

# Monitoring and evaluating the Digital Markets Unit (DMU) and new pro-competition regime for digital markets

Report - Prepared for the Department for Business, Energy and Industrial Strategy and the Department for Digital, Culture, Media and Sport



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## Executive summary

The digital economy is an important contributor to the UK's economic success. It is estimated that digital technologies contributed £151bn to the UK economy in 2019<sup>1</sup> and accounted for 1.6 million jobs<sup>2</sup>. Digital firms are highly innovative and consumers value their products and services very highly. This is shown by the popularity of their core products and services, and is reflected in their high market capitalisations<sup>3</sup>. However, there is evidence that markets for digitally delivered products and services have become increasingly concentrated with a small number of very large tech firms holding unprecedented market power. The consequence of this is stark - the Competition and Markets Authority (CMA) estimates that Google and Apple made excess UK profits of £4bn in 2021 alone from their mobile businesses - harming consumers through higher prices<sup>4</sup>. To address competition issues in digital markets, the UK government is introducing a new pro-competition regime for digital markets<sup>5</sup>. The Digital Markets Unit (within the CMA) will oversee the regime and will be given robust powers, including tough new fines, to enforce it.

The Department for Business, Energy and Industrial Strategy (BEIS) and the Department for Digital, Culture, Media and Sport (DCMS) aim to establish comprehensive, appropriate and proportionate monitoring and evaluation coverage across all policies and programmes<sup>6</sup>. As a first step BEIS and DCMS commissioned London Economics to develop a framework for monitoring and evaluating the pro-competition regime and the Digital Markets Unit (DMU) which will oversee it. The framework we have developed will be used by BEIS and DCMS to assist in the development of the monitoring and evaluation (M&E) plan, which will outline the government's proposals for the post-implementation review (PIR), and the approach to monitoring the regime's implementation and outcomes.

This framework provides the government with a structure around which an effective M&E plan can be built. It is made up of three key elements: a theory of change (ToC); a logical framework; and evaluation guidance.

## Theory of change

The starting point of the framework is the theory of change (ToC). The ToC sets out how the pro-competition regime for digital markets is expected to achieve its outcomes. A total of 20 ToC diagrams have been developed for the key strands of the regime: designation of firms with Strategic Market Status (SMS designation); conduct requirements; pro-competitive interventions and merger requirements. The diagrams map out the key activities and outputs of the regime, and the outcomes and impacts that are expected to occur. The diagrams have been developed with input from BEIS, DCMS and the DMU.

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<sup>1</sup> DCMS Economic Estimates 2019 (provisional): Gross Value Added (2021).

<sup>2</sup> DCMS Economic Estimates 2019: Employment.

<sup>3</sup> CMA (2022a).

<sup>4</sup> CMA (2022b).

<sup>5</sup> BEIS and DCMS (2022a).

<sup>6</sup> BEIS monitoring and evaluation framework (2020).

## Logical Framework

The monitoring logical framework provides a common ground for understanding what elements of the new regime should be monitored. It lists key elements of ToC (i.e. Activities, outputs, outcomes and impacts) against specific and measurable indicators, outlines the possible data sources to populate the indicators, outlines when data is likely to be collected, and whether data collected is to be used for monitoring and/or evaluation. A total of 13 activities/outputs, 10 outcomes and 5 impacts from the ToC have been identified as potentially possible to monitor or measure.

## Evaluation Guidance

Evaluation is the final element of the framework. The evaluation guidance sets out an approach to process, impact and value for money evaluation. It begins with a discussion on the purpose and scope of evaluation. It then discusses possible evaluation questions for the types of evaluations likely to take place, and sets out proposed approaches to those evaluations.

For the process evaluation, the report outlines a light touch approach that makes use of monitoring data and is based on a checklist of steps that the DMU may undertake as it rolls out the new regime. It also outlines a more detailed approach that attempts to answer questions on implementation using secondary monitoring, qualitative and quantitative survey data.

For impact evaluation, the report suggests two possible approaches:

- Theory based methods
- Quasi experimental methods.

Theory-based evaluation approaches look at why and how a particular change has come about by testing the theory of change. These approaches can allow for causality to be attributed to the outcomes and impacts posited in the theory of change, however they do not provide precise estimates of the change.

Quasi experimental methods measure the impact of an intervention against an appropriately estimated counterfactual. Quasi experimental methods make use of econometric modelling, so good data, an appropriate counterfactual and the ability to control for confounding factors (account for influences other than policy related factors) are key in ensuring such methods can be utilised.

For the value for money evaluation, the evaluation guidance suggests that the CMA's regular impact assessment document<sup>7</sup> (which includes a calculation of the ratio of direct financial benefits to consumers and costs for its principal tools) should also include a similar calculation for the DMU.

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<sup>7</sup> CMA impact assessment (2021).

# 1 Introduction

## 1.1 The pro-competition regime for digital markets

There is compelling evidence that digital markets have become increasingly concentrated with the same large, global tech companies. The size and presence of ‘big’ digital firms is not inherently bad, however, there is a growing consensus that concentration of entrenched market power amongst a small number of tech companies is undermining effective competition, restraining growth and innovation, and causing harm to the businesses and consumers that rely on them<sup>8</sup>. In response to these concerns, the UK government is introducing a new pro-competition regime for digital markets to be overseen by the Digital Markets Unit (DMU) within the Competition and Markets Authority (CMA).

The DMU’s approach is to proactively prevent harm and ensure compliance through an ex-ante pro-competition framework, rather than having to correct and enforce ex-post. The entry point is an evidence-based economic assessment as to whether a firm has strategic market status (SMS) in a designated activity, i.e. substantial, entrenched market power in at least one digital activity, providing the firm with a strategic position that can give rise to harm to market competition. Firms that are assessed to have SMS must comply with the following pillars of the SMS regime:

- **Tailored conduct requirements** which will govern the relationships between the most powerful firms and the different groups of users which rely on their services. These will promote fair trading, open choices and trust and transparency.
- New **‘pro-competitive interventions’ (PCIs)** which will be introduced to address the underlying causes of market power and open up digital markets to greater competition. Examples of PCIs the DMU could utilise include: promoting data portability of personal data; consumer choice and defaults interventions; and separation remedies.
- **SMS merger rules**, requiring SMS firms to submit, to the CMA, before completion, a light-touch report for all transactions that meet specific criteria.<sup>9 10</sup>

## 1.2 Project objectives

The Department for Business, Energy and Industrial Strategy (BEIS) and the Department for Digital, Culture, Media and Sport (DCMS) are committed to establishing a comprehensive, appropriate and proportionate monitoring and evaluation (M&E) plan for the new pro-competition regime for digital markets and the DMU that will oversee it.

The development of an M&E framework for the new pro-competition regime for digital markets is part of the preparatory work to implement the statutory regime. Timely and accurate M&E is needed “to understand and assess progress [of the regime and regulator] against objectives, understand what works for whom, how and why, and whether it is value for money”.<sup>11</sup>

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<sup>8</sup> BEIS and DCMS (2022b).

<sup>9</sup> The value of the holding is at least £25 million, the SMS firm acquires over a 15% equity or voting share after the transaction and the transaction meets a UK nexus test.

<sup>10</sup> BEIS and DCMS (2022a).

<sup>11</sup> BEIS (2020), p. 4.



The aim of this project is to provide a report and a framework, which will be used to inform and support government officials' work to develop a M&E plan for the new pro-competition regime.

The framework has been developed using relevant guidance, including the 2020 BEIS Monitoring and Evaluation Framework<sup>12</sup> and other relevant guidance documents such as the HM Treasury's Green Book<sup>13</sup> and Magenta Book<sup>14</sup>.

The framework provides the government with a structure around which an effective M&E plan can be built. Following the introduction of the new pro-competition regime, the UK government is likely to undertake a post-implementation review (PIR)<sup>15</sup>. Having in place an effective M&E plan before this will ensure that the evaluation is of appropriate quality and lessons can be learnt to inform implementation of future policy.<sup>16</sup>

The framework identifies the most relevant processes and effects that the regime will generate and provides detailed recommendations on the indicators that will allow the workings of the new regime to be tracked against its objectives. The framework is not an operational manual for the M&E activities that need to be implemented. The practical design of tasks, reporting systems, roles and responsibilities will be specified by in the later M&E plan.

The M&E framework is made up of the following parts:

- **A theory of change (ToC)** that summarises the elements of the regime and how it is expected to achieve the intended impacts through a sequence of activities and intermediate outputs and outcomes.
- **A logical framework (logframe)**, that assigns appropriate (informative, measurable) indicators to the activities, outcomes and impacts from the ToC.
- **Evaluation guidance** on the scale and form of the required M&E activities. This summarises the key evaluation questions to consider, and possible approaches to answering them.

The different elements of the framework were presented to BEIS, DCMS and DMU staff in a workshop format to collect feedback and expert inputs. Three experts from BEIS, the CMA and DCMS were consulted individually in an interview format.

### 1.3 Structure of the report

The report begins by discussing the individual parts of the framework:

- **Chapter 2: the theory of change** presents the starting point of the framework. Using a theory of change, the chapter maps out how the new pro-competition regime for digital markets is expected to work and achieve its outcomes.
- **Chapter 3: the logical framework** sets out an approach to monitoring activities, outcomes and impacts from the theory of change.

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<sup>12</sup> Ibid.

<sup>13</sup> Green Book (2022).

<sup>14</sup> HM Treasury (2020a).

<sup>15</sup> Regulatory Policy Committee (2021).

<sup>16</sup> BEIS (2021b).

- **Chapter 4: evaluation guidance** discusses approaches to evaluating the new pro-competition regime for digital markets.
- **Chapter 5: Summary and next steps**

## 2 Theory of change: How the pro-competition regime for digital markets achieves its objectives

### 2.1 Introduction

The UK government is committed to establishing a new pro-competition regime for digital markets. The DMU is a new regulatory unit within the CMA and will be responsible for overseeing the new pro-competition regime for digital markets.

The objective of the DMU and new regime is to promote competition for the benefit of consumers in digital markets. To do so, the new competition regime will target both the sources of market power in digital markets (e.g. features of digital markets that entrench the market position of incumbent firms and reinforce their market power) and the economic harms that result from the exercise of that market power.<sup>17</sup>

The focus of the DMU and new regime will be proportionate and targeted towards the most powerful digital firms and the digital activities undertaken by these firms that pose the greatest risk of harm. The DMU will be responsible for conducting evidence-based assessments and tests to identify those firms that have substantial and entrenched market power in at least one activity, providing them with a strategic position. The identified firms will be designated as firms with Strategic Market Status (SMS) and fall under the scope of the new regime.

Firms with SMS will be subject to conduct requirements that will be tailored to each firm and designated activity.

The DMU will take a forward-looking approach to regulating digital markets and act swiftly in preventing harm and ensuring compliance with new regulatory requirements. To this end, the DMU will be able to implement a range of pro-competitive interventions (PCIs) to complement conduct requirements and aim to tackle the underlying root causes of market power.

Through regular market monitoring, as well as exercises of evidence collection and consultations with market participants, and subsequent analyses of the collected data, the DMU is also expected to build expertise and knowledge to understand the intricacies of the business models of digital firms and rapidly evolving digital market trends.

In this chapter, we introduce the ToC which summarises the main components of the new competition regime for digital markets and how it is expected to achieve the expected outcomes. The ToC is split across the key elements of the regime. Each ToC will typically correspond to either a component of the pro-competition regime or a more specific type of intervention within each component.

### 2.2 Theory of Change

The ToC sets out the key activities and interventions that are expected to be undertaken by the DMU and how these are expected to achieve the intended objectives. It is intended to provide a common

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<sup>17</sup> BEIS and DCMS (2022a).

ground of understanding for the M&E framework to build upon by identifying clearly what the M&E framework should be assessing.

The ToC was developed through consultations with stakeholders from the DMU as well as policy teams from DCMS and BEIS involved in the design and implementation of the DMU and the new pro-competition regime for digital markets. The ToC presented here requires further development. When finalising the ToC, government officials may wish to undertake an exercise which includes: mapping of the causal links that drive the ToC; understanding and testing assumptions that drive the causal links and an assessment of contextual factors influencing the ToC. It is recommended that the government regularly engages with relevant stakeholders (i.e. the DMU) to finalise the ToC.

The ToC diagrams are separated into the set-up, transition and operational phases of the new regime. The focus of the monitoring and evaluation framework is shifting during this sequence from pure process evaluation (i.e. *is the new regime established according to plan?*) to more impact-oriented evaluation (i.e. *does the new regime have the intended impacts on designated firms and digital markets?*).

The high-level components include:

- SMS designation
- Conduct requirements (CRs)
- Pro-competitive interventions (PCIs)
- New merger reporting requirements for firms with SMS

Separate ToC diagrams are provided for each Conduct Requirements objective:

- Fair trading
- Open choices
- Trust and transparency

Similarly, ToC diagrams have been provided for PCIs, these include:<sup>18</sup>

- Pre-Implementation Trialling, reviews and amendments/replacement of PCIs
- Data related interventions
- Interoperability and common standards
- Consumer choice and default interventions
- Separation remedies

Furthermore, for each intervention/component of the regime, the ToC diagram specifies activities, outputs, and (where appropriate) outcomes and impacts. These elements are defined as follows:

- **Activities:** These are the different tasks and actions that the DMU is expected to undertake and/or implement as part of each intervention, e.g. collect evidence, hold consultations with SMS firms and concerned parties, design and publish tailored CRs.

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<sup>18</sup> The PCI's/remedies listed below are the ones that - to our current knowledge - are likely to be used by the DMU. However, the DMU may use other PCI's/remedies which have not yet been identified and analysed.

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- **Outputs:** This is what is delivered or produced as a result of the DMU's activities, e.g. tailored CRs are designed and published.
- **Outcomes:** These are the second order effects of the DMU's activities, e.g. SMS firms establish programmes/structures to ensure compliance with CRs.
- **Impacts:** These are the longer-term market effects that result from the DMU's intervention, e.g. reduced scope for harmful behaviour by SMS firms.

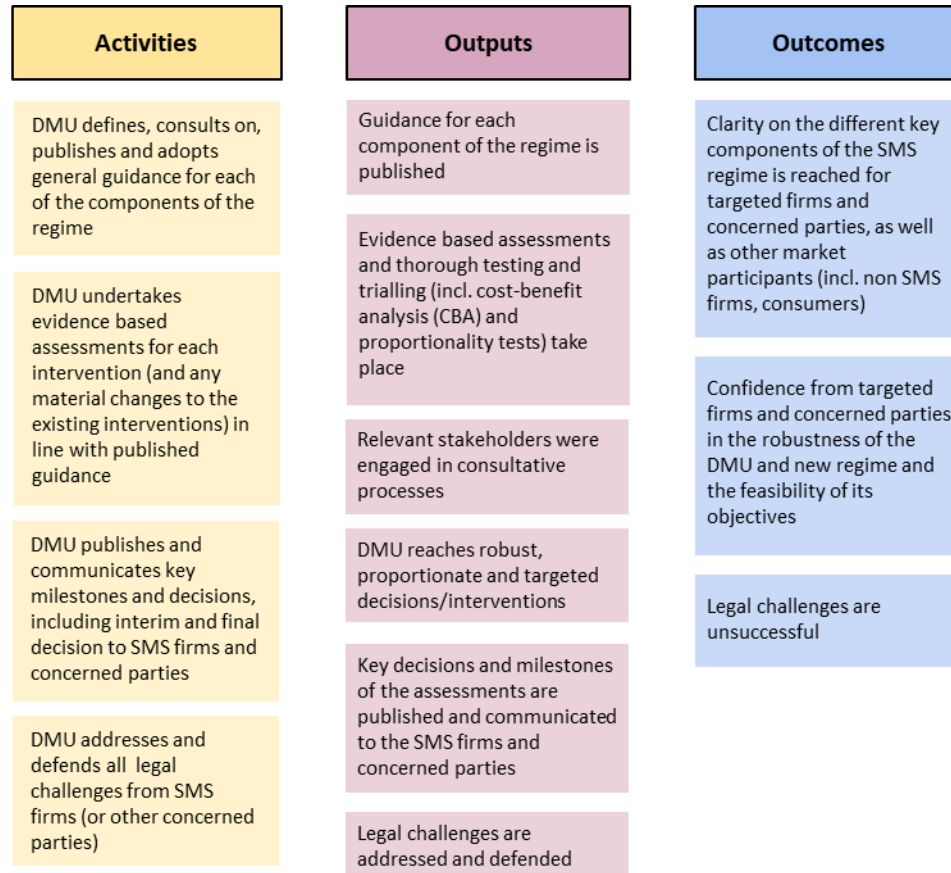
We present the cross-intervention ToC (Figure 1) below. Additional diagrams, outlining specific elements of the regime or DMU powers (e.g. SMS designation), can be found in Annex 1 Theory of change diagrams. In total, we have developed 20 ToC diagrams.

The cross-intervention ToC diagram sets out the activities undertaken by the DMU that are common across multiple components of the pro-competition regime. This does not necessarily mean that these activities happen at the same time, that the resources used for those activities are shared, or that the outputs of those common activities are going to be the same across the different components. For example, the DMU will undertake the process of identifying the most effective approach to monitor the compliance of SMS firms with CRs and PCIs. However, the output of that activity, which is the final monitoring approach, might look very different between the one used to monitor compliance of one firm with CRs and the one used to monitor compliance of another firm with a PCI remedy.

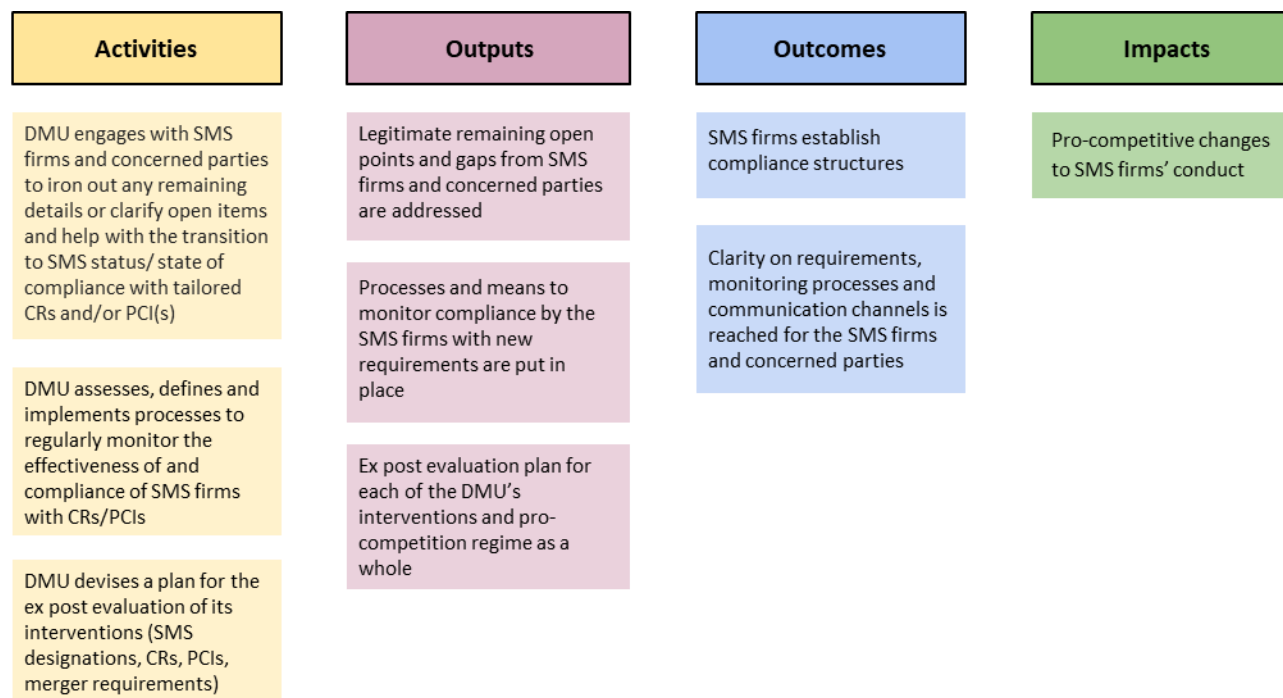
**Figure 1 Cross-intervention Theory of Change**

**Phase 1 Set-up** – The DMU sets up general guidance for each set of interventions of the SMS regime; assesses and designates the SMS firms in scope of the regime; assesses and develops tailored CRs and PCIs for the designated activities of each SMS firm

