DPS FRAMEWORK SCHEDULE 4: LETTER OF APPOINTMENT AND CONTRACT TERMS

Part 1: Letter of Appointment

Dear Sirs

Letter of Appointment

This letter of Appointment dated Monday 9th November 2020, is issued in accordance with the provisions of the DPS Agreement (RM6018) between CCS and the Supplier.

Capitalised terms and expressions used in this letter have the same meanings as in the Contract Terms unless the context otherwise requires.

Order Number:	CR20082
From:	The Department for Business, Energy, and Industrial Strategy. 1 Victoria Street, Westminster, London SW1H 0ET ("Customer")
To:	London Economics Limited, New Wing, Somerset House, The Strand, London, WC2R 1LA ("Supplier")

Effective Date:	Monday 9th November 2020
Expiry Date:	Friday 7th May 2021 **Notice period for cancellation is 30 days.**

Services required:	Set out in Section 2, Part B (Specification) of the DPS Agreement and refined by: · the Customer's Project Specification attached at Appendix A and the Supplier's Proposal attached at Appendix B

Key Individuals:	[redacted]

Contract Charges (including any applicable discount(s), but excluding VAT):	£78,213.15 ex VAT in alignment with Schedule 2 and Annex 1 of the CR20082 Contract Terms.
Insurance Requirements	Additional professional indemnity insurance adequate to cover all risks in the performance of the Contract with a minimum limit of indemnity of £1 million for each individual claim. Product liability insurance cover all risks in the provision of Deliverables under the Contract, with a minimum limit of £5 million for each individual claim.
Liability Requirements	**Suppliers limitation of Liability** (Clause 18.2 of the Contract Terms);
Customer billing address for invoicing:	BEIS c/o UKSBS, Queensway House, Billingham, TS23 2NF ap@uksbs.co.uk

GDPR	As per Contract Terms Schedule 7 Processing, Personal Data and Data Subjects

FORMATION OF CONTRACT

BY SIGNING AND RETURNING THIS LETTER OF APPOINTMENT (which may be done by electronic means) the Supplier agrees to enter a Contract with the Customer to provide the Services in accordance with the terms of this letter and the Contract Terms.

The Parties hereby acknowledge and agree that they have read this letter and the Contract Terms.

The Parties hereby acknowledge and agree that this Contract shall be formed when the Customer acknowledges (which may be done by electronic means) the receipt of the signed copy of this letter from the Supplier within two (2) Working Days from such receipt

For and on behalf of the Supplier: **For and on behalf of the Customer:**

[redacted]

APPENDIX A

Customer Project Specification

Background

The Office for Product Safety and Standards (OPSS) was created in January 2018 by the Department for Business, Energy and Industrial Strategy (BEIS). Responsibilities of The Office include:

a. Giving detailed advice on the interpretation of safety related regulations and sits on many standards making committees.
b. Responding to incidents where the safety of a consumer product is called into question.
c. Offering policy advice to HMG on product safety issues.
d. Enforcement of a wide range of other product standards and regulations, including Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS), Ivory and Conflict Mineral regulations.
e. Support of businesses through an expanded "Primary Authority" scheme to act as a single point of information for a wide variety of regulations impacting business.
f. The work of the former national Measurement Organisation is also within the Office, which brings a world class test and measurement capability.

The project detailed here is being recruited as part of the OPSS Research Programme that was launched in March 2018. This programme provides high quality strategic research to strengthen the evidence base for OPSS policy development, delivery and enforcement, giving business the confidence to innovate and protecting consumers from unsafe products. The wide range of evidence-based research supported by the Research Programme helps to address critical questions relating to current product safety, and/or issues that might arise due to future market developments.

BEIS has a strong interest in a strategically focused, coherent and value-for-money national enforcement system for consumer protection. A credible enforcement system underpins consumer confidence in the operation of markets, a pre-condition for sustainable economic growth. The national enforcement system consists of BEIS funded bodies National Trading Standards (NTS) and Trading Standards Scotland (TSS) who play a vital role in tackling over £20 billion of consumer detriment in the economy each year. In the process, this system protects vulnerable consumers, legitimate businesses and promotes a well-functioning economy.

Both NTS and TSS record outputs on their intelligence databases – including figures like the number of victims identified, the number of unsafe goods taken out of circulation, or court sentences secured through legal action – and report them on an annual and quarterly basis, respectively.

Historically, one part of NTS and TSS activity focussed on safety at ports and borders, to detain unsafe and non-compliant consumer goods as they enter the UK market/economy. Under their 'Safety at Ports and Borders Programme', there was a Single Point of Contact team (SPoC, based in Suffolk) who generate intelligence-driven referrals of suspected unsafe or non-compliant goods. Local authorities use these referrals as the basis of their inspection activity, either at the air/sea port or on in-land premises.

