Regulation and Policy Unit consider this a sensible and proportionate approach. Collectively, Ministers are aware of the extreme pressures on Parliamentary (and policy official) time and have sought to reassure that a proportionate approach should be applied wherever this is possible. The GLD advises that it is "reasonable for HSE to caveat any recommendations that may be effected by these processes", i.e. the Grenfell inquiry etc.

### Evidence Summary Report for CDM 2015 PIR

#### **1 Background**

The Construction (Design and Management) Regulations (CDM) 2015 came into force on Monday 6 April 2015, replacing the CDM 2007 Regulations. The original regulations were introduced in 1994 in compliance with European Directive 92/57/EEC. CDM Regulations 2015 define responsibilities according to particular roles from client, designer and contractor. The main changes from the CDM Regulations 2007 are:

- A shortening and structural simplification of the Regulations (Section A);
- Removal of the Approved Code of Practice (ACOP) and its replacement with straightforward guidance aimed at specific industry sub-sectors (Section A);
- The regulations now apply to all clients of construction projects, whether or not they are acting in the 'furtherance of a business'. In order to comply with the Directive, the previous exemption of domestic clients from holding legal responsibilities was removed. However, CDM 2015 takes a 'deeming' approach to the duties of a domestic client. Under this approach the principal contractor (PC) will be deemed to have assumed the health and safety duties of the client (Section F)
- Removal of the detailed framework for the assessment of individual and corporate competence (Section C); although the specification remains that workers must have the right skills, knowledge, training and experience; contractors providing appropriate supervision, instruction and information; and a written construction phase plan.
- Alteration of the conditions used to trigger a raft of additional duties (Section E);
- Tightening of the condition used to trigger notification of a construction project to the competent authority (Section D). Under the 2007 Regulations appointments for similar roles were required for notifiable projects. The duty to notify now lies with a client and the threshold for notification is raised. So, in situations where work is planned to last longer than 30 working days, with more than 20 workers working on site at the same time during any part of the project, or if the project exceeds 500-person days in total, the HSE must be notified of the project by the client.

The aim of the post-implementation review is to assess the extent to which the legislation has met its goals maintaining or improving health and safety and lowering project costs. Specifically, we have collected information against the following research questions:

- Have safety standards been maintained?
- Have safety standards been improved?
- Are the CDM regulations the best way to maintain safety in this sector?
- Has CDM 2015 resulted in lower project costs?
- What, if any, are the costs savings that result from the changes?
- Are Principal Designers (PDs) embedded in the project team?
- Do business buy in less additional co-ordination support?
- Do small businesses find it easier to a) understand and b) comply with regulations?
- Do clients, designers and contractors on all sizes of project understand what their responsibilities are, and do they feel confident to undertake their duties?
- Is domestic work being managed via the deeming approach?
- Do businesses submit fewer notifications?
- Are contractors able to appoint flexibly?

- How does the UK's implementation compare with that in other EU member states in terms of costs to business?

## **2 Methodology**

The evidence base for the PIR was gathered via mixed methods, consisting of primary quantitative and qualitative research and secondary analysis of both research reports and administrative data. The methods employed were as follows:

- Consultation on changes since the CDM 2007 evaluation

The Better Regulation Executive advised that the PIR should cover the entirety of the CDM regulations, not just the changes made in 2015. As a thorough evaluation of the CDM 2007 Regulations had been conducted in 2012<sup>1</sup>, it was considered proportionate to check with key stakeholders that evaluation of CDM provisions that were unchanged were still valid. The Construction Industry Advisory Committee (CONIAC)<sup>2</sup> were briefed about this in June 2015 and distributed a link to an HSE survey which gave their membership bodies the opportunity to comment upon these key provisions.

- CITB survey waves 16, 18 and 19

HSE worked in conjunction with the Construction Industry Technology Board (CITB) to develop a series of questions for the CITB's regular construction panel survey which consists of 1,500 structured telephone interviews with employers and the self-employed, covering the Construction trades sector and the Professional Services sector. Surveys took place in the summers of 2016 (Wave 16), 2018 (Wave 18) and 2019 (Wave 19).

- CITB qualitative research, Waves 16, 18 and 19

HSE also worked in conjunction with CITB to develop topics for discussion on CITB's regular Employer Panel consisting of 25-30 depth interviews. Employer panel waves took place in May and June 2016 (Wave 16), May and June 2018 (Wave 18) and May and June 2019 (Wave 19).

Firms interviewed covered those working in general construction, as well as specialist fields such as roofing, electrical installation and joinery. Professional Services firms interviewed were companies operating in civil and structural engineering, building surveying, engineering design and architecture. Firms interviewed were from across the UK (including Northern Ireland, Scotland and Wales).

The size of companies interviewed ranged from sole traders to large companies employing thousands of staff nationwide.

- Construction microbusiness research

HSE commissioned research to improve HSE's understanding of smaller construction businesses' and clients' needs, perceptions, attitudes and behaviours towards health and

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<sup>1</sup> <http://www.hse.gov.uk/research/rrpdf/rr920.pdf>

<sup>2</sup> CONIAC advises HSE and relevant stakeholders of emerging health and safety developments and risks in the construction industry and sets a direction and plan for their promotion and mitigation. It comprises of member organisations representing construction employers, clients, unions and allied professional and safety organisations.

safety. While providing evidence to inform the PIR was not the key focus of the work, it did provide relevant information about attitudes and behaviours in the construction industry, particularly around:

- Key stages associated with domestic and commercial construction projects
- The roles of trades and professional services within the fragmented supply chain

The methodology involved face-to-face and telephone interviews with 51 small businesses (with <15 employees) and 16 (domestic and commercial) clients of small businesses, and 5 ethnographic video case studies with small construction businesses. The sample included a wide range of construction businesses, including professional services and generalist and specialist trades.

- Focus Groups with HSE and ORR regulatory inspectors

On 21 and 25 March 2019, HSE social researchers conducted focus groups with 13 regulatory inspectors – 11 from HSE and 2 from ORR - (5 and 8 respectively) with extensive experience of the CDM 2015 in London and Bootle. Each focus group took approximately 90 minutes and in it, participants discussed their views on the CDM Regulation overall, the CDM 2015 changes, the differences it has made to the co-ordination of health and safety risk management, and any unintended effects.

- Consultation with EU member states

In July 2019 social researchers and policy leads conducted a semi-structured interview with Michael McDonagh (Senior Inspector - Construction, Health & Safety Authority [HSA] Ireland) and a series of questions were placed on the SLIC Knowledge-Sharing site<sup>3</sup>. Responses were received from 18-member states.

- Review of administrative data

To provide information on the awareness of information about the guidance, and to ascertain whether businesses submitted fewer notifications, HSE social researchers reviewed administrative data, including the number of 'form 10s' (Notifications to HSE of construction projects), and HSE and CITB web statistics.

The evidence sources used and the research questions that each informed are detailed in annex a.

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<sup>3</sup> The SLIC-KSS site was developed by the Committee of Senior Labour Inspectors (SLIC) to improve methods of exchanging information between European labour inspectorates and is open to the labour inspectorates of the 27 European member states, and the States of the European Free Trade Association (EFTA).

### 3 Evidence summary

#### 3.1 Unchanged Provisions of the CDM 2007

The Better Regulation Executive advised that the PIR should cover the entirety of the CDM regulations, not just the changes made in 2015. As a thorough evaluation of the CDM 2007 Regulations had been conducted in 2012 (Frontline Consultants, 2012), it was considered proportionate to check with key stakeholders that evaluation of CDM provisions that were unchanged were still valid. A survey distributed through CONIAC received responses from seven key stakeholder organisations:

- **Association for Project Safety**
- **CCLG**
- **CITB**
- **GMB**
- **Hereford and Worcester WWT**
- **Unite the union**
- **SEC**

Six of the seven agreed that the duties assigned to the role of principal contractor are still fit for purpose. The respondent who answered, 'No' clarified that they thought the regulations were:

*"...In the main, fit for purpose. Might duties re H&S file be strengthened 12(10)? In practice, essential user information is often outstanding many months after completion. O&M file, incorporating H&S file information as appropriate needs to be handed over at the practical completion"*

Six of the seven also agreed that that the duties assigned to the role of designer are still fit for purpose (N.B. with the changes in CDM2015, the duties assigned to the former CDM-C were reassigned to the PD). The respondent who answered no, did not so much disagree with the duties, as such, but with the practical problems of getting designers to assume them, saying:

*"Typically, Designers unwilling to take on CDM duties. Cite [sic] risk averse and worried about implications for PI [professional indemnity]"*.

This issue is explored in more depth later in this report.

Six agreed that the role of the contractor was still fit for purpose, with one responding, "Don't know".

The interpretations set out in Regulation 2, were effectively unchanged by CDM 2015 (save for additional definitions such as domestic client and principal designer). Respondents were asked whether they agreed that the interpretations remain fit for purpose. Four responded 'Yes', two 'no' and one 'Don't know'.

The reasons given for saying 'no' were that:

- *"There needs to be a definition of "adverse weather". Please see our consultation response to CD261 [Consultation Document 261]" (Unite the Union)*

This point was already considered under CDM 2015 changes, and not included in changes, as what constitute 'adverse' weather is contingent upon a number of factors, including the activity being undertaken.

- *"The interpretations have failed to distinguish sufficiently between 'maintenance work' and 'construction work', with that result that many believe CDM needs to be applied to many maintenance jobs. This confusion adds unnecessary costs." (SEC Group)*

This comment is outside the scope of the PIR as it is not relevant to the Regulation, which refers only to construction work.

### **3.2 Have safety standards been maintained/improved?**

CDM 2015 contained a number of provisions intended to maintain or improve safety standards.

The role of the client to ensure accountability: Under CDM 2007, the client only had to take reasonable steps to ensure that the arrangements made were suitable and subsequently maintained and reviewed. Under CDM 2015, the client is also responsible for taking 'reasonable steps' to ensure:

- Both the Principal Designer and Principal Contractor comply with their duties
- Pre-construction information is provided 'as soon as is practicable' to every Contractor and Designer appointed or considered for appointment
- The construction phase plan and health and safety file are produced
- The health and safety file is handed over to any new owner of the structure

As clients assume these new responsibilities (and inspectors understand the role of the client and feel they have the power to enforce if necessary), risks should be more effectively mitigated.

Of particular relevance to smaller sites:

- The threshold was lowered for the appointment of Principal Designer and Principal Contractor
- The notification of the project to the Health and Safety Executive (HSE) has been removed as a trigger point for additional duties: instead a construction phase plan is required for all projects with more than one contractor

These two changes mean that the PD and the PC should discharge their duties on smaller sites, so safety standards on small sites are maintained or improved.

In the CITB Construction Panel Wave 18: May - June 2018, respondents were asked whether health and safety co-ordination under CDM 2015 was better, worse, or no different than under CDM 2007. Thirty percent of those who had heard of CDM 2015 thought that health and



safety co-ordination had improved (30%,n=408),and 48 percent that there has been no change (48%, n=663), while only seven percent said it was worse (n=97), and 15 percent (n = 208) did not know.

When these questions were asked specifically of those involved in large projects in the wave 19 survey: the proportion of these saying that health and safety co-ordination got better under CDM rose from 30 to 38 percent; those thinking it had stayed the same fell from 48 to 41 percent and those saying it had got worse fell from 7 to 4 percent. Seventeen percent did not know.

*Table 1: Construction business' perceptions of Health and Safety co-ordination under CDM 2007 and CDM 2015*

Is health and safety co-ordination under CDM 2015 better, worse, or no different than under CDM 2007?	Wave 18 (2018) - all respondents		Wave 19 (2019) - those involved in large projects	
	N	%	N	%
Better under CDM 2015	408	30	202	38
No change	663	48	216	41
Worse under CDM 2015	97	7	23	4
Don't know	208	15	88	17

Source: CITB Survey Waves 18 and 19.

This was confirmed by the CITB Qualitative survey Wave 19, where most respondents felt there has been an improvement. Respondents believed the improvement was due to having people who are more knowledgeable within Health and Safety making decisions, along with better communication and a more 'hands on' approach:

*"[It has] improved slightly, because there is such a high level of expertise looking at the jobs in pre-construction and construction phases. They look at potential risks more and there is more looking ahead at potential failings."*

Construction, 50-99 employees, GB

*"[It has] improved slightly. There is more communication between Principal Designer or Principal Contractor and the client and all parties. There is more planning."*

Construction, 10-24 employees, GB

CITB Employers Panel, Wave 19

Although they were not asked specifically about the impact of CDM 2015, in a CITB survey conducted in 2016, two-fifths (41%) of GB businesses had made some change to the way that they plan, monitor or manage their work in regard to health and safety to at least some degree (this was asked overall, not specifically in relation to CDM, but covered the period in which CDM 2015 had been introduced). This group includes 12% who had changed the way they

work in this area to a 'great extent' and 15% that had changed their approach 'somewhat'. Three-fifths indicated that they had made no changes at all.

