Economic Analysis – Impact and Evaluation

Children's code evaluation

March 2023

ico. Information Commissioner's Office

children's code

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Executive summary

About the Children's code

The Children's code is a statutory code of practice. It explains how online services likely to be accessed by children should comply with the UK GDPR and PECR when using children's data. It seeks to protect children **within** the digital world, not protect them from it.

The ICO developed the Children's code between 2018 and 2020. The code came into force in September 2020 with a 12 month transition period. From September 2021 the Commissioner began to take the code into account when considering compliance with the UK GDPR and PECR.

This evaluation report sets out what we have learned through the process of developing and implementing the code, as well as the emerging impact evidence. Much success has been achieved so far and can be built on, but there is still more to do.

The evaluation was designed with reference to the HM Treasury Magenta Book using an output to outcome to impact methodology, called the theory of change. It shows how the code links to a chain of results that lead to the intended or observed impacts. Impact, linked to the rationale for the code, is often the most difficult to measure since it will occur over a longer period and can be influenced by other external factors. Given the code has only been in place since 2020, impact evidence is restricted to shorter-term and intermediate outcomes.

The code's pioneering approach has driven change globally

The code sits at the forefront of a global trend towards tackling children's data privacy issues. The code's:

- pioneering approach has been emulated around the world, including in places like California and Ireland;
- impact has been reinforced by some large online platforms implementing measures to make their services more suitable for children, often applying them beyond the UK; and
- related certification schemes are trailblazing and the ICO is leading the way globally on data protection authority approved schemes.

It is hoped that the inspirational nature of the code will act as a catalyst for creating a coherent set of global rules helping to keep children's data safe online.

ISS providers made positive changes but still more to do

In the period that the evaluation report covers, of just over two years, we can see the code effecting positive change. Information society service (ISS)

providers have increased their knowledge of children's data privacy matters. Many have made changes to their services that are attributable to the code.

Whilst ISS providers have incurred costs, as anticipated in the code's impact assessment, these costs have fallen over time. Some providers have also acknowledged benefits linked to the code, such as marketing opportunities. However, it's recognised that the code is not yet fully implemented by ISS providers and there's more engagement work to be done. Business and design cycles need to be considered as part of this, as providers may wait to retire legacy products before making significant changes. We need to ensure providers have sufficient information and support to makes these changes swiftly.

Parents and schools can help drive the ambitions of the code

Our research found about a fifth of children are familiar with the code and a third are aware of data privacy. These are good results showing the code is already empowering some children to have awareness about their data.

Parents play a key role in achieving the ambitions of the code. Creating a safe space online for children to learn, explore and play cannot be achieved by regulatory intervention alone. With only one in five parents having heard of the code and one in two parents helping children circumvent age restrictions, there is more that can be done to increase parental knowledge of children's data privacy and data protection harms.

The role of schools and teachers is also pivotal. There has been success in raising high-level awareness, with around 90% of schools highlighting issues related to data protection and the code to pupils, and 72% of teachers reporting an awareness of the code. There is more to do to improve the level of detail covered by schools, and opinions are divided on the quality of the code-related resources available to schools.

What have we learnt about processes?

Process learning should be expected from any policy intervention and particularly in this case because the Children's code was the ICO's first statutory code of practice under the Data Protection Act 2018. A range of learning points have been identified, including around:

- resourcing;
- engagement;
- impact assessment;
- publicising code-related activities;
- expectation management linked to enforcement; and
- multi-phase governance.

It was positive to see that actions were already in place to remedy some process evaluation findings.

The ICO's leading position comes with some challenges

Challenges related to the practical application of the code are to be expected, particularly as the code is at the forefront of a novel and evolving area of regulatory intervention. The ICO's leading position requires it to engage appropriately with these nuances and provide clarity to organisations on how they are expected to comply.

This has resulted in enforcement activities related to the code being perceived by external consultees as not progressing at the scale or rate that they would like to see. Regulation exists on a spectrum, which starts with tools such as upstream work and audits before progressing to enforcement where necessary. Enforcement, linked to the underlying law, is also multi-layered and ranges from warnings and reprimands to enforcement notices and fines. The ICO is working through this spectrum whilst clarifying some of the nuances about the practical application of the code.

The policy landscape is evolving relatively quickly requiring close engagement with other regulators developing children focused codes both domestically and internationally. The ICO is also working with government on legislative reform for the UK's data protection laws, which could result in changes being required to some code standards.

A catalyst for change

Overall, people have welcomed the code as a solid first step in the UK policy landscape in protecting children's privacy and reducing data protection harms.

The foreword of the code states: "A generation from now, I believe we will look back and find it peculiar that online services weren't always designed with children in mind." A little over two years after the launch of the code, it has certainly proved a catalyst to having online services designed with children in mind.

With the full impact of the code still to be realised, the ICO's Children's Privacy Board will now consider this evaluation report closely. The Board aims to use the lessons learnt to inform future work about the Children's code and wider learnings for the ICO, in line with organisational priorities and available resources.

1. Introduction

1.1. About the code

The Children's code (the code)[1] is a statutory code of practice that articulates how online services likely to be accessed by children should comply with the UK General Data Protection Regulation (UK GDPR) and the Privacy and Electronic Communications Regulations (PECR) when using children's data. The code is a set of 15 standards that support industry to recognise and cater for the fact that children warrant special protection in how their personal data is used, whilst also offering opportunities to explore and develop online. It ensures that the best interests of the child are a primary consideration when designing and developing online services.

The Information Commissioner's Office (ICO) developed and launched the Children's code between 2018 and September 2020. The code (formally known as the Age Appropriate Design Code or AADC) applies to information society services (ISS) [2] that are likely to be accessed by children. The production of the code was a statutory requirement set out in section 123 (s123) of the Data Protection Act 2018 (DPA 2018).[3]

It should be noted that the requirement to produce the code was a late amendment during the drafting of the DPA 2018 with little preparatory warning to the ICO. This resulted in an 18 month development period starting from first principles, including all preliminary scoping. This context is important when considering the lessons learnt throughout the report.

The code is viewed as a ground-breaking approach to protecting children's rights in the digital world, and when launched was generally recognised as the first regulatory intervention of this nature globally. The code applies to any ISS provider that processes the data of children in the UK, including some organisations that are not based in the UK.[4]

The code has been a strategic priority and significant stream of activity for the ICO since 2018. Key milestones have included:

[1] ICO (2020) Age appropriate design: a code of practice for online services. Available at: https://ico.org.uk/for-organisations/guide-to-data-protection/ico-codes-of-practice/age-appropriate-design-a-code-of-practice-for-online-services/ (Accessed: 17 February 2023).

[2] See Services covered by this code | ICO for more information (Accessed: 17 February 2023).

[3] Data Protection Act 2018. Available at: https://www.legislation.gov.uk/ukpga/2018/12/section/123/enacted (Accessed: 17 February 2023).

[4] See Services covered by this code | ICO for more information on how the Code applies to services based outside the UK (Accessed: 17 February 2023).

- design, drafting, consultation and legislative period March 2018 to July 2020;
- code came into force 2 September 2020;
- transition period September 2020 to September 2021; and
- From 2 September 2021 the Commissioner began to take the code into account when considering whether an online service has complied with its data protection obligations under the UK GDPR and the PECR.

1.2. What's this evaluation?

As part of the process of laying the code before the UK Parliament, a commitment was made to conduct an evaluation.

> "At the request of the Secretary of State, the ICO has committed to undertaking a review of the Code one year following its coming into force to assess the efficacy of the Code."[5]

The code's impact assessment also reiterated this commitment to evaluation.[6]

> "The Commissioner has committed to reviewing how effectively the code is working and whether the costs and benefits are in line with expectations one year after the end of the transition period. This is in line with standard good regulatory practice."

This evaluation report meets that commitment, as well as providing learning points for the ICO. The evaluation also helps the ICO in meeting its requirement to have regard to the Regulators Code, in terms of how it decided to develop and implement the Children's code, which states:[7]

[5] HM Government (2020) Explanatory memorandum to the Age Appropriate Design Code 2020. Available at: https://www.gov.uk/government/publications/explanatory-memorandum-to-the-age-appropriate-design-code-2020-2020/explanatory-memorandum-to-the-age-appropriate-design-code-2020-2020#monitoring--review (Accessed: 8 February 2023).

[6] ICO (2020)Age appropriate design: a code of practice for online services – impact assessment. Available at: https://ico.org.uk/media/about-the-ico/documents/2617988/aadc-impact-assessment-v1_3.pdf (Accessed 8 February 2023).

[7] BIS (2014) Regulator's Code. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/913510/14-705-regulators-code.pdf (Accessed: 17 February 2023).

"Regulators should review the effectiveness of their chosen regulatory activities in delivering the desired outcomes and make any necessary adjustments accordingly."

This evaluation combines both process and impact approaches following HM Treasury Magenta Book[8] standards. While impact evaluation concentrates primarily on the changes brought about by the code, process evaluation focuses on the internal systems and procedures used to deliver the code. Process evaluation adds value by generating structured information and recommendations that help to improve the future effectiveness and efficiency of interventions similar to the code and wider policy learning in the ICO.

Our evaluation covers just over two years of the code's implementation. Given the longitudinal nature of impact linked to an intervention with the scope and scale of the code, now is an apt time to reflect on process learning alongside initial impact findings.

The evaluation has been undertaken by the ICO's Economic Analysis – Impact and Evaluation team. Whilst we recognise that this is an internally delivered evaluation, the team were not directly involved in the development or implementation of the code itself, which helps provide objectivity.

1.3. Evaluation approach

Our evaluation approach follows the standard set by the Magenta Book.[9] A good evaluation is useful, credible, robust, proportionate and tailored around the needs of various stakeholders, such as decision-makers, users, implementers and the public.

Our evaluation is designed using a theory of change approach and this is reflected in the structure of this report.

The theory of change illustrates how and why the desired change is expected to happen in a particular context. It does this by exposing the assumptions upon which the intervention is based, examining the wider context, setting out all the steps of the intervention, and outlining how these contribute to achieving the desired outcomes and impact.

[8] HM Treasury (2020) Magenta Book. Available at: https://www.gov.uk/government/publications/the-magenta-book (Accessed: 17 February 2023).

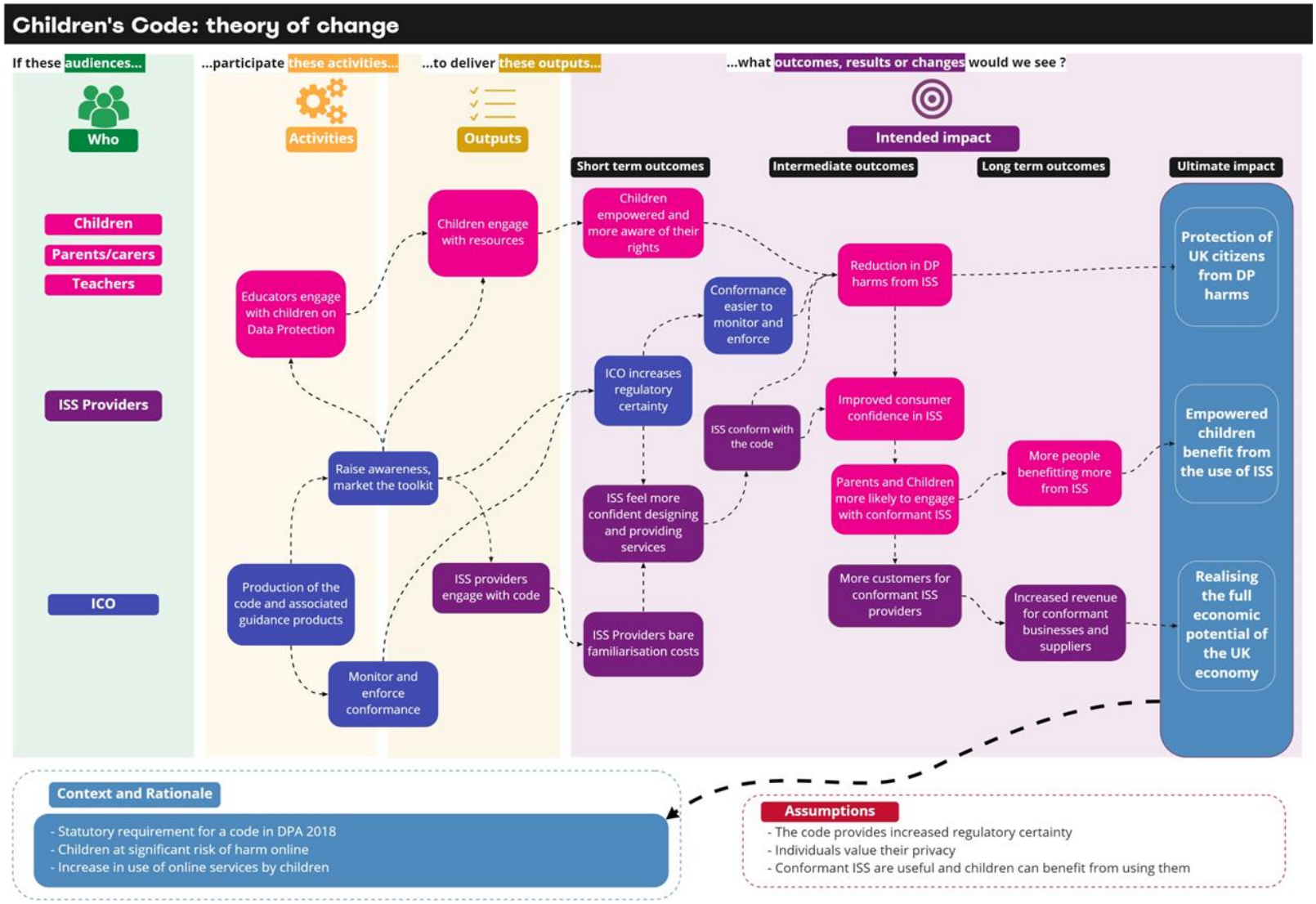
[9] HM Treasury (2020) Magenta Book. Available at: https://www.gov.uk/government/publications/the-magenta-book (Accessed: 17 February 2023).

Figure 1 demonstrates the theory of change logic chain for the Children's code in line with Magenta Book guidance.

Our evaluation evidence collection used a mixed methods approach, combining both qualitative and quantitative research methods to answer both impact and process questions. Table 10 in Annex A sets out the evidence sources that underpin our analysis and synthesis, demonstrating the wide variety of perspectives and sources that we have taken into account.

Annex A sets out our approach to evaluation in more detail. This covers the evaluation timeline, evidence sources, evaluation questions, and the theory of change.

Figure 1: Children's code theory of change



Source: ICO Economic Analysis.

1.4. Context and rationale revisited

Understanding the context in which the code was developed and implemented is an important factor in assessing the impact of the code. It helps to illustrate the rationale for the code and the problem it was seeking to address. It also provides a basis for assessment of whether the rationale is still accurate given the passage of time.

Annex B explores in detail the updated evidence base related to the context and rationale for the code. The key messages from this analysis are presented here.

- The main changes to the policy and legal context since the code's design were from the UK's withdrawal from the EU, shifting objectives and delays to related legislation (Online Safety Bill, Digital Economy Act) and internal policy changes (ICO25 and launch of the Policy Methodology Framework). Although these shifted the context, it remained supportive of and well-aligned with the code.
- The socioeconomic conditions in 2018 provided a robust justification for the implementation of the code. Although the evidence on the number of organisations in scope was limited, the evidence on the prevalence of data protection harms[10] provided sufficient evidence to justify intervention.
- The socio-economic context in terms of online activity has changed since the initial design and drafting of the code. Children's online activity increased significantly during the COVID-19 pandemic, and while it may have reduced somewhat since, the rationale for the code has been enhanced, ultimately strengthening the need for the code.

Overall the rationale for the ICO's intervention was set via a statutory code of practice directed by the UK Parliament. It was Parliament's view that leaving matters to the underlying legislation (UK GDPR, PECR) was not sufficient. A more specific explanation of how the legislation applies in the context of ISS likely to be accessed by children was required. As the code was mandated by Parliament in s123 DPA 2018[11] the Commissioner did not have an option to consider alternative action or other forms of regulatory intervention. Also some of the scope and content of the code was directed by both the specifics of the legislation and a list of non-binding terms set by Government, which further limited the options available to the Commissioner.

From the ICO's perspective, the statutory requirement provides a sound rationale for the code. The existence of potential data protection harms, the

[10] For more information on data protection harms, see: ICO (2022) Overview of Data Protection Harms and the ICO's Taxonomy. Available at: https://ico.org.uk/media/about-the-ico/documents/4020144/overview-of-data-protection-harms-and-the-ico-taxonomy-v1-202204.pdf (Accessed: 23 March 2023)

[11] Data Protection Act 2018. Available at: https://www.legislation.gov.uk/ukpga/2018/12/section/123/enacted (Accessed: 17 February 2023).

increase in children's use of online services and supportive policy and legal context further strengthen the rationale and confirm its continued relevance.

1.5. Report structure

The remainder of the report is structured as follows:

- Section 2 discusses the learning from the process evaluation;
- Section 3 reflects on code engagement and awareness;
- Section 4 assesses the delivery of outputs and outcomes;
- Section 5 provides an assessment of impact; and
- Section 6 concludes with a summary, lessons learnt, and future steps.

It is supported by a number of annexes:

- Annex A sets out our approach to the evaluation;
- Annex B reviews the context and rationale for the code;
- Annex C provides a summary of our open consultation on the evaluation of the code;
- Annex D provides an overview of the survey research carried out to support the evaluation;
- Annex E summarises the standards of the code for reference; and
- Annex F provides a glossary for evaluation and other Children's code related terms and abbreviations used in this report.

2. Process evaluation – lessons learnt

The ICO's delivery of its statutory obligation to produce the code can be characterised into three distinct streams of activity:

- design and drafting of the code;
- initial implementation of the code via a transition period[12] and ongoing implementation; and
- supervision and enforcement of the code.[13]

This section presents the learnings from the process evaluation evidence. Process evaluation looks at how the code was delivered and provides valuable information to improve the delivery of future ICO activities. This section includes a range of highlighted learning points.

2.1. Process evaluation key messages

The key messages on the delivery of the code are summarised below:

A range of process learnings should be expected from any policy intervention and even more so in this scenario, as the Children's code was the ICO's first statutory code of practice under the DPA 2018. Reflecting on process learning is a key aspect of Magenta Book evaluation to ensure lessons are learnt to enhance the effectiveness and efficiency of future delivery.

Inputs: the code was successfully delivered within the timescales. Overall in terms of inputs, it was felt that the transition period was adequately scoped despite challenges around staff turnover. The design and drafting period was considered under scoped where a contributing factor was the timeline created by the government. And the resources for the ongoing supervision and enforcement period now meet expectations after an initial slower than anticipated integration into 'business as usual' delivery.

Governance: this was considered appropriate but enhancements could be made for future similar activities. Governance considerations for a multi-phase initiative should recognise the need to provide continuity across phases. They should also ensure that any arrangements have options for continued oversight of issues that arise after delivery of the initial objectives.

Wider learning points: these related to engagement, content, impact assessment, publication, and enforcement.

[12] Internally, this was referred to as 'Operation Lander'.

[13] Internally, this was referred to as 'Operation Valency'.

2.2. Code delivery inputs

Table 1 provides a summary of the learning points related to inputs in the context of the resource requirements used in the production and implementation of the code. Where positive actions have already been taken to remedy some of these learning points they are noted.

Table 1: Process learning inputs

Topic	Detail
Timings	Internal interviews revealed that timings for the development and implementation (in particular during design and drafting) were the biggest challenges for the code. • Since the timescales and precise content of the DPA 2018 and s123 were not within the control of the ICO, the ability to influence these had limits. As already highlighted, the requirement to produce the code was a late amendment during the drafting of the DPA 2018 with little preparatory warning to the ICO. This resulted in an 18 month development period starting from first principles. All parties involved should reflect on the need for earlier and more detailed engagement as is currently being done in relation to proposed data protection reform[14] where the ICO is working closely with government to ensure reforms are deliverable. • The ability of the team to deliver within these timescales was a huge achievement for the organisation. Internal interviews reported that this work demonstrated the ICO's ability to deliver at speed and have helped inform other activity delivery. The lessons learnt have fed into the design of projects now referred to internally as PACE team projects.
Integration and expectation management	For the supervision and enforcement phase, there were initial resource challenges around the integration of Children's code activities into 'business as usual'. Also, there could have been greater external expectation management around supervision and enforcement activities, as these were only possible once the transition period ended. And given the novel nature of the code, it takes time to engage and learn.

[14] DCMS (2022) Data Protection and Digital Information Bill. Available at: https://bills.parliament.uk/bills/3322 (Accessed: 22 February 2023).

Project documentation	Our review of project documentation and wider feedback demonstrated room for improvement around project implementation documentation and continued record management, including forecast and actual resource allocation. • The introduction of the Regulatory Policy Methodology Framework[15] in 2021 and the resulting ongoing standardisation of the policy making process should help to address some of these issues going forward.
Strategic oversight consistency	Evidence from consultees suggested scope for enhancement of the strategic oversight as the code progressed between the 'design and drafting', 'transition', and 'supervision and enforcement' phases. Changes in personnel and varying approaches to resource management resulted in inconsistencies.
Skill – gaps and resilience	Consultee feedback on resourcing highlighted specific skills gaps. • Key gaps identified included technology professionals with awareness of how ISS providers operate as well as supporting technology (eg age assurance technology). In addition, further communications and engagement skills were identified as needed. • There was also a key concern around how knowledge and experience are embedded within the organisation, so that it is not lost when a project or phase finishes.

Source: ICO Economic Analysis.

Overall in terms of inputs, it was felt that the 'transition period' was adequately scoped (with challenges mainly due to staff turnover) but that the 'design and drafting period' was under scoped where a contributing factor was the timeline created by the government. And the resources for the ongoing 'supervision and enforcement period' have met expectations now after an initial slower than anticipated integration into 'business as usual' delivery.

[15] ICO (2023) Regulatory Policy Methodology Framework. Available at: https://ico.org.uk/media/about-the-ico/policies-and-procedures/2619767/regulatory-policy-methodology-framework-version-1-20210505.pdf (Accessed: 21 February 2023).

2.3. Governance

Given this was a new type of policy product for the ICO under the DPA 2018, there was not a ready-made governance structure. The high profile nature of the code meant that it had a relatively high level of Commissioner and Executive Team input from the start. This meant that for the design and drafting of the code there was not a formal project or programme board set up.

This gap was acknowledged as a shortfall given the profile and subject matter of the code and, as a result, a formal board was set up for transition and enforcement. There was also an external working group set up (the Children's Advisory Panel) with members of civil society and industry. As the transition period ended, there was a gap identified in terms of oversight of emerging and existing children's privacy policy. In January 2023, the internal Children's Privacy Board was set up to fill that gap.

The creation of the Children's Privacy Board was welcomed by internal interviewees. This was seen to address a number of issues around governance as well as providing continuity for the policy area.

Process learning: governance considerations for a multi-phase initiative should recognise the need to provide continuity across phases. They should also ensure that any arrangements have options for continued oversight of issues that arise after delivery of the initial objectives.