In 2019, the NTS Single Point of Contact function moved from NTS to OPSS. In April 2020 OPSS took over funding the NTS Safety at Ports and Borders programme. As part of its

commitment to evaluating the effectiveness and impact of their programmes, OPSS seeks to strengthen the evidence base around the consumer and business detriment avoided from unsafe and non-compliant goods on the market. This will take the form of some quantitative metrics of performance, but also monetisation of impact.

NTS previously commissioned an economics consultancy to estimate the scale of consumer detriment avoided. OPSS seeks to build on and refresh these estimates using this research project.

We are aware of a limited number of international comparisons (from the USA and Australia) that have conducted a similar assessment. Equally, in the UK we are aware of a similar project from the Food Standards Agency, looking at the burden of foodborne disease in the UK. However, the remit and scope of this project will mean a like-for-like comparison may not be possible.

Aims and Objectives of the Project

The aim of this work is to provide a robust methodology for assessing consumer and business detriment avoided by the Ports and Borders programme.

The **objectives** of this work are to:

- Distinguish between business and consumer detriment and identify the forms of detriment relevant to this project.
- Establish a valid counter-factual for the prevention and deterrence effects of the programme. That is, without OPSS involvement, what level of detriment would existing traders have caused and what detriment might new entrants have caused.
- Assign evidence-based monetary values to the consumer detriment avoided through the Ports and Borders programme, split by different commodity types (e.g. cosmetics, toys, electrical equipment)
- Consider any additional impact of unsafe and non-compliant goods on vulnerable groups (e.g. children, the elderly, small and medium sized businesses)
- Consider whether this methodology could also be applied to other product safety interventions designed to reduce consumer and business detriment related to unsafe and/or non-compliant products on the market.

We intend to use the outputs from this project to expand our evidence base around the effectiveness of OPSS activity.

Suggested Methodology

The contractor is expected to undertake the following steps:

1. **Scoping types of consumer and business detriment:** The contractors will need to liaise with OPSS, NTS and TSS programme offices to identify all forms of consumer and business detriment that removal of unsafe and non-compliant items from the market might avert. This will help secure buy-in and provide clarity on scope and plans.

2. **Literature review:** In consultation with BEIS/OPSS, the contractor will produce a typology of enforcement activity undertaken by NTS, TSS and local authority trading standards teams. The contractor will identify relevant research produced by academics (e.g. Professor Stephen Davies (UEA) review of the OFT's impact estimation methods) and external organisations (e.g.

Citizens Advice) to inform core assumptions for the assessment of detriment in, product safety. This literature review should also consider how other market surveillance authorities monetise the consumer and business detriment they avoid through their activity.

3. **Data collection:** gather data sources from public repositories, alongside OPSS intelligence unit activity data, that would serve as inputs to a quantitative model of impact estimation. The contractors will need to develop a sufficient understanding of the data inputs OPSS receive from local authorities and how OPSS can use them to ensure the methodology and tool developed are feasible and practical. OPSS will be able to share with the contractor information it gathers from local authorities (subject to non-disclosure and data sharing agreements). However, please note that any recommended methodology cannot rely on new data collections – it must rely on information currently gathered. (The contractor may make recommendations for new data collections from local authorities if it considers there is good value from doing so.) Academic experts should be consulted in relation to core assumptions and novel ways to quantify consumer and business detriment tackled by enforcement activity.

4. **Prepare findings:** Taking account of all of the evidence and analysis in 1 – 3, build a quantitative model to calculate consumer and business detriment tackled by OPSS' Ports and Borders programme.

Suggested definition of detriment:

The focus of the research should be on producing a robust methodology in relation to financial detriment to consumers and legitimate businesses tackled by OPSS and local authorities at ports and borders. Where possible, all forms of detriment (as defined by the contractor in part 1 of the Requirement) should be quantified and monetised into a financial impact. Consideration should also be given to how the detriment figures could be augmented to account for the vulnerability of consumers affected, for example by applying HM Treasury distributional weights.

While the primary focus should be on financial detriment to consumers and legitimate businesses, the contractor is invited to make methodological recommendations on how additional aspects of detriment, e.g. on the wider economy, tax revenue of government and indirect effects of consumers such as health impacts, could potentially be quantified in subsequent work.

Deliverables

The Consultant will be expected to submit the following deliverables:

- A **final report**, containing:
    - A discussion of their research along the four parts of the Suggested Methodology (above).
    - A robust methodology for assessing consumer and business detriment tackled by the Ports and Borders programme.
    - (if required) assumptions needed to make the model function in the absence of complete data.

It is our intention to publish the final report.

- An **interim report**, covering initial findings under the same headings as those in the final report.

- A **presentation** to OPSS colleagues of findings, targeted at a non-technical audience.

- A **bespoke quantitative estimation model** which adopts the methodology contained in the final report. This model should:
    - be built in Microsoft Excel,
    - subscribe to spreadsheet modelling best practice,
    - have minimal sections locked down for editing
    - contain instructions on refreshing the data inputs for OPSS analysts to update when necessary.