Among the two-fifths that had made any changes, exactly half said that the changes had made a significant (14%) or a slight positive impact (36%) on their business. A third (33%) reported that it had made no difference, leaving one in six (16%) reporting that the changes had a negative impact. Hence, on balance, the recent changes made to health and safety monitoring and planning have been seen by employers to have a positive effect. Large firms were particularly positive about the impacts of their health and safety changes, but a majority of firms of all sizes were positive about the impact that changes had had (See Table 2)

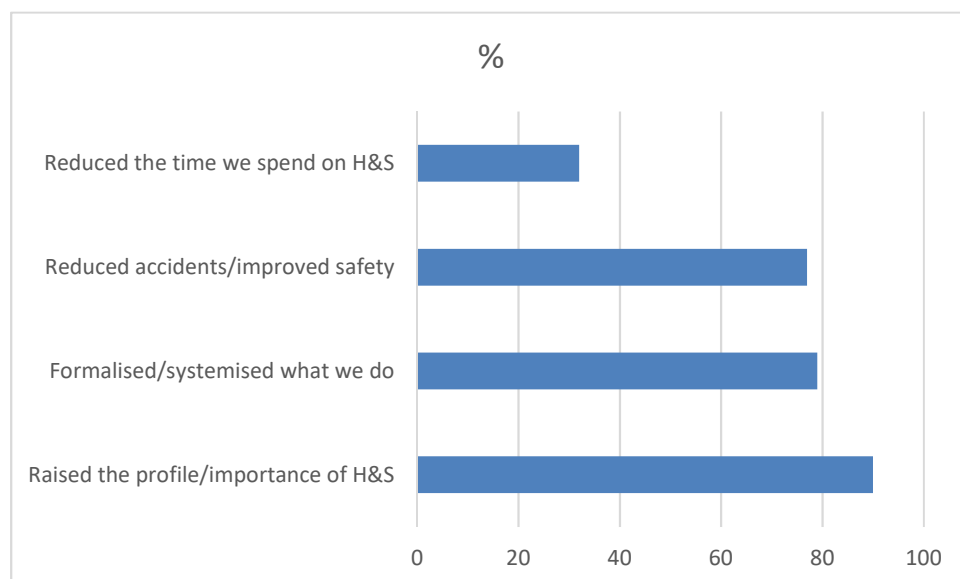
*Table 2: Construction business' perceptions of the impact of changes to health and safety by size of organisation*

<b>Impact of recent changes to health and safety, by size</b>	<b>2-9</b>	<b>10-99</b>	<b>100+</b>
	%	%	%
Significant positive	13	17	27
Slight positive	34	46	64
No different	34	29	9
Negative	18	9	0

Base: CITB Survey, Wave 16, Base: All GB Construction (1167) Don't know (1% overall) not shown

The most frequently mentioned positive impact was an increased profile and awareness of health and safety in the business, mentioned by 90% of those where health and safety changes had made a positive impact to the business. Other regularly-mentioned advantages were the changes having formalised their health and safety processes (79%) and that accidents had been reduced or safety improved (77%). For a third (32%), the positive change was that less time needed to be spent on health and safety issues. (See figure 1)

Figure 1: Positive impact of changes to health and safety

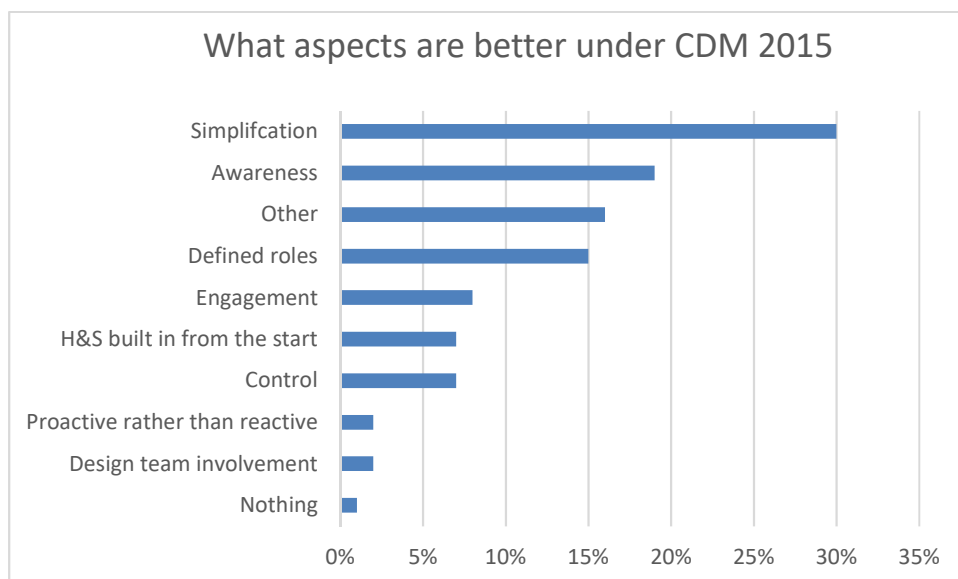


Source: CITB Survey, Wave 16, Base: All GB businesses which have made changes to Health and Safety management and have experienced a positive impact as a result (406)

The 2018 quantitative survey (Wave 18), asked all those who thought health and safety co-ordination had improved under CDM 2015, which aspects were better. The positive aspects of CDM 2015 and health and safety co-ordination fell into the following categories:

- Simplification (including comments such as 'easier to manage / Better organised / simpler for everyone)
- Awareness (increased awareness / less incident)
- Defined roles (including comments such as 'Clearer defined roles and responsibilities)
- Engagement (comments, such as 'more involvement / communication between all parties)
- More control (defined as better control over health and safety aspects)
- H&S built in from the start (defined as design stage / phased planning; design team involvement; and proactive rather than reactive management of health and safety co-ordination)

Figure 2: Positive aspects of health and safety co-ordination under CDM 2015

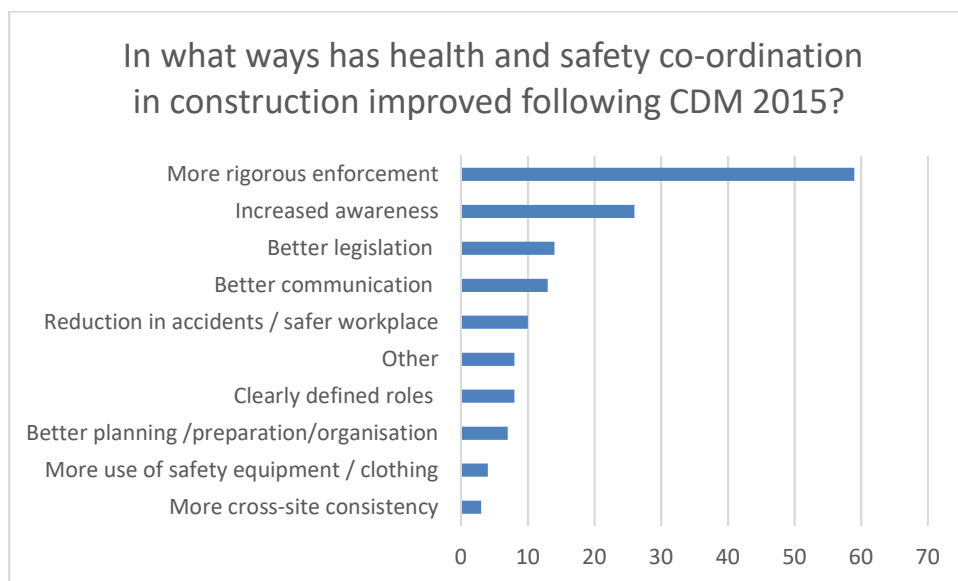


Source: CITB Survey, Wave 18, Base: Base: All businesses who think health and safety coordination is better under CDM 2015

The main reasons cited by the 7 percent of respondents (N= 43) who felt that health and safety co-ordination had got worse under CDM 2015 were: red tape / paperwork, more responsibility, an excess of regulation, inexperience of staff, and finding the regulation too complicated.

Those in the Wave 19 survey, who were involved in large projects and felt that health and safety co-ordination had improved cited more rigorous enforcement of health and safety measures, greater awareness, having better legislation /regulation in place, better communication with employees, better safety, clearly defined roles, better planning preparation and organisation, more use of safety equipment/clothing and increased consistency across sites (see Figure 3).

Figure 3: Improvements in health and safety co-ordination following CDM 2015



Source: CITB Survey, Wave 19, Base: Involved in large projects and think health and safety co-ordination has improved ('Don't know' responses excluded)

### 3.3 Are the CDM regulations the best way to maintain safety in this sector?

Three-quarters of the construction professionals in the CITB Wave 18 panel survey agreed that legislation, such as CDM 2015, was necessary to ensure health and safety on construction projects (see Table 3).

Table 3: Construction business' views on the necessity of regulation to ensure health and safety.

Do you think that legislation, such as CDM 2015 is necessary to ensure health and safety on construction projects?	N	%
Total	1800	100
Yes	1366	76
No	243	14
Don't know	191	11

Source: CITB survey, Wave 18, Base: All businesses

The 14 percent who disagreed, suggested a number of alternatives strategies to ensure health and safety on construction sites: good working practice within the business / company policies; common sense / personal responsibility; training / education / accreditation; and proper enforcement rather than 'paper based' processes.

Of the construction professionals interviewed for the CITB Employer Panel Wave 18 Qualitative Report in March and April 2018, nearly all considered that legislation such as CDM 2015 – or some other kind of legally binding requirement was necessary to ensure suitable health and safety on construction projects.

Interviewees commented:

*"It's a well proven document."*

Construction, 25-99 employees, GB

*"It wouldn't necessarily have to be CDM but there needs to be teeth i.e. there needs to be an element of legislation to make it enforceable."*

Construction, 25-99 employees, GB

*"It's still savagely dangerous out there. I can go past 7 building sites and there are guys out there with no eye protection, shorts, short sleeves, cutting with no face mask...and yet our guys are running around like telly tubbies, they can hardly stand or breathe for PPE and it seems like we are the only people round here that are doing it. It's disheartening that everybody isn't. Imagine what it would be like if there were no regulation. People would be walking around with javelins, it would be anarchy."*

Construction, 100-249 employees, GB

(CITB, Employers' Panel, Wave 18, 2018)

When asked if there were any changes they would like to see to the next version of the CDM a small number of respondents to the employers' panel survey provided specific suggestions, with the most popular being to make the paperwork simpler. Another wanted 'less vague, more committal language, e.g. with regard to monitoring vibration measurements as things on site change' (However, as CDM does not specify this, it seems likely the respondent was confusing this with other guidance). A third suggestion was to make sure the CDM remains relevant for smaller projects. Finally, one participant suggested that lowering the cost of having HSE personnel on site would be beneficial and encourage legislation to be adhered to (CITB, Employers Panel, Wave 18).

Some survey respondents (CITB Wave 18) did observe that a more informal approach where an internal person took charge of health and safety could work well and would reduce the administrative burden, but still agreed that 'a more authoritative source' was needed for when things go wrong.

HSE construction inspectors, who participated in two focus groups, also expressed a very high degree of support for the CDM Regulations overall. The inspectors involved considered the structure the Regulations offer is useful not only for the management of health and safety, but also for project management more generally. Inspectors commented:

*It's an incredibly useful tool for different industries. It gives a good project management structure. Tools, client role, POR role. Each iteration has made the PD role stronger. For safety by design.*

*It's a really good way to manage a project. If you had lifted the framework from CDM to design a train, it would give you a much better project.*

*The film industry took the framework from CDM and created a passport system.*

*In ORR there is early engagement. ORR now apply the principles of CDM to other areas.*

*There have been significant improvements since 2002 – hard hats, lifting etc. There is lots of unseen work that isn't notified, but the middle and higher end have improved. Roof work and extensions have a scaffold now.*

Inspectors recognised the casualisation of construction work presented challenges for the co-ordination of health and safety. However, they felt that the allocation of particular roles to workers on construction projects helped overcome these challenges:

*With the changing world of work, there is a move from an employer-employee relationship, but if you have a contractor, they still have the duty to plan, manage, monitor.*

With the introduction of CDM2015, notification of the project to the Health and Safety Executive (HSE) has been removed as a trigger point for additional duties: instead a construction phase plan is required for all projects with more than one contractor. This was considered to be helpful to manage risk on smaller projects:

*[...] 2015 is more easily enforced. Before the change, certain parts of CDM were only relevant if notified. Now it's all applicable.*

*CDM 2015 has continued the journey.*

However, it was also recognised that in practice it might be difficult to enforce:

*CDM is not designed for the lower end. There are not enough inspectors to go round.*

### **3.4 Has CDM 2015 resulted in lower project costs?**

The Regulatory Impact Assessment estimated average annual net savings to business of £14 million per annum from the implementation of CDM 2015, comprised of:

- Average annual savings to businesses (undertaking projects of over £200k value) of £23 million from the efficiencies generated by the removal of the CDM co-ordinator role (Section B of the final CDM 2015 impact assessment)
- Average annual savings to businesses of £3 million from not having to notify projects to HSE due to a change in the trigger for notification (Section D of the IA)
- Savings to new businesses entering the market of £0.5 million per year from having to familiarise themselves with simpler, more accessible regulations, set against £17 million one-off familiarisation costs for existing businesses (section A of the IA)
- Additional costs of £10 million per annum to contractors undertaking domestic projects, due to the removal of the exemption of domestic clients from duties under the regulations and 'deeming' of these duties to contractors/Principle Contractors (Section F of the IA)
- Additional costs of £0.4 million from the change in threshold criteria for the application of additional duties (Section E of the IA)

Figures from Wave 18 CITB survey found that these savings were not in fact realised by industry. Only 3 per cent of respondents felt that the requirements of CDM 2015 had resulted in slightly or significantly lower project costs. Fifty-seven percent had seen no real change and 36 percent reported that the requirements of CDM 2015 had resulted in costs rising either slightly (30 percent) or significantly (6 percent) (See Table 4).

Table 4: Construction business' views of changes in project costs as a result of CDM 2015

Overall, have the requirements of CDM 2015 resulted in....?	N	%
Total	1375	100
Significantly increased project costs for your business	88	6
Slightly increased project costs	410	30
No real change	780	57
Slightly lower project costs	18	1
Significantly lower project costs for your business	2	*
Don't know	77	6

Source: CITB Survey, Wave 18, Base: All businesses who know at least something about CDM 2015

The reasons given for cost increases were: increased workload time, bureaucracy / paperwork / administration, having to employ or subcontract additional staff / specialists (designer); additional equipment costs, legislation compliance and record keeping (including health and safety), training, increased site visits, insurance, reduced time taken, removal of CDM-C role.

Clearly a number of these reasons, for example, insurance or equipment costs, did not stem directly from the introduction of CDM 2015, but costs attributed to others, e.g. the removal of the CDM-C role, ran counter to the IA assumptions. Follow-up research was carried out to explore the reasons for this.

The number of notifications has fallen, with consequent savings in administrative costs, though not to the same extent as estimated in the IA (see Section 3.8 of the evidence review and Section 5.3 of Annex 2).

However, while research into the accessibility of guidance confirms that only 5 percent found guidance difficult to understand (for further information, see section 3.5 of the Evidence Review and Section 5.7 of Annex 2) familiarisation with the new guidance still consumed more time than was predicted.

