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COMMISSION STAFF WORKING DOCUMENT

EVALUATION

of the

**Regulation 80/2009 of the European Parliament and the Council of 14 January 2009 on
a Code of Conduct for computerised reservation systems**

{SWD(2020) 11 final}

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Glossary

<i>Term or acronym</i>	<i>Meaning or definition</i>
CRS	Computerised Reservation System
EC	European Community
EEA	European Economic Area
EEC	European Economic Community
GDPR	General Data Protection Regulation
GDS	Global Distribution System
IATA	International Air Transport Association
ICT	Information and Communication Technology
LCC	Low-Cost Carrier
MIDT	Marketing Information Data Tapes
NDC	New Distribution Capability
TMC	Travel Management Company

1) INTRODUCTION

Purpose of the evaluation

This evaluation concerns Regulation (EC) 80/2009 of the European Parliament and the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems¹ (the "CRS Code of Conduct").

A computerised reservation system (CRS) is defined in the CRS Code of Conduct as [...] *a computerised system containing information about, inter alia, schedules, availability and fares, of more than one air carrier, with or without facilities to make reservations or issue tickets, to the extent that some or all of these services are made available to subscribers*².

The CRS Code of Conduct establishes a regulatory framework for computerised reservation systems (CRSs), in so far as they contain air transport products, when offered for use or used in the Union. CRSs (also known as Global Distribution Systems – GDSs) are computerised reservation networks used by travel agents (online and bricks-and-mortar/offline), and large corporations as a single point of access for booking airline tickets, rail tickets, hotel rooms, rental cars, and other travel-related items. CRSs are also used by some metasearch sites in order to obtain information about the services offered by air carriers³ that participate in CRSs. The CRS Code of Conduct applies to air transport products. It also applies to rail transport services when they are presented alongside air transport products in the main display of the CRS.

The objective of this evaluation is to assess to what extent the CRS Code of Conduct has achieved its specific objectives, namely:

- A. Ensure a level playing field for all participating carriers as to the access to and the use of CRS services;
- B. Prevent distortion of competition between CRSs by parent carriers and ensure fair and effective competition between carriers;
- C. Ensure equal treatment of participating carriers in the Marketing Information Data Tape (MIDT) market and prevent abuse of MIDT data;
- D. Increase transparency on travel options;
- E. Consistent application of data protection rules specific to CRSs across the EU;

¹ OJ L 35, 4.2.2009, p.47.

² Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems and repealing Council Regulation (EEC) No. 2299/89.

³ In this evaluation SWD “carrier” is used instead of “airline”, as this is the term used in the Regulation (EC) 80/2009 on a Code of Conduct for computerised reservation systems (CRS). However, the two terms are synonymous.

F. Promotion of rail transport and inter-modal transport

The Aviation Strategy adopted on 7 December 2015⁴ acknowledged the relevance of information and communications technologies (ICTs) for the aviation industry and quoted the market of airline ticket distribution as a prime example of advanced deployment of ICT in the transport sector.

The Aviation Strategy considered that the EU rules governing airline ticket distribution in the CRS Code of Conduct might no longer entirely reflect market reality. Changes such as divestiture of carrier ownership in the CRSs, increased access to internet, development of alternative distribution channels and deregulation of CRSs in some jurisdictions, should be taken into account when considering whether the legislation remains appropriate.

In 2012, the Commission published the report prepared by an external consultant regarding a mid-term evaluation of the CRS Code of Conduct⁵. The report revealed that all major stakeholders supported the existence of some form of regulation for CRSs, but it also identified that in a few areas there were disagreements on how and what to regulate. These disagreements implied opposing views from CRSs and travel agents on one side and carriers on the other side.

In 2013⁶, the Commission conducted a Fitness Check of the EU legislation specific to the internal aviation market. As regards the CRS Code of Conduct, the Commission found that the relevant marketing and technological evolutions were still in progress and needed to stabilise before taking any decision on a possible need for changes.

In October 2017, the Commission published a Roadmap⁷ outlining its plans for this evaluation. An external support study to this evaluation was carried out from March 2018 to May 2019. This study takes into account the conclusions of the above mentioned Fitness Check carried out in 2013.

This evaluation systematically reviews and analyses all available evidence, from a variety of sources, which mainly include information shared by the stakeholders concerned.

The evaluation will provide an up-to-date overview of the application of the provisions of the CRS Code of Conduct. It will also seek to identify evidence pointing to any areas of concern in the application of the CRS Code of Conduct.

⁴ [The Aviation Strategy adopted on 7 December 2015](#)

⁵ [Mid-term evaluation of Regulation 80/2009 on a Code of Conduct for computerised reservation systems and repealing Council Regulation 2299/89](#)

⁶ [Fitness Check of the EU legislation specific to the internal aviation market](#)

⁷ [Roadmap for the evaluation](#)

The evaluation will help the Commission to decide on the best course of action to be taken, also taking into account market developments.

Scope of the evaluation

This evaluation covers the 7-year period starting from 29 March 2009, when the current CRS Code of Conduct entered into force, until 31 December 2016 and it covers all 28 Member States.

The evaluation covers the 5 evaluation criteria required by the European Commission's Better Regulation Guidelines⁸, namely relevance, effectiveness, efficiency, coherence and EU added value.

2) BACKGROUND TO THE INTERVENTION

Description of the intervention and its objectives

The CRS Code of Conduct establishes a regulatory framework for market participants in the market for CRSs.

Description of CRSs and the CRS market

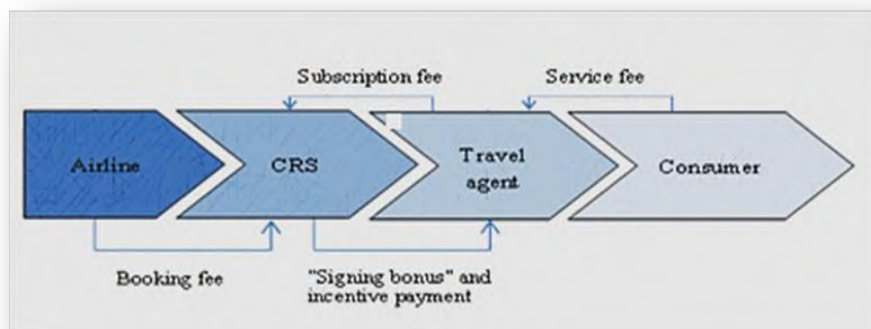
CRSs are computerised reservation systems containing information about, inter alia, schedules, availability and fares, of more than one air carrier, with or without facilities to make reservations or issue tickets, to the extent that some or all of these services are made available to subscribers. They are used by travel agents (online and offline), and large corporations as a single point of access for booking airline tickets, rail tickets, hotel rooms, rental cars, and other travel-related items. CRSs are also used by some metasearch sites in order to obtain information about the services of carriers that participate in CRSs. The CRS Code of Conduct applies to air transport products. The CRS Code of Conduct also applies to rail transport services when these are presented alongside air transport products in the CRS's main display (i.e. CRS Code of Conduct does not apply to rail transport services when presented through a "rail only" display).

CRSs act as technical intermediaries in a market of a two-sided nature, connecting two separate categories of players (carriers, and other travel service providers, such as rail operators, on the one hand, and travel agencies, on the other). Carriers provide CRSs with information on all or part of their booking inventory (e.g. fares, schedules and availability), while the CRSs provide the carriers with booking capability and a distribution channel to the travel agents. CRSs provide travel agents with reservation, booking and ticketing services by means of a comprehensive tool, which allows comparison of prices and conditions from hundreds of carriers. CRSs provide travel agents with immediate information about the availability of air and rail transport services,

⁸ [Better regulation guidelines](#)

[Better Regulation „Toolbox”](#)

and the fares and schedules for such services. They permit travel agents to make immediately confirmed reservations on behalf of consumers.⁹



As illustrated in the figure above, when a travel agent books a ticket using a CRS, the carrier pays a booking fee to the CRS. The travel agent often charges a service fee to the consumer for the booking of the ticket. Travel agents often pay a subscription fee to the CRS. CRS providers often offer incentive payments to travel agents for booking tickets through their CRS, which can exceed the amount of the subscription fee paid by the travel agent. Incentive payments paid by the CRSs to the travel agents usually vary according to the size of the travel agents and hence their bargaining power.

Moreover, CRSs often provide the equipment and/or software that the travel agent uses for its front office (the booking of the customer's travel requirements) and back office tasks (such as accounting systems, airline billing and settlements, customer relations etc.)¹⁰

Origin of the CRS Code of Conduct

The first CRS Code of Conduct was established in 1989 through Regulation (EEC) 2299/89¹¹ and was subsequently amended in 1993¹² and 1999¹³. In 2009, Regulation (EEC) 2299/89 was replaced by Regulation (EC) 80/2009.

⁹ Unless specifically stated otherwise, references in this document to 'consumers' also include customers who are travelling for business or professional reasons (corporate customers).

¹⁰ Steer Davies Gleave DG mid-term evaluation, p.3.

https://ec.europa.eu/transport/sites/transport/files/modes/air/studies/doc/internal_market/crs_fitness_check_report_final.pdf

¹¹ [Council Regulation \(EEC\) No 2299/89 of 24 July 1989 on a Code of Conduct for computerised reservation systems](#)

¹² [Council Regulation \(EEC\) No 3089/93 of 29 October 1993 amending Regulation \(EEC\) No 2299/89 on a code of conduct for computerized reservation systems](#)

At the time of the adoption of the first CRS Code of Conduct, the vast majority of airline bookings were made through CRSs. For air travel, consumers could practically only rely on a single information and distribution channel, the one constituted by CRSs and travel agents. In addition, most CRSs were owned and controlled by carriers. This combination of factors created particular risks of abuse of market power, for which general competition rules were considered not sufficient and for which specific ad hoc rules in the form of a CRS Code of Conduct were considered necessary. Given the complex and multi-national character of CRS services and their importance for the single aviation market, regulation at EU level was considered to have an added value in this sector.

The CRS Code of Conduct recognised that, in view of the combination of factors referred to above, CRSs required a certain degree of ex ante regulation in order to ensure fair and effective competition between carriers, by ensuring that all carriers enjoyed the same level of access to travel agents and consumers. It was also considered necessary to protect consumers' interests by ensuring that information on all carriers participating in the CRS was equally accessible (no display bias). The CRS Code of Conduct was established with the aim of improving transparency and preventing discriminatory behaviour both by the system vendors¹⁴ themselves and by parent carriers¹⁵. On the one hand, system vendors were required to deal in an even-handed manner with all carriers and travel agents, while, on the other hand, parent carriers of a CRS were required not to favour their own CRS over the others. The CRS Code of Conduct also imposed obligations in terms of neutral display, in order to avoid discriminatory treatment of carriers in CRS displays.

The impact assessment of 2007

The Commission's impact assessment of 2007¹⁶ accompanying the proposal for a revision of the CRS Code of Conduct¹⁷, which ultimately led to the adoption of the CRS Code of Conduct in 2009, found that changes in technology and economics were gradually eroding the key features of the competitive landscape for which the CRS Code of Conduct was designed. Many carriers had divested their CRS ownership. In addition,

¹³ [Council Regulation \(EC\) No 323/1999 of 8 February 1999 amending Regulation \(EEC\) No 2299/89 on a code of conduct for computer reservation systems \(CRSs\)](#)

¹⁴ Defined by Article 2 of the Code of Conduct as any entity which is responsible for the operation or marketing of a CRS.

¹⁵ Parent carrier means *any air carrier or rail-transport operator which directly or indirectly, alone or jointly with others, controls, or participates in the capital with rights or representation on the board of directors, supervisory board or any other governing body of, a system vendor, as well as any air carrier or rail-transport operator which it controls* (Article 2(7) of the Code of Conduct).

¹⁶ [Impact Assessment for the Proposal for a regulation of the European Parliament and of the Council on a Code of Conduct for computerised reservation systems](#)

¹⁷ [Proposal for a Regulation of the European Parliament and of the Council on a Code of Conduct for computerised reservation systems](#)

thanks to the development of alternative distribution channels, such as the carriers' Internet websites or their call centres, consumers were found to have access to a multiplicity of information and booking channels for air transport services.

In the impact assessment, it was considered that the CRS Code of Conduct of 1989 was increasingly ill-adapted to the changed market conditions and was creating inefficiencies. The Code's provisions increased the cost of CRS services and restricted the CRSs' flexibility to adapt their services to the specific needs of carriers and travel agents. Most importantly, the Code's requirement that CRSs should not discriminate between carriers for booking fees stifled price competition between CRSs, and the prohibition for carriers to differentiate between CRSs for fare content significantly restricted carriers' negotiating freedom. The ensuing lack of effective competition between CRSs led to higher CRS booking fees and a market which favoured CRSs and travel agents, at the expense of carriers and their passengers. The main issues identified were: restrictions on the CRS providers' ability to tailor their offerings to the market, reduced price competition due to the non-discrimination rule regarding booking fees, and restricted negotiation freedom between CRS providers and carriers due to the prohibition on carriers to differentiate fare content between the CRSs in which they participated.

The 2007 impact assessment considered several policy options. Two options for revision – partial and full deregulation – were compared to the baseline of the status quo. The first option – partial deregulation – was further subdivided in three sub-options that differed with regard to the safeguard measures in case of close links between carriers and CRSs.

The 2007 impact assessment found that the option of a partial deregulation with specific provisions for parent carriers corresponded best to the objectives set for the revision of the CRS Code of Conduct.

The 2009 CRS Code of Conduct

As mentioned above, the current CRS Code of Conduct was adopted at a time when airline ticket distribution was changing.

The CRS Code of Conduct contains a partial deregulation compared to its predecessor, while retaining specific provisions for parent carriers. Full deregulation was however rejected in the 2007 impact assessment and some level of regulation was considered to be still needed for the reasons that will be presented below.

At the time of the adoption of the current CRS Code of Conduct in 2009, a large share of bookings were still made using CRS (around 60% of bookings measured in volume according to the 2007 impact assessment).

Most travel agents subscribed to only one CRS ('single homing'). This meant that carriers had incentives to participate in all CRSs in order to reach as many travel agents, and therefore customers, as possible ('multi homing'). Low levels of internet penetration in some Member States, and dependence of business travellers on Travel Management

Companies meant that in many cases carriers had few alternatives to distributing via a CRS-based channel.

These factors together were considered to give the CRSs market power over carriers.

This was further reinforced by a regional concentration of the CRS market. Despite the development of the internal aviation market, national carriers tend to have a stronger market position in their national markets. Each carrier traditionally had a long-standing relationship with a CRS provider (Amadeus, Travelport and Sabre), as most CRS providers also offer other technological services to carriers (e.g. inventory management). Together with the tendency of travel agents to subscribe to only one CRS, this led to a single CRS having a stronger market presence in particular Member States.

The overall general objectives of the CRS Code of Conduct are to prevent abuse of market power and ensure market efficiency as well as the protection of consumer interests.

These are translated into the specific objectives already mentioned:

a. Ensure a level playing field for all participating carriers as to the access to and the use of CRS services

To ensure the equal treatment for all participating carriers, it is considered necessary to prevent system vendors from:

- discriminating between participating carriers in the display of data;
- discriminating between participating carriers in the loading and processing of data;
- attaching unfair and/or unjustified conditions to any contract with participating carriers;
- restricting participating carriers from using other CRSs.

Such behaviour would lead to inefficient markets where distribution costs are kept at high levels and where consumers do not have access to neutral and comprehensive travel information.

b. Prevent distortion of competition between CRSs by parent carriers and ensure fair and effective competition between carriers

At the time of the adoption of the initial CRS Code of Conduct, most CRSs were owned and controlled by carriers (so-called parent carriers). It was considered that such structure could allow parent carriers to abuse market power by:

- Discriminating against competing CRSs by refusing to provide them with the same data on schedules, fares and availability as the parent carrier provides to its own CRS;

- Not providing competing CRSs with the same booking opportunities as their own CRS.

c. Ensure equal treatment of participating carriers in the Marketing Information Data Tape (MIDT) market and prevent abuse of MIDT data

CRSs collect marketing, booking and sales data (Marketing Information Data Tapes) that can be essential to route planning and business development and contain valuable information for carriers and railway operators both for long term investment plans and yearly budgets. In order to prevent discrimination and ensure a level-playing field, it is considered important to prevent any competitive imbalance in the distribution of this information from the CRSs.

For travel agencies, it is an important issue to prevent MIDT data being used by carriers or railway operators to put pressure on them to reduce bookings with rivals and/or increase bookings for their own products.

d. Increase transparency on travel options

In order to protect consumer interests, it is considered necessary to ensure that CRSs present an unbiased initial display to their users and that information on all participating carriers¹⁸ is equally accessible, in order not to favour one participating carrier over another.

e. Consistent application of data protection rules specific to CRSs across the EU

The CRS Code of Conduct contains specific provisions with regard to the protection of personal data, which particularised and complemented Directive 95/46/EC¹⁹. The latter has meanwhile been replaced by the General Data Protection Regulation (“GDPR”)²⁰. The intention of those specific provisions of the CRS Code of Conduct was to address certain particular issues related to the processing of personal data by CRSs and to allow a consistent application of the data protection rules thus established across the EU.²¹

¹⁸ An air carrier or rail-transport operator which has an agreement with a CRS (cf. Art. 2.10)

¹⁹ [Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.](#)

²⁰ [Regulation \(EU\) 2016/679 of the European Parliament and the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, OJ L 119, 04.05.2016, p.1.](#)

According to Article 94 of the latter, references to Directive 95/46/EC shall be construed as references to that Regulation.

²¹ It is noted that certain provisions contained in Article 11 of the CRS Code of Conduct go beyond protection of personal data, properly speaking, since they protect not only natural persons, but also legal persons.

f. Promotion of rail transport and inter-modal transport

The CRS Code of Conduct stipulated that CRSs should present rail transport alongside air transport in the principal display of the CRS. This was seen as an opportunity to improve the quality of information available to consumers and provide the best options for travel arrangements.

The above objectives are expected to be achieved as follows.

- a. In order to ensure equal treatment for all participating carriers, system vendors are for example obliged to refrain from including unfair or unjustified terms in contracts with participating carriers and subscribing travel agents, such as for example restrictions concerning the use of alternative CRSs. System vendors are also required to provide at least one unbiased and non-discriminatory display treating all participating carriers equally.
- b. To prevent abuse of market power by parent carriers, which directly or indirectly control a CRS, these carriers are obliged to provide the same information on schedules, fares and availability to CRSs other than their own, and to accept bookings made by those CRSs.
- c. To ensure equal treatment of participating carriers in the MIDT market, the CRSs that make booking and marketing data available are obliged to make them available on a non-discriminatory basis. To prevent participating carriers from using the MIDT to put pressure on certain travel agents, the CRSs were prohibited to identify travel agents, unless the travel agent and the CRS agree on the conditions for the use of such data.
- d. To increase transparency on travel options, CRSs are obliged to provide at least one neutral and non-discriminatory display. On the other hand, participating carriers are required to provide data which is accurate and in a format that allows CRSs to display travel options in the manner prescribed by the CRS Code of Conduct. As a default, travel agents are obliged to use this neutral display when providing information to the consumer.
- e. The CRS Code of Conduct contains provisions on the protection of personal data, which particularised and complemented Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data²², which was replaced by the GDPR in 2018.²³

²² But see also footnote 21 above.

²³ See footnote 20 above.

- f. To promote rail as an alternative for travellers, the CRSs are required to display at least the best ranked train service on the first screen, where train services for the same city-pair are offered on the CRS.

Baseline and points of comparison

As explained above, the current CRS Code of Conduct replaced an earlier CRS Code of Conduct adopted in 1989 and amended in 1993 and 1999. In order to determine the effects of the current CRS Code of Conduct, two baselines are used.

The first baseline covers the period from 1989 to 2016 and describes how the situation would have evolved if Regulation 2299/89 had never been introduced and no CRS Code of Conduct had ever existed.

The second baseline covers the period from 2009 to 2016 and describes how the market would have evolved if the current CRS Code of Conduct had not been introduced and Regulation 2299/89 as amended in 1993 and 1999 had remained in force.

Baseline 1: No CRS Code of Conduct

It was expected that in a scenario without a CRS Code of Conduct, the scope for competition at all levels of the market would have been greater. Without the non-discrimination requirements of Regulation 2299/89, carriers and CRSs would have been able to negotiate booking fees on the basis of the level of inventory shared by the participating carrier with the CRS and the quality of the CRS's service. Without these non-discrimination requirements, booking fees were thus expected to be lower. The absence of any CRS Code of Conduct would also have allowed rail companies to negotiate booking fees which were more aligned to train ticket prices throughout the period since 1989. On the other hand, the lack of regulation could have raised the risk of abuse of market power by parent carriers, through enabling the CRSs owned by these parent carriers, as well as the parent carriers themselves, to exploit their market position. It was also expected that smaller non-parent carriers would have been disadvantaged in CRS displays. If non-neutral displays were allowed, it would be conceivable that CRS would allow paid advertising above or alongside a display, or even that carriers would bid for the highest place in the primary display. This would naturally favour bigger carriers with the financial capacity to pay to be on those positions.

In North America, deregulation of CRSs resulted in the negotiation of full content agreements, where carriers agreed to provide their full content to the CRSs, in return for receiving reductions in booking fees. Many EU network carriers also have or used to have until very recently full content agreements with CRS providers. Lufthansa, Air France-KLM and IAG airline groups have in recent years terminated their full content agreements with their CRSs. It is possible that if the EU had never implemented a CRS Code of Conduct of any kind, there might have been more full content agreements and the full content agreements might still be in place. However, as highlighted in the support study to this Evaluation, the difference between the EU and US market in terms of full content agreements and booking fees is more likely the result of differences in market

dynamics as opposed to differences in regulation. However, it is difficult to break down those market differences into constituent factors and identify to what extent they may individually contribute to differences in relationships between carriers and CRSs.

The current CRS Code of Conduct introduced freedom to negotiate contracts, with the expectation that this would lead to lower booking fees due to more full content agreements being concluded. The freedom of contract and the abolition of price non-discrimination were similarly removed in the USA by the de-regulation in 2004. The freedom to negotiate contracts led to more full-content agreements in the USA which are still in force. In the EU, on the other hand, the three large carrier groups have subsequently terminated the full content agreements they had negotiated. The fact that these groups feel they can reach their customers without offering all their content through CRSs suggests that the market power of CRSs has decreased, at least vis-à-vis large carrier groups.