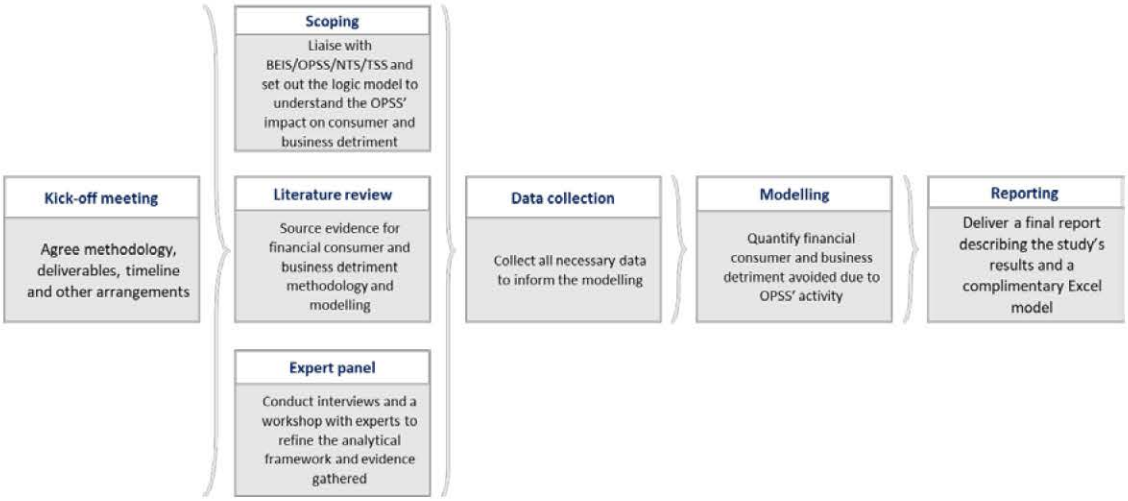
APPENDIX B

Supplier Proposal

PROJ1.1: Approach/ Methodology

This section sets out our proposed methodology for addressing the study requirements. This draws on our experience in undertaking a wide range of studies on consumer behaviour and protection (see PROJ1.2), including our previous studies on consumer detriment such as the consumer protection studies for the OFT, an overview of methodologies for assessing different types of detriment for EC DG Health and Consumers and a currently running behavioural study on the effectiveness of product recalls for EC DG JUST. We recognise that BEIS/OPSS wish to understand the value of financial savings (or detriment avoided) to consumers and businesses that OPSS contributes to directly through the Ports and Borders Programme, primarily through its prevention and deterrence activities. Following the ToR guidance, we propose a mixed approach using both qualitative and quantitative analysis; the results of the qualitative desk-based research, data collection and a workshop with experts will feed into the main project deliverables, the methodology for estimating detriment avoided and an Excel model quantifying the monetary value of the consumer and business detriment avoided ('the model').

The figure below provides an overview of our proposed approach. The 5 'strands' of our approach are discussed in turn below, followed by further discussion of methodological challenges, estimation of core assumptions, analysis and dissemination.



Strand 0: Kick-off meeting

We will prepare a presentation of key scope and approach discussion points, required inputs from BEIS/OPSS and other project management essentials to 'hit the ground running' at the Kick-Off Meeting (KOM). The objective of the KOM is to discuss and agree all aspects of the methodology, deliverables (format, content, dissemination and target audience), timeline, working arrangements (contacts, progress updates, PM procedures). We will share detailed minutes for review.

Strand 1: Scoping types of consumer and business detriment

To ensure that the methodology for estimating detriment avoided and the Excel model generate the necessary results, we will liaise with the stakeholders from BEIS, OPSS, NTS and TSS to collect, collate and summarise existing information on the types of financial consumer and business detriment, and other key parameters (see more in Tables 2 and 3 below) and share it with BEIS/OPSS for review.

As part of the scoping task, we will also aim to clearly define the 'baseline' and 'counterfactual' scenarios which form the basis of the analysis. The benefits to consumers and businesses arising from the OPSS' preventive activity will be assessed relative to the counterfactual. The ongoing prevention activities and deterrence of unsecure and faulty goods crossing the UK border undertaken by OPSS will form the baseline scenario. For the counterfactual, we propose to use the (hypothetical) scenario where OPSS (and previously NTS) does not remove unsecure and faulty good from the UK supply chain as part of the Ports and Borders Programme. This corresponds to the Treasury's 'Green Book' guidance 'do nothing' option.

By the end of this strand, the project should have identified the relevant types of detriment that could occur, set out the logic model that links OPSS activity to reductions in these types of detriment, and established initial conceptual ideas of how these types of detriment might be quantified and valued (to be further refined in strands 2 and 3). The agreed parameters and the defined scope of the model will guide its development from the outset.