The IA's prediction that familiarisation would take three hours does not appear to have been borne out by survey research. The average time cited was 17 hours in the Wave 16 Survey and an average of 16.2 hours in the Wave 19 survey (N.B. this included attendance at training courses). However, this includes some very high estimates (the highest given was 1,000 hours). When those who responded that they spent 100 hours or more were excluded from the analysis, the mean familiarisation time was around 14 hours.

The costs of familiarisation were also mentioned in the qualitative research, with employers commenting:



*“[It has] probably increased costs... purely in terms of time taken to go through additional information and requirements, more tool box requirements etc...”*

Construction, 25-49 employees, GB

*“No, because you need to educate, and costs may actually increase because of this. A lot more training has gone on in this business.”*

Construction, 250+ employees, GB

Source: CITB Employers Panel Survey, Wave 19

However, the main reason that the predicted costs saving have not occurred appears to be that the annual savings of £23 million generated by the removal of the CDM co-ordinator role, based on an estimated average reduction of 20% in project coordination costs, have not been achieved (see Section 5.2 of Annex 2 for a re-estimation of the impact, which estimates around a 7% increase in coordination costs). There are a number of reasons mooted for this.

Firstly, a significant proportion of co-ordination support continues to be sourced externally. (See Section 3.6 **Do business buy in less additional co-ordination support?** for further details).

Secondly, where the duties previously undertaken by the CDM-C have been transferred to the PD, this meant that the PDs had to be remunerated for undertaking these duties. The consensus among construction employers is that fees for health and safety coordination have either stayed the same or increased slightly (so reflecting the results of the previous Panel survey). The main driver for the increase seems to be that the role now carries more responsibility (June 2019, Employer Panel Wave 19 Qualitative Report).

This was further explored in the Wave 19 (Summer 2019) quantitative survey. Nineteen percent of respondents undertaking large project (defined as > £200,000) said that health and safety co-ordination fees had increased compared with those under the previous CDM-C regime, compared to 1 percent who had seen a decrease, with 52 percent saying that they had not really changed (inflation notwithstanding). For those who had seen a fee increase, the average increase cited was 27 percent.

Reasons given for the increase were: ‘extra admin / paperwork time’; **‘someone else has had to take on the role’**; **‘extra responsibilities in the Principal Designer role’**; ‘need for more external help’; ‘changing legislation / regulation’; ‘greater awareness’; ‘training costs’; **‘qualification/competency required for Principal Designer’**; ‘claims culture’, and ‘lack of competition (e.g. not enough firms doing it)’. Again, a number of these, such as claims culture, training costs and greater awareness, did not arise directly from CDM 2015.

There was a possibility that, although fees had increased, the increase in costs to business was mitigated by improved health and safety co-ordination throughout the life of a project. This was not borne out for the majority of respondents to the survey. Thirty-eight percent of those involved in large projects felt that health and safety co-ordination had improved substantially (11 percent) or slightly (27%), with 41 percent saying it had stayed the same, and four percent saying it had become either slightly (%) or significantly (2%) worse. Seventeen percent did not know (Table 5). Of this 38 percent, 10 percent reported that this had resulted in a fall in project costs, compared to 74 percent who felt it had not, and 16 percent who did not know (Table 6).

Overall, the partial re-estimation of the CDM 2015 impacts undertaken in Annex 2 suggests that, excluding one-off familiarisation costs, CDM 2015 has so far resulted in equivalent annual

costs to business of around £18 million, compared with savings of £18 million per annum estimated in the final impact assessment.

*Table 5: Construction business' perceptions of changes in health and safety co-ordination, where businesses undertake large projects*

In your experience, following CDM 2015, has health and safety co-ordination in construction projects...	Total	%
Total	528	
Improved substantially	58	11
Improved slightly	144	27
Stayed the same	216	41
Become slightly worse	13	2
Become much worse	10	2
Don't know	88	17

Source: CITB survey, Wave 19, Base: all those undertaking large projects

*Table 6: Construction business views of changes in costs stemming from improvements in health and safety co-ordination.*

Have these improvements [in health and safety co-ordination] resulted in reduced costs over the life of the project?	Total	%
Total	202	
Yes	20	10
No	149	74
Don't know	33	16

Source: CITB survey, Wave 19, Base: all those undertaking large projects, who felt that health and safety co-ordination had improved.

### **3.5 Are PDs now embedded in the project team?**

Central to CDM 2015's twin goals of reducing risk through improved management of health and safety and reducing costs, was the removal of requirement to appoint an external CDM-C, and the specification that the Principal Designer (PD), who is embedded in the project team, would now undertake pre-construction co-ordination. Clients and contractors would therefore buy in less additional co-ordination resource, and the PDs would undertake co-ordination, including during the pre-construction phase, before detailed design work has begun.

HSE inspectors argued that the introduction of the PD was important, as the effectiveness of CDM-C was limited given CDM-Cs were appointed by the client and therefore were often constrained by the client's wishes or available resources:

*The role should have been to pull everyone together and 'being heads together'. However, as they were paid by the client, they could never really be independent. Historically there was the expectation of client management. The PD role has shaken this up. The role of the PD brings out more thought in planning and implementation and can continue to be useful through ongoing maintenance.*

*With the CDM-C role, the problem was that the client didn't put any money into the role, e.g. 'You can have an hour a week'.*

*Effectively CDM-Cs were paper tigers. The PD role cuts differently into responsibility.*

Comments from HSE Inspector Focus Group, March 2019

Generally, response to the introduction of the role has also been favourable within the industry. Larger businesses interviewed for the CITB Wave 18 qualitative report indicated that understanding of the role was good, now it had had a chance to become embedded and they generally preferred having the PD role because it makes the process less of a 'tick-box' exercise.

*"To start with there was a lot of concern in the construction industry about the role of Principal Designer; what was the role, how was it going to work. Once that became clearer I think people are far more comfortable about filling the role. As people now realise what it actually means I think it is good as we have moved away from the box ticking exercise to something that is embedded in what we do."*

Construction, 250 employees, GB, cited in CITB, Wave 18 Qualitative report

A few though did see it is not substantially different from the old CDM-C role, and there is some evidence of CDM-Cs essentially 'rebranding' themselves as PDs.

*"The principal designer role has had very little impact because the principal designers have taken over the old CDM coordinator position."*

Construction, 25-99 employees, GB, cited in CITB Wave 18 Qualitative report

However, the role of PD does not seem to have been as integrated as was intended in the legislation. The Wave 18 CITB quantitative survey found that only 40 percent of respondents felt that the principal designer role has become embedded 'completely' (16%, N = 264) or to a large extent (24%, N = 323), with 34 percent responding that the role had become embedded 'to some extent' and 8 percent saying it had not been embedded at all (see table 7).

Table 7: Construction business views on the integration of PDs into project team

Which of the following best describes the extent to which you feel that the principal designer role is generally embedded as part of the appointed project team. Is it... ?	N	%
Completely	264	16
To a large extent	323	24
To some extent	463	34
Not at all	111	8
Don't know	214	16

Source: CITB Panel Survey, Wave 18, 2018, Base: all businesses

This was particularly the case with smaller firms: 42 percent of respondents representing firms with between 2 and 9 employees felt that the role of PD had become embedded ‘completely’ or ‘to a large extent’ compared to 55 percent of firms with 100 or more employees (CITB Wave 18, quantitative survey). Qualitative research with smaller firms found that on projects involving a number of construction companies, they typically assumed the role of sub-contractor, with the PD role being undertaken by one of the larger companies. One commented:

*“[It] Doesn’t really affect us – we’re more contractors within CDM. The management of the main contractor would need to be more across the CDM regs.”*

Construction, 10-24 employees, GB, cited in CITB Wave 18 qualitative report

Inspectors perceived two issues that mitigated against the effectiveness of the PD. Firstly, it seems that, while architects appear to be the best qualified to undertake the PD role in the pre-construction phase, it is a role they are often unwilling to undertake, possibly because they have not been sufficiently trained to consider safety issues: One respondent referred to an architect’s website that specifically said that they did not offer a PD role. Others commented:

*When the regs were brought in, the idea was that the architect would be the PD. Architects don’t want to do that. It isn’t in their training, so a CDM-C who is looking for work is brought in. They get brought in on a project by project basis.*

*For architects to understand health and safety, they need it on the syllabus at university. Designing out risk should be a fundamental principle.*

*You never see information on plans saying, for example, that you need to get an asbestos survey. We don’t enforce it. (However, another focus group participant disagreed, saying that if no asbestos survey was done, it was “a local red line”).*

*The architect’s brief is to get planning permission. We need a driver to make architects do it. [i.e. assume the PD role]*

### 3.6 Do business buy in less additional co-ordination support?

The CITB Construction Panel Wave 18: May - June 2018 found that the 48% of businesses which knew about CDM 2015 had changed the co-ordination of health and safety on their projects since the introduction of CDM 2015 (Table 8). However, 46 percent had not. This overall figure does, however, hide large variations between different sizes of business. For example, nearly three-quarters (74%) of firms with between 2 and 9 employees answered 'very little' or 'not at all' compared to only about four in ten (44%) businesses with more than 100 employees. Unsurprisingly this pattern is reversed for businesses which have made significant changes (only 26% for firms with 2 to 9 employees, but 52% for businesses with over 100 employees).

Table 8: Changes in health and safety co-ordination since the introduction of CDM 2015

Has the co-ordination of health and safety changed on your projects since the introduction of CDM 2015	No. of respondents	%
Total	1375	100
Yes	665	48
No	630	46
Don't know	80	6

Source: CITB survey, Wave 18, Base: all those who had heard of CDM 2015

Fifty-three percent said that co-ordination was always or usually internal to the project. However, for a significant proportion of respondents, co-ordination support was still being bought in, with 24 percent saying that health and safety co-ordination was always or nearly always external, 7 percent that it was usually external and 24 percent saying it was 'roughly 50/50' (Table 9).

Table 9: Balance of internal and external health and safety co-ordination

Which of the following best describes how health and safety co-ordination is done?	No. of respondents	%
Total	1375	100
Always or nearly always internal	488	35
Usually internal	246	18
Roughly 50/50	332	24
Usually external	90	7
Always or nearly always external	166	12
Don't know	53	4

Source: CITB survey, Wave 18, Base: all those who had heard of CDM 2015

This was supported by the view from inspection focus groups, where inspectors observed:

*We still find the PD response is to get the old CDM-C to do the job.*

In some cases, there has been a simple 'rebranding' of CDM-Cs as PDs:

*CDM-Cs have thrown away their business cards and got new ones printed saying PD.*

In Wave 19 of the CITB survey however, respondents who worked on large projects were asked who mainly co-ordinates health and safety in the preconstruction design phase on large commercial projects over £200,000 in value. It seemed that the proportion of internally co-ordinated projects was higher in these larger projects. Forty-eight percent of respondents said that the person responsible for co-ordinating health and safety in the pre-construction design phase was the Principal Designer, with others saying it was the Principal Contractor (22%), a third party/external advisor or consultant (5%). Others, including an internal CDM department or specialist (3%), project managers/project management team (3%), company directors/managers (<1%), external health and safety consultants (<1%), clients or external CDM consultants (<1%) were also mentioned. An additional 2 percent said 'other', while 16 percent said they did not know, and 5 percent claimed that no-one co-ordinated health and safety in the pre-construction design phase.

*Table 10: Co-ordination of health and safety in the pre-construction design phase of large commercial projects*

Who mainly co-ordinates health and safety in the preconstruction design phase on large commercial projects over £200,000 in value?	N	%
Total	220	100
The Principal Designer (PD)	105	48
The Principal Contractor (PC)	49	22
Third party / external advisor / consultant / company (unspecified)	12	5
No-one	5	2
Other	5	2
Internal CDM department / specialist	3	1
Project Manager / project management team	3	1
Company Director / Manager (various)	2	1
External H&S consultants	1	*
Client	1	*
External CDM coordinator / consultant	1	*
Don't know	35	16

Source: CITB survey, Wave 19, Base: Involved in large projects

### **3.7 Do small businesses find it easier to a) understand and b) comply with regulations?**

When CDM 2007 was replaced with CDM 2015, a number of changes were introduced, to simplify the legislation, with the goals of ensuring that contractors and PDs, particularly from SMEs, would understand CDM 2015, and feel confident to discharge their responsibilities; and would therefore discharge their duties more effectively. The changes were as follows:

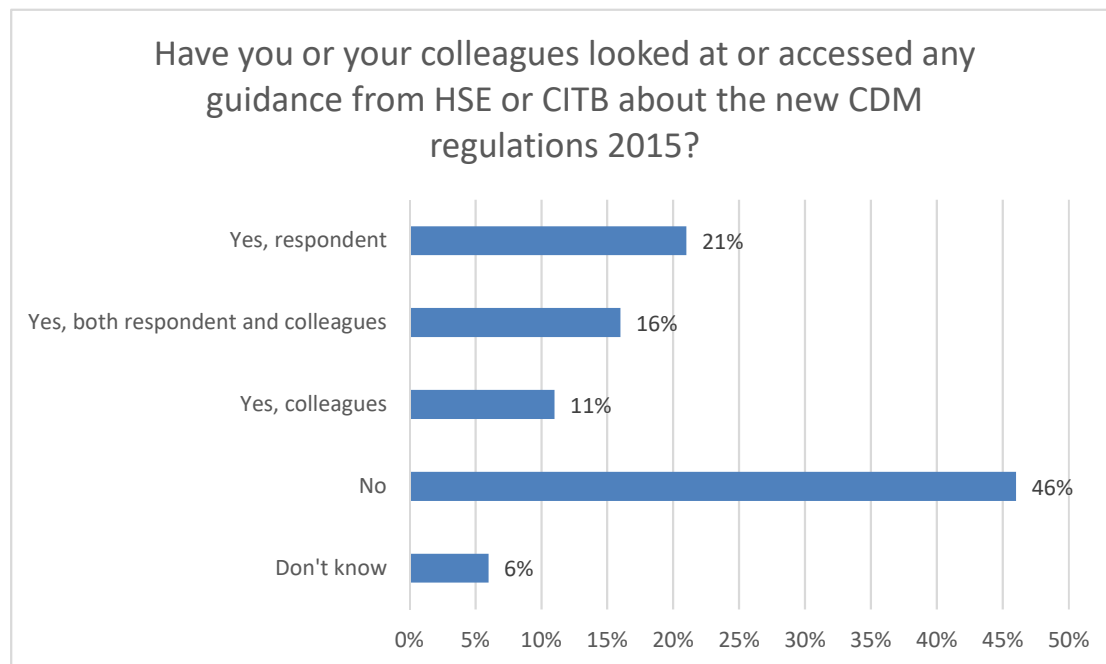
- Simplification of Regulation structure to mirror the process of delivering a construction project from concept, through design and construction to handover and future use.
- Removal of the Approved Code of Practice (ACOP) and replacement with straightforward guidance aimed at specific industry sub-sectors, e.g. industry guidance and smartphone app.