2.4. What can be learned from how the code was delivered?

Beyond the input and governance reflections highlighted above, here we summarise wider reflections on the code's delivery learnings related to engagement, content, impact assessment, publication, and enforcement.

2.4.1. Engagement on the design of the code

Section 123 of DPA 2018 required the ICO to consult before preparing the code, specifically noting the following groups for inclusion:

- Secretary of State;
- children and parents;
- representatives of the interests of children;
- child development experts; and
- trade associations.

To help meet this requirement and inform the development of the code, the ICO held a six month call for evidence from June to December 2018, receiving 97 responses.[16] Respondents included bodies representing the views of children or

[16] Full responses are available to read on the ICO website.

parents, child development experts, providers of online services likely to be accessed by children, and trade associations. Alongside the call for evidence, the ICO commissioned research to understand the views of children and their parents on the code.[17] This initial engagement shaped the drafting of the code. Once the code was drafted, the ICO then ran a public consultation on the draft between 15 April and 31 May 2019, receiving more than 446 written responses.[18]

The call for evidence and public consultation were some of the largest engagement exercises the ICO had ever undertaken. Internal interviews report that this was a significant ask, particularly within the timescales and that ideally, more time and resource would have been needed to fully understand and incorporate the views of such a wide range of stakeholders.

The ICO already had a strong working relationship with the Secretary of State through DCMS and drew on this for consultation where necessary. The views of DCMS were most relevant when understanding the needs of large ISS providers and the process for laying the code before Parliament which was more resource intensive given it was the early statutory codes that the ICO had laid.

Other key stakeholders for the code included parliamentarians[19] and civil society groups (such as 5Rights and the NSPCC). The ICO engaged regularly with these stakeholders throughout the development of the code and internal interviews suggested this required a careful balancing act in terms of the impartiality of the ICO.

Overall, the engagement process was viewed as successful given the context and time pressures. Though it was acknowledged by consultees that there were opportunities for improvement, such as:

- more formal and structured engagement routes with clearly defined remits; and
- using engagement to enhance the evidence base on the use of data processing and data protection implementation of those likely to be affected organisations.

Process learning: when embarking on future policy interventions, there should be a proportionate allowance in terms of time and resource for engagement at

[17] Revealing Reality (2019) Towards a better digital future Informing the Age Appropriate Design Code Available at: https://ico.org.uk/media/about-the-ico/consultations/2614763/ico-rr-report-0703.pdf (Accessed: 21 February 2023.

[18] A summary of the consultation responses is available on the ICO's website.

[19] This included Baroness Kidron who was responsible for proposing the amendment to DPA 2018 to set standards for age-appropriate design, see UK Parliament Baroness Kidron's amendment, Clause 8. Available at: https://bills.parliament.uk/bills/2158/stages/10007/amendments/8208 (Accessed: 19 February 2023).

the design stages. Careful consideration should be given to who is engaged, particularly those parties likely to be affected, what their remit is, and any likely risks to the ICO and resulting mitigation required.

Process learning: ensure engagement strategies include structures to gather sufficient evidence to enhance understanding of the types of data processing undertaken by likely to be affected parties to robustly inform the content of policy development.

2.4.2. The content of the code

The code specifies requirements which providers of ISS must meet if their products are likely to be accessed by under 18-year-olds in the UK. These requirements are formulated into 15 high-level standards described in Annex E.

Internal and external interviews indicated that the content and drafting of the code were largely well received. The main areas where a lack of clarity was highlighted were in identifying the organisations in scope of the code and age assurance, specifically:

- What ISS means: the term derives from EU legislation from 2015[20] and is fairly broadly defined (see Section B.4 of Annex B). The legislation includes reference to a non-exhaustive list of services not covered by the definition but these have quickly become outdated (eg reference to CD-ROMs) and make it difficult to apply to the modern online world. This left questions such as whether EdTech providers fall within the scope of the code which the ICO is now working to address.
- What likely to be accessed by children means: the code uses the terms 'significant' and 'substantive and identifiable' to assist in understanding 'likely to be accessed' but these are not themselves defined and have not resolved the uncertainty for the scope of the code, particularly where it relates to services not aimed at children. The ICO is working on guidance and resources to remedy this issue.
- How to conform with the age assurance requirements: industry and civil society stakeholders continue to raise concerns with how to implement effective measures to estimate or verify the age of service users. This led the ICO to publish a Commissioner's opinion on age assurance for the code.[21] Additionally, some consultees felt that this was a prerequisite to

[20] European Commission (2015) Directive 2015/1535/EC. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L1535 https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1998L0034:20070101:EN:PDF(Accessed: 21 February 2023).

[21] ICO (2021) Age Assurance for the Children's code. Available at: https://ico.org.uk/media/about-the-ico/documents/4018659/age-assurance-opinion-202110.pdf (Accessed: 9 March 2023)

the code and the issue could have been explored more, by all relevant stakeholders, prior to creating and developing the requirement.

Internal interviewees suggested that additional attention was drawn to these issues because of the gaps (specifically around online content harms) left by delays to the implementation and delivery of related legislation, such as the Online Safety Bill and Digital Economy Act (see Section B.3 of Annex B). Flexibility also needed to be built into the code to allow the Online Safety Bill to take the appropriate form limiting the risk of inconsistencies. Delays to the Bill have meant the code has increasingly been expected to address harms it wasn't specifically designed for, such as content harms.

The specific areas of the code that this related to were standard 3 on age appropriate application and the section on "Services covered by this code". Standard 3 was an area where a change of stance was made following consultation feedback on the initial draft of the code. Consultee feedback suggested there was an unanticipated level of engagement and strength of views on these areas.

Process learning: external factors can impact the implementation of an intervention as intended through changing stakeholder expectations. In this case, the slower than anticipated delivery of the Online Safety Bill has had unintended consequences for the code, as stakeholders have sought to address content harms (which it is not designed for) through the application of the code's data protection standards.

2.4.3. Impact assessment

An impact assessment (IA) was developed to support the implementation of the code alongside its laying before parliament, having been specifically requested by the Secretary of State. Prior to this the view (both internally and externally) was that an IA would not be required as this was seen to be the responsibility of government when adding s123 to DPA 2018. When it was requested, the ICO was therefore not adequately prepared and lacked the necessary time and resource to conduct robust bespoke research and analysis.

Despite these factors the IA was well received and met the necessary benchmark to enable the code to be laid before parliament. That said, internal interviews reported that the analysis had to be based on best estimates and was not supported by bespoke research which has led to a limited understanding of the impacts and organisations in scope of the code. Trying to fill these evidence gaps is an area of ongoing priority for the ICO.

Process learning: proportionate impact assessment work requires early engagement to ensure clarity around responsibility and adequate time to fulfil any primary research needs.

2.4.4. Publication of the code

The Information Commissioner submitted the final version of the code to the Secretary of State for Digital, Culture, Media and Sport on 22 November 2019, who then laid the code before Parliament on 10 June 2020. The ICO issued the code on 12 August 2020, for it to come into force on 2 September 2020.

This was a new process for the ICO given it was one of the first statutory codes of practice to come out of DPA 2018. Although the strong working relationship with DCMS helped, internal interviews reported that publication was particularly challenging given the timing and resource constraints. The necessary timelines required to engage, develop, design, consult, and publish statutory codes need to be realistic and should be born in mind in future.

The code was formally published as the Age Appropriate Design Code but has since been referred to, almost exclusively, as the Children's code.

- Internal interviews report that this was a positive move and significantly raised the awareness and perceived accessibility of the code.
- External interviews with stakeholders acknowledge the awareness raising benefits but suggest that this has come at the cost of clarity of the code's scope. One stakeholder noted that this could have caused some of the issues around mismatched expectations of the code in tackling content harms (which it was not designed for) and a perception that it is mainly for younger children, not acknowledging that is also applied to teenagers.

Process learning: the importance of names and clarity around the justification for names of policy products should be taken into consideration for future policy products.

2.4.5. Supervision and enforcement delivery

Given the legal sensitivities around supervision and enforcement activities we have necessarily been prudent about the level of narrative we can provide on this aspect of code delivery.

Once the transition period ended in September 2021, the ICO was able to consider the code and conformance with it for compliance decisions.

- Evidence from evaluation consultees suggested there were initially some misconceptions about how the code related to GDPR. Clarification was

provided to ensure there was a common understanding of the role of the code, which provides guidance about what GDPR means in practice but does not set law itself.

- Work to clarify policy positions on issues such as age assurance and likely to be accessed (as explained in Section 2.4.2) made it more difficult to carry out supervision and enforcement activity in the short term.
- There has been some targeted intelligence gathering and audit activity, and supervision activity is ongoing. There were 13 ongoing investigations at the time of drafting. External consultees highlighted that there had been no significant punitive enforcement activity, as yet, which has impacted on external perceptions of the code as a tool. External consultees also reported low awareness of the supervision activities that have been carried out.

Externally, there is a general perception that there could be more pace to enforcement and until significant enforcement activity takes place (such as an enforcement notice or penalty) that is linked to non-conformance with the code, ISS providers may not take the code seriously and delay adopting measures to improve conformance.

Process learning: the ICO has published some outputs from supervision activity[22, 23] (such as sector sweeps, audit summaries and certification) but awareness of these outputs is low. It should consider greater awareness raising and proactive publication of more of its supervision activity related to the code in a coordinated and easy to find manner. This is likely to improve perceptions of the code, raise awareness of the standards and encourage compliance.

[22] ICO Age Appropriate Design Code Audits. Available at: https://icosearch.ico.org.uk/s/search.html?collection=ico-meta&query=%22The+ICO+has+carried+out+an+Age+Appropriate+Design+Code+audit+of%22&profile=_default (Accessed: 16 March 2023).

[23] ICO (2023) New guidance to industry issued for game developers on protecting children. Available at: https://ico.org.uk/about-the-ico/media-centre/news-and-blogs/2023/02/new-guidance-to-industry-issued-for-game-developers-on-protecting-children/ (Accessed: 16 March 2023).

3. Code engagement and awareness

Engagement activities are key to driving some of the logic-chain set out in the code's theory of change (see Figure 1) to create, maintain, and increase awareness of the code to drive the outcomes explored in Section 4.

In this section, we cover:

- awareness raising activities – guidance and approaches;
- website interactions;
- awareness amongst ISS providers; and
- awareness amongst children, parents, and teachers.

This section includes a range of highlighted learning points.

3.1. Engagement and awareness key messages

The key messages on awareness and engagement are summarised below:

Awareness statistics: the most recent awareness statistics showed mixed results across affected groups.

- Three in four ISS providers have familiarity with the Children's code with no substantial increase between 2021 and 2022.
- The share of parents who had heard of the Children's code before went from 29% in 2021 to 20% in 2022.
- Children's awareness also declined from 29% to 20% between 2021 and 2022.

Engagement summary: Targeted engagement to raise awareness and adoption of the code's standards was successful. Large ISS providers engaged proactively with the code and 72% of teachers reported an awareness of the code. Wider engagement has been more challenging with one in four relevant ISS providers not familiar with the code and only 14% reporting a detailed understanding of it. Only one in five children and parents had heard of the code. This suggests that the momentum that the Children's code had when it was launched has been somewhat fading. Wider engagement was reportedly held back by procurement and administration challenges.

ICO awareness: familiarity with the ICO by ISS providers has somewhat declined (69% in Q4 2022 compared to 75% in Q1 2021). Awareness of the ICO also declined amongst both children and parents over the monitoring period.

Learning points: a range of lessons learnt were highlighted linked to awareness and engagement. These included considerations around the website architecture

for collating code materials, using the insights from engagement metrics, and target setting.

3.2. Awareness raising activities – guidance and engagement approaches

3.2.1. Guidance and tools

The ICO published a range of guidance and tools to support the implementation of the Code. This has included the Opinion on Age Assurance[24] in October 2021 and the Children's code design guidance[25] in August 2021 (see Figure 11 in Annex A for timeline), introductory guidance for small businesses, as well as the best interests of the child self-assessment, the design conformance tests, the self-assessment risk tool, school resources, and more.

Internal interviewees report that the development of the supporting guidance has provided a very useful base for raising awareness and adoption of the standards of the code. It has enabled engagement with a broad range of stakeholders, by providing general guidance, as well as more tailored support to meet specific needs.

Some of the guidance and tools supporting the code have been developed in response to emerging stakeholder needs and arising policy issues. This has resulted in an inconsistent approach to publication and external stakeholders reported it being difficult to find the resources.

Learning: materials themselves were well-received but consideration should be given to an alternative approach to the collation of code-related resources and the website architecture. This should consider the external user experience of searching for, finding, and accessing code resources and associated materials.

3.2.2. Targeted engagement

Between September 2020 and December 2022, the ICO held 56 stakeholder engagement meetings and events related to the code. These included workshops, webinars, forums, conference appearances, panels and 1:1 meetings. Across the events where attendance was recorded, there were an average of 90 attendees.

Table 2 summarises the primary themes from the evaluation's evidence base

[24] ICO (2021) Information Commissioner's opinion: age assurance for the Children's code. Available at: https://ico.org.uk/media/about-the-ico/documents/4018659/age-assurance-opinion-202110.pdf (Accessed: 21 February).

[25] ICO (2021) Children's code design guidance. Available at: https://ico.org.uk/for-organisations/childrens-code-hub/childrens-code-design-guidance/ (Accessed: 22 February 2023).

around targeted engagement, much of which relates to the 'transition' phase. Overall this targeted engagement was considered successful, particularly given the context of COVID-19.

Table 2: Targeted engagement reflections

Topic	Detail
A need to move online	The 'transition' phase was originally designed to include a range of in person events but the COVID-19 pandemic prevented these from happening as envisaged. The team worked to bring the activity online and held many of the planned activities virtually. Internal interviews suggest that this was successful and in a number of cases proved more successful than they would have been offline. This was due to the ability to draw in a wider pool of stakeholders (including ISS providers based in Europe and North America who offered services to children in the UK) as well as a significant reduction in costs, such as venue hire and travel.
Creating impact efficiently	Members of the delivery team worked with other relevant teams, such as the Digital Economy Team, to identify areas where the greatest impact could be achieved most efficiently (for example working with large tech platforms). Internal interviews suggests this was particularly successful and should be replicated in future.
Barriers in reaching children and parents	It was acknowledged during the transition period that reaching parents and children would be difficult, relative to ISS providers with a vested interest in remaining compliant. Through early engagement with parents and stakeholders involved in children's safeguarding activities, and through feedback from baseline surveys of parents and children, schools were identified as a key route for engagement. This was due to the trust parents and children place on information that comes through schools. The ICO worked on developing a set of bespoke teaching materials and lesson plans to provide to teachers and schools to promote the standards within the code and raise awareness of children's privacy rights and how to protect their personal data online. Internal interviews report that this was very successful and allowed the ICO to reach a huge number of children and parents much more efficiently than going out to them directly.

Source: ICO Economic Analysis.

Learning: the targeted engagement for the transition period was viewed successfully by internal interviewees and should be considered as a good practice approach going forward.

3.2.3. Wider engagement

Feedback from industry bodies to the ICO suggested that a different approach from standard ICO methods was required to raise awareness of the code and ICO guidance amongst SMEs. Industry research (see Annex D for detail) confirmed that awareness amongst micro businesses and SMEs was lower than average. Discussions with industry bodies identified the best route to reach small business was through the professionals who advise them, or directly in the media they read. In response the ICO planned to launch a targeted campaign during the transition period, and allocated budget for a test advertorial campaign to reach SMEs. However, the campaign was delayed by 18 months due to government changes in procurement rules related to advertising. The ICO's business case was signed off by the Cabinet Office and DCMS in late 2022, allowing the ICO to launch the campaign in early 2023.

Consultees suggested opportunities for enhancement around the ICO's routes to communicate and engage with broader audiences. Consultees believed that at times wider communications strategies amounted to publication on the website and social media campaigns that tended to reach an audience that was already engaged with data protection issues. It was suggested more novel approaches should be considered. One consultee provided the example of Ofcom using social media influencers to reach children.

In our socio-economic assessment (see Section B.4 of Annex B), we highlight that only three in ten UK households have dependent children. This is important context to consider when devising wider engagement activities beyond the direct target audience for the code.

Learning: consideration should be given to enhanced external communication approaches such as digital campaigns, via use of social media, or partner collaborations that allow the ICO to reach a greater variety of audiences, in the context of the code, that are not already engaged with data protection issues.

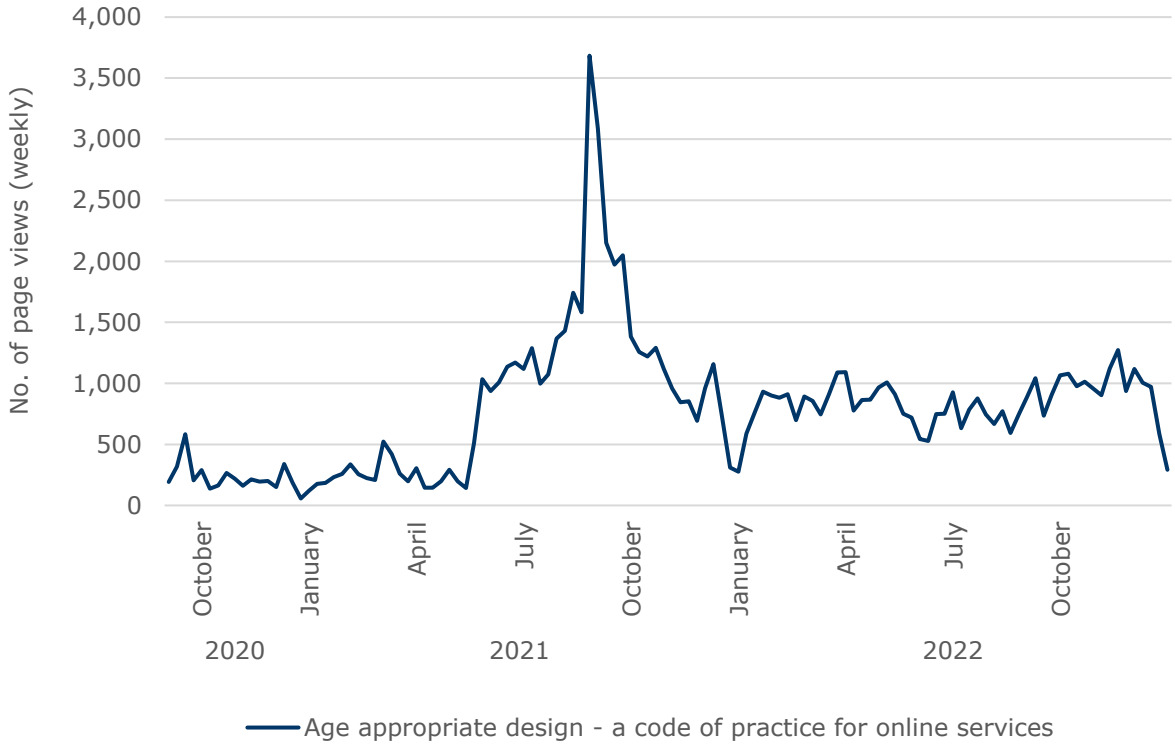
3.3. Website interactions

A key mechanism for understanding engagement with the code and helping our understanding of policy effectiveness is the ability to track online engagement metrics for the code and its related outputs. We have presented the available online engagement data below. However, it should be noted feedback from

internal consultees suggested opportunities for improvement around the tracking of online engagement metrics.

During the transition period (September 2020 to August 2021), the Children's code page was visited on average around 550 times per week. Engagement was initially around 250 weekly views, and from late May 2021 to the end of the transition period it kept increasing steadily. This uptick could not be matched to any specific stakeholder outreach event. Page views peaked on the last week of the transition period and the first week of the enforcement period, when the code page had more than 3,000 weekly visits. After that, page views normalised around c. 850 weekly visits.

Figure **2**: ICO Children's code webpage - weekly page views (30/8/2020 – 31/12/2022)



Source: Analysis of Google Analytics data by ICO Economic Analysis.

The Children's code had about 30,000 total page views during the transition period, and about 50,000 total page views in the first 12 months of the enforcement period. These numbers are considerably lower than those of the 'Data sharing code of practice',[26] which in its first 12 months since publication attracted over 115,000 page views. The lower engagement for the Children's code is likely due to its relevance to a more specific subgroup of organisations, while the 'Data sharing code of practice' is more obviously relevant to a much larger group of organisations.

[26] ICO (2021) Data sharing: a code of practice. Available at: https://ico.org.uk/for-organisations/guide-to-data-protection/ico-codes-of-practice/data-sharing-a-code-of-practice/ (Accessed 27 February 2023).

Table 3 shows that across the additional suite of resources published alongside the code the 'self-assessment on the best interest of the child' and the 'design guidance' had the most engagement. Views of the self-assessment peaked at over 1,000 page views in early May 2021, just a few weeks after publication.

The 'FAQs for the digital news industry' has the lowest views, at an average of twice per week. This is considerably less than the 31 weekly views that the 'FAQs on the 15 standards of the code' attracts. While the latter is applicable to a larger cohort, the low engagement of the former could suggest low awareness in the digital news industry.

Table 3: Code related output page views up to 31/12/2022

	Page views	
Page	**Total since going live**	**Weekly average**
Age appropriate design – a code of practice for online services	95,425	782
Best interests of the child self-assessment	6,125	149
Children's code design guidance	5,710	82
FAQs on the 15 standards of the Children's code	2,785	31
FAQs for education technologies EdTech and schools	956	13
Children's code self-assessment risk tool	357	10
FAQs for the digital news industry	241	2
DPIA tools	190	9
Total	**111,789**	**-**

Source: Analysis of Google Analytics data by ICO Economic Analysis.

Learning: insights from the engagement metrics for code related outputs should be monitored and reviewed periodically to understand what worked well and areas for improvement. This will enhance the effective use of resources for similar future activities.

3.4. Awareness amongst ISS providers

Awareness of the code and the ICO amongst ISS providers is shown in Table 4 below. This is based on three waves of baseline research commissioned by the ICO (see overview in Annex D).[27]

- Across waves, there was a relatively stable share of three in four ISS providers having familiarity with the Children's code. Given the small level of change in awareness since 2021, where the introduction of the code was more recent, this suggests a 'levelling off' effect now it has been two years since its introduction.
- Knowledge of the code is spreading through the industry channels, as evidenced by the fact that fewer ISS providers have first heard about it from the ICO directly.
- Familiarity with the ICO by ISS providers has somewhat declined (69% in Q4 2022 compared to 75% in Q1 2021).