Strand 2: Literature review

The next element of the study will be a review of existing literature and studies to explore two themes of evidence that support the development of the methodology and model. First, we will gather and assess the materials on consumer and business detriment calculation methodologies to inform our modelling strategy. Potential sources include **feasibility studies and reports from international bodies** (e.g. OECD's 'Measuring consumer detriment and the impact of consumer policy'); as well as **academic research** and **other relevant literature**. Moreover, we will examine **expert reviews of existing methodologies** and their recommendations in the local, UK perspective (e.g. 'Review of OFT's impact estimation methods' by [redacted] 'Assessing consumer detriment' by [redacted] as well as look for international comparisons. Second, we will evaluate quantitative estimates of consumer and business detriment conducted to date to further refine the underlying assumptions of the model. Possible sources consist of reports prepared by **NTS** (e.g. 'NTS annual report 2019/20' (and its previous editions), 'NTS Consumer Harm Report 2018/19',), **TSS** (e.g. TSS 'Annual Report 2019/20'), **local authority trading standards teams, independent consultancies** (e.g. TNS' 'Consumer Engagement and Detriment Survey 2014', London Economics 'Evaluation of a sample of Consumer Enforcement Cases'), **consumer advocacies** (e.g. Citizens Advice 'Consumer detriment. Counting the cost of consumer problems'), and **public and international bodies** (e.g. The EC's 'Study on measuring consumer detriment in the European Union' or 'Consumer's attitudes towards cross-border trade and consumer protection'). In addition, we will request BEIS to give us access to any publications useful to this study that are not available in the public domain (e.g. Matrix 2014 report commissioned by NTS[1]).

The literature review will have **three key objectives**:

- Collect existing information to inform a theoretical exploration of how to model the monetary value of consumer and business detriment and what input data is needed to calibrate the model;
- Research into data and literature already available on the current estimates of the financial value of consumer and business detriment arising from unsafe or faulty products in the UK and internationally;
- Identify any existing secondary data used in previous studies that might also be used in our model, such as, the distribution of vulnerable consumers in the UK, information on prices of UK manufacturers per product category or the data on the UK population and business demographics.

[1] See more NTS Annual Report 2019/20 Annex 1

The literature review findings will be brought together and synthesised to inform the subsequent project strands. Moreover, they will be provided to BEIS/OPSS as part of the interim report, together with the outputs delivered in strands 1 and 3.

Strand 3: Expert panel

To ensure that the projects benefits from the most extensive and recent expertise possible, we propose to involve an international panel of experts on product safety, approaches to assessing detriment and evaluation of Government interventions. We plan to carry out a combination of interviews and an online 'workshop' panel with the experts. We suggest this two-pronged approach in order to get insight from stakeholders interacting with each other, while also delving deeper into areas where particular stakeholders have expertise.

The expert consultation will be used to refine the study's analytical framework and research tools, identify relevant literature (including international comparisons) and sources of data, identify the types of detriment avoided relevant to the activities of the OPSS' Ports and Borders Programme and how to quantify and value this detriment, modelling set-up and assumptions.

We will use the following approach when conducting our expert consultations: 1) refine and agree the list of experts with BEIS; 2) finalise the mode of engagement with the experts, (i.e. workshops or interviews); 3) make initial contact with the experts – for this we recommend using a letter from BEIS introducing the study and explaining that LE has been engaged to undertake the study; 4) finalise a discussion guide for the interviews and plan for the workshop; 5) conduct the interviews and workshop, and 6) finalise the minutes of stakeholder interviews with interviewees, and notes from the workshop. We have extensive experience conducting complex expert interviews for clients including Ofwat, BEIS, the Scottish Government and the European Commission. In addition we have extensive contact with organisations and individuals with expertise in the area of product safety, including the OECD, the US Consumer Product Safety Commission (US CPSC), the OECD and Australian Competition and Consumer Commission (ACCC) as part of our major study on the effectiveness of product recalls in Europe.

Below we summarise the individuals we propose to reach out to for this study. We will finalise the list in consultation with BEIS.

Table 1: Proposed experts panel

of standards and practices relating to product safety (e.g. British Standards Institution,

Chartered Trading Standards Institute, Association of Chief Trading Standards Officers), and associations representing businesses that might suffer detriment if non-compliant products enter their markets (e.g. associations representing industries manufacturing products in categories that are frequently-recalled and/or represent substantial risk of detriment to consumers e.g. British Retail Consortium, British Toy and Hobby Institution, Association of Manufacturers of Domestic Appliances).

Strand 4: Data collection

The first element of this task will be the collection of secondary (quantitative) data to inform the modelling of consumer and business detriment. This data collection will not only provide the key inputs for the model (as described in the subsequent section) but also allow us to calibrate its underlying assumptions (e.g. by adjusting the results to account for the financial burden experienced by vulnerable consumers).