- Making guidance available for new businesses entering construction industry shorter and clearer

In launching CDM 2015, the HSE undertook to promote the changes to the regulations via a number of different approaches. This included working closely with stakeholder such as the Construction Industry Training Board (CITB) to develop and launch guidance. Furthermore, an app was developed – CDM Wizard App – which allowed simple job details to be entered and a construction phase plan to be produced. The app also included tips and advice of how to help keep you and your workers healthy and safe.

Nearly half (48%) of firms questioned in the CITB Wave 16 survey indicated that they or their colleagues had accessed guidance on the CDM 2015 regulations either from the CITB or the HSE, with about a fifth (21%) of respondents having done so (see themselves Figure 4). Within the SME sector (businesses with fewer than 250 employees), this figure varied from only a quarter (28%) sole-traders indicating that they had accessed the guidance, up to over eight in ten (84%) firms with between 100 and 249 employees.

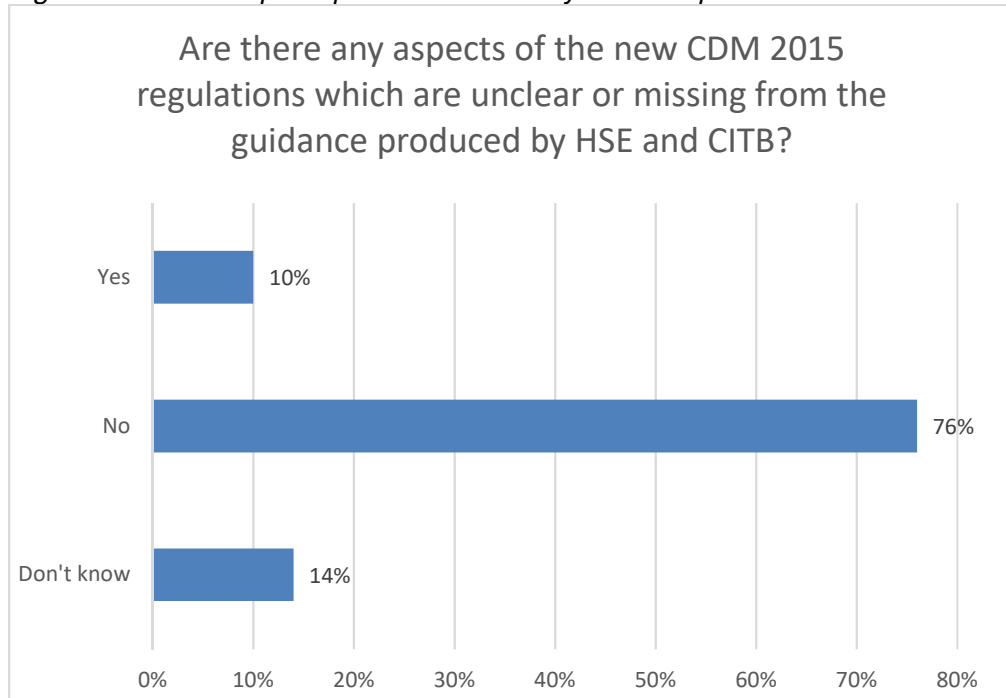
Figure 4: Construction business engagement with HSE and CITB guidance about CDM 2015



Source: CITB Survey, Wave 16; Base: All GB respondents,  $n = 1,457$  [weighted] / 1.396 [unweighted]

Of those who had accessed the guidance, over three quarters (76%) said that there was nothing unclear or missing from the guidance material produced by HSE and CITB (see Figure 5).

Figure 5: Business perceptions of the clarity and comprehensiveness of CDM 2015 guidance

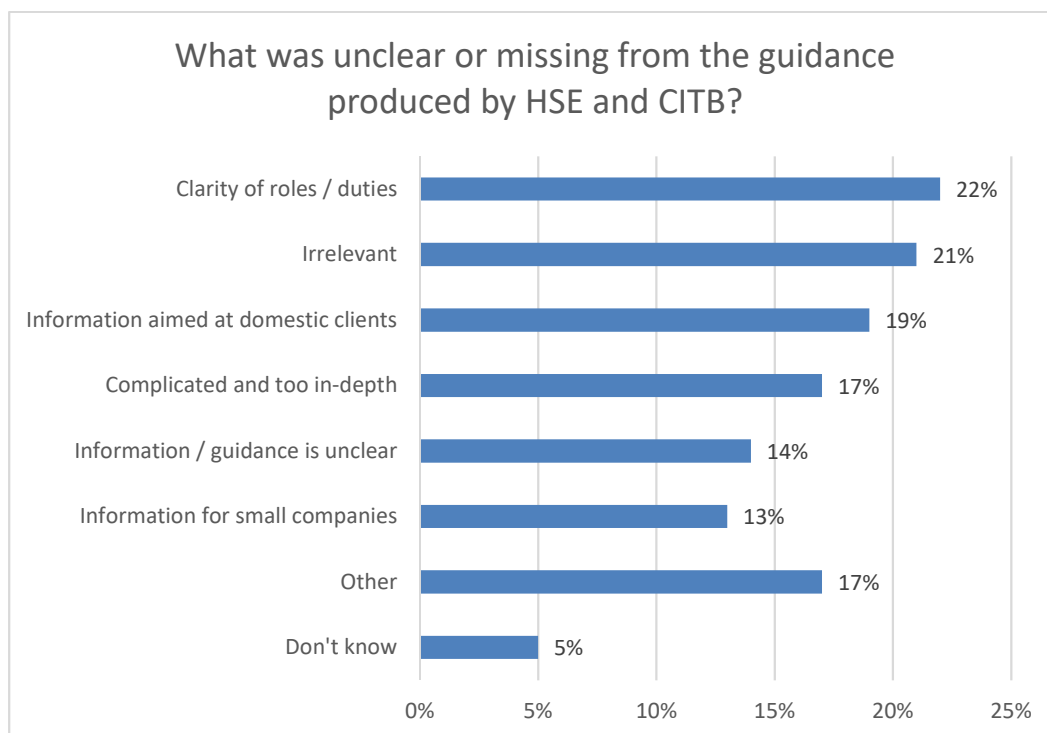


Source: CITB survey, Wave 16, Base: All who have accessed guidance from HSE or CITB about the new CDM Regulations 2015, n = 804 [weighted] / 700 [unweighted]

Of the five percent of businesses which did indicate that they thought there was something unclear and missing from the guidance (five per cent of the entire survey sample, N = 70, unweighted), the main issues raised were clarity of roles/duties (22%), guidance being aimed at domestic customers (19%) and the guidance being too complicated and in-depth (see Figure 6). Although not asked specifically about the relevance of the guidance, some 21 percent classified it or parts of it as 'irrelevant'



Figure 6: Aspects of the guidance identifies as unclear or missing



Source: CITB Survey, Wave 16, Base: All who felt there were aspects of the new CDM 2015 regulations which were unclear or missing from the guidance produced by HSE and CITB  $n = 67$  [weighted] / 70 [unweighted]

HSE web statistics also indicate that high degree of engagement with the Regulations. Between June 2016 and August 2019, HSE's CDM 2015 'Home' page received over 800,000-page views. This page leads to a series of CDM 2015 sub-pages (which can also be accessed directly as well as from the Construction industry pages), of which the most popular are the Summary of Duties page and the Principal Designers page, both receiving over 300,000-page views each. The publication *Managing Health & Safety in Construction: CDM Regulations 2015* has been downloaded over 140,000 times. This is one of the most frequently-accessed downloads across the website (see Table 11).

Table 11: Page Views of HSE's CDM home page and sub-pages by year (1 June – 31 May)

Page	2016/17	2017/18	2018/19	Total
CDM 2015 Index	307,707	268,879	276,120	<b>852,706</b>
Summary of Duties	115,703	114,433	89,828	<b>319,964</b>
Principal Designers	109,775	104,890	97,149	<b>311,814</b>

Source: HSE administrative data

HSE web statistics show that this was a considerably higher number of hits following the introduction of the CDM 2015 regulations than was the case following the introduction of CDM 2007 (see Table 12) although it should be borne in mind that the statistics available represent 9 months rather than a year and HSE's web hits as a whole increased very considerably between 2007 and 2016.

Table 12: Page Views of HSE's CDM home page and sub-pages by year (1 June – 31 May)

Page	Apr 2007 - Jan 2008
CDM 2007 Index	190,730
Summary of Duties	37,632
Designers	5,602

Source: HSE administrative data

The approach of producing targeted suites of CDM guidance was useful. Respondents to the Wave 16 Employers' panel survey praised the availability of clarification of regulations and more information, saying:

*"... [the CDM guidance] clarified the changes for the old CDM regs ... Without it we'd be lost I think!"*

Construction, 250+ employees, GB

*"One of the things that came out was the CDM wizard that you can use for smaller things which is very useful and helpful."*

Construction, 2-9 employees, GB

*"[The CDM guidance has] simplified some things (with CDM 2015), so that's a plus point."*

Construction, 100-249 employees, GB

*"The information has been very clear, to me anyway, of what you need to do to comply with regulations."*

Construction, 25-99 employees, GB

Evidence from the 2018 CITB surveyed showed that of those businesses who were aware of the CDM 2015, a high proportion of businesses of all sizes understood the changes to roles (see section 3.6). However, while those who had engaged with the regulations were generally positive, there remains concern that those at the smallest end of the market were not engaging, and consequently the Regs were having minimal effect on the way they did business.

HSE-commissioned research on *Small Businesses and Clients in the Construction Sector* found that small businesses currently use none or a narrow range of sources of information about H&S regulations. Whilst useful to professional services and some site managers and specialists, H&S information was generally found to be too technical and inaccessible by general tradespeople and those who had not done further education or formal training. (Kantar Public 2018). The report concluded:

*"There was a desire for H&S information to be more accessible (simpler, jargon free and more visual), websites easier to navigate, and more human – explaining the 'real life' implications of poor practice.*

Kantar, 2018

This finding was reinforced by the CITB employers' panel survey. No large businesses said that they had noticed changes in the way micro and SME businesses manage their health and safety as a result of CDM 2015, indeed two noted that they thought smaller employers could do with upskilling in this area.

*“Much more needs to be done to educate the small builders in H&S as they have a very low awareness.”*

Construction, 25-99 employees, GB

*“I would like to see it [health and safety] more embedded in domestic alterations...I think that is the area where the knowledge is not as embedded in commercial building.”*

Construction, 100-249 employees, GB

*Employer Panel Wave 18 Qualitative Report*

### **3.8 Do clients, designers and contractors on all sizes of project understand what their responsibilities are, and feel confident to undertake them?**

Overall there appears to be a high level of understanding of roles and responsibilities under CDM 2015 across the piece, with 89 percent of those construction employers and allied professional surveyed saying that they understood the changes to roles within construction projects either very (32%) or quite (57%) well, compared to 10 percent who understood them 'not very' (8%) or 'not at all' (1%) well (see Table 13)

*Table 13: Understanding of changes to roles and responsibilities in the construction industry*

How well do you understand these changes to the roles within construction projects...?	N	%
Total	1015	
Very well	328	32
Quite well	576	57
Not very well	93	9
Not at all well	8	1
Don't know	9	1
Summary: Very/Quite well	905	89
Summary: Not very/Not at all well	101	10

Awareness of roles and responsibilities was even higher among “professional services” (such as architects and designer engineers) than among construction employers, with 98 percent of the former claiming that they understood the roles either very (47%) or quite (51%) well, compared to 86 percent of construction employers (for whom the corresponding figures are 27 % and 59%) (see Table 14):

*Table 14: Comparison of understanding of roles between construction employers/ self-employed and professional services in construction industry*

How well do you understand these changes to the roles within construction projects...?	Construction		Professional services	
	N	%	N	%
Total	729		285	
Very well	195	27	133	47
Quite well	431	59	145	51
Not very well	87	12	6	2
Not at all well	8	1	*	*
Don't know	9	1	0	1
Summary: Very/Quite well	626	86	279	98
Summary: Not very/Not at all well	95	13	6	2

Source: CITB Survey, Wave 18, Base: All those who were aware of the changes

When these results were broken down by size of firm, among those firms who had heard of CDM 2015, larger firms (>100 employees) tended to have a higher proportion of respondents who understood the Regulations 'very' or 'quite' well (97 percent) than smaller firms (between 2 and 99 employees) (each 89 percent) (See table 15).