Table 4: Overview of key stats from the IFF research on awareness of the code

Category	Baseline (Q1 2021)	Wave 1 (Q3 2021)	Wave 2 (Q4 2022)
Familiarity with the ICO	75%	73%	69%
Familiarity with the Children's code	73%	72%	75%
First heard about code from ICO as a source of information	45%	42%	30%

Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.[28]

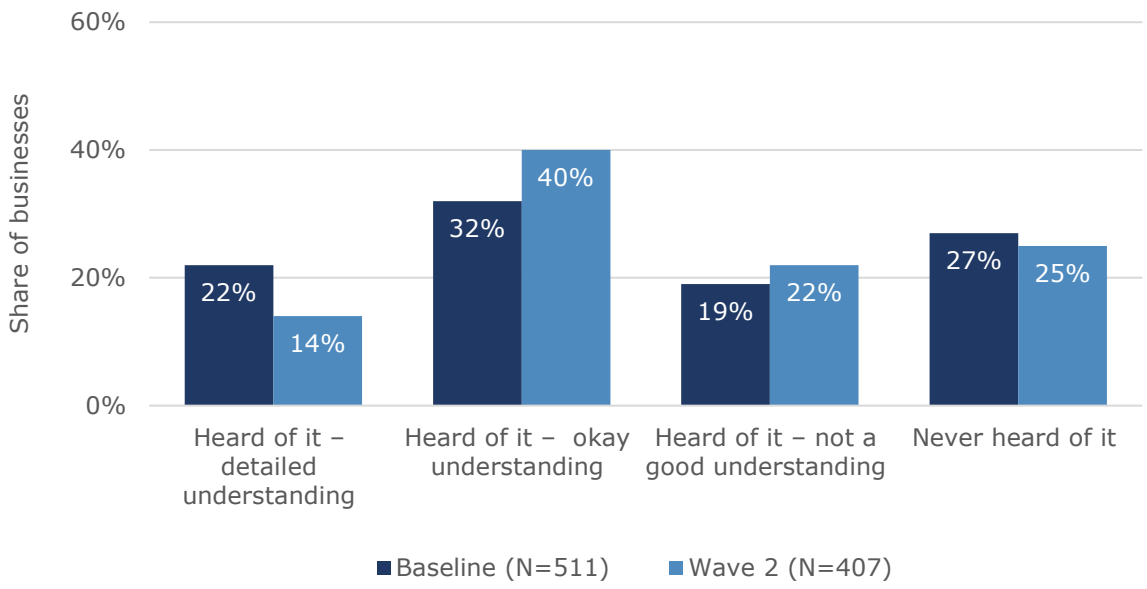
While familiarity with the code has overall increased over the tracking period, the level of understanding by ISS providers has declined to a notable extent, as shown in Figure 3 below. This could be a result of ISS providers engaging with the code when it was first published, and their understanding was fresher and more detailed then. With the passing of time, some of the detailed understanding was lost but the general awareness remains.

Learning: consideration should be given to approaches to maintain awareness and knowledge levels of the code, as time passes since its launch, especially with early engagers.

[27] These findings are based on the tracker research that the ICO commissioned to IFF, as part of monitoring and evaluation activities.

[28] There are some minor sample size variations between waves. Full detail on this can be found in the supporting IFF report.

Figure 3: Familiarity with the children's code



Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.

3.5. Awareness amongst children, parents, and teachers

Awareness of the code amongst both parents and children has decreased in the year to 2022. This is based on two waves of baseline research commissioned by the ICO (see overview in Annex D).[29]

- The share of parents who had heard of the Children's code before went from 29% in 2021 to 20% in 2022. Even when parents had heard of the code, they often did not have a clear idea of its purpose (74% had only 'a bit of an idea' of what the Children's code does and who it is for).
- Children's awareness declined from 29% to 20%.[30] Like their parents, the majority (71%) of children who had heard of the code in 2022 only had 'a bit of an idea' about its purpose. Most children learnt about the code through 'schools and teachers' (57%), followed by having 'heard about it online' (32%) or 'from their parents' (30%). Their parents had also heard about the code via the school and online.

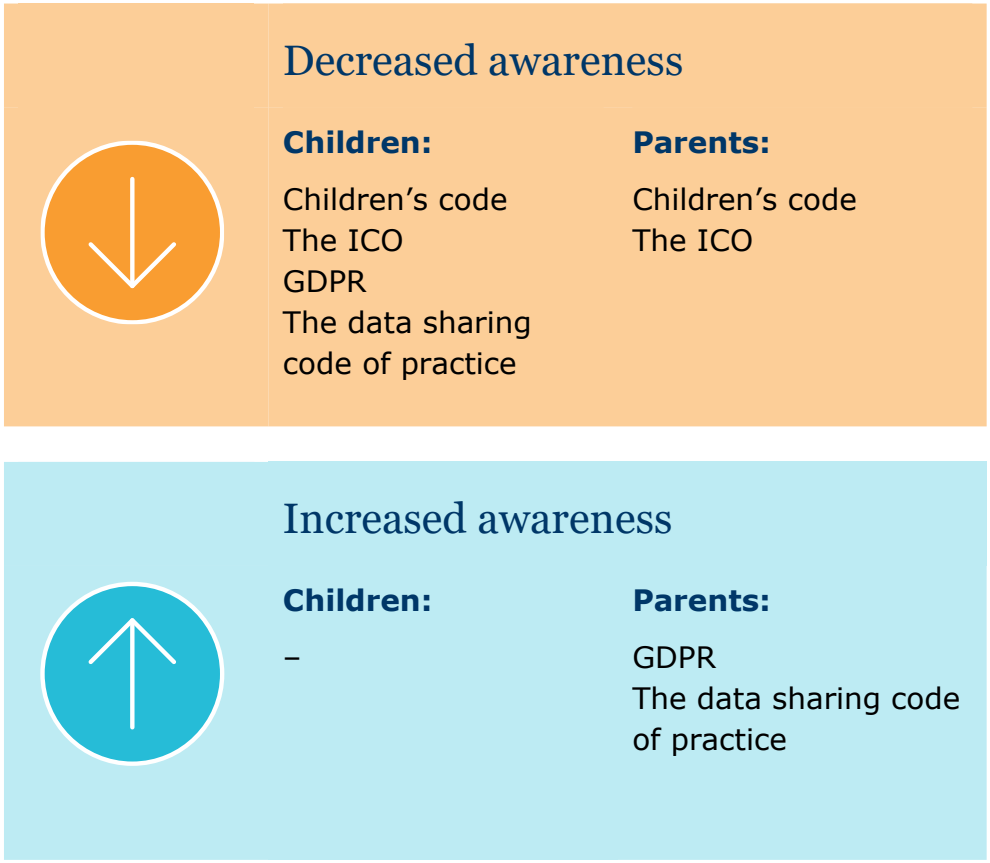
[29] These findings are based on the tracker research that the ICO commissioned to TIF, as part of monitoring and evaluation activities. The results were broadly supported by other evidence, including the research that the ICO commissioned to ParentZone.

[30] The parallel between parents and children is due to coincidence and rounding.

Awareness of the ICO also declined amongst both children and parents over the monitoring period.[31] Children in particular seem to have a declining awareness of data protection-related elements, as summarised in Figure 4.

It should be remembered that this is a comparative snapshot over a one-year period coming out of a global pandemic period, and does not signify a robust trend. It does, however, suggest that the momentum that the Children's code had when it was launched has been somewhat fading.

Figure 4: Change in awareness summary 2021-2022



Source: Analysis of parents/carers and children research (overview in Annex D) by ICO Economic Analysis (1,616 responses).

Schools and teachers are a key player in raising children and parents' awareness of the Children's code and data protection.

- In 2022, 72% of interviewed teachers were aware of code-related resources developed by the ICO.

[31] From 2021 to 2022, awareness of the Information Commissioners' Office went from 25% to 24% in parents and from 17% to 8% in children. Over the same period awareness of the ICO went from 16% to 14% in parents, and from 14% to 5% in children.

- However, two out of five teachers were not very confident in their knowledge of the Children's code and online data protection, which may have contributed to a less detailed teaching of these topics.
- Going forward, building up teachers' confidence on these topics will be key in increasing children and parents' awareness.

From internal interviews it emerged that some consultees thought that awareness levels from parents, children, and teachers were relatively low. Most consultees, however, could not comment on engagement with children and parents. There were no set goals around awareness and engagement levels, which makes evaluating the available statistics difficult.

It should be noted that before the Children's code there was no process in place for engaging with parents and children. Awareness research was then commissioned in 2020 by the relevant ICO delivery team. More broadly, it should be noted there is no core ICO function for engaging with audiences of this nature, meaning awareness issues are prevalent across the ICO rather than just related to the code alone.

Learning: early objective and target setting is an important part of monitoring and evaluation. In the context of the code, there was insufficient baseline evidence at the outset to set awareness targets. However, once a baseline was established, more formal target setting should have been considered as proportionate.

4. Assessment of outputs and outcomes

This section reports on the initial outputs[32] and outcomes[33] delivered by the implementation of the code and its associated activities. This section should be considered with reference to the code's theory of change (see Figure 1), which sets out the anticipated outputs and outcomes.

Given the timing of the evaluation, just over two years post the code's launch, it should be kept in mind that effecting significant or systematic change is often longitudinal. As a result outcome reporting will likely be skewed towards short to intermediate term outcomes.

This section includes:

- policy outputs and outcomes – age assurance, likely to be accessed, design guidance, data protection harms, and certification schemes;
- implementation of the code by ISS and conformance – understanding of the code and implementing changes;
- knowledge outcomes for children, parents, and teachers; and
- wider outputs and outcomes – international recognition and adoption, and changes by large online platform providers.

4.1. Assessment of outputs and outcomes key messages

The key messages on outputs and outcomes of the code are summarised below:

Policy outputs and outcomes: a number of policy issues have been clarified or otherwise developed since the code was issued. A number of these are still in development but are expected to improve regulatory certainty for a wide range of stakeholders in areas that might not otherwise have been addressed. Given some of the policy development has happened reactively in this area, related communications approaches could be enhanced to proactively communicate changes, and may be holding back some of the positive impacts of the policy interventions.

Outcomes for ISS providers: understanding of the contents and purpose of the code has decreased slightly from the baseline. Although ISS providers have a greater understanding of what needs to be done in order to conform, the

[32] Outputs are the tangible or intangible things that an intervention produces. They should act to 'spark change' or act as the catalyst for your identified outcomes. They are normally relatively easy to measure and can often be quantified, eg how many do we do or the number of outputs you create.

[33] Outcomes are the short to medium affects you are looking to have or the 'step changes', which need to occur in order to achieve your impact. These are often more difficult to measure than outputs, as they can frequently relate to perceptions, emotions or other internal states.

evidence suggests differences in perceived knowledge of the code and actual understanding of the code. In the most recent research, the proportion of ISS providers that have made changes recently linked to the code has decreased. It suggests that changes were driven by a 'flurry' of activity during the transition period and then a tail off with some ISS providers waiting until they see significant enforcement action before making changes. Many ISS providers tackled the easier changes first and then left more complex issues, such as age assurance, for later. Around half of ISS providers felt they would need to make further changes to become conformant. Many small businesses either did not have the time to make changes or, more commonly, to spend the time acquiring the knowledge and skills to do so. Consideration should be given to further solutions for small businesses experiencing time barriers.

Outcomes for education: there was high level success with around 90% of schools talking to children about the code and data protection and approximately 70% of teachers were aware of the available data protection school resources and the majority have accessed these resources. Despite this achievement, there is more work to do with approximately four in ten schools covering the topics in any detail. And only one in four teachers that used the resources found them child friendly. Overall, levels of satisfaction with these resources were poor with teachers providing a range of suggestion for improvement.

Outcomes for parents: Not all parents feel confident or informed about data privacy and protecting their children's data online is not always a top priority for parents. One in two parents helped their children to circumvent age restrictions and when parents evaluate the suitability of online services they are making decisions based on content rather than privacy. There is potentially an opportunity for the ICO to engage more with parents so they can make more informed choices about how their children's data is used online.

Outcomes for children: children had some knowledge and understanding of the code and related data privacy matters but at a generally high level. Terminology issues were a barrier increasing children's understanding. Taking opportunities to improve the resources and information available to children, including the schools resources, could empower children to ensure that they are making choices about their data in a more informed way.

Wider societal outcomes: the code has gained a level of international recognition and influence that wasn't initially anticipated. This is an unintended positive consequence that has greatly enhanced the code's route to impact. There is evidence of changes from the large online platforms linked to children's privacy and it is generally acknowledged the code was a contributing factor.

4.2. Policy outputs and outcomes

One of the key steps in the code's theory of change (Figure 1) is the earlier stage outcome of increased regulatory certainty from the ICO. Since the design and drafting of the code, the ICO has clarified a number of substantial policy issues and delivered associated outputs. These include matters related to age assurance, likely to be accessed, design guidance, data protection harms, and certification schemes, which are outlined below.

Age assurance

Standard 3 in the code covers age appropriate application.

> **Standard 3:** Take a risk-based approach to recognising the age of individual users and ensure you effectively apply the standards in this code to child users. Either establish age with a level of certainty that is appropriate to the risks to the rights and freedoms of children that arise from your data processing, or apply the standards in this code to all your users instead.

During the transition period, stakeholders requested more clarity from the Commissioner on the approach to age assurance in relation to Standard 3 of the code. As highlighted in Section 2.4.2 in 2021, the ICO published a commissioner's opinion which set out expectations for conforming with the standard.[34] Since then, the ICO has also set up an Age Assurance project to:

- develop the ICO's understanding of the risks to children across different types of ISS, their varying functionality and their processing of personal data;
- develop the ICO's understanding of how ISS are currently assessing these risks via their DPIAs, and identify good practice and opportunities for improvement;
- develop the ICO's understanding of the available and appropriate mitigations to respond to these risks, and specifically when and what kind of age assurance is likely to be appropriate and proportionate; and
- consider the potential risks of emerging age assurance techniques.

To date, the project has demonstrated that ISS providers were not adequately assessing or addressing data protection risk and harm on their platforms. It has also found evidence to support the hypothesis that the age assurance methods

[34] ICO (2021) Information Commissioner's opinion: age assurance for the Children's code. Available at: https://ico.org.uk/media/about-the-ico/documents/4018659/age-assurance-opinion-202110.pdf (Accessed: 21 February 2023).

with higher efficacy tend to be more intrusive with a higher risk of data protection harms, suggesting that a balance needs to be struck.

Given the work was driven by stakeholders' requests for more clarity on Standard 3, it is unlikely that this policy area would have been tackled in as much detail or as quickly, had it not been for the code.

Likely to be accessed

As noted in Section 2.4.2, the code's scope was an issue that created some uncertainty. The protection of children online was never intended to be an issue that the code would tackle in its entirety, its focus was on data protection and privacy by design. The expectation was that the Online Safety Bill would address the content related risks and harms children faced online.

Unexpected outcomes: An unexpected positive outcome from the alignment with the Online Safety Bill has been the enhanced interaction with other regulators. Internal interviewees reported that the code has helped the ICO to build stronger relationships with Ofcom (the regulator that will be responsible for enforcing the Online Safety Bill). This was a contributory factor in the joint statement[35] released by Ofcom and the ICO in November 2022. And both regulators have worked closely on developing a joint understanding of age assurance, as evidenced through two joint research projects delivered in 2022/23.

The ICO's developing understanding of children's online behaviour was reflected in the ICO's changed policy position on adult-only sites. The ICO initially indicated that adult-only sites were not within the scope of the code through a response letter to a stakeholder.[36] In September 2022 the ICO clarified its policy position, following a review of evidence that emerged in the interim, to bring adult-only sites into the scope of the code if they are likely to be accessed by children. This was communicated through a blogpost marking the one year anniversary of the end of the code's transition period.[37]

Although there has been some initial uncertainty created by the ICO's lack of clarity in this area, the code has enabled the organisation to raise its profile through engagement with sectors that may not have otherwise engaged. Further work is ongoing internally to provide greater clarity in this area which could have

[35] ICO (2022) Online safety and data protection - A joint statement by Ofcom and the Information Commissioner's Office. Available at: https://ico.org.uk/media/about-the-ico/documents/4022906/online-safety-and-data-protection-a-joint-statement-by-ofcom-and-the-ico.pdf (Accessed: 10 March 2023).

[36] ICO (2021) Letter to 5Rights Foundation. Available at: https://ico.org.uk/about-the-ico/media-centre/news-and-blogs/2021/11/letter-to-5rights-foundation/ (Accessed: 22 February 2023).

[37] ICO (2022) Children are better protected online than they were in 2021. Available at: https://ico.org.uk/about-the-ico/media-centre/news-and-blogs/2022/09/children-are-better-protected-online-in-2022-than-they-were-in-2021/ (Accessed: 21 February 2023).

significant policy impacts, both through the Children's code and its impact on other legislation, such as the Online Safety Bill.

Children's code design guidance and advice for game designers

The Children's code design guidance was well received and has been commended internally and externally, including winning an Irish Design Institute Award.[38] Likewise, the targeted advice for game designers was also well-received. One respondent to the consultation (see summary in Annex C) said:

> The ICO has shown a desire to learn from and collaborate with the industry. [Game designers] found the process collegiate and beneficial which has allowed for the development of guidance that is as helpful as possible for games companies.

The approach to providing bespoke guidance, in close consultation with industry was seen as good practice. It has also helped the ICO meet a data privacy objective of privacy by design. Although the targeted engagement with the design guidance has been positive, external consultees noted a more general lack of awareness amongst designers. This echoes the points made earlier around the need to consider enhancing wider engagement strategies for code-related materials. Expanding the reach would significantly increase the impact this policy could have.

Data Protection Harms Framework

The Children's code provided a useful test case for the concept of data protection harms (currently used for a wide range of applications including policy development and prioritisation within the ICO). This complemented the development of the ICO's data protection harms framework (a framework for considering and communicating data protection harms) which has been well-received internally as well as internationally by other data protection authorities.[39]

Certification schemes

Certification is a way for an organisation to demonstrate compliance with UK GDPR. On approval of the first set of schemes the ICO reported:

> "Enabling certification in these areas establishes a binding framework that organisations can sign up to. This will raise the bar of data protection and ensure they are always following the latest good practice in these constantly evolving

[38] Irish Design Institute (2021) ICO – Children's Code Design Guidance. Available at: https://www.idiawards.ie/projects/ico-childrens-code-design-guidance (Accessed: 9 March 2023).

[39] ICO (2022) Data Protection Harms Framework. Available at: https://ico.org.uk/about-the-ico/research-and-reports/data-protection-harms/ (Accessed: 22 February 2023).

areas and importantly, they are able to demonstrate that commitment to their clients, suppliers and public."[40]

There have been four certification schemes approved by the ICO to date, and two of these relate to children's privacy:

- the Age Check Certification Scheme;[41] and
- the Age Appropriate Design Certification Scheme.[42]

As of 21 February 2023, five organisations had received certification under these schemes and others are progressing through the process.

This is a key element in the later stages of the theory of change, in terms of how organisations convert conformance with the code into additional customers or users of their ISS. The schemes are based on the standards set out in the code and are therefore attributable, in part, to the work on the code.

Internal interviews report that the certification schemes are 'trailblazing' and that the ICO is leading the way in Europe, as well as globally on data protection authority approved schemes. Some factors that were reportedly constraining impact included:

- low levels of awareness internally and externally driving a communications process that is not joined up and not making the links between the code and the certification schemes; and
- difficulties managing potential impacts of a perceived overlap between voluntary audit activity and certification schemes and making clear they complement each other.

Colleagues internally are working to remedy these by improving collaboration between teams and providing opportunity for engagement with communications strategies.

4.2.1. Policy output conclusions

Were it not for the code, the ICO may not have had the platform to generate these policy outputs and reach policy positions that provide greater regulatory certainty to ISS providers and wider society. It is not possible to establish what might have happened in the absence of the code but it is clear that the existence

[40] ICO (2021) ICO approves the first UK GDPR certification scheme criteria. Available at: https://ico.org.uk/about-the-ico/media-centre/news-and-blogs/2021/08/ico-approves-the-first-uk-gdpr-certification-scheme-criteria/ (Accessed: 24 February 2023).

[41] ICO (2021) Age Check Certification Scheme. Available at: https://ico.org.uk/for-organisations/age-check-certification-scheme-accs/ (Accessed: 27 February 2023).

[42] ICO (2021) Age Appropriate Design Certification Scheme. Available at: https://ico.org.uk/for-organisations/age-appropriate-design-certification-scheme-aadcs/ (Accessed: 27 February 2023).

of the code, and the statutory duty to produce it, acted as a catalyst for a number of significant policy outcomes.

One issue constraining policy impact in this area is the lack of a central public online place to draw together children's privacy related issues. Significant policy positions (such as the scope of the code) have been spread across opinions, blogs and code-related pages on the ICO website. Although these may have sound internal justifications, the approach is unhelpful for external stakeholders. As previously noted, consideration should be given to an alternative approach to the collation of code-related resources and its website architecture. This should consider the external user experience of code resources and associated materials.

4.3. Implementation of the code by ISS and conformance

Views on the outputs and outcomes for ISS providers were captured via a three-wave survey of ISS providers (overview in Annex D)[43], a public consultation (see Annex C) and internal interviews.

Table 5 below summarises some of the key findings of the three-wave survey.

- Overall, the understanding of the theory within the code has decreased slightly from the baseline.
- However ISS providers have a greater understanding of what needs to be done in order to conform with the code.

Table 5: ISS self-perceived understanding and implementation of the code (percentage reporting positive agreement)

Category	Baseline (Q1 2021)	Wave 2 (Q4 2022)
Understanding the theory within the code	74%	72%
Understanding what conformance requires	70%	74%
Recently made changes	37%	27%

Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.[44]

The proportion of ISS providers that recently made changes linked to the code decreased between the baseline in early 2021 and end of 2022 tracker. This suggests that by late 2022 these ISS providers had already borne the

[43] IFF (2023) Evaluating the Children's code – an industry perspective.

[44] There are some minor sample size variations between waves. Full detail on this can be found in the supporting IFF report.

familiarisation costs, and felt that their knowledge of the code was then more practical and operational.

4.3.1. Understanding of the code amongst ISS providers

Increasing ISS providers' understanding of the code (and data protection legislation by proxy) is a key route to impact in the code's theory of change.

To test the understanding of the code via the three-wave survey, ISS providers which said they were aware of the code were given a number of statements potentially related to the code and were asked to identify the correct ones.

- Perfect answers were still rare, over two years after the code was launched. In the most recent survey wave (late 2022), less than 1% of businesses were able to correctly identify the two true statements from the seven provided.
- This had not changed from previous waves, indicating that ISS providers understanding of the code has not changed. This is somewhat in contrast with how ISS providers perceive their knowledge, as discussed in relation to Table 5.