While the data to be collected will be considered during the study, at present we envisage that the collection of quantitative secondary data will mostly rely on the following main data sources: the OPSS/NTS and TSS databases, the EC's 'Study on measuring consumer detriment in the European Union', supported by more general datasets from the ONS and other data items and parameters discovered while undertaking the literature review.

Based on the information presented in the series of NTS annual reports as well as the ToR prepared by BEIS/OPSS, we believe that NTS (starting from 2019 OPSS) and regional TSS keep annual and quarterly records of the unsafe and non-compliant items that have been prevented, by the local authorities, from entering the UK supply chain as part of the 'Safety at Ports and Borders Programme' ('the Programme'). Furthermore, their databases contain useful information on the number of victims identified, court sentences secured through legal action and the number of referrals.

We are not yet aware of the content of the OPSS/NTS/TSS databases (such as the IDB database or previously Memex) at a more granular level, however, ideally, the following breakdowns will be made available to us (see Table 2 for more details):

- By type of problem;
- By product type;
- By type of organization making the referral;
- By year;
- By unit of volume and number of units per item.

Table 2: OPSS/NTS/TSS data breakdowns (used to determine *variable* model inputs)

Data breakdown by	Suggested categories[2]
Type of problem	Unsafe/ Non-compliant items (e.g. defective or damaged goods, poor or substandard quality[3])
Product type[4]	Cosmetics / Recreational goods (e.g. sports equipment, toys)/ Electrical and electronic appliances/ Clothing and accessories (e.g. footwear, bags)/ Media (e.g. books/films)/ Other household items (e.g. furniture)
Type of organization making the referral	Ports (air and sea)/ Borders/ Designated Single Points of Contact (SPoCs)/ Border Force
Year	Year of data collection

[2] The final list of categories for each data breakdown can be agreed as part of the scoping exercise.

[3] Types of consumer problems based on Consumer Engagement and Detriment Survey 2014

[4] Classification of product types based on the consumer survey found in the Citizens Advice report (2016) and the consumer products regulated by OPSS.

Unit of volume and number of units per item	E.g kilogram (e.g. 0.5kg body lotion/ single item (e.g. one dress, a pair of socks) / litre (e.g. 0.2L perfumes)

Importantly, the OPSS/NTS/TSS data will constitute the ***variable* element of our model** (for both consumer and business detriment), i.e. BEIS/OPSS will be able to update these model inputs with new editions of the routinely collected data.

The 2017 EC's Justice and Consumers study prepared by Civic Consulting ('the EC study') developed a robust methodology to assess the financial (and non-financial[5]) consumer detriment at EU and national level. The methodology was further implemented in four countries, one of which being the UK, and across six markets[6], two of which are applicable to this project[7] (clothing, footwear and bags; and large household appliances). The data on consumer detriment was collected through both online and face-to-face surveys. We propose to use the report to extract the data on pre- and post-redress average financial detriment per problem at the UK level. We will conduct our analysis using both pre- and post-redress detriment data (corresponding to higher and lower consumer costs borne respectively) to feed into two separate modelling scenarios. This will improve the robustness of our definition of the counter-factual for the Programme's impact (as described in Strand 1). In addition, we will the EC study to extract the data on average time loss per problem, for which the income loss will be further quantified in the model.

To ensure that the consumer detriment estimates for all the relevant product types (as listed in Table 2) are included in our model, we will also use the results of the EC's Consumer Market Monitoring Survey 2019 on the median financial loss per problem experienced by *Electronic products* and *Household appliances* consumers at EU level[8] (we explain how we use it to calculate product type-specific multipliers under 'Estimation of core assumptions' section of Strand 5). Moreover, we will supplement that data with the detailed estimates of consumer detriment from the Citizens Advice consumer survey. The study contains the information on consumer detriment by product category (covering a whole spectrum of consumer markets), by type of financial detriment and by demographic characteristic.

The inputs from the EC study, EC Consumer Market Monitoring Survey, Citizens Advice survey and other potential sources found in Strands 1-4 will be used to determine the model's **'core assumptions'** for the ***consumer* detriment modelling**; i.e. the ***fixed* model parameters** that will be assumed to stay constant over time and will not require any further updates from OPSS in the future (apart from the possible adjustments for inflation).

Similarly, we will estimate the 'core assumptions' for the ***business* detriment modelling** (more details on the proposed methodology in the following section). This part of the model will be primarily using the data on average prices of the main product type categories identified as part of the scoping exercise (suggested categories in Table 2). We will look at both UK manufacturers' prices per unit of volume of product (found in UK Manufacturers' Sales by Product Survey (Prodcom) 2019) and UK retailers' sales value and volume by commodity (as seen in Retail Sales Index: Pounds data tables).

We envisage that where possible the collated data on 'core assumptions' will be broken down (see Table 3):

- By part of supply chain affected;

[5] Non-financial consumer detriment refers to time loss and psychological damage.

[6] The six markets are mobile telephone services; clothing, footwear and bags; train services; large household appliances; electricity services; and loans, credit and credit cards.