Table 15<sup>4</sup>: Understanding of roles by size of organisation

How well do you understand these changes to the roles within construction projects...?	Sole Trader		2 to 9		10 to 99		100+	
	N	%	N	%	N	%	N	%
TOTAL	5		849		154		7	
Very well	2	35	253	30	70	46	4	59
Quite well	3	62	504	59	67	44	3	38
Not very well	*	3	78	9	15	10	*	1
Not at all well	0	0	7	1	1	1	*	1
Don't know	0	0	8	1	1	*	0	0%
Summary: Very/Quite well	5	97	757	89	137	89	7	97
Summary: Not very/Not at all well	*	3	85	10	16	10	*	3

Source: CITB Survey, Wave 18, Base: All those who were aware of the changes

Although construction clients were not interviewed in the CITB survey, there was a perception among construction contractors that the guidance had been helpful in making clients aware of their roles. A number of respondents to the Wave 16 CITB Employers' Panel Survey specifically mentioned the specification of client requirements as a positive aspect of the new regulations, with one respondent commenting:

*"I think the point about it was to make the client aware of their responsibilities because that was the problem, the clients were thinking that it didn't really matter and didn't apply to them, but in fact it's everything to do with them."*

Professional services, Sole trader, GB, Wave 16 Employers' Panel

However, despite the perceived clarity of the guidance with regard to client's responsibilities, there was also evidence that clients of small construction businesses - particularly domestic clients - had low knowledge of H&S regulations and were generally not aware of their

<sup>4</sup> Where percentages do not appear to tally with number given, this is the result of weighting results so that the number of respondents in each category represents the industry as a whole.

obligations under CDM Regulations 2015. Research conducted on behalf of HSE in 2018 found that:

“Clients did not think H&S should be their responsibility; responsibility was instead to hire a trusted professional who would have the knowledge and experience to manage H&S on the project and public liability insurance. H&S was not a priority for domestic or commercial clients; clients cared about costs, the timeline, and the quality of the job. In some cases, the presence of a client on site could ‘pull’ workers towards good practice. Some clients reminded workers about wearing PPE, but generally would only intervene if they saw something unsafe that would put themselves, their families, or their customers/ the general public at risk – they expected that construction workers would self-regulate and work safely.”

(Kantar, 2018)

### **3.9 Is domestic work being managed via the deeming approach?**

CDM 2015 takes a ‘deeming’ approach to the duties of a domestic client. Under this approach the principal contractor (PC) will be deemed to have assumed the health and safety duties of the client.

However, according to HSE inspectors who participated in focus group, in practice, domestic clients will often appoint a number of different tradespeople to carry out jobs, none of whom are genuinely ‘in charge’ of health and safety or their co-workers:

*Clients will engage individual tradespeople themselves and will be unaware that they have duties.*

*Who is the PC can be a more a matter of ‘names on a form’ than actual duties undertaken [...]*

Some inspectors felt that it was an unreasonable expectation upon the principal contractor where this was the case:

*We are required to transfer duties to the first contractor. But why should the plumber have responsibility because they are the first contractor?*

*[...] Domestic clients are taking on tradespeople. Legally, the bigger tradesperson puts themselves down as PC, but in effect, it’s the client.*

*[...] If you start directing duties, then you should be the PC.*

*Domestic clients want to take control but not responsibility. Tradespersons say “I’m just here for today.”*

A further complication which may constrain the ability of PDs and PCs to insist on appropriate standards of risk management are the commercial pressures on them:

*The duty placed on PDs and PCs is that they have to remind the client of their duties, but they don’t do it because they are tendering for work.*

Research among microbusinesses confirmed the view that client budget was the key influencer during commissioning, even though businesses' sense of professional identity also played a key role in shaping negotiations. The report concluded:

*Some good H&S planning was done during the design phase, but this was commonly not communicated at the construction phase or to the team (particularly on domestic projects). During the construction phase, individuals' H&S decisions were constantly influenced by efficacy and contextual factors which could change day-to-day. Individuals constantly weighed up risks, consciously and unconsciously. Those with a stronger sense of ownership were more able to practice good H&S consistently - including in the face of more challenging circumstances*

Kantar, 2018

An additional complication is that it can in fact be difficult to discern whether a job is commercial or domestic, as the required planning documentation does not require the applicant to specify the purpose of a job.

*Nowhere on the planning docs does it say "What is this construction job for?" Often the documents just say, 'Care of agent', so we don't know who is applying.*

Comment from HSE Inspector Focus Groups, March 2019

In fact, inspectors alleged, the 'deeming approach' means that clients, such as developers building and living in a series of houses, could evade health and safety responsibilities by hiding behind the designation of 'domestic clients'

### **3.10 Do businesses submit fewer notifications?**

One of the components of CDM 2015, which was intended to reduce the costs to business of regulation, while maintaining or improving health and safety standards, was the change in notification requirements. Construction clients have a duty to notify HSE if a construction project is expected to:

- Last longer than 30 working days **and** have more than 20 workers working at the same time at any point in the project, or
- Exceed 500-person days.

Under CDM 2007, projects the stipulation about having more than 20 workers did not apply. However, at the same time, the health and safety co-ordination provisions of the CDM Regulations were extended to apply to all projects rather than just notifiable ones.

The number of notifications did indeed fall following the introduction of CDM in 2015, from 91967 in FY 2014/15 to 72690 in FY 2015/16 and 65446 in FY 2016/17 (see Table 16), which necessarily indicated a reduction in administrative costs for those projects which fall under the notification threshold. As assessed further in Section 5.3 of Annex 2, the notifications following the introduction of CDM 2015 are around 20% lower than the 5 years preceding the change, when notifications exhibited a rising trend. While notifications will be driven primarily by construction activity, meaning the fall cannot be entirely attributed to the threshold change, the data assessed in Annex A shows that there was not a contemporaneous fall in the value of construction output, and so we can be confident that at least some significant proportion of the fall is due to CDM 2015.

Table 16: Fall in number of F10 notifications following the introduction of CDM 2015

Financial Year	All Notifications based on Received Date (from live and archive systems)
2009/2010	81768
2010/2011	83913
2011/2012	82601
2012/2013	85184
2013/2014	88331
2014/2015	91967
2015/2016	72690
2016/2017	65446
2017/2018	63170
2018/2019	75554

Source: HSE Administrative Data, 2019

Inspectors did however feel that there were shortcomings to the notifications system, both in terms of the timing of notification and which jobs were in scope.

*Notification is only in the construction phase, but four out of the five requirements are in the pre-construction phase. We only get involved when the project is underway.*

*Inspector Focus Group, 21 March 2019*

On scope, the participants claimed that some clients and tradespeople still mistakenly saw a non-notifiable job as a 'non-CDM job'. In this way, they felt that CDM 2015 had had the effect of effectively deregulating the smaller end of the market.

Some inspectors felt that the higher requirements for F10 notification meant that HSE was unaware that many smaller construction jobs were underway, (N.B. In fact, HSE uses a risk-based approach, drawing on a range of data sources to select sites for inspection).

### 3.11 Are contractors able to appoint flexibly?

A significant change in CDM 2015 was the removal of the detailed framework for the assessment of individual and corporate competence. Regulation 4 of CDM 2007 had previously specified that individual workers needed to meet a specific competency requirement and – although the Regulation neither envisaged nor required this - a plethora of card schemes and pre-qualification processes for workers were developed by industry as a means of demonstrating the specified competence. Business' reliance on (non-regulatory) card schemes meant that many microbusinesses were effectively excluded from many sites, as they did not have the means to demonstrate these specific competences.

CDM 2015 replaced CDM 2007's competency requirements with the requirement for workers to have the 'skills, knowledge, experience, training' (SKTE) for the tasks they were carrying out and for firms to have the overall '*organisational capability*' [author's italics] to deliver construction projects safely.

The goal of this change was for contractors to feel confident to appoint competent workers; and therefore, to be able to appoint flexibly. It was hoped that 'de-bureaucratising' the appointment process would re-focus those that appoint on the key elements of the work in hand and ensure that those appointed met the SKTE for the work, without relying on pre-qualification schemes. It was also hoped that microbusinesses with the right SKTE would have access to a greater range of work,

This goal does not appear to have been fully achieved. The Wave 18 CITB Employers Panel reported a continuing shortage of sufficiently skilled workers, although all the businesses interviewed offered some form of training to bridge skills gap, and training usually resulting in employees gaining certification or a qualification. As a corollary to this, HSE-commissioned research found that some microbusinesses were unable to meet the higher standards of larger sites and so only competed for domestic work (Kantar, 2018).

The many card schemes and pre-qualification processes developed by industry are still popular as they are used by employers as a way of demonstrating compliance with the SKTE requirements in CDM 2007 and 2015, although they are neither required nor recommended by either CDM 2007 or CDM 2015 legislation, and HSE remains neutral on the value and effect of prequalification process.

### **3.12 How does the UK's implementation compare with that in other EU member states in terms of costs to business?**

For EU measures, the RPC requires that PIRs assess how the UK's implementation compares with this in other EU member states in terms of costs to business. This was investigated via a telephone interview with a Senior Labour Inspector of the Irish Health and Safety Authority and request for information placed on the EU SLIC- Knowledge Sharing site. Responses were received from 18-member states: Slovakia, the Netherlands, Italy, Malta, Portugal, Austria, Greece, Estonia, Sweden, Cyprus, Croatia, Belgium, Poland, Finland, Bulgaria, Lithuania, Slovenia and Latvia. Although there were slight differences in the way that the regulations have been implemented and enforced, there was no evidence that the implementation had led to significantly different costs in these countries compared to the UK. Fifteen respondents either did not respond to this question or said that they had no relevant data. Of those who did provide a response, the Italian representative claimed that the requirements of the EU Directive 92/57/EEC has generated higher costs construction business, in particular, with regard to organisation and design; and the Maltese representative said that the implementation of the Directive may result in additional financial burden, especially for domestic clients, with the only potential for cost savings, being limited to those cases where the role of the Project Supervisor is also assumed by the client.

Although not an EU requirement, in the case of Ireland, some additional costs are incurred by business as there were amendments made to the Regulation in 2001, requiring all construction site workers to have one day's mandatory training every two years, in order to qualify for a Safety Pass, and additional specialised training for the different specialist trades on site.



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## Annex A – Mapping of research questions against evidence sources

<i>Research Questions</i>	<i>Evidence Source (A)</i>				
	CITB quantitative survey (Waves 16, 18 and 19)	CITB qualitative research	Construction microbusiness research	RIDDOR reports / inspection data	Consultation with CONIAC representatives
Has CDM 2015 resulted in lower project costs?	x				x
Have safety standards been maintained?	x			x	
Have safety standards been improved?	x			x	
Are CDM regs the best way to maintain safety in this sector?	x	x			x
Are PDs now embedded in the project team?	x	x			x
Are small businesses more compliant?	x		x	x	
Is domestic work being effectively managed?	x			x	
Do businesses submit fewer notifications?					
Are contractors able to appoint flexibly?	x		x		
Do businesses buy in less additional co-ordination support?	x				
What are the cost savings that result from the changes?	x				
Do clients, designers and contractors on all sizes of project understand what their responsibilities are?	x	x	x		
Do clients, designers and contractors on all sizes of project feel confident to undertake their duties?	x	x	x		
Comparison with other EU member states					

<i>Research Questions</i>	<i>Evidence Source (B)</i>				Interview with HSS	Questions
	Administrative data (No. of form 10s submitted)	2 FGs with FOD construction	Documentary review	Report on the effectiveness of guidance		
Has CDM 2015 resulted in lower project costs?						
Have safety standards been maintained?	x					
Have safety standards been improved?	x					
Are CDM regs the best way to maintain safety in this sector?	x		x			
Are PDs now embedded in the project team?	x					
Are small businesses more compliant?						
Is domestic work being effectively managed?						
Do businesses submit fewer notifications?						
Are contractors able to appoint flexibly?	x					
Do businesses buy in less additional co-ordination support?						
What are the cost savings that result from the changes?						
Do clients, designers and contractors on all sizes of project understand what their responsibilities are?				x		
Do clients, designers and contractors on all sizes of project feel confident to undertake their duties?				x		
Comparison with other EU member states					x	x

## Appendix 2:

## The Costs and Benefits of the changes introduced by the Construction (Design and Management) Regulations 2015

### 1 Introduction

1. This report presents the analysis undertaken to estimate the realised costs and benefits of the Construction (Design and Management) Regulations (CDM) 2015.
2. The analysis is limited to the changes introduced in CDM 2015 – that is, those assessed in the final impact assessment (IA) of the regulations. It sets out to update the cost-benefit analysis in a proportionate way, focusing on the largest impacts and areas where initial PIR evidence gathering highlighted as being significantly different from the original IA. The removal of the CDM Coordinator (CDM-C) role was estimated to have the biggest cost savings in the 2014 Impact Assessment. We have therefore focused much of our research efforts in assessing the impacts of this change - see Section 0.

### 2 CDM 2015 Impact Assessment<sup>5</sup>

#### 2.1 Overview of estimated impacts

3. Table 1 below provides a summary of the costs as estimated in the IA, converted to 2018 prices for consistency with the PIR cost benefit analysis that follows.

**Table 1: Summary of costs as estimated in the Final CDM 2015 IA (£ millions, 2018 prices)**

	<u>NPV<sup>a</sup> over 10 years</u>	<u>Equivalent annual costs<sup>b</sup></u>
A - Familiarisation for existing businesses	18.7	2.2
A - Familiarisation savings for new businesses	-4.2	-0.5
B - Removal of CDM-Coordinator role	-213.3	-24.8
C - Removal of competence requirement	0.0	0.0
D - Change in notification requirements	-28.4	-3.3
E - Change in thresholds for commercial projects	3.8	0.4
F - Domestic projects - familiarisation	11.5	1.3
F - Domestic projects - compliance	80.0	9.3
<b>Total COSTS</b>	<b>-131.9</b>	<b>-15.3</b>

Source: CDM 2015 final impact assessment

a: Net present value the sum of the discounted one off and on-going costs over the 10-year appraisal period

b: Equivalent annual net cost is the average discounted annual cost of the regulations per annum.

4. The three largest impacts estimated in the impact assessment were the removal of the CDM Coordinator role and its replacement with a new role (B, assessed here in Section 0), the removal of the exemption for Domestic Clients (F, assessed here in Section 0), and the change in the requirements for notifications to the Competent Authority (D, assessed here in Section 0).