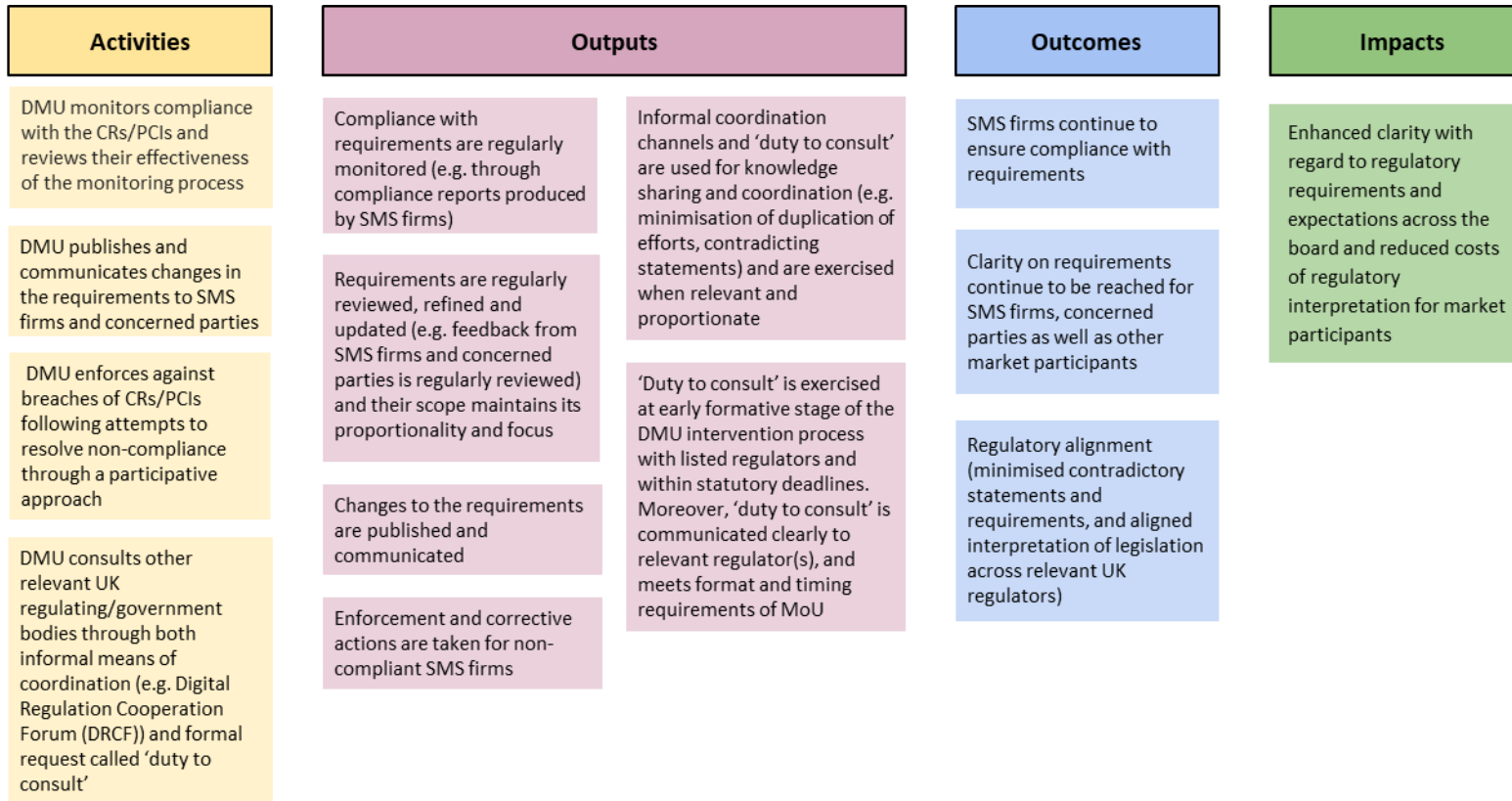
**Applicable Components:** Designate firms with SMS; Define and implement firm-specific conduct requirements; Identify, develop and implement PCIs



## Phase 2: Transition – SMS firms implement the changes required to be compliant with the tailored CRs and PCIs



**Phase 3: Operation** – The DMU continuously monitors SMS firms’ compliance with the CRs and PCIs and regularly reviews the effectiveness of the CRs and PCIs as well as SMS designations





## 3 Logical Framework

### 3.1 Introduction

A logframe or logical framework is a M&E tool which lists the elements of the ToC against specific and measurable key performance indicators (KPIs). The logframe can include both qualitative and quantitative KPIs, and whenever applicable target values and milestones that track the progress of the KPI against a baseline value (BEIS, 2020<sup>19</sup>).

The logframe developed in this report centres around indicators and data sources to be used for monitoring the activities undertaken by the DMU as well as intended outputs, outcomes and impacts. It provides a common ground for understanding what elements of the new regime and DMU's activities need to be monitored, by who, using which indicators and data sources. There is limited causality attribution for the monitoring data that is discussed in this logframe. Some of the indicators may also be used for the process, impact and/or value for money evaluations, which account for causality and are presented in chapter 4.

The logframe was developed through consultations with various stakeholders from the DMU as well as policy teams from DCMS and BEIS, involved in the design of the new pro-competition regime for digital markets. The logframe presented here is unfinished and should be finalised by government.

The logframe is intended to be realistic and proportionate, such that the recommended list of activities, outputs, outcomes and impacts to track and the indicators for tracking them are in principle necessary to understand if the DMU and pro-competition regime is working well and achieving its objectives. However, cost considerations may require the DMU and government departments to prioritise certain elements over others.

For prioritisation, it is important for the government officials (when developing its M&E plan) to think about what key relationships between the activities, outputs, outcomes and impacts in the theory of change are important to test. To help with prioritisation, they should look to understand:

- What are the evaluation questions that need to be answered to assess the efficiency and effectiveness of the regime;
- areas where the theorised causal links in the theory of change lack evidence;
- what users of the evaluation require (e.g. evaluation users may need specific processes to be evaluated to ensure they are implemented correctly);
- how the monitoring and evaluation reports will be used.

Based on stakeholder conversations and our evidence review, we recommend the following indicators are prioritised:

- Indicators on the level of engagement achieved from a wide range of stakeholders during the DMU & pro-competition regime consultation phase

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<sup>19</sup> BEIS (2020).

- Indicators related to the materialisation and quality of SMS designations, CRs, PCIs and reported mergers
- Indicators related to legal challenges of the DMU's interventions
- Indicators that track compliance to DMU decisions and changes in SMS business practices
- Monitoring of gaps in existing requirements which lead to AECs and consumer harm
- Indicators that track the DMU's progress in setting up data gathering processes, monitoring processes and stakeholder engagement channels.
- Indicators that track compliance costs
- Indicators that track possible unintended effects

The logframe developed below only includes elements of the ToC - introduced in section 2.2 - that are tractable and for which the M&E activity is seen as proportionate (i.e. the benefits associated to the outputs of the M&E activity which are worth the resources used to undertake the M&E activity). On proportionality we have made a judgement based on stakeholder conversations and using findings from our rapid evidence review. We recommend that government officials when developing its M&E plan, and the DMU when undertaking M&E, reconsider the aforementioned points.

Where possible, the logframe includes information on: possible data sources; when data is likely to be collected; and whether the data can be used for monitoring and/or evaluation. Given the early stages of implementation of the new regime and uncertainties regarding government and DMU resources, specific responsibilities for the M&E activities, including data collection and management have not been assigned in the logframe. Roles and responsibilities should be revisited and refined once further clarity is obtained.

The logframe is broken down into separate tables for structure and clarity. One table each is presented for:

- activities and outputs;
- outcomes; and
- impacts.

## 3.2 Activities logframe

**Information on activities is a useful performance monitoring tool to help understand if the policy is being delivered as planned, and allows issues with implementation** to be highlighted. Activity indicators can be used to capture elements of the pro-competition regime that are seen as essential to its success; they are most valuable if the set of activities they relate to are linked to key outputs or outcomes.

**Information on outputs (what is delivered or produced) can be combined with measures of activities to help understand the relationships between inputs and outputs.** Output indicators are useful to collect especially for deliverables that are identified as key to the success of the pro-competition regime and the DMU. Output indicators can be used as measures of progress. In the case of the activities of the DMU, outputs are mostly the completion of an activity. Below we outline the key activities (and outputs of which there is one) that we have suggested data is collected on. In addition, we suggest the indicators to populate the activities and outputs, possible data sources and timings.

It is envisaged that the activities and output indicators will be used to answer questions on the progress of key elements of the regime, and as optional project management information to assist the DMU in its delivery of key activities.

**Table 1 Log frame- Activities [Cross intervention, SMS Designation, Conduct Requirements, PCIs and Mergers]**

Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
DMU defines, consults on, and publishes general guidance_for each component of the regime [Cross intervention ToC activities see Figure 1]	<b>Indicator 1:</b> Key stakeholder groups were engaged in the consultative processes undertaken as part of the development of key pieces of guidance of the SMS regime	<ul style="list-style-type: none"> <li>Internal/External DMU documents</li> <li>Surveys</li> <li>Observations</li> </ul>	<ul style="list-style-type: none"> <li>Data on consultations to be collected after general guidance for each component has been published.</li> </ul> <p><i>Monitoring and process evaluation data</i></p>
	<b>Indicator 2:</b> Key pieces of guidance (and any material changes the guidance) are defined and published		<ul style="list-style-type: none"> <li>Data on guidance to be collected and monitored until all guidance is published.</li> </ul> <p><i>Monitoring and process evaluation data.</i></p>

Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
	<p><b>Indicator 3:</b> Key pieces of guidance (and any material changes) are clear to all concerned parties</p>		<ul style="list-style-type: none"> <li>Data on clarity of guidance to be collected at a time deemed to be appropriate for concerned parties to give a fair assessment of clarity.</li> </ul> <p><i>Monitoring and process evaluation data</i></p>
<p>DMU undertakes evidence-based assessments/ investigations for each intervention (and any material changes to the existing interventions) in line with published guidance <b>[Cross intervention ToC activities see Figure 1]</b></p>	<p><b>Indicator 4:</b> Evidence is collected and RFI from concerned parties were completed</p>	<ul style="list-style-type: none"> <li>Internal/External DMU documents</li> <li>Surveys</li> <li>Observations</li> </ul>	<ul style="list-style-type: none"> <li>Data confirming RFIs were completed to be collected after interventions/investigations are completed</li> </ul> <p><i>Process evaluation data.</i></p>
	<p><b>Indicator 5:</b> Key stakeholder groups were engaged in each round of the consultative processes</p>		<ul style="list-style-type: none"> <li>Data confirming key stakeholder groups were engaged to be collected after interventions/investigations are completed</li> </ul> <p><i>Process evaluation data</i></p>

Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
	<p><b>Indicator 6:</b> Testing and trialling were considered and conducted when applicable</p>		<ul style="list-style-type: none"> <li>Data on trialling to be collected after interventions/investigations are completed</li> </ul> <p><i>Process evaluation data</i></p>
	<p><b>Indicator 7:</b> Timeframes as specified in guidance (i.e. defined on a case-by-case basis by DMU) were complied with and are fit-for-purpose</p>		<ul style="list-style-type: none"> <li>Data on timeframes to be collected after interventions/investigations are completed</li> </ul> <p><i>Monitoring and process evaluation data</i></p>
	<p><b>Indicator 8:</b> Cost of RFI to concerned parties was proportionate</p>		<ul style="list-style-type: none"> <li>Data on RFI costs to be collected periodically and monitored.</li> </ul> <p><i>Monitoring and process evaluation data</i></p>
<p>Key decisions and milestones of the assessments are published and/or communicated to SMS firms<sup>20</sup> and concerned parties</p>	<p><b>Indicator 9:</b> Key decisions are notified and communicated to SMS firms and concerned parties/ made publicly accessible</p>	<ul style="list-style-type: none"> <li>Internal/External DMU documents</li> <li>Surveys</li> <li>Observations</li> </ul>	<ul style="list-style-type: none"> <li>Data on communication of assessments to concerned parties to be collected after</li> </ul>

<sup>20</sup> Or firms that are not yet designated with SMS but for which the DMU is undertaking SMS designation assessments

Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
[Cross intervention ToC outputs see Figure 1]			intervention assessments are completed  <i>Process evaluation data</i>
DMU reaches robust, proportionate and targeted intervention decisions (SMS designation, CRs, PCIs and any revisions to existing interventions) [Cross intervention ToC outputs see Figure 1]	<b>Indicator 10:</b> Metrics related to the number of successfully defended legal challenges relative to the total number of legal challenges with regard to DMU intervention decisions (e.g. number of successful challenges, number of unsuccessful challenges, ratio of successful to unsuccessful challenges, etc.) <sup>21</sup>	<ul style="list-style-type: none"> <li>• Administrative data</li> <li>• Internal/External DMU documents</li> <li>• Observations</li> <li>• Surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Data on legal challenges to be collected periodically and monitored.</li> </ul> <i>Monitoring and process evaluation data</i>
	<b>Indicator 11:</b> Costs related to implementing the interventions were proportionate		<ul style="list-style-type: none"> <li>• Data on implementation costs to be collected periodically and monitored.</li> </ul> <i>Monitoring, process valuation and value for money evaluation data</i>

<sup>21</sup> The context around these is that if the DMU undertook robust assessments to reach its intervention decisions and made proportionate intervention decisions, then the likelihood that legal challenges of those intervention decisions are successful is low.

Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
	<p><b>Indicator 12:</b> Instances of harms caused by the behaviour of (SMS) firms that were not identified and/or not addressed by DMU's interventions or identified/addressed too late and resulted in substantial damage to consumer outcomes and competition/innovation in relevant markets</p> <p>Harms can include: prevention of multi-homing, user/vendor lock-in, suspension of accounts, high switching costs, search and choice manipulation, higher prices, reduced quality of services, etc.</p>		<ul style="list-style-type: none"> <li>Data on harms by SMS firms to be collected periodically and monitored.</li> </ul> <p><i>Monitoring and process evaluation data</i></p>
<p>DMU assesses, defines and implements processes to regularly monitor the effectiveness of and compliance of SMS firms with CRs/PCIs <b>[Cross intervention ToC activities see Figure 1]</b></p>	<p><b>Indicator 13:</b> Processes to regularly monitor both/separately the effectiveness of, and compliance of SMS firms with, the CRs/PCIs are defined and implemented (incl. communicated to concerned parties)</p>	<ul style="list-style-type: none"> <li>Internal/External DMU documents</li> <li>Surveys</li> <li>Observations</li> </ul>	<ul style="list-style-type: none"> <li>Data on monitoring processes to be collected once CRs and PCIs are implemented.</li> </ul> <p>Process evaluation data</p>
	<p><b>Indicator 14:</b> Implemented monitoring processes are used by concerned parties</p>		<ul style="list-style-type: none"> <li>Data on use of monitoring processes by concerned parties to be collected periodically.</li> </ul> <p><i>Process evaluation data.</i></p>

Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
<p>DMU monitors compliance of SMS firms with the CRs/PCIs and reviews the effectiveness of the monitoring process  <b>[Cross intervention ToC activities see Figure 1]</b></p>	<p><b>Indicator 15:</b>  Concerns over harmful behaviour/ non-compliance by SMS firms and/or gaps in existing requirements raised through monitoring processes are regularly reviewed and addressed as needed (e.g. raised through user escalation and communication channels, user surveys, audit findings, regular exchanges with SMS firms)</p> <p><b>Indicator 16:</b>  Instances of harms caused by SMS firms addressed by CRs/PCIs but not identified through DMU's monitoring or identified too late and resulted in substantial damage to consumer outcomes and competition/innovation in relevant markets</p> <p>Harms can include: prevention of multi-homing, user/vendor lock-in, suspension of accounts, high switching costs, search and choice manipulation, higher prices, reduced quality of services, etc.</p>	<ul style="list-style-type: none"> <li>• Surveys</li> <li>• Observations</li> </ul>	<ul style="list-style-type: none"> <li>• Data on monitoring processes to be collected periodically.</li> </ul> <p>Process evaluation data</p> <ul style="list-style-type: none"> <li>• Data on harms by SMS firms to be collected and monitored</li> </ul> <p><i>Monitoring and process evaluation data</i></p>
<p>DMU enforces against breaches of CRs/PCIs following attempts to resolve non-compliance through a participative approach  <b>[Cross intervention ToC activities see Figure 1]</b></p>	<p><b>Indicator 17:</b>  Enforcement and corrective actions were taken and completed for cases of non-compliance following attempts to resolve non-compliance through a participative approach</p>	<ul style="list-style-type: none"> <li>• Internal/External DMU documents</li> <li>• Surveys</li> <li>• Observations</li> <li>• Administrative data</li> </ul>	<ul style="list-style-type: none"> <li>• Data on enforcement to be collected periodically and monitored.</li> </ul> <p><i>Monitoring and process evaluation data</i></p>



Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
	<p><b>Indicator 18:</b> Metrics related to firms successfully implementing the changes required to meet the CRs/ PCIs (incl. prior to any corrective action, i.e. deterrent effect)</p>		<ul style="list-style-type: none"> <li>Data on enforcement compliance to be collected periodically and monitored</li> </ul> <p><i>Monitoring and process evaluation data</i></p> <p><i>OGD; DMU</i></p>
<p>DMU consults other relevant UK regulating/government bodies through both informal means of coordination (e.g. Digital Regulation Cooperation Forum (DRCF)) and formal request called ‘duty to consult’ <b>[Cross intervention ToC activities see Figure 1]</b></p>	<p><b>Indicator 19:</b> ‘Duty to consult’ is exercised at early formative stage of the DMU intervention process with listed regulators and within statutory deadline</p> <p><b>Indicator 20:</b> ‘Duty to consult’ meets format and timing requirements of MoU and is communicated clearly to relevant regulator(s)</p>	<ul style="list-style-type: none"> <li>Internal/ External DMU documents</li> <li>Surveys</li> </ul>	<ul style="list-style-type: none"> <li>Data on regulatory coordination to be collected periodically.</li> </ul> <p><i>Process evaluation data</i></p>
<p>DMU devises a plan for the ex-post evaluation of its interventions (SMS designations, CRs, PCIs, merger requirements) <b>[Cross intervention ToC activities see Figure 1]</b></p>	<p><b>Indicator 21:</b> Ex post evaluation plan for each of the DMU’s interventions and pro-competition regime as a whole is produced</p>	<ul style="list-style-type: none"> <li>Internal DMU documents</li> </ul>	<ul style="list-style-type: none"> <li>Data on DMU ex-post evaluation plans to be collected once the DMU is operational.</li> </ul> <p><i>Process evaluation data</i></p>
<p>DMU designates SMS firms and activities, and completes this within statutory time frame (9 months and possible extensions)</p>	<p><b>Indicator 22:</b> Several firms, each with substantial and entrenched market power providing them with a strategic position in at least one digital activity, are designated as firms with SMS - in</p>	<ul style="list-style-type: none"> <li>Internal/External DMU documents</li> </ul>	<ul style="list-style-type: none"> <li>Data on SMS designations to be collected periodically and monitored.</li> </ul>

Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
<b>[SMS designation ToC activities see Annex A1.1]</b>	accordance with guideline process and within statutory timeframe (9 months and possible extensions)		<i>Monitoring and process evaluation data</i>
DMU develops firm-specific CRs and guidance that sets out how the CRs should be applied within a specific business model for each designated activity of each SMS firm and completes this within specified timeframe <b>[SMS designation ToC activities see Annex A1.1]</b>	<b>Indicator 23:</b> Tailored CRs are developed to cover each designated activity of each firm designated with SMS within timeframe (as specified by DMU in the guidance document)	<ul style="list-style-type: none"> <li>Internal/External DMU documents</li> </ul>	<ul style="list-style-type: none"> <li>Data on CR's developed to be collected periodically.</li> </ul> <i>Process evaluation data</i>
CMA reviews and filters SMS transactions (reported by SMS firms) which warrant further scrutiny above certain threshold that require mandatory suspensory review <sup>22</sup> <b>[New competition merger requirements ToC activities see Annex A1.4]</b>	<b>Indicator 24:</b> Appropriate SMS merger activity is reviewed prior to the mergers being completed: short assessments of the merger activity that the CMA is made aware of are produced and reviewed by the Mergers Intelligence Committee (MIC)	<ul style="list-style-type: none"> <li>Internal/External DMU documents</li> </ul>	<ul style="list-style-type: none"> <li>Data on merger reviews to be collected periodically and monitored.</li> </ul> <i>Monitoring and process evaluation data</i>

<sup>22</sup> SMS firms will be required to report their mergers above a set criterion prior to the transactions completing.