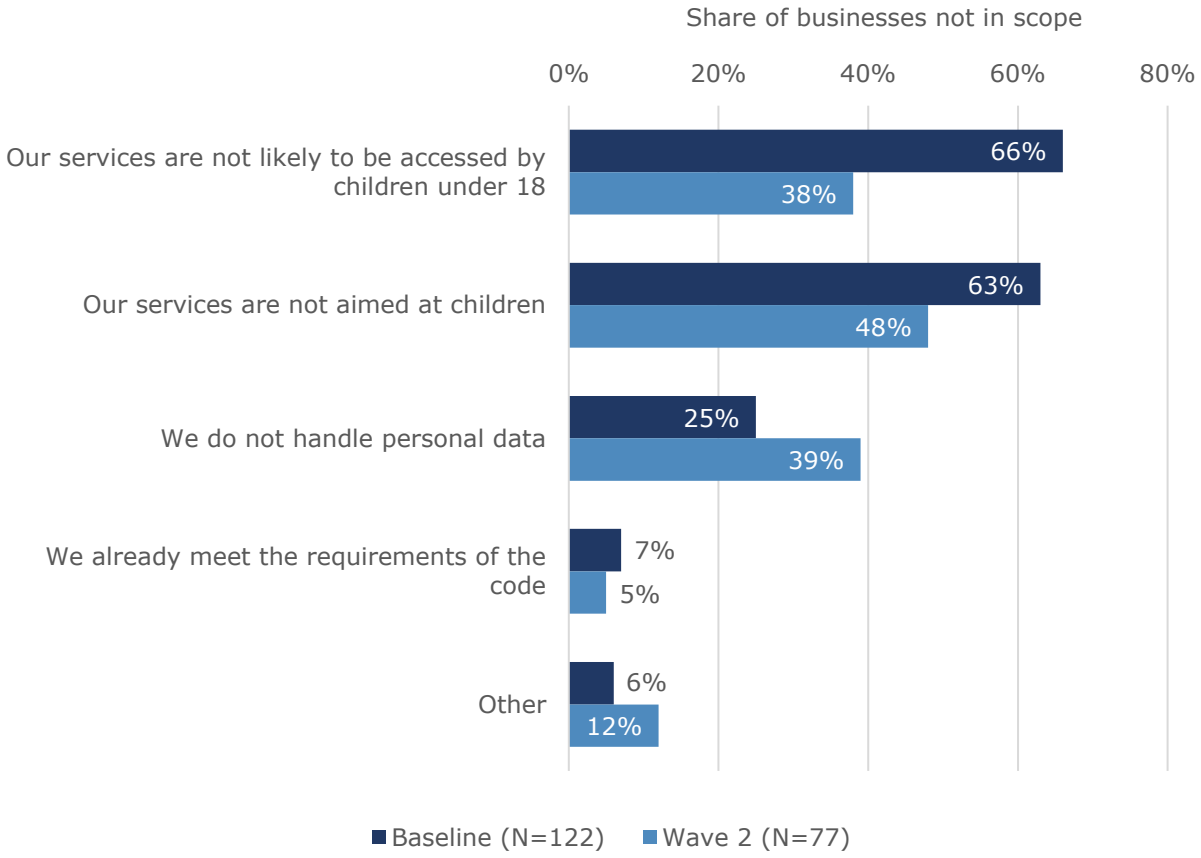
Awareness of the purpose of the code has remained stable over the tracker periods, as already explored in Section 3.4. In both the late 2022 and baseline surveys, 65% of ISS providers were aware that the code was designed to ensure organisations appropriately safeguard children's data. However, more ISS providers became aware of the code being grounded upon the UN Convention on the Rights of the Child (UNCRC) over the tracker periods. The share of ISS providers aware of this went from 39% in Q1 2021 to 57% in Q4 2022.

Not all interviewed ISS providers who were in scope of the code had realised this. In the most recent tracker (Q4 2022), 81% of ISS providers said they were in scope of the code, this changed to 73% after being given some high level information on who is in scope of the code. This reflects points made in Section 2.4.2 about the lack of clarity on the scope.

Figure 5 below shows the reasons provided for not being in scope of the code. The primary reasons for not falling in scope have changed over the period:

- Service not likely to be accessed by children under 18 and services not aimed at children were the primary motivators in the 2021 baseline.
- Both these reasons remained in the most recent survey wave tracker but to a lesser extent, whereas not handling personal data became a more prominent motivation.

Figure 5: Reasons given for not being in scope



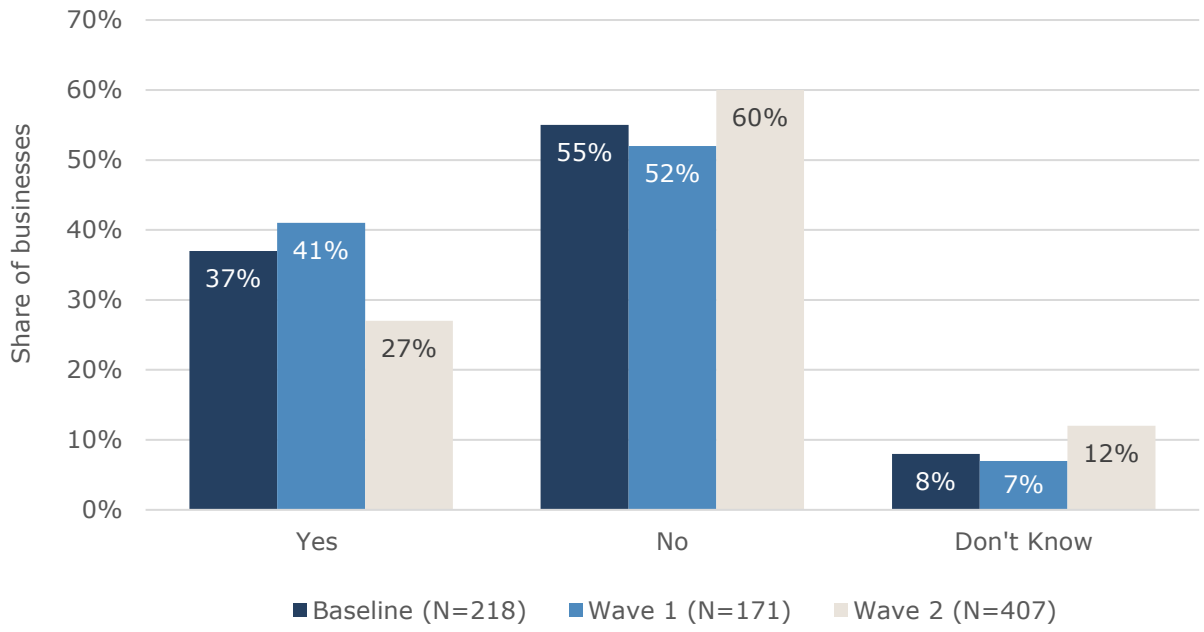
Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.

4.3.2. Changes implemented by ISS providers

As with improved understanding, implementation of changes to improve conformance is a key route to impact in the code's theory of change.

The proportion of ISS providers that had recently made changes to conform with the code fluctuated across waves, as shown in Figure 6.

Figure 6: ISS providers who had recently made changes



Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.

A smaller proportion of ISS providers reported having recently made changes in the most recent wave (27%) than in the baseline survey (37%). This appeared to be a mixture of providers having already made changes, and those who hadn't made changes not feeling a sense of urgency. Qualitative interviews suggested that the lack of significant punitive enforcement activity to date has contributed to the lack of urgency amongst some providers.[45]

The most common reason for not making changes, given in qualitative interviews, was time constraints. Smaller businesses either did not have the time to engineer these changes or, more commonly, to spend the time acquiring the knowledge and skills to do so. One respondent to the consultation (see summary in Annex C) reported:

> "[f]or larger organisations costs are not prohibitive but for smaller developers and start-ups any form of regulatory compliance poses challenges."

Respondents were asked what type of changes they had made. Table 6 below shows the proportion of respondents that have made each type of change.

- Dedicating resources to understanding the code and user experience changes became less common with each wave.
- Whereas development of age estimation measures increased in prevalence and was the most commonly reported change in the most recent survey.

[45] IFF (2023) Evaluating the Children's code – An Industry Perspective (Accessed 2 February 2023).

This is possibly a result of awareness raising activity of age assurance through the ICO's Age Assurance Opinion or ISS providers recognising a need to prepare for the upcoming Online Safety Bill. Consultations suggested that ISS providers tackled the easier changes first and then left more complex issues, such as age assurance, for later.

Table 6: Types of changes made by ISS providers

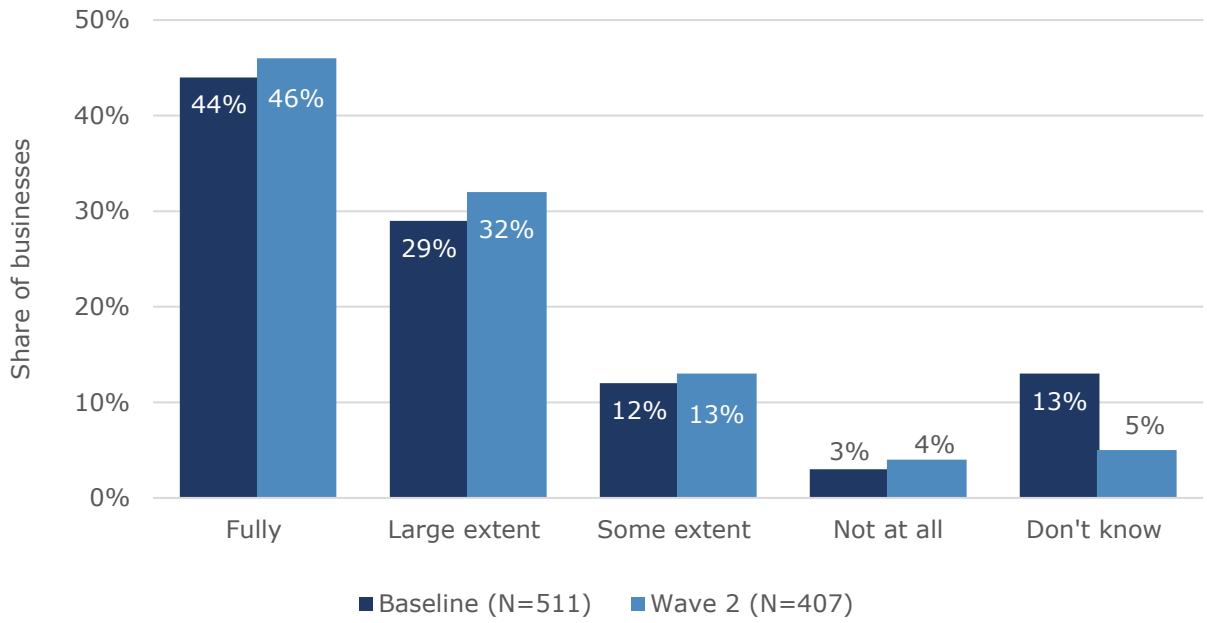
	Baseline (N=187)	Wave 1 (N=141)	Wave 2 (N=112)
Dedicating resources to understanding the code.	55%	59%	42%
Designing, and implementing changes to aspects of your service user experience.	55%	54%	35%
Reviewing risks to children arising from how your products or service processes their data.	44%	61%	44%
Developing approaches for estimating the age of users.	41%	44%	47%
Reviewing and redrafting privacy information, standards and polices.	35%	55%	45%
Developing or reviewing data protection impact assessments.	35%	47%	38%
Other change	2%	2%	2%
Don't know	1%	0%	0%

Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.

Around half of the interviewed ISS providers felt they would need to make further changes to become conformant, with little change between the baseline (53%) and the second wave (52%).

Figure 7 further suggests that these changes would in most cases be minor, as the majority of ISS providers believed they were already at least to a large extent conformant with the code.

Figure 7: Extent to which ISS providers are already conformant



Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.

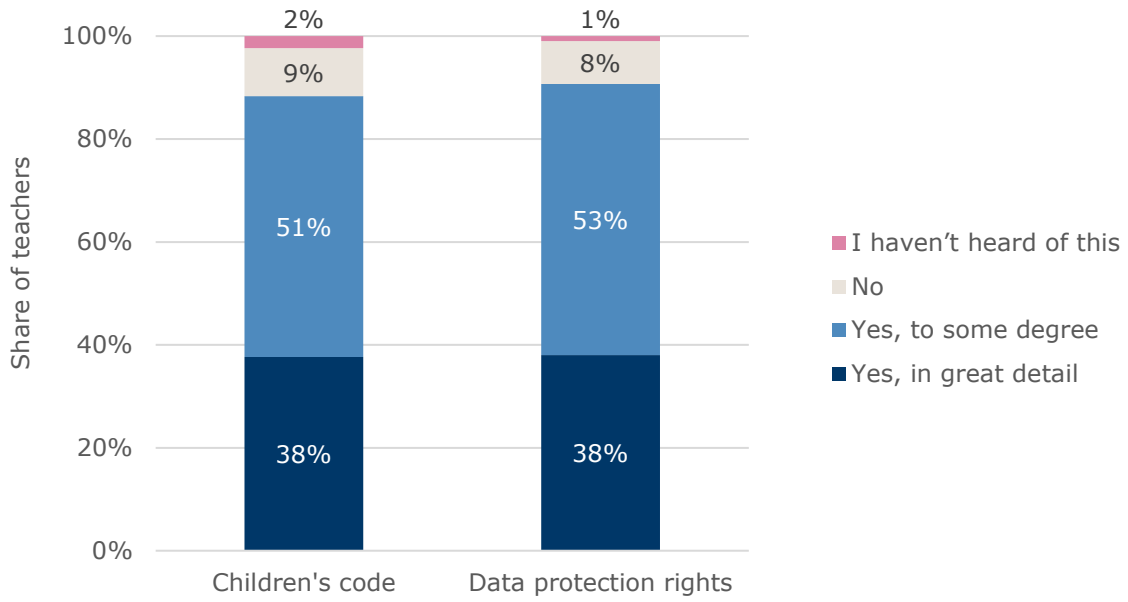
4.4. Knowledge outcomes for children, parents and teachers

The findings on knowledge across children, parents and teachers are based on research commissioned by the ICO (see Annex D for an overview).

4.4.1. Schools and teachers

Our analysis found that while most primary and secondary schools talk to children about the Children's code and data protection rights, only four out of ten schools do so in great detail (see Figure 8). Talking to the pupils about the code is more common in secondary schools compared to primary schools (91% and 85% respectively). The higher share for secondary schools is to be expected. Older children tend to have more independence online which makes their awareness of data protection risks more important.

Figure 8: Do teachers and their school talk to and educate kids about the Children's code and data protection rights?



Source: Analysis of teachers research (overview in Annex D) by ICO Economic Analysis (300 responses).

Teachers are commonly aware of the data protection school resources that are available via the ICO (72%), and many among them (86% of aware teachers) have been sent or downloaded them. Across the whole sample, 72% of teachers used the resources.

The resources provided by the ICO are tailored to two age groups: 9 to 11 year olds and 11 to 16 year olds.[46] About half (49%) of the teachers who used the resources adapted them to be better tailored to their pupils. These changes include making the material more age appropriate and more friendly for children and young people. Some teachers also made changes to meet their school's needs.

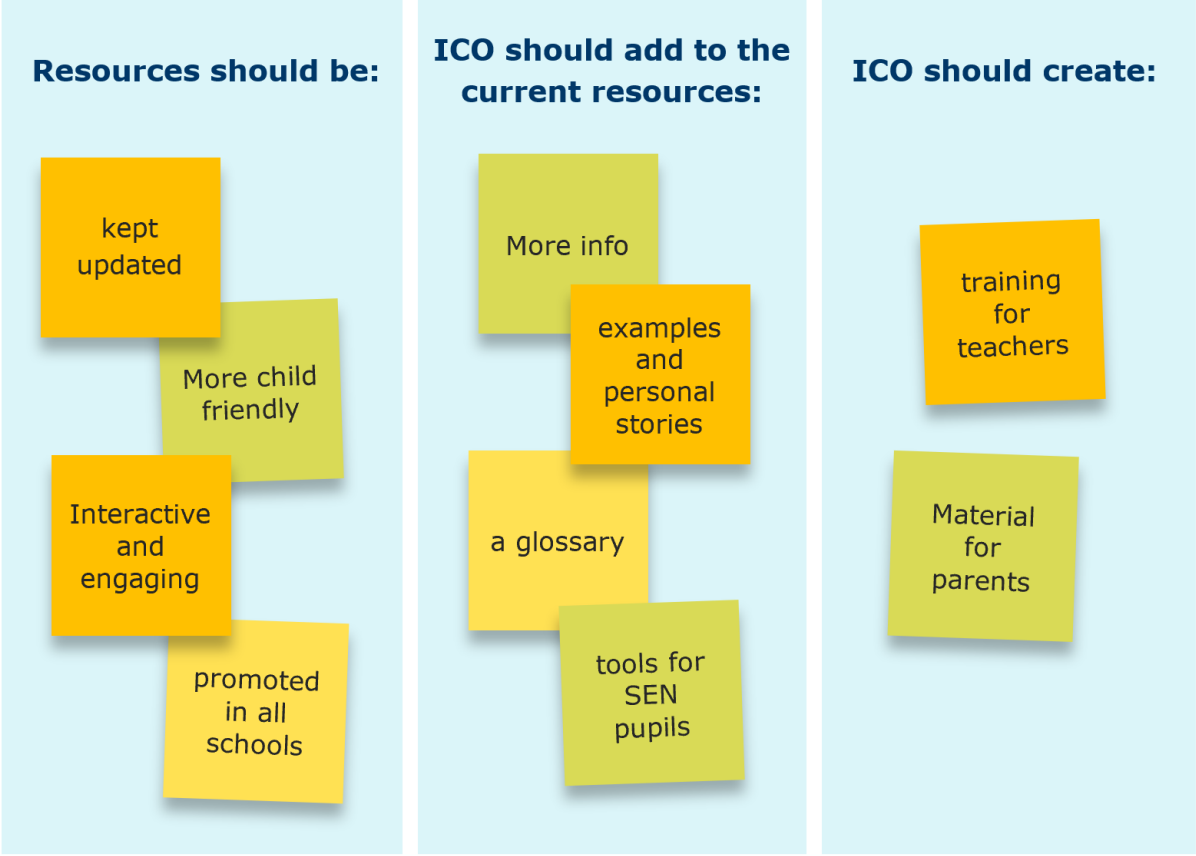
Among the teachers who used the resources, many (45%) embedded them in the curriculum. The teachers also used them to involve parents in their child's education:

- About half (48%) of teachers used the resources to create information leaflets for both children and their parents.
- Two in five teachers were using the resources for parent-focused sessions in school.

[46] ICO, School Resources. Available at: https://ico.org.uk/for-organisations/posters-stickers-and-e-learning/school-resources/ (Accessed: 22 March 2023)

Only one in four teachers found the resources to be child-friendly, and only four in ten teachers found it helpful for educating children. These findings indicate that the resources need to be reviewed and adjusted. This is particularly important because, as discussed above in Section 3.5 teachers are key in promoting children and parents' awareness. Figure 9 shows the teachers' suggestions on how to improve the school resources.

Figure 9: Teachers' suggestions for school resources



Source: Analysis of teachers research (overview in Annex D) by ICO Economic Analysis (140 responses).

4.4.2. The role of parents

The evidence illustrates relatively low knowledge of data protection issues amongst parents, who often evaluate online services based on content concerns alone. This suggests that parental knowledge deficits on data privacy matters could potentially be making children's data less safe online.

- One in two parents said they had assisted their children in circumventing age restrictions. Half of them stated that they did so because they believed their child was mature enough to access the site.
- Many parents (47%) did not feel confident discussing with their child how their data is processed online.

- Lack of knowledge about how data is processed online was a significant barrier to parent-child discussions for one in five parents. This challenge became more prevalent amongst parents whose employment status was 'State Pensioner, Casual and Lowest Grade Workers, Unemployed'.
- One in ten parents who wanted to report a concern did not do it because they did not know how.

There is a lack of alignment between teachers and parents. The efforts of teachers to educate children on data protection issues are often disconnected from the levels of engagement and understanding demonstrated by parents on data protection matters.

4.4.3. A child's perspective

For children learning about the code, this happens primarily at school, but understanding is relatively basic and only a minority of children consider themselves well-informed as to the purpose of the code (17%). Our evidence suggests a possible misalignment between the perceptions of teachers and pupils on the code.

- Nine out of ten (89%) teachers said they were 'somewhat' or 'very' confident that the children they teach understand online data protection.
- Yet when asked a large share of children (38%) had not heard of any data protection and related guidance and regulation-related issues. When asked about specific terms, 20% of children had heard of the Children's code, 32% of data privacy, 24% of personal information, and 23% of UK GDPR.

This suggests either a terminology issue, or that children are not absorbing the material. Taking opportunities to improve the resources and information available to children, including the schools resources, could empower children to ensure that they are making choices about their data in a more informed way.

4.5. Wider outputs and outcomes

There are two areas of note under wider outputs and outcomes.

- The Children's code has gained a level of international recognition and influence that wasn't anticipated in the initial policy development and impact assessment of the code. This is an unintended positive consequence that has greatly enhanced the code's route to impact.
- There is evidence of changes from the large online platforms linked to children's privacy and it is generally acknowledged the code was a contributing factor.

4.5.1. International recognition and adoption

The Children's code has gained international recognition and praise as the first of its kind. This has led to other countries using the code as a basis for their own regulations on children's privacy with a number of authorities adopting the principles of the code and working these into their own domestic legislation. Examples include:

- California Assembly: California Age-Appropriate Design Code Act;[47]
- Irish Data Protection Commission: Fundamentals for a Child-Oriented Approach to Data Processing;[48] and
- Australian Privacy Act: Attorney-General's office is recommending the development of a children's privacy code that is modelled on the UK's Age Appropriate Design Code.[49]

These examples draw extensively on the code and in some cases replicate large sections from it. Fifteen US states have also introduced children's privacy bills, and key principles from the code have also featured in draft American federal privacy legislation. The European Union also launched a special group to support the creation of the EU's Code of conduct on age-appropriate design in 2023.

As they progress, there is the potential to indirectly extend the outcomes of the code to children, parents and wider society outside of the UK. These jurisdictions are also home to some of the largest ISS providers globally whose reach extends to the UK, potentially driving changes for UK society.

Alignment with foreign legislation also helps both UK ISS providers and those outside of the UK by making it easier to adopt consistent measures across international borders.

4.5.2. Large online platforms making children's privacy changes

Shortly after the code's introduction large online platforms started to implement measures to make their platforms more suitable for children. Substantial changes to large ISS providers with significant international reach since the code's transition period ended include:

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[47] California Assembly (2022) The California Age-Appropriate Design Code Act. Available at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB2273 (Accessed: 17 February 2023).

[48] Irish Data Protection Commissioner (2021) Fundamentals for a child-oriented approach to data processing. Available at: https://www.dataprotection.ie/sites/default/files/uploads/2021-12/Fundamentals%20for%20a%20Child-Oriented%20Approach%20to%20Data%20Processing_FINAL_EN.pdf (Accessed: 17 February 2023).

[49] Australian Government (2022) Privacy Act Review. Available at: https://www.ag.gov.au/sites/default/files/2023-02/privacy-act-review-report_0.pdf (Accessed: 9 March 2023).

- Facebook and Instagram have restricted targeted advertising to age and location for under-18s. Both Facebook and Instagram ask for people's date of birth at sign up, preventing them from signing up if they repeatedly entered different dates, and disabling accounts where people can't prove they're over 13. Instagram also launched parental supervision tools, along with new features like Take A Break to help teens manage their time on the app. In 2022, Instagram started to introduce age estimation systems to identify under-aged users who try to change their age online to access adult services.[50]

- YouTube has turned off 'autoplay' by default and turned on take a break and bedtime reminders by default for Google Accounts for 13 to 17 year olds.[51]

- TikTok has said that users aged under 16 will have their accounts automatically set to private as part of a series of measures to improve child safety.[52]

- Google has enabled anyone under 18 (or their parent/guardian) to request to remove their images from Google image search results, location history cannot be enabled by Google accounts of under 18s and Google has expanded safeguards to prohibit age-sensitive ad categories from being shown to these users.[53]

Some of the changes by the large platforms were applied globally, which helps to protect children worldwide. This type of positive policy multiplier has allowed the ICO to 'punch above its weight' in terms of UK data protection laws having contributed to impact across the globe.