Although the two markets share some features such as the increase in internet penetration and the resulting increase in direct bookings, there are also important differences. In the USA and Canada, there are much fewer carriers than in the EU. At the same time, the consolidation of the carriers in the USA has seen an absorption of smaller regional brands by the acquiring carrier, whereas in the EU, carriers continue to operate the regional brands they acquire and therefore retain that strong regional presence.

A similar fragmentation applies to travel agents in Europe, who also mostly focus on travel to and from their own country. Within this context, some carriers have developed alternatives in terms of the relationships they establish with travel agents (for example, direct connect) or CRS providers (negotiating non-full content agreements). This in turn has led to differentiation on the basis of the fees charged, depending on the booking channel.

In the US market, carriers have a strong presence on a nationwide level, but may not have the same regional presence that, for example, European legacy carriers have in their respective home Member States. In order to reach as many consumers as possible, US carriers work with all travel agents (and consequently need arrangements with all CRSs) in order to make their flights available in all regions of the market, including the ones where the carrier does not have a strong presence. It could be that this dynamic creates a weaker negotiating position vis-à-vis the CRSs which potentially leads to more full content agreements.²⁴ However, there is insufficient evidence to confirm this theory.

Data protection in general was already regulated by Directive 95/46/EC. Without specific rules directly applicable to the CRS industry, the industry may have been subject to inconsistent application of rules between different Member States. The GDPR²⁵ has

²⁴ Ricardo support study, pp. 167-168.

²⁵ Footnote 20 above.

meanwhile replaced Directive 95/46/EC and become applicable, ensuring uniform EU-wide data protection in the areas covered by Union law.

Another specific rule of the CRS Code of Conduct concerns the anonymity of travel agents in the MIDT market and aims at protecting travel agents from being subject to pressure from carriers. This objective would not have been achieved without the CRS Code of Conduct.

Baseline 2: Retain Regulation 2299/89

The 2007 impact assessment considered that the non-discrimination requirements (with regard to booking fees, system access and fare content) of Regulation 2299/89 considerably reduced the negotiating freedom of carriers and CRS providers, which in turn led to a lack of competition between CRSs. Because of this lack of competition between CRSs, retaining Regulation 2299/89 was expected to lead to higher booking fees than under competitive conditions.

The higher booking fees might have induced carriers to redirect an increasing share of their sales via alternative channels, in particular their internet website. It was thus expected that retaining Regulation 2299/89 would have led to a reduction of fare content on the CRSs, in particular as regards lower fare class tickets, i.e. economy, non-flexible tickets.

It was considered that the detailed and prescriptive provisions of Regulation 2299/89 tended to undermine the ability of the CRSs and carriers to adapt to the changing needs of travel agents and consumers. Regulation 2299/89 was thus expected to stifle competition on service quality and to discourage innovation.

A new CRS provider not only faces high investment costs but also needs to attract a sufficient number of travel agents in order to present an interest to carriers.

The newcomer will have to offer the travel agents higher incentive payments than those offered by existing CRSs, to attract them to its platform and gain their business.

The continued application of Regulation 2299/89 and more particularly of Articles 6(1)(b)(ii), 9a (1)(e) and 9a (1)(f) of that Regulation would have ensured that CRS-specific data protection measures remained intact.

3) IMPLEMENTATION / STATE OF PLAY

Market context and developments

Since the entry into force of the CRS Code of Conduct, major developments have taken place in the distribution of airline tickets.

Internet penetration

The 2007 impact assessment showed that increasing internet penetration had significantly contributed to the increase of direct sales by carriers to consumers. Since then, access to

the internet has further increased. The support study to the evaluation finds that while in 2007, 55% of EU households had an internet connection at home (with a concentration in Western Europe) the number has risen to 89% in 2018. Internet penetration is lowest in Bulgaria with 72%. At the same time, the use of mobile devices to access the internet in the EU increased from 36% in 2012 to 69% in 2018.²⁶ As a result, the use of the internet to identify flight options and book tickets has increased significantly. According to a report by Phocuswright (as presented in a report by the online travel agent ODIGEO)²⁷ 28% of flight bookings made in Europe in 2018 were made on a mobile device, up from 24% in 2016.

Evolution of new distribution channels not using CRSs

In order to reduce their booking costs, carriers, in particular legacy carriers / full service carriers (FSC) are increasingly trying to shift sales from distribution channels using CRSs to alternative distribution channels. This includes direct sales to customers through their own websites, a development which is supported by the development of the internet. However, other distribution channels, such as carriers connecting directly with travel agents or carriers connecting to the travel agent via so-called new content aggregators (see below) have also emerged.

In particular, for the leisure market the use of the internet to identify flight options and book tickets has increased significantly²⁸. Many of these bookings are done through online travel agents (which often still rely on CRSs for their transactions), but there is also a growing trend to book directly on the carrier's own website.

In addition, consumers are increasingly using meta-search sites to identify flight options and to compare prices. These meta-search sites in most cases do not enable flight bookings to be made directly but instead they provide links to other internet sites such as the carrier's own website or online travel agents' websites.

A recent development in the air ticket distribution market is the launch of the New Distribution Capability (NDC) by the International Air Transport Association (IATA). Approved by IATA in 2012, NDC is a data transmission standard²⁹ that enhances the capability of communications between carriers and travel agents.

²⁶ Eurostat.

²⁷ eDreams ODIGEO, 2019. *The eDreams ODIGEO European Traveller Insights 2018*. The report can be found at: https://www.edreamsodigeo.com/wp-content/uploads/sites/19/2019/01/UK_European-Traveller-InsightsReport-2018.pdf.

²⁸ LSE Consulting, reference included in Ricardo support study, Annex 1, p. 143.

²⁹ This standard is constantly evolving. IATA just recently published NDC (EDIST) PADIS 17.2 Release Schemas. More about NDC can be found on a dedicated website of IATA: <https://www.iata.org/whatwedo/airline-distribution/ndc/Pages/default.aspx>.

Direct connect services offer a technical solution for travel agents to book directly with carriers, bypassing CRSs. These direct connect systems are usually based on the NDC standard. NDC is not a requirement for a direct connect system, nevertheless it seems that direct connect systems have become more widespread since the adoption of the standard. This seems to indicate that NDC offers an easier way for carriers to start such systems.

With direct connect, carriers can avoid paying CRSs a booking fee. On the other hand, developing a direct connect system represents a significant capital investment by the carriers, which makes developing such a system more attractive for larger carriers, that not only have the financial ability to do so but also sell tickets at a volume that allows such an investment to pay off.

In 2015, Lufthansa introduced a EUR 16 distribution cost charge for flights booked through CRSs³⁰. This charge is not applied for any booking made by the travel agent using Lufthansa's direct connect or any other means that does not use CRS. International Airline Group (IAG) and Air France/KLM introduced equivalent surcharges for bookings made through CRSs in 2017 and 2018 respectively.

New content aggregators are companies that offer a technical solution that connects directly to a carrier's application programming interface and then provides travel agents with capabilities to search and book flights with those carriers. While these services provided by new content aggregators might appear similar to those provided by CRSs, there may be differences in the precise range of services offered. One stakeholder interviewed during the support study indicated that the main advantage of using a new content aggregator for carriers is cost, as a booking made via a new content aggregator is much cheaper than a booking made using a CRS (see page 157 of the Ricardo study).

Growth of LCCs and their impact on air ticket distribution

The growth of LCCs has an impact on the importance of CRSs. Initially, most LCCs did not distribute flights through CRS, but sold their flights solely through their own websites (or telephone call centres). More recently, some of the biggest European LCCs have also begun to distribute tickets through CRS, mainly targeted to address the business travel sector. This has been the case of for example Ryanair, Norwegian and EasyJet. However, the overall share of tickets sold by LCCs using CRS channels seems to be still relatively minor³¹.

Share of airline tickets distributed through CRSs

Travel agents, both brick and mortar and online, continue to rely on CRSs for identifying flight options and for booking and ticketing of flights.

³⁰ Ricardo support study, p. 59. (Taylor, 2015).

³¹ Ricardo support study, p. 144.

The 2007 impact assessment found that bookings made using a CRS represented around 60% of total bookings by volume at that time. There is disagreement over the current market share of the three CRSs. In the support study, the CRSs' share of total bookings by volume was estimated to have declined to 45% in 2016³². Meanwhile, the association eu travel tech³³ estimates that 34% of all bookings by volume were made via a CRS in 2016³⁴. Excluding low cost carriers, IATA estimates the market share of CRSs in 2016 at 49% by volume³⁵. Due to differences in methodology, the three figures may not be directly comparable, although they all show a decline since 2007. There are indications that this downward trend is continuing. It is likely that the percentage of the value of tickets sold using a CRS is higher, as business travel (traditionally more expensive than leisure travel) is often booked via travel management companies (TMCs) who still rely almost exclusively on traditional CRSs for their bookings.

Booking fees

It is very difficult to quantify the financial flows in the carrier distribution chain because most figures are protected by commercial secrets and constitute highly confidential business data.

The 2007 impact assessment estimated that booking fees charged to the carriers at that time varied between EUR 3.5 and EUR 4.5 per segment booked. For a return ticket with an average of 2.5 segments per ticket, this amounts to a booking fee of between EUR 8.7 and EUR 11.2 per ticket.

According to the support study, in 2010, the average CRS booking fee paid by the carriers was between EUR 4.16 and EUR 5.83 per segment (in current prices). The majority of carriers consulted during the support study put the figures today at EUR 6.00 to 9.99 per flight segment.

CRS are considered by carriers to be an expensive distribution channel. Low cost carriers rely very little on CRSs. As shown in the case study of the evolution of the market in the

³² Since Ricardo did not have access to MIDT or BSP data, this figure uses indirect estimates for GDS bookings based on regional ("Europe") revenue and booking information from the three CRSs' annual reports. Total passenger information is for the Europe region, from IATA Annual Air Transport Statistics. See also Annex 2 of the Support Study.

³³ Formerly ETTSA, eu travel tech is an industry association representing tech-companies specialised in the travel sector. Their members include CRSs, meta-search engines, new content aggregators, online travel agents and TMCs.

³⁴ The methodology used by eu travel tech is: GDS booking figures for EU28 based on MIDT data, as a share of total bookings extrapolated from Eurostat passenger data for EU28.

³⁵ The figure from IATA is based on: Total sales by travel agents connected to a GDS (Billing and Settlement Plan data), as a share of total European airlines traffic (excluding low cost carriers), from IATA Annual Air Transport Statistics.

USA, deregulation had led to reductions of 20 % to 30 % in booking fees, as the result of renegotiations of contracts between carriers and CRS providers. This is due to the fact that CRSs and carriers were free to negotiate booking fees because of freedom of contract as a result of deregulation.

Currently, booking fees in the USA are lower than in Europe. While some argue that this may be because of full content agreements in the US market, it should be noted that until very recently full content agreements were also a common feature in Europe (prior to their termination by the three large airline groups (e.g. Lufthansa; Air France-KLM; IAG). In Canada, even though this country has deregulated the sector only partially (and not fully as the USA) evidence suggests that the market acts in the same way as the US market. As explained in section 2 under baseline 1, these differences are likely the result of differences in the structure of the respective markets rather than regulatory differences.

Complaints and infringements

The current CRS Code of Conduct entered into force on 29 March 2009. Since then there have been a limited number of complaints or own initiative investigations. The complaints that led to a further follow-up related to a number of topics. One of the most important topics was the protection of business data in MIDT products under Article 7(3) of the CRS Code of Conduct.

Another subject of complaints was the alleged infringement of the non-discrimination requirement of Article 10(4) through a carrier's introduction of a booking surcharge for any booking made using a CRS while not applying the surcharge for bookings made via the carrier's own platform, which several complainants considered to be a CRS in the meaning of the CRS Code of Conduct.

Yet another topic was the alleged infringement of the obligation for a CRS provider not to attach unfair and/or unjustified conditions to any contract with a participating carrier under Article 3(1)(a) (in particular the practice of a CRS provider to charge carriers for un-ticketed passive segments).

4) EVALUATION METHODOLOGY

Short description of methodology and data sources

The evaluation of the CRS Code of Conduct started in October 2017 with the publication of the roadmap and was overseen by an Inter-service Steering Group (details in Annex 1).

Baseline: The main source used to define the baseline in this evaluation is the 2007 impact assessment.

Evaluation support study: This evaluation builds in particular on the findings of the "Support study for the ex-post evaluation of Regulation 80/2009 on a Code of Conduct for Computerised Reservation Systems" prepared by Ricardo (hereafter the "support study") for the European Commission in 2019. The support study relied on a

combination of sources and methods, including desk research and extensive stakeholder consultation. The support study in turn, takes into account the conclusions of the mid-term evaluation study carried out by Steer Davies Gleave in 2012 and the fitness check carried out by the Commission in 2013.

The support study included an in-depth analysis of the market position of the CRS providers and the development of booking fees. In addition to an assessment of each evaluation question, the support study also included four topical case studies on the evolution of the airline distribution market, recent technological developments, deregulation in the USA and partial deregulation in Canada.

Targeted consultation: The targeted consultation conducted by external consultants under the support study included 37 interviews with selected key stakeholders and a survey of key stakeholders in the three stakeholder groups of carriers, national competition authorities and travel agents.

Seminar: In addition to the targeted consultation carried out under the scope of the support study, an executive seminar was organised by the Commission in cooperation with the European University Institute / Florence School of Transport Regulation in Florence on 13 May 2019. This seminar gathered representatives from all interested stakeholder groups, such as carriers, technology companies, including CRSs, and travel agencies. The seminar allowed an exchange of views on the evaluation of Regulation 80/2009 around the five issues of relevance, effectiveness, efficiency, coherence and EU added value mentioned above. At the same time, the seminar provided the opportunity for a first discussion on possible ways forward, taking into account the broader context of the air ticket distribution market. The feedback from this event has been integrated into this evaluation.

Public Consultation: The Commission organised a public consultation to support this evaluation. The consultation ran from 17 September 2018 to 10 December 2018. The questionnaire of the public consultation was made available on the Commission's website³⁶ in all languages. The survey consisted of 27 main questions with a number of sub-questions. The survey was answered by a total of 136 respondents, 70 of which were individuals and 66 on behalf of an organisation. The highest number of respondents came from Germany (33) and Sweden (29) and no other Member State represented over 10 responses. Annex 2 contains further details on the stakeholder consultation activities.

Complaints and investigations: A review of complaints received by the Commission and related investigations was conducted as an evidence gathering exercise to support this evaluation in order to identify difficulties with the application, interpretation and enforcement of the CRS Code of Conduct.

³⁶ [Public consultation on the evaluation of the regulation on a code of conduct for computerised reservation systems](#)

Information from stakeholders: The Commission was and still remains in continuous contact with interested stakeholders (individual and their associations), in particular CRSs and carriers. They have provided input on the CRS market and the air ticket distribution market in a wider sense. The Commission has carefully reviewed all documents submitted and integrated in this evaluation all the relevant evidence.

Limitations and robustness of findings

While the topics of CRSs and the CRS Code of Conduct are of significant importance to the stakeholders involved, there is relatively little analysis of the issues in literature. In particular, there is little literature containing accurate and up-to-date information on the operation of the different booking channels and their recent evolution. This is further reinforced by the rapid technological developments in the industry in recent years.

Estimating the level of booking fees is by nature difficult because of the high sensitivity and confidentiality of commercial data. Much of the information provided to the consultant carrying out the support study was provided on a confidential basis.

CRSs and carriers remain polarised on whether regulation of CRSs is needed and if the CRS Code of Conduct has been effective in achieving its objectives. This makes it difficult to confirm the conclusions of the analysis presented.

The consultant carrying out the support study has received input from all stakeholder categories. Nevertheless, the number of respondents to the survey of travel agents was relatively small (32 answers). While this has partially been made up for by cross-referencing these inputs with inputs from other stakeholders and by involving the trade organisations of the sector, this remains a limitation.

Within the period covered by the support study, there was little evidence found on the impact of new market players and new technologies, such as Google Flights and NDC, although this issue has been flagged as a concern/important issue by many stakeholders.

5) ANALYSIS AND ANSWERS TO THE EVALUATION QUESTIONS

Relevance

1) *Considering the technological and market developments, are the objectives and the scope of the current CRS Code of Conduct still fit for purpose? The assessment should also cover:*

(i) *Which provisions of the CRS Code of Conduct may not be relevant anymore in view of the technological and market developments?*

(ii) *Which issues that arose after the CRS Code of Conduct was adopted/revised may require further attention in view of the objectives pursued?*

Under this evaluation question, it will be analysed how the specific objectives of the CRS Code of Conduct compare to current policy needs.

First specific objective: Ensure a level playing field for all participating carriers as to the access to and the use of CRS services

As regards the first specific objective, to ensure a level playing field as to the access to and the use of CRS services, it is important to look at the role of CRS and their market position.

As described in section 3, internet penetration of individual households increased significantly since 2007. In 2018, across the EU, an average of 89% of households have access to the internet. Even in the Member State with the lowest level of penetration, over 70% of households have internet access³⁷. This high level of internet penetration facilitates the booking of air tickets directly on the carrier's website, but also other online channels (e.g. online travel agents). Moreover, other distribution channels were developed as described in section 3.

Nevertheless, as described in more detail in section 3, CRSs continue to be an important player in the distribution of airline tickets, though their share of bookings by volume has decreased since the 2007 impact assessment. It cannot be excluded either that considering the trend and the development of alternative distribution channels this percentage may have further declined in 2017 and 2018. On the other hand, as bookings for business travel tend to be higher value and tend to be booked via travel management companies (TMCs) in particular (who still rely to a great extent on CRSs) it is likely that the percentage of bookings by value made via CRSs in 2016 was greater than the percentage by volume. Therefore, although there is evidence of a reducing percentage of bookings through CRSs over the period 2007-2016, it appears that the CRSs continue to have a significant role in the distribution of airline tickets in Europe, in particular for business customers.

In the 2012 mid-term evaluation, several travel agents argued that CRSs continued to be the best solution for travel bookings. During interviews for the support study, two bricks-and-mortar travel agents (offline travel agents) confirmed their view that CRSs remain the best solution for identifying flight options and conducting booking transactions, as they remove the need for collating the outputs of multiple systems to present the options to the client.

CRSs continue to be important for many travel agents as providers of front end and back end technology, as part of the contractual arrangement with their subscribers. According to the support study, travel agents' business models thus depend partly on their relationship with the CRSs. This particularly applies to smaller travel agents who do not have the same resources to invest in technological infrastructure as the larger ones. This increases the costs for travel agents to switch to another system. Stakeholders at the Florence seminar confirmed this as well.

³⁷ Eurostat data

During the targeted stakeholder consultation carried out in the context of the support study, smaller carriers commented on the importance of CRSs to them in enabling them to compete with larger carriers. They consider the neutral principal display imposed by the CRS Code of Conduct to have played a significant role in enabling them to compete.

The 2007 impact assessment rejected the option of a full deregulation given the state of the market at that time (p. 5 of the IA). It was considered that many corporate travellers remained highly dependent upon the single distribution channel consisting of travel agents and CRSs. The same was considered to be true for travellers in Member States with low internet penetration rates. Given these circumstances, the 2007 impact assessment concluded that the risk of abuse of market power was higher than in other economic sectors and sole reliance on the general competition rules was not considered sufficient at that time. In addition, some practices e.g. display bias were considered to be harmful to consumers but would not necessarily be captured by competition law.

Since the issue of low internet penetration rates has disappeared, with significant improvements in the Member States where internet penetration had been poor, consumers are no longer as reliant on the CRS-supported distribution channels as they were previously. However, business travellers do still appear to be heavy users of travel agents and consequently of CRSs. That said, large travel agents, including TMCs serving business travellers, subscribe to more than one CRS, may have access to data from other alternative sources, and may have the ability to integrate data from different sources and compare them effectively. This possibly reduces the potential for an individual CRS to abuse its market power, although the support study found no conclusive evidence on this issue.

The objective of ensuring a level playing field was driven by the reliance of carriers on CRSs for ticket distribution, given the very limited alternative options available at the time of the introduction of the CRS Code of Conduct. The range of alternatives now available – new content aggregators, direct connect services, meta-search engines, as well as direct consumer bookings on the carrier's website, in addition to the traditional CRS channel – is much broader. Any future policy decision would need to take into account the potential for effective competition between these distribution methods to ensure market discipline and assess whether there is still a need for a sector-specific regulatory instrument.

The support study also found some evidence that the introduction of these new technologies may be leading to the creation of booking channels that include a number of the features of CRSs, but which are not currently regulated in the same way (to the extent they do not constitute CRSs within the meaning the CRS Code of Conduct). Beyond the question of whether the CRS Code of Conduct is still needed in the current market environment, stakeholders have divergent views on whether the systems based on these new technologies should be within the scope of the CRS Code of Conduct. Although these new distribution channels do not currently have the same presence in the market as the CRSs, the continued evolution of the distribution market is likely to result in a greater

share of bookings being made through channels outside the scope of the CRS Code of Conduct.

Within this context, it is also worth noting certain characteristics of these different distribution models, for example that new content aggregators do not have subscribers in the same way as CRSs under the CRS Code of Conduct; or that, similarly, meta-search engines do not themselves, in most cases, provide means to make bookings for flights.

Overall, while the objective of ensuring a level playing field for all participating carriers as to the access to and the use of CRS services may remain relevant, the support study did not find clear evidence whether it remains necessary to complement the general EU competition rules with the provisions of the CRS Code of Conduct, in order to achieve a level playing field in the current market context. The specific sectoral treatment of traditional CRS services may no longer be justified in view of developments in air ticket distribution, notably the rise of alternative B2B channels, divestiture of carriers from CRSs and the increase in the direct distribution of flight tickets. Therefore, should it be considered that CRS Code of Conduct is still necessary, its scope requires further attention to ensure that it continues to be relevant in light of future market developments.

Second specific objective: Prevent distortion of competition between CRSs by parent carriers and ensure fair and effective competition between carriers

The vertical integration of CRSs and carriers and the related risk of abuse of market power by parent carriers were at the origin of the first CRS Code of Conduct.