Activities/Outputs	Activity/Output Indicators	Data Sources	Timings and link to M&E
<p>CMA requests additional information or undertakes phased merger investigations for those transactions that pose sufficient competition concerns</p> <p><b>[New competition merger requirements ToC activities see Annex A1.4]</b></p>	<p><b>Indicator 25:</b> Checking whether information requests are issued and merger investigations are initiated for those transactions with sufficient competition concerns</p>	<ul style="list-style-type: none"> <li>• Internal/External DMU documents</li> <li>• Observations</li> </ul>	<ul style="list-style-type: none"> <li>• Data on merger assessments as result of new requirements to be collected periodically and monitored.</li> </ul> <p><i>Monitoring and process evaluation data</i></p>

### 3.3 Outcomes logframe

Outcomes are important to track as they describe the short to medium benefits the pro-competition regime delivers. Outcome indicators give us information on changes resulting from the policy's outputs. Outcome indicators define the criteria for assessing whether the policy is successful, indicators should therefore be realistic and achievable. Effective outcome indicators typically combine quantitative and qualitative measures, describing the number of people benefitting from a project and the nature of those benefits<sup>23</sup>. Below we outline the key outcomes that we have suggested are tracked, the indicators to track them, possible data sources and timings.

**Table 2 Log frame- Outcomes [SMS Designation, Conduct Requirements, PCIs and Mergers]**

Outcomes	Outcome Indicators	Data Sources	Timings and responsibilities ( <i>monitoring; data collecting and storing</i> )
SMS designations survive appeals <b>[SMS designation ToC outcomes see Figure 2]</b> Tailored CRs survive legal challenges <b>[CRs ToC outcomes see Annex A1.2]</b>	<b>Indicator 1:</b> Metrics related to the number of successfully defended legal challenges relative to the total number of legal challenges with regard to SMS designations/CRs decisions, (e.g. number of successful challenges, number of unsuccessful challenges, ratio of successful to unsuccessful challenges, etc.)	<ul style="list-style-type: none"> <li>Administrative data</li> <li>Internal/External DMU documents</li> <li>Observations</li> <li>Surveys</li> </ul>	<ul style="list-style-type: none"> <li>Data on legal challenges to be collected periodically and monitored.</li> </ul> <i>Monitoring data</i>
SMS firms establish programmes/structures to ensure compliance with CRs <b>[CRs ToC outcomes see Annex A1.2]</b>	<b>Indicator 2:</b> Metrics related to how firms are complying with CRs.	<ul style="list-style-type: none"> <li>Internal/External DMU documents</li> <li>Surveys</li> <li>Administrative data</li> </ul>	<ul style="list-style-type: none"> <li>Data on compliance to be collected periodically and monitored</li> </ul> <i>Monitoring data</i>

<sup>23</sup> Department for International Development (2013).

Outcomes	Outcome Indicators	Data Sources	Timings and responsibilities ( <i>monitoring; data collecting and storing</i> )
<p>Users are treated fairly and are able to trade on reasonable commercial terms with SMS firms [CRs ToC outcomes see Annex A1.2]</p>	<p><b>Indicator 3:</b> Metrics of user sentiment when dealing with SCMS firms, metrics related to changes in the commercial terms between users and SMS firms</p>	<ul style="list-style-type: none"> <li>• Surveys</li> <li>• Documentation on commercial terms</li> </ul>	<ul style="list-style-type: none"> <li>• Data on user sentiment to be collected periodically and monitored</li> </ul> <p><i>Monitoring and impact evaluation data</i></p>
<p>Users do not face barriers erected unduly by SMS firms when choosing between services provided by SMS firms and other firms [CRs ToC outcomes see Annex A1.2]</p>	<p><b>Indicator 4:</b> Changes in product/service features that function as barriers (e.g. egress fees, interfaces, response times), changes in switching rates</p>	<ul style="list-style-type: none"> <li>• Market monitoring data</li> <li>• Surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Data on barriers to be collected periodically and monitored</li> </ul> <p><i>Monitoring and impact evaluation data</i></p>
<p>Users have clear and relevant information to understand what services firms with SMS are providing, and to make informed decisions about how they interact with the firms [CRs ToC outcomes see Annex A1.2]</p>	<p><b>Indicator 5:</b> Metrics related to consumer understanding of SMS firms' services, metrics related to user experience</p>	<ul style="list-style-type: none"> <li>• Market monitoring data</li> <li>• Surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Data on transparency, user understanding and experiences with SMS firms' services to be collected periodically and monitored</li> </ul> <p><i>Monitoring and impact evaluation data</i></p>

Outcomes	Outcome Indicators	Data Sources	Timings and responsibilities <i>(monitoring; data collecting and storing)</i>
Reduced (scope for) market entrenchment and exploitative conduct by SMS firms <b>[CRs ToC outcomes see Annex A1.2]</b>	<b>Indicator 6:</b>  Metrics related to (scope for) market entrenchment and exploitative behaviour by SMS firms using survey responses, market observations as well as counterfactuals while accounting for market events and trends outside of the DMU’s remit to isolate the impacts of the DMU’s interventions on digital markets as much as possible (see section 4)	<ul style="list-style-type: none"> <li>• Market monitoring data</li> <li>• Surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Data on competition in digital markets SMS firms are active in to be collected periodically and monitored</li> </ul> <i>Monitoring and impact evaluation data</i>
Reduced (scope for) exclusionary conduct by SMS firms <b>[CRs ToC outcomes see Annex A1.2]</b>	<b>Indicator 7:</b>  Metrics related to (scope for) exclusionary behaviour by SMS firms using survey responses, market observations as well as counterfactuals while accounting for market events and trends outside of the DMU’s remit to isolate the impacts of the DMU’s interventions on digital markets as much as possible (see section 4)	<ul style="list-style-type: none"> <li>• Market monitoring data</li> <li>• Surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Data on competition in digital markets SMS firms are active in to be collected periodically and monitored</li> </ul> <i>Monitoring and impact evaluation data</i>
Improved transparency in transactions between users and SMS firms <b>[CRs ToC outcomes see Annex A1.2]</b>	<b>Indicator 8:</b>  Metrics related to consumer understanding of transactions with SMS firms, metrics related to user experience	<ul style="list-style-type: none"> <li>• Market monitoring data</li> <li>• Surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Data on transparency, user understanding and experiences with SMS firms’ services to be collected periodically and monitored</li> </ul>

Outcomes	Outcome Indicators	Data Sources	Timings and responsibilities ( <i>monitoring; data collecting and storing</i> )
			<i>Monitoring and impact evaluation data</i>
<p>Integration is prevented for SMS transactions that would otherwise be potentially harmful</p> <p><b>[New merger requirements ToC outcomes see Annex A1.4]</b></p>	<p><b>Indicator 9:</b> Commentary and ex-ante analysis on potential harms related to SMS transactions that would have led to service integration in the absence of DMU intervention</p>	<ul style="list-style-type: none"> <li>Market monitoring data</li> </ul>	<ul style="list-style-type: none"> <li>Data on merger activity to be collected periodically and monitored</li> </ul> <p><i>Monitoring and impact evaluation data</i></p>

### 3.4 Impacts logframe

Impacts are the long-term widespread changes which outcomes contribute towards. Impact indicators can help understand progress made towards the objectives of the policy. Below we outline the key impacts that we have suggested are tracked, the indicators to track them, possible data sources and timings.

**Table 3 Log frame- Impacts [SMS Designation, Conduct Requirements, PCIs and Mergers]**

Impacts	Impact Indicators	Data Sources	Timings and responsibilities (monitoring; data collecting and storing)
<p>Reduced consumer prices and increased consumer surplus from increased competition</p> <p><b>[CRs ToC impacts see Annex A1.2]</b></p>	<p><b>Indicator 1:</b></p> <p>Metrics related to consumer prices using survey responses, market observations as well as counterfactuals while accounting for market events and trends outside of the DMU’s remit to isolate the impacts of the DMU’s interventions on digital markets as much as possible (see section 4)</p>	<ul style="list-style-type: none"> <li>• Surveys</li> <li>• Observations</li> <li>• Administrative data</li> </ul>	<ul style="list-style-type: none"> <li>• Data on consumer prices to be collected.</li> </ul> <p><i>Impact evaluation data</i></p>
<p>Increased innovation</p> <p><b>[CRs &amp; PCIs ToC impacts see Annex A1.2, A1.3]</b></p>	<p><b>Indicator 2:</b></p> <p>Metrics related to increased innovation using survey responses, market observations as well as counterfactuals while accounting for market events and trends outside of the DMU’s remit to isolate the impacts of the DMU’s interventions on digital markets as much as possible (see section 4)</p>	<ul style="list-style-type: none"> <li>• Surveys</li> <li>• Observations</li> <li>• Administrative data</li> </ul>	<ul style="list-style-type: none"> <li>• Data on innovation to be collected.</li> </ul> <p><i>Impact evaluation data</i></p>



Impacts	Impact Indicators	Data Sources	Timings and responsibilities (monitoring; data collecting and storing)
<p>Improved quality and diversity of products and services for consumers</p> <p><b>[CRs &amp; PCIs ToC impacts see Annex A1.2, A1.3]</b></p>	<p><b>Indicator 3:</b></p> <p>Metrics related to improved quality of products and services using survey responses, market observations as well as counterfactuals while accounting for market events and trends outside of the DMU’s remit to isolate the impacts of the DMU’s interventions on digital markets as much as possible (see section 4)</p>	<ul style="list-style-type: none"> <li>• Surveys</li> <li>• Observations</li> <li>• Administrative data</li> </ul>	<ul style="list-style-type: none"> <li>• Data on quality of product and services to be collected.</li> </ul> <p><i>Impact evaluation data</i></p>
<p>Greater competition and incentives to innovate: More innovative start-ups are allowed to grow and develop in the market eventually offering greater competition in the relevant markets<sup>24</sup></p> <p><b>[PCIs ToC impacts see Annex A1.3]</b></p>	<p><b>Indicator 4:</b></p> <p>Metrics related to whether the UK well perceived internationally as a competitive market, with strong business confidence in the ability to enter and expand within digital markets?</p>	<ul style="list-style-type: none"> <li>• Surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Data on competition and innovation to be collected.</li> </ul> <p><i>Impact evaluation data</i></p>

<sup>24</sup> It is noted that there may also be risks associated with limiting exit routes. However, given the light touch nature of the reporting proposal this risk is seen as minimal.

Impacts	Impact Indicators	Data Sources	Timings and responsibilities <i>(monitoring; data collecting and storing)</i>
<p>Increased effectiveness of CMA at preventing integration for SMS transactions that could otherwise be potentially harmful</p> <p><b>[New merger requirements ToC impacts see Figure 14]</b></p>	<p><b>Indicator 5:</b></p> <p>Difference in impact on competition with counterfactual scenario where CMA would have intervened too late. Potential harm would have already materialised</p> <hr/> <p><b>Indicator 6:</b></p> <p>The CMA is able to take appropriate actions that sufficiently remedy any competition concerns that are raised through the investigation process.</p>	<ul style="list-style-type: none"> <li>• Surveys</li> <li>• Observations</li> <li>• Administrative data</li> <li>• Internal/External CMA/DMU data</li> </ul>	<ul style="list-style-type: none"> <li>• Data on merger regime effectiveness to be collected.</li> </ul> <p><i>Impact evaluation data</i></p>

### 3.5 Timing of M&E activities

M&E activities take place at different points in time. This section provides a discussion on the timings of M&E activities.

DCMS and BEIS will likely undertake a Post Implementation Review (PIR) at an appropriate time after the pro-competitive regime legislation is passed. A PIR is delivered as a report and usually consists of a process evaluation, an impact evaluation and/or a value-for-money evaluation. In addition to this, DCMS and BEIS are likely to report periodically on the progress of the pro-competitive regime's implementation and outcomes. The M&E activities will therefore feed into:

- 1) The PIR;
- 2) monitoring the progress of activities/outputs (during the set-up and transitional phase of the regime), and monitoring and evaluating of outcomes (during the operational phase of the regime).

### 3.6 Roles and resources

Assigning ownership of the M&E activities listed in the logframe to a specific government department remains an open decision to be determined.

## 4 Evaluation guidance

This chapter focuses on the evaluation element of the monitoring and evaluation framework of the DMU and the pro-competition regime.

### 4.1 Introduction

Evaluation is a systematic assessment of the design, implementation and outcomes of an intervention. It involves understanding how an intervention is being, or has been, implemented and what effects it has, for whom and why. It identifies whether and how the intervention can be improved and estimates its overall impacts and cost-effectiveness.<sup>25</sup>

It has two main aims:

- To be a key source of information on the cost-effectiveness of policy interventions and regulatory activities, for accountability purposes, and as a means to improve existing policies and to better design future policies.
- To provide evidence on attribution and causality; i.e. whether the policy delivered the intended outcomes or impacts, and to what extent those were due to the policy.

The latter involves developing a counterfactual and comparing the observed market outcomes under a given intervention or policy framework with what would have happened in their absence. Indeed, a fundamental evaluation issue is how to isolate the impact of regulatory decisions from those of other major factors. This requires awareness and inclusion in the analysis of relevant factors besides regulatory decisions. Such external factors can have an even larger impact on outcomes than policy interventions or regulatory decisions themselves.<sup>26</sup>

The first and crucial step in an evaluation consists of carefully defining its scope. Appropriate scoping requires a clear understanding of the objectives of the intervention and how the interventions are expected to deliver intermediate outputs and ultimate objectives. Evaluation, therefore, builds on the theory of change, the logical framework of the intervention, and on the monitoring elements put in place alongside their development. Evaluation questions must ask, not only to what extent objectives of the intervention have been achieved, but also how the various actions under the intervention have contributed to what has been achieved, and whether alternative approaches could have been more cost-effective. Once the evaluation questions are clearly stated, the evaluation must consider the feasibility and proportionality of the various approaches by which they might be answered. It is important that the evaluation strategy is clearly delineated at the start of the intervention so that data collection for the evaluation can be incorporated into the intervention actions and so that it draws efficiently from the monitoring tools that are put in place.

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<sup>25</sup> HM Treasury (2020a), p. 5.

<sup>26</sup> Stern, J. (2010).

An evaluation framework, for an intervention as complex as the DMU and the pro-competition regime, must necessarily encompass various evaluation approaches. Certain elements of the intervention may allow for the application of quasi-experimental methods, while some may be better suited for theory-based methods. Quasi-experimental methods, in particular, tend to be heavily dependent on the collection of relevant and reliable data. Both theory-based and quasi-experimental methods may be strengthened by a careful consideration of the mechanisms by which the intervention is posited to operate, as described in the theory of change. To that end, the evaluation questions may be broken down into their respective ToC intermediate steps, so that evidence of the mechanism of action is also assessed.<sup>27</sup>

The evaluation approaches selected give rise to data and information requirements and inform the planning of how these shall be collected over the life of the intervention. In order to operationalise the data collection strategy, it is useful to define indicators and the methodology to populate them.

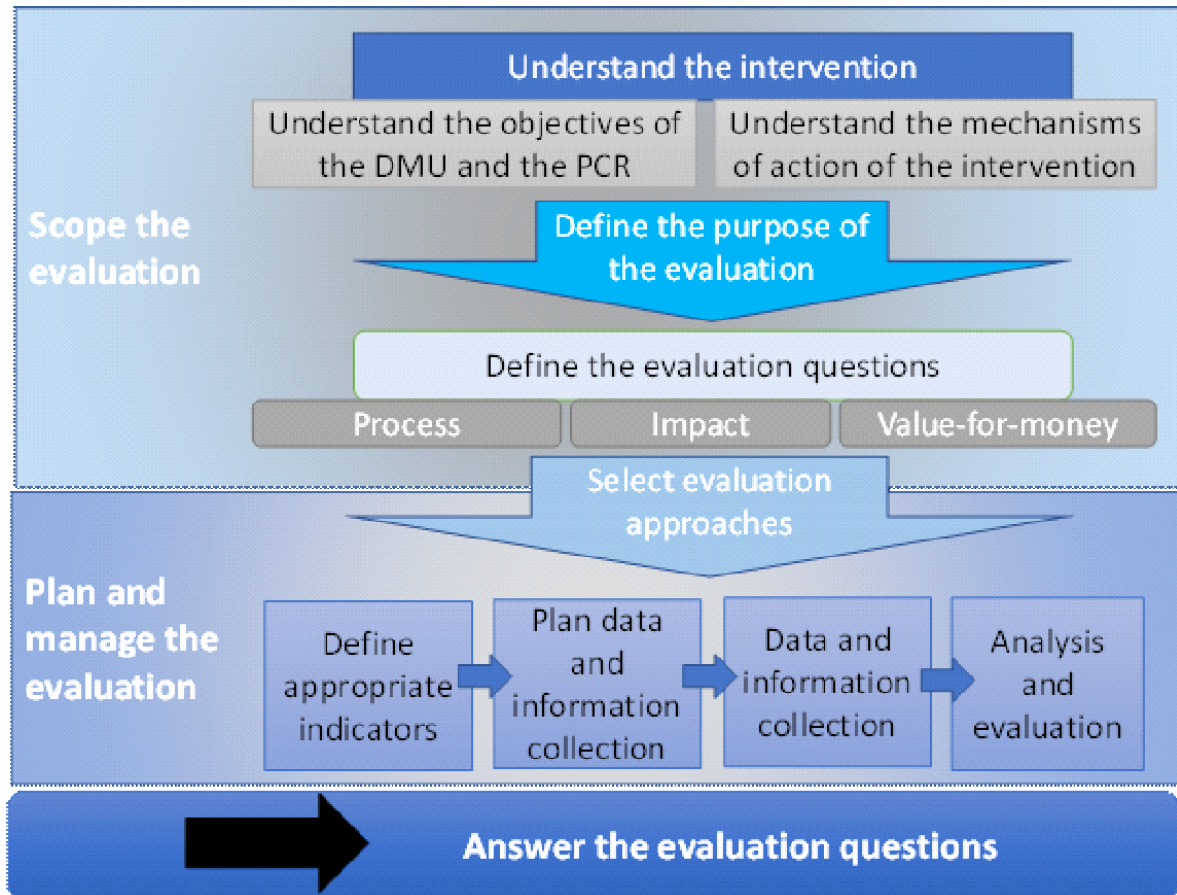
During the life of the intervention, data and information are collected, in accordance with the evaluation plan and evaluation questions can be answered at appropriate time intervals. The figure below illustrates these main steps of the evaluation strategy.

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<sup>27</sup> To exemplify, interoperability may be an intermediate output of an intervention that aims to facilitate multi-homing. The level of interoperability on targeted market segments can be assessed alongside multi-homing outcomes to help establish a link between intervention and desired outcomes.

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Figure 2 Implementing the evaluation strategy



Source: LE

Since the government will likely undertake a PIR of the pro-competition regime, some or all of the following may occur:

- Analysis of whether an intervention is being implemented as intended; whether the design is working; what is working more or less well and why. Together, these types of questions are typically referred to as a **process evaluation**.<sup>28</sup>
- An objective test of what changes have occurred, the scale of those changes and an assessment of the extent to which they can be attributed to the intervention. This is typically referred to as an **impact evaluation** and is investigated through theory based, experimental, and / or quasi-experimental approaches.<sup>29</sup>
- A comparison of the benefits and costs of the intervention, typically referred to as a **value-for-money evaluation**.<sup>30</sup>

<sup>28</sup> HM Treasury (2020a), p. 5.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.

## 4.2 Evaluation questions

The introduction of a new regulator and pro-competition regime for digital markets brings with it a range of potential questions that may be relevant to the evaluation. The evaluation questions that are developed will define the purpose and scope of the evaluation, and inform the evaluation approach taken. In developing the evaluation questions, consideration of the objectives of the policy, stakeholders, key decisions to be made, feasibility and availability of resources is important. In this section, we discuss some of the potential evaluation questions. We note that evaluation questions are likely to evolve over time, so it is important users of the evaluation are consulted on an ongoing basis.

To make evaluation questions answerable they need to focus on outcome aspects that can feasibly be “evaluated”. In addition, they need to be considered early in the planning of interventions, so that data collection plans are put in place and operationalised alongside the various interventions. The data collection may include: access to, or creation of data sets; developing monitoring systems; and establishing agreement/willingness from market participants to provide feedback and respond to questions/surveys.