It should be noted that it is impossible to know the extent to which these effects can be attributed to the code. There were also other factors at play, such as enforcement action by other European regulators, and political pressure on social media services to improve protections for children linked to whistle-blower

[50] ICO (2022) Children's Code Anniversary Blog. Available at: https://ico.org.uk/about-the-ico/media-centre/news-and-blogs/2022/09/children-are-better-protected-online-in-2022-than-they-were-in-2021/ (Accessed: 19 February 2023).

[51] TechCrunch (2021) Google to introduce increased protections for minors on its platform, including Search, YouTube and more. Available at: https://techcrunch.com/2021/08/10/google-to-introduce-increased-protections-for-minors-on-its-platform-including-search-youtube-and-more (Accessed: 19 February 2023).

[52] BBC News (2021) TikTok: all under-16s accounts made private. Available at: https://www.bbc.co.uk/news/technology-55639920 (Accessed: 22 March 2023).

[53] ICO (2022) Children's Code Anniversary Blog. Available at: https://ico.org.uk/about-the-ico/media-centre/news-and-blogs/2022/09/children-are-better-protected-online-in-2022-than-they-were-in-2021/ (Accessed: 19 February 2023).

testimony in the USA.[54] However, it does highlight positive steps in the right direction, consistent with the objectives of the code.

[54] United States Senate (2021) Statement of Frances Haugen. Available at: https://www.commerce.senate.gov/services/files/FC8A558E-824E-4914-BEDB-3A7B1190BD49 (Accessed: 9 March 2023).

5. Assessment of impact

Similarly to Section 4, this section should be considered with reference to the code's theory of change (see Figure 1), which sets out the anticipated later stage impacts. These are:

- protection of UK citizens, including children, from data protection harms;
- empowered children benefiting from the use of ISS; and
- realising the full economic potential of the UK economy.

Given the timing of the evaluation, just over two years post the code's launch, it should be kept in mind that effecting significant or systematic change is often longitudinal. There are also implications from business and design cycles where some providers may wait for legacy products to be retired before making significant changes. This limits the extent to which we are able to observe and evidence ultimate impacts, as the route to impact is often driven via behaviour change, which tends to happen more slowly. Consequently further evaluation activity beyond this report should be considered to gain a more longitudinal understanding of the impact of the code.

Nevertheless, we have drawn together the available evidence to present some of the early stage impacts we can observe, which have the potential to lead to later stage impacts.

5.1. Assessment of impacts key messages

The key messages on impacts of the code are summarised below:

Impacts on ISS providers: there have been varying results from ISS providers about the benefits of the code to them. Most recently there was a notable increase in ISS providers associating marketing opportunities with the code, but a significant reduction in the proportion reporting that the code creates financial opportunities for them. Organisations are more likely to make the changes required by the code if they also see these as being beneficial to them, so helping organisations understand the potential benefits to them of implementing the code is important to ensuring it has an impact. The proportion of ISS providers incurring costs related to the code has decreased over time (41% to 29%), as has the average cost incurred (approximately £12,500 to £1,000). This is to be expected given the front loaded nature of the cost burden linked to the code and large ISSs will have implemented changes sooner than many small ISSs.

Impacts on parents and children: the code impacted parents' behaviour regarding online services and how they allow their children to access them. This was true for the majority (87%) of parents who had heard of and know something about the code. Whilst this is a good result, it should be remembered

that only one in five parents have heard of the code and know what it does. Overall, children and parents are not as empowered and as aware of their rights as they could be. Increasing awareness has potential to reduce data protection harms originating from ISS providers.

Impacts for specific groups: the evaluation has sought to identify any areas where impacts could be different for specific groups of children. The research identified that children who identified as LGBTQ+ had a higher propensity to lie about their age. As a result, this may create heightened exposure to data privacy harms. It also suggests that consideration should be given to targeted support in this area.

Societal impacts: the ICO's work engaging with data protection authorities internationally is likely to lead to a significant impact beyond the UK, as well as generating a catalysing effect on impacts in the UK. Alignment with foreign legislation also helps reduce costs for ISS providers by making it easier for them to adopt consistent measures across international borders

5.2. Impacts on ISS providers

Views on the impacts on ISS providers were captured via a public consultation (see summary in Annex C), internal interviews, and a three-wave survey of ISS providers (overview in Annex D).[55]

Benefits

Those surveyed over the tracker periods were asked about potential opportunities arising from the code.

- In the most recent survey wave (late 2022), 27% of ISS providers thought the code would create opportunities for their organisation, this was down from 41% in the baseline wave (early 2021).
- In interviews, respondents indicated that this was because opportunities would likely have already materialised if they were going to.

Table 7 below shows the most common opportunities that ISS providers expected to see.

Table 7: Opportunities from the code

Opportunities from the code	Baseline (Q1 2021) (N=208)	Wave 2 (Q4 2022) (N=100)
Knowledge that they provide safer services	9%	10%

[55] IFF (2023) Evaluating the Children's code – An Industry Perspective (Accessed 2 February 2023).

Increases in revenue or profits	11%	1%
Marketing opportunities	3%	10%

Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.

The most common type of opportunity in the most recent survey was the knowledge that they were providing a safe space. This aligns with findings from the public consultation were respondents reported moral obligations as their most common motivation for conformance.

Over the tracker periods there has been a notable increase in ISS providers associating marketing opportunities with the code. Conversely, and perhaps counterintuitively, there is also a significant reduction in the proportion reporting financial opportunities. This is a key route to impact for the code's theory of change in organisations recognising that conformance could help them increase their customer/user base and associated revenue. The ICO should consider how it could improve awareness of these links and support providers in reaping potential rewards of improvements in conformance. Promotion of certification schemes could help to support this aim.

Costs

For each survey wave, ISS providers that reported awareness of the code were asked if they had incurred costs relating to the code.

- In the most recent wave (late 2022) 29% said they had incurred costs, this is a decrease from 41% in the baseline wave (early 2021).
- Of those who incurred costs the most common cost reported was £1,000 or less in late 2022. This was lower than in early 2021 where costs were most commonly in the range of £5,001 to £20,000.

As shown in **Error! Reference source not found.**, in late 2022, the most c ommon area that costs were reportedly incurred were staff time researching requirements (52%) and training and development (51%). This was broadly similar in 2021.

Figure 10: Types of costs ISS providers incurred

Source: Analysis of industry research (overview in Annex D) by ICO Economic Analysis.

The reduction in those experiencing costs and the level of costs reported is positive and is likely driven by requirements becoming clearer over time and training and changes now being embedded.

Those who had incurred costs were asked to what extend this was attributable to the code.

- 27% reported full attribution to the code;
- 58% mostly attributable;
- 11% partly attributable; and
- 4% were not sure.

The fact that organisations had reported additional costs that were attributable to the code, implies that they were not already implementing these measures to comply with existing legislation. This suggests that for these organisations, the code did not just clarify existing legislation but also raised awareness of

measures they had not previously considered. That said, it should also be acknowledged that ISS providers might not have a full understanding of what their potential costs could have been without the code.

Although this means that the code is likely to be wholly or partly responsible for additional costs, it also provides some evidence that any positive impacts, that come as a result of these incurred costs, could also be attributable to the code. This includes reductions in data protection harms through improved compliance.

ISS providers were asked about expected future costs. The proportion which expected to incur costs in the future has decreased slightly from (36%) in wave 1 2021 Q3 to (33%) in late 2022 (this question was not asked of baseline respondents as they were all expected to see some form of costs of conformance in the future).

ISS providers were also asked about the types of costs they expected to incur. For personnel related costs, these were not particularly different to those that they had already incurred most recently. This is likely because a number of the costs reported are ongoing costs, such as training and development. However, companies were expecting to allocate increased resources to improving the conformance of their services through reviewing risks, redrafting community standards and policies, writing DPIAs, and redesigning their services. This suggests that the code has had an impact on ISS provider business planning and how ISS providers are protecting children online.

5.3. Impact on children and parents

Views on the impacts on children and parents were captured via a two-wave survey (see overview in Annex D). The code impacted parents' behaviour regarding online services and how they allow their children to access them. This was true for the majority (87%) of parents who had heard of and know something about the code. Whilst this is a good result, it should be remembered that only one in five parents have heard of the code and know what it does. This means that the code has directly impacted the choices of only a minority of parents.

Children's trust in the code remained stable from 2021 to 2022, with around seven out of ten children saying they trust the code to make the internet better and safer for them. However, in 2022 children were more likely to trust it 'a little' rather than 'a lot' compared to 2021.[56] Trust in the code was less strong in 2022 compared to 2021. Furthermore, the perception of the code has declined over this time. In 2022:

[56] In 2021, 39% of children trusted the code 'a little', and 31% trusted it 'a lot'. In 2022, 48% of children trusted the code 'a little', and 24% trusted it 'a lot'.

- 56% of children thought it was a good thing that the code had been created, down from 60%; and
- 20% of children thought they would feel more comfortable online because of the code, down from 34%.

Overall, children and parents were not as empowered and as aware of their rights as they could be, and this was likely weakening the potential for the Children's code to reduce data protection harms originating from ISS providers.

This is evident in tracker evidence from how often children disclose lying about their age, sometimes with their parents' knowledge:

- 39% of children have said they were a different age to access a website; and
- 15% of children have accessed an adult-only online service.

The high share of children accessing ISS which they are too young for illustrates that the age verification processes in place were often easy to circumvent. This puts children's data at risk, and, especially in the case of adult-only online services, opens the door to potential content and contact harms.

Impacts for specific groups

The evaluation has sought to identify any areas where impacts could be different for specific groups of children. The statistical robustness of available data by sub-category and the limited differentiation from the average data population for some data sub-categories, such as gender, has limited the focus of this section to children who identified as LGBTQ+.

The research identified that children who identified as LGBTQ+ had a higher propensity to lie about their age:

- 59% of children who identify as LGBTQ+ have said they were a different age to access a website; and
- 30% of children who identify as LGBTQ+ have accessed an 18+ online service.

This was linked to the fact that they made greater use of ISS compared to the average.[57] In the process of exploring their identity, children who identify as LGBTQ+ could have pretended to be older to be able to access information and connect with relevant communities. As a result, children who identify as LGBTQ+ are a demographic at heightened risk.

[57] In particular, LGBTQ+ children are more likely than the average child to use online messaging (84% vs 63%), music and video streaming (87% vs 78%), and social media (78% vs 70%).

This means that interventions focused on children's privacy have the potential for greater positive impacts for this group. It also suggests that targeted support for children who identify as LGBTQ+ could be required to increase the effectiveness of the code. This could include engagement with LGBTQ+ youth associations and developing bespoke relevant materials. Care should be taken to ensure that any interventions acknowledge that:

- children should be empowered to safely explore their identity online; and
- broad brush age gating of age-appropriate material could have the opposite effect on privacy risks for specific groups of children. For example, broad age gating could create barriers diverting children elsewhere to potentially more harmful non-conformant structures.

This could also be applied more broadly and further research could be undertaken to identify any other groups with a potential for heightened risk of data protection harms.

5.4. Impact on wider society

Although wider society is likely to benefit from a reduction in data protection harms to children (for example through reduced public sector expenditure on prevention and mitigation), it is not possible at this stage to measure this or attempt to attribute it to the code.

5.4.1. International impact

As noted under outcomes and impacts, the ICO's work engaging with data protection authorities internationally is likely to lead to a significant impact beyond the UK, as well as generating a catalysing effect on impacts in the UK. Alignment with foreign legislation also helps reduce costs for ISS providers by making it easier for them to adopt consistent measures across international borders.

6. Summary, lessons learnt and future steps

6.1. The Children's code – a catalyst for change

The Children's code was launched in September 2020 amidst the backdrop of a world changed by the COVID-19 pandemic and the learning curve encountered in developing the ICO's first code of this nature.

The code has been at the forefront of a global trend towards tackling children's data privacy issues. The code's:

- pioneering approach has been emulated around the world, including in places like California and Ireland;
- its global impact has been reinforced by some large online platforms implementing measures to make their services more suitable for children, with these measures often applied beyond the UK; and
- the related certification schemes are trailblazing and the ICO is leading the way in Europe, as well as globally on data protection authority approved schemes.

It is hoped the inspirational nature of the code will act as a catalyst that will eventually result in a coherent set of global rules helping to keep children's data safe online.

In the period of just over two years covered by the evaluation, we can see the code is already effecting positive change. ISS providers have increased knowledge of children's data privacy matters and many have made changes attributable to the code.

Whilst ISS providers have incurred costs, as was anticipated in the code's impact assessment, these costs have fallen over time and some ISS providers have acknowledged benefits linked to the code, such as marketing opportunities. However, it's recognised that the code is not yet fully implemented by ISS providers and there's more engagement work to be done, with one in four not having familiarity with the code. Areas of focus for potential further work include implementation of privacy by design amongst SMEs.

Stakeholders universally support the purpose of the code but there are still uncertainties and related misgivings around the practical application of some aspects of the code, particularly in relation to the scope of who the code applies to and age-assurance matters. These are issues the ICO is working hard to remedy and development of further guidance and resources is ongoing.

Nuances related to the practical application of the code are to be expected at the forefront of a novel and evolving area of regulatory intervention. The ICO's

leading position requires us to engage appropriately with these nuances and provide clarity to organisations on how they are expected to comply.

- This has resulted in enforcement activities related to the code being perceived by external consultees as not progressing at a scale or rate that they would like to see. Regulation exists on a spectrum, which starts with tools, such as upstream work and audits, before progressing to enforcement where necessary. Enforcement, linked to the underlying law, is also multi-layered and ranges from warnings and reprimands to enforcement notices and fines. The ICO is working through this spectrum whilst clarifying some of the nuances related to the practical application of the code.
- The policy landscape is evolving relatively quickly requiring close engagement with other regulators, including UK regulators with closely related remits and international regulators developing children's focused codes. The ICO is also working with government on legislative reform for the UK's data protection laws, which could result in changes being required to some code standards.

Parents can play a key role in achieving the ambitions of the code. Creating a safe space online for children to learn, explore and play cannot be achieved by regulatory intervention alone. But parents need to be empowered to play a part. With only one in five parents having heard of the code and one in two parents saying they help children circumvent age restrictions, there is more that can be done to increase parental knowledge of children's data privacy.

The evaluation highlights the important role schools and teachers can play in progressing the aims of the code. Whilst around 90% of schools highlight matters related to data protection and the code to children, the level of detail covered varies. And opinions are divided on the quality of code related resources available to schools.

About a fifth of children are familiar with the code and a third are aware of data privacy. These are good results considering the terminology challenges, delivery timeframes, and the ambition of the code to seek "not to protect children from the digital world, but by protecting them within it". The code is already empowering some children to think about their data.

Overall, the code has been welcomed as a solid first step in the UK policy landscape in protecting children's privacy and reducing the risks of data protection harms. It is felt the role of the code will be further enhanced by the Online Safety Bill and the resulting synergies. Delays to the Bill have meant the code has been increasingly expected to provide regulatory certainty in areas where it wasn't specifically designed to do so.

The foreword of the code states "A generation from now, I believe we will look back and find it peculiar that online services weren't always designed with children in mind." A little over two years after the launch of the code, it has certainly proved a catalyst to having online services designed with children in mind.

Though at this relatively early stage in the regulatory intervention policy cycle the full impact of code has still to be realised, reiterating the importance of further monitoring activity.

6.2. Summary of key messages

6.2.1. Process evaluation learning

Inputs: the code was successfully delivered within the timescales. Overall in terms of inputs, it was felt that the transition period was adequately scoped despite challenges around staff turnover. The design and drafting period was considered under scoped where a contributing factor was the timeline created by the Government. And the resources for the ongoing supervision and enforcement period now meet expectations after an initial slower than anticipated integration into 'business as usual' delivery.

Governance: this was considered appropriate but enhancements could be made for future similar activities. Governance considerations for a multi-phase initiative should recognise the need to provide continuity across phases. They should also ensure that any arrangements have options for continued oversight of issues that arise after delivery of the initial objectives.

Wider learning points: these related to engagement, content, impact assessment, publication, and enforcement.

6.2.2. Code engagement and awareness

Awareness statistics: the most recent awareness statistics showed mixed results across affected groups.

- Three in four ISS providers have familiarity with the Children's code with no substantial increase between 2021 and 2022.
- The share of parents who had heard of the Children's code before went from 29% in 2021 to 20% in 2022.
- Children's awareness also declined from 29% to 20% between 2021 and 2022.

Engagement summary: Targeted engagement to raise awareness and adoption of the code's standards was successful. Large ISS providers engaged

proactively with the code and 72% of teachers reported an awareness of the code. Wider engagement has been more challenging with one in four relevant ISS providers not familiar with the code and only 14% reporting a detailed understanding of it. Only one in five children and parents had heard of the code. This suggests that the momentum that the Children's code had when it was launched has been somewhat fading. Wider engagement was reportedly held back by procurement and administration challenges.

ICO awareness: familiarity with the ICO by ISS providers has somewhat declined (69% in Q4 2022 compared to 75% in Q1 2021). Awareness of the ICO also declined amongst both children and parents over the monitoring period.

Learning points: a range of lessons learnt were highlighted linked to awareness and engagement. These included considerations around the website architecture for collating code materials, using the insights from engagement metrics, and target setting.

6.2.3. Assessment of outputs and outcomes

Policy outputs and outcomes: a number of policy issues have been clarified or otherwise developed since the code was issued. A number of these are still in development but are expected to improve regulatory certainty for a wide range of stakeholders in areas that might not otherwise have been addressed. Given some of the policy development has happened reactively in this area, related communications approaches could be enhanced to proactively communicate changes, and may be holding back some of the positive impacts of the policy interventions.

Outcomes for ISS providers: understanding of the contents and purpose of the code has decreased slightly from the baseline. Although ISS providers have a greater understanding of what needs to be done in order to conform, the evidence suggests differences in perceived knowledge of the code and actual understanding of the code. In the most recent research, the proportion of ISS providers that have made changes recently linked to the code has decreased. It suggests that changes were driven by a 'flurry' of activity during the transition period and then a tail off with some ISS providers waiting until they see significant enforcement action before making changes. Many ISS providers tackled the easier changes first and then left more complex issues, such as age assurance, for later. Around half of ISS providers felt they would need to make further changes to become conformant. Many small businesses either did not have the time to make changes or, more commonly, to spend the time acquiring the knowledge and skills to do so. Consideration should be given to further solutions for small businesses experiencing time barriers.

Outcomes for education: there was high level success with around 90% of schools talking to children about the code and data protection and approximately

70% of teachers were aware of the available data protection school resources and the majority have accessed these resources. Despite this achievement, there is more work to do with approximately four in ten schools covering the topics in any detail. And only one in four teachers that used the resources found them child friendly. Overall, levels of satisfaction with these resources were poor with teachers providing a range of suggestion for improvement.

Outcomes for parents: Not all parents feel confident or informed about data privacy and protecting their children's data online is not always a top priority for parents. One in two parents helped their children to circumvent age restrictions and when parents evaluate the suitability of online services they are making decisions based on content rather than privacy. There is potentially an opportunity for the ICO to engage more with parents so they can make more informed choices about how their children's data is used online.

Outcomes for children: children had some knowledge and understanding of the code and related data privacy matters but at a generally high level. Terminology issues were a barrier increasing children's understanding. Taking opportunities to improve the resources and information available to children, including the schools resources, could empower children to ensure that they are making choices about their data in a more informed way.

Wider societal outcomes: the code has gained a level of international recognition and influence that wasn't initially anticipated. This is an unintended positive consequence that has greatly enhanced the code's route to impact. There is evidence of changes from the large online platforms linked to children's privacy and it is generally acknowledged the code was a contributing factor.

6.2.4. Assessment of impact

Impacts on ISS providers: there have been varying results from ISS providers about the benefits of the code to them. Most recently there was a notable increase in ISS providers associating marketing opportunities with the code, but a significant reduction in the proportion reporting that the code creates financial opportunities for them. Organisations are more likely to make the changes required by the code if they also see these as being beneficial to them, so helping organisations understand the potential benefits to them of implementing the code is important to ensuring it has an impact. The proportion of ISS providers incurring costs related to the code has decreased over time (41% to 29%), as has the average cost incurred (approximately £12,500 to £1,000). This to be expected given the front loaded nature of the cost burden linked to the code and large ISSs will have implemented changes sooner than many small ISSs.

Impacts on parents and children: the code impacted parents' behaviour regarding online services and how they allow their children to access them. This

was true for the majority (87%) of parents who had heard of and know something about the code. Whilst this is a good result, it should be remembered that only one in five parents have heard of the code and know what it does. Overall, children and parents are not as empowered and as aware of their rights as they could be. Increasing awareness has potential to reduce data protection harms originating from ISS providers.

Impacts for specific groups: the evaluation has sought to identify any areas where impacts could be different for specific groups of children. The research identified that children who identified as LGBTQ+ had a higher propensity to lie about their age. As a result, this may create heightened exposure to data privacy harms. It also suggests that consideration should be given to targeted support in this area.

Societal impacts: the ICO's work engaging with data protection authorities internationally is likely to lead to a significant impact beyond the UK, as well as generating a catalysing effect on impacts in the UK. Alignment with foreign legislation also helps reduce costs for ISS providers by making it easier for them to adopt consistent measures across international borders

6.3. Lessons learnt

Below we set out the lessons that can be learnt from the evaluation of the code. These include areas that were identified for improvement as well as good practice that could be adopted for future initiatives.

Table 8 summarises the learning points related to Section 2 on process evaluation and Section 3 on engagement and awareness.

Table 8: Summary of 'process' and 'engagement and awareness' learning

Lessons	Detail
Process evaluation (summary of Section 2 learning points)	• **Governance considerations for a multi-phase** initiative should recognise the need to provide continuity across phases. They should also ensure that any arrangements have options for continued oversight of issues that arise after delivery of the initial objectives. • When embarking on future policy interventions, there should be a proportionate allowance in terms of **time and resource for engagement at the design stages**. Careful consideration should be given to who is engaged, particularly those parties likely to be affected, and what their remit is, and any likely risks to the ICO and resulting mitigation required.