Carriers divested their controlling stakes in CRSs more than a decade ago and none of the three CRSs operating in Europe are owned to any significant extent by any carrier.

In order to assess whether the specific objective related to parent carriers remains relevant, this evaluation considers the risk that carriers may reinvest in CRSs or develop alternative distribution systems that could themselves then be used by parent carriers to distort competition either in the CRS market, or between carriers in their access to CRSs or CRS-like services.

The 2007 impact assessment stated that it cannot be excluded that carriers may regain control of CRSs in the future, especially if there are no rules specific to parent carriers. Nevertheless, there are no indications that any carrier has been or is currently considering this, and the corresponding risk appears to be low. Additionally, the EU competition rules would continue to apply in this scenario. This specific objective therefore no longer seems relevant for *ex ante* regulation. The support study did not find clear evidence whether the provisions of the Code of Conduct remain necessary to address any competition concerns that might arise, should any carrier decide to re-invest in any of the CRSs. The provisions of the CRS Code of Conduct may therefore no longer be necessary.

As regards the risk for CRSs that carriers could develop alternative distribution systems, opinions vary.

During the targeted stakeholder consultation for the support study, several CRSs and travel agents considered that the direct connect systems developed by some carrier groups, which allow the booking of flights offered by multiple carriers belonging to the same carrier group, provide similar functions to CRSs and thus these systems should also be considered CRSs and the carriers owning them should be considered as parent carriers. However, the carriers concerned argue that their systems do not constitute CRSs and that they are not parent carriers. In this context, any future policy decisions concerning the need for having a sectoral regulatory instrument such as the CRS Code of Conduct would need to take into account ownership and structures of alternative distribution channels, and the potential for such control to impact the ticket distribution market in a similar way to parent carrier ownership of traditional CRSs in the past. Currently, it appears that the development of such alternative distribution solutions could rather enhance competition between the various distribution solutions, while there are no indications that the existing EU competition rules could not tackle any competition concerns arising from such vertical integration.

In any case, the range of alternative distribution models now available – new content aggregators, direct connect services, meta-search engines, as well as direct consumer bookings on the carrier’s website – is now much broader, and provides a greater potential for effective competition between these distribution methods to ensure market discipline. As is the case with the potential for re-investment in traditional CRSs by parent carriers, EU competition rules would continue to apply and the support study did not find clear evidence whether the provisions of the Code of Conduct also remain necessary to address any competition concerns that might arise.

Third specific objective: Ensure equal treatment of participating carriers in the MIDT market and prevent abuse of MIDT data

This specific objective is two-fold. First, it aims to ensure non-discriminatory treatment in the distribution of MIDT data by the CRSs to all participating carriers. Second, it aims to prevent carriers and railway operators from using MIDT data to put pressure on travel agents to reduce bookings of rivals and/or increase bookings for their own products.

During the targeted stakeholder consultation for the support study, no carrier expressed concerns regarding its ability to access MIDT data. However, this finding is made on the basis that the provisions regarding access to MIDT data of the CRS Code of Conduct are in place and do not allow any conclusion as to whether regulatory intervention is still necessary to achieve the objective related to equal treatment in the MIDT market.

During the seminar in Florence, which gathered representatives of all stakeholder groups, several stakeholders pointed out that MIDT are only one set of data relating to the distribution of airline tickets. Other data include the IATA PaxIS³⁸ product and the

³⁸ Through its Billing Settlement Plan (BSP) IATA serves its member airlines as the clearing house for airline tickets sold through travel agencies. PaxIS is the airline passenger market intelligence database, with data captured through IATA’s Billing and Settlement Plan.

IATA-ARC Direct Data Solutions (DDS), as well as data collected on search behaviour for air tickets on the internet. DDS differs from MIDT in that it includes direct sales data. It has similarities with IATA's PaxIS product, but is regarded by some stakeholders as more comprehensive³⁹. While for some carriers, MIDT remained important, other carriers do not use MIDT data. Stakeholders also pointed out that MIDT are expensive data.

With the decline of bookings made using CRS, the value and usefulness of MIDT also declines. Still, as a lot of bookings for business travel are made using CRS, MIDT data may remain valuable and useful at least for these kind of bookings.

According to the support study, the targeted stakeholder consultation indicated that MIDT data remain an important business tool for the carriers, because of its potential in helping with market research.

To conclude, the objective to ensure equal treatment of carriers and railway operators in the MIDT market and prevent distortion of competition has become less relevant since the adoption of the CRS Code of Conduct in 2009. This is particularly due to the fact that MIDT is now one of several sources of data concerning the distribution of airline tickets. Since MIDT is still an important tool for carriers, this specific objective may still be relevant to some extent. However, similarly to the above, the support study did not find clear evidence whether it remains necessary to complement the general EU competition rules with the provisions of the CRS Code of Conduct to deal with any abuse of market power by CRSs in relation to MIDT data.

As regards the objective to prevent the use of MIDT data by carriers or railway operators to put pressure on travel agents to reduce bookings of rivals and/or increase bookings for their own products, in the 2007 impact assessment it was argued that travel agents needed to be protected from the use of MIDT data by third parties without their consent. This would allow the travel agents to provide the best choice for consumers and not suffer pressure from carriers to favour their flights. In the support study, some travel agents have commented that they do consider that MIDT data have been used unfairly to put pressure on their businesses, primarily by carriers identifying where travel agents have sold competing carriers' flights, and then pressuring the travel agents to promote sales on the carrier's own flights. In the targeted survey 11 out of 33 travel responded that they felt that MIDT data had been used unfairly to put pressure on their business. In the same survey, seven (out of 33) travel agents responded that they had been identified in MIDT data without their agreement⁴⁰, so it seems that this specific objective might still be relevant. Again however, the support study did not find clear evidence whether it remains necessary to complement the general EU competition rules with the provisions of the

³⁹ https://www2.arccorp.com/products-participation/products/direct-datasolutions/?utm_source=Global_Navigation

⁴⁰ Ricardo support study, pp. 227-228.

CRS Code of Conduct to deal with any abuse of market power by carriers vis-à-vis travel agents on the basis of MIDT data.

Fourth specific objective: Increase transparency on travel options

The 2007 impact assessment states that one aim of the CRS Code of Conduct is to improve transparency. From the 2007 impact assessment it can be deduced that this objective has to be interpreted as meaning that travel information in CRSs should be presented in a neutral and transparent way.

The objective of a neutral and transparent display was driven by the fact that travel agents were reliant on CRSs for the display of ticket options and for booking services, given the very limited alternative options available at the time of the introduction of the CRS Code of Conduct.

As explained when assessing the continued relevance of the first specific objective related to ensuring a level playing field, CRSs continue to have a strong market position, in particular for business travellers. In assessing that first objective, it was also found that smaller carriers see the neutral display in CRSs as having been a factor in enabling them to compete with larger carriers. For these stakeholders, the risk of abuse of market power remains. As highlighted by the 2007 impact assessment, display bias, driven by parent carriers, may have a negative impact on the market, including to the detriment of consumers.

The objective of increasing transparency of travel options thus remains relevant for those market players who remain dependent on the CRS channel. However, the rise of new technologies and new market players has led to a situation in which a larger share of searches for flight options are performed using systems that are not considered to be within the scope of the CRS Code of Conduct. Several stakeholders have raised the issue that the transparency objective should be extended to other players in the market.

However, while this objective may remain relevant, it is to be determined to what extent the same objective may already be achieved with existing consumer protection instruments. In addition, the current CRS Code of Conduct was amended to enable carriers to differentiate between CRSs in terms of the fare content they provide. Finally, as shown above, several important low cost carriers who today represent a significant share of air passengers markets in Europe, do not use CRSs or use them to a much more limited extent.

The range of alternatives available – new content aggregators, direct connect services, meta-search engines, as well as direct consumer bookings on the carrier's website, alongside the traditional CRS channel – is now much broader, and would allow for most travel agents to make comparisons between different channels. As the rise of new content aggregators (e.g. Travelfusion; Hitchhiker) shows, there is market demand for the aggregated display of fares, schedules and availability.

As regards the use of direct connect systems by carriers, which enable direct connection between them and travel agents, it should be noted that these are clearly identified as a carrier system, usually do not offer competing flights and travel agents will not expect that they will offer services of the carrier's competitors. Carriers operating direct connect systems do not appear to have any incentive not to provide neutral and transparent display, since they do not offer services of competing carriers.

Although the potential impact of alternative systems has been identified as being of concern to some stakeholders, there is little clear evidence of actual impacts (positive or negative) on the relevance of the CRS Code of Conduct. However, the continued evolution of distribution practices is likely to result in further increases in bookings being made through channels outside the scope of the CRS Code of Conduct, further reducing the appropriateness of its scope in ensuring transparency of flight options as presented to travel agents, and ultimately consumers. Therefore, should it be considered that CRS Code of Conduct is still necessary, its scope would require further attention to ensure that it continues to be relevant in light of future market developments.

It is also worth noting that the Regulation only applies to the traditional CRS channel which is by its nature a B2B relationship. The transparency obligation does not apply to the relationship between subscribers and consumers, except where the information from the CRS is provided to consumers. This means that B2C platforms such as travel agents and meta-search engines are outside the scope of the Regulation as regards neutral display.

The 2007 impact assessment considered that extending the neutral display requirements to Internet-based distribution systems was neither necessary nor appropriate. First, for the reason that the CRS Code of Conduct only governed B2B relationships. Second, consumers using the Internet can easily switch between websites to compare flight tickets and make bookings. Furthermore, carrier websites are clearly identified as such and consumers are aware that they will not offer the services of their competitors. Indeed a competitive parameter for many platforms is the ability to rank travel options. For those with an online presence, this ranking is regulated in horizontal legislation on online platforms⁴¹. However, the market is becoming increasingly complex, including with the possibility of interlinkages between B2B and B2C platforms. It is therefore relevant to further assess the possible impact of this complexity, notably as regards transparency and comparability of travel options for the consumer.

Fifth specific objective: Consistent application of data protection rules specific to CRSs across the EU

⁴¹ Regulation 2019/1150 on promoting fairness and transparency for business users of online intermediation services⁴¹ sets out provisions on ranking transparency and stipulates that online platforms shall specify in their terms and conditions the main parameters determining said ranking.

The relevance of this specific objective will be analysed in the context of evaluation question 3 below.

Sixth specific objective: Promotion of rail transport and inter-modal transport

As regards the promotion of inter-modal transport, it has to be noted that while recital 15 of the CRS Code of Conduct states that, in the future, information on bus services for air-transport products or rail-transport products incorporated alongside air transport products should be featured in the principal display of CRSs, the CRS Code of Conduct does not contain any provision that could be considered as promoting inter-modal transport.

As regards the promotion of rail transport, the targeted stakeholder consultation carried out in the context of the support study revealed that only a few rail companies participate in CRSs. However, that does not mean that this specific objective is irrelevant and that a possible initiative to promote this objective should necessarily be excluded in the future. In recent years, the market has evolved as online platforms have become significant players in the transport sector. Various online platforms have emerged, offering consumers several mobility solutions including inter-modal and multimodal offers. Nonetheless, there is insufficient evidence to confirm that the CRS Code of Conduct remains the most appropriate or necessary vehicle to achieve this objective.

2) *To what extent are the reporting requirements in the CRS Code of Conduct relevant and sufficient?*

In order to identify any vertical relationship between carriers and CRSs, Article 12 of the CRS Code of Conduct provides that every CRS shall every four years and, in addition upon request from the Commission, submit an independently audited report detailing its ownership structure and governance model.

According to the 2007 impact assessment, experience showed that audits were mainly useful in the context of specific concerns, e.g. following a complaint. The 2009 CRS Code of Conduct removed the requirement to perform an annual audit monitoring compliance with specific provisions of the Code of Conduct, and introduced a new provision requiring the submission of an audit every four years concerning the ownership structure.

As there are no significant carrier investments in any of the three CRSs operating in Europe, the reporting of the governance no longer contributes to the ability to monitor the influence of carriers on the CRSs. In any case, as publicly traded companies, the three CRSs currently operating in Europe have to report their ownership structure and governance in their annual accounts.

On this basis, the evaluation finds that the reporting requirements are no longer relevant.

3) *Considering the existing and upcoming EU legislation in the field of competition policy and in the field of data protection, how relevant and necessary are the provisions of the CRS Code of Conduct?*

As regards competition policy, in 2007, the impact assessment on the CRS Code of Conduct concluded that, at that moment in time, competition law and ex-post intervention would not be sufficient to address the concerns identified. This was explained by the fact that many corporate travellers and consumers in Member States with low internet penetration still relied heavily on CRSs, and as such the risks of abuse of market power were higher than in other sectors (European Commission, 2007). Consumers no longer rely as heavily on CRS-supported distribution channels due to the increase in internet penetration. However, business travellers - because they buy their tickets through travel agents - still rely heavily on the CRS distribution channel.

However, the large travel agents, including TMCs serving business travellers, subscribe to more than one CRS, may have access to data from alternative sources and may be able to relatively easily compare offers from alternative sources. This possibly reduces the potential for an individual CRS to abuse its market power, although the support study found no conclusive evidence on this issue.

As described above regarding the risk of abuse of market power by parent carriers, no carrier currently has a major holding in a CRS. Although the 2007 impact assessment stated that it cannot be excluded that carriers may regain control of CRSs in the future, especially if there are no rules specific to parent carriers, there are no indications that any carrier has been or is currently considering this. Additionally, the EU competition rules would continue to apply in this scenario and the support study did not find clear evidence whether the provisions of the Code of Conduct also remain necessary to address any competition concerns that might arise, should any carrier decide to re-invest in any of the CRSs. Therefore although this objective remains relevant, this corresponding risk appears to be low, and the provisions of the CRS Code of Conduct may no longer be necessary to achieve the objective.

On data protection, the objective of the CRS Code of Conduct is the consistent application of data protection rules in relation to certain specific processing operations by the CRSs across the EU. The 2007 impact assessment explained that certain specific rules on personal data protection were needed because at the time the only EU-wide data protection legislation was the Directive 95/46/EC. The impact assessment considered that a Directive, as opposed to a Regulation, might not ensure a sufficiently consistent application of rules across the EU insofar as it concerned the operation of CRSs.

Directive 95/46/EC was replaced by the General Data Protection Regulation (GDPR). Since the GDPR is a Regulation and as such directly applicable in all Member States, since its entry into application in 25 May 2018 it ensures consistent application of the rules contained therein. The need for dedicated rules in sectoral legislation must therefore be assessed carefully.

During the targeted stakeholder consultation of the support study, two of the CRS providers saw benefits in retaining the sector-specific provisions on the protection of personal data of the CRS Code of Conduct, while the third CRS considered that they have been made redundant by the introduction of the GDPR.

The enforcement of the GDPR is the responsibility of the national data protection supervisory authorities of the Member States⁴², which includes the power to impose fines in case of infringements of the GDPR. However, the CRS Code of Conduct provides for the enforcement of its provisions, including those on data protection, by the Commission.

Stakeholders' views differ on whether the sector-specific provisions on the protection of personal data are still relevant, considering the GDPR. Given that most issues covered in Article 11 of the CRS Code of Conduct are also covered in the GDPR albeit in less detail, it would seem that Article 11 is less relevant. The provisions of Article 11 are also not necessary to meet the objective of consistent application of data protection rules, which is fully met by the GDPR. However, the provisions in the two pieces of legislation differ in certain respects, in terms of the level of detail or the scope. For example, some provisions of Article 11 of the CRS Code of Conduct also apply to the processing of information relating to legal persons which is not the case with the GDPR. However, these provisions are not necessary to meet the objective of consistent application of data protection rules, which is fully met by the GDPR. It needs to be further assessed whether the particularities of the CRS Code of Conduct's rules on data protection offer any benefits beyond the general data protection rules and if so whether any such benefits justify, where applicable, costs entailed by the application of the specific rules of the CRS Code of Conduct.

Effectiveness

4) *To what extent is the CRS Code of Conduct an effective tool to achieve the objectives of the intervention? If relevant, what are the main drivers and hindrances?*

First specific objective: Ensure a level playing field for all participating carriers as to the access to and the use of CRS services

The CRS Code of Conduct had the objective of ensuring a level playing field for all participating carriers as to the access to, and the use of CRS services. According to the 2017 evaluation roadmap, that objective was to be achieved by preventing CRS providers⁴³ from:

- discriminating between participating carriers in the display of data (Article 5 (1));
- discriminating between participating carriers in the provision and loading of data (Article 3 (2));
- attaching unfair and/or unjustified conditions to any contract with participating carriers (Article 3 (1) (a));
- restricting participating carriers from using other CRSs (Article 3 (1) (b)).

⁴² See Articles 55, 57 and 58 of the [GDPR](#).

⁴³ In the language of the CRS Code of Conduct 'system vendors'.

The 2012 mid-term evaluation did not indicate any issues with participating carriers having access to, and the use of, CRS services on a level playing field.

During the targeted stakeholder consultation for the support study, no carrier expressed any difficulties in accessing services from the CRS providers on an equal basis compared to other carriers. Nevertheless, five carriers expressed concerns over the negotiation of contracts (level of booking fees, full content vs. non-full content agreements, and responsiveness of CRS providers to new carrier products).

Stakeholder views collected from the carriers and CRS providers during the targeted stakeholder consultation carried out in the context of the support study indicate that some stakeholders have concerns about restrictive terms in CRS to carrier contracts. In November 2018, the Commission's Directorate-General for Competition opened a formal investigation under Article 101 TFEU into the agreements used by Amadeus and Sabre with carriers and travel agents.⁴⁴ The investigation will seek to establish whether certain terms in these agreements restrict the ability of carriers and travel agents to obtain ticket distribution services from third parties. The concern is that such restrictions may reduce competition between CRSs, create barriers to market entry and innovation, and raise ticket distribution costs. The terms under investigation include fare content parity clauses.

In general, both the carriers and the CRS providers agree that the 2009 CRS Code of Conduct gave more freedom, as intended, to the types of contracts that could be negotiated between CRS providers and carriers, with both groups having incentives that influence the terms that they seek to include in contracts.

In the responses to the survey conducted for the targeted stakeholder consultation of the support study, 75 % of the carriers responding to the question on whether there are excessively restrictive terms in their contracts with CRS providers (21 out of 28) indicated that their contracts have highly restrictive terms. From those 21 carriers that answered yes to the question, 11 were from the EEA.

The air carriers were mainly concerned about fare content parity clauses relating to the use of other booking channels, i.e. contract conditions that require carriers to provide CRSs with the same fare content that they provide to competing CRSs or even on their own distribution channels (e.g. carrier's website). All of the 21 carriers that considered that their contracts have highly restrictive terms made this point. Two of the carriers which considered that their contracts have no highly restrictive terms said their reply should be taken in the context, that they have not concluded full content agreements (i.e. contract conditions that require carriers to provide CRSs with the same fare content that they provide on their own distribution channel) with the CRSs, which is why they do not see those highly restrictive terms in their contracts anymore. Among the carriers who

⁴⁴ https://europa.eu/rapid/press-release_IP-18-6538_en.htm

considered that the contracts contain highly restrictive terms, one carrier admitted that those terms could have been removed if it had not concluded a full content agreement, but argued that the discounts on booking fees offered under this type of agreement are such that this carrier had little option but to accept those terms. This was a point also made by a carrier interviewed for the 2019 support study. This suggests that although some large carrier groups have moved away from full content agreements, not all carriers have the freedom to do so.

It appears that the CRS Code of Conduct has not significantly changed the situation, compared to the two alternative baselines. It could be argued that under Baseline 1 (no CRS Code of Conduct ever adopted and implemented), carriers might have had more difficulty enjoying a level playing field in access to CRS services – this is because carriers would not have enjoyed the protections afforded by the CRS Code of Conduct. However, the experience in the deregulated US market and also in the partially deregulated market of Canada does not provide any evidence for that to be the case nor for carriers having difficulties in accessing CRSs under level playing field terms. In Baseline 2 (retaining the 1989 CRS Code of Conduct), the contractual issues mentioned would not have been solved, because the 1989 Code did not allow participating carriers to differentiate fare content between CRSs. Overall, there are indications that the CRS Code of Conduct has not been fully effective in achieving the objective of ensuring a level playing field for all participating carriers for access to, and the use of CRS services, because it has not managed to balance the bargaining powers of different-sized carriers vis-à-vis CRSs, which may have led to the use of certain terms and conditions by the CRSs that the carriers consider to be highly restrictive.

Second specific objective: Prevent distortion of competition between CRSs by parent carriers and ensure fair and effective competition between carriers;

On the objective of preventing distortion of competition between CRS providers by parent carriers, no analysis can be performed as there are no parent carriers any longer. Therefore, it is no longer possible to attribute distortions of competition between CRS providers to the actions of parent carriers (carriers controlling CRS providers). In this sense, this objective is currently being achieved, although it is not clear whether this is simply due to market development or if the presence of the CRS Code of Conduct also plays a role.

Third specific objective: Ensure equal treatment of participating carriers in the MIDT market and prevent abuse of MIDT data

This objective is two-fold.

CRSs collect marketing, booking and sales data that can be important to route planning and business development and contain valuable information for the carriers and the railway operators for both long-term investment plans and the yearly budgets. In order to prevent any distortion of competition in the air transport sector, the CRS Code of

Conduct aimed to ensure that CRSs made this data available to all participating carriers and railway operators on a non-discriminatory basis.

In addition, the CRS Code of Conduct also aimed to prevent MIDT data from being used by carriers or railway operators to put pressure on travel agents to reduce bookings on rivals and/or increase bookings of their own products.

In terms of access to the MIDT market, five out of 27 carriers that responded to the survey during the targeted stakeholder consultation stated that they believe they are able to access the MIDT market, six more indicated that they cannot and 13 carriers did not know if they are able to access it. In an interview, one legacy carrier noted that for them, as a medium-sized carrier, accessing the MIDT market was very expensive, and as such it was difficult to do so. As a result, they had to rely on in-house analysis of market information, which they viewed as a disadvantage in comparison to larger carriers that could afford more extensive MIDT datasets.