<sup>5</sup> <http://www.legislation.gov.uk/ukxi/2015/51/impacts/2015/42>

## 2.2 Summary of 2015 IA data sources

5. The impact assessment was based on multiple sources:
  - a) the formal public consultation, which checked and verified estimates used in the IA. The IA authors also engaged closely with the Construction Industry stakeholders through the development of the draft Regulations. The Construction Industry Advisory Committee (CONIAC) provided a forum for such engagement. Refer to the Impact Assessment, paragraphs 17-30, for further information.
  - b) The evaluation of the CDM 2007 Regulations, undertaken in 2012, provided a source for estimates used for the removal of the CDM-C role in the IA.<sup>6</sup>
  - c) A Domestic Client survey commissioned by HSE in 2012 to improve HSE's knowledge of domestic construction activity was used as the basis for the number of domestic construction projects that took place per year.
  - d) The 2011 Census for England, Scotland and Wales was used to estimate the number of domestic properties in GB.
  - e) Data from the Annual Survey for Hours and Earnings (ASHE) was used in the IA to estimate the full economic cost of time for dutyholders.
  - f) Data on the number of construction sites notified to HSE (F10 notifications) was used as the basis for estimating the number of non-domestic projects per year. This estimate was the foundation for the majority of calculations made in the IA.
6. In undertaking the present assessment, we have reviewed and updated these sources where possible, and commissioned new primary research where required. See Section 0 for further discussion of the evidence gathering undertaken.

## 3 Scope and baseline of the cost-benefit analysis

7. This assessment aims to estimate the actual costs of the changes in the regulations introduced by CDM 2015. The scope and baseline of the assessment is the same as the final impact assessment of the CDM 2015 – that is, the additional impact of the 2015 changes, relative to the requirements of the CDM 2007 regulations. As stated in the introduction to this annex, we have focussed on gathering data to update the assessment for the largest expected impacts, meaning the analysis represents a partial rather than full re-estimation of the final impact assessment.
8. At the time the CDM Regulations came into force in 2015 there were some costs that should have only been incurred in the first year of implementation, such as familiarisation of existing dutyholders with the changes to the regulations and guidance. Other costs and cost savings arising from the changes would be incurred on an ongoing annual basis, such as the removal of the CDM-C Role, additional duties where a construction site has more than once contractor present, and new duties for contractors and designers working on domestic projects.
9. One-off costs already incurred are sunk; any further changes to the regulations will not alter these costs, so they are of limited relevance to decision-making. The cost benefit analysis therefore focusses on the ongoing costs of the changes implemented in the CDM 2015 Regulations, as these costs will continue to be incurred. We have, however, gathered data on familiarisation for comparison with the impact assessment, which we discuss in Section 0.
10. We assess costs over a 10-year period, from implementation in 2015 to 2024. Given this the assessment was undertaken in 2019, based on data gathered in 2018 and 2019, the first four years of this period represent an estimate of the actual, realised impact. The estimated impact

<sup>6</sup> <http://www.hse.gov.uk/research/rrhtm/rr920.htm>

for the remaining 6 years is extrapolated from this initial data, on the simplifying assumption that impact will remain constant over time in real terms.

11. For the on-going costs, we apply a discount rate of 3.5% per annum, consistent with HM Treasury's (HMT) Green Book.

#### **4 Research and evidence gathering**

12. We used multiple evidence sources to explore the impact of changes to the Regulations on dutyholders. Details of the full evidence gathering can be found in the Evidence summary. The specific sources of data used to derive quantitative estimates for the IA are summarised below:
  - The (CITB) Employer Panel Survey forms the main evidence source for the CBA. HSE included questions on Waves 16, 18 and 19 of the survey (undertaken in 2016, 2018 and 2019 respectively), primarily aimed at gathering data to assess the impact of the removal of the CDM Coordinator role (as well as a number of other aspects of the Regulations to support the broader PIR assessment).
  - Each of the surveys consisted of 1,500 telephone interviews with employers and the self-employed covering the Construction trades sector and the Professional Services sector. Each survey wave was preceded by 25-30 in-depth interviews conducted by CITB, which provided further context to larger quantitative survey results.
  - A shorter questionnaire was distributed to specific HSE construction sector inspectors to validate assumptions regarding the changes to how duties fall on domestic construction clients.
  - Data on the construction projects notified to HSE was used to re-estimate the number of non-domestic construction projects in Great Britain.

### **5 Monetised costs and benefits**

#### **5.1 Data on construction projects by value**

##### **5.1.1 Original estimations from the final CDM 2015 impact assessment**

13. The final CDM 2015 IA estimated a total of 250,000 non-domestic projects per year. This estimate was based on the number of notifications to HSE of construction projects over a certain threshold (F10 notifications),<sup>7</sup> which was assumed in the IA to represent projects over £100,000 in value. The IA stated at the time that there were around 115,000 notifications sent to HSE each year.
14. This was scaled-up to account for projects under the notification threshold (taken to be projects under £100,000), based on data on construction projects by value from the ONS, and HSE internal sector intelligence, resulting in the total estimate of 250,000 non-domestic projects. The remaining 135,000 projects below £100,000 in value comprised of 54,000 projects between £50,000 and £100,000 in value, and 81,000 projects below £50,000 in value. For a more detailed breakdown of the methodology, refer to the Section E of the IA.

##### **5.1.2 Findings, and estimations for the PIR**

15. Table 2 below summarises F10 notifications to HSE from 2003/04 to 2018/19.

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<sup>7</sup> For CDM 2007, the threshold for notifying projects to HSE (F10 notifications) was any work scheduled that would last more than 30 working days, or on which the volume of work would exceed 500-person days. For CDM 2015, this was any work scheduled that would last more than 30 working days with more than 20 workers simultaneously, or on which the volume of work would exceed 500-person days.

**Table 2: Number of F10 notifications received by HSE**

<u>Year</u>	<u>Number of notifications per year</u>	<u>Year</u>	<u>Number of notifications per year</u>
<b>03/04</b>	67,000	<b>11/12</b>	80,000
<b>04/05</b>	66,000	<b>12/13</b>	85,000
<b>05/06</b>	64,000	<b>13/14</b>	88,000
<b>06/07</b>	62,000	<b>14/15</b>	92,000
<b>07/08</b>	63,000	<b>15/16</b>	72,000
<b>08/09</b>	74,000	<b>16/17</b>	65,000
<b>09/10</b>	81,000	<b>17/18</b>	63,000
<b>10/11</b>	83,000	<b>18/19</b>	75,000

16. Current analysis of notifications for the period 5 years prior to the implementation of the 2015 Regulations shows an average of around 86,000, 25% less than the 115,000 value in the 2014 IA.
17. For the purposes of this analysis we have used this estimate to scale down the total number of non-domestic projects per year from 250,000 to 190,000 (i.e. a 25% reduction). There is no new data available on the distribution of projects by value, therefore we have retained the same proportions as the IA. Table 3 below shows the revised, estimated distribution of projects by value.

**Table 3: Distribution of projects, by value, for PIR analysis**

	<u>Number of notifications per annum</u>
£0-£50k	60,000
£50K - £100K	40,000
£100K - £200K	34,000
£200K - £500K	26,000
£500K - £750K	8,600
£750K - £1,000K	4,500
Over £1,000K	13,000
<b>Total</b>	<b>190,000</b>

18. Other things equal, the lower estimate of the baseline number of projects will result in a lower estimate of costs and benefits arising from the CDM 2015 regulations. In the assessment that follows, we distinguish the effect of the new baseline estimate from changes to the estimates of the compliance costs per project. By doing this, we will demonstrate the change in costs as a result of the change in the baseline, and the impact of the change in the requirements of the Regulations themselves

### 5.1.3 Compliance

19. The CDM 2015 IA made assumptions about the rate of compliance with the regulations among different actors in the construction sector, as applying a 100% compliance rate was not considered realistic. These had the effect of reducing the number of projects and individuals across which the costs and savings were applied. The assumptions were considered to be reasonable by sector trade bodies at the time.
20. Some of the changes introduced by CDM 2015 (e.g. simplification of the guidance) were aimed at improving compliance. However, given the challenges in gathering evidence on businesses who are not compliant (given that only a small proportion of businesses are

inspected each year), we have not attempted to update the compliance estimates. The relevant estimates are set out in the sections that follow.

## 5.2 Removal of CDM Coordinator role and its replacement with a new role

### 5.2.1 Original estimations from the IA

21. CDM 2015 removed the pre-construction coordination role of the CDM coordinator, with the aim that the management of health and safety risks in construction projects would be undertaken by an existing member of the project team, resulting in better coordination and liaison between the different parties in a construction contract, and ultimately better health and safety outcomes. Having an existing member of the project team delivering the coordination function, rather than an external party, was also expected to generate significant cost savings. For further details on the change, refer to Section 3 of the Evidence Review.
22. The final impact assessment estimated this change would generate an average saving per project of £580 for non-domestic projects over £200,000<sup>8</sup> in value, a saving of around 20% on the estimated costs of health and safety coordination under the 2007 CDM Regulations (see Table 4 below). The IA further assumed a 75% rate of compliance with the CDM regulations for these projects, based on HSE operational expertise and discussions with sector bodies.
23. Therefore, across the estimated 69,000 projects in scope, around 52,000 would experience savings, resulting in equivalent annual saving to businesses of £25 million, with a 10-year present value of £210 million (2018 prices).
24. Table 4 below summarises the CDM 2015 final impact assessment cost estimates for the removal of the CDM-C role. The average fee per project based on this data and estimated in the IA was around £3,200, based on the evaluation of the 2007 Regulations, undertaken in 2012 (see Section B of the CDM 2015 IA for more detail).

**Table 4: Cost estimations of removal of CDM-C role, as estimated in the IA**

CDM Coordinator function	Estimate
CDM 2007 estimate	£3,200
CDM 2015 estimate	£2,600
Difference between CDM 2007 and CDM 2015	£580

### 5.2.2 Findings, and estimations for the PIR

25. As discussed in section 0 we have updated the baseline number of projects from the original IA, which feeds into the analysis for the removal of the CDM-C role. The revised estimate of the number of non-domestic projects over £200,000 in value is around 51,000, approximately 25% lower than the IA estimate. Maintaining the estimated 75% rate of regulatory compliance for these projects gives an estimated 39,000 compliant projects expected to be affected by the change.
26. As discussed in Section 3.3 of the Evidence Review, the body of evidence gathered for the PIR indicates strongly that the construction sector has not experienced the expected savings and, in some cases, costs may have increased. Sections 3.3 to 3.5 of the Evidence Review discusses a number of explanations which emerged from the evidence base, including:
  - a) Some businesses have not changed co-ordination of health and safety (Wave 18 of the CITB survey stated 46% of their respondents had not changed co-ordination). The data suggests that some Principal Contractors are still contracting-out coordination to an external/independent CDM-C, which may be more common for smaller businesses.

<sup>8</sup> the IA wrote that any savings arising for projects under £200,000 would be notional and not actually felt as real savings by businesses. This was because the savings would relate to duties new to them, and this would be costlier if the EU-related amendments in CDM 2015 had not been made without the deregulatory changes such the removal of the CDM-C role.



- b) The duties previously undertaken by the CDM-C have been transferred to the Principal Designer (PD). The main driver for the increase in costs seems to be that the PD role now carries more responsibility, and designers' charge out rates are higher than those of CDM Co-ordinators.
  - c) The PD role has not in many cases become as embedded into project team as intended by the regulations.
27. In order to try and establish the effect of the removal of the CDM-C role on the costs of health and safety coordination, we asked in Wave 19 of the CITB Employer panel:
- a) Who mainly co-ordinates health and safety in the preconstruction design phase and construction build phase on large commercial projects over £200,000 in value?
  - b) What is the approximate average fee per project charged for health and safety co-ordination in both phases?
  - c) Have costs per project for health and safety co-ordination increased/decreased/stayed the same? What is the percentage change in costs?
28. Responses to the Wave 19 survey question on how coordination costs had changed following CDM 2015 stated:
- a) Around half (100 of 191) said that coordination costs had not changed or had increased in line with inflation.
  - b) Around 20% (37 of 191) said that costs had increased. Of these, 58 respondents provided an estimate of the percentage change in costs, which gave an average increase of around 25%.
  - c) A very small number said that costs fell (1%, 2 of 191)). Five respondents responded to a subsequent question on the extent of the fall; answers were few and variable, so we have used a rounded average of 10% to best represent the data.
  - d) The remaining 27% responded that they "don't know".
29. Combined, this gives a weighted average increase of around 7% (excluding 'don't know' responses). To re-estimate the costs of the removal of the CDM-C role we have applied this percentage increase to the estimate of coordination costs under the 2007 regulations (as the baseline for this assessment), based on the 2012 evaluation. This estimated that per project health and safety coordination costs were around £3,200 on average. Inflated to 2018 prices gives around **£3,500 per project**.
30. Applying the 7% average increase in costs to the baseline coordination costs estimate above gives an average **increase in coordination costs per project of around £250 (in addition to inflation)**.
31. Applying the £250 to the 39,000 for non-domestic projects of over £200,000 expected to be affected by the change, costs to business are estimated to be £5.8 million in the first year, £6.8 million in the second and £7.8 million a year thereafter. Over the 10-year appraisal period, this gives an equivalent **annual cost to businesses of £7.5 million**, with a present value over 10 years of £64 million.
32. While this contrasts with the 2015 IA, which estimated that per project coordination costs would fall by almost 20% (compared with the 7% increase above), it is consistent with the wider body of PIR evidence – that removing the CDM-C has not reduced costs and may have resulted in a small increase.

33. To put this in context, given that the change primarily affects construction projects of over £200,000 in value, the average £250 per project increase in coordination costs represents an increase of approximately 0.1% in total project costs. Additionally, as discussed in Section 3.2 of the Evidence Review, the findings from the Wave 19 CITB survey strongly suggest that, overall, health and safety coordination has improved under CDM 2015; of 529 respondents, 38% thought that coordination had improved, compared with 4% who thought that it had got worse (of the remainder, 41% thought it had stayed the same and 17% did not know).
34. It is possible that some savings may be realised in future years as coordination becomes further internalised and embedded within construction projects; however, almost three-quarters of respondents (149 of 202) who felt that coordination had improved under CDM 2015 said that costs had not reduced as a consequence, so any effect may be limited.