	• Ensure **engagement strategies include structures to gather sufficient evidence to enhance understanding** of the types of data processing undertaken by likely to be affected parties to robustly inform the content of policy development. • **External factors can impact the implementation of an intervention** as intended through changing stakeholder expectations. In this case, the slower than anticipated delivery of the Online Safety Bill has had unintended consequences for the code, as stakeholders have sought to address content harms (which it is not designed for) through the application of the code's data protection standards. • Proportionate impact assessment work requires **early engagement to ensure clarity** around responsibility and adequate time to fulfil any primary research needs. • The **importance of names** and clarity around the justification for names of policy products should be taken into consideration for future policy products. • The ICO has published some outputs from supervision activity, (such as sector sweeps, audit summaries and certification) but awareness of these outputs is low. It should consider **greater awareness raising and proactive publication of more of its supervision activity** related to the code in a coordinated and easy to find manner. This is likely to improve perceptions of the code, raise awareness of the standards and encourage compliance.
Engagement and awareness (summary of Section 3 learning points)	• Materials themselves were well-received but consideration should be given to an alternative approach to the **collation of code-related resources and the website architecture**. This should consider the external user experience of searching for, finding, and accessing code resources and associated materials. • The **targeted engagement for the transition period was viewed successfully** by internal interviewees and should be considered as a good practice approach going forward. • Consideration should be given to **enhanced external communication approaches** such as digital campaigns,

	via use of social media, or partner collaborations that allow the ICO to reach a greater variety of audiences, in the context of the code, that are not already engaged with data protection issues. • **Insights from the engagement metrics** for code related outputs should be monitored and reviewed periodically to understand what worked well and areas for improvement. This will enhance the effective use of resources for similar future activities. • Consideration should be given to **approaches to maintain awareness and knowledge levels of the code**, as time passes since its launch, especially with early engagers. • Early **objective and target setting is an important part of monitoring and evaluation**. In the context of the code, there was insufficient baseline evidence at the outset to set awareness targets. However, once a baseline was established, more formal target setting should have been considered, as proportionate.

Source: ICO Economic Analysis.

And finally, Table 9 captures the more thematic learning points from the impact evaluation.

Table 9: Impact evaluation learning

Lessons	Detail
Enhancing the evidence base	• In order to enhance understanding and effectively **measure the number of ISS providers in scope of the code**, research should be considered to profile and understand the characteristics of ISS providers in the UK.
Parents – a community of unmet need	• There are parental knowledge deficits on data privacy matters and the use of their children's data online. Consideration of **proportionate approaches to improve parental knowledge** are required and where possible drawing on collaboration opportunities with other regulators such as Ofcom.

Schools and teachers	• **Enhancement of the resources available to schools and teachers** using the feedback gathered via the evaluation process, including using child-friendly terminology. • **Consideration of other approaches to build up teacher confidence** on children's privacy and data protection related topics.

Supporting ISS providers	• To reach the one in four ISS providers not familiar with the code:
	  ○ **Terminology and digital literacy** should be a key consideration and research should be undertaken to identify the best approach, especially where ISS providers are expected to engage and adopt guidance and support.
	  ○ Accounting for the **level of potential risk as part of any targeting**.
	  ○ Factors should include what can be learnt from **how other regulators reach target audiences**.
	• The most common reason for SME ISS providers not making changes was time constraints. Smaller businesses either did not have the time to engineer changes or, more commonly, to spend the time acquiring the knowledge and skills to do so. What **further resources can be provided to support SMEs** in this context? The ICO should consider how design guidance products already produced can be better marketed to SMEs.
	• A key route to impact for the code's theory of change is organisations recognising that conformance could help them increase their customer/user base and associated revenue. Consideration is needed on how **to improve awareness of these links and support providers in reaping potential rewards of improvements in conformance**. Promotion of certification schemes could help to support this aim.
	• The evaluation evidence demonstrates that **even small clarifications about the scope of the code can affect how providers view their services**. What can be learnt from this example to apply more broadly?

Policy process	• Policy projects **should follow an established policy methodology** that is consistent and allows policy-makers to view the initiative from start to finish and plan accordingly. An evidence-based approach to policy formation and assessing impact should be in place from the outset. This should include: ○ clear problem definition; ○ understanding of data protection harms and opportunities; ○ a robust estimate of the number of organisations and other affected groups in scope; ○ a proportionately resourced impact assessment; ○ a monitoring and evaluation plan put in place at the outset to ensure lessons can be learnt and acted upon during delivery as well as for future interventions; and ○ a base of past evaluation evidence to draw on when designing interventions. • **Expert panels** (such as the Children's Advisory Panel) should be considered as an efficient **route for testing ideas with stakeholders** but care should be taken in setting the role and remit of panel members.
Further monitoring and evaluation	• This evaluation output covered approximately two years of the code's implementation reflecting on process learning alongside initial impact findings. To gain a more longitudinal perspective on the code's impact, a **refreshed monitoring evaluation strategy** focusing on impact evaluation should be commissioned building on the findings of this report. • Any future evaluation of the children's privacy work should **reflect how any additional guidance or clarifications issued related to children's privacy will be captured** to assess effectiveness, efficiency, economy and any unintended consequences of these interventions.

Source: ICO Economic Analysis.

6.4. Next steps

The Children’s Privacy Board will consider the identified lessons learnt to inform future Children’s code related work and wider learnings for the ICO in line with organisational priorities and available resources.

Annex A: Approach to the evaluation

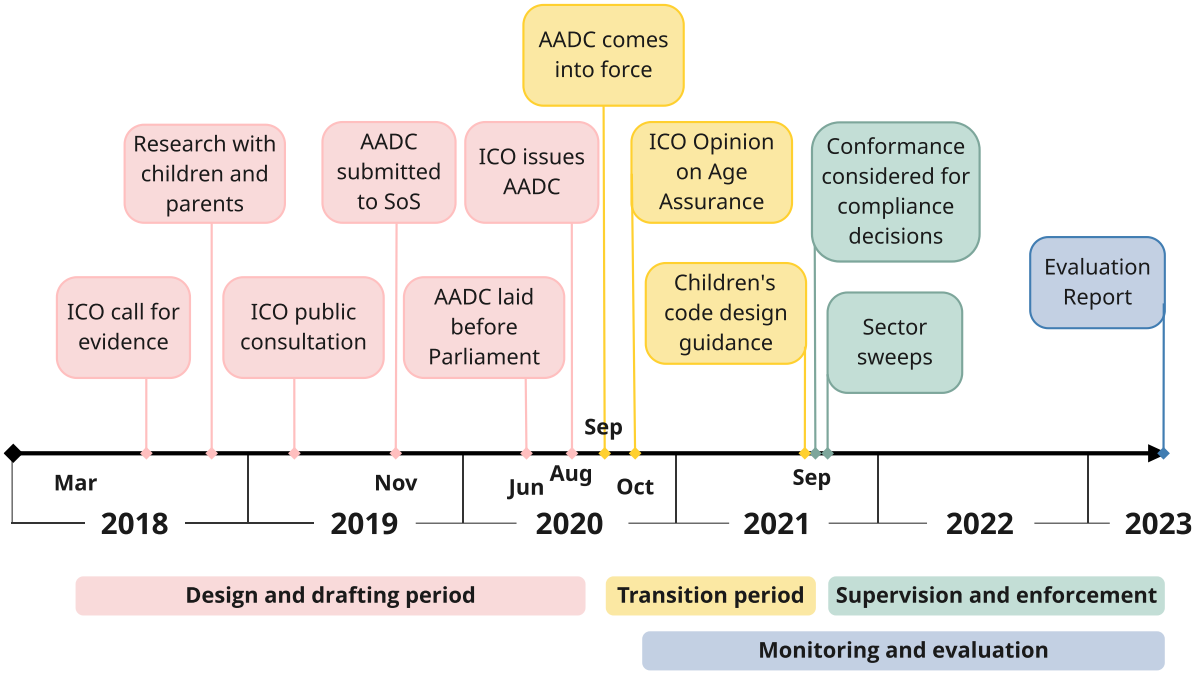
The evaluation approach follows the standard set by the Magenta Book.[58] A good evaluation is useful, credible, robust, proportionate and tailored around the needs of various stakeholders, such as decision-makers, users, implementers and the public.

As highlighted above, the evaluation has been delivered using both process and impact approaches. This means it considers design and implementation learning points, as well as the difference the code has made in terms of impact.

A.1 Evaluation timeline

The evaluation covers the period from March 2018 to December 2022. This covers just over two years of implementation, 12 months of which were classed as a transition period. Figure 11 provides an overview of the code's timeline.

Figure 11: Timeline for the Children's code 2018 onwards



Source: ICO Economic Analysis.

Over our evaluation timeline, the onset of the COVID-19 pandemic in early 2020 and its ongoing effects to the present day need to be kept in mind by readers, in terms of an unexpected external factor impacting delivery and implementation of the code. The implications of this are highlighted where relevant.

[58] HM Treasury (2020) Magenta Book. Available at: https://www.gov.uk/government/publications/the-magenta-book (Accessed: 17 February 2023).

The theory of change shown in Figure 12, towards the end of this Annex, illustrates the longitudinal nature of impacts. At this relatively early stage of the code's implementation, we would not expect to see significant evidence of the code's medium to longer term impacts, but instead early indications of route to impact driven by outputs and outcomes.

A.2 Evaluation evidence sources

Our evaluation design uses a mixed methods approach, combining both qualitative and quantitative methods to answer the impact, process, and where appropriate, value-for-money questions. Table 10 sets out the evidence sources that underpin our analysis and synthesis.

Table 10: Evidence sources informing the code's evaluation

Stakeholder group	Evidence stream	Research method	Timing	Sample size
Industry	Primary research with ISS[59]	Baseline online and telephone survey	Dec 2020 – Jan 2021	511 companies
		First wave online and telephone survey	Jul – Sep 2021	432 companies
		Second wave online and telephone survey	Sep – Nov 2022	407 companies
		1:1 interviews	Oct – Nov 2022	9 companies
	ICO information requests sent to ISS in designated high-risk sectors	Written submissions	Sep – Nov 2021	50 companies
	Children's code design guidance impact research	Online survey, 1:1 interviews and workshops with design teams	Jan – March 2022	Survey: 27 Workshops: 19 Interviews: 4
	ICO evaluation call for evidence	Written submissions	Nov 2022	13 organisations
Parents/carers and children	Primary research with parents/carers and children[60]	Baseline online survey	Nov – Dec 2021	1,535 households
		Tracker online survey	Sep – Nov 2022	1,616 households
		Focus group	Nov 2022	14 households

[59] This research was commissioned to IFF research. The report 'Evaluating the Children's code – an industry perspective' was finalised in January 2023.

[60] This research was commissioned to The Insights Family (TIF).

Stakeholder group	Evidence stream	Research method	Timing	Sample size
	Primary research with parents[61]	Online survey	Nov – Dec 2021	40 parents
Teachers	Primary research with teachers[62]	Baseline online survey	Jan 2022	260 teachers
		Tracker online survey	Sep – Nov 2022	300 teachers
Members of the public	ICO evaluation call for evidence	Written submissions	Nov 2022	10 respondents
Civil society	ICO evaluation call for evidence	Written submissions	Nov 2022	3 respondents
	Additional materials provided by civil society groups	Ad hoc input and evidence submissions from interested parties	Jan 2022 – Nov 2022	N/A
	Primary research with civil society groups	1:1 interviews	Jan – Feb 2023	3 organisations
General / Wider society	Engagement data (eg attendance at events, social media and media reach)	Records on events and awareness raising	Sep 2020 – Jan 2023	N/A
		Website monitoring data	Sep 2020 – Feb 2023	N/A

[61] This research was commissioned to Parentkind. The report 'c' was finalised in December 2022.

[62] This research was commissioned to The Insights Family (TIF).

Stakeholder group	Evidence stream	Research method	Timing	Sample size
	ICO Call for evidence on age assurance	Online survey, written submissions and round tables	Nov 2021 – Jan 2022	Survey: 22 Roundtables: 52
ICO	ADDC impact assessment	Review of publication	2018	N/A
	Programme and project documentation	Internal interviews	2018–- 2022	N/A
	Primary research with staff involved in development and delivery	1:1 interviews	Oct 2022 – Jan 2023	25 staff
	Supervision documentation	Review of published audit summaries	Sep 2021 – Dec 2022	N/A
	Evidence from engagement work by the Digital Economy Team	Internal interviews	Sep 2021	N/A
	Analysis of code related Sandbox[63] and Certification scheme projects	Review of published materials	Sep 2020 – Dec 2022	N/A

Source: ICO Economic Analysis.

[63] See here for more information on the ICO's Regulatory Sandbox: Regulatory Sandbox | ICO.

A.3 Evaluation questions

The evaluation questions that we have used are outlined below. These are not an exhaustive list of questions to be answered but provide a useful guide.

Table 11: Evaluation questions

Process – What can be learned from how the code was developed and implemented?	Impact – What difference has the code made?
• What worked well, or less well, for whom and why? What could be improved? • What can be learned from the delivery methods used? • Were there enough resources? • Were there any unexpected or unintended issues in the delivery? • Was the approach delivered as intended internally and externally?	• Did the code achieve the expected outcomes/impact? To what extent? • What would have happened anyway? • To what extent can the impact be attributed to the code? • How has the context and external factors influenced outcomes? • To what extent have different groups been impacted in different ways, how and why? • What generalisable lessons have we learned about impact?

Source: ICO Economic Analysis.

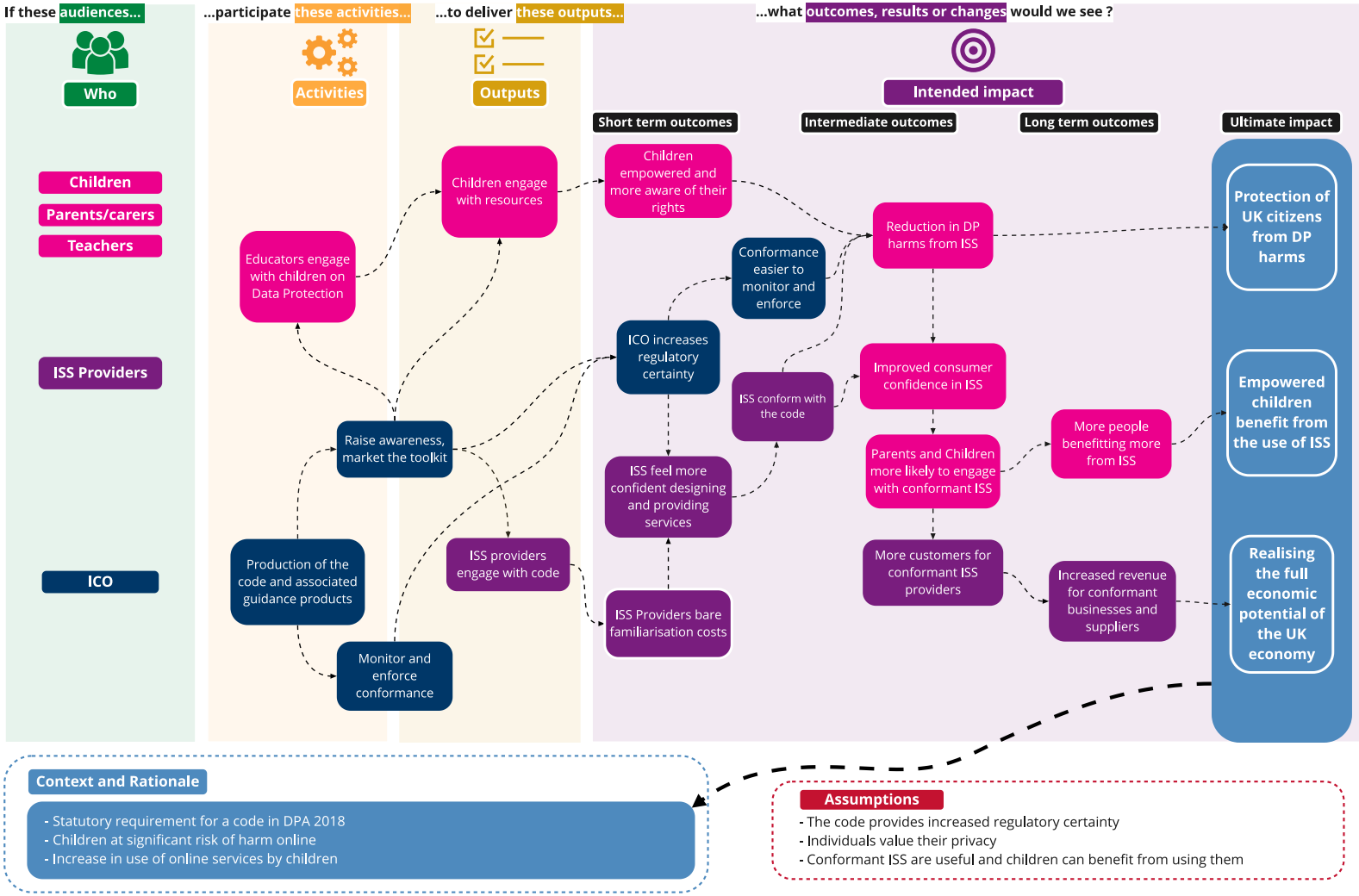
A.4 Theory of change

The theory of change is an integral part of any evaluation. The theory of change illustrates how and why the desired change is expected to happen in a particular context. It does this by exposing the assumptions upon which the intervention is based, examining the wider context, setting out all the steps of the intervention, and outlining how these contribute to achieving the desired outcomes.

Impact, linked to the rationale for the code, is often the most difficult to measure since it will occur over a longer period of time and be influenced by other external factors. Given the code has only been in place since 2020, impact evidence is restricted to shorter-term and intermediate outcomes. A longitudinal approach to evaluation is required to capture complete impact evidence.

Figure 12 demonstrates an evaluation theory of change logic chain in line with Magenta Book guidance.

Figure 12: Children's code theory of change



Source: ICO Economic Analysis

Annex B: Context and rationale

The context in which the code was developed and implemented is an important factor in its assessment. It also helps to illustrate the basis on which the rationale for the code was built and the problem it was seeking to address. This provides a basis to assess whether the rationale is still accurate given the passage of time.

B.1 Context and rationale key messages

The key messages on the context and rational for the code are summarised below:

Statutory requirement: the main driver behind the code was a statutory requirement in s123 of DPA 2018 to produce a code of practice on standards of age appropriate design of relevant ISS which are likely to be accessed by children.[64]

Policy and legal context: The policy and legal context for the code was supportive. The main changes to the context were from the UK's withdrawal from the EU, shifting objectives and delays to related legislation (Online Safety Bill, Digital Economy Act) and internal policy changes, such as ICO25. Although these shifted the context, it remained supportive of and well-aligned with the code.

Socioeconomic context: the socioeconomic conditions at the time provided a robust justification for the implementation of the code. Although the evidence on the number of organisations in scope was limited, the evidence on the prevalence of data protection harms and growing use of online services by children provided enough evidence to justify intervention.

Rationale: the statutory requirement for the code provided a sound rationale with further justification provided by the prevalence of data protection harms and supportive policy and legal context.

B.2 Statutory requirement

Section 123(1) of the DPA 2018[65] required the Information Commissioner to produce a code of practice on standards of age appropriate design of relevant ISS which are likely to be accessed by children. The aim of the code is to

[64] Data Protection Act 2018. Available at: https://www.legislation.gov.uk/ukpga/2018/12/section/123/enacted (Accessed: 17 February 2023).

[65] Data Protection Act 2018. Available at: https://www.legislation.gov.uk/ukpga/2018/12/section/123/enacted (Accessed: 17 February 2023).

support compliance with the DPA 2018 and general principles of the UK General Data Protection Regulation (UK GDPR) to ensure information society services appropriately safeguard children's personal data. Recital 38 of the UK GDPR states:

> "Children merit specific protection with regard to their personal data, as they may be less aware of the risks, consequences and safeguards concerned and their rights in relation to the processing of personal data."[66]

B.3 Policy and legal context

The legal and policy context are important factors to consider to understand the external environment influencing the delivery of the code.

United Nations Convention on the Right of the Child (UNCRC)

Section 123 of DPA 2018 included a specific requirement to have regard for the United Nations Convention on the Right of the Child (UNCRC).[67] The UNCRC is an international human rights treaty (to which the UK is a signatory) that grants all children and young people (aged 17 and under) a comprehensive set of rights. It states that the best interests of the child should be a primary consideration for public or private social welfare institutions, courts of law, administrative authorities or legislative bodies (Article 3) and makes specific references to protection against interference with children's privacy (Article 16).

UK withdrawal from the EU

The Children's code was drafted prior to the signing of the EU-UK Withdrawal Agreement[68] and came into force during the agreement's transition period. The transition period for the code also spanned the introduction of UK GDPR.

Online Safety Bill

A white paper on online harms[69] was published in April 2019, outlining government proposals for a new regulatory framework for online safety to keep UK users, particularly children, safer online. The white paper noted that the regulatory framework (which includes data protection legislation) was

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[66] UK General Data Protection Regulation 2016. Available at: https://www.legislation.gov.uk/eur/2016/679/data.pdf (Accessed: 17 February 2023).

[67] United Nations (1990) Convention on the Rights of the Child. Available at: https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (Accessed: 17 February 2023).

[68] EU-UK Withdrawal Agreement 2020. Available at: https://www.legislation.gov.uk/eut/withdrawal-agreement/contents/adopted (Accessed: 17 February 2023).

[69] DCMS & Home Office (2020) Online Harms White Paper. Available at: https://www.gov.uk/government/consultations/online-harms-white-paper/online-harms-white-paper (Accessed: 17 February 2023).

fragmented and insufficient to meet the full breadth of the challenges faced. The white paper led to the introduction of the Online Safety Bill[70] to enshrine the proposed regulatory framework in law.

- There was a first reading of the Bill in the House of Commons in early 2022 and it is still progressing through Parliament.
- There have been significant delays to the Bill's passage, reported to be due to a variety of factors including a need for deeper scrutiny, political uncertainty and difficulties in finding common ground on proposed amendments.[71]

Digital Economy Act 2017

The Digital Economy Act[72] was passed to make provisions about various activities related to communications, media, marketing and use of online services, among other things. One of the intentions of the act was to: "provide for restricting access to online pornography"

This was set out in Part 3 of the act which included provisions for the Secretary of State to designate an age-verification regulator. In 2019, the UK government announced that it did not intend to activate these provisions and would pursue measures through the Online Safety Bill instead.[73]

Internal policy considerations

The design, drafting and implementation of the code spans a period of change for the ICO, including a change in Commissioners. Some relevant considerations are noted below.

ICO25

John Edwards replaced Elizabeth Denham as Information Commissioner in January 2022. In 2022, the current Commissioner implemented a new organisation-wide strategy, the ICO25 strategic plan.[74] Within the plan is a specific commitment to safeguarding the most vulnerable, and within this commitment, the plan states:

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[70] Online Safety Bill. Available at: https://bills.parliament.uk/bills/3137 (Accessed: 17 February 2023).

[71] House of Common Library (2023) Online Safety Bill: Commons stages. Available at: https://commonslibrary.parliament.uk/research-briefings/cbp-9579/ (Accessed: 27 February 2023).

[72] Digital Economy Act 2017. Available at: https://www.legislation.gov.uk/ukpga/2017/30/contents/enacted (Accessed: 09 March 2023).

[73] UK Parliament (2019) Statement made on 16 October 2019. Available at: https://questions-statements.parliament.uk/written-statements/detail/2019-10-16/HCWS13 (Accessed: 9 March 2023).

[74] ICO (2022) ICO25 Strategic Plan. Available at: https://ico.org.uk/about-the-ico/our-information/our-strategies-and-plans/ico25-strategic-plan/ (Accessed: 21 February 2023).

"we will continue to enforce our Children's code and influence industry to ensure children benefit from an online experience."