As regards the second aspect of this objective, the 2012 mid-term evaluation noted that some travel agents felt that in practice the CRS Code of Conduct does not give them enough protection. For example, some travel agents were given very short notice to get an agreement in place regarding the use of their identity in MIDT data. Other travel agents pointed out that the different choices regarding identification were not always clear, and that it was not easy to change their minds (e.g. to stop being identified) after an agreement was signed with a CRS.

During the interviews with travel agents conducted in the context of the support study to this evaluation, none expressed any concerns about carriers misusing MIDT data or that they had been identified in MIDT data without their permission. However, in the survey of travel agents, 11 agents (out of a total of 32 who responded to the question) commented that they do consider that MIDT data have been used unfairly to put pressure on their businesses. This practice was primarily performed by carriers identifying flights of competing carriers that the travel agent sold. The carrier then applied pressure on the travel agent to prioritise sales of its tickets in exchange for greater incentives in their bilateral contract. One travel agent also added that a specific carrier also gives them incentives for bookings if they agree to share MIDT data with them.

In the same survey, seven travel agents responded saying that they had been identified in MIDT data without having given their permission. This is however rather an issue of compliance and enforcement of the CRS Code of Conduct and not of its effectiveness.

Under the baselines⁴⁵, the situation would probably be quite different: according to stakeholders in the CRS and travel agent industry, the EU is the only market where there is an option for being anonymous on MIDT data, in all other markets travel agents are routinely identified in such data. Given this, it could have been expected that under both

⁴⁵ Cf. Section 2 above.

baselines, travel agents would have been identified without their permission in MIDT data, and that this data could have been more easily used to put pressure on them, to the extent that such travel agents are legal persons⁴⁶.

To conclude, there are some indications that the CRS Code of Conduct has not been fully effective regarding this objective, in particular as regards the protection of travel agents against pressure from carriers. However, this is seen a potential issue with the enforcement of the CRS Code of Conduct rather than with its provisions *per se*. In any case, should such pressure from carriers produce anticompetitive effects, the general competition rules would continue to apply.

Fourth specific objective: Increase transparency on travel options

In order to achieve the objective of increasing transparency of travel options and ensure the provision of neutral and comprehensive information on travel options as well as to ensure a level playing field for all participating carriers as to the access and the use of the CRS, the CRS Code of Conduct establishes, in Article 5, the concept of a principal display, which is supposed to include the data provided by the participating carriers ‘in a neutral and comprehensive manner’ and ‘without discrimination or bias’. The description of what constitutes such a display is presented in Annex I to the CRS Code of Conduct.

During the targeted stakeholder consultation, all travel agents interviewed and surveyed regarding this question confirmed that the three CRSs all present flight option information through an unbiased, neutral display. They also confirmed that they felt that the neutral display requirements of Annex I of the CRS Code of Conduct were appropriate.

It seems that according to stakeholders, the neutral display has contributed to achieving the objectives of avoiding bias in, and increasing the transparency of the display of travel options made available to the CRSs by participating carriers. Probably, this has helped to ensure a level playing field for all participating carriers as to access and use of CRSs.

During the targeted stakeholder consultation, CRS providers and travel agents expressed concerns that the use of new technologies might reduce the effectiveness of the CRS Code of Conduct in achieving the transparency objective, as these technologies, while introducing competition into the market, might lead to more fragmentation of content, thus reducing comparability. On the other hand, it is important to note that the CRS Code of Conduct never had the objective to prevent fragmentation and make all airline tickets available on CRSs. Instead, it aimed at ensuring that any information provided by CRSs to subscribers represented a neutral and comprehensive display of the information provided to the CRS by participating carriers, which indeed has happened following the introduction of the CRS Code of Conduct. Therefore it seems that the CRS Code of Conduct has been effective in achieving this objective.

⁴⁶ The GDPR would continue to apply to natural persons.

An additional issue raised by stakeholders concerns the market trend of carriers increasingly unbundling their fares, meaning that the ticket price often includes only the flight, with ancillary services such as (certain items of) luggage, meals or seat selection being sold separately. During the targeted stakeholder consultation carried out in the context of the support study, differing views were expressed regarding this unbundling and the relationship with the terms of the CRS Code of Conduct, particularly the requirements of Annex I that all fees that are ‘unavoidable and foreseeable’ must be displayed. Carriers have suggested that unbundling provides the consumer with greater flexibility to select which flight options are required. CRS providers and travel agents on the other hand have suggested that some of these ancillaries may be unavoidable for some passengers (e.g. selecting seats together for families with young children) and so should be included in the initial price for the flight.

It remains to be seen whether these abovementioned issues would need further attention and if so, what would be the best instrument to tackle them.

Fifth specific objective: Consistent application of data protection rules specific to CRSs across the EU

The support study did not find any evidence to indicate that the Code’s data protection rules have not been consistently applied across the EU.

Sixth specific objective: Promotion of rail transport and inter-modal transport

The CRS Code of Conduct does not contain any provision that would promote inter-modal transport. The main innovation in 2009 was to lift the obligation on CRSs to charge the same fee to all carriers (air and rail). This provided rail operators with the possibility to negotiate booking fees more proportionate to their ticket values.

Results from the targeted stakeholder consultation indicate that travel agents have access to rail options in their systems. CRS providers also confirmed that they work with a number of train companies and provide rail options in primary displays where relevant. The support study did not provide any evidence as to whether the pricing freedom has led to reduced prices for rail operators, but there is no suggestion that rail operators would be better off under the pre-2009 rules. However, one CRS mentioned in response to the stakeholder consultation that it offered neutral display for rail services on the condition that the rail company connects “on a full participation basis like an airline”.

Therefore it seems that the specific objective of promoting rail transport has been partially achieved.

5) To what extent has the legislative framework created unintended negative/positive effect (both in terms of impacts and results)? Which stakeholder groups are affected the most?

The 2007 impact assessment predicted that the CRS Code of Conduct would result in lower distribution costs and more quality and innovation on the part of the CRS providers

and travel agents. This would ultimately impact consumers, by giving them lower-price travel options and better service from travel agents. Whether this would lead to any changes in the way travellers book tickets is difficult to determine: to definitively answer this question a causal link between the provisions of the current CRS Code of Conduct and the changes observed in consumer behaviour when booking tickets would need to be found.

The support study was not able to find any evidence of a direct causal link. The support study explored the evolution of ticket distribution through a case study⁴⁷. According to the case study, the situation under the different baselines would probably be similar. As will be shown below, most of the changes experienced seem to derive from market forces, not from the regulatory environment, so under the different baselines the way people buy tickets would probably not be very different from what exists today.

CRSs mentioned missed opportunity costs because they cannot sell advertisements on their displays due to the neutral display obligation. However, this cannot be considered as an unintended negative effect.

Carriers indicated higher levels of negative impact on their business. The analysis in the support study shows that the problem resides in the parity clauses that exist in many contracts between CRS and carriers. Some carriers see these parity clauses as highly restrictive and believe that they should not be allowed. Under baseline 1 the same situation could have been expected, as under that baseline the only restrictions there would be on these contracts would derive from application of general competition law.

According to travel agents, the increasing number of market players and the limited scope of the CRS Code of Conduct creates a situation of unfair competition.

Overall, most effects assessed in the current section seem to be the result of market dynamics and not the CRS Code of Conduct.

Efficiency

6) To what extent are the regulatory costs (i.e. compliance costs, enforcement/implementation costs and administrative costs) of the Code of Conduct reasonable related to the benefits of the CRS Code of Conduct?

When the CRS Code of Conduct was first implemented, one CRS provider reported one-off costs related to the requirement that travel agents could not be identified in MIDT data, unless they agreed to be identified. The CRS provider was unable to quantify how much effort those adaptations required.

The CRS Code of Conduct imposes on-going direct costs to CRS providers derived from the reporting requirements (audits) of Article 12.

⁴⁷ Ricardo support study, appendix 1, pp. 142-153.

The 2007 impact assessment estimated the cost of auditing the separation of the CRS from the airlines' internal bookings systems and the protection of sensitive data in the range of € 70,000 to € 100,000 per year per CRS (a range of around € 82,000 to € 117,000 in current euros according to the support study). Those auditing obligations (which were abolished in the 2007 Code) were most likely more costly than the current obligation to audit the ownership structure. Even if the cost of the current audit obligations were similar to those of the previous Code, the yearly costs would have been reduced compared to the previous Code given that the audit is to be performed only every four years now.

In terms of benefits, the removal of restrictions in the contractual relationships CRS providers could have with carriers was expected to lead to a tailoring of the offers that CRS providers could give to carriers. The support study notes that different carriers indeed receive different offers from CRS providers. The same could be expected to have happened under baseline 1, but not under baseline 2, as the contractual restrictions would still be in place.

Results from the surveys of national competition authorities show that none of the authorities that responded to the survey have incurred any one-off or ongoing costs related to the CRS Code of Conduct.

Compared to the baselines, under baseline 1 it could be expected that national competition authorities would have faced greater costs, as they would probably have a greater involvement in monitoring the CRS industry compared to the current situation or compared to baseline 2. However, it is not possible to estimate the extent of those hypothetical costs.

During the targeted stakeholder consultation, two travel agents reported that they had incurred some costs in ensuring their systems were compliant with the CRS Code of Conduct, but they were minor costs and they were not able to provide further details. It has not been possible to gather information during this study on any other direct or indirect costs incurred by travel agents as a result of the CRS Code of Conduct.

According to 23 out of the 34 travel agents that responded to the stakeholder consultation, the CRS Code of Conduct benefited travel agents by improving the service they can give to their customers. 3 travel agents noted that this was because the CRS Code of Conduct supported the display of a large number of flights and fares in the CRS, which helped improve the service they provide.

As regards carriers, Article 9 of the CRS Code of Conduct requires that carriers ensure that the data they submit to a CRS are accurate and allow the CRS to follow the neutral display obligation. No evidence was collected indicating that this has been an issue for the carriers. However, one carrier noted that there were some '*costs related to providing data in required form for CRSs*', but mentioned that the cost was not made greater by any requirements of the CRS Code of Conduct.

Evidence from the surveys show that most carriers indicate not incurring any costs associated with the CRS Code of Conduct, with only 7 carriers (4 of which are from the EEA) out of 29 indicating that they have incurred costs from the Code of Conduct. No evidence was collected from the literature regarding costs for carriers.

From the seven carriers that indicated costs associated with the CRS Code of Conduct, five provided additional comments, most of which do not seem to directly relate to any provisions of the CRS Code of Conduct. While they might be considered indirect costs they appear to be more due to the perceived market power of the CRS providers:

- One EEA carrier said that the costs are related to discrimination clauses, leading to slow time to market, cancelled projects due to CRS contract provisions and lost revenue as a result. The carriers did not track actual costs due to this.
- Another EEA carrier said development of direct connect systems has been stalled because of *CRS' 'unwillingness to allow airlines access to own inventory without leveraging a tax'*.
- A third EEA carrier said that the CRS Code of Conduct *'has enabled the high market share of GDSs and high distribution cost and slow technological advancement'*.
- One non-EEA carrier said it was *'possible that the airline has over paid for services due the extreme difficulty in CRS billing reconciliation'*.
- Finally, another non-EEA carrier argued that booking fees *'are above the value of IT facilitation they [CRS providers] provide'*.

Another EEA carrier that did not report any costs mentioned that the lack of competition between CRS providers led to higher costs for all carriers. However, this is a result of market dynamics not a cost resulting from the CRS Code of Conduct.

In terms of benefits, the CRS Code of Conduct had the objective of ensuring a level playing field in the access and use of CRS services by the carriers. While this objective seems to have been fulfilled, comparisons with other regions, where the market has lower levels of regulation (see Case Study 3 and 4 in the support study⁴⁸, respectively; Case Study 3, analysing the US market, is a comparable situation to baseline 1) seem to indicate that in those markets carriers do not have any issues with access to the CRS market, so it is difficult to assess the level of benefit that the CRS Code of Conduct effectively brought in that regard. Comparing to baseline 2, the 2009 CRS Code of Conduct was expected to bring greater flexibility for carriers to negotiate contracts with CRS providers and lead to lower booking fees. While the former has been achieved, the latter seems to not have done so, with higher booking fees being present on the market

⁴⁸ Ricardo support study, Appendix 3 and 4, pp. 164-174.

(see Case Study 1 in the support study⁴⁹). Under baseline 1, the situation would be expected to be similar to what has happened, since contract freedom would exist.

Overall, costs related to the CRS Code of Conduct seem to be minimal and the benefits seem to outweigh the costs.

7) *To what extent does the CRS Code of Conduct make any impact on consumer welfare (ticket prices, convenience of the offers proposed)?*

The 2007 impact assessment predicted that by giving freedom to CRS providers and carriers to negotiate their contracts, the revision of the CRS Code of Conduct would lead to lower distribution costs, which could potentially put downward pressure on ticket prices. It is unclear if that has happened.

In addition, recently some carriers have stopped giving CRS providers access to comprehensive ('full') content, which has resulted in higher costs for these carriers for using this particular distribution channel, as the CRS providers tend to offer carriers discounted booking fees in return for providing comprehensive content. On the other hand, shifting some of their ticket sales to more direct forms of distribution may enable carriers to reduce their distribution costs. However, this could potentially lead to higher prices for consumers booking via CRSs since larger carrier groups have put surcharges on tickets booked via CRSs in order to direct traffic to their own booking channels. Without detailed costs data covering a reasonable period of time, it is difficult to assess the impact of the various developments. However, it would not seem that any of these developments may be attributed to the CRS Code of Conduct but rather market dynamics, as explained on pp. 12-13.

The 2007 impact assessment predicted that the freedom to negotiate contracts would lead to more full content agreements. On the other hand, terminating the full content agreements provides carriers with the possibility to promote some fares exclusively through their website.

Several travel agents argued during the targeted stakeholder consultation that the neutral display keeps ticket prices down, as it increases transparency and encourages competition between carriers, thus restricting growth in prices. However, that comment did not take into account the fact that some carriers, notably LCCs, do not appear in such displays and that, in this regard, it is difficult to argue a causal link between the CRS Code of Conduct and downward pressure on ticket prices, which is more likely to be due to the general level of competition in the air passenger transport market. In addition, even if carriers appear in the display, that does not mean that all their fares are necessarily available through CRSs. Overall, the opinion of travel agents was split, with half (13) of respondents suggesting a negative or no impact, and the other half (13) a positive impact.

⁴⁹ Ricardo support study, Appendix 1, pp. 142-153.

It is therefore hard to assess the balance between regulatory costs and benefits of the CRS Code of Conduct in respect of achieving higher consumer welfare.

8) *Is there a potential for the reduction of the regulatory costs for the industry. In particular, could the same benefits be achieved with less regulatory costs?*

CRS providers have pointed out that the reporting requirements in Article 12 are superfluous, as these requirements are intended to show that CRSs are (or are not) owned by a carrier. Since all CRS providers are publicly listed companies, this kind of information regarding their ownership is publicly available. One of the CRS providers added that these costs were compounded by the fact that a third party auditor was needed to comply with Article 12 – finding such an auditor proved very difficult for this CRS, as most auditors did not feel competent to audit the CRS’s governance and ownership structure. These issues are the direct result of the provisions of the Code of Conduct.

The support study estimated the costs of the audit requirements are between € 82,000 and € 117,000 (see above) per audit per CRS, and given that these audits take place every four years, annual savings for the industry (assuming the existence of three CRS providers) could amount to between € 61,500 and € 87,750.

Coherence

9) *How are the requirements and provisions set out in the CRS Code of Conduct coherent and consistent with one another? If not entirely, what are the differences, overlaps or inconsistencies?*

The provisions applicable to system vendors (CRSs), carriers and rail transport providers as far as concerned by the CRS Code of Conduct, the protection of personal data and those relating to infringements and penalties are consistent with each other. By way of illustration, the prohibition for a CRS to attach unfair and/or unjustified conditions to a contract is established in Article 3 for contracts with transport providers and in Article 6 for contracts with travel agents. This is consistent.

The evaluation thus found that the provisions of the CRS Code of Conduct are generally coherent with each other.

10) *How is the CRS Code of Conduct coherent and consistent with the overall EU aviation policy, with the Commission's Digital Single Market Strategy referred to in Section A above and the proposed policy of optimising the use of ICT in transport, traffic management and logistics?*

Coherence with overall EU aviation policy

In order to assess whether the CRS Code of Conduct is coherent with other EU interventions in the aviation sector its high-level objectives have been compared to those of a number of relevant Regulations. The analysis has also looked in more detail at selected provisions of the interventions, where a potential for inconsistencies existed.

*Regulation 1008/2008 on common rules for the operation of air services in the community*⁵⁰ (the "Air Services Regulation") sets the framework for the aviation internal market. The CRS Code of Conduct and the Air Services Regulation differ in content and scope, but are interlinked. If the internal aviation market was to be distorted by anticompetitive behaviour by private undertakings, such as CRS providers, the general objective of the Air Services Regulation which is to achieve an efficient internal aviation market to the benefit of consumers, would risk being undermined.

Article 23(1) of the Air Services Regulation contains provisions on price transparency stipulating that the final price of air tickets is indicated "and shall include the applicable air fare or air rate as well as all applicable taxes, and charges, surcharges and fees which are unavoidable and foreseeable at the time of publication". Annex I of the CRS Code of Conduct on the principal display mirrors this provision requiring that when prices are shown in the principal display and/or where a ranking based on prices chosen these prices "shall be inclusive of the fares and of all applicable, taxes, charges, surcharges and fees to be paid to the air carrier or rail-transport operator, and which are unavoidable and foreseeable at the time when shown on the display". There is thus no inconsistency between this provision of the Air Services Regulation and the provision of CRS Code of Conduct.

*Regulation 2019/712 on safeguarding competition in air transport, and repealing Regulation (EC) No 868/2014*⁵¹ ("Regulation 2019/712). Regulation 2019/712 entered into force on 30 May 2019 and replaced Regulation 868/2014 concerning protection against subsidisation and unfair pricing practices causing injury to Community air carriers in the supply of air services from countries not members of the European Union.

Regulation 2019/712 lays down rules on the conduct of investigations by the Commission and on the adoption of redressive measures, relating to practices distorting competition, namely between Union air carriers and third-country air carriers, and causing, or threatening to cause injury to Union air carriers.

The following provisions are relevant for the present purposes.

Article 2 of Regulation 2019/712 defines practices distorting competition as including "discrimination". In turn, "discrimination" is defined as "differentiation of any kind without objective justification in respect of the supply of goods or services [...], or in respect of their treatment by public authorities relevant to such services, including practices relating to [...] computer reservation systems [...]". Thus, Regulation 2019/712 includes a specific reference to CRS.

⁵⁰ [Regulation 1008/2008 on common rules for the operation of air services in the community](#)

⁵¹ [Regulation \(EU\) 2019/712 of the European Parliament and of the Council of 17 April 2019 on safeguarding competition in air transport, and repealing Regulation \(EC\) No 868/2004, OJ L 123, 10/05/2019.](#)

Article 4 of Regulation 2019/712 provides that an investigation shall be initiated following a written complaint submitted by a Member State, one or more Union air carriers or an association of Union air carriers, or on the Commission's own initiative, if there is prima facie evidence of the existence of all the following circumstances:

- (a) a practice distorting competition adopted by a third country or a third-country entity;
- (b) injury or threat of injury to one or more Union air carriers; and
- (c) a causal link between the alleged practice and the alleged injury or threat of injury.

Article 14 provides that if such an investigation determines that a practice affecting competition, adopted by third countries or third countries' entities (these may include CRS providers), has caused injury or threat of injury to Union air carriers, redressive measures may be adopted by the Commission against the third country air carriers that benefited from the practice. These redressive measures may take the form of financial duties or any operational measure of equivalent or lesser value, such as the suspension of concessions, of services owed or of other rights of the third-country air carrier.

The Code of Conduct equally contains provisions applicable to discrimination of Union carriers by third country CRSs. Measures under its terms may be addressed to Union CRSs, with a view of obtaining certain treatment of the third country carriers advantaged through the conduct of the third country CRS in question.

In this respect, Article 8(1) of the CRS Code of Conduct provides that "without prejudice to international agreements to which the Community or the Member States are parties, where the treatment of Community air carriers by a system vendor operating in a third country is not equivalent to the treatment of the third country participating carriers with regard to any matter contained in this Regulation, the Commission may require all system vendors operating in the Community to treat air carriers of that third country in a manner that is equivalent to the treatment of Community air carriers in that third country".

Article 8(2) of the CRS Code of Conduct imposes on the Commission the obligation to monitor the application of discriminatory or non-equivalent treatment of EU air carriers by CRS providers in third countries. It also requires the Commission to investigate potential discriminatory treatment cases, upon a Member State's request or at its own initiative. Before taking any decision, Member States and interested parties shall be informed and their comment shall be sought.

The following differences between Regulation 2019/712 and the CRS Code of Conduct can be highlighted:

First, the investigations under Regulation 2019/712 may be prompted by complaints of Member States, EU air carriers, associations of EU air carriers and the Commission's own initiative. However, under the CRS Code of Conduct, the Commission is required to investigate potential cases of discrimination at the request of Member States or at its own

initiative. Therefore, the standing to file a complaint that may trigger an investigation is narrower under the Code than under Regulation (EU) the Regulation 2019/712.

Second, while Regulation 2019/712 refers to two basic types of redressive measure that can be adopted, the CRS Code of Conduct only indicates that, if it is found that EU air carriers are not treated in an equivalent manner to air carriers from a third country by a system vendor (the operator of a CRS) of that third country, EU system vendors may be required to treat air carriers from that third country in a manner equivalent to the treatment given to EU air carriers in that third country. No other kind of redressive measure is contemplated.

Third, Regulation 2019/712 regulates how the investigations of the Commission shall be conducted and how long they can last. This detailed regulation of the different procedural aspects to be followed during the investigation and its time limits is missing in the CRS Code of Conduct.

*Regulation 2018/1139 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency*⁵² (the "Basic Regulation") has as its principal objective to establish and maintain a high uniform level of civil aviation safety in the Union. The analysis of this piece of legislation in light of the CRS Code of Conduct has not shown any major issue in terms of lack of coherence, loopholes, inconsistency or overlaps.

Coherence with other relevant legislation

Three (relatively recent) pieces of legislation are assessed in this context:

- Regulation 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation, GDPR);
- Regulation 2018/32 on Geo-blocking⁵³;
- Regulation 2019/1150 on promoting fairness and transparency for business users of online intermediation services.