At a high level, we propose the following evaluation questions:

### Evaluation questions – process

- What has worked well, less well and why? (e.g. did SMS designations proceed more smoothly for some activities than others?)
- What can be learned from established SMS designations, PCIs and CRs for future implementations?
- Has the DMU been successfully set up and have the key elements of the new regime been put in place (SMS designations, PCIs, CRs)?
- Have the DMU’s resources been properly allocated across different activities?
- How were the DMUs activities affected by external factors (e.g. market conditions, regulatory actions in other jurisdictions)

### Evaluation questions – impact

- To what extent did the DMU and the pro-competition regime produce or contribute to the intended outcomes?
  - in the expected timeframe?
- To what extent have unintended outcomes (positive and negative) been produced?
- To what extent can changes be attributed to the DMU & pro-competition regime?
- To what extent have particular features of the intervention and particular market contexts made a difference?
- To what extent were there other influencing factors?
- To what extent have the UK digital market outcomes relative to other key international markets improved or deteriorated?

**Evaluation questions – value for money**

Value for money evaluation aims to identify the value gained from resources used to implement an intervention.

- To what extent has the intervention been cost-effective (compared to alternatives)?
- What elements have been most cost-effective?
- Is the program the best use of resources?

In order to apply appropriate evaluation methodologies to the actions of the DMU and the functioning of the pro-competition regime, it is helpful to further operationalise the evaluation questions. This involves contextualising the overarching evaluation questions with reference to the specific elements and objectives of the intervention being evaluated. The table below suggests how this might be done for the evaluation of the DMU and the pro-competition regime.

**Table 4 Operationalising the evaluation questions: examples**

DMU Activities/ Stages of the Intervention	Operationalisation of the evaluation questions
<p>Preparatory and initial activities such as guidance documents, RFIs and other data collection, consultations, analysis/market studies</p> <p>Leading to SMS designations</p>	<p><b>Evaluation to focus on process evaluation</b></p> <p>Process evaluation questions:</p> <ul style="list-style-type: none"> <li>● Is guidance comprehensive and accessible?</li> <li>● Has engagement with stakeholders been appropriate?</li> <li>● Have data gathering activities been appropriate? Have they imposed no excessive burdens?</li> <li>● Are data collection systems for monitoring and evaluation put in place?</li> <li>● Has the DMU’s analysis been transparent, data-reliant and responsive?</li> <li>● Have timeframes been respected?</li> <li>● Are Decision documents comprehensive/ publicly available/ commercial sensitivity preserved?</li> <li>● Have Decisions resisted legal challenges?</li> </ul>
<p>Conduct Requirements</p> <p>CRs are aimed at direct changes in conduct by SMS firms</p>	<p><b>Evaluation to look into both process and impact</b></p> <p><b>Process evaluation</b> will look into similar questions as above, plus:</p> <ul style="list-style-type: none"> <li>● Has the DMU clearly and transparently articulated the activities, conducts or harms that each CR is intended to address?</li> </ul>



DMU Activities/ Stages of the Intervention	Operationalisation of the evaluation questions
	<ul style="list-style-type: none"> <li>● Has baseline data on these been collected and are on-going data collection plans put in place? Has appropriate trialling/testing of the interventions taken place?<sup>31</sup></li> <li>● Have compliance monitoring systems been put in place?</li> </ul> <p><b>Impact Evaluation</b> will need to consider the mechanisms by which the CRs are expected to affect market outcomes. Questions can cover a combination of direct outputs, intermediate outcomes, and ultimate impacts.</p> <p><b>Impact Evaluation</b> of direct outputs and intermediate outcomes</p> <ul style="list-style-type: none"> <li>● fair commission rates on transactions completed by third party business users through the SMS platform,</li> <li>● remove undue restrictions on users' ability to use competing providers, e.g. improve/ allow for data portability of user data; e.g. unbundle key complementary services from primary services to allow users to choose from alternative providers</li> <li>● (re)establish non-discriminatory API accessibility to all user groups</li> </ul> <p><b>Impact Evaluation</b> of market impacts of the CRs</p> <ul style="list-style-type: none"> <li>● Users (consumers and businesses) are able to trade on reasonable commercial terms with the SMS firm</li> <li>● users face no barriers to choosing freely and easily between services provided by SMS firms and other firms</li> <li>● users have clear and relevant information to understand what services SMS firms are providing, and to make informed decisions</li> </ul>
Pro-competition Interventions	<p><b>Evaluation to look into both process and impact</b></p> <p><b>Process evaluation</b> will look into similar questions as above</p>

<sup>31</sup> Appropriate, in this case, seeks to imply that the resources devoted to trialling should not be disproportionate. This is difficult to make more concrete for abstract interventions. Trialling or testing is in principle desirable but will not always be feasible or proportionate. At least, trialling ought to have been considered at the intervention design stage.

DMU Activities/ Stages of the Intervention	Operationalisation of the evaluation questions
<p>PCIs are aimed at longer-term impacts on market structure; they act on market outcomes indirectly, helping to create market conditions where effective competition can develop</p>	<p><b>Impact Evaluation</b> will need to take into account the mechanisms by which the PCIs are expected to affect market outcomes. Questions can cover a combination of direct outputs, intermediate outcomes, and ultimate impacts.</p> <p><b>Impact Evaluation</b> of direct outputs and intermediate outcomes<sup>32</sup></p> <ul style="list-style-type: none"> <li>• Third-party access to data and user control over personal data limit the data advantage of SMS firms that results from collection of user data</li> <li>• Third-party access to data is relied on for creation or expansion of non-SMS firms</li> <li>• Interoperability supports higher levels of multihoming and a range of digital services available at different ‘homes’</li> <li>• Changes to ‘choice architecture’ lead to greater user sensitivity to value-for-money</li> <li>• Separation remedies reduce cross-subsidisation / make price structure more cost-reflective</li> </ul> <p><b>Impact Evaluation</b> of market impacts of the PCIs</p> <ul style="list-style-type: none"> <li>• Market outcomes consistent with stronger competition: competitors gain relevant market presence; there is innovation</li> <li>• Consumer outcomes consistent with stronger competition: greater choice, higher levels of consumer satisfaction, better value for money</li> </ul>

Taking the more detailed version of the evaluation questions as a starting point, the evaluation planning next turns to the consideration and selection of evaluation approaches that are feasible and appropriate to address these questions.

### 4.3 Guidance on approaches to the evaluation

The aimed-for impacts of the new pro-competition regime, i.e. that digital services markets deliver the best outcome for consumers in terms of choice, prices, and innovation; attract businesses and employment to the UK; and contribute to economic growth, provide the rationale for the regime.

<sup>32</sup> The questions specified in the table refer to examples of possible PCIs.

However, those impacts can be difficult to evaluate and even more difficult to attribute to any specific set of interventions, such as those envisaged for the DMU. Building on the impact evaluation questions, this section discusses approaches to impact evaluation, considering their applicability and feasibility in light of the specific evaluation questions posed above.

We discuss, in turn, approaches to process evaluation, impact evaluation and value-for-money evaluation.

### 4.3.1 Approach to process evaluation

Our understanding of the scope of process evaluation for the DMU and the pro-competition regime suggests a close parallel to the scope of the monitoring elements of the M&E framework. The latter take place alongside the various actions taken by the DMU to implement the pro-competition regime. As seen in chapter 3, the monitoring approach for the DMU's activities is primarily based on a checklist of steps that the DMU may undertake as it rolls out the new regime.

This monitoring can be put in place by requiring a commitment from the DMU to report on the steps taken during each of its interventions. These obligations to report could include a description of how the DMU performed the most significant procedural elements of the regime's implementation:

- Appropriate guidance provided
- Consultation and involvement of stakeholders
- Appropriate use of RFIs and other data collection methods
- Procedural transparency
- No undue burdens imposed on businesses as a result of implementing DMU processes
- Evidence-based decision-making
- Responsiveness to parties' concerns
- Interventions trialled
- Timeframes met
- Effective compliance monitoring tools
- Appeals survived
- Data collection tools put in place for impact evaluation

Process evaluation could initially be limited to monitoring how the DMU carried out the elements above.

Merely reporting on the elements above may be insufficient for evaluation purposes. Even if each of the DMU's actions is fully appropriate, from a purely procedural perspective, they may fail to produce the desired outcomes and impacts. At the stage of the PIR, process elements can be revisited in more detail. For example, compliance monitoring tools may be considered ineffective, or trialling of interventions inadequate. Procedural aspects may be seen to have interfered with impacts. For example, because poor compliance remained undetected due to an issue with compliance monitoring tools, or because some remedy trialling methodology was ineffective leading to a remedy that did not operate as expected.

Setting up a detailed process evaluation at the PIR will likely involve the following: defining the intervention; specification of the objectives and key evaluation questions to be answered; and specification of methodology. We briefly discuss these steps below.

### Defining the intervention

The ToC (see chapter 2) provides the basis for defining the various elements of the pro-competitive regime and how it is expected to achieve its objectives. A well-defined ToC allows for the evaluation objectives and questions to be properly defined.

### Specification of evaluation questions and objectives

The pro-competition regime includes multiple mechanisms (each which interact) through which the objectives of the regime are expected to be achieved, this brings with it a range of potential process evaluation questions, some of which we have defined at a high level in section 4.2. It is unlikely that all evaluation questions can be answered, and so the chosen process evaluation questions should be decided with input from key stakeholders.

### Methodology

Both quantitative and qualitative methods can be utilised in process evaluations either in combination or individually.

Quantitative methods allow for the collection of descriptive data on the delivery of outputs, quality of outputs and information on who's affected by the intervention. In addition, more explanatory analysis can be used to assess how the delivery, quality or reach of the intervention is affected by contextual factors<sup>33</sup>. Quantitative methods include:

- management information (MI) data
- secondary analysis of monitoring data
- surveys and questionnaires

Similar to quantitative methods, qualitative methods can be used to gather data on the delivery of outputs, quality of outputs and information on who's affected by the intervention. Qualitative methods also can allow for insights on any unintended consequences and areas of improvement. Qualitative methods include:

- survey of key stakeholders such as DMU, designated firms, DRCF members, non-designated firms interacting with the regulation and consumers
- one-to-one interviews

### Example 1: Has the DMU been successfully set up and have the key elements of the new regime been put in place (SMS designations, PCIs, CRs)?

#### 1. Define objectives and detailed evaluation questions

We may identify that the 'Preparatory and initial activities such as guidance documents, RFIs and other data collection, consultations, analysis/market studies' are key areas for the evaluation to

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<sup>33</sup> Moore et al. (2015).

consider. Following this we can look at key evaluation questions that help answer the high-level questions as set out in table 4.

- Is guidance comprehensive and accessible? (Qualitative survey of designated firms)
- Has engagement with stakeholders been appropriate? (*Qualitative survey of DMU, DRCF members, and designated firms*)
- Have data gathering activities been appropriate? Have they imposed no excessive burdens? (*Qualitative survey of designated firms*)
- Are data collection systems for monitoring and evaluation put in place? (*One-to-one interviews with DMU and qualitative survey of firms*)
- Has the DMU's analysis been transparent, data-reliant and responsive? (*Qualitative survey of designated firms*)
- Have timeframes been respected? (Quantitative management information data)
- Are decision documents comprehensive/ publicly available/ commercial sensitivity preserved? (*Quantitative management information data*)
- Have decisions resisted legal challenges? (*Quantitative management information data*)

## 2. Data collection and analysis

Once the questions have been outlined, a data collection plan for the quantitative and qualitative methods being used can be created. The data collection plan will cover timing, design of surveys, outline what monitoring data can be utilised etc. Once data has been collected, the evaluation team would then analyse this data and attempt to answer the evaluation questions based on the evidence available.

### 4.3.2 Approach to impact evaluation

Impact evaluation is often, and also in the case of the DMU and the pro-competition regime, the main focus of the evaluation.

The challenge is that the DMU and the pro-competition regime have ultimate objectives which are broadly defined and not straightforwardly quantifiable. The ultimate impact that the DMU and the pro-competition regime look to achieve is effective competition in digital markets and to further the interests of consumers in digital markets.

Key impacts expected from the DMU & pro-competition regime have been considered by the government to include:<sup>34</sup>

- Increased quality of service
- Increased choice and control for consumers
- Reduced prices for goods and services across the digital economy
- Increased innovation leading to new, valued products for consumers
- Positive externalities (e.g. media plurality)

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<sup>34</sup> BEIS and DCMS (2021).

From an impact evaluation perspective, these are challenging impacts to evaluate. The contribution of the intervention to market-wide developments such as these may be difficult to assess. Digital market outcomes are influenced by numerous other forces with effects potentially much stronger than DMU intervention.<sup>35</sup>

There are essentially two ways to address this challenge. The first is to collect information on the likely confounding factors that may be driving the observed market outcomes and strip away their impact from the change in the market outcome of interest. If there is still some portion of the observed change that is not explained by these confounding factors, then that portion of the change in outcomes can be attributed to the intervention.

The other approach is to link a given observed market outcome to the steps within the ToC that trace the impact of the intervention from direct outputs through intermediate outcomes to final impacts. This approach recognises that changes in elements of the ToC that are more directly controllable by the intervention are more easily attributable to the intervention. If the more directly controllable elements of the ToC change in the desired direction and subsequent effects down the logic chain of the ToC are also observed, this lends support to the ToC and to the perspective that the intervention did in fact contribute to the desired market impact.

There are essentially two categories of impact evaluation methods: theory-based and experimental or quasi-experimental. The next subsection discusses theory-based methods, and the following subsection discusses experimental and quasi experimental methods.

### Theory-based methods for impact evaluation

Theory-based evaluation approaches look at why and how a particular change has come about by testing the theory of change. These approaches can allow for causality to be attributed to the outcomes and impacts posited in the theory of change, however they do not provide precise estimates of the change.

Three theory-based methods are discussed below.

#### Process tracing and Contribution analysis

These two methods are less suitable for traditional causality questions such as whether the intervention *caused* the outcome or to *quantify* the effect of the intervention on a given outcome. Instead, these methods explicitly recognise that there may be many causes involved in a given outcome, and focus on understanding and assessing the contribution of the intervention to the outcome observed.

- **Process Tracing**<sup>36</sup> is a structured method for developing and assessing theories about how a particular outcome arose<sup>37</sup>. This approach takes as a starting point the positing of a causal process intervening between an independent variable and an outcome. In our case, this causal process is represented by the ToC (Chapter 2). Where the mechanisms by which

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<sup>35</sup> These markets are for example influenced by self-reinforcing trends, consumer behaviour and preferences, trends in forms of social interaction, technical innovation or new products' introduction, in addition to multiple macroeconomic factors which affect consumers ability and availability to engage with digital services.

<sup>36</sup> CECAN (2020), p. 35-36.

<sup>37</sup> HM Treasury (2020a).

policy inputs lead (or do not lead) to outcomes are not directly observable, process tracing can be combined with statistical inference techniques such as Bayesian updating (where the probability of a contribution claim being true is updated as each additional piece of information does or does not provide support to it) to help formalise and increase the rigour of causal claims<sup>38</sup>

- **Contribution Analysis (CA)**<sup>39</sup> refers to methods which are used to understand the likelihood that the intervention has contributed to an observed outcome. CA relies on a well-developed ToC for the intervention. The CA approach examines and tests the ToC against logic and the data available from results observed and the various assumptions behind the theory of change, and examines other influencing factors. The analysis either confirms the postulated theory of change or suggests revisions to it where the reality appears otherwise. The overall aim is to reduce uncertainty about the contribution an intervention is making to observed results through an increased understanding of why results did or did not occur and the roles played by the intervention and other influencing factors. CA argues that if one can verify or confirm a theory of change with empirical evidence—that is, verify that the steps and assumptions in the intervention’s ToC were realised in practice, and account for other major influencing factors—then it is reasonable to conclude that the intervention in question has made a difference, i.e., was a contributory cause for the outcome.<sup>40</sup>

The idea of both Process Tracing and Contribution Analysis approaches is to assess if the intermediate outputs and outcomes, that the ToC assumes will lead to a certain impact, did in fact change as predicted by the ToC.

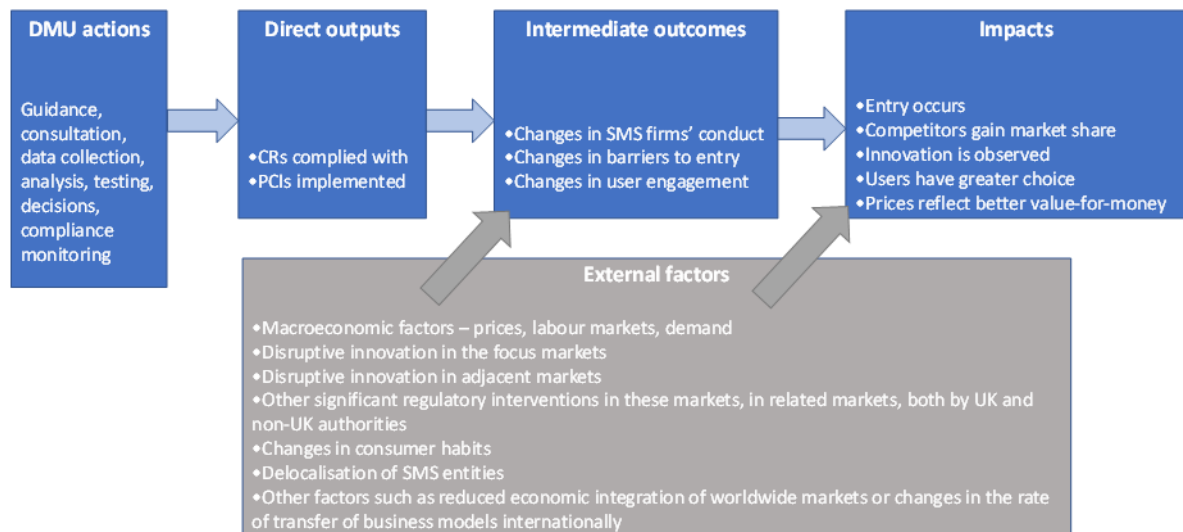
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<sup>38</sup> Ibid.

<sup>39</sup> See e.g. Mayne, J. (2008) and Mayne, J. (2012).

<sup>40</sup> For example, the ToC may say that a certain action A leads to a direct output X1 which leads to an intermediate outcome X2 which leads to a desired impact X3. These theory-based approaches collect information and data to assess whether, for an observed change in X3, there has in fact been, or not, a corresponding change in X1 and in X2. If indeed X1 and X2 changed as described in the ToC, (in the manner in which the ToC assumes that they should change to bring about a certain observed impact on X3), then this finding supports the theory of change and is evidence supporting the hypothesis that the intervention did in fact contribute to the outcome X3.

**Figure 3** Application of process tracing and contribution analysis to the pro-competition regime



*Source: London Economics*

Applying these evaluation methods to the pro-competition regime is challenging because the regime involves a wide range of actions which operate through various chains of causality, and because market outcomes and impacts are potentially influenced by a vast array of external factors.

As Figure 3 above illustrates, there are various ultimate impacts that the pro-competition regime seeks to achieve. Each of these will be affected both by the intermediate outcomes that the intervention produces and by external factors that impact on the markets in question. For example, new entry may be observed in a target market, and this may be associated both with successfully changed SMS conduct (as a result of the intervention) and with a new technology developed by the entrants.

The intermediate outcomes of the intervention may themselves be impacted by external factors. For example, changes in SMS firms' conduct may be observed (as a result of compliance with CRs) but these changes may also have been affected by regulatory interventions on the SMS firms in other jurisdictions.

A crucial element of CA is thus to identify external factors to the intervention which can affect both the intermediate outcomes and the ultimate impacts of interest.

CA argues that a reasonable contribution causal claim can be made if:

- There is a reasoned ToC for the intervention: the key assumptions behind why the intervention is expected to work make sense, are plausible, may be supported by evidence and/or existing research, and are agreed upon by at least some of the key players.
- The activities of the intervention were implemented as set out in the theory of change.
- The theory of change—or key elements thereof—is supported by and confirmed by evidence on observed results and underlying assumptions—the chain of expected results occurred. The ToC has not been disproved.



- Other influencing factors have been assessed and their relative role in contributing to the desired result has been recognised.