[7] We only focus on markets producing and selling tangible consumer goods. Services are excluded from the study's scope.

[8] The UK-level data on financial loss is unavailable.

- By type of financial detriment;
- By product type.

Table 3: 'Core assumptions' data breakdowns (used to determine *fixed* model parameters)

Data breakdown	Suggested categories	
Part of supply chain affected	Individual consumers (potentially split by age band or distinguishing vulnerable groups (as explained in PROJ1.3)	Businesses (this can be further split by business size e.g. SMEs/large firms and by manufacturers/ retailers)
Type of financial detriment[9]	Loss of product i.e. full cost of product/ Extra charges/ Costs of replacement at the consumer's expense / Costs related to court proceedings/ Other extra costs/ Lost earnings (e.g. due to loss of time or injury)	Revenue/ Profit/ Sales lost
Product type	Corresponding to the OPSS/NTS/TSS data	

Finally, we will apply the ONS data on exchange rates to convert the value of financial detriment from euros into pounds, as well as their data on inflation rates to present the estimates in 2019/20 prices. Moreover, in line with OECD recommendation, we will use the UK population data and business demography data to scale up the value of financial detriment, for individual consumers and businesses respectively.

Strand 5: Modelling (Preparing findings)

Following collation of the available evidence, gathered as part of Strands 1-4, we will undertake a quantitative analysis of the consumer and business detriment avoided from unsafe and non-compliant goods on the market. For this study, we have provided a team that is well versed in undertaking complex market and economic impact analysis following the HM Treasury *Green Book* and *Magenta Book* (as described in PROJ1.2).

The extent (breadth, depth, robustness) of the analysis and the methods that can be employed will highly depend on the information available from BEIS/OPSS, NTS and TSS (as explained in 'Data collection').

Methodological challenges

Additionality: Additionality here refers to savings that would not have occurred in the absence of the OPSS' intervention. Our proposed 'no OPSS' counterfactual assumes initially that all consumer and business savings are additional. Nevertheless, we recognise that this may not be true in reality. As such our analysis will include a qualitative discussion on where additionality would most likely occur, and the implications of this for our estimates. Furthermore, displacement effects will also be acknowledged. Such effects occur when economic benefits due to an intervention are offset by decreased economic activity elsewhere (e.g. reduced private consumption).

Unquantified benefits: We will aim to quantify the financial value of all the types of consumer and business savings (such as avoided financial detriment or time loss). However, some of the benefits associated with the OPSS' activity, such as lower psychological damage, might not be quantifiable due to insufficient evidence.

[9] Based on the EC study's Annex XV: Magnitude of financial detriment by market and Citizens Advice.

Data triangulation: The data on 'core assumptions' is likely to be extracted from several different data sources. The lack of a coherent source for all the recommended data breakdowns can make the analysis less robust. This can be further exacerbated when imputing or extrapolating the data to ensure the full coverage of all the parameters of interest. For example, the data on additional costs borne by consumers purchasing cosmetics is not widely available and might have to be imputed with the closest possible estimate instead.

Estimation of core assumptions

As of today, we are unaware of one coherent data source which could be used to extract the data on the UK consumer and business detriment for all the breakdowns and categories (as shown in Table 3). In order to be able to use some of the data sources referenced in Strand 4, we will have to conduct several additional estimations.

First, the EC's Consumer Market Monitoring Survey 2019 (CMMS) data on EU-wide financial consumer detriment experienced by Electronic products and Household appliances will have to be converted into the corresponding costs for the UK. Thanks to the EC's study data covering the household appliances market for both the UK and EU, we will estimate the factor or a 'sector-specific multiplier', reflecting the proportional difference between the EU and the UK. This factor will be then further applied to the CMMS data (or any other EU data) to find the UK-level financial detriment.

Similarly, we will estimate the value of financial detriment for **compliant** businesses. To simplify the assumptions, we will treat the good's price as a proxy for cost borne by a compliant business that would have lost one unit of sales as a result of an uncompliant business selling their product in the absence of OPSS. We will split the data between manufactures, who bear the cost equal to the full product price; and retailers, whom we expect to lose revenue as a proportion of their product price (e.g. revenue lost due to reputational damage caused by incompliant businesses).

Finally, we will apply the Citizens Advice (2016) methodology to calculate the costs associated with time loss. Using the EC's study data on time lost as a result of purchasing faulty or incompliant good (in hours), the proportion of work time and the estimated cost of £7.05 lost income per hour we will estimate the value of income lost.

Analysis

The analysis will begin by building a bespoke Excel model for the baseline scenario, which we envisage will compute the key results of the study, including ***total present savings from avoiding consumer and business detriment***, ***present savings per consumer*** and ***present savings per business***.