GDPR

⁵² [Regulation \(EU\) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations \(EC\) No 2111/2005, \(EC\) No 1008/2008, \(EU\) No 996/2010, \(EU\) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations \(EC\) No 552/2004 and \(EC\) No 216/2008 of the European Parliament and of the Council and Council Regulation \(EEC\) No 3922/91, OJ L 212, 22.8.2018, p. 1.](#)

⁵³ [Regulation \(EU\) 2018/302 of the European Parliament and of the Council of 28 February 2018 on addressing unjustified geo-blocking and other forms of discrimination based on customers' nationality, place of residence or place of establishment within the internal market and amending Regulations \(EC\) No 2006/2004 and \(EU\) 2017/2394 and Directive 2009/22/EC, OJ L 60I, 2.3.2018, p. 1.](#)

Some provisions of Article 11 of the CRS Code of Conduct are made redundant by the GDPR. However, the GDPR and the data protection provisions of the CRS Code of Conduct differ in certain respects, in terms of the level of detail or the scope. For example, some provisions of Article 11 of the CRS Code of Conduct also apply to the processing of information relating to legal persons which is not the case with the GDPR. See the comparison between Article 11 of the CRS Code of Conduct and the GDPR in Annex 4.

Regulation on Geo-blocking

Regulation 2018/302 entered into force on 22 March 2018 and has applied since 3 December 2018. It aims to address unjustified geo-blocking by removing certain barriers to the functioning of the internal market.

The analysis of the CRS Code of Conduct and Regulation 2018/302 has revealed no inconsistency between the two instruments.

Existing EU transport legislation already contains discrimination prohibitions that apply in the air transport sector. For example, the Air Services Regulation prohibits discrimination based on the nationality or the place of residence of the customer with regard to air fares.

Regulation on promoting fairness and transparency for business users of online intermediation services

Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services (P2B Regulation) has been adopted on 20 June 2019 and has entered into force on 31 July 2019^[1]. It will be applicable as from 12 July 2020.

This Regulation aims to establish a fair, trusted and innovation-driven ecosystem across online platforms in the EU. It contains provisions for online platform intermediaries and providers of online search engines including online third-party e-commerce market places, app stores, social media for business and price comparison tools (e.g. meta-search engines).

According to Article 2 of the Regulation, online platform intermediaries mean services that allow business users to offer goods or services to consumers. As CRSs do not allow business users to offer goods or services directly to consumers they are not considered online platform intermediaries and the Regulation therefore does not apply to CRSs.

On the other hand, on the basis of Article 2 of the Regulation, the Regulation covers other actors that are active in the air ticket distribution market such as online travel agents. It also applies to meta-search engines for searches on air tickets and fares.

^[1] OJ L 186, 11.7.2019, p. 57–79.

The Regulation does not address directly the consumer but contains provisions concerning business to platform relations. Among others, Article 5 on ranking stipulates that providers of online intermediation services shall set out in their terms and conditions the main parameters determining ranking and the reasons for the relative importance of those main parameters as opposed to other parameters. Also providers of online search engines, such as meta-search engines, shall be transparent on their main ranking parameters.

No inconsistency has been found between the Regulation and the CRS Code of Conduct.

Coherence with the proposed policy of optimising the use of ICT in transport, traffic management and logistics

In 2013, the Commission commissioned a ‘Strategic analysis for optimising the role of ICT in EU policy delivery’ (Rand Europe, 2014). This study showed that one of the main challenges faced by transport is the integration of big and ubiquitous data capture. In particular, the study explained that the significant increase in transport data had been driven by three main factors:

- i. greater release of proprietary data by industry operators;
- ii. an increase in the Internet of Things (IoT) and other monitoring technologies that boost the potential for data harvest;
- iii. wider range of online channels through which data can be accessed and used.

Together, these three factors have led to an important expansion of data-driven businesses related to transport. The data flows in the sector have given rise to a series of potential internet awareness issues.

Most likely, at the time the last revision of the CRS Code of Conduct took place, these concerns were of less relevance than they are at the present time.

Despite this, no major inconsistency between the EU policy on the application of ICT in transport and the CRS Code of Conduct has been found.

11) Are the requirements set out in the CRS Code of Conduct coherent and consistent with the Commission’s aim to achieve more multimodal traffic information and ticketing systems, and in particular Directive 2010/40/EU of the European parliament and the council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport?

Multi-modality is a key part of the European Commission's strategy for the future of transport.

Directive 2010/40/EU on the framework for the deployment of intelligent transport systems in the field of road transport and for interfaces with other modes of transport (the

"ITS Directive") seeks to encourage the development of innovative transport technologies in the field of road transport to create ITS systems. Intelligent Transport Systems ("ITS") are defined as systems in which information and communication technologies are applied in the field of road transport, including infrastructure, vehicles and users, and in traffic management and mobility management, as well as for interfaces with other modes of transport. In the recitals to the Directive, it is explained that such systems, without embodying intelligence as such, aim to provide innovative services relating to different modes of transport and traffic management and enable various users to be better informed and make safer, more coordinated and smarter use of transport networks. The intention is *inter alia* to ensure higher levels of integration between road transport and other modes of transport. The Directive is based on the recognition that the deployment of applications in relation to the road transport sector remains fragmented and uncoordinated and cannot provide geographical continuity of ITS services.

The CRS Code of Conduct only applies to CRS in so far as they deal with air-transport as well as with rail-transport products which are incorporated alongside air-transport products into the principal display of a CRS, and not in respect of road and waterborne transport. However, this is not incoherent with the approach of the ITS Directive. The CRS Code of Conduct contains no provisions which would prevent or restrict CRS providers from including road or waterborne transport in their systems, should they wish to do so.

12) How are the requirements and provisions set in the CRS Code of Conduct coherent and consistent with the Commission's competition policy (antitrust, mergers and state aid) and the Commission's consumer protection policy? If not entirely, what are the differences, overlaps or inconsistencies?

Competition policy

Recital 20 of the CRS Code of Conduct states that the CRS Code of Conduct is without prejudice to the application of Article 101 and 102 TFEU. The aim of the CRS Code of Conduct is therefore to complement general competition rules. The CRS Code of Conduct aims to increase and promote market efficiency.

No stakeholder has raised any concerns as regards the consistency of the CRS Code of Conduct and competition law.

Article 3 of the CRS Code of Conduct providing, among others, that CRSs shall not attach unfair and/or unjustified conditions to any contract with a participating carrier and shall not prevent the participating carrier from using another system may be considered going beyond Article 102 TFEU. Thus unlike Article 102 TFEU this provision applies regardless of whether the CRS holds a dominant position or not. But this does not constitute an inconsistency with competition policy, since it is not uncommon that when necessary for achieving identified public policy objectives, regulatory measures may go beyond what could be considered justified under competition rules.

Consumer protection policy

One of the general objectives of the CRS Code of Conduct is to protect consumer interests. For the most part, this objective can only be achieved indirectly, although Article 5(2) does require subscribers to use a neutral display when providing information directly from a CRS to a consumer.

The support study has not identified any inconsistencies of the CRS Code of Conduct with the specific EU legislation on consumer protection.

On 27 November 2019, European Parliament and Council adopted a Directive on better enforcement and modernisation of Union consumer protection rules¹ that amends existing EU consumer law instruments. It is one of the building blocks of the “New Deal for Consumers” put forward by the Commission in April 2018, aiming to strengthen consumer protection. The new Directive provides stronger tools for enforcing consumer rights and modernises the rules in line with digital developments, e.g. by further enhancing transparency for consumers when they buy on online marketplaces, make online searches or consult user reviews.⁵⁴

One of the measures proposed aims at more transparency on search results on online platforms. When searching online, consumers would be clearly informed when a search result is being paid for by a trader. Moreover, online marketplaces, such as online travel agents, would have to inform the consumers about the main parameters determining the ranking of the results. These provisions would apply to online travel agencies when selling air tickets as well as to meta-search engines providing information on air tickets. The provisions proposed are coherent with the transparency objective of the CRS Code of Conduct and the neutral display obligations for CRSs as contained in the CRS Code of Conduct.

No consumer association interviewed during the targeted stakeholder consultation of the support study expressed any concerns regarding the interaction of the CRS Code of Conduct and EU legislation on consumer protection with the amendments contained in the above mentioned proposal.

EU Added Value

13) *What is the added value resulting from EU intervention in regulating the CRS market? Could the same results be achieved at international, national or regional level without such intervention?*

⁵⁴ Directive (EU) 2019/... of the European Parliament and of the Council amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules; publication in the OJ is expected on 18 December 2019. For further information see https://ec.europa.eu/info/law/law-topic/consumers/review-eu-consumer-law-new-deal-consumers_en

The 2007 impact assessment considered that given the multi-national character of the CRS services, regulation at EU level has an added value in this sector. The argument remains valid, in particular also considering the multi-national character of the airline business.

If each Member State had the possibility to set its own rules, given the multi-national character of the CRSs, this would result in additional costs for CRSs as they would need to adjust their services in the individual Member States in order to comply with the individual Member State's regulation.

The discretion of Member States to set rules in the field of CRS could also result in CRSs deciding where to establish their organisations on the basis of the most lenient regime (rule shopping).

In addition, some Member States might not regard some or all of the specific objectives of the CRS Code of Conduct as essential for their markets. Additionally, there is a risk that application of the rules, even if they were the same across the EU Member States, is done inconsistently. This would potentially have negative impacts in terms of achieving the specific objectives of ensuring a level playing field for carriers, preventing distortion of competition by parent carriers (in case there were any) and preventing abuse of MIDT data. It would also not be guaranteed that the specific objectives of increasing transparency of travel options and promoting rail options would be achieved with Member State intervention only. Finally, the discussion of the specific objective of consistent application, across the EU, of data protection rules to CRSs may not be relevant because if the rules on the protection of personal data contained in Article 11 of the CRS Code of Conduct were to be withdrawn, the GDPR would still apply and ensure consistent application of relevant rules across the EU. As discussed in the section on Relevance above, this issue deserves further careful assessment.

The International Civil Aviation Organisation (ICAO) adopted a first Code of Conduct on the Regulation and Operation of CRS in 1991. This ICAO Code of Conduct was later reviewed in November 1996. The ICAO Code of Conduct does not require any formal process of ratification, yet each ICAO contracting state that decides to follow it is expected to inform ICAO about this decision. The ICAO Code has the same objectives as the CRS Code of Conduct i.e. to prevent distortion of competition and unfair practices in the CRS field and to present the fares in an unbiased display. However, the ICAO Code merely provides guidelines with a worldwide dimension through general principles concerning the operation and regulation of CRSs, it is not binding. Regulation (EC) No 80/2009 by contrast is binding. Furthermore, several provisions of the ICAO code do not go into detail with regard to the obligations of the contracting states. As such, it can be concluded that the EU intervention has added value when compared to the Member States adopting the ICAO code.

Therefore, the conclusion is that the EU intervention has an added value compared to intervention on a national and a global level. This is without prejudice to the assessment

of whether the sector-specific rules laid down in the CRS Code of Conduct remain necessary in view of market and other developments, as discussed above.

6) CONCLUSIONS

Relevance

Due to market and technological changes, there are questions as to whether the objectives of the CRS Code of Conduct are still relevant and whether the CRS Code of Conduct remains fit for purpose. The most significant market changes are almost complete divestiture of airlines in CRSs, the rise of alternative distribution channels and the increase in the direct distribution of air tickets. The most significant technological change concerns the increase in penetration of the internet to individual households across the European Union, which has risen to 89% on average in 2018⁵⁵. At the same time, the use of mobile devices to access the internet has increased to 69% on average in the EU⁵⁶. These internet-related developments have impacted the position of CRSs and travel agents, giving individuals the possibility to book their tickets directly from the carrier's website. CRSs continue to be an important player in the distribution of air tickets, though their share of bookings by volume has decreased since the 2007 impact assessment.

The objective of ensuring a level playing field was driven by the reliance of carriers on CRS for ticket distribution, given the very limited alternative options available at the time of the introduction of the CRS Code of Conduct. The range of alternatives available – new content aggregators, direct connect services, meta-search engines, as well as direct consumer bookings on the carrier's website, in addition to the traditional CRS channel – is now much broader, and opens up the possibility for competition between these distribution methods to ensure market discipline.

Despite this trend and the decline in CRSs' share of total airline ticket sales by volume, CRSs do appear to retain an important position in the segment of business travellers. That said, large travel agents, including TMCs serving business travellers, subscribe to more than one CRS, may have access to data from alternative sources, and may have the ability to compare data from different sources effectively. This possibly reduces the potential for an individual CRS to abuse its market power, although the evaluation found no conclusive evidence on this issue.

With the objective of competition in mind, it is worth noting that in their responses to the stakeholder consultation, smaller air carriers strongly welcomed the presence of the CRS Code of Conduct and in particular its provisions on neutral display – which they argued are necessary to allow them to compete with larger carriers.

⁵⁵ Eurostat data

⁵⁶ Eurostat data

Overall, though, stakeholders have divergent views on whether the provisions of the CRS Code of Conduct are still relevant, as well as on whether alternative systems based on new technologies should be within the scope of the CRS Code of Conduct.

The support study found some evidence that such systems may include a number of the features of CRSs, but that they are not currently regulated in the same way (to the extent they do not constitute CRSs within the meaning of the CRS Code of Conduct). This may have implications for the level playing field objective. However, it is also worth noting certain characteristics of these different distribution models, for example that new content aggregators do not have subscribers in the same way as CRSs under the CRS Code of Conduct; or that, similarly, meta-search engines in most cases do not themselves provide a means to make bookings for flights.

Overall, while the objective of ensuring a level playing field for all participating carriers as to the access to and the use of CRS services may remain relevant, the support study did not find clear evidence whether it remains necessary to complement the general EU competition rules with the provisions of the CRS Code of Conduct, in order to achieve a level playing field in the current market context. The specific sectoral treatment of traditional CRS services may no longer be justified in view of developments in air ticket distribution, notably the rise of alternative B2B channels, divestiture of carriers from CRSs and the increase in the direct distribution of flight tickets.

Many stakeholders confirmed nonetheless that the transparency requirements in the form of the neutral display are important. As with the level playing field objective, there are divergent views over whether these requirements should be extended to other players. The continued evolution of distribution practices is likely to result in further increases in bookings being made through channels outside the scope of the CRS Code of Conduct, further reducing the relevance of its scope in ensuring transparency of flight options as presented to travel agents, and ultimately consumers.

Therefore, should it be considered that the CRS Code of Conduct is still necessary, its scope would require further attention to ensure that it continues to be relevant in light of future market developments.

Meanwhile, the overall picture of ticket distribution is becoming increasingly complex, including with the possibility of interlinkages between B2B and B2C platforms. Notwithstanding the fact that the CRS Code of Conduct only applies to the traditional CRS channel which is by its nature B2B, it is therefore relevant to further assess the possible impact of this complexity, notably as regards transparency and comparability of travel options for the consumer. As indicated above, future policy decisions should carefully consider the impact on air ticket distribution as a whole.

Nowadays, none of the three traditional CRSs operating in Europe is owned by any carrier to a significant extent i.e. they do not hold a controlling share of any of the CRSs. As the 2007 impact assessment showed, there is a theoretical possibility that carriers might reinvest in CRSs, though there is currently no evidence that this is likely to

happen. With or without the CRS Code of Conduct, EU competition rules would continue to apply. Preventing parent carriers from distorting competition between CRSs and/or between themselves and participating carriers therefore no longer seems a relevant objective for *ex ante* regulation. The provisions of the CRS Code of Conduct may therefore no longer be necessary.

With the decline of CRS bookings, the relative value of MIDT data declines as well. The results of the targeted stakeholder consultations vary according to the respondents. Carriers informed that even though MIDT provide important information, they are just one set of data used in the industry. In addition, their price is also higher than for other data sets. However, since MIDT is still an important tool for carriers in market research this specific objective might still be relevant to some extent. Furthermore, travel agents have commented in the context of the support study that they do consider that MIDT data have been used unfairly to put pressure on them, so it seems that the objective of preventing abuse via MIDT data is still relevant. However, there is no clear evidence whether it remains necessary to complement the general EU competition rules with sector-specific provisions to this end.

Stakeholders' views differ on whether the sector-specific provisions on the protection of personal data are still relevant, considering the GDPR. Given that most issues covered in Article 11 of the CRS Code of Conduct are also covered in the GDPR albeit in less detail, it would seem that Article 11 is less relevant. The provisions of Article 11 are also not necessary to meet the objective of consistent application of data protection rules, which is fully met by the GDPR. However, the provisions in the two pieces of legislation differ in certain respects, in terms of the level of detail or the scope. Therefore, it needs to be further assessed whether the particularities of the CRS Code of Conduct's rules on data protection offer any benefits beyond the general data protection rules and if so whether any such benefits justify, where applicable, costs entailed by the application of the specific rules of the CRS Code of Conduct.

As regards the objective on promotion of rail and inter-modal transport, it is noted that the CRS Code of Conduct contains very limited provisions promoting rail transport alternatives where such alternatives exist, and does not contain any provisions which promote inter-modal transport – the relevant data just need to be present in the neutral display. However, that does not mean that this specific objective is irrelevant and that a possible initiative to promote this objective should necessarily be excluded in the future. In recent years, various online platforms have emerged offering several mobility solutions, including inter-modal and multimodal offers. Nonetheless, there is insufficient evidence to confirm that the CRS Code of Conduct remains the most appropriate or necessary vehicle to achieve this objective.

According to the CRS Code of Conduct, CRS providers shall every four years, and in addition upon request of the European Commission, submit an independent auditor's report detailing their structure and governance model. As there is no significant carrier investment in any of the three CRSs operating in Europe, these reporting requirements

appear to be no longer relevant in the current market. In any case, the three CRSs already publish similar information as part of their obligations as publicly listed companies.

Effectiveness

The aims of the CRS Code of Conduct were, among others, to prevent the CRS providers from discriminating between participating carriers in the display of data and in providing and loading of data, from attaching unfair conditions to the contracts with a carrier and from restricting participating carriers from using other CRS providers. There has been no evidence showing problems with access of carriers to CRS services. CRSs as well as carriers also agreed that the CRS Code of Conduct provided more freedom than previous versions of the Code when it comes to negotiation of contracts. On the other hand, some carriers expressed their concern about the way the contracts are negotiated and about highly restrictive clauses contained therein. Some of these concerns are currently being investigated under EU competition rules. Overall, there are indications that the CRS Code of Conduct has not been fully effective in achieving the objective of ensuring a level playing field for all participating carriers for access to, and the use of CRS services, since it did not lead to better balancing of the bargaining power of different-sized carriers vis-à-vis CRSs.

The objective of preventing distortion of competition between CRSs by parent carriers is currently being achieved, since no carrier has a controlling share in any CRS. However, it is not clear whether the carrier divestment from CRSs is simply due to market development or if the presence of the CRS Code of Conduct also plays a role.

Concerning the objective of ensuring equal treatment of carriers and railway operators in the MIDT market and preventing abuse of market power, there are some indications that despite the CRS Code of Conduct, travel agents have still been subjected to pressure from carriers on the basis of MIDT information. However, this is considered to be a potential issue with the enforcement of the Code of Conduct rather than with its provisions *per se*.

In order to achieve the objective of increasing transparency of travel options and ensure the provision of neutral and comprehensive information on travel options and to ensure a level playing field, the CRS Code of Conduct establishes the concept of a principal, neutral display, ‘without discrimination or bias’. The use of new technologies might reduce the effectiveness of the CRS Code of Conduct in achieving that goal, as these technologies, while introducing competition into the market, might lead to more fragmentation of content, thus reducing transparency. On the other hand, it is important to note that the CRS Code of Conduct never had the objective to prevent fragmentation and make all airline tickets available on all the CRSs and to all travel agents. Instead, it aimed at ensuring that CRSs present to subscribers all the fare information they receive from participating carriers in a neutral way, which indeed is the case. Therefore it seems that the CRS Code of Conduct has been effective in achieving this objective.

As regards consistent application of data protection rules specific to CRSs across the EU, the support study did not find any evidence to suggest that this objective has not been met.

There are limited provisions on promotion of rail transport. The main innovation in 2009 was to lift the obligation on CRSs to charge the same fee to all carriers (air and rail), giving rail operators the legal possibility to negotiate booking fees more proportionate to their ticket values. Results from the targeted stakeholder consultation indicate that travel agents have access to rail options in their systems. CRS providers also confirmed that they work with a number of train companies and provide rail options in primary displays where relevant. The support study did not provide any evidence as to whether the pricing freedom has led to reduced prices for rail operators, but there is no suggestion that rail operators would be better off under the pre-2009 rules. Therefore it seems that the specific objective of promoting rail transport has been partially achieved.

Efficiency

In relation to the question referring to the extent of proportionality of regulatory costs compared to the benefits of the CRS Code of Conduct, the support study to the evaluation found that the CRS Code of Conduct imposes on-going direct costs to CRS providers derived from the reporting requirements (audits) of Article 12.

The 2007 impact assessment estimated a cost of audit for each CRS provider to be in the range of € 70,000 to € 100,000 per year per CRS (around between € 82,000 and € 117,000 in current euros according to the support study). Given the lighter audit obligations in the revised Code and the lower frequency of the reporting, the yearly cost of the current audit obligations is expected to be significantly lower.

Results from the surveys of national competition authorities show that none of the authorities that responded to the survey have incurred any one-off or ongoing costs related to the CRS Code of Conduct.

Two travel agents indicated minor costs in ensuring their systems were compliant with the CRS Code of Conduct.

As regards carriers, some costs were indicated but they do not seem to be the result of the CRS Code of Conduct but more as a result of market dynamics.

Regarding the potential reduction of regulatory costs for the CRSs, the audit requirements on ownership structure and governance do not contribute to the ability to monitor the influence of carriers on CRSs, as there are no significant carrier investments in any of the three CRSs operating in Europe. In any case, all the CRSs are publicly listed companies and as such, they have to publish the data anyway. Therefore, removing these requirements from CRS Code of Conduct would save costs.

Overall, costs related to the CRS Code of Conduct seem to be minimal and the benefits seem to outweigh the costs.