### **5.3 Tightening of the condition used to trigger notification of the construction project to the competent authority**

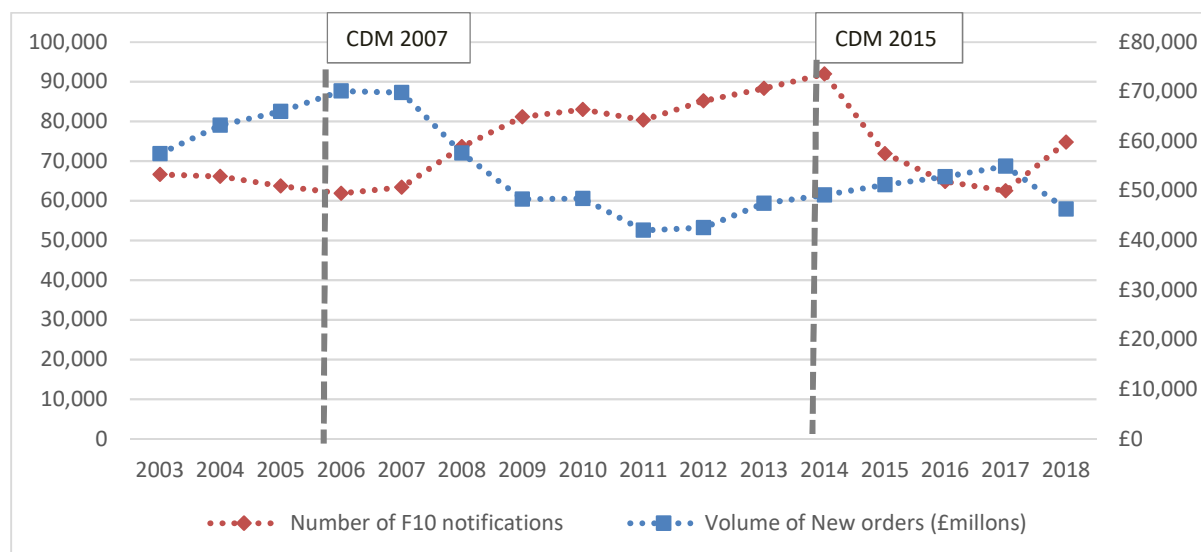
#### **5.3.1 Original estimations from the IA**

35. The European Council Directive 92/57/EE (which the CDM regulations implement in Great Britain) require that any construction site must be notified to the national competent authority, on which:
- i. work is scheduled to last for more than 30 working days with more than 20 workers occupied simultaneously, or
  - ii. the volume of work is scheduled to exceed 500 person-days.
36. CDM 2007 adopted a slightly different criterion for notification in that it omitted the requirement for more than 20 workers from a) above. The effect of weakening the condition in this way is that CDM 2007 required notification of more projects than the Directive did.
37. CDM 2015 aligned the notification threshold with the Directive, thereby tightening the notification requirement and reducing the number of projects that needed to be notified to HSE. CDM 2015 provides that notifications must be sent to HSE for any construction site on which:
- i. work is scheduled to last more than 30 working days with more than 20 workers occupied simultaneously, or
  - ii. the volume of work is schedules to exceed 500 person-days.
38. The IA used the estimate of the median cost per project to dutyholders to notify HSE from the evaluation of CDM 2007 of around £51.
39. The final CDM 2015 IA estimated this would result in a reduction of around 50% in the projects notified to HSE (60,000 on the estimate of 115,000 annual F10 notifications used in the IA), resulting in cost savings of £3 million per year, and a 10-year NPV of £28 million.
40. As discussed in Section 0, we have updated the baseline estimate of construction projects. Consequently, we will focus comparisons between the final IA and the updated PIR estimate on the percentage fall in projects due to the threshold change, rather than the absolute number.

#### **5.3.2 Findings and estimations for the PIR**

41. The PIR assessment has focussed on estimating the effect of the change in the threshold on the number of notifications, rather than the time assumptions from the original IA. As HSE receives the F10 notifications, we were able to look at the total number of notifications received from as early as 2000. We extracted the total number of from 2003/04 to the latest 2018/19 data.

**Figure 1: Number of F10 notifications received by HSE and comparison with construction new orders by value**



Sources: HSE F10 Notifications; ONS [New Orders in the Construction Industry](#), Table 2, Quarter 2 2019.

42. Figure 1 shows the number of F10 notifications received by HSE (the figures are also provided in Table 3). As the graph shows, there is an increasing trend in the number of notifications from 2006/07 to 2014/15, until 2015/16 when the regulations were introduced (in April 2015), where there is a sharp fall. This is strongly suggestive of a fall in notifications due to the regulation change.
43. This in isolation does not, however, allow us to attribute the entirety of the fall to the change in the regulations. The number of notifications will be determined by the level of construction activity, which itself is influenced by many factors, such as the economic cycle, expectations about future economic growth and the level of foreign investment.
44. To investigate this, Figure 1 also shows ONS data on the volume of new construction orders (£ millions) from 2003 to 2018. While the two series do not demonstrate a consistent relationship, which may be due to some extent to definitional and timing differences<sup>9</sup>, it is clear from the data that there was not a fall in construction new orders around the time of the introduction of CDM 2015 that could explain the reduction in notifications (in fact there was an increasing trend in activity, which is also seen in the ONS construction output data series).
45. We can therefore be confident that at least a significant proportion of the fall is due to the change in notification threshold, and it is possible that the fall is greater than observed given the rising trend in F10 notifications prior to CDM 2015 (which continues after implementation in the new orders series).
46. To quantify the effect, assuming that the observed reduction can be attributed to the regulation change, we compare the average annual notifications since CDM 2015 (around 69,000 for the period 2015/16 to 2018/19) with the average annual notifications for the five years prior (86,000, based on the period 2010/11 to 2014/15). This suggests a reduction of 20% reduction in the number of notifications. Applying the estimated notification cost set out in paragraph 0, we estimate that the reduced notifications have resulted in **annual cost savings of around £880,000**, giving 10-year present value savings of £7.5 million. Applying the 20% reduction to the baseline number of annual notifications used in the CDM 2015 final IA (115,000) would generate higher cost savings of £1.2 million per year.

<sup>9</sup> Construction new orders data captures construction projects at the planning application stage. Therefore, the timing of this data precedes notifications to HSE, which typically occur at the construction-phase.

47. The estimated 20% reduction in F10 notifications due to the change in notification threshold is somewhat lower than the IA estimate of a 50% reduction. A fall of one-half cannot be supported from the data; however, the 20% reduction may be an underestimate, given the increasing trend in notifications prior to CDM 2015. We consider a 20% reduction a conservative best estimate given the available evidence.

## **5.4 Changes in thresholds for additional duties**

### **5.4.1 Summary of change and original IA estimates**

48. The existing European Directive imposes a number of additional duties where a construction site has more than one contractor present (herein referred to as contractor plurality), including: a requirement for the client to appoint safety and health co-ordinators for the pre-construction and construction stages of the project; and for the co-ordinators to co-ordinate health and safety, and collate a health and safety file of information likely to be useful to those carrying out subsequent work.
49. CDM 2007 transposed the additional duties but it adopted a threshold for these duties based on project duration (specifically, more than 30 days or more than 500-person days of construction work), which was inconsistent with the threshold of contractor plurality set out in the Directive.
50. CDM 2015 changed the duties in line with the Directive by applying a threshold of contractor plurality for most of the duties, with construction-phase health and safety plans proportionate to the risks involved required for all projects. For more information on the change, refer to Section E of the final CDM 2015 impact assessment.
51. Both domestic and non-domestic construction projects would be affected by the change. The effects on domestic projects are assessed in Section 0. The IA estimated around non-domestic 180,000 projects under £200,000 would be in scope of the change, although only smaller projects (below £50,000 in value) would need to make changes in practice, given that larger, more complex projects would already be undertaking similar actions to operate effectively and comply with the law. The IA further applied a compliance rate of 25% for these projects.
52. Additionally, the IA estimated the length of time it would take contractors and designers to fulfil the new duties of the Regulations. Table 5 below provides a breakdown of the time estimates and number of projects from the IA.

**Table 5: Additional duties for projects, and time estimates, from CDM 2015 IA**

<b>Duties</b>	<b>Time estimate</b>	<b>Number of projects making changes, assuming 25% compliance</b>
Small non-domestic single-contractor projects (below £50,000) <ul style="list-style-type: none"> <li>○ Producing a health and safety plan</li> </ul>	1 hour	14,000
Small non-domestic multi-contractor projects (below £50,000) <ul style="list-style-type: none"> <li>○ Producing a health and safety plan</li> </ul>	2 hours	3,800
Large non-domestic multi-contractor projects (above £50,000) <ul style="list-style-type: none"> <li>○ Producing a health and safety plan</li> <li>○ Making the formal appointments of health and safety co-ordinators</li> <li>○ Co-ordinating the construction site</li> </ul>	3 hours for a contractor 1 hour for a designer	Contractors on non-domestic projects >£50k expected already to be undertaking these duties. However, these assumptions are applied to additional duties for domestic contractors, assessed in Section F of the final IA and Section 0 of the present assessment.

53. The IA estimated the changes would generate a total annual cost of around £400,000 with a 10-year present value of £3 million.

#### **5.4.2 Findings and estimations for the PIR**

54. As discussed in section 0 we have changed the baseline number of projects from the original estimate, which feeds into the analysis for this change. The new baseline number of projects are approximately 25% lower than those estimated in the IA, giving an estimated 60,000 projects under £50,000 in value potentially affected. Apply the same compliance assumptions as the IA overall gives an estimated 10,000 single contractor projects and 5,000 multi-contractor projects that will produce health and safety plans. The assumption that projects over £50,000 should already have been undertaking the additional duties is considered reasonable and maintained in this analysis.
55. We sought to test the time assumptions set out in Table 5 to establish whether the impact assessment was accurate. To do this we contacted relevant HSE inspectors who have experience in working with smaller contractors and designers. We sought to validate the estimates and gather more accurate values where the IA assumptions were considered too high or too low.
56. We were able to contact 10 inspectors and received information from 8 of these. For small single-contractor projects, the majority of the inspectors who answered the questions felt the estimate of 1 hour to complete additional duties was about right, so we have maintained this in the PIR.

57. For small multi-contractor projects, just over half of the inspectors felt the time was between 1 and 4 hours, while the rest considered the assumption to be about right or did not answer. For the purpose of this analysis, we will assume 2 hours to complete the additional duties, as estimated in the IA.
58. For larger multi-contractor projects, the majority of respondents who answered the question felt the original estimates were about right.
59. We have updated the costs of time of dutyholders from the IA estimates to 2018 prices. Using data from the Annual Survey of Hours and Earnings, the updated full economic hourly cost of time of a contractor is £16.
60. Applying these assumptions and costs of time estimates set out above, this analysis estimates the changes have generated a **total annual cost of around £330,000** with a 10-year present value of £2.8 million. This estimate is lower than the IA originally estimated because it is based on the re-estimated baseline number of non-domestic projects per year. If we were to use the original baseline, the costs would remain the same, as per paragraph 0.

## 5.5 Removal of the exemption for domestic clients

### 5.5.1 Original estimations from the IA

61. CDM 2007 placed duties on construction clients, persons or bodies that procure construction work. Both CDM 2007 and its predecessor ensured that ‘domestic clients’ – persons having construction work done on their homes – were protected from any client duties (those explained in Section 0. However, the definition of client in the European Directive from which the regulations are derived is very broad and cannot be regarded as excluding domestic clients.
62. CDM 2015 aligned the Regulations with the Directive by removing the exemption for domestic clients, whilst making the level of relief to domestic clients explicit. It does this by amending the definition of client to include all clients but then, in the case of domestic clients only, providing that the contractor(s) for the project shall by default carry out the client’s duties without further client intervention (the Directive allows for the principle that the client’s duties can be carried out by another person). This was referred to in the IA as the ‘deeming’ approach.
63. The IA used data from the 2011 ONS Consensus and the 2012 evaluation of CDM 2007 to estimate the number of domestic projects that may be affected by the change, which gives the following estimates:

**Table 6: Number of Domestic projects per year**

<u>Projects</u>	<u>Number of projects</u>
Multi-contractor domestic projects	1.0 million
Single contractor domestic projects	2.3 million
<b>Total domestic projects per year</b>	<b>3.3 million</b>

64. The duties falling to domestic contractors are the same as those discussed in Section 0 (to appoint safety and health co-ordinators for the pre-construction and construction stages of the project, for the co-ordinators to co-ordinate health and safety and collate a health and safety

file, and to produce a health and safety plan). Therefore, we apply the same time estimates for undertaking these additional duties, set out in Table 5.

65. The IA estimated annual costs to business of £8.6 million single-contractor and multi-contractor projects, with a present value of £70 million over 10 years.
66. The IA also estimated that a small percentage of domestic clients (10%) would spend on average around 15 minutes familiarising i.e. to understand that they do not need to do anything at all, in response to the amendment of the Regulations, resulting in an annual cost of £1.2 million with a 10-year present value of £11 million.

### 5.5.2 Findings, and estimations for the PIR

67. We have considered and updated the components of this cost estimate as follows:
  - The number of domestic properties was updated using the latest ONS data on the number of households in GB, which was 2017. Due to rounding, the estimates from the IA and our 2017 data are both 26 million.
  - We did not update the estimates of the proportion of householders commissioning construction projects each year. The survey undertaken at the time for HSE by the Health and Safety Laboratory is considered the best available data and commissioning another substantial piece of research was considered disproportionate.
  - We tested estimates of the time taken for contractors to complete the duties with HSE inspectors. This is already discussed in Section 0, as the relevant duties are the same as considered there. Responses from HSE inspectors suggested that the assumptions are still valid and so they are unchanged from the original impact assessment.
  - As familiarisation was estimated to be small, and due to the difficulty in trying to test this assumption with members of the public who have had construction done on their home, we have not re-estimated the cost from those in the IA.
68. As discussed in Section 3.8 of the Evidence Review, qualitative evidence suggests that the ‘deeming approach’ is not in many cases operating as intended by the regulations. This appears to be largely because in practice domestic clients themselves directly appoint several contractors, in where it is either unclear who is the Principal Contractor (i.e. the party that must assume the duties), or the role is not formally taken. It is not possible given the available data to factor this into the costs assessment; however, the IA assumed low rates of compliance – 10% for projects under £10,000 in value and 20% for multi-contractor projects over £10,000 – which appears to be supported by the evidence.
69. The revised cost estimate is therefore essentially unchanged from the 2015 impact assessment in real terms. Based on the data provided, this analysis estimates the **annual costs to business of £9.5 million** in 2018 prices, with a 10-year present value of £82 million.
70. The small amount of ongoing familiarisation time estimated for domestic clients in the IA is maintained at 15 minutes for the PIR. This gives an **annual cost to businesses of £1.4 million** in 2018 prices, with a 10-year present value of £11.8 million.