**Simulation modelling** is not formally considered a theory-based method but can be used quantitatively to represent complex scenarios and model the ToC, the impact of an intervention and unobserved outcomes. Types of simulation models that could be applicable to the DMU and pro-competition regime include: discrete event simulation,<sup>41</sup> system dynamics,<sup>42</sup> and agent-based modelling.<sup>43</sup> Simulation modelling can also be used to generate virtual counterfactuals.<sup>44</sup> Simulation models are inevitably highly simplified versions of market mechanisms and therefore are able to capture only some of the mechanisms that drive the outcomes of interest.

### Experimental and quasi-experimental methods for impact evaluation

Experimental and quasi-experimental methods measure the impact of an intervention against an appropriately estimated counterfactual. Fully randomised experiments, as required in truly experimental approaches, are not generally feasible in this policy sphere since the DMU cannot randomise its interventions. Quasi-experimental methods use a counterfactual, but not one achieved through randomisation<sup>45</sup>.

Quasi-experimental methods, also known as observational studies,<sup>46</sup> exploit variation in the policy implementation and generally combine econometric modelling and statistical techniques to control for other factors that might explain differences in outcomes associated with the variation in policy variables.

In the context of the pro-competition regime, the ultimate aimed-for impacts are market-wide outcomes which depend on a wide range of factors that are outside the control of the DMU. An awareness of these factors and an understanding of how they may impact the variables of interest is essential.

### Controlling for confounding factors

It will be important to investigate the extent to which changes that are observed in the market can be linked to and attributed to interventions and policies of the DMU & the pro-competition regime. The different types of analytical approaches discussed above offer a way in which this can be done. However, above all, one significant point of consideration before choosing an approach to answering the key evaluation questions is how to account for influences other than policy related

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<sup>41</sup> Emmerson et al. (2004) and Zhang, X. (2018).

<sup>42</sup> CECAN (29 September 2020).

<sup>43</sup> CECAN (2016).

<sup>44</sup> HM Treasury (2020a), p. 43.

<sup>45</sup> Ibid., p. 46.

<sup>46</sup> Coglianesi, C. (2012).

factors. A first step is understanding what influences are likely to impact market outcomes in the markets of interest.<sup>47</sup> We therefore recommend the following factors are taken into account:

- Macroeconomic factors – prices, such as consumer price indices or inflation, labour markets indicators such as average wages, demand indicators such as GDP-related indices.
- Disruptive innovation in the focus markets
- Changes in consumer habits
- Disruptive innovation in adjacent markets
- Other significant regulatory interventions in these markets, in related markets, both by UK and non-UK authorities
- Delocalisation of SMS entities (by which we mean SMS entities moving a significant volume of transactions away from the UK)
- Other factors such as reduced economic integration of worldwide markets or changes in the rate of transfer of business models internationally (by which we mean that international markets may become more or less integrated, and this will affect how innovations and business models will vary from country to country)

Consideration of the above factors and the ability of evaluation approaches to deal with these factors is one step taken when deciding which evaluation approach to use. Econometric methods, such as those exemplified below, will be adequate if both (i) variables that the policy hopes to affect and (ii) potential confounding factors can be quantified and recorded over some period of time and across samples ‘treated’ with different levels of the intervention.

### Econometric methods<sup>48</sup>

Several quasi-experimental methods can in principle be used to evaluate the effectiveness of the pro-competitive regime, while controlling for the effect of external factors, as discussed below.

If for example there are enough data points for regression analysis (experimental method), there are several approaches that can be adopted. Each of these seeks to strip away the effect of confounding factors (discussed above) in different ways.

- A. **Multivariate Regression.** One common way to try to control for the effect of confounding factors is to construct a multivariate regression model. Such regression models seek to explain the variation observed in an indicator of interest as a function of the policy variable and variables that represent the confounders that are relevant for each indicator. For example:

$$Y_t = \alpha + \beta X_t + \gamma D_t + \varepsilon_t$$

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<sup>47</sup> Market outcomes can be influenced by confounding factors that ‘appear’ correlated with the policy. The policy variable is likely to take the form 0-1 (e.g. 0 before the intervention takes place and 1 afterwards). Any variables with a trend over the same period and that can impact outcomes of interest are in danger of being confounded with the effects of the policy.

<sup>48</sup> Other methods, such as instrumental variables (IV) or regression discontinuity designs to identify causality could be considered, however, the nature of the interventions contemplated under the pro-competition regime make it unlikely that they will involve a ‘treatment’ being administered to a distinct group of observational units.

In this example,  $Y_t$  represents an outcome of interest,  $X_t$  represents confounding factors,  $D_t$  represents the policy variable and  $\varepsilon_t$  is an error term.

Regression analysis isolates the effects of the regulation from the effects of the confounding variables that are included in the regression, but has two significant drawbacks: if, as is likely to occur, not all possible confounders are included in the regression, the impact of the policy on the indicator of interest may be over or under estimated; furthermore, multivariate regression is capable of establishing correlation between policy and indicator outcomes but does not address the question of causality. The issue of causality can be addressed by ensuring there is a theoretical basis and evidence for why the policy variable should affect the indicator of interest (for example, the theory of change and the evidence supporting it).

**Example 1: assess the impact of the DMU and the Pro-Competitive Regime on an indicator reflecting the extent to which users feel informed about alternative providers and ability to compare among them (Conduct Requirements - Trust and transparency<sup>49</sup>)**

1. The first step is to specify a model and a data collection method:
  - This involves defining what the indicators of interest are and specifying the relationship they have with the trust and transparency conduct requirement.
  - A data collection strategy should be planned to populate these indicators over time, for example:
    - Data collected through user surveys at fixed time intervals, e.g. quarterly:
      - E.g. list a series of alternative providers and ask users how familiar they are with each. This could be the basis for an indicator of ‘awareness of alternative providers’
      - E.g. list several pairs of providers and ask users (possibly from a drop-down menu) about distinguishing factors between them. This could be an indicator of “user information and ability to compare across providers”.
2. The second step is to consider which confounding factors are relevant for this indicator. For example:
  - A time trend - there may be a learning trend among users which could improve information and ability to compare over time regardless of policy interventions
  - The impact of other interventions
  - Other market developments, such as availability of and user engagement with comparison services, innovations that affect user ability and/or cost of becoming informed about alternatives
3. A regression analysis would then be performed, and this will be able to estimate the effect of the conduct requirement on the indicators of interest.

<sup>49</sup> See Annex A 1.2 Conduct requirements ToC Figure 8: Trust and transparency.

- B. **Differences-in-Differences (DiD) Estimation.** This method has a significant advantage in that it can deal with confounders that are unobservable. Impact is measured by studying the outcome of interest before and after the intervention for two groups; one which was subject to the regulation and the other not<sup>50</sup>. The method requires panel data (i.e., cross section and time series) on the outcomes of regulation as well as other control variables, both before and after the regulation took effect as well as in jurisdictions that did not adopt the regulation. Crucially, the method requires that pre-intervention trends in the variables of interest are identical in jurisdictions with and without the intervention. Variants of this approach have been estimated for assessing the impact of particular regulatory variations in the telecoms sector and in the electricity sector.<sup>51</sup>

$$Y = \beta_0 + \beta_1 * [Time] + \beta_2 * [Intervention] + \beta_3 * [Time * Intervention] + \beta_4 * [Covariates] + \varepsilon$$

Where  $Y$  is the outcome variable (e.g. “prices”, see example below),  $Intervention$  is a dummy variable indicating the treatment (=1) and control (=0) group,  $Time$  is a dummy variable indicating pre (=0) and post (=1) treatment;  $Time * Intervention$  is a dummy variable indicating whether the outcome was observed a) in the treatment group and b) after the intervention (=1), or any other case (=0).

The coefficient  $\beta_0$  is the average outcome of the control group before the treatment, while  $\beta_1$  measures the change in the average outcome of the control group post-treatment and  $\beta_2$  measures the difference between the treatment and the control group before the treatment.

$\beta_3$  – the key parameter of interest – indicates how the average outcome of the treated group changed post-treatment, compared with the outcome had the intervention not occurred.

**Example 2: assess the impact of the DMU and the Pro-Competitive Regime on “prices” to users (Conduct Requirements - Fair trading<sup>52</sup>)**

1. The first step is to specify a model and a data collection method
  - This involves defining what the indicators of interest for assessing prices to users are.
  - A data collection strategy must then be specified to collect prices in markets without the intervention. This can be, for example, non-UK jurisdictions without equivalent regulatory interventions.
  - Price proxy variables of interest may be: basic subscription costs, premium subscription costs, costs of add-on services, incidence of ad insertions, average revenue per user (the more relevant measures of price will need to be considered in each case)
2. The second step is to consider which confounding factors are relevant for this indicator and include explanatory variables representing these. For example:

<sup>50</sup> HM Treasury (2020a).

<sup>51</sup> See e.g. Gutierrez (2003) as well as Maiorano and Stern (2007) for telecommunications and by Cubbin and Stern (2006) for electricity.

<sup>52</sup> See Annex A 1.2 Conduct requirements ToC Figure 8: Fair trading requirements

- Other factors that affect general price levels; changes in product characteristics
  - The impact of other interventions
  - The DiD econometric approach does not require that country-specific effects are controlled for as long as they can be expected to have a stable impact on prices over the period for which data is collected.
3. Using the observed trend of the indicators in the control group (jurisdiction without the intervention) allows for a counterfactual to be obtained for what the indicators for the jurisdiction that had the intervention would likely be (had they not had the regulatory intervention). Comparing this to the observed outcome as a result of the intervention allows an assessment of the intervention's impact.

#### 4.4 Approach to value for money evaluation

Value for money evaluations assess the benefits and costs of an intervention. Currently, the CMA undertakes a yearly impact assessment<sup>53</sup> which includes a calculation of the ratio of direct financial benefits to consumers and costs for its principal tools. It is suggested that the DMU is included in this calculation.

#### 4.5 Definition and construction of indicators

Depending on what aspects of the DMU & pro-competition regime the evaluation will focus on, different indicators may be appropriate. In all cases, selected indicators should seek to meet several criteria:<sup>54</sup>

- **Relevance:** to the purpose of the performance framework and to what the DMU and the pro-competition regime aim to achieve
- **Attributability:** the indicator measures something that can be influenced by actions and policies of the DMU & pro-competition regime
- **Well-defined:** the indicator's definition is unambiguous, its interpretation is clear, and data can be collected consistently
- **Timeliness:** data can be gathered within a timeframe such that it can inform decision-making and / or provide accountability
- **Reliability:** based on consistent data collection processes (e.g. over time and across units)
- **Verifiability:** data collection and construction of indicators based on clear documentation allowing external validation

Potential outcome variables relevant for an evaluation of digital markets performance are provided below. These can be grouped into measures of user engagement; measures of competition; measures of market outcomes; and measures of quality, as presented in the table below<sup>55</sup>.

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<sup>53</sup> CMA (2021a).

<sup>54</sup> National Audit Office (2016).

<sup>55</sup> Annex 2 presents a summary of indicators and data collection strategies used to assess and identify harm in digital markets in nine recent studies and reports.

Table 5 Indicators relevant in evaluating the performance of digital markets regime

Category	Indicator	Data collection and methodology
Measures of user engagement	<ul style="list-style-type: none"> <li>■ <b>Users get informed</b> about range of providers / offers</li> <li>■ Users are able to <b>make comparisons</b> across providers/ across offers</li> <li>■ Users <b>act upon</b> these comparisons switching in favour of better value for money providers, (including for example, Terms and Conditions that offer greater control over private data)</li> </ul>	<ul style="list-style-type: none"> <li>■ To measure user information about existing alternatives and ability to compare them, data from consumer surveys can be used.</li> <li>■ To assess the extent to which users act upon information, data from consumer surveys can be used. A few questions to each of a sample of users could be used to identify, for each user, their best value for money provider. The percentage of respondent that are not with their best value for money provider is one indicator of interest. (In a better-functioning market, the fraction of consumers that remain with low value for money providers should decrease)</li> </ul>
Measures of competition	<ul style="list-style-type: none"> <li>■ <b>Market concentration:</b> Market shares of SMS firms; Herfindahl-Hirschman Index (HHI), concentration ratios, import shares (shares can be shares of revenue, of users, of traffic, and of time spent on service)</li> <li>■ <b>Variability of market shares</b></li> <li>■ <b>Number of firms; rates of firm entry and exit</b></li> <li>■ <b>Switching rates and penetration of multi-homing</b></li> <li>■ <b>Number of acquisitions</b> made by SMS firms</li> <li>■ <b>Use of bundling, tying, exclusive dealing</b> and transaction conditions that have similar effects</li> <li>■ <b>Profitability and mark-ups</b> – such as EBIT margins (earnings before income and tax) and this can be compared against what a fair rate of return is for investors. (Return on capital employed vs the weighted average cost of capital)</li> </ul>	<ul style="list-style-type: none"> <li>■ The indicators in this group can be constructed from market data that the DMU could regularly collect</li> <li>■ Profitability and mark-ups in relation to the UK market may be difficult to pinpoint; UK revenues per UK user may be feasible to measure but trends on that indicator could be driven by multiple factors and would also need to be compared to trends in other jurisdictions</li> </ul>

Category	Indicator	Data collection and methodology
Measures of market outcomes	<ul style="list-style-type: none"> <li>■ Prices to users such as <b>subscription fees</b></li> <li>■ Prices to developers such as <b>commission fees</b></li> <li>■ Prices to advertisers such as <b>price of ads</b> – in digital advertising markets, price-bid ratios have been used to compare the surplus that providers capture from advertisers</li> <li>■ Quantity of <b>user data</b> collected</li> <li>■ <b>Revenue share</b> between publishers and content providers – to measure effective market power and bargaining power in the digital advertising market, the revenue share between publishers and content providers for every £1 of advertising spend could be tracked</li> <li>■ <b>Innovation inputs</b> – such as R&amp;D expenditure or intensity (expenditure divided by firm revenues). There is a need to be careful here about how firms define R&amp;D – some may include engineering costs or expenditure may be influenced by tax minimisation incentives</li> <li>■ <b>Innovation outputs</b> – such as number of patents, number of scientific papers published, number of software updates, number of new attractive features and functionalities, number of new products or productivity improvements</li> <li>■ <b>Ecosystem-wide outcomes</b> – attractiveness of the SMS ecosystem to developers; innovation by developers; number of developers; profitability of developers</li> </ul>	<ul style="list-style-type: none"> <li>■ Survey of developers/other third parties – it will be important (in the case of ecosystems) to track the extent to which developers are incentivised to participate in the ecosystem and to innovate. Developers may also provide valuable perspective on interoperability issues, multi-homing, etc</li> </ul>

Category	Indicator	Data collection and methodology
Measures of quality	<ul style="list-style-type: none"> <li>■ <b>Incidence</b> of ad insertions or ad exposure</li> <li>■ <b>Investment in content</b> by SMS firms; investments in content by other ecosystem participants; other investments in quality by SMS firms, such as content moderation</li> <li>■ <b>Terms and conditions (T&amp;Cs) and particular contract clauses</b></li> </ul>	<ul style="list-style-type: none"> <li>■ Ad exposure – mystery shopping approach and/or user survey; as a measure of (low) quality, the number of ad impressions a user sees over a certain period of time, while accessing certain categories of content</li> <li>■ The DMU or the CMA can collect information about content investment and other quality investments from companies operating in the relevant markets</li> <li>■ T&amp;Cs - the DMU/CMA to maintain records of T&amp;Cs by SMS firms and other firms operating in the target market and related markets; paying particular attention to changes in T&amp;Cs that are relevant in light of DMU interventions; it is important to track T&amp;Cs for businesses users as well as for consumers/final users</li> </ul>

## 4.6 Data collection strategy

The DMU will want to consider at an early stage the data that it wishes to collect in order to monitor and evaluate the impacts of its work and the pro-competition regime it oversees. We recommend that data collection should be initiated before the impacts from the interventions are felt and data should be collected consistently over time, so that the evolution of relevant indicators can be tracked.

There are several approaches to data collection for the DMU to consider; most of these will be required in conjunction with each other:

- **Reporting requirements on SMS firms** – reporting requirements can be used to track data of relevance to the evaluation of market impacts
- **Surveys** – of a) consumers/end users and b) business users, including e.g. developers and other third parties.
  - Consumers/end users can be surveyed about their ability and willingness to engage with the competitive process, rates of single-homing versus multi-homing, use of time across different platforms, perceptions about switching costs, switching behaviour, perceptions of quality-of-service improvement or deterioration, perceptions about innovation and valuation for new services, level of ad impressions, dislike for ads, ad targeting, perceptions around choice and control over personal data, etc
  - For example, BEIS used a CATI survey tool to ask retailers who used online platforms to sell goods (such as eBay and Amazon), what issues were experienced relating to possible harmful and anti-competitive practices
- Publicly available information
- Mystery shopping



- Tracking T&Cs of SMS firms and other firms operating in the market and in related markets
- RFIs and other information gathering powers the CMA currently holds<sup>56</sup>

All data should be collected with a specific purpose and treated in a manner proportionate to its value and commercial confidentiality.

## 4.7 Resources and responsibilities

Evaluation incurs costs, which must be set against the likely benefits.<sup>57</sup> In the case of the DMU and the pro-competition regime, adequate resources for evaluation can be justified given that the introduction of the DMU & pro-competition regime is particularly high-profile; there is significant uncertainty as to the likely impacts and effectiveness of the intervention; and evaluation can be particularly influential in evolving future policy.

Resources that need to be budgeted for include:

- Human resource – internal staff, including any training needed
- External consultants
- Materials, equipment
- Data collection (baseline and follow-up)
- Data analysis
- Seeking and managing stakeholder involvement
- Reporting and communicating findings, internally and externally

The responsibility for reporting on the wider impacts of the DMU & pro-competition regime will be set out in legislation. As in the reporting framework that has been set out for the CMA in 2014<sup>58</sup>, this responsibility is likely to rest primarily on the DMU or jointly on the DMU and the CMA.

The CMA has an obligation to report annually on its assessment of wider benefits of its work, for example on growth, business and consumer confidence in markets, compliance with competition law and deterrence of anti-competitive behaviour.<sup>59</sup> A similarly structured obligation to report can be given to the DMU, with the focus more narrowly centred on digital market outcomes.

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<sup>56</sup> Information on the processes that the CMA uses when using its powers under the Competition Act 1998 to investigate suspected infringements of competition law: see CMA (2021b). It's assumed that the DMU could resort to similar powers or that the CMA would use such powers on behalf of the DMU. It is already the case that other regulators have similar information gathering powers. The FCA and the PSR, as sectoral regulators, have the same powers as the CMA to require the production of documents and information, to interview individuals that have a connection with a business under investigation and to search premises. Further details about these powers are given in CMA (2014).

<sup>57</sup> National Audit Office (2013), p. 13.

<sup>58</sup> CMA (2015).

<sup>59</sup> Annual reporting is also required on “the delivery of a target of direct financial benefits to consumers of at least ten times its relevant costs to the taxpayer (measured over a rolling three-year period)”; and “the ratio of direct financial benefits to consumers and costs for its principal tools”. Department of Business, Innovation & Skills (2014).

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## 4.8 Summary

This chapter provides guidance on how evaluation of the DMU and the pro-competition regime should be approached as part of the wider monitoring and evaluation framework. It provides a structure within which evaluations can be designed, from the formulation of evaluation questions and the selection of evaluation methods, to the definition of relevant indicators and the collection of data.

Given the complexity of the interventions envisaged under the pro-competition regime, a mix of process and impact evaluation approaches will be required to establish that the regime functions as intended and achieves the benefits that provide its rationale. The table below summarises the types of evaluations most relevant to the different elements of the regime.

**Table 6 Focus of evaluations for the elements of the pro-competition regime for digital markets**

<b>DMU activities</b>	<b>Focus of the evaluation</b>	<b>Data and information sources for the evaluation</b>
SMS designation	Process evaluation	Information and data from monitoring tasks
CRs	Process evaluation Impact evaluation	Data collection for construction of specific indicators
PCIs	Process evaluation Impact evaluation	Data collection for construction of specific indicators

Both theory-based and quasi-experimental methods are likely to be appropriate for the evaluation of the DMU and the pro-competition regime for digital markets. Certain elements of the intervention may allow for the application of quasi-experimental methods, while some may be better suited for theory-based methods. Quasi-experimental methods, in particular, tend to be heavily dependent on the collection of relevant and reliable data. The table below lists the key candidate methodologies that should be considered in this context.

**Table 7 Candidate methodologies for impact evaluation of DMU activities**

<b>Theory-based</b>	<b>Quasi-experimental</b>
Process Tracing and Contribution Analysis	Regression - multivariate
Simulation methods	Regression - with control group

## 5 Summary and next steps

This report has set out a basic structure and advice which the government can use to develop a comprehensive, appropriate and proportionate evaluation approach for the pro-competition regime and DMU. The framework is made up of the ToC, the logical framework and evaluation guidance.