In relation to the impact of the CRS Code of Conduct on consumer welfare, several travel agents argued during the targeted stakeholder consultation that the neutral display keeps ticket prices down as it increases transparency and encourages competition between carriers, thus restricting growth in prices. However, this comment did not take into account the fact that some carriers do not appear in such displays and that, in this regard, it is difficult to argue a causal link between the CRS Code of Conduct and downward pressure on ticket prices, which is more likely to be due to the general level of competition in the air passenger transport market. Overall, the opinion of travel agents was split, with half suggesting a negative or no impact, and the other half a positive impact. It is therefore hard to assess the balance between regulatory costs and benefits of the CRS Code of Conduct in respect of achieving higher consumer welfare.

Coherence

The evaluation showed that the provision of the Code of Conduct are internally consistent.

Concerning the *Regulation 1008/2008 on common rules for the operation of air services in the community and Regulation 2018/1139 on common rules in the field of civil aviation and establishing EASA*, the evaluation did not find any inconsistencies in relation to the CRS Code of Conduct.

On the other hand, there are some differences between the CRS Code of Conduct and *Regulation 2019/712 on safeguarding competition in air transport, and repealing Regulation (EC) No 868/2004*. Regulation 2019/712 provides a broader category of parties having standing to request an investigation, whereas the CRS Code of Conduct only refers to Member States. In addition, Regulation 2019/712 provides two categories of redressive measure which can be taken against a party violating the rules, whereas the CRS Code of Conduct only empowers the Commission, where EU carriers are being discriminated against by a CRS operating from a third country, to require CRSs operating in the EU to treat carriers based in that third country in the same way as EU carriers are being treated in the third country.

As regards the substantive rules contained in Article 11 of the Code of Conduct, some of these are made redundant by the GDPR. However, the GDPR and the data protection provisions of the CRS Code of Conduct differ in certain respects, in terms of the level of detail or the scope.⁵⁷

The evaluation did not show any inconsistencies between the CRS Code of Conduct and *Regulation 2018/302 on geo-blocking and Regulation 2019/1150 on promoting fairness and transparency for business users of online intermediation services*. As regards Regulation 2019/1150 on promoting fairness and transparency for business users of

⁵⁷ Some provisions contained in Article 11 of the CRS Code of Conduct also apply to the processing of information relating to legal persons which is not the case for GDPR which only applies to the processing of personal data of natural persons.

online intermediation services⁵⁸, it is important to note that that Regulation does not impose neutral display obligations on online platforms or online search engines. It does, however, set out provisions on ranking transparency and stipulates that online platforms and online search engines shall be transparent about the main parameters they apply to such ranking.

No stakeholder has raised any concerns as regards the consistency of the CRS Code of Conduct and competition law, nor has the support study identified any inconsistencies of the Code of Conduct with EU legislation on consumer protection.

EU added value

The 2007 impact assessment considered that given the multi-national character of CRS services, regulation at EU level has an added value in this sector. The argument remains valid, in particular also considering the multi-national character of the airline business.

If each Member State had the possibility to set its own rules, this would result in additional costs for CRSs as they would need to adjust their services in the individual Member States in order to comply with the individual Member State's regulation.

In addition, some Member States might not regard some or all of these objectives as essential for their markets. Additionally, application of the rules, even if they were the same across the EU Member States, would probably be done inconsistently. This would potentially have negative impacts in terms of achieving the specific objectives of ensuring a level playing field for carriers, preventing distortion of competition by parent carriers (in case there were any) and preventing abuse of MIDT data. It would also not be guaranteed that the specific objectives of increasing transparency of travel options and promoting rail options would be achieved with Member State intervention only. Finally, the discussion of the specific objective of consistent application, across the EU, of data protection rules to CRSs may not be relevant because if the rules on the protection of personal data contained in Article 11 of the CRS Code of Conduct were to be withdrawn, the GDPR would still apply and ensure consistent application of relevant rules across the EU. This issue deserves further careful assessment.

As regards the global level, the International Civil Aviation Organisation (ICAO) has adopted a Code of Conduct on the Regulation and Operation of CRS in 1991, reviewed in 1996. However, this ICAO Code of Conduct is merely a guidance document containing general principles which are not binding on the Member States. Consequently, the system implemented in the EU goes further than the ICAO code and imposes binding obligations applicable to any CRS containing air transport products that are offered for use or used in the EU. As such, it can be concluded that the EU intervention has added value when compared to the Member States adopting the ICAO code.

⁵⁸ Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services.

Therefore, the conclusion is that the EU intervention has an added value compared to intervention on a national and global level.

The fact that CRS Code of Conduct has an EU added value relative to regulation at national or worldwide level is without prejudice to the assessment of whether the CRS Code of Conduct as a sector-specific instrument is still needed and if so, in what form and scope.

Annex 1: Procedural information

1) LEAD DG, DeCIDE PLANNING/CWP REFERENCES

DG MOVE is the lead Directorate General for the evaluation of the Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems.

The Decide entry for this evaluation is saved under reference PLAN/2017/1827.

2) ORGANISATION AND TIMING

The evaluation of the Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems was coordinated by an Inter-Service Steering Group (ISSG), which was established early in the evaluation process. Representatives from Secretariat General (SG), Legal Service (LS), Directorate-General for Mobility and Transport (MOVE), Directorate-General for Competition (COMP), Directorate-General for Environment (ENV), Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (GROW), Directorate-General for Climate Action (CLIMA), Directorate-General for Communications networks, content and technology (CNECT), Directorate-General for Justice and Consumers (JUST), Directorate-General for Research and Innovation (RTD) and Joint Research Centre (JRC) were appointed to the Steering Group.

Date	Activity
20 July 2017	1 st meeting of the Inter-Service Steering Group: kick-off, mandate, draft roadmap
05 October 2017	Publication of the Evaluation Roadmap on Better Regulation portal
05 March 2018	Start external support study by independent contractor (Ricardo)
11 March 2018	2 nd meeting of the Inter-Service Steering Group: kick-off meeting with external contractor
09 November 2018	3 rd meeting of the Inter-Service Steering Group: draft final report external study
17 September 2018 – 10 December 2018	Open public consultation
13 May 2019	Seminar in Florence
14 May 2019	Acceptance of the final report
16 September 2019	4 th meeting of the Inter-Service Steering Group: draft Staff Working Document
End October – Early November	Inter-service consultation on the Staff Working Document

3) EXCEPTIONS TO THE BETTER REGULATION GUIDELINES

None

4) CONSULTATION OF THE RSB

This evaluation was not selected for assessment by the Regulatory Scrutiny Board

5) EVIDENCE, SOURCES AND QUALITY

The evaluation relies to a large extent on the external support study to the evaluation prepared by Ricardo.

During the evaluation the consultant used a mix of approaches including evaluation matrix, desk research and field research and case studies.

Literature evidence was identified to develop several of the indicators that support the analysis for the evaluation questions and subsequently to identify key information for the development of the answers to the evaluation questions.

Annex 2: Stakeholder consultation

The objective of the evaluation is to provide insight into the actual performance of the CRS Code of Conduct and its overall impacts (both intended and unintended). To this end, the evaluation aims to draw evidence-based conclusions on the five criteria as laid out in Better Regulation; relevance, effectiveness, efficiency, coherence and EU added value of the CRS Code of Conduct. The main focus of the support study for the evaluation was on the period since the adoption of the CRS Code of Conduct in 2009, with references to earlier time periods whenever necessary.

Consultation strategy:

To perform the evaluation of the CRS Code of Conduct, it was identified that inputs would be required from (at least) the following stakeholder categories:

- Carriers;
- Consumer organisations;
- CRS Providers;
- Meta-search engines;
- Travel agents and travel management companies;
- National competition authorities;
- National regulatory authorities;
- Technology providers;

To obtain the required inputs from these stakeholder categories, three key strands of stakeholder consultation were employed:

- a series of targeted interviews;
- three targeted surveys of different stakeholder categories;
- an open public consultation.

The following criteria were used to define the consultation activities and the target audience:

- topical coverage, using interviews for those areas where the need to check facts or plug information gaps was greatest;
- coverage of stakeholders from all groups, using interviews for groups in which the number of stakeholders is small and combinations of surveys and interviews for groups with large numbers of stakeholders;
- geographic spread across the European Union; and
- a mix of associations and individual stakeholders.

The consultation strategy consisted of an open public consultation, targeted interviews and targeted surveys.

Open public consultation

An open public consultation (OPC) was launched on 17 September 2018 and closed on 10 December 2018. It was targeted at eliciting responses from individual members of the

public as well as organisations and covered broader, less detailed, questions relating to people’s choice of travel options and booking channels. It also included questions on the relevance and effectiveness of the CRS Code of Conduct, as well as its coherence with other EU policy objectives.

A total of 136 responses were received to the open public consultation. The numbers of responses are presented by organisation type (or individual) in the following table:

Individual or Organisational type	Number of responses
Individual	70
Carrier/Carriers association	4
Consumer/Air Passenger Association	8
CRS/CRS Association	4
Metasearch engine	1
Public authority (EU, national, regional)	1
Technology provider (i.e. IT providers, aggregators)	2
Travel agent/Travel agents’ association/Tour operator	41
Other (please specify)	5
Total	136

Targeted interviews

Interviews were held with 37 stakeholders of all categories throughout the study. A detailed presentation of the numbers of stakeholders by category is provided in the following table:

Stakeholder category	Number interviewed
Carriers and industry associations	11 (2 associations, 7 legacy carriers, 2 low cost carriers)
Consumer organisations	3
CRS providers and industry associations	4
National competition authorities	2
National regulatory authorities	1
Technology companies / meta-search websites	5
Travel agents and industry associations	10 (2 associations, 6 traditional/business travel agents, 2 online travel agents (OTAs))
Other (Business travellers' associations)	1
Total	37

Three exploratory interviews (one carrier, one CRS provider and one metasearch engine) were held during the inception phase of the study to gain a greater understanding of the issues as seen by the different stakeholder categories and to help develop the survey questionnaires and the interview checklists.

In addition to the above stakeholder categories, interviews with international rail companies were sought, to obtain their views on the articles of the CRS Code of Conduct related to the display of rail services. However, it was not possible to arrange such interviews. The consultations with other stakeholder categories (particularly travel agents) did not raise any issues around the inclusion of rail options in CRSs and their displays, however as mentioned this was not possible to confirm directly with rail companies.

As well as stakeholders that were identified for the main interview activities, four follow-up interviews were held with stakeholders that had completed the targeted surveys. These interviews were used to provide further insight into their survey responses and to assist in developing a consistent interpretation of the responses provided in the surveys and interviews.

Further interviews were conducted in the context of the four case studies conducted as part of the study; two covered the evolution of the airline distribution market and technological developments, while the other two investigated the situation in the USA and Canada (where the level of regulation of CRSs is different to that in Europe). In total, nine interviews were conducted with carriers, CRS providers, a technology provider and a travel agent.

Targeted surveys

Following an appraisal of the likely inputs to be obtained from the different stakeholder categories, and the benefits to be expected from interviews and/or surveys of each of them, it was decided to conduct three online surveys of:

- Carriers;
- National competition authorities;
- Travel agents.

The numbers of stakeholders that responded to the three targeted surveys are shown in the following table:

Survey	Number of responses
Carriers	28 (22 legacy, 4 low cost, 2 charter)
National competition authorities	12
Travel agents	34 (3 associations, 25 traditional/business TAs, 4 OTAs, 2 unknown)

The national competition authorities that responded represented the following Member States: Austria, Cyprus, Czech Republic, Germany, Hungary, Latvia (two responses from different departments), Lithuania, Portugal, Romania, Spain and the United Kingdom.

The inputs from the carriers and national competition authorities provided a good representation across the EU Member States. The travel agents that responded were also well distributed across the Member States; however, the total number that responded was small in comparison with the full number of such organisations believed to operate in the EU. This may restrict the representativeness of the responses to the survey.

Limitations of the stakeholder consultations

The main limitation to the stakeholder consultation performed as part of this study relates to the number of responses received from travel agents. Although attempts were made to reach out to a large number of travel agents in Europe, principally through their industry bodies, only a relatively small number of them responded to the targeted survey. A slightly greater number of responses were received from travel agents to the open public consultation. Similarly, attempts were made to contact representatives from the major international rail operators in Europe, however with no success.

Main results

This section gives a brief overview of the main results of the stakeholder consultation in relation to the five evaluation criteria on relevance, effectiveness, efficiency, coherence and EU added value.

The phrasing of the summary reflects the views of the respondents and does not imply any endorsement of those views on the part of the European Commission.

Relevance

As regards the question on the importance of CRS in the air ticket distribution market there was agreement among stakeholders. During interviews one CRS provider estimated the percentage of bookings through CRS providers to be between 45% to 47%. Similarly, four flag carriers estimated the share to be between 40% to 50%. Two small carriers estimated it to be a bit lower but with an increasing trend. However, these two small carriers described it as “largely irrelevant” because most of their bookings were made via direct channels and only some more expensive bookings (mostly for the business segment) were made via CRSs.

As for the need for the CRS Code of Conduct there was agreement that the CRS Code of Conduct has been good for the industry but also views that the Regulation has not been able to cater for the rise of alternative distribution channels.

All three CRS providers mentioned that it was an issue that the CRS Code of Conduct does not regulate the new alternative booking channels.

Most travel agents share the view that the CRS Code of Conduct remains relevant but should be expanded to cover alternative booking channels. 24 out of 32 travel agents surveyed responded that organisations that are not regulated by the CRS Code of Conduct were competing unfairly with those who are. In the interviews, some mentioned direct connect and meta-search engines.

During interviews, one regional carrier commented that the rationale for the CRS Code of Conduct – to limit the power of parent carriers – is no longer present as there are no parent carriers anymore. The carrier felt that CRS providers had used this situation to pressure carriers to accept full content agreements and parity clauses. Another medium-sized carrier commented that the CRS Code of Conduct had enabled their success due to the neutral display requirement. Two carriers (one large and one medium-sized) commented that the CRS Code of Conduct is not being enforced, but did not specify in what regard.

When it comes to impacts of new technology such as direct connect and NDC, there was agreement on the impacts but disagreement on the need to regulate these new technologies.

All three CRS providers commented that new technologies should be covered by the CRS Code of Conduct.

One carrier responded that the CRS Code of Conduct did not fit the new technologies based on NDC.

Four travel agents commented that the new systems increased fragmentation and thereby decreased transparency in the market. They expected NDC to enlarge these issues. However, one OTA commented that the new systems would enable them to customise their offers to consumers. One TMC and two travel agents noted a preference for the traditional CRS systems. For the TMC it was a matter of having one place to go (as opposed to several). For the two travel agents, the costs of updating their systems to be able to connect to direct connect systems were too high. One travel agent commented that it subscribed to a direct connect due to its strong local presence in the specific market. 14 out of 33 travel agents confirmed in the targeted survey that they subscribe to a direct connect system. 15 out of 23 travel agents mentioned that booking fees through direct connect were lower than via CRSs. The remainder did not know if there was a difference.

In the open public consultation, 45 respondents indicated that there are issues not currently covered by the CRS Code of Conduct. 13 indicated that all issues are currently covered, and 49 that they did not know or had no opinion. As regards the respondents who felt that there are issues not currently covered by the CRS Code of Conduct, the

majority of comments related to the scope of the CRS Code of Conduct and to the definition of a CRS, in relation to the new alternative distribution channels. Other issues commented on by multiple respondents were a requirement that all fares should be available through all CRSs and that there should be no tracking of activity on websites and increases in prices following multiple searches for the same flight.

Effectiveness

Most stakeholders did not mention any significant changes due to the introduction of the CRS Code of Conduct.

CRSs noted that the most significant changes related to the removal of the non-discriminatory pricing rule in Regulation 80/2009 and the requirement to anonymise MIDT data.

Four out of five carriers did not indicate any changes during interviews. One carrier noted the anonymity requirement of MIDT and increased flexibility in contract negotiations with CRSs.

19 out of 31 travel agents did not mention any changes. 4 travel agents mentioned some change but did not qualify that view with explanations.

As regards compliance with the provisions stipulated in the CRS Code of Conduct, there was overall agreement that this was the case. However, CRSs replied that due to the carriers' ancillary fees it was not always possible to present the data in a fully neutral and transparent way.

Some carriers said that CRSs request more information than what is needed and that CRSs put unfair conditions in contracts and impose conditions to make sure bookings are made via the CRSs.

The answers from travel agents were mixed. 14 out of 33 indicated that the CRS Code of Conduct is not being followed by the participants regulated by it (4 replied "to a full extent, 3 replied "to a significant extent" and 6 replied "to some extent" and 1 replied "to a very limited extent"). When asked, some travel agents mentioned the alternative booking channels by carriers and that carriers did not give all the information required.

As regards the inclusion of rail and other non-aviation options in the CRS display, all three CRSs said that they do display rail options in their display and if appropriate on the first screen. However, one CRS mentioned that this was on the condition that the rail company connects "*on a full participation basis like an airline*".

28 out of 34 travel agents said that non-aviation offerings were indeed available in their systems.

In the open public consultation, the majority of the individual respondents said that the CRS Code of Conduct has been effective in achieving its objectives. The promotion of rail and intermodal transport received the least positive response with only 13 out of 33 who gave an opinion (there were 16 “don’t know” responses) responding that the objective had been met somewhat or to a great extent.

Responses to the open public consultation on the effectiveness on the CRS Code of Conduct against its objectives:

	No opinion / Don't know	Not at all	Very little	Some-what	To a great extent	Total
Level playing field for participating carriers	14	4	7	13	12	50
Prevent distortion of competition between CRSs by parent carriers	17	7	4	14	8	50
Equal treatment of airlines and rail operators for MIDT data	22	6	4	6	10	48
Increase transparency on travel options for travel agents and consumers	9	7	5	17	11	49
Consistency of data protection for CRS providers and travel agents	16	4	3	12	15	50
Promote rail and intermodal transport	16	7	13	8	5	49

Regarding the objective on MIDT data, five out of 27 carriers said that they are able to participate in the MIDT market on an equal basis whereas 6 said that they are not. The remaining 16 indicated either “not relevant” or “don’t know”.

In the targeted survey, 11 out of 33 travel agents indicated that the MIDT data had been used unfairly to put pressure on them. They said this was primarily due to the fact that travel agents were identified in the MIDT data by carriers. 14 indicated that they had not experienced unfair pressure resulting from MIDT data, and the remaining 9 did not know.

Efficiency

All the stakeholders considered that the CRS Code of Conduct had been beneficial to their business. However, some indicated concern about issues not being regulated.

Two CRSs mentioned that although the CRS Code of Conduct had been beneficial to them (mentioned by all three) the CRS Code of Conduct had begun to have a negative impact due to the alternative booking channels not being regulated.

Three carriers mentioned in interviews that the CRS Code of Conduct has created a stronger position for the CRSs thereby enabling them to put pressure on carriers e.g. to accept full content agreements and parity and non-discrimination clauses. Two carriers also mentioned the development of technology and how the Regulation is not able to meet this development which, they said, negatively affects their business operations.

In the targeted survey the majority of carriers indicated a negative impact (16 out of 28).

Out of the few carriers which indicated a positive impact, the neutral display requirement was mentioned as being vital to the carrier's business.

As for travel agents, during the interviews 3 indicated a positive impact and 3 indicated a negative impact. In the targeted survey 6 travel agents out of 32 indicated negative impact and 11 indicated a positive impact. One travel agent explained the negative impact as the high CRS fees and the significant cost to facilitate NDC in order to avoid a CRS surcharge.

No stakeholders said that there had been significant costs as a direct result of the CRS Code of Conduct. In interviews, the CRSs mentioned "opportunity costs" which according to them was the loss of business to alternative channels not regulated by the CRS Code of Conduct. Furthermore, a loss of income due to the fact that it is not possible to advertise was mentioned. Finally, the reporting requirements in Article 12 were mentioned.

One or more carriers mentioned the following issues:

- Costs related to the unjustified provisions provided by the CRS connected to discrimination clauses.
- The carrier may have overpaid for services due to the extreme difficulty in CRS billing reconciliation.
- The development of cheaper distribution channels using modern technology providers (direct connect) has been held back by CRS providers' unwillingness to allow airlines access to their own inventory without leveraging a tax. CRS fees are unilaterally set by the CRS provider, the apparent discrimination of fees based on the level of content and the participation of the carrier is both arbitrary and lacks transparency.
- Current CRS Code of Conduct has enabled the high market share of GDS's and high distribution cost and slow technological advancement. Furthermore, CRSs

are incentivizing their subscribers/travel agents sometimes to a harmful booking behaviour causing unnecessary costs to carriers.

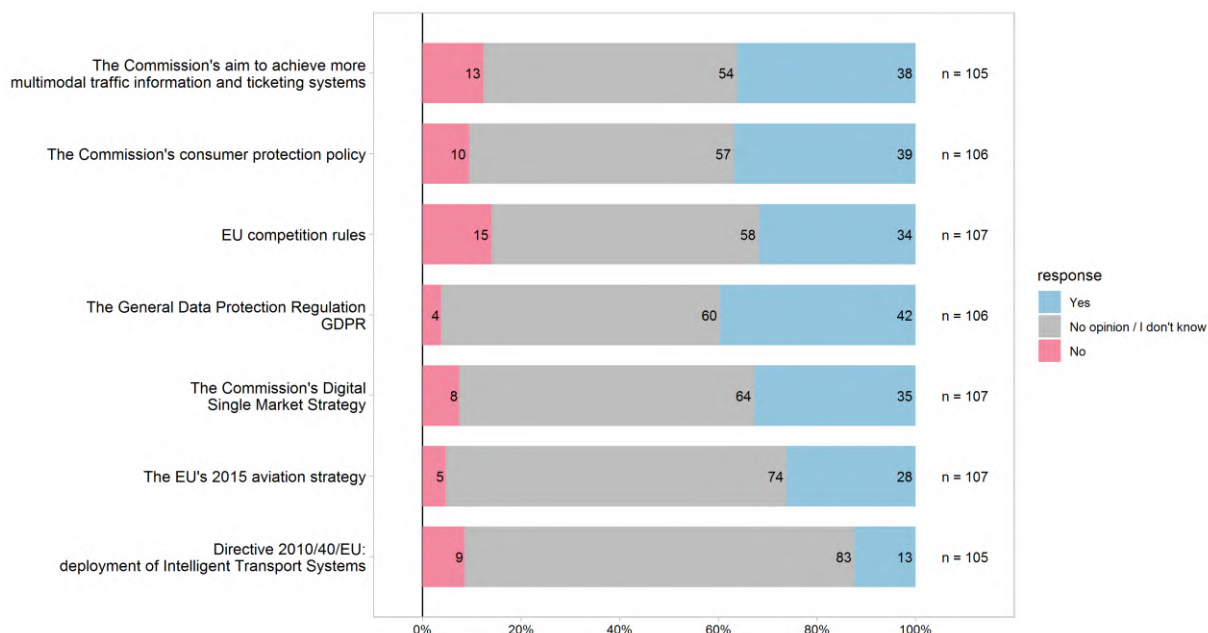
- CRS fees are above the value of IT facilitation they provide.