This reinstates the importance of children's privacy to the ICO, and demonstrates a continued supportive internal policy context for the code.

Policy methodology

In May 2021, the ICO implemented its Regulatory Policy Methodology Framework.[75] The framework:

"sets out the organisation's approach to regulatory policy making that delivers evidence-based decisions that focus on achieving clearly stated regulatory outcomes"

This represents a change to processes for policy that was not in place during the design and drafting of the code. Internal interviewees reported that the methodology was designed with some of the lessons and successes of the code work in mind.

B.4 Socioeconomic context

The code was based on the socio-economic context at the time it was developed, having first being consulted on in 2018. This is discussed below, along with any measurable changes to this context.

ISS providers

National statistics on the number of businesses in the UK are available from the Business Population Estimates (BPE).[76] However the way in which businesses are categorised by official statistics does not readily map onto the definitional scope of the code. The code uses the term 'Information society service' or ISS. ISS is defined[77] as:

[75] ICO (2023) Regulatory Policy Methodology Framework. Available at: https://ico.org.uk/media/about-the-ico/policies-and-procedures/2619767/regulatory-policy-methodology-framework-version-1-20210505.pdf (Accessed: 21 February 2023).

[76] Department for Business, Energy and Industrial Strategy (2022) Business population estimates. Available at: https://www.gov.uk/government/collections/business-population-estimates (Accessed 20 February 2023).

[77] ICO Services covered by the code. Available at: https://ico.org.uk/for-organisations/guide-to-data-protection/ico-codes-of-practice/age-appropriate-design-a-code-of-practice-for-online-services/services-covered-by-this-code/#code3 (Accessed 20 February 2023).

"any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services.

For the purposes of this definition:

(i) 'at a distance' means that the service is provided without the parties being simultaneously present;

(ii) 'by electronic means' means that the service is sent initially and received at its destination by means of electronic equipment for the processing (including digital compression) and storage of data, and entirely transmitted, conveyed and received by wire, by radio, by optical means or by other electromagnetic means;

(iii) 'at the individual request of a recipient of services' means that the service is provided through the transmission of data on individual request."

Essentially this means that most online services are ISS, including apps, programs and many websites including:

- search engines;
- social media platforms;
- online messaging or internet based voice telephony services;
- online marketplaces;
- content streaming services (eg video, music or gaming services);
- online games;
- news or educational websites,
- any websites offering other goods or services to users over the internet; and
- Electronic services for controlling connected toys and other connected devices.

To take the example of a small business with a website, this website is an ISS if it sells products online, or offers a type of service which is transacted solely or mainly via the website without the customer being present in person. As a result the definition is broad and the majority of online services that children use are covered.

In the context of the official statistics noted above, in estimating the number of providers of 'Information Society Services' data are available for the 'Information and Communication' industry, as well as the narrower 'Information Service activities' division. However, both of these will omit businesses covered by the code scope, such as retail businesses with an online presence, and in the case of the former will also include communications businesses which are explicitly excluded from ISS.

The impact assessment[78] for the code drew on evidence from DCMS's Online Harms White Paper[79] to quantify ISS providers, which estimated that 'fewer than 5% of UK businesses will be in scope'. On this basis, using the BPE estimate in 2019 of 5.9 million total businesses in the UK, there would be around 290,000 businesses affected, declining to 275,000 business in 2022.[80] However, the evidence drawn on for the impact assessment was an indicative best estimate.

There was a quantitative evidence deficit around the understanding of ISS providers in the UK at the time of drafting the code and this evidence gap remains. We recommend that in order to effectively measure the number of ISS providers in scope, research should be conducted to profile and understand the characteristics of ISS providers in the UK.

Number of children affected

In 2018 there were roughly 14 million children in the UK[81] making up 21.2% of the population. Since then, this has reduced slightly to 13.8 million, making up 20.7% of the population.[82] Figure 13 below provides a breakdown by year of age. The chart shows a gradual ageing of the under 18 population over the period, with younger age groups shrinking slightly and older age groups growing.

[78] ICO (2020) Age appropriate design: a code of practice for online services – impact assessment. Available at: https://ico.org.uk/media/about-the-ico/documents/2617988/aadc-impact-assessment-v1_3.pdf (Accessed 8 February 20213).

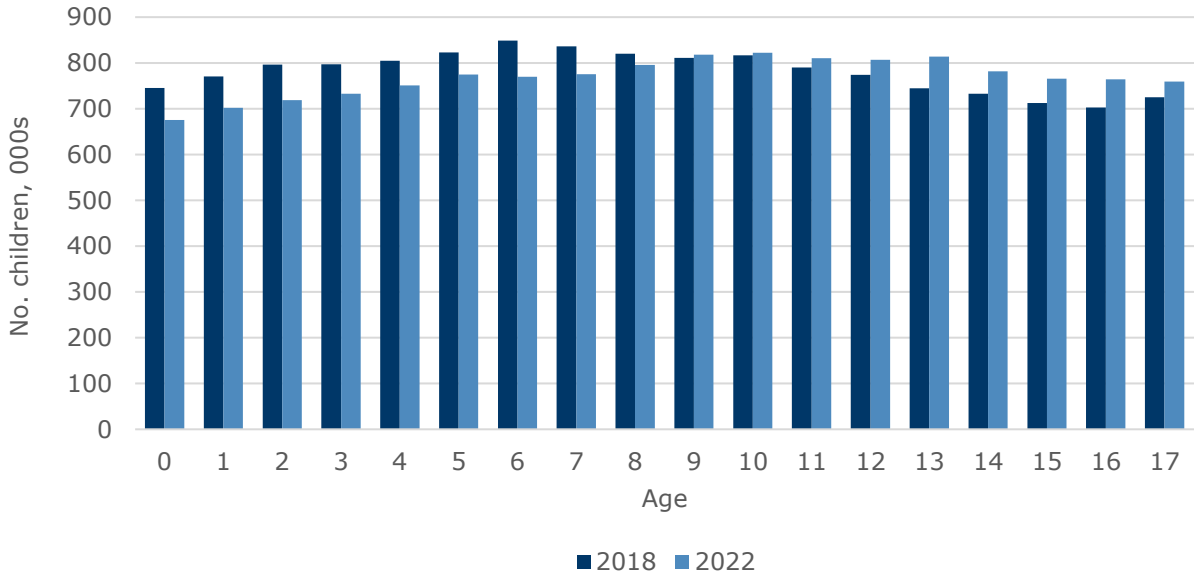
[79] DCMS (2019) Online Harms White Paper initial government response. Available at: https://www.gov.uk/government/consultations/online-harms-white-paper/public-feedback/online-harms-white-paper-initial-consultation-response (Accessed 20 February 2023).

[80] Department for Business, Energy and Industrial Strategy (2022) Business population estimates. Available at: https://www.gov.uk/government/collections/business-population-estimates (Accessed 20 February 2023).

[81] ONS (2022) Estimates of the population for the UK, England, Wales, Scotland and Northern Ireland. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland (Accessed 8 February 20213).

[82] ONS (2022) Estimates of the population for the UK, England, Wales, Scotland and Northern Ireland. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland (Accessed 8 February 2023).

Figure 13: Number of children in the UK (thousands)



Source: Analysis of ONS data[83] by ICO Economic Analysis.

The population of children in the UK is expected to peak in 2024 at 14.2 million then decrease to 13.1 million by 2033.[84] Relative to the whole population, the percentage of children is estimated to be around 21% in 2024 and 19% in 2033. This leaves the context for the code largely unchanged in terms of demographics.

About three in ten UK households (28%) were estimated to include dependent children[85] in 2021.[86] This means the majority of households do not include someone intended to benefit from the code's protections. This helps contextualise the awareness, perception, and impact of the code discussed elsewhere in this report. Children's data privacy, whilst being obviously important, is only directly relevant for a minority of households.

[83] ONS (2022) Estimates of the population for the UK, England, Wales, Scotland and Northern Ireland. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland (Accessed 7 February 2023).

[84] ONS (2023) 2020-based interim national population projections: year ending June 2022 estimated international migration variant. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/2020basedinterimnationalpopulationprojectionsyearendingjune2022estimatedinternationalmigrationvariant (Accessed 17 February 2023).

[85] Dependent children are those aged under 16 years living with at least one parent, or aged 16 to 18 years in full-time education, excluding all children who have a spouse, partner or child living in the household.

[86] ONS (2022) Families and households in the UK: 2021. Available at: Families and households in the UK - Office for National Statistics (ons.gov.uk) (Accessed 20 February 2023).

Online activity

During the development of the code, the COVID-19 pandemic impacted children's online behaviour. Whilst being online can have benefits for children, it can also increase the risk of data protection harms.

A report by Children in Need[87] suggests that due to COVID-19 children were more likely to be exposed to harmful content, as a result of spending more time online. The pandemic pushed many aspects of children's lives online, such as education and socialising, with their lives becoming 'digital by default'.[88] Before the pandemic children reported spending on average on to four hours a day online. During the pandemic, this increased to three to eight hours a day online.[89, 90] UNICEF research states that spending more time online puts children at heightened risk to cyberbullying, harmful content and online sexual exploitation amongst others.[91]

Nearly all children (99%) aged 3-17 are online in some form or another. YouTube and TikTok were reported as the most popular sites, where 95% of children surveyed said they had visited them.[92] This includes both younger and older children, despite the sites being intended for use by those aged 13 or over. On top of the risks of younger children accessing these services, there is the potential for this to set a precedent for children to continue to circumvent age restrictions as they get older.

Online activity by age brackets varied, for example with older age groups messaging apps, social media sites and streaming were becoming more popular. Table 12 shows usage of popular online services by age group for those aged 3–17.

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[87] BBC Children in Need (2020) Understanding the impact of Covid-19 on children and young people. Available at https://www.bbcchildreninneed.co.uk/wp-content/uploads/2020/11/CN1081-Impact-Report.pdf (Accessed 23 February 2023).

[88] Catch22 (2021) 'Digital by Default': impact of the pandemic on children's and young people's experiences online, and what can a children's rights-based approach offer? Available at: https://www.catch-22.org.uk/news/digital-by-default/ (Accessed 23 February 2023).

[89] British Journal of Child Health (2021) Online safety: The impact of the coronavirus pandemic on children in the UK. Available at: https://www.journalofchildhealth.com/content/health-promotion/online-safety-the-impact-of-the-coronavirus-pandemic-on-children-in-the-uk (Accessed 23 February 2023).

[90] The evidence base does not allow post-pandemic estimates to be reliably compared to evidence collected during the pandemic.

[91] UNICEF (2020) COVID-19 and its implications for protecting children online. Available at: https://www.unicef.org/media/67396/file/COVID-19%20and%20Its%20Implications%20for%20Protecting%20Children%20Online.pdf (Accessed 23 February 2023).

[92] Ofcom (2022) Children and parents: media use and attitudes report 2022. Available at: https://www.ofcom.org.uk/__data/assets/pdf_file/0024/234609/childrens-media-use-and-attitudes-report-2022.pdf (Accessed 9 February 2023).

Table 12: Usage of online service by age

	Ages:				
Online service	**3-4**	**5-7**	**8-11**	**12-15**	**16-17**
Video sharing platforms	89%	93%	95%	98%	98%
Messages	50%	59%	84%	97%	99%
Social media	21%	33%	64%	91%	97%
Live stream	32%	39%	54%	73%	79%
Gaming	18%	38%	69%	76%	73%

Source: Analysis of Ofcom data[93] by ICO Economic Analysis.

Children's activities online extend to adult sites, such as dating sites. This is covered in more detail in Section 2.4.2. It is estimated that a minimum of 213,200 15–17 year-olds access dating sites. That's a minimum of one in ten 15–17-year-olds in the UK, attempting to or actually accessing adult dating sites.

Table 13: Number of 15–17-year-olds on dating apps

Name of app/site	**15 – 17 year old users**	**% of 15-17 population**
Tinder	213,200	9.3%
Hinge	113,300	5.0%
Shag	73,400	3.2%
Bumble	66,200	2.9%
Squirt	51,700	2.3%
Grindr	51,300	2.2%
Badoo	20,900	0.9%
Luckycrush	16,500	0.7%
Match	12,100	0.5%
Zoosk	8,000	0.4%
Seeking	6,900	0.3%
Pof	6,900	0.3%
Plenty Of Fish	5,700	0.3%

[93] Ofcom (2022) Children and parents: media use and attitudes report 2022. Available at: https://www.ofcom.org.uk/__data/assets/pdf_file/0024/234609/childrens-media-use-and-attitudes-report-2022.pdf (Accessed 9 February 2023).

Secretbenefits	4,700	0.2%

Source: Analysis of Ofcom data[94] by ICO Economic Analysis.

A 2023 report from the Children's Commissioner[95] suggested that the following percentages in each age group have seen pornography online.

- 10% of 9- and 10-year-olds;
- 27% of 11- and 12-year-olds;
- 50% of 13- and 14-year-olds; and
- 73% of 15- to 17-year-olds.

Based on these figures, we estimate that roughly three million children aged 9-17 have accessed online pornography in the last year or roughly 22% of all 9-17 year olds.

The socio-economic context in terms of online activity has changed since the initial 'design and drafting' of the code. Children's online activity increased significantly during the COVID-19 pandemic, and while it may have reduced somewhat since, the rationale for the code has been enhanced, ultimately strengthening the need for the code.

Data Protection Harms

The internet offers huge opportunities and has become a key platform for children's learning, socialising, and development. The scale of these activities online were accelerated during the COVID-19 pandemic. However, many of the sites and services children are using have not been designed with them in mind, and this can pose risks to children. In designing and drafting the code, the Commissioner considered the key harms to children that can arise from the processing of their personal data online, and that therefore need to be addressed by the code. These can be seen in Figure 14.

[94] Ofcom (2022) Online Nation 2022 Available at: https://www.ofcom.org.uk/research-and-data/online-research/online-nation (Accessed 7 February 2023).

[95] Children's Commissioner (2023) 'A lot of it is actually just abuse' Young people and pornography. Available at: https://www.childrenscommissioner.gov.uk/wp-content/uploads/2023/02/cc-a-lot-of-it-is-actually-just-abuse-young-people-and-pornography-updated.pdf (Accessed 7 February 2023).

Figure 14: Key data protection harms for children

Source: ICO Economic Analysis.

The ICO has developed a Children's code harms framework which sets out a broad range of potential data protection harms, and consequent risky activities.[96] This started as internal policy thinking that evolved into the best interests of the child guidance[97] to more closely align the ICO's thinking on data protection harms with the rights framework of the code.

B.5 Rationale

The rationale for intervention via a statutory code of practice was set by Parliament. It was Parliament's view that leaving matters to the underlying law (UK GDPR, PECR) was not sufficient and was proving ineffective.

During the debate[98] on the Data Protection Bill Baroness Kidron argued that self-regulation had, "not provided a high bar of data protection for children." Baroness Harding of Winscombe supported this point stating that "the truth is that some of the largest companies in the world are simply not putting in place the most basic protections for our children" and that "in research conducted by

[96] ICO (2021) ICO Children's code harms framework. Available at: https://ico.org.uk/for-organisations/childrens-code-hub/age-appropriate-design-code-blogs/applying-the-children-s-code-harms-framework-a-gaming-sector-case-study/ (Accessed: 17 February 2023).

[97] ICO Best interests of the child self-assessment. Available at: https://ico.org.uk/for-organisations/childrens-code-hub/best-interests-of-the-child-self-assessment/ (Accessed: 17 February 2023).

[98] UK Parliament (2017) Data Protection Bill Debate. Available at: https://hansard.parliament.uk/lords/2017-12-11/debates/154E7186-2803-46F1-BE15-36387D09B1C3/DataProtectionBill(HL) (Accessed: 21 February 2023).

the Children's Society, 83% of children said that they think that social media companies should do more to protect them."

As the code was mandated by Parliament in s123 DPA 2018[99] the Commissioner did not have an option to consider alternative action or other forms of regulatory intervention.

There is also alignment with the international policy landscape, including the OECD's Recommendation on the Protection of Children in the Digital Environment[100] which makes explicit reference to safeguarding children's privacy and protecting children's personal data.

From the ICO's perspective, the statutory requirement provides a sound rationale for the code. The existence of potential data protection harms, the increase in children's use of online services and supportive policy and legal context further strengthen the rationale and confirm its continued relevance.

[99] Data Protection Act 2018. Available at: https://www.legislation.gov.uk/ukpga/2018/12/section/123/enacted (Accessed: 17 February 2023).

[100] OECD (2021) Recommendation of the Council on Children in the Digital Environment. Available at: https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0389 (Accessed: 21 February 2023).

Annex C: Summary of consultation responses

This annex presents the analysis of the responses to the public consultation on the Children's code, which took place between 30 September and 18 November 2022.

The respondents' opinions were collected through an online survey or documents submitted to the ICO.

The rest of the annex is structured as follows:

- Section C.1: overview of respondents;
- Section C.2: perception of the ICO support and guidance;
- Section C.3: implementation of changes;
- Section C.4: impact of the code on enterprises, including costs they may have incurred; and
- Section C.5: outcomes and impacts for society.

C.1 Respondents

There were 26 responses to the consultation which are detailed by organisation type in Table 14. Thirteen private sector enterprises were also asked additional question on impacts and outcomes that the code has had on their enterprise.

Table 14: Respondents

Respondent type	No.
Civil society	3
Member of the public	10
Private sector enterprises	13
Technology provider	3
Games	3
EdTech	1
Technology company	1
Legal firm	1
Adult-only service	1
Entertainment service	1
Other	2

Total	26

Source: Analysis of ICO's public consultation data by ICO Economic Analysis (26 responses).

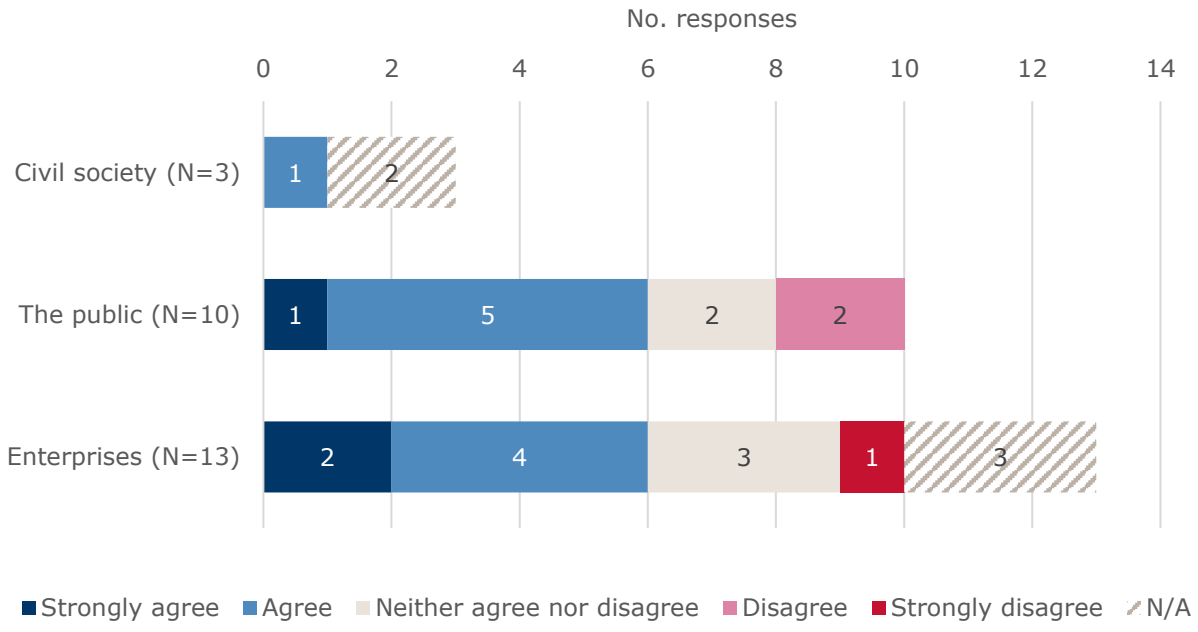
Twenty-two of the total responses were collected via the survey with the remainder submitting short documents. Survey respondents were free to choose to answer only the questions they felt were relevant to them. Respondents who skipped a question are recorded as 'N/A'.

C.2 Perceptions of ICO support and guidance

The largest share of respondents (13 out of 26) agreed that the guidance and support from the ICO on the Children's code were helpful, as seen in Figure 15 below. One respondent noted:

"The guidance and support from the ICO have been helpful and industry has welcomed the ICO's ongoing engagement throughout the design, implementation and enforcement of the Children's Code. The ICO has shown a desire to learn from and collaborate with the industry."

Figure 15: How far do you agree that the guidance and support from the ICO is helpful?



Source: Analysis of ICO's public consultation data by ICO Economic Analysis (26 responses).

Some areas on which further guidance would be useful were:

- industry specific advice;
- applicability of the code to EdTech;

- practical examples of implementation of standards;
- which online services are in scope;
- adequate parental consent for the use of cookies/tracking technologies;
- valid age verification/assurance methods; and
- conformity for services used by multiple age groups.

C.3 Implementation of changes

Half of respondents reported seeing changes to online services following the implementation of the code. Members of the public were the least likely to have seen changes, as shown in Table 15 below.

Table 15: Have you seen changes to online services in scope of the code following the implementation of the Children's code?

	Civil society	Public	Enterprises	All respondents
Yes	2	3	8	13
No	0	5	2	7
Unsure / N/A	1	2	3	6
Total	**3**	**10**	**13**	**26**

Source: Analysis of ICO's public consultation data by ICO Economic Analysis (26 responses).

More specifically, changes highlighted by respondents included:

- increased interest in children's data protection from global ISS providers;
- design changes to default settings and transparency in social media platforms;
- support and information provided to parents and carers on how online activity is monitored;
- providers adapting safeguarding for different age groups;
- improved transparency in the online games industry; and
- services not aimed at children (eg dating, pornography) now considering if their sites are 'likely to be accessed by children' and therefore in scope of the code.

Areas where respondents had expected to see more change included:

- prevalence of nudging techniques;
- inconsistent adoption of pseudonymisation in usernames;

- 'pick and mix' approach to the application of the 15 standards, rather than a more holistic adoption of the code;
- the extent to which privacy or age verification features prevent access for children and place burdens on parents and carers;
- parental controls; and
- over-reliance on self-declaration for age verification.

More robust and purposeful enforcement activity by the ICO was the most common suggestion for spurring on more changes with one respondent reporting:

"the industry is refusing to act citing lack of clarity about their obligations. More than anything the common perception in the industry is that there will be no consequences for non-compliance and that serious enforcement will not happen."

C.4 Impact of the code on enterprises

Most respondent enterprises were directly affected by the implementation of the code, as seen in Table 16.

Table 16: Has the implementation of the Children's code affected your organisation? If yes, what has been the scale of the impact on your organisation?

		No.
Yes		8
	Significant Impact	3
	Moderate Impact	2
	Minor Impact	3
No		1
Unsure / N/A		4
Total		**13**

Source: Analysis of ICO's public consultation data by ICO Economic Analysis (13 responses).

The impacts reported by enterprises mainly centred around enhancements to data protection processes and procedures.

- None of the enterprises reported any impacts that were further along the Children's code theory of change (see Figure 1) such as improvements in consumer confidence or increases in the customer base.