The ToC captures the key elements of the regime and how it is expected to achieve change within digital markets. Each component of the regime will have a set-up, transition and operational phase, and so we have found it useful to recognise this in some of the ToC diagrams developed. The next step for government will be to further develop and finalise the ToC.

The logical framework provides a framework for the monitoring approach to be developed and secondary data for evaluation that is planned for. The logical framework presented in this report suggests elements of the ToC that should be prioritised and possible indicators to track. The logical framework is an early draft and therefore needs further development, especially on: outcome and impact indicators which for digital markets are challenging<sup>60</sup>; data sources; roles and responsibilities; and timings.

Finally, we have suggested approaches to process and impact evaluations. For the latter we have suggested that theory-based and experimental methods should be used. These methods require a well-defined ToC and good data to be available, and so government will need to make sure this is addressed before implementing its M&E plan.

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<sup>60</sup> CMA (2022a).

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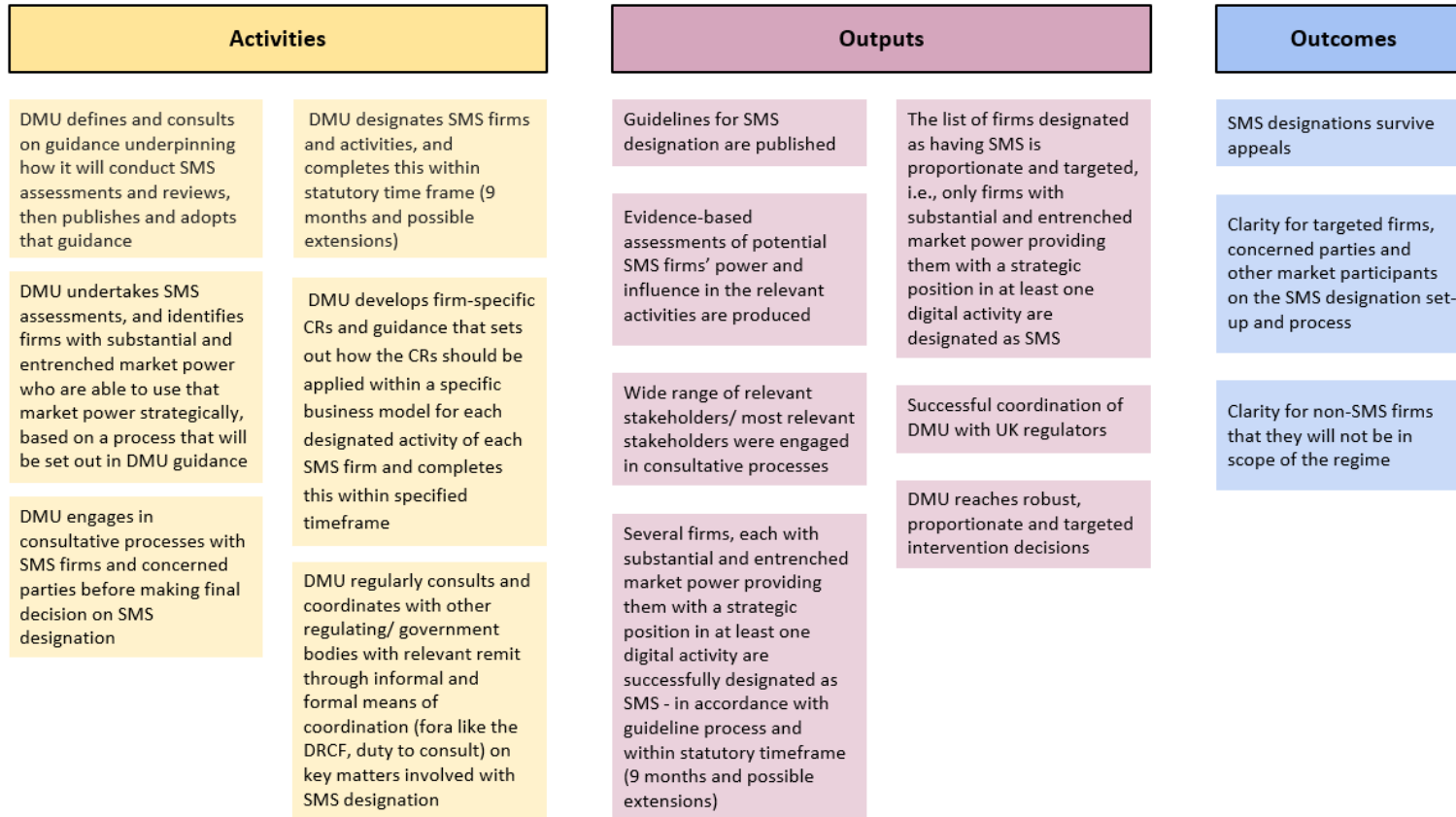
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## Annex 1 Theory of change diagrams<sup>61</sup>

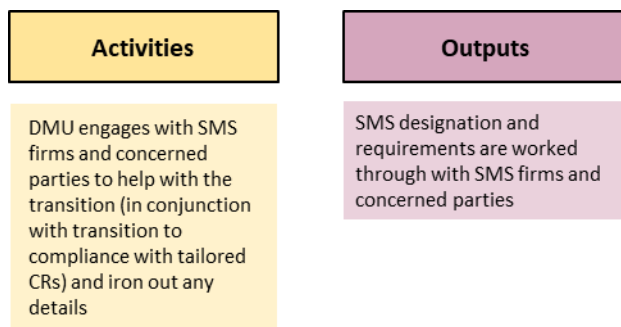
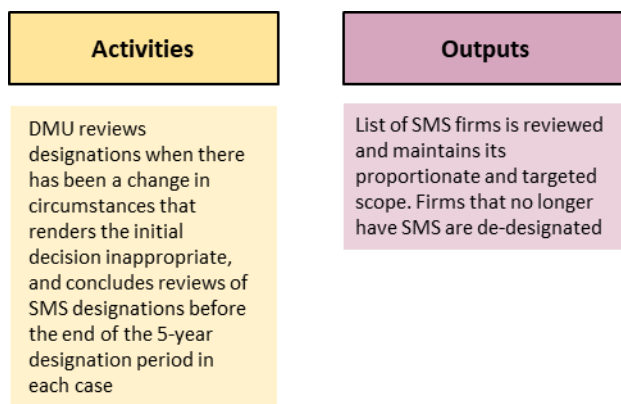
### A1.1 SMS designation

Figure 4 Designation of SMS firms Theory of Change

SMS Theory of Change Phase 1 set up - the DMU sets up the guidance for the SMS designations; assesses and designates the SMS firms in scope of the regime



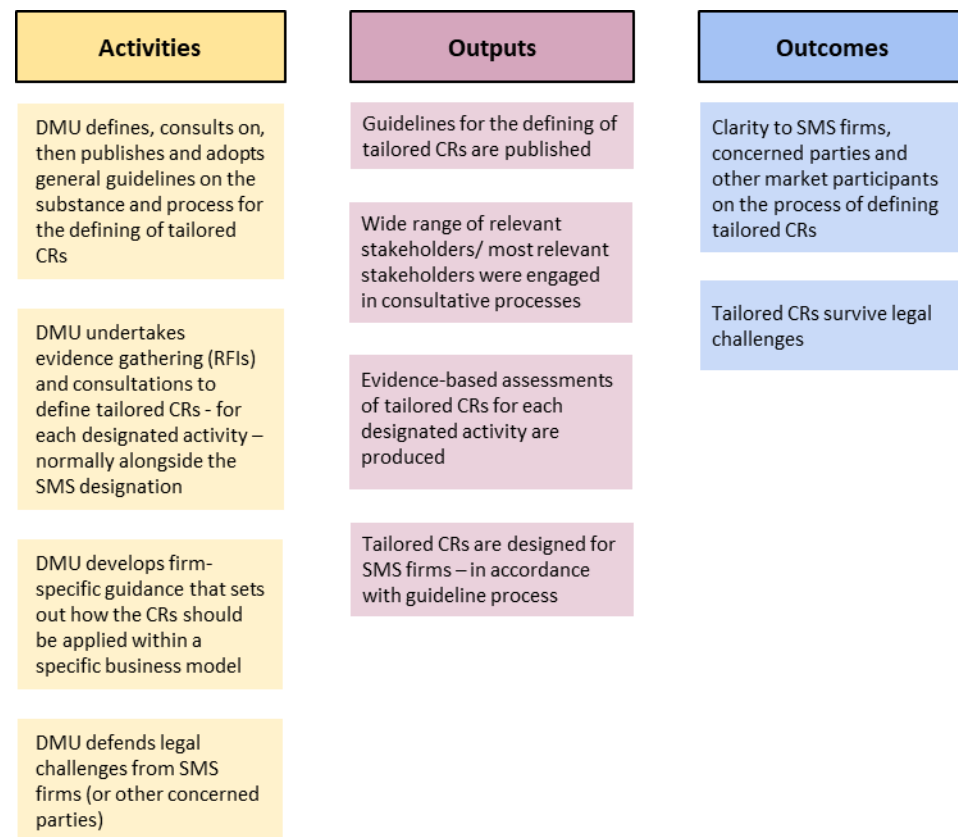
<sup>61</sup> This annex provides the full set of ToC diagrams. The cross-intervention ToC in chapter 2.2 is not repeated.

**SMS Theory of Change Phase 2 Transition** – SMS firms can start preparing for the implementation of new requirements in the form of tailored CRs and PCIs**SMS Theory of Change Phase 3 Operation** – SMS firms can start preparing for the implementation of new requirements in the form of tailored CRs and PCIs

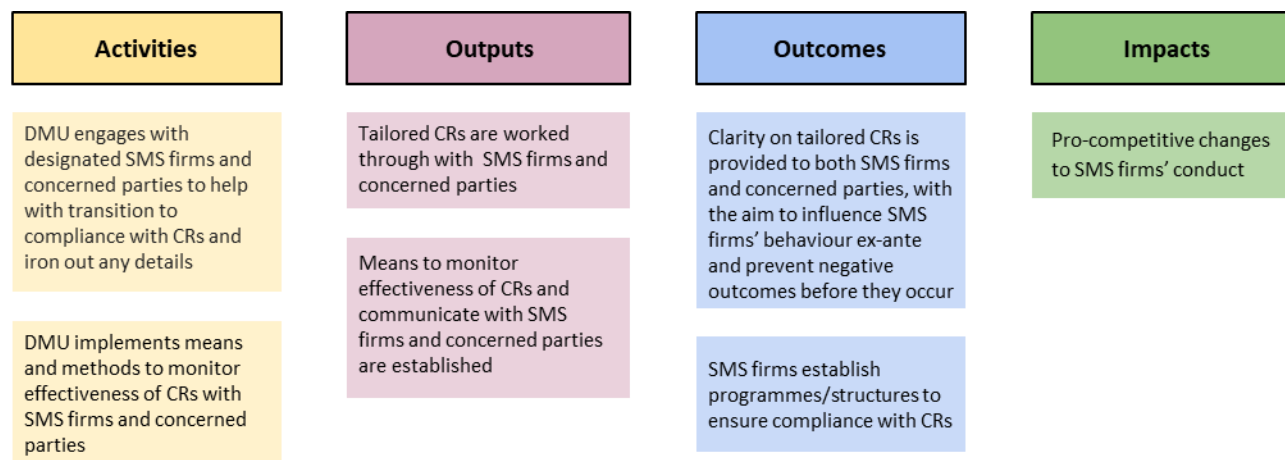
## A1.2 Conduct requirements

Figure 5 Conduct requirements Theory of Change - General process

**Conduct Requirements Theory of Change Phase 1: Set-up** – the DMU sets up the guidance for the defining of tailored CRs; assesses and develops firm-specific guidance and tailored CRs for the designated activities of each SMS firm



### Conduct Requirements Theory of Change Phase 2: Transition – SMS firms implement the changes required to be compliant with the tailored CRs



**Conduct Requirements Theory of Change Phase 3: Operation** – the DMU continuously monitors SMS firms’ compliance with the CRs and regularly reviews the effectiveness of them