22 out of 33 travel agents responded in the survey that they did not experience additional costs as a result of the CRS Code of Conduct. Of the five who mentioned costs, one of the indirect costs related to alternative distribution channels which travel agents said they need in their display to provide a comprehensive overview to their costumers, but which complicates the processes. In interviews, one travel agent mentioned surcharges imposed by carriers for bookings that are not made through the carriers' channels.

Coherence

As for coherence, most respondent in the open public consultation did not have an opinion or did not know whether the CRS Code of Conduct is coherent with other EU policy objectives.

For the respondents who did have an opinion the majority responded that the CRS Code of Conduct is coherent with other EU policy objectives as can be seen in the below table. The two areas where most respondents replied that there is not coherence are EU competition rules (15 out of 107) and more multimodal traffic information and ticketing systems (13 out of 105).

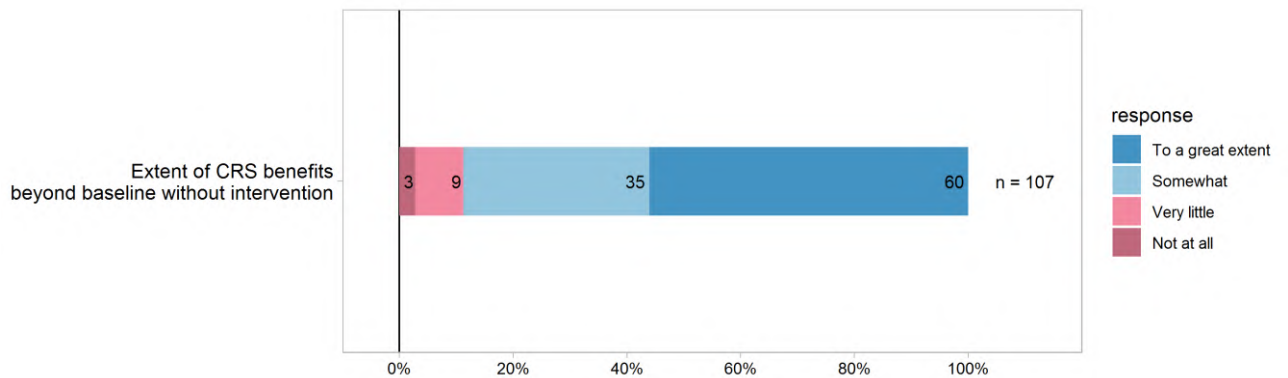


In the below table the responses on coherence of the different stakeholder categories is shown. The responses comprises 52 individuals, 4 CRSs (and associations), 3 carriers and 35 travel agents.

	Individuals		CRS providers		Airlines		Travel agents	
	Yes	No	Yes	No	Yes	No	Yes	No
EU 2015 aviation strategy	6	3	3	0	1	0	7	2
Digital single market strategy	14	4	4	0	1	0	9	4
More multimodal traffic information and ticketing systems	15	8	4	0	1	0	10	3
ITS Directive	4	7	2	0	1	0	1	2
EU competition rules	14	5	3	1	1	0	10	7
EU Consumer protection policy	17	6	4	0	1	0	10	3
General Data Protection Regulation	17	2	4	0	1	0	13	2

EU added value

Questions in the open public consultation shows that the majority of respondents believe that the CRS Code of Conduct has an EU added value:



The same can be seen when broken down into stakeholder categories:

	To a great extent	Somewhat	Very little	Not at all
Individuals	25	22	3	2
CRS providers	4	0	0	0
Airlines	0	2	1	0
Travel agents	24	6	4	1
Total	53	30	8	3

Annex 3: Methods and analytical models

During the evaluation of the CRS Code of Conduct the consultant used a mix of approaches including evaluation matrix, desk research and field research and case studies.

Literature evidence was identified to develop several of the indicators that support the analysis for the evaluation questions and subsequently to identify key information for the development of the answers to the evaluation questions.

However, it was identified that there is relatively little detailed information available from the open literature on which to base firm conclusions for this study. In particular, there is little literature containing accurate and up-to-date information on the operation of the different booking channels and the recent evolution. This is further reinforced by the rapid technological developments in the industry in recent years. As a result, most of the key inputs to the study have been obtained from stakeholders in interviews and responses to the surveys.

The field research encompassed a series of interviews of all stakeholder categories, together with surveys of three categories (airlines, national competition authorities and travel agents).

The consultant held a series of interviews with different stakeholders. Moreover, they used surveys, which were published on 8 June 2018 and were initially planned to remain open for a period of eight weeks to 8 August 2018. However, due to the busy holiday season, some requests were received for an extension to the deadline and the survey was ultimately held open until 4 September 2018. The responses did not require the respondent to provide answers to all questions. In a few cases, the respondent provided answers to very few (or no) questions and did not provide the name of their organisation or any contact details.

The consultant performed four case studies as part of the evaluation to provide an in-depth understanding of the evolution of the European market since 2009 and comparisons with other markets in which the regulation of CRSs is different (or absent).

Nonetheless, the study team has been able to obtain inputs from a wide range of stakeholders in all of the relevant stakeholder categories, including the key players such as the CRS providers and major European airline groups. These inputs from all stakeholder categories have ensured that a balanced set of inputs has been received on which to base the conclusions presented in this report. While the number of respondents of the survey of travel agents was relatively small (32 answers), by cross-referencing these inputs with inputs from other stakeholders and by ensuring that the trade organisations of the sector were involved in the study, the study team has ensured that their views were properly represented.

Much of the information gathered by the consultant (particularly through interviews) was provided on a confidential basis. Therefore, it is not possible to provide individual raw data in detail in this report as this would conflict with the basis on which the information has been provided and might make it possible to identify individual stakeholders (which nearly all stakeholders have stated must not be possible as a condition of providing the information). However, as noted above, information was provided on this topic by a wide range of stakeholders, allowing the overall results to be presented without conflicts with the confidentiality terms.

Some elements of the evaluation, for example the evaluation of the effectiveness of the CRS Code of Conduct, drew strong and contradictory views from different stakeholders. Interviews were conducted with sufficient stakeholders (and survey responses received from more) to allow the assessments to take account of the views of the full range of stakeholder categories.

Although the potential impact of new market players and new technologies, such as Google Flights and NDC has been identified as being of concern to many stakeholders, there is little clear evidence of actual impacts of these market players and technologies (positive or negative) on the relevance of the CRS Code of Conduct to date. The main concerns identified, therefore, are related to the potential future impact of these new market players and technologies.

Table of the evaluation matrix, including indicators:

Operational sub-questions	Indicators	Success / judgement criteria	Approach	Sources
Relevance				
EQ1: Considering the technological and market developments, are the objectives of the current Code of Conduct still fit for purpose?				
Is there still the potential for parent carriers to abuse their market power that needs addressing by a code of conduct?	Current number of airlines with significant ownership of CRS providers	No potential for parent carriers to abuse their market power	Assessment of data on ownership of CRS providers to identify the potential for airlines to abuse their market power.	<ul style="list-style-type: none"> CRS providers' annual reports Input from stakeholder surveys

				<ul style="list-style-type: none"> • Input from stakeholder interviews
Is the importance of CRSs diminishing?	Percentage of tickets booked through CRSs and how that has developed since 2009	Reduction in the share of tickets sold through CRSs	Calculations of numbers of tickets booked through different channels and how that has varied over time.	<ul style="list-style-type: none"> • CRS providers' annual reports • Industry reports and any relevant data sources on market developments (Eurostat, IATA, etc.) • Outputs from Case Studies 1 and 2
Have the changes in power dynamics (if any) due to the new sale channels affected the relevance of the objective of ensuring a level playing field to the access and use of CRS services?	Share of tickets sold directly vs. indirectly	Significant changes in the share of different channels	Calculations of numbers of tickets booked through different channels and how that has varied over time.	<ul style="list-style-type: none"> • Industry reports and any relevant data sources on market developments (Eurostat, IATA, etc.) • Outputs from Case Studies 1 and 2
Are all carriers able to participate in the Marketing Information Data Tapes (MIDT) market on an equal basis and are airlines abusing the use of such data?	Number of carriers expressing difficulties in participating in the MIDT market	No carriers currently report problems with the ability to participate in the MIDT market on an equal basis	Assessment of responses received from the stakeholder consultation.	<ul style="list-style-type: none"> • Input from stakeholder surveys • Input from stakeholder interviews
EQ2: Considering the technological and market developments, is the scope of the current Code of Conduct still fit for purpose?				
Have market developments (such as the increased booking of flights directly through airline websites, or using searches through meta-search engines or new content aggregators) affected the relevance of the scope of the Code of Conduct?	Changes in the market share of tickets sold through CRSs vs. those sold through other channels, since 2009	The market share of tickets sold through channels that are out of scope has been increasing significantly	Analysis of the evolution of the share of tickets sold through the different booking channels to determine how many tickets are sold inside and outside of the scope of the Code of Conduct	<ul style="list-style-type: none"> • Industry reports and any relevant datasets (Eurostat, IATA, etc.) • Interim fitness check • Input from stakeholder surveys • Input from stakeholder interviews • Outputs from Case Studies 1 and 2
Does the Code adequately regulate issues like the display of ancillary services? Should it?	Qualitative analysis of the share of ancillary services.	Identification of any ancillary services that should be regulated by the Code of Conduct, but which are not currently in	<ul style="list-style-type: none"> • Identification of data on the value of ancillary services. • Assessment of whether the 	<ul style="list-style-type: none"> • Desk research • Input from stakeholder surveys

		scope	sale of ancillary services causes problems with the transparency of travel options .	<ul style="list-style-type: none"> • Input from stakeholder interviews
Does the Code adequately regulate direct connect services, meta-search engines and new content aggregators? Should it?	Qualitative analysis of the importance of new technologies in the market.	High and/or increasing importance of booking channels that are not currently regulated	Analysis of importance of the new channels that are outside the scope of the Code of Conduct.	<ul style="list-style-type: none"> • Desk research • Input from stakeholder surveys • Input from stakeholder interviews • Outputs from Case Studies 1 and 2
EQ3: Which provisions of the Code of Conduct may not be relevant anymore in view of the technological and market developments?				
Do the changes in ownership of CRS providers make the provisions relating to parent carriers irrelevant?	Current number of airlines with significant ownership of CRS providers	No potential for parent carriers to abuse their market power (related to sub-question under EQ1)	Analysis of CRS providers annual reports to identify any remaining ownership by airlines	<ul style="list-style-type: none"> • CRS providers' annual reports • Input from stakeholder surveys • Input from stakeholder interviews
Do any of the new ticket sales channels or any other technological and market developments make any of the provisions of the Code of Conduct irrelevant?	Qualitative analysis of the importance of new technologies in the market.	New sales channels and other technological and market developments have not made any provisions irrelevant	<ul style="list-style-type: none"> • Assessment of potential future growth in bookings made through the new channels and hence the relative importance of CRSs and new channels. • Identification of whether changes in technology affect the provision of data by airlines to the CRS providers and by CRS providers to travel agents mean that provisions relating to data supply no longer reflect current practices. • Assessment of the potential role of existing contractual 	<ul style="list-style-type: none"> • Analysis of EQ1 and EQ2 outputs • Outputs from Case Studies 1 and 2

			agreements in constraining the development of the market	
EQ4: Which issues that arose after the Code of Conduct was adopted/revised may require further attention in view of the objectives pursued?				
Have new entrants in the market, particularly Google with its market power in the online world and IATA with the NDC, changed the dynamics of the market?	Qualitative analysis of the importance of new entrants in the market.	New entrants have not impacted the relevance of the provisions of the Code of Conduct	<ul style="list-style-type: none"> • Analysis of current importance of new channels • Inputs from stakeholder consultation to identify potential future evolution 	<ul style="list-style-type: none"> • Industry reports and any relevant datasets related to market development (Eurostat, IATA, etc.) • Input from stakeholder surveys • Input from stakeholder interviews • Interim fitness check • Outputs from Case Studies 1 and 2
Has the introduction of direct connect services by airlines caused issues with meeting the objectives of the Code of Conduct?	Qualitative analysis of the importance of direct connect in the market.	direct connect services have not impacted the achievement of the objectives	<ul style="list-style-type: none"> • Analysis of the evolution of the importance of direct connect • Assessment of whether sales through direct connect services (that are not regulated by the Code of Conduct) causes problems in the achievement of the general, specific or operational objectives. 	<ul style="list-style-type: none"> • Desk research • Input from stakeholder surveys • Input from stakeholder interviews • Outputs from Case Studies 1 and 2
EQ5: Considering the changed market environment, to what extent are the reporting requirements set in Article 12 of the Code of Conduct relevant and sufficient?				
<ul style="list-style-type: none"> • Given that airlines have divested from CRS providers, does it still make sense to have reporting requirements concerning ownership and governance? 	No indicator available	Reporting requirements concerning ownership and governance are still relevant	Analysis of the reporting requirements concerning ownership and governance that CRS providers need to comply with outside of the Code of Conduct (e.g. requirements imposed by financial authorities) and overlap between those	<ul style="list-style-type: none"> • Analysis of annual reports by CRS providers • Input from stakeholders, particularly CRS providers

			reporting requirements and the Code of Conduct	
EQ6: Considering the existing and/or upcoming EU legislation in the field of the competition policy and in the field of data protection (including the fact that the General Data Protection Regulation (GDPR) is setting out specific rules on codes of conduct intended to contribute to the proper application of the GDPR), how relevant and necessary are the provisions of the Code of Conduct?				
Are the provisions of Article 11 related to the processing, access and storage of personal data still relevant following the introduction of the GDPR?	Extent to which provisions of the Code of Conduct are not covered by GDPR	Complementarity and additionality of the Code of Conduct relative to the GDPR.	Legal analysis will be used to review the Code of Conduct and identify instances of inconsistency with the GDPR and any provisions of the Code of Conduct that go beyond the requirements of the GDPR.	<ul style="list-style-type: none"> Expert analysis by our GDPR expert of the requirements of the Code of Conduct with respect to the GDPR Input from stakeholders
Effectiveness				
EQ7: To what extent has the Code of Conduct achieved its specific objectives? If relevant, what are the main drivers and hindrances to the effectiveness?				
Do all participating carriers have access to, and the use of, CRS services on a level playing field?	Number of carriers that indicate they do not have access to CRS services, or whose access is not on a level playing field	No carriers have problems with access to CRS services and the use of CRS services on a level playing field	<ul style="list-style-type: none"> Analysis of the literature and of the stakeholder input to determine if they consider carriers to access and use CRS services on a level playing field. Assessment of whether the situation would have been different under the baselines. 	<ul style="list-style-type: none"> Desk research Input from stakeholder surveys Input from stakeholder interviews
Has the Code of Conduct ensured that contracts between CRS providers and participating carriers do not contain highly restrictive terms?	Number of airlines that indicate that they have contracts with CRS providers that include highly restrictive terms	Contracts do not contain highly restrictive terms	<ul style="list-style-type: none"> Assessment of responses from stakeholders (primarily airlines) in interviews and surveys. Assessment of market power of different stakeholders under the baselines. 	<ul style="list-style-type: none"> Desk research 2007 impact assessment 2003 Brattle Group report Input from airlines
Has the Code of Conduct ensured that contracts between CRS providers and travel agents do not contain highly restrictive terms?	Number of travel agents that indicate that they have contracts with CRS providers that include highly restrictive terms	Contracts do not contain highly restrictive terms	<ul style="list-style-type: none"> Analysis of inputs from stakeholders (particularly travel agents). Assessment of market power of different stakeholders under the 	<ul style="list-style-type: none"> Desk research Input from travel agents

			baselines.	
Do CRSs provide data to travel agents through an unbiased, neutral display in order to increase the transparency of travel options?	Indications that CRS displays that are not neutral	CRSs provide data to travel agents using an unbiased, neutral display	Analysis of inputs from stakeholders (particularly travel agents).	<ul style="list-style-type: none"> • Desk research • Input from travel agents
Has the Code of Conduct ensured that travel agents are not pressured through MIDT data? Do CRS providers always obtain agreement from travel agents before identifying them in MIDT data? Do airlines have access to MIDT data on a non-discriminatory basis?	<ul style="list-style-type: none"> • Number of incidents of pressure being applied to travel agents through MIDT data • Number of instances of travel agents being identified in MIDT data without their agreement 	Travel agents are not being pressured through MIDT data and CRS providers do always obtain agreement from travel agents before identifying them in MIDT data	<ul style="list-style-type: none"> • Analysis of inputs from stakeholders (particularly travel agents). • Assessment of whether the situation would have been different under the baselines. 	<ul style="list-style-type: none"> • Desk research • Input from travel agents
Do participating carriers consistently provide accurate data to CRS providers in a form that allows them to incorporate the data into their systems?	<ul style="list-style-type: none"> • Number of incidents of inaccurate data being provided to CRS providers • Number of incidents of data being provided to CRS providers in a form that does not allow them to include the data in their outputs 	Carriers consistently provide accurate data to CRS providers in the required form	<ul style="list-style-type: none"> • Assessment of responses from CRS providers to interviews. • Assessment of whether the situation would have been different under the baselines. 	<ul style="list-style-type: none"> • Desk research • Input from CRS providers
Do CRS providers process personal data only as necessary to perform the contract?	Number of complaints of misuse of personal data	CRS providers process personal data in an appropriate manner	Literature search and analysis of stakeholder inputs to identify instances of complaints regarding misuse of personal data.	<ul style="list-style-type: none"> • Input from CRS providers • Complaints to appropriate authorities regarding inappropriate use of the data
Do CRSs display at least one rail service on the first screen (for city pairs for which rail services are available)? Is there any evidence that non-aviation modes (or inter-modal options) are being excluded from CRS displays?	<ul style="list-style-type: none"> • Indications that where at least one rail service is displayed on first screen of CRS displays • Indication that non-aviation modes (and inter-modal options) being excluded. 	Confirmation that at least one rail service is available on primary CRS displays	<ul style="list-style-type: none"> • Analysis of inputs from stakeholders (particularly travel agents and rail providers). • Assessment of whether the situation would have been different under the baselines. 	<ul style="list-style-type: none"> • Desk research • Input from stakeholders, particularly CRS providers, travel agents and railway providers
EQ8: To what extent has the Code of Conduct created unintended negative/positive effects (both in terms of impacts and results)? If so, which stakeholders groups are affected the most and how?				
Does the Code of Conduct have any impact on the way people book tickets?	Change in percentages of tickets booked via the CRS and non-CRS	The Code of Conduct did not change the way people book tickets	Analysis of data of sales through different channels to identify	<ul style="list-style-type: none"> • Desk research • Input from stakeholder