At present we envisage that the model will comprise of: the three types of 'core assumptions' or *fixed* model parameters (as highlighted in Table 3) i.e. the estimates of financial detriment per problem, namely 'part of supply affected' to separately model the effect of OPSS' Ports and Borders Programme on consumers and businesses, 'product type' to quantify the value of savings for different commodities; and 'type of financial detriment' to better understand the distribution of key types of financial burdens; the *variable* model inputs, particularly the number of unsafe and non-compliant goods, broken down by categories defined in Table 2 (or other categories agreed in Strand 1) and any other supplementary data on relevant demographics.

The initial mapping stage will consider how the model should work. This includes mapping of model inputs (Which assumptions feed in where?), and model flows (How does data flow through calculations from assumptions to outputs? Is this logical? Does the model match what people assume it is doing? Model flows will be logical and delineated between inputs/assumptions, workings, results, and presentation outputs.); and mapping model outputs (What are the key outputs, where are they found, how are they validated?). This stage is key to ensuring the model is robust, with sufficient error checks to enable quick identification of

errors; easy to build, by mapping the solution to reduce build time and prevent confusion; easy to review, by minimising complexity to reduce review time; and linear, enabling clarity around the logical design and its implementation

After a successful mapping stage, we will begin to build the model. First, the raw input data will be aggregated by product type. Next, the values of financial detriment estimates determined by the combinations of the two core model parameters (e.g. consumers purchasing cosmetics, consumers purchasing clothing etc.) will be matched with the input data aggregated by product type category. The data on financial detriment for the years prior to 2019/20 will be discounted to convert them into 2019/20 prices. By multiplying the two matched elements together (i.e. the core parameters and the input data), we will obtain the total value of financial detriment prevented by OPSS (separately for faulty and unsafe items removed from the market) per **one consumer or business** (under an implicit assumption that each consumer or business could purchase each of the products removed with an equal probability). Finally, as recommended in the OECD study, these results will be scaled up based on the size and composition of the UK adult population (for consumers) and UK business demographics (for businesses) to end up with the **total present savings from avoiding consumer and business detriment.** At the last stage, we will examine the proportions of consumer and business groupings of interest (e.g. vulnerable consumers, SMEs etc.) as part of the total relevant populations in the UK (all UK adults/all UK businesses) and use them as weights to assess the impact of the OPSS' activity on selected groups.

Furthermore, to ensure that the quality of the model is up to highest standards, we will adopt the following steps: i) structure testing: is the modelling approach internally consistent, and appears to be a valid approach to identifying estimates of the parameters being modelled; ii) functionality testing: is the modelling approach generally robust, does the model architecture provide sufficient flexibility to deliver accurate and transparent estimates; iii) cell and equation auditing: establish integrity and correctness of model formulae and model parts, including running software tools for a cell-by-cell review; iv) what controls and checks are in place: does the model provide automatic alerts, are key values monitored while modelling?

Dissemination

We would be pleased to support BEIS/OPSS in dissemination of the study by presenting the study findings to the relevant stakeholders (such as OPSS, NTS and regional TSS), wider policy audience and senior policy-makers through-out government.

PROJ1.2: Staff to deliver

Our project management team consists of senior and highly experienced staff. We have assigned [redacted], who is [redacted] practice area, as the Project Director for the study. [redacted] and has been managing project for government and other public sector clients for around 9 years. He has knowledge of product safety issues as he is currently leading, with [redacted], our study for the European Commission on product recalls. This pan-European study includes an assessment of the economic impact of increased recalls effectiveness and an assessment of the business and consumer detriment of recalled products remaining in consumers' hands. [redacted] will be responsible for resolving any issues BEIS may have and assuring the quality of the work and deliverables. We have also assigned [redacted], who is a [redacted] s, as the designated Project Manager for the study. [redacted] and is co-project manager on

our product recalls study for the European Commission. [redacted] will be responsible for the day-to-day management of the study on our side, coordinating resources to ensure smooth delivery of the work, and will also play an key role in liaising with stakeholders such as OPSS, NTS and TSS to ensure buy-in.

[redacted] will work with a team of highly qualified economists – [redacted] including of value-for-money evaluations and economic appraisal, data collection and analysis, best practice Excel-based modelling, and preparing robust research reports and external communications. During the project [redacted], gather and analyse data and build the Excel model, as well as contributing to preparing the reports and presentation.

Our proposed team's short biographies are presented below.

[redacted] Protection practice area. [redacted] He specialises in the understanding and assessment of consumer behaviour and preferences and consumer-related issues. Over the years he has developed extensive experience of public policy assessment and evaluation, including how to place monetary values on public sector programmes and interventions.

For example, earlier this [redacted] led a study to estimate the value that consumers place on the regulatory protections and activities of the Food Standards Agency, including the FSA's role and presence in the supply chain and specific food standards that food businesses must comply with. In further examples, he previously played a key role in our study to estimate the social value of the Post Office Network for value for BEIS in 2016, as well as studies for the energy regulatory Ofgem to estimate the value of security of electricity and gas supply to consumers and businesses.