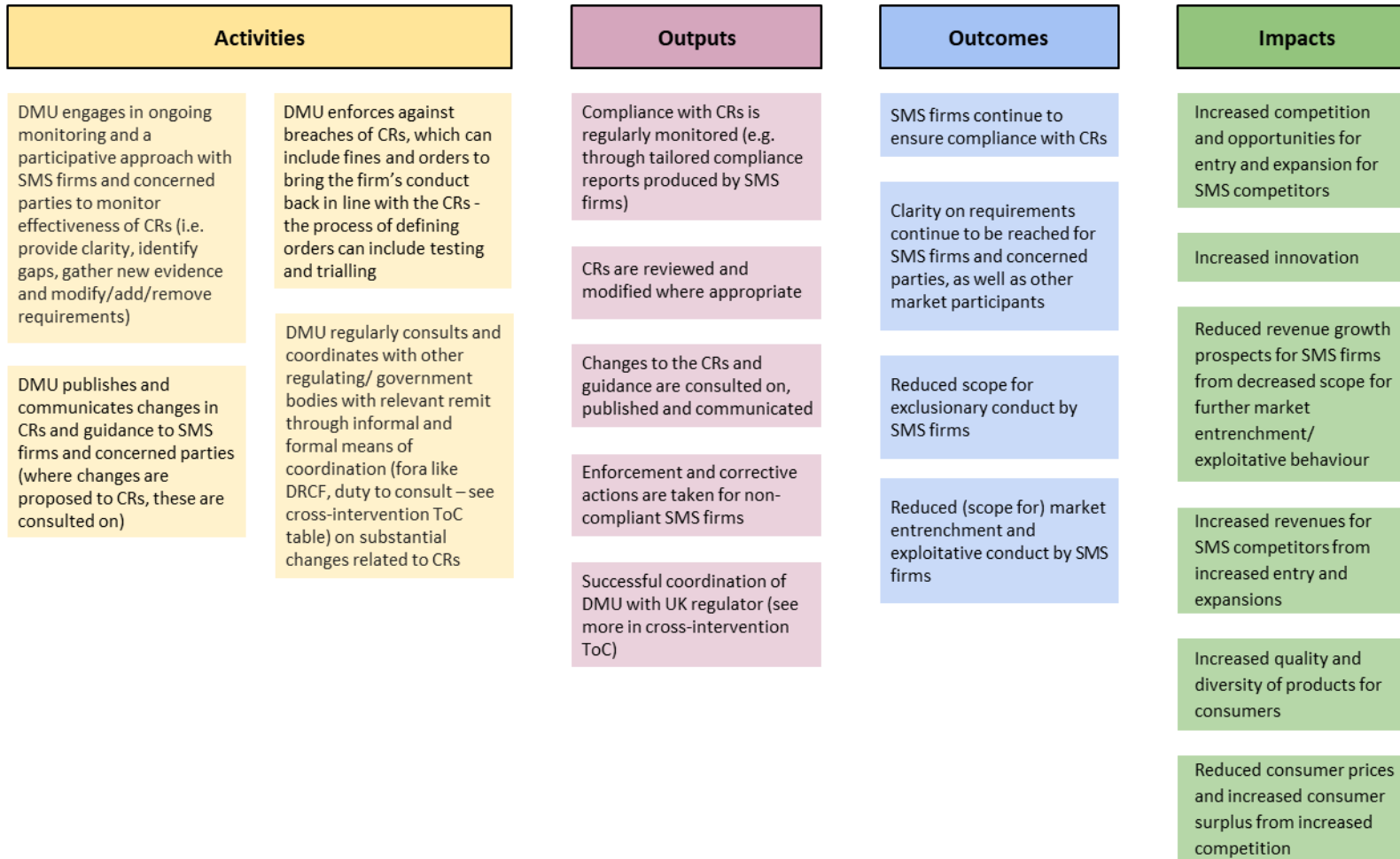


Figure 6 Conduct requirements Theory of Change – Fair trading requirements

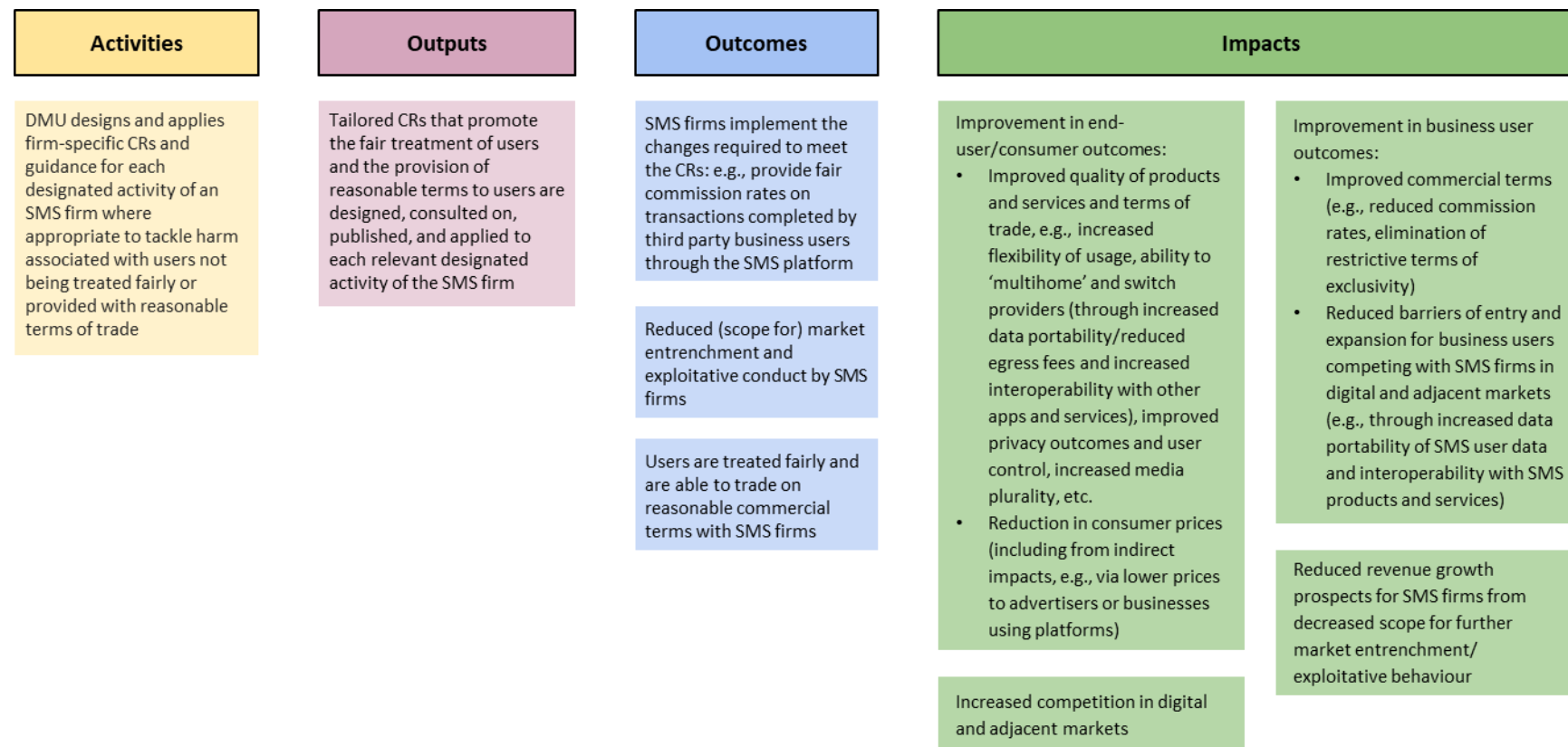


Figure 7 Conduct requirements Theory of Change – Open choices

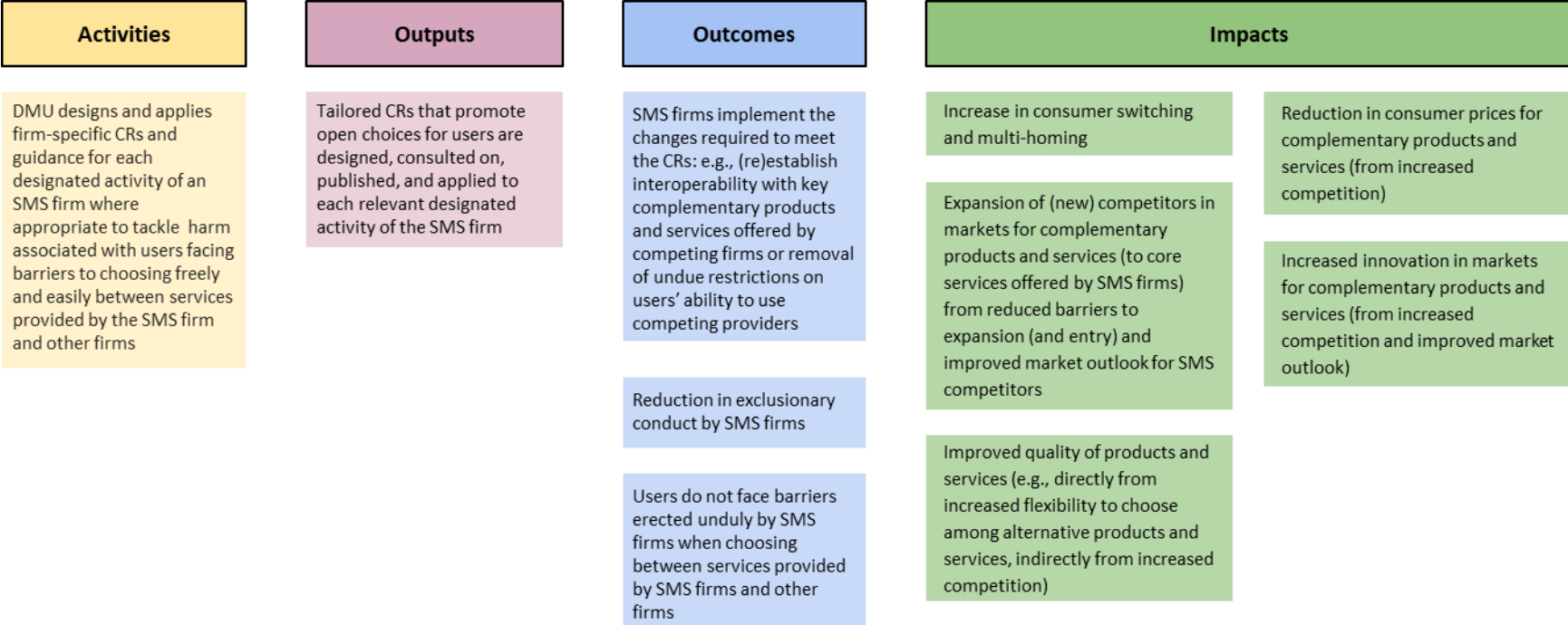
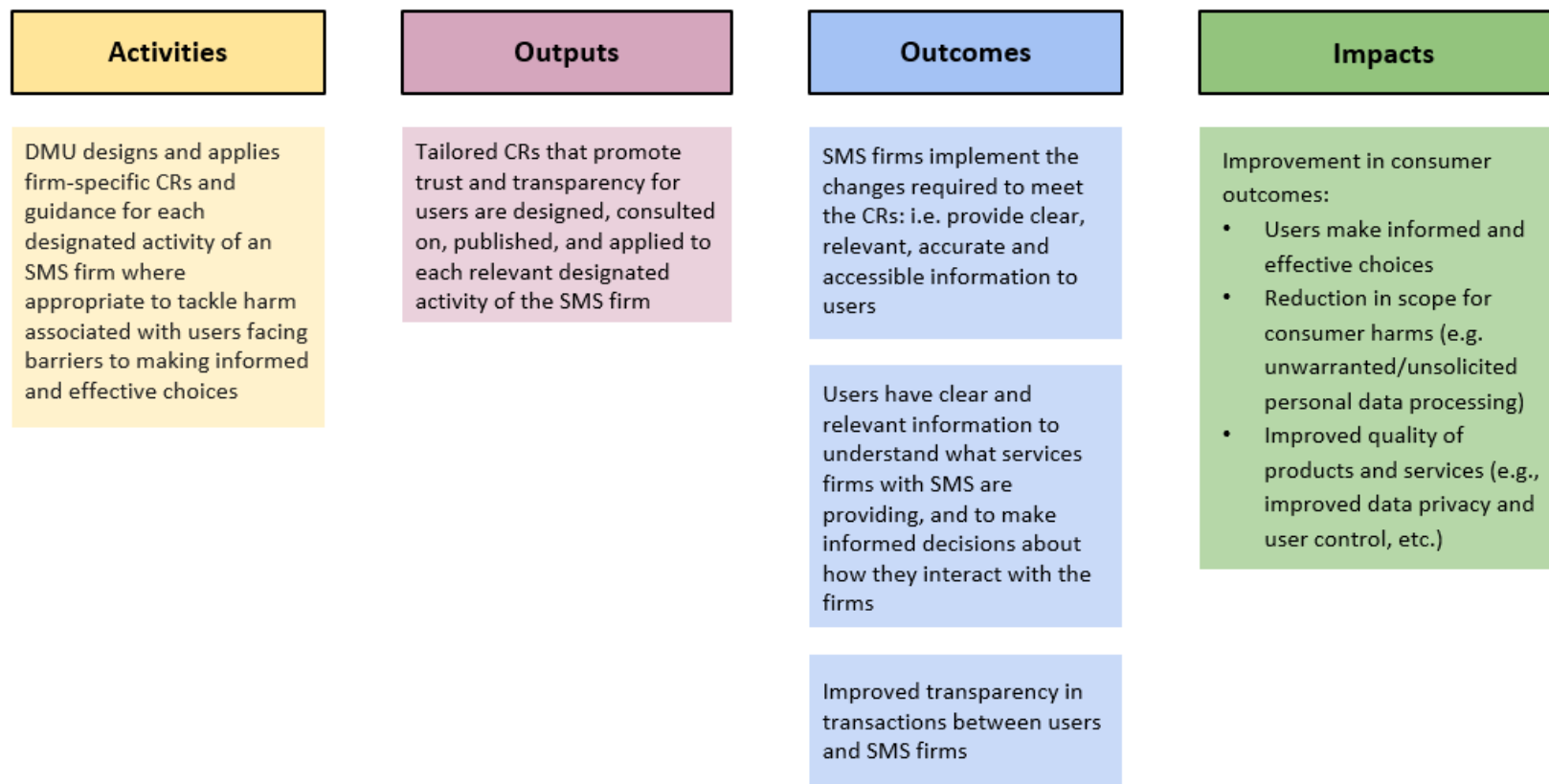


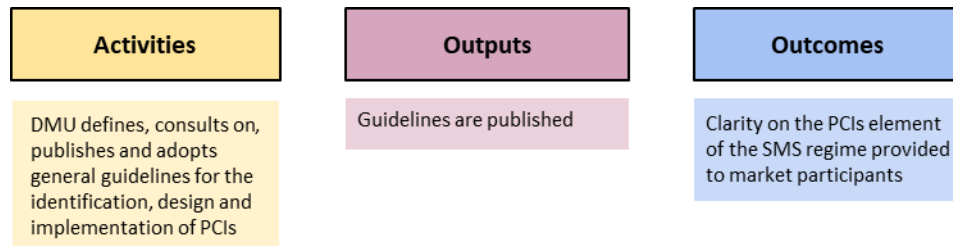


Figure 8 Conduct requirements Theory of Change – Trust and transparency



### A1.3 Pro-competition interventions

Figure 9 Pro-Competitive Interventions Theory of Change: Prior to the design and implementation of any PCIs



**Figure 10 Pro-Competitive Interventions Theory of Change: Pre-Implementation Trialling, reviews and amendments/replacement of PCIs**

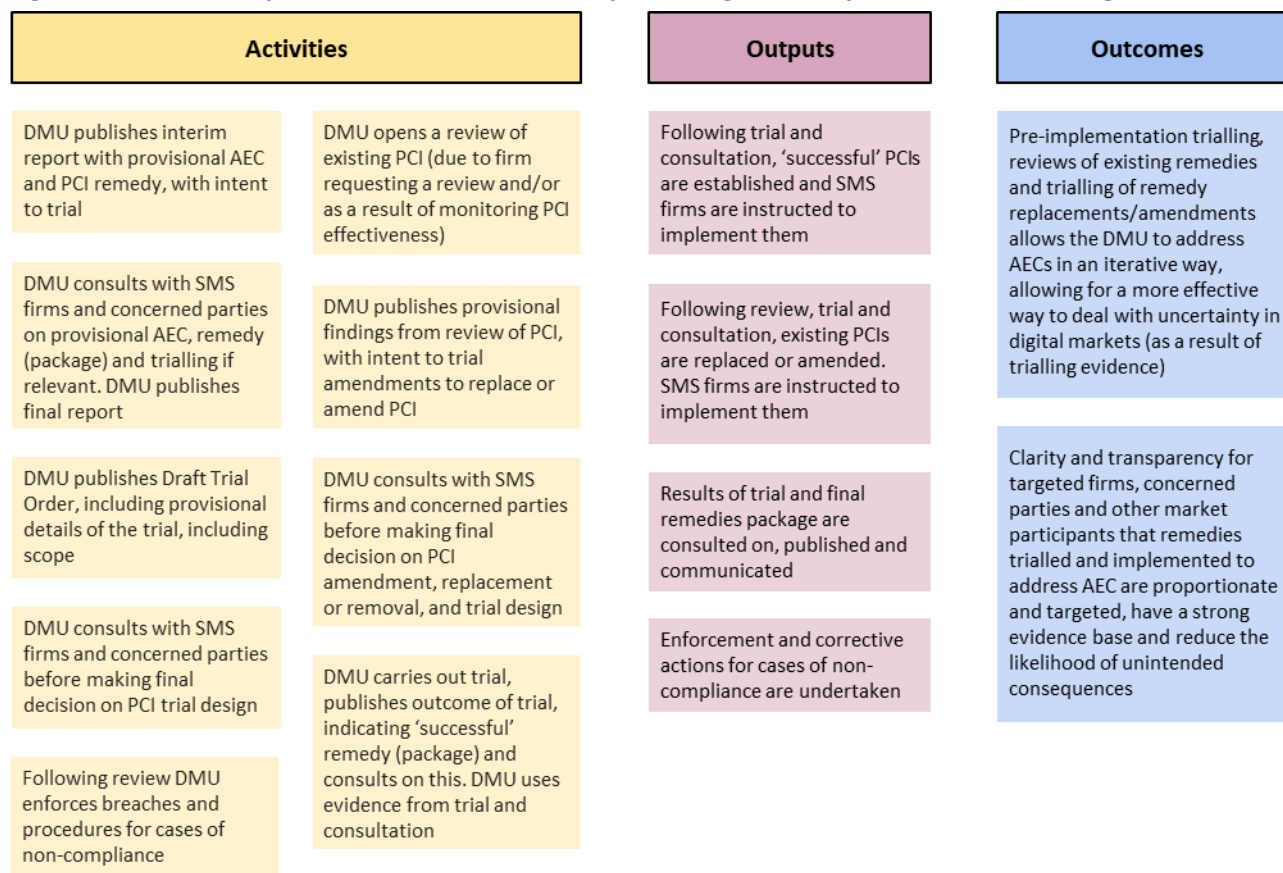


Figure 11 Pro-competitive interventions Theory of Change – Access to data

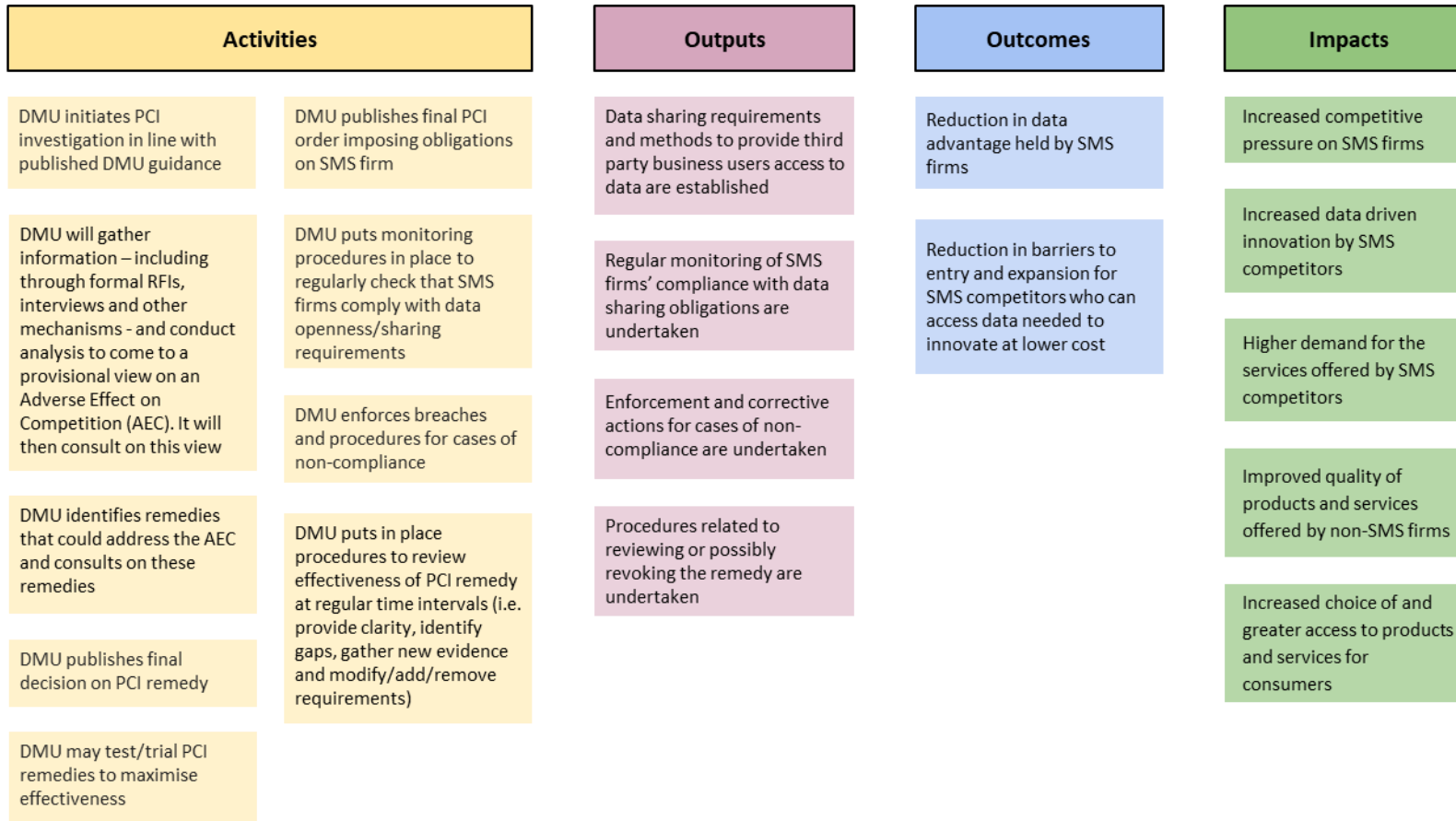


Figure 12 Pro-competitive interventions Theory of Change – Interoperability

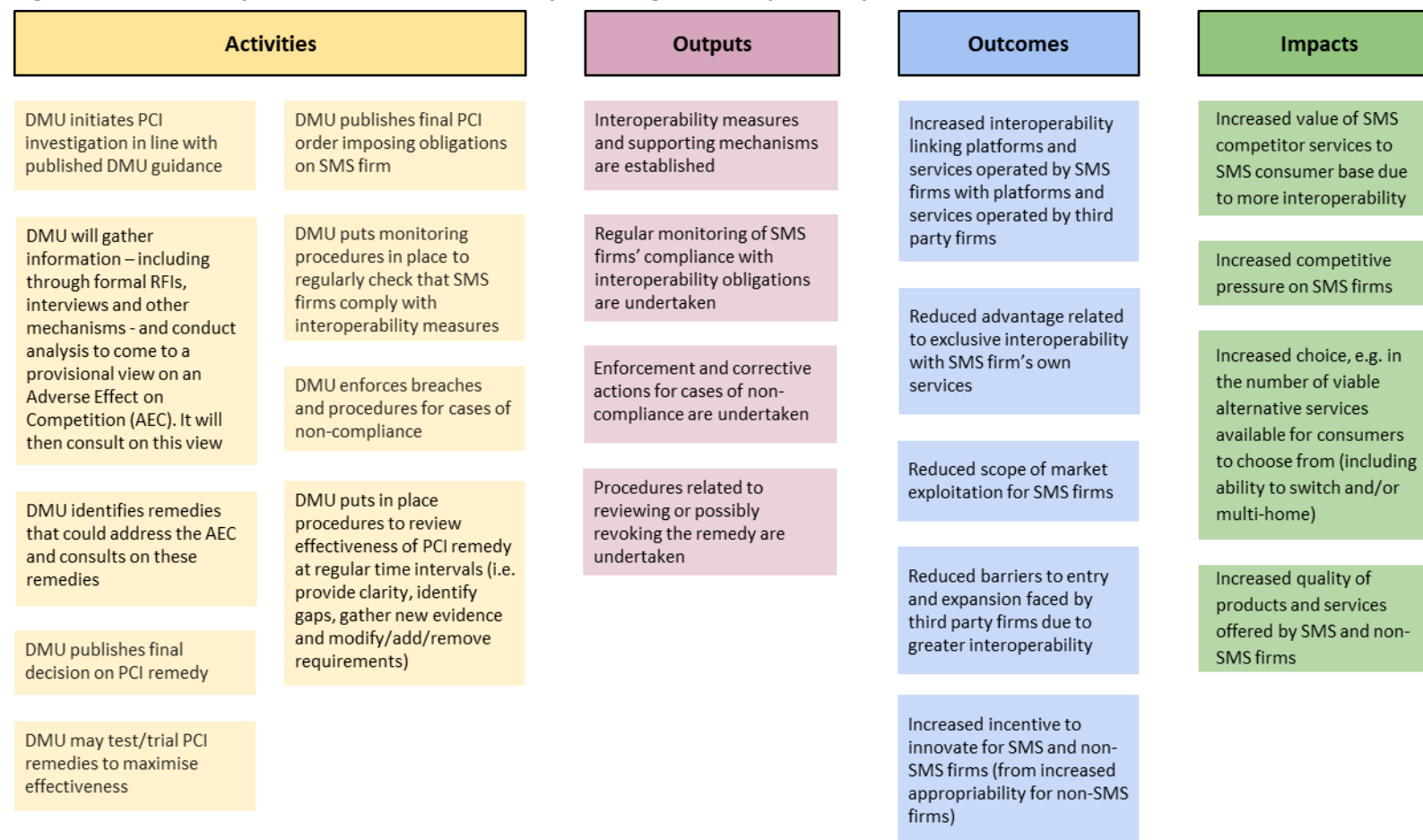


Figure 13 Pro-competitive interventions Theory of Change – Choice architecture

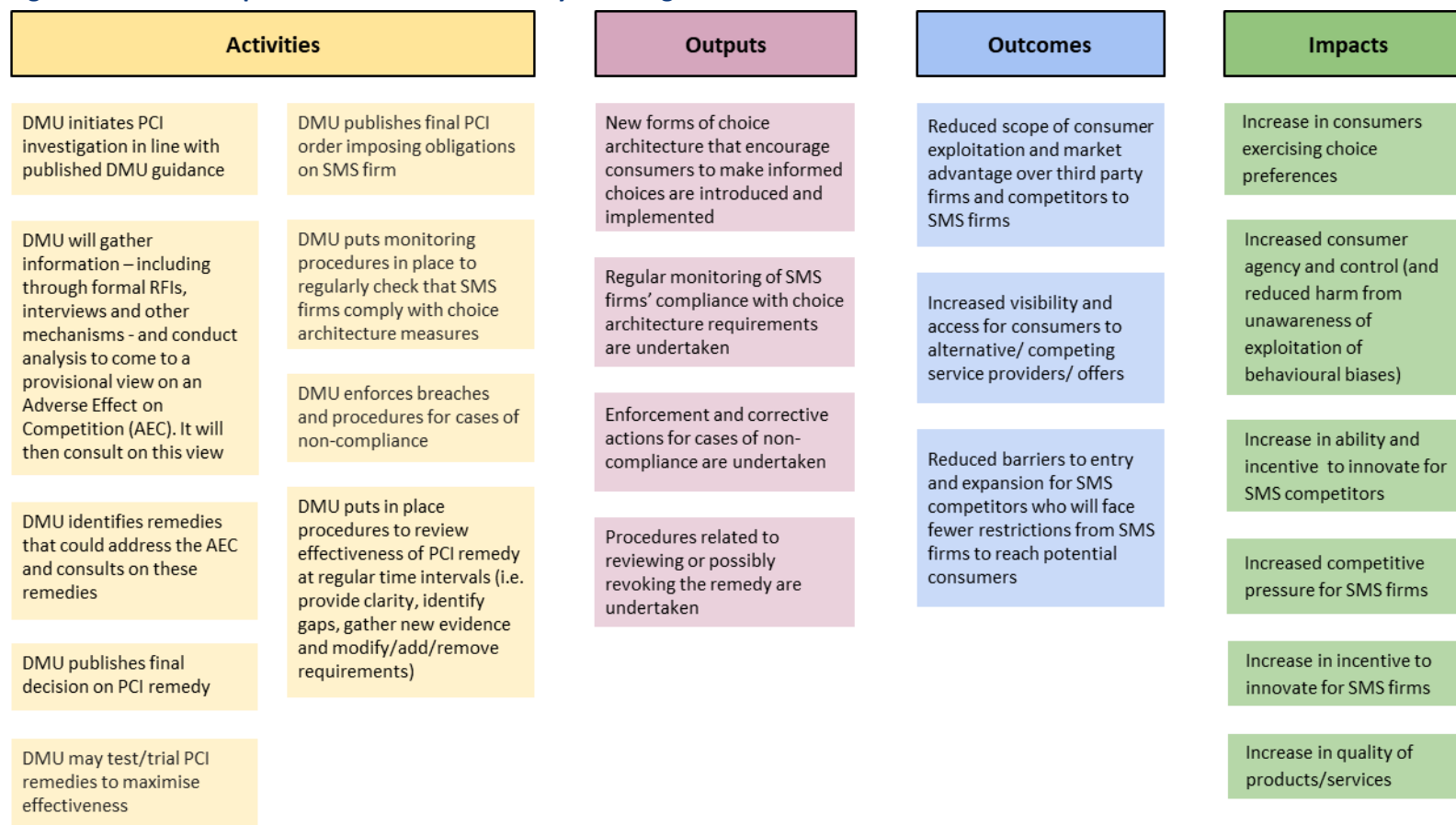


Figure 14 Pro-competitive interventions Theory of Change – Greater control over personal data