### 5.6 Removal of the explicit competence requirement

71. The IA estimated that the removal of the explicit competence requirement would not likely result in immediate behaviour changes and would expect the change to take place over a number of years. There would be the potential for significant cost savings over the longer-term as suppliers no longer needed to submit to a multitude of competence assessment schemes. Some proportion of savings was expected to be over the appraisal period, although

due to the level of uncertainty in predicting how and when behaviours would change no cost savings were calculated.

72. Due to the uncertainty discussed above, and the fact that no costs were estimated in the original IA, this analysis has not attempted to quantify the savings from this change.

## **5.7 Sunk costs – familiarisation with the CDM 2015 regulations**

### **5.7.1 Original estimations from the IA**

73. The IA estimated it would take 3 hours for existing designers and contractors to familiarise themselves with the entirety of the changes to the regulations and guidance, with compliance rates of 75% and 33% respectively. The IA estimated a one-off familiarisation cost of £17.3 million.
74. The IA also estimated there would be some cost savings for new businesses entering the construction industry as the ACOP for CDM 2015 and guidance have been made to be much shorter and simpler to understand.
75. The CDM 2007 IA assumed that it would take 8 hours per contractor and 6 hours per designer to familiarise with the regulations and Approved Code of Practice (ACOP), with compliance rates of 75% and 33% as above. The IA used the same estimate for how long it would take contractors and designers to understand the new Regulations and guidance: 3 hours. The time savings estimated in the CDM 2015 IA were therefore 5 hours for contractors and 3 for designers.
76. The IA estimated annual savings of £0.5 million with a 10-year present value of £3.9 million. Net familiarisation costs were therefore £13.4 million in present value terms over 10 years.

### **5.7.2 Findings and estimations for the PIR**

77. We have asked questions on two waves of the CITB Employer Panel Survey regarding the amount of time taken for dutyholders to familiarise with the new guidance and changes in requirements.<sup>10</sup>
78. Businesses who took part in the Wave 16 quantitative survey and had accessed the CDM 2015 guidance produced by HSE and CITB said that on average it took them 17 hours to familiarise themselves with the content, or 3 hours per employee. As might be expected, businesses with fewer employees tended to spend less time overall on the guidance but spent more time per employee. For example, those with 2 to 4 employees took on average 11 hours in total on the guidance, amounting to 4 hours per employee, whereas those with 100 to 249 employees spent over 100 hours, but this was less than half an hour per employee. Just over half (54%) of those businesses accessing the guidance spent 10 hours or less familiarising themselves.
79. Respondents to the question on Wave 19 gave answers varying from 0 to 700 hours. Looking at the full responses to the Wave 19 survey suggests it took respondents on average 16 hours to familiarise and understand CDM 2015. Out of 1,500 respondents to the survey, we received data on the number of hours from around 880 people. Sole traders were the group that spent the longest time familiarising themselves with the regulations, an average of 24 hours. Similar to Wave 16, businesses with fewer employees tended to spend less time overall familiarising themselves with the changes but spent more time per employee. Those with 2 to 4 employees took on average 16 hours overall to familiarise, amounting to 4 hours per employee, whereas those with 25 to 99 employees spent 15 hours overall, around 0.2 of an hour per employee.
80. From looking at the data in more detail, although answers vary quite considerably, over two-thirds of respondents (around 68%) answered that it took them 10 hours or less to familiarise

<sup>10</sup> Wave 16 asked respondents about how long it took to read and understand the guidance; Wave 19 how long it took them to personally read, understand and familiarise with the CDM 2015 Regulations including reading the new Regulations and / or attending any training courses on the new Regulations



themselves with the changes, and only 1% (5 respondents) felt it took them 100 hours or more. As there were only 5 respondents who felt familiarisation was in the hundreds of hours, we have trimmed these responses from our calculations to allow for a more realistic average. As such, this gives an average time of around 13 hours.

81. The Wave 19 qualitative report (which preceded the full quantitative survey described above) stated that respondents struggled to quantify the amount of time spent on reading, understanding and familiarising themselves with the CDM 2015 regulations. For some respondents this took place over a short period of intensive study of the regulations, but for others they would only have become familiar with them after consulting them occasionally over a long period of time.
82. The data described above is strongly suggestive that dutyholders spent considerably longer familiarising with the regulations and guidance than estimated in the original IA (3 hours). Combining the data from both surveys and removing the few very high responses gives an average of around 14 hours. Applying the newer estimate gives an estimated one-off familiarisation cost of almost £88 million.
83. However, the CITB survey unfortunately did not gather data on familiarisation savings to businesses from simplified guidance. These savings could arise in two ways: to new entrants to the market, who would need to spend less time than previously familiarising with the regulatory requirements; and to existing businesses spending some time each year to refresh on the requirements, which would now be easier. The CDM 2015 IA estimated that the savings to new businesses (£3.9 million) would be just over 20% of the one-off familiarisation costs to existing businesses (it did not account for ongoing savings to existing businesses).
84. As discussed in Sections 3.6 and 3.7 of the Evidence Review, the evidence gathered suggests that the revised guidance has been well-received. For example, the CITB Wave 16 survey found that a minority of businesses that had engaged with the guidance (10%) answered that it was unclear or incomplete, while respondents stated a very high level of understanding with the new requirements in response to the Wave 18 survey.
85. Given that the above analysis does not reflect the potential ongoing savings from the simplified guidance, it represents only a partial picture of the net familiarisation costs.

## **6 Benefits (unmonetised)**

86. The evidence gathering for the PIR has captured a number of benefits of the changes introduced by the CDM 2015 regulations, which we have not been able to monetise. Realising these benefits was the primary aim of the regulatory change; they are explored in greater detail in the Evidence Review and summarised below:
  - a) Maintained or improved safety standards: in Waves 18 and 19 of the CITB Employer Panel Survey over 75% of respondents felt safety standards had either been maintained or improved since CDM 2015. Similarly, in the CITB Wave 19 qualitative report, the majority of businesses felt safety standards had improved.
  - b) The sector believes CDM 2015 is the best way to maintain safety: 76% of respondents to wave 18, when asked if CDM was the best way to maintain safety answered yes. The qualitative reports also came to the same conclusion.
  - c) Co-ordination of health and safety: respondents to both the CITB Wave 18 and 19 surveys were more likely to say that the coordination of health and safety projects had improved than had got worse (with the majority answering that it had stayed the same). Across both waves 78% of respondents felt co-ordination had either improved (610 of 1903) or not changed (879 of 1903). When asked what aspects had improved, respondents gave reason such as:

coordination is easier to manage, better organised, simpler for everyone and there is increased awareness / fewer incidents.

It is possible that more benefits may be realised in future years as businesses transition to a new approach to coordinating project risk with coordination becoming further internalised and embedded within construction projects.

## 7 Summary

87. In summary, this analysis has looked at the impacts to dutyholders of the changes to the CDM 2015 Regulations. We have attempted to test the key parameters in the original impact assessment through surveys of businesses and discussions with key sector stakeholders and HSE inspectors and using data we were able to obtain from HSE and the ONS.
88. Table 7 below provides a breakdown of the costs of each of the changes, and how they compare with the CDM 2015 IA estimates (all in 2018 prices). As discussed earlier in the paper, we have re-estimated the baseline number of non-domestic projects per year, which in the absence of other changes to the assumptions, reduces the original IA costs by around 25%.

**Table 7: Summary of Costs and Benefits**

Assumption	Equivalent annual costs (£millions, 2018 prices)	
	CDM 2015 IA	Revised PIR estimates (actual)
Removal of the CDM-Coordinator role and its replacement with a new role	-£24.8	£ 7.5
Removal of the explicit competence requirement	Nil	-
Tightening of the condition used to trigger notifications of the construction project to the competent authority	-£3.3	-£0.9
Changes in thresholds for additional duties:	£ 0.4	£0.3
Removal of the exemption for domestic clients	£10.6	£10.8
<b>TOTAL</b>	<b>-£ 17.0</b>	<b>£17.8</b>

89. The revised estimate of costs based on the analysis set out in this annex suggests total costs across the changes to CDM 2015 of **£18 million per year** and £153 million over the 10-year appraisal period (excluding familiarisation costs). This estimate is significantly higher than the IA originally estimated (a cost *saving* of £14 million per year, and £121 million savings over the 10-year appraisal period), of which the main driver for the savings was the removal of the CDM-C role.

90. The biggest change to the costs estimated in this analysis relate to the removal of the CDM-C role. The CDM 2015 IA estimated this change would result in £23 million in savings per year, whereas this analysis has estimated annual *costs* to dutyholders of around £7.5 million. The evidence gathered for the PIR suggests that the savings have not been realised for the reasons summarised in 0 of this CBA annex and Section 3.4 of the main Evidence Review.
91. The picture presented in Table 7 – that the expected savings estimated in the CDM 2015 impact assessment have not been realised and, in some cases, costs appear to have increased – is consistent with the broader body of evidence gathered for this PIR, as discussed in Section 3.4 of the Evidence Review. Overall, the analysis is draws on a broad evidence base, which provides good triangulation between sources for the main impacts considered.
92. Whilst this analysis was only able to quantify the costs the changes introduced by CDM 2015, it is important to consider them in context of the benefits Section 0 and discussed further in the Evidence Review.

## 8 Parameters and assumptions applied in estimates

### 8.1 Removal of the CDM Co-Ordinator and its replacement with a new role

<u>Parameter</u>	<u>Value</u>	<u>Updated from IA?</u>	<u>Reference</u>
Number of projects in scope for cost savings	69,000	Yes	Current analysis, Section 0
Median total cost of CDM Co-Ordinator services	£3,500	Yes	Current analysis, Section <b>Error!</b> <b>Reference source not found.</b>
<i>Of the total costs, categories of CDM Co-Ordinator services role where costs would be reduced</i>			
Demonstrating competency and the adequacy of resources as part of the pre-qualification and bidding process a. Cost before change b. Cost after change	a. £205 b. £0	No	IA paragraph 82
Cost of identifying, collecting and passing on pre-construction information a. Cost before change b. Cost after change	a. £610 b. £490	No	IA paragraph 82
Co-ordinating the health and safety aspect of the design work a. Cost before change b. Cost after change	a. £350 b. £236	No	IA paragraph 82
Liaising with the principal contractor regarding ongoing design a. Cost before change b. Cost after change	a. £408 b. £272	No	IA paragraph 82
Estimated total savings per project from removal of CDM Co-Ordinator role	£250 (Costs)	Yes	Current analysis, Section <b>Error!</b> <b>Reference source not found.</b>

Compliance rate of stakeholders	75%	No	IA paragraph 86
Rate of projects that would move co-ordination internally	a. 60%	No	IA paragraph 88
a. Year 1	b. 70%		
b. Year 2	c. 80%		
c. Year 3-10			

## 8.2 Tightening of the condition used to trigger notification of the construction project to the competent authority

<u>Parameter</u>	<u>Value</u>	<u>Updated from IA?</u>	<u>Reference</u>
Number of F10 notifications made to HSE every year	86,000	Yes	Current analysis, Section 0 and 0
Expected reduction in notifications following the change	20%	Yes	Current analysis, Section 0
Median costs to send notification to HSE	£51	No	IA paragraph 106

## 8.3 Change in the threshold for additional duties

<u>Parameter</u>	<u>Value</u>	<u>Updated from IA?</u>	<u>Reference</u>
Total number of non-domestic projects per year	250,000	Yes	Current analysis, Section 0
Number of projects in scope of the additional duties, under £50,000	60,000	Yes	Current analysis, Section 0
<i>Additional duties of projects</i>			
Small non-domestic single-contractor projects (below £50,000)	1 hour	No	IA paragraph 126
○ Producing a health and safety plan			
Small non-domestic multi-contractor projects (below £50,000)	2 hours	No	IA paragraph 126
○ Producing a health and safety plan			
Compliance rate for Contractors	25%	No	IA paragraph 127
Full Economic Cost of time of a contractor	£16	Yes	Current analysis, Section 0



## 8.4 Removal of the Exemption for Domestic Clients

<u>Parameter</u>	<u>Value</u>	<u>Updated from IA?</u>	<u>Reference</u>
Number of households in England and Wales	24 million	Yes	Current analysis, Section 0
Number of households in Scotland	2.4 million	Yes	Current analysis, Section 0
Proportion of households that are owner occupied a. England and Wales b. Scotland	a. 64% b. 62%	No	IA paragraph 140
Number of owner-occupied households in GB	16.4 million	No	IA paragraph 140
Proportions of households commissioning construction work per year	20%	No	IA paragraph 142
<i>Familiarisation of domestic clients</i>			
Number of domestic clients	3.3 million	No	IA paragraph 147
Time taken to familiarise	15 minutes	No	IA paragraph 148
Opportunity cost of clients	£15	No	IA paragraph 149
Compliance rate	10%	No	IA paragraph 150
<i>Costs of New duties</i>			

<b><u>Parameter</u></b>	<b><u>Value</u></b>	<b><u>Updated from IA?</u></b>	<b><u>Reference</u></b>
Proportion of domestic projects under £10,000 where new duties would fall on designers and contractors	85%	No	IA paragraph 156
Compliance rates a. Single Contractor projects b. Multi-Contractor projects	a. 10% b. 20%	No	IA paragraph 158
Time taken for single-contractor projects to complete new duties o Producing a health and safety plan	1 hour	No	IA paragraph 126 and 160
Multi-contractor projects (below £10,000) o Producing a health and safety plan	2 hours	No	IA paragraph 126 and 164
Multi-contractor projects (above £10,000) o Producing a health and safety plan o Making the formal appointments of health and safety co-ordinators Co-ordinating the construction site	3 hours for a contractor 1 hour for a designer	No	IA paragraph 165