- This suggests that it is too early to tell or that enterprises are unaware of these later stage outcomes and impacts.

The changes to processes and procedure however are a positive indicator of potential future impacts.

Costs to enterprises

Most enterprises who responded to the public consultation said conforming with the code had imposed additional costs on their organisation, as seen in Table 17.

Table 17: Has conforming with the Children's code imposed any additional costs on your organisation?

	No.
Yes	8
No	2
N/A	3
Total	**13**

Source: Analysis of ICO's public consultation data by ICO Economic Analysis (13 responses).

However, very few respondents were able to provide quantitative estimates of the additional costs. One respondent estimated that it took them about 18 months, and around £100k, to ensure conformity to the code. Their efforts "spanned working with external bodies and teams across the business – Legal[,] Customer Support[,] HR[,] Marketing[,] Regulatory & Policy Design [and] Product Audit & compliance".

Enterprises have identified these costs to be linked to

- conducting DPIAs and risk assessments;
- updating their policies and procedures;
- seeking expert independent advice;
- foregone revenues from targeted advertising at children;
- retro-fitting their existing technologies; and
- addressing divergences with other jurisdictions when operating internationally.

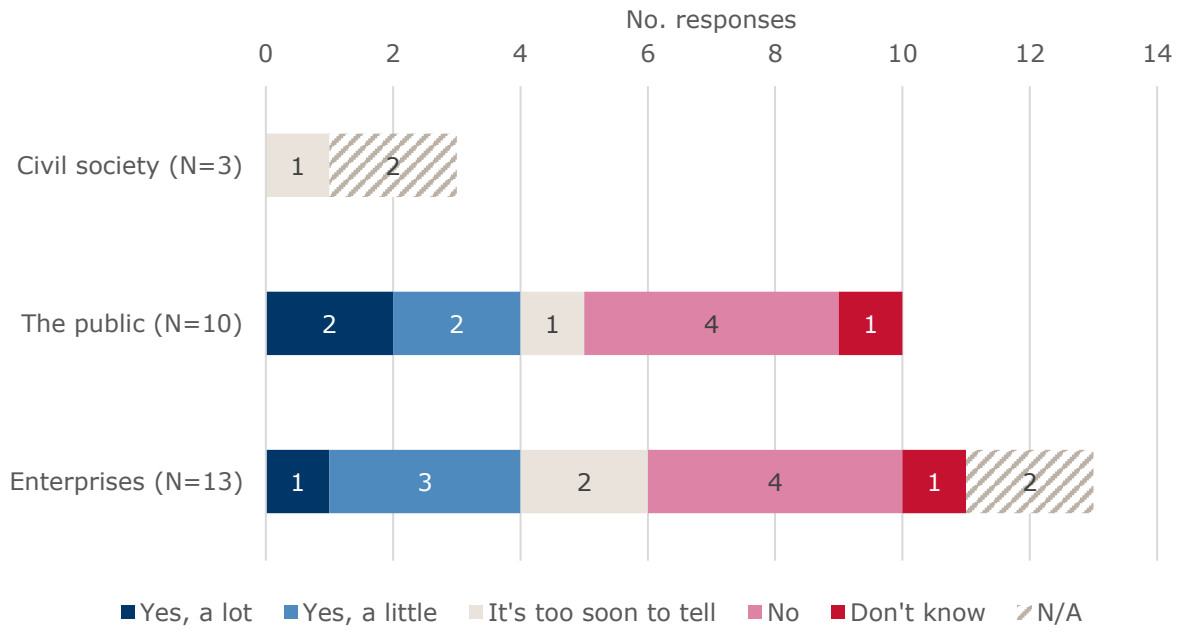
One respondent noted that there were differences by size of enterprise:

"For larger organisations costs are not prohibitive but for smaller developers and start ups any form of regulatory compliance poses challenges."

C.5 Outcomes and impacts for society

Respondents were divided on whether the code was meeting its objectives with equal numbers reporting that it did or didn't, as shown in Figure 16.

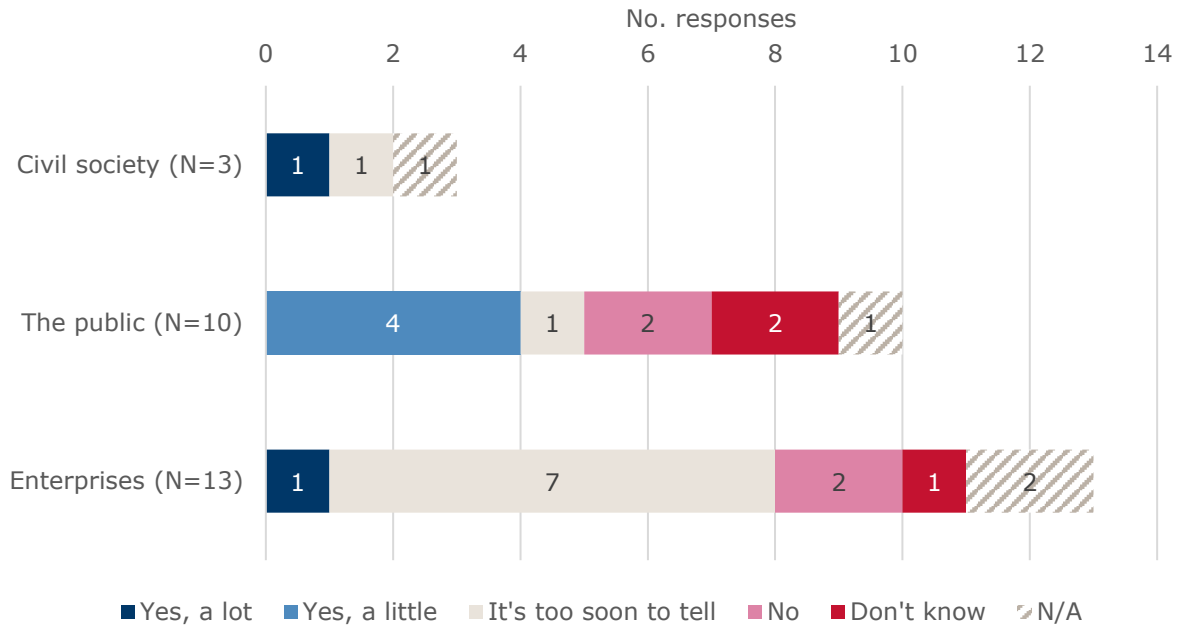
Figure 16: Do you think the Children's code is meeting its objectives and having the impact that it envisioned?



Source: Analysis of ICO's public consultation data by ICO Economic Analysis (26 responses).

A minority of respondents thought the code was already making a difference to the way children experience the online world (6 out of the 22 that responded to the question). Figure 17 shows that the views on this topic are varied.

Figure 17: Do you think the Children's code is making a difference to the way children experience the online world?



Source: Analysis of ICO's public consultation data by ICO Economic Analysis (26 responses).

One respondent from civil society cited research from Fairplay[101] which showed that, since the code came into force, UK teens have been benefitting from higher standards of privacy than many of their counterparts from around the world. It is possible that the code application is not consistent across ISS, with some being at more advanced stages than others, but it should also be recognised that even partial application is an improvement in children's data privacy. It should also be noted that the inconsistency in views could be influenced by differences in awareness and perspective, often driven by whether there are children in households.

Lastly, one enterprise noted the positive impact that the ICO's code has had on the landscape of children's online privacy and protection, with other regulators following the ICO's footsteps. While regulatory efforts in this area are welcome, the enterprise adds that:

"there is a risk that simultaneous initiatives [internationally] would result in heterogenous obligations and expectations that would make it more challenging for organizations to operate across different markets"

[101] Fairplay (2022) Global Platforms, partial protections: Design-discriminations. Available at: https://fairplayforkids.org/wp-content/uploads/2022/07/design-discriminations.pdf (Accessed 27 February 2023).

Annex D: Overview of industry and children, parents and teachers research

The ICO procured research activity to help inform the ongoing work of the code, as well as the evaluation. This involved three streams of work:

- Industry: a three wave survey and one to one interviews to measure awareness, understanding and impact of the code amongst ISS providers;[102]
- Parents and children: a two wave survey and focus groups to help understand awareness, effectiveness and impact of the code amongst children and parents;[103] and
- Teachers: a survey to help understand the use of the school resources created by the ICO amongst teachers.[104]

Industry research

The industry work involved three survey waves. The sample sizes and time period for each wave are set out below:

Table 18: Sample sizes for industry research

	Period	Respondents
Baseline (Q1 2021)	Jan to Feb 2021	511
Wave 1 (Q3 2021)	July to Sept 2021	432
Wave 2 (Q4 2022)	Oct to Dec 2022	407
Wave 2 qualitative interviews	Oct to Dec 2022	9

Source: IFF (2023) Evaluating the Children's code – an industry perspective.

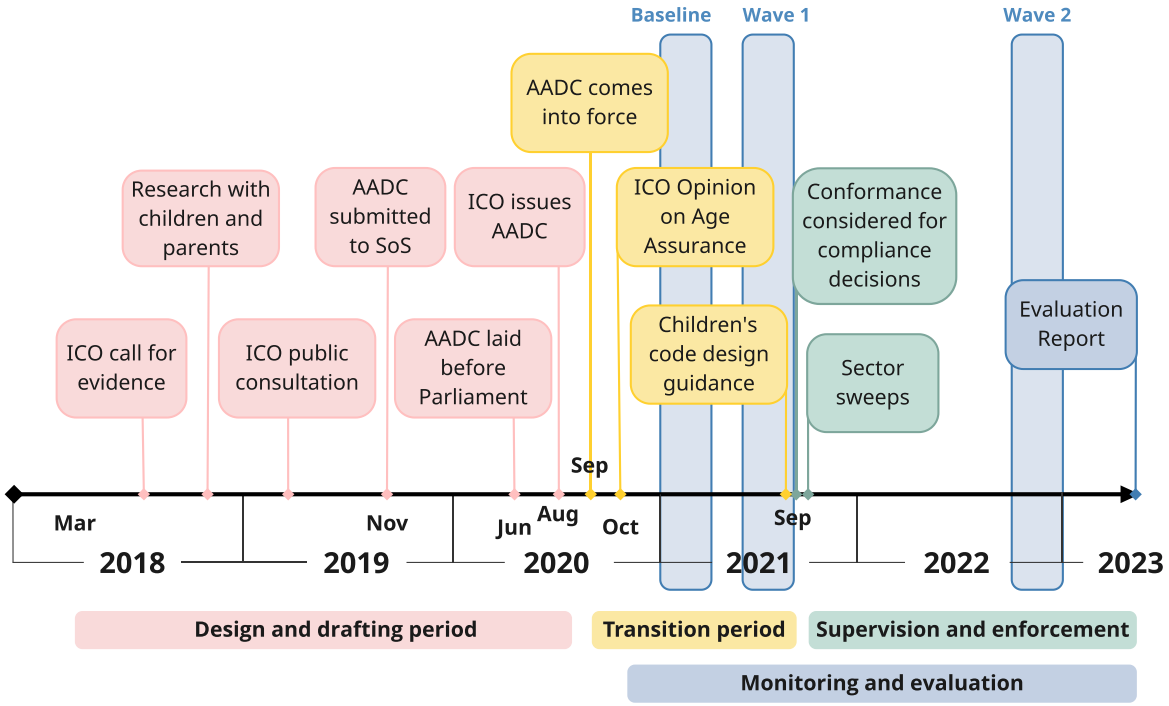
This evaluation report draws mainly from the baseline (Q1 2021) and wave 2 (Q4 2022). Whilst the wave 1 (Q3 2021) survey results were useful for delivery teams, taking the earliest and then latest points is most useful for the evaluation. The research waves in relation to the timeline for the code are shown in Figure 18.

[102] IFF (2023) Evaluating the Children's code – An Industry Perspective (Accessed 2 February 2023).

[103] The Insights Family (2023) The Children's code- Understanding Awareness, Effectiveness and Impact amongst Children, Parents and Teachers (Accessed 21 February 2023).

[104] The Insights Family (2023) The Children's code- Understanding Awareness, Effectiveness and Impact amongst Children, Parents and Teachers (Accessed 21 February 2023).

Figure 18: Industry research timeline



Source: ICO Economic Analysis.

Parents and children research

The work with parents and children involved two survey waves. The sample sizes and time period for each wave are set out below:

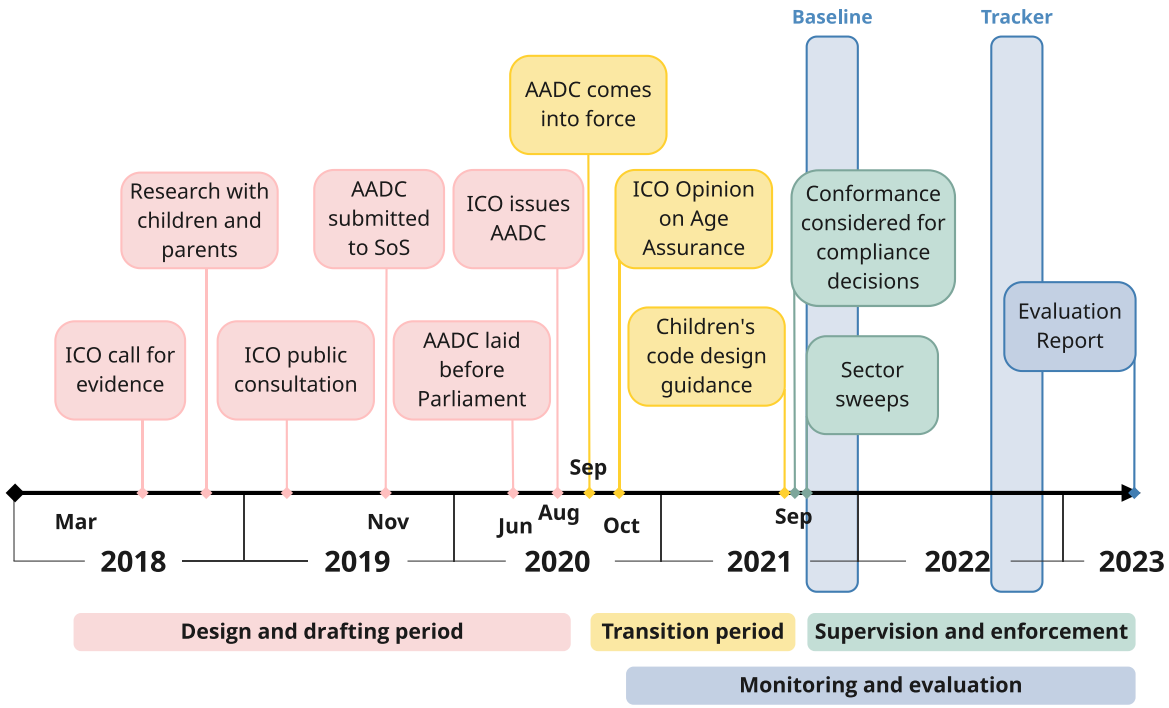
Table 19: Sample sizes for parents and children research

	Period	Respondents
Baseline	Nov to Dec 2021	1,535
Tracker	Sep to Nov 2022	1,616
Focus group	Nov 2022	14

Source: The Insights Family (2023) The Children's code- Understanding Awareness, Effectiveness and Impact amongst Children, Parents and Teachers.

The research waves in relation to the timeline for the code are shown in Figure 19.

Figure 19: Parents and children research timeline



Source: ICO Economic Analysis.

Teachers research

The work with teachers consisted of two online surveys. The sample sizes and time periods are set out below:

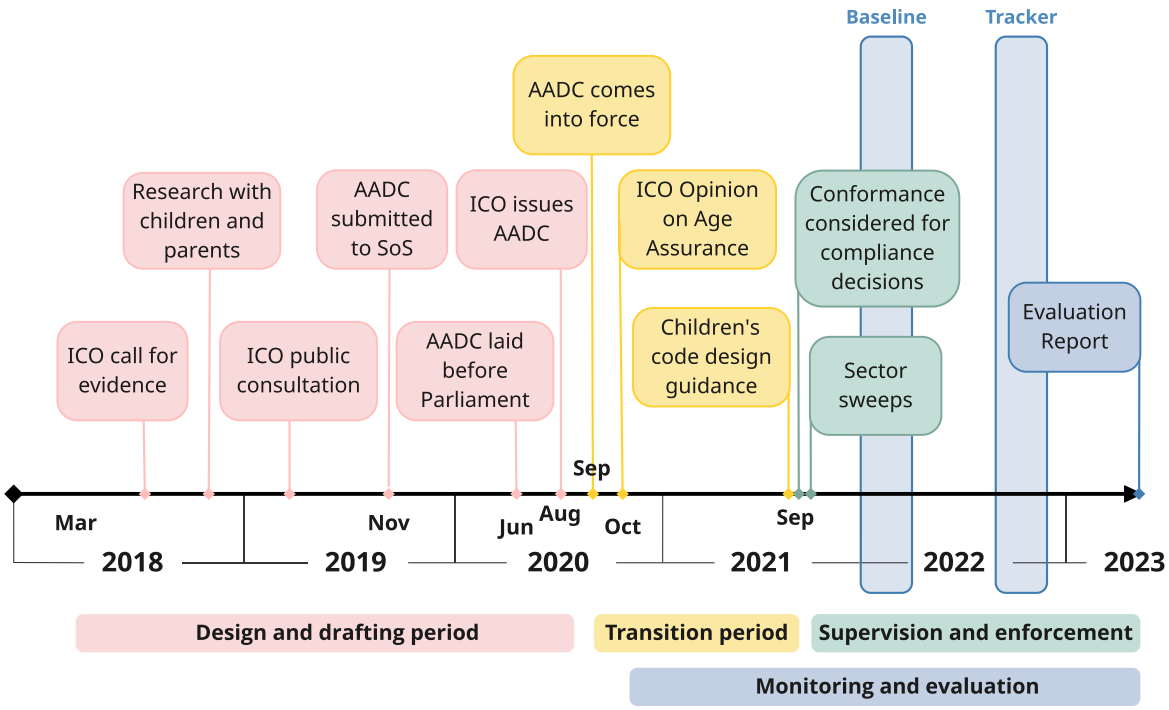
Table 20: Sample sizes for industry research

	Period	Respondents
Baseline	Jan 2022	260
Tracker	Sep to Nov 2022	300

Source: The Insights Family (2023) The Children's code- Understanding Awareness, Effectiveness and Impact amongst Children, Parents and Teachers.

The survey in relation to the timeline for the code is shown in Figure 20.

Figure 20: Teachers research timeline



Source: ICO Economic Analysis.

Annex E: Children’s code standards

Table 21: Children's code standards

No.	Title	Description
1	Best interests of the child	The best interests of the child should be a primary consideration when you design and develop online services likely to be accessed by a child.
2	Data protection impact assessments	Undertake a DPIA to assess and mitigate risks to the rights and freedoms of children who are likely to access your service, which arise from your data processing. Take into account differing ages, capacities and development needs and ensure that your DPIA builds in compliance with this code.
3	Age appropriate application	Take a risk-based approach to recognising the age of individual users and ensure you effectively apply the standards in this code to child users. Either establish age with a level of certainty that is appropriate to the risks to the rights and freedoms of children that arise from your data processing, or apply the standards in this code to all your users instead.
4	Transparency	The privacy information you provide to users, and other published terms, policies and community standards, must be concise, prominent and in clear language suited to the age of the child. Provide additional specific ‘bite-sized’ explanations about how you use personal data at the point that use is activated.
5	Detrimental use of data	Do not use children’s personal data in ways that have been shown to be detrimental to their wellbeing, or that go against industry codes of practice, other regulatory provisions or Government advice.

6	Policies and community standards	Uphold your own published terms, policies and community standards (including but not limited to privacy policies, age restriction, behaviour rules and content policies).
7	Default settings	Settings must be 'high privacy' by default (unless you can demonstrate a compelling reason for a different default setting, taking account of the best interests of the child).
8	Data minimisation	Collect and retain only the minimum amount of personal data you need to provide the elements of your service in which a child is actively and knowingly engaged. Give children separate choices over which elements they wish to activate.
9	Data sharing	Do not disclose children's data unless you can demonstrate a compelling reason to do so, taking account of the best interests of the child.
10	Geolocation	Switch geolocation options off by default (unless you can demonstrate a compelling reason for geolocation to be switched on by default, taking account of the best interests of the child). Provide an obvious sign for children when location tracking is active. Options which make a child's location visible to others must default back to 'off' at the end of each session.
11	Parental controls	If you provide parental controls, give the child age appropriate information about this. If your online service allows a parent or carer to monitor their child's online activity or track their location, provide an obvious sign to the child when they are being monitored.
12	Profiling	Switch options which use profiling 'off' by default (unless you can demonstrate a compelling reason for profiling to be on by

		default, taking account of the best interests of the child). Only allow profiling if you have appropriate measures in place to protect the child from any harmful effects (in particular, being fed content that is detrimental to their health or wellbeing).
13	Nudge techniques	Do not use nudge techniques to lead or encourage children to provide unnecessary personal data or weaken or turn off their privacy protections.
14	Connected toys and devices	If you provide a connected toy or device ensure you include effective tools to enable conformance to this code.
15	Online tools	Provide prominent and accessible tools to help children exercise their data protection rights and report concerns.

Source: ICO (2021) Children's code.

Annex F: Glossary

Table 22: Glossary of terms

Term	Description
DPA	The Data Protection Act 1998 (DPA, c. 29) was an Act of Parliament of the United Kingdom designed to regulate the processing of information relating to individuals, including the obtaining, holding, use or disclosure of such information.
Impacts	These are the changes caused by an intervention. They are measurable achievements which either are themselves, or contribute to, the objectives of the intervention.
Intervention	Government intervention is regulatory action taken by government that seek to change the decisions made by individuals, groups and organisations about social and economic matters.
ISS	Information Society Services: services within the meaning of Article 1(2) of Directive 98/34/EC as amended by Directive 98/48/EC – any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services- see Services covered by this code | ICO for more information
ISS provider	A provider of information society services
Longitudinal	Over a period of time. In the context of impacts this often refers to the impacts occurring over a longer period of time rather than occurring immediately after a policy intervention.
Operation Lander	The name given internally to the project set up within the ICO to cover the transition period for the code
Operation Valency	The name given internally to the project set up within the ICO to ready the organisation for moving out of the transition period
Outcomes	Outcomes are the short to medium affects you are looking to have or the 'step changes', which need to occur in order to achieve your impact. These are often more difficult to measure than outputs, as they can frequently relate to perceptions, emotions or other internal state.

Outputs	Outputs are the tangible or intangible things that an intervention produces. They should act to 'spark change' or act as the catalyst for your identified outcomes. They are normally fairly easy to measure and can often be quantified, eg how many do we do or the number of outputs you create.
Theory of change	This includes the theory of how the intervention is expected to work (setting out all the steps expected to be involved in achieving the desired outcomes), the assumptions made, the quality and strength of the evidence supporting them, and wider contextual factors.
UNCRC	The United Nations Convention on the Rights of the Child (UNCRC) is an international human rights treaty which sets out the civil, political, economic, social, health and cultural rights of children.

Source: ICO.