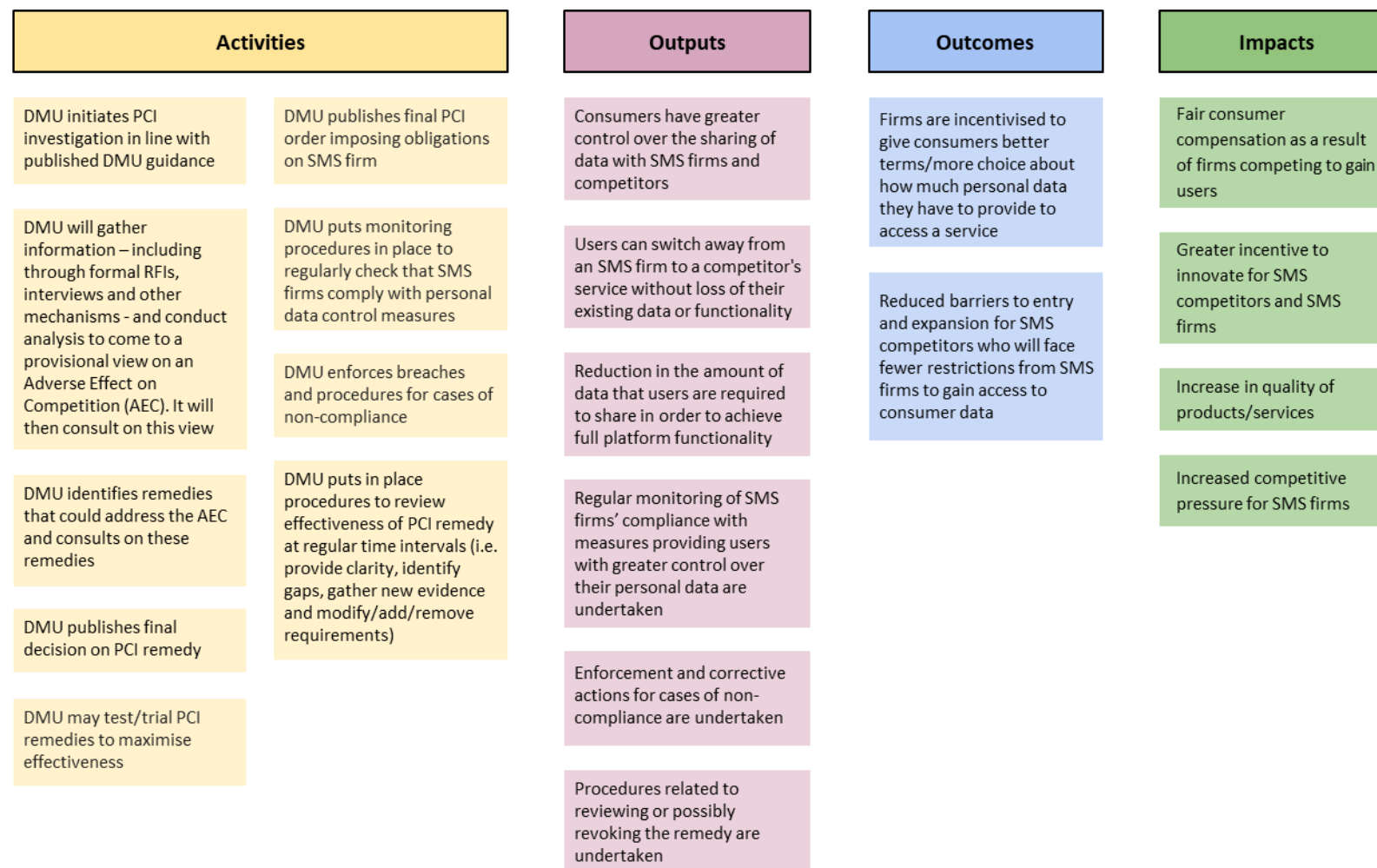
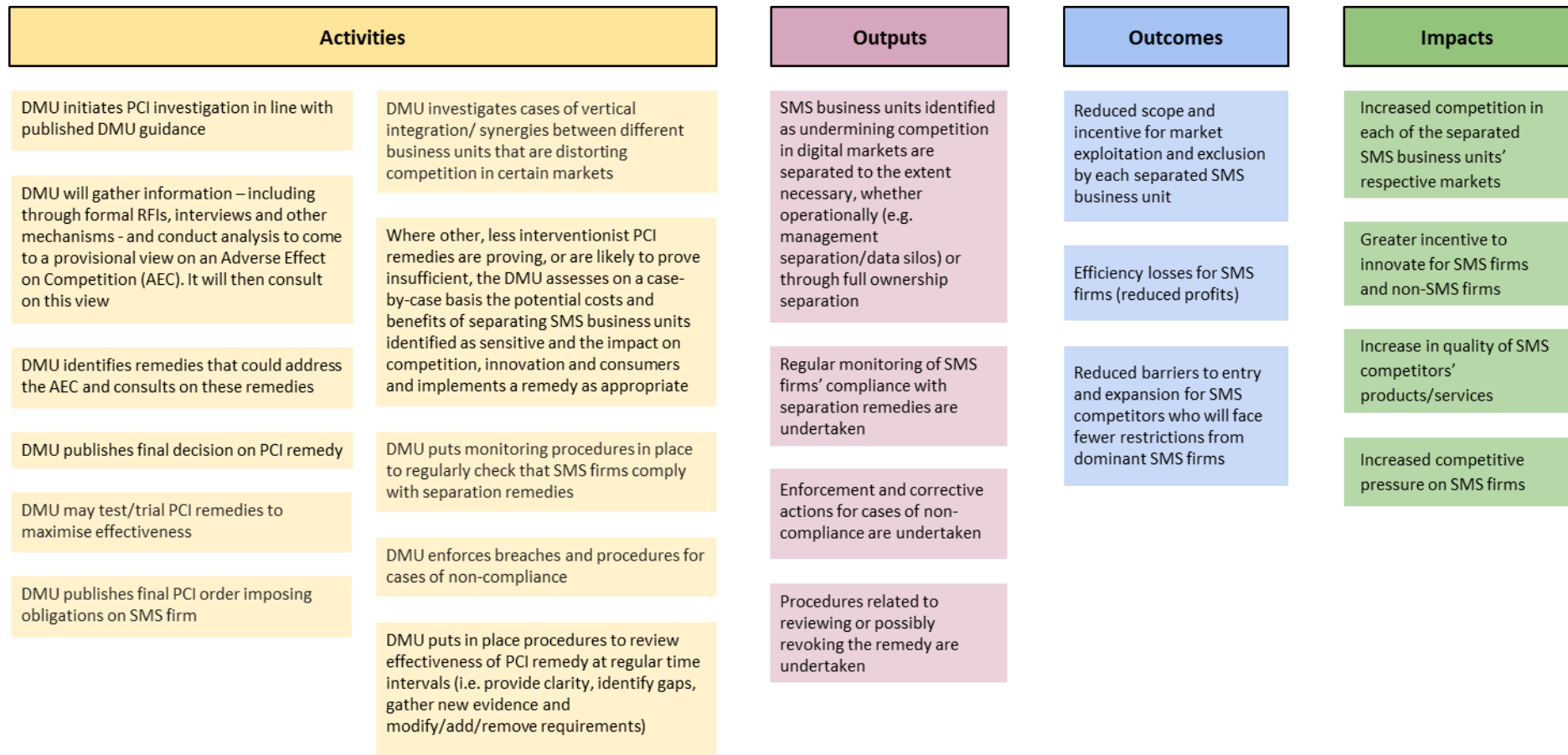


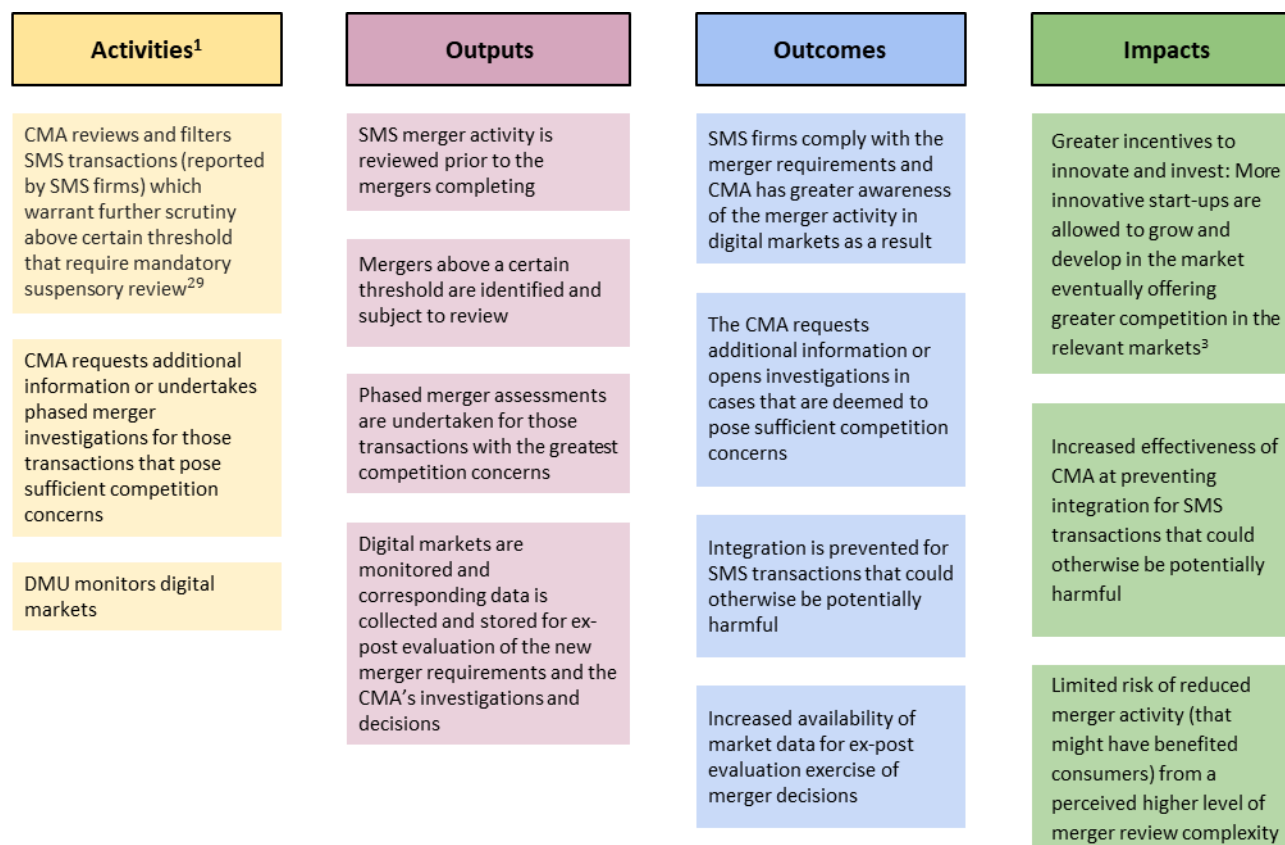
Figure 15 Pro-competitive interventions Theory of Change – Separation remedies





## A1.4 New competition merger requirements

Figure 16 Mergers Regime Theory of Change



<sup>1</sup> Activities are not specific to the DMU - the merger process will primarily still be completed by the current merger teams that are within the CMA

<sup>2</sup> SMS firms will be required to inform the CMA of all mergers, and mergers above a certain threshold will be subject to mandatory suspensory review by the CMA

<sup>3</sup> However, some innovative start-ups may not grow due to the closing off of an exit route

## Annex 2 Example of indicators and data collection strategies from nine recent studies

Indicators of harm can play an important role in the M&E framework for the DMU & pro-competition regime because they provide a measure of the extent to which a given market departs from an effective competition ideal. The evaluation of impacts can be informed by tracking the behaviour of such indicators. The selection of indicators, the collection of relevant data and the application of analytical methods are the key operational steps in the implementation of the evaluation strategy (see Figure 1).

An indicator of a certain type of harm would be expected to evolve favourably alongside an intervention of the DMU which targets that particular harm.

The table below shows the key indicators and data collection strategies used to assess and identify harm in digital markets in nine recent studies and reports.

**Table 8 Indicators and data collection approaches used to assess and identify potential harm in digital markets**

Indicators and data collection approaches
<u>Competition Commission Guidelines for Market Investigations<sup>62</sup></u>
<p><b>Unilateral Market Power:</b></p> <ul style="list-style-type: none"> <li>■ High profits</li> <li>■ High price cost margin</li> <li>■ Low single-firm demand elasticities</li> <li>■ Adverse market effects (high prices, low quality and limited choice)</li> <li>■ Track the number of products and/or technologies being developed</li> <li>■ Research and development expenditure relative to sales</li> <li>■ Market share trends</li> </ul> <p><b>Coordinated action harm:</b></p> <ul style="list-style-type: none"> <li>■ High and stable profitability over time</li> <li>■ Parallel movements in prices without same movements in corresponding costs</li> <li>■ Vertical relations harm: <ul style="list-style-type: none"> <li>■ Impact of vertical relationships on the evolution of competition within a market</li> <li>■ Assess conduct and strategic interactions of relevant market participants</li> </ul> </li> </ul> <p><b>Foreclosure harm:</b></p> <ul style="list-style-type: none"> <li>■ Analyse profitability and financial data to assess whether foreclosure would be a profitable strategy</li> </ul>

<sup>62</sup> Competition Commission (2013).

**Indicators and data collection approaches****Competition Bureau Canada: Investigation into alleged anti-competitive conduct by Google<sup>63</sup>****Prevention of multi-homing:**

- Clauses in Terms and Conditions (T&Cs) preventing software developers from helping advertisers manage their campaigns on Google and using this information on other platforms without technical or efficiency justifications for such clauses
- Clauses in T&Cs preventing publishers from using competitors' services

**Search manipulation:**

- Changes to Google's search algorithm were intended to exclude rivals

**Preferential treatment of own products and services:**

- Bundling

**Lock-in of users and suppliers (through restrictive syndication and distribution agreements):**

- Switching activity data
- Control of information

**DMU Impact Assessment<sup>64</sup>****Reduced quality of services:**

- Ad impressions per hour

**Higher prices:**

- Comparisons of price-bid in digital advertising market to surplus generated by platform provider and of commissions for in-app purchases to benchmarks for payment processing firms

**High switching costs and lack of viable alternatives:**

- Surveys of business users and assessment of T&Cs

**CMA – Online Platforms and Digital Advertising Market Study<sup>65</sup>**

Assessment of profitability of Google and Facebook against what is required to reward investors with a fair return

- In a competitive market, excess profit is expected to be shared with consumers.

<sup>63</sup> Competition Bureau Canada (2016).

<sup>64</sup> BEIS and DCMS (2021).

<sup>65</sup> CMA (2020a).

### Indicators and data collection approaches

- Evaluated using calculations of EBIT, ROCE (Return on Capital Employed), WACC (Weighted Average Cost of Capital)

#### Large market shares that Google and Facebook possess in digital advertising markets:

- Evaluation of ad tech tax - difference between what advertisers pay and what publishers earn goes to the intermediary - a larger share to the intermediary may suggest that the market is not very transparent or competitive: CMA's own estimate is that publishers receive around 65% of initial advertising revenue that was paid by advertisers.

### BEIS – Retailer's Experience of Using Digital Platforms<sup>66</sup>

Harms/issues identified through Computer Aided Telephone Interviewing (CATI) survey of retailers using online platforms to sell goods (such as eBay and Amazon):

- Restrictions on communication and/or resolving disputes with the platform
- Suspensions of accounts
- Issues above lead to loss of profit and customers

### BEIS – Competition and Innovation in Digital Markets<sup>67</sup>

Impact on innovation – ways to measure innovation:

- Through inputs: Research and Development (R&D) intensity, i.e. the proportion of revenues devoted to R&D<sup>68</sup>
- Through R&D outputs: number of patents, number of scientific papers published, number of software updates, number of new attractive features and functionalities, number of new products or productivity improvements
- In the search engine market: number of update announcements, acquisitions and purchases of intangible assets as a proportion of revenues

### Stigler Committee – Final Report on Digital Platforms<sup>69</sup>

Consumer harms related to use of personal data and behavioural economics can be assessed by looking at items such as the use of nudges and heuristics to persuade consumers to stay on the platform or purchase goods or the use of personal data to target advertising:

- Measuring consumer welfare in digital platform markets is difficult: tools from behavioural economics ought to be incorporated into evaluations to better measure output and quality

<sup>66</sup> BEIS (2021c).

<sup>67</sup> BEIS (2021a).

<sup>68</sup> Attention should be given on how firms define R&D – some firms may also include engineering costs or expenditure (e.g. for tax reasons).

<sup>69</sup> Stigler Center (2019).

### Indicators and data collection approaches

Competition concerns around bottleneck power, where consumers single-home on a platform and resultantly have high switching costs, can be measured using:

- Metrics of homing rates (i.e. how many different platforms do consumers consistently use within one market)
- Estimates of switching costs

#### Furman Report<sup>70</sup>

Market concentration for social media firms can be measured by looking at the number of users, traffic generation, time spent using each service and revenues

Theory of harm from killer acquisitions can be evaluated by looking into the number of high value acquisitions. However, establishing whether the acquisition is truly killer may require more subjective measures or stakeholder consultation

In the digital advertising market, effective market and bargaining power between two parties can be measured by comparing the share of revenue paid by advertisers which reaches publishers and that which reaches content providers

#### State of UK Competition Report<sup>71</sup>

Market concentration can be evaluated by estimating the corresponding HHI or concentration ratio (e.g. using 5-digit SIC code levels) – while taking into account:

- Partial ownership links: they are generally considered to inhibit competition but are not reflected in concentration measures
- Import shares: high import shares might mean that high domestic concentration has little consequence on the market as consumers are still able to substitute their consumption if necessary

Indicators of dynamic competition can be measured by looking at rates of business entry and exit, stability of the positions of the largest firms in the economy, with a smaller weight could be attached to entry/exit of more-numerous smaller firms

Profit and mark-up persistence, i.e. the likelihood that the most profitable businesses remain the most profitable businesses

Measures of consumer trust and satisfaction with markets can be discerned through consumer surveys

<sup>70</sup> HM Treasury (2019).

<sup>71</sup> CMA (2020b).





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