For example, did it slow down or speed up the increasing use of the internet to make airline bookings, or did it not have any impact at all?	channels		relative importance of the different channels	surveys and interviews <ul style="list-style-type: none"> • Outputs from Case Studies 1 and 2
Does the Code of Conduct have any negative impact on the business of any of the stakeholders?	Stakeholders identify negative impacts.	No negative impacts identified	Analysis of inputs from stakeholders	<ul style="list-style-type: none"> • Desk research • Input from stakeholder surveys and interviews
Has the Code of Conduct contributed to the introduction of any new market developments or technologies (such as direct connect booking services or booking fees that depend on the booking channel)?	Qualitative analysis of the importance of new technologies in the market.	Differences identified between the baseline and what has happened in practice	<ul style="list-style-type: none"> • Analysis of bookings using new technologies. • Assessment of responses from stakeholders to interviews and surveys (e.g. whether the new market developments would have occurred in the absence of the Code of Conduct). 	<ul style="list-style-type: none"> • Desk research • Input from stakeholder surveys and interviews • Outputs from Case Studies 1 and 2
Has the Code of Conduct contributed to airlines seeking other mechanisms by which to differentiate their products from those of competing airlines?	Qualitative analysis of the importance of new technologies in the market.	Identification of any causal link between the Code of Conduct and airlines seeking to differentiate their products from those of other airlines	<ul style="list-style-type: none"> • Analysis of relative importance of the different channels • Comparison with baselines. 	<ul style="list-style-type: none"> • Desk research • Input from stakeholder surveys and interviews • Outputs from Case Studies 1 and 2
Efficiency				
EQ9: To what extent are the regulatory costs (i.e. compliance costs, enforcement/implementation costs and administrative costs) of the Code of Conduct reasonable when measured against its benefits?				
What direct and indirect costs are incurred by the CRS providers in complying with the Code of Conduct (e.g. in meeting the reporting requirements, presenting all flights in a neutral display or administrative burden)? What are the benefits associated with the Code of Conduct for the CRS providers?	Compliance and administrative costs for CRS providers since 2009 compared to the baseline	Costs are proportionate to the benefits	Use input from CRS providers to estimate costs associated with the different provisions Assessment of whether the situation would have been different under the baselines.	Input from CRS providers (interviews)
Have the national regulatory authorities incurred any costs in monitoring the provisions of the Code of Conduct (e.g. monitoring and handling complaints)?	Costs incurred by national regulatory authorities since 2009 compared to the baseline	Costs are proportionate to the benefits	Use input from CRS providers to estimate costs associated with the different provisions Assessment of whether the	Input from regulatory authorities (surveys)

			situation would have been different under the baselines.	
Has the Code of Conduct benefitted travel agents by allowing them access to data for a greater number of flight options (and hence improving the service they can provide to their customers)? Have travel agents incurred any direct or indirect costs?	Benefits identified by travel agents	Benefits to travel agents identified	Use input from travel agents and desk research to estimate benefits Assessment of whether the situation would have been different under the baselines.	<ul style="list-style-type: none"> • Desk research • Input from travel agents and associations (surveys and interviews)
Has the Code of Conduct resulted in additional costs for airlines in ensuring that they provide data as required by Article 9? Has the Code of Conduct resulted in any benefits for the airlines?	Costs incurred by airlines	Costs are proportionate to the benefits	Use input from airlines to estimate costs associated with the Code of Conduct Assessment of whether the situation would have been different under the baselines.	Input from airlines (surveys and interviews)
EQ10: To what extent does the Code of Conduct make any impact on consumer welfare (ticket prices, convenience of the offers proposed)?				
Has the Code of Conduct had any impact on ticket prices?	Distribution costs for airlines for the different booking channels compared to the baseline	Identification of any impact on ticket prices resulting from the Code of Conduct	Use the different data sources to estimate any potential impacts on ticket prices	<ul style="list-style-type: none"> • Airlines and CRS providers' annual reports • Information gathered on market developments in the case studies in Task 4 • Input from stakeholders (particularly airlines, travel agents, and CRS providers)
Has the Code of Conduct improved the range of flights offered to travellers or the manner in which flight information is presented to travellers?	<ul style="list-style-type: none"> • Analysis of the degree to which the manner flight information is presented has been improved 	Range of flights offered to consumers has improved	Use information from case studies as well as travel agents to analyse how the range of flights offered to consumers has or has not improved	<ul style="list-style-type: none"> • Information gathered from the case studies in Task 4 • Input from travel agents
EQ11: Is there a potential for the reduction of the regulatory costs for the undertakings that are affected by the Code of Conduct? In particular could the same benefits be achieved with less regulatory costs?				
Are there specific aspects of the implementation of the Code of Conduct that have particularly high regulatory (compliance and/or administrative) costs? Are the inefficiencies a direct result of the provisions of the Code of Conduct or other	Costs of compliance and administration for specific clauses since 2009	<ul style="list-style-type: none"> • No specific clauses cause high compliance or administration costs. • Inefficiencies are not a direct result of the Code of Conduct 	<ul style="list-style-type: none"> • Use stakeholder input to identify any provisions of the Code of Conduct with high compliance or administration costs • Analyse whether any 	<ul style="list-style-type: none"> • Inputs from CRS providers • Inputs from travel agents • Inputs from authorities involved in monitoring the

reasons?			potential inefficiencies are a direct result of the Code of Conduct	Code of Conduct
Coherence				
EQ12: How are the requirements and provisions set out in the Code of Conduct coherent and consistent with one another? If not entirely, what are the differences, overlaps or inconsistencies?				
Are there any inconsistencies/conflicts identified among the different provisions of the Code of Conduct that may lead to problems of implementation or contradictory results?	Number of inconsistencies and conflicts identified	Requirements and provisions of the Code of Conduct are consistent	<ul style="list-style-type: none"> • Legal analysis will be used to review the Code of Conduct and identify instance of inconsistency with the Code of Conduct. • Stakeholder input will also be used in case stakeholders point out to areas of concern. 	<ul style="list-style-type: none"> • Legal analysis of the provisions • Input from the analysis of effectiveness • Input from stakeholders that may point to specific inconsistencies.
Are there any significant issues arising from identified inconsistencies?	Number of issues arising from inconsistencies	No significant issues arising from inconsistencies	<ul style="list-style-type: none"> • Legal analysis will be used to review the Code of Conduct and identify instance of inconsistency with the Code of Conduct. • Stakeholder input will also be used in case stakeholders point out to areas of concern. 	<ul style="list-style-type: none"> • Legal analysis of the provisions • Input from the analysis of effectiveness • Input from stakeholders that may point to specific inconsistencies.
EQ13: How is the Code of Conduct coherent and consistent with the overall EU aviation policy, with the Commission's Digital Single Market Strategy and the proposed policy of optimising the use of ICT in transport, traffic management and logistics?				
Are there any provisions of the Code of Conduct that are not in line with the overall EU aviation policy, the Commission's Digital Single Market Strategy and the proposed policy of optimising the use of ICT in transport, traffic management and logistics?	Number of provisions of the Code of Conduct that are not in line with EU aviation policy, etc.	No areas of incoherence, inconsistency, overlaps or contradictions identified	<ul style="list-style-type: none"> • Legal analysis will be used to review the Code of Conduct and identify instance of inconsistency with other legislation. • Stakeholder input will also be used in case stakeholders point out to areas of concern. 	<ul style="list-style-type: none"> • Legal analysis of the provisions • Input from stakeholders through surveys and interviews
Are there any significant issues/problems arising from the identified inconsistencies? What are they?	Number of problems identified as result of inconsistencies	No significant issues identified arising from potential inconsistencies (if identified)	<ul style="list-style-type: none"> • Legal analysis will be used to review the Code of Conduct and identify instance of inconsistency with other legislation. 	Input from stakeholders through surveys and interviews

			<ul style="list-style-type: none"> Stakeholder input will also be used in case stakeholders point out to areas of concern. 	
EQ14: Are the requirements set out in the Code of Conduct coherent and consistent with the Commission's aim to achieve more multimodal traffic information and ticketing systems, and in particular Directive 2010/40/EU of the European parliament and the council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport				
Are there any provisions of the Code of Conduct that are not in line with the objectives and/or requirements of the policy goals and the Directive mentioned in the question?	Number of provisions not in line with Directive 2010/40/EU	No areas of incoherence, inconsistency, overlaps or contradictions identified	<ul style="list-style-type: none"> Legal analysis will be used to review the Code of Conduct and identify instance of inconsistency with other legislation. Stakeholder input will also be used in case stakeholders point out to areas of concern. 	<ul style="list-style-type: none"> Analysis of the provisions in the Code of Conduct and those in Directive 2010/40/EU Input from stakeholders through surveys and interviews
Are there any significant issues arising from identified inconsistencies?	Number of significant issues identified as a result of the inconsistencies	No significant issues identified arising from potential inconsistencies (if identified)	<ul style="list-style-type: none"> Legal analysis will be used to review the Code of Conduct and identify instance of inconsistency with other legislation. Stakeholder input will also be used in case stakeholders point out to areas of concern. 	Input from stakeholders through surveys and interviews
EQ15: How are the requirements and provisions set in the Code of Conduct coherent and consistent with the Commission's competition policy (antitrust, mergers and state aid) and the Commission's consumer protection policy? If not entirely, what are the differences, overlaps or inconsistencies?				
Are there any provisions of the Code of Conduct that are not in line with the objectives and/or requirements of the EU competition policy or consumer protection policy (e.g. as implemented through Articles 101 to 109 and Articles, 4, 12, 114 and 169 of the Treaty on the Functioning of the European Union)?	Number of provisions not in line with competition and consumer protection policies	No areas of incoherence, inconsistency, overlaps or contradictions identified	<ul style="list-style-type: none"> Legal analysis will be used to review the Code of Conduct and identify instance of inconsistency with other legislation. Stakeholder input will also be used in case stakeholders point out to areas of concern. 	Legal analysis of the provisions
Are there any significant issues arising from identified inconsistencies?	Number of significant issues identified as a result of the inconsistencies	No significant issues identified arising from potential inconsistencies (if identified)	<ul style="list-style-type: none"> Legal analysis will be used to review the Code of Conduct and identify instance of inconsistency 	Input from stakeholders through surveys and interviews

			<p>with other legislation.</p> <ul style="list-style-type: none"> Stakeholder input will also be used in case stakeholders point out to areas of concern. 	
EU added value				
EQ16: What is the added value resulting from EU intervention in regulating the CRS market? Could the same results be achieved at international, national or regional level without such intervention?				
Would action only at Member State level have been adequate to address the concerns related to distortion of competition and achieve the general and specific objectives of the regulation?	Effectiveness of actions that could have been taken at a Member State level	National level interventions would not have been sufficient	Input from the analysis of effectiveness and stakeholder opinions on EU added value to assess the role of alternative instruments and of the possible use of Member State action. Assessment of whether the situation would have been different under the baselines.	<ul style="list-style-type: none"> Input from the analysis of all previous evaluation questions Input from surveys and interviews of all stakeholders
Would Member States have the authority to regulate CRS providers as they are operating in a global market? Would there be consistency in the regulation of the CRS providers across different Member States?	Assessment of provisions of the Code of Conduct that Member States would not have the authority to apply to CRS providers	Member States would not have had the authority to regulate CRS providers	Legal analysis of the issue to identify whether Member States would have the authority to regulate transnational CRSs.	<ul style="list-style-type: none"> Input from the analysis of all previous evaluation questions Input from surveys and interviews of all stakeholders
What would be the additional costs for achieving the same objectives on the basis of Member State action?	Costs that would have been incurred since 2009 to achieve the same objectives on the basis of Member State action	National level interventions would not have been sufficient or would have incurred significant costs	Analysis of the costs that could be incurred if objectives were to be achieved on the basis of Member State action. Assessment of whether the situation would have been different under the baselines.	<ul style="list-style-type: none"> Input from the analysis of all previous evaluation questions Input from surveys and interviews of all stakeholders
What are the benefits of the EU Code of Conduct in relation to the 1996 ICAO Code of Conduct	Provisions of the EU Code of Conduct that bring benefits not achieved by the ICAO Code of Conduct	The ICAO Code of Conduct would not have resulted in the same benefits	Input from the analysis of effectiveness and stakeholder opinions on EU added value to assess the role of the ICAO Code of Conduct	<ul style="list-style-type: none"> Comparisons of the requirements of the ICAO Code of Conduct with those of the EU Code of Conduct Input from the analysis of all previous evaluation questions Input from surveys and interviews of all stakeholders

Annex 4: Assessment of provisions of Article 11 of the CRS Code of Conduct following the introduction of GDPR

The below table compares the provisions of Article 11 of the CRS with the GDPR. The assessment was done by Ricardo as part of the support study.

Article 11 of the Code of Conduct	Relevant articles in GDPR	Comment
<p>1. Personal data collected in the course of the activities of a CRS for the purpose of making reservations or issuing tickets for transport products shall only be processed in a way compatible with these purposes. With regard to the processing of such data, a system vendor shall be considered as a data controller in accordance with Article 2(d) of Directive 95/46/EC.</p>	<p>Article 5, 1(b). Principles relating to processing of personal data – ‘purpose limitation’ Article 6, 4. Lawfulness of processing – test for a compatible purpose Article 4 (7) Definitions – data controller</p>	<p>The Principle of ‘purpose limitation’ is essentially unchanged between Directive 95/46/EC and GDPR. It requires specifying the purposes for which personal data are processed. It should be therefore clarified that personal data shall only be collected for those purposes. This part of the paragraph simply repeats requirements of GDPR 6.4 and does not provide added value to that article, except to present it in a sector-specific context. It would only provide added value if the purposes for processing are clearly identified and written in a way that conforms to GDPR Art.5.1.b).</p> <p>The second sentence on the controller should be de-linked from the first sentence of this provision, since it concerns a separate issue.</p> <p>The definition of data controller is essentially unchanged between Directive 95/46/EC and GDPR.</p> <p>This paragraph is as relevant under GDPR as it was under Directive 95/46/EC. However, for processing any personal data (not only ‘such data’), there is a need to define who is controller or joint controller in the meaning of Article 4(7) GDPR, taking into account recent case law of the Court of Justice (C-210/16 – Wirtschaftsakademie Schleswig-Holstein; C-25/17- Jehovan todistajat).</p>
<p>2. Personal data shall only be processed in so far as processing is necessary for the performance of a contract to which the data subject is party or in order to take steps at the</p>	<p>Article 6, 1 (b). Lawfulness of processing – contract.</p>	<p>The wording of the relevant GDPR and Directive paragraphs on processing for a contract is identical to each other and to the Code paragraph from, ‘processing is ...’.</p> <p>This paragraph states the only lawful basis, from six given in GDPR, to be applied under the Code. However, the purpose of the contract should be specified,</p>

Article 11 of the Code of Conduct	Relevant articles in GDPR	Comment
request of the data subject prior to entering into a contract.		referring to the purposes specified under paragraph 1.
3. Where special categories of data referred to under Article 8 of Directive 95/46/EC are involved, such data shall only be processed where the data subject has given his or her explicit consent to the processing of those data on an informed basis.	Article 9. Processing of special categories of personal data. Paragraphs 1 – Prohibition on processing special categories of personal data – and 2 (a) Exception on basis of explicit consent. Article 7. Conditions for consent. Paragraph 4 – conditions for consent and linking to a contract	The Code specifies that amongst the justifications for processing special categories of data, explicit consent should be the one relied upon. Compared to Article 8 of Directive 95/46/EC, Article 9 of the GDPR adds ‘to the processing of those personal data for one or more specific purposes’. Article 7 of GDPR provides conditions for consent, with paragraph 4 referring to consent in the context of performance of a contract. In addition, Article 4(11) of the GDPR builds on the definition of consent in the Directive by clarifying that it should be ‘freely given, specific, informed and unambiguous’ and given ‘by a statement or by a clear affirmative action’. The European Data Protection Board (EDPB) has published guidelines on consent under GDPR ⁵⁹ . Article 11(3) does not add anything to the requirements of the GDPR and, therefore, could be removed in any eventual revision of the Code of Conduct
4. Information under the control of the system vendor concerning identifiable individual bookings shall be stored offline within seventy-two hours of the completion of the last element in the individual booking and destroyed within three years. Access to such data shall be allowed only for billing-dispute reasons.	Article 5, 1 (e). Principles relating to processing of personal data – storage limitation	The wording in the Code gives specific details to the general principle of ‘storage limitation’ that is in both Directive 95/46/EC and GDPR. This provision specifies the storage period and the access to the personal data. As such, the Code of Conduct might be considered as adding useful details to the GDPR and, with consideration of whether the details remain appropriate, could be retained in any eventual revision of the Code of Conduct.
5. Marketing, booking and sales data made available by a system vendor shall include no identification, either directly or indirectly, of natural persons or, where applicable, of the	Article 5, 1(c). Principles relating to processing of personal data – data minimisation	This is a specific requirement of the Code. This provision specifies the data minimisation principle laid down in GDPR and, with consideration of whether the details remain appropriate, could be retained in an eventual revision of the Code of Conduct.

⁵⁹ Guidelines on Consent under Regulation 2016/679 (wp259rev.01). Available at: https://ec.europa.eu/newsroom/article29/item-detail.cfm?item_id=623051

Article 11 of the Code of Conduct	Relevant articles in GDPR	Comment
organisations or companies on whose behalf they are acting.		
6. Upon request, a subscriber shall inform the consumer of the name and address of the system vendor, the purposes of the processing, the duration of the retention of personal data and the means available to the data subject of exercising his or her access rights.	<p>Article 5,1 (a). Principles relating to processing of personal data – lawfulness, fairness and transparency</p> <p>Article 12. Transparent information, communication and modalities for the exercise of the rights of the data subject</p> <p>Article 13. Information to be provided where personal data are collected from the data subject</p> <p>Article 14. Information to be provided where personal data have not been obtained from the data subject</p>	<p>Transparency has been added in GDPR to the principle of lawfulness and fairness. This is detailed in articles 13 and 14 where information to be provided to data subjects by the data controller is listed for cases where data is collected from the data subject (13) or not (14). Provision of this information is a requirement of GDPR.</p> <p>The paragraph in the Code is not compliant with GDPR. A data controller, under GDPR, has to provide a range of information, rather than this being provided on request. This is often through providing a link to an online ‘privacy notice’, ‘privacy policy’ or ‘privacy statement’.</p> <p>It may be that the intent of this paragraph in the Code is that it is the subscriber, rather than the system vendor (data controller) who should provide the information. If this is the case, the paragraph should be retained and aligned with GDPR.</p> <p>If this paragraph is retained in an eventual revision of the Code of Conduct, it should be replaced either with wording that aligns with GDPR or with a reference to the requirements in Articles 13 and 14 of GDPR. In addition it should list any additional specific elements that the subscriber shall inform the consumer about (which are not listed in Articles 13 and 14 of the GDPR).</p>
7. A data subject shall be entitled to have access free of charge to data relating to him or her regardless of whether the data are stored by the system vendor or by the subscriber.	<p>Article 12. Transparent information, communication and modalities for the exercise of the rights of the data subject</p> <p>Article 15. Right of access by the data subject</p> <p>Article 28. Processor</p>	<p>The Directive refers to the right of access ‘without excessive delay or expense’.</p> <p>The paragraph in the Code qualifies this by stating that access to data shall be ‘free of charge’.</p> <p>GDPR requires that provision of information to data subjects or any actions arising from exercise of data subject rights including the ‘right of access by data subject’ shall be ‘free of charge’. There is an exception where requests are ‘manifestly unfounded or excessive’.</p> <p>The other aim of the Code paragraph is that the data subject should have access to data whether it is stored by a system vendor (data controller) or subscriber (data processor).</p> <p>GDPR has added a requirement for contracts or other legal acts between data controllers and processors which stipulate, inter alia, that the processor ‘taking into account the nature of the processing, assists the controller by appropriate technical and organisational measures, insofar as this is possible, for the fulfilment</p>

Article 11 of the Code of Conduct	Relevant articles in GDPR	Comment
		<p>of the controller's obligation to respond to requests for exercising the data subject's rights laid down in Chapter III;'. There is thus now a requirement under GDPR for processors and controllers to work together to meet subject access requests.</p> <p>The requirements of this paragraph that went beyond the Directive are now required by GDPR. It could be retained in an eventual revision of the Code of Conduct as it refers to the specific roles of 'system vendor' and 'subscriber'. If this paragraph is retained in an eventual revision of the Code of Conduct, it should be replaced either with wording that aligns with GDPR or with a reference to the GDPR requirements.</p>
<p>8. The rights recognised in this Article are complementary to and shall exist in addition to the data subject rights laid down by Directive 95/46/EC, by the national provisions adopted pursuant thereto and by the provisions of international agreements to which the Community is party.</p>		<p>All the rights recognised in this Article that went beyond those of Directive 95/46/EC are now ensured under GDPR. The requirements of GDPR are greater than those of the Code. Given the direct applicability of the GDPR, including for non-EU controllers and providers under the conditions laid down in Article 3 GDPR, those rights could not be 'recognised' in such provision.</p> <p>As all requirements of this paragraph are now covered by GDPR, this paragraph could be considered for deletion in any future revision of the Code of Conduct.</p>
<p>9. The provisions of this Regulation particularise and complement Directive 95/46/EC for the purposes mentioned in Article 1. Save as otherwise provided, the definitions in that Directive shall apply. Where the specific provisions with regard to the processing of personal data in the context of the activities of a CRS laid down in this Article do not apply, this Regulation shall be without prejudice to the provisions of that Directive, the national provisions adopted pursuant thereto and the provisions of international agreements to which the Community is party.</p>		<p>Given the direct applicability of the GDPR, this Regulation can only specify provisions of the GDPR for a sector specific processing, but not particularise and complement its rules.</p> <p>The definitions of the GDPR apply without any reference to it, without possibility to otherwise provide.</p> <p>As all requirements of this paragraph are now covered by GDPR, this paragraph could be considered for deletion in any future revision of the Code of Conduct.</p>

Article 11 of the Code of Conduct	Relevant articles in GDPR	Comment
<p>10. Where a system vendor operates databases in different capacities such as, as a CRS, or as a host for airlines, technical and organisational measures shall be taken to prevent the circumvention of data protection rules through the interconnection between the databases, and to ensure that personal data are only accessible for the specific purpose for which they were collected.</p>	<p>Article 5, 1(b). Principles relating to processing of personal data – purpose limitation Article 25. Data protection by design and by default</p>	<p>GDPR introduces new requirements for data protection by design and by default. This includes that ‘The controller shall (...) implement appropriate technical and organisational measures, such as pseudonymisation, which are designed to implement data-protection principles, such as data minimisation, in an effective manner and to integrate the necessary safeguards into the processing in order to meet the requirements of the GDPR and protect the rights and freedoms of data subjects’. Those measures shall be reviewed and updated where necessary. The controller must also be able to demonstrate that processing is performed in accordance with the GDPR. If this is to be retained in an eventual revision of the Code of Conduct, it should be updated to refer to the requirements in GDPR.</p>

Source: Ricardo analysis.

Annex 5: Costs and benefits

<i>I. Overview of costs identified in the evaluation</i>										
\	Citizens/Consumers		CRS providers		Carriers		Travel agents		Administrations	
	Qualitative	Quantitative / monetary	Qualitative	Quantitative / monetary	Qualitative	Quantitative / monetary	Qualitative	Quantitative / monetary	Qualitative	Quantitative / monetary
Costs 2009-1016 (inflation adjusted)	N/A	N/A	Some CRS providers reported high initial one-off costs to adapt systems in order to meet anonymity requirements in MIDT data. Some on-going costs reported mainly due to reporting requirements of article 12.	61,500 to 87,750 Euro due to audit requirements stipulated in Article 12 of the CRS Code of Conduct.	Carriers indicated costs but they do not seem to be related to the provisions of the CRS Code of Conduct but more to the perceived market power of CRS providers.	No evidence gathered to quantify costs.	Two travel agents indicated minor costs in ensuring their systems were compliant with the CRS Code of Conduct.	No evidence gathered to quantify costs.	No costs associated with the CRS Code of Conduct as enforcement lies at EU level.	0

2. Overview of benefits identified in the evaluation

	Citizens/Consumers		CRS providers		Carriers		Travel agents		Administrations	
	Qualitative	Quantitative / monetary	Qualitative	Quantitative / monetary	Qualitative	Quantitative / monetary	Qualitative	Quantitative / monetary	Qualitative	Quantitative / monetary
Benefits	Some travel agents argued that due to the neutral display requirement , carriers have to be competitive on pricing which translates into cheaper options for the consumer.	Not quantified.	Removal of restrictions in the contractual relationships CRS providers could have with carriers leading to a tailoring of the offers that CRS providers could give to carriers.	Not quantified	More freedom to negotiate contracts. However, this has not translated into lower booking fees due to termination of full content agreements . This is most likely a result of market dynamics and not the CRS Code of Conduct.	Not quantified.	Indications that travel agents experience benefits by improving the service they can provide their customers.	Not quantified.	No benefits reported.	0