[redacted] which includes assessing consumer and business detriment arising due to unsafe recalled products remaining in consumers' possession and employs a range of relevant data collection tools including literature review, desk research, and expert and stakeholder engagement.

Earlier in his caree[redacted] was involved in our consumer protection cases studies for the former Office for Fair Trading, which estimated the detriment avoided by a number OFT consumer protection using a range of methodologies.

[redacted]

[redacted] experience designing and delivering evaluations of policies and programmes, examining impacts on consumers and businesses in the contexts of water, energy, consumer advocacy for health and financial services, for clients including Ofwat, the Scottish Government and DECC, as well as the impact of the European Single Market on European Member States for the American Chamber of Commerce.

She has expertise in product safety issues as she is currently co-managing a major pan-European study on maximising the effectiveness of product recalls for the European Commission. The study comprises a literature review, stakeholder consultation, focus groups, consumer survey and behavioural experiment. Particularly relevant, it includes an economic impact assessment of the consumer and business detriment from recalled products remaining in consumers' hands. She is also experienced in the design and management of studies assessing consumer detriment as a result of regulation, policies and market practices, in a range of sectors including energy, financial services, e-commerce, and legal services.

[redacted] including desk research, literature reviews and stakeholder interviews for clients including Ofwat, the Scottish Government, the Solicitors Regulation Authority, and European Commission.

Her work has been published in the Review of Economics and Statistics, and cited in the Economist. She has a PhD in Economics and an MSc in Econometrics and Mathematical Economics from the London School of Economics, and a BSc in Mathematics from St Xavier's College, Mumbai.

[redacted] economic modelling and impact assessments. At London Economics she has worked on a range of projects involving data collection and manipulation, statistical and econometric modelling in Excel, as well as the preparation of literature reviews and reports.

[redacted] and has delivered large-scale data analysis projects such as matching firm-level administrative and survey data to help assess the impact of training on firm level productivity (for BEIS), a quantitative survey analysis measuring the extent and impact of non-tariff trade measures (for the Department for International Trade).

She also has experience of assessing the impact of publicly funded programmes in the UK, such as an economic impact assessment of the UK Engineering and Physical Sciences Research Council (EPSRC) investment in High Performance Computing.

She also has knowledge of consumer issues having contributed to projects for the firm's Consumer and Behavioural team, including conducting a statistical analysis of behavioural experiment data in price transparency research for Bar Standards Board, and consumer research for the Scottish Government evaluating effectiveness of consumer advocacy programmes for which she led multiple interviews with senior stakeholders from consumer advocacies, government and academia.

She is currently responsible for core Excel-based modelling and reporting for an assessment of the economic, social and cultural impact of The Open University.

[redacted] Economics and a MSc degree in Economics from the University of Amsterdam.

[redacted] estimating the value to consumers of regulatory activities in the UK, Excel-based modelling, and undertaking multiple projects evaluating the impact of government programmes and investments for clients such as Innovate UK and the Department for Business, Energy & Industrial Strategy.

His contributions to London Economics' research projects have included many activities relevant to the current project, such as completing desk-based research and literature reviews, gathering, collating and analysing data from across multiple sources, identifying and consulting key stakeholders, and creating, administering, and analysing survey data. In a recent project for the Food Standards Agency, he designed a consumer experiment used to elicit the value to consumers of the FSA's regulatory activities.

He is also currently creating an Excel-based model forecasting the change of key indicators, for several different scenarios and sectors, as part of an ongoing evaluation of the UK robotics sector.

[redacted]

[redacted]t at London Economics working in the firm's consumer behaviour and protection and public policy practice areas. She has experience using a range of qualitative and quantitative research techniques, including desk-based research and data analysis, and experience conducting value for money assessments.

She has worked on value-for-money evaluations of the National Citizens Service initiative for the Department for Digital, Culture, Media and Sport, which involves modelling and quantifying the impact of the programme in respect to the development of young people's skills. In addition, she has also worked on the development of large-scale Excel models to calculate the impact of reduced workforce attrition in the nursing profession (on behalf of Health Education England) and the economic value of The Open University.

Currently, she working on the Study of Non-Performing Loans in Europe for EC DG FISMA, in which she has worked on a literature review, data gathering (via surveys) and analysis, stakeholder consultations and designing frameworks to assess consumer detriment in the debt collection industry.

In other [redacted] has provided qualitative research support by preparing literature reviews, including a large-scale review of applications of space technologies for economic development on behalf of the UK Space Agency, and an empirical literature review on vertical restraints for the vertical block exemption regulation for EC DG Competition.

[redacted].

PROJ1.3: Understanding the project environment

Background and context:

The OPSS is the national regulator for all consumer products other than vehicles, medicines and food, and leads Government policy on product safety and market surveillance, as well as being responsible for product safety at the UK's borders. The OPSS is also the UK Government's enforcement authority for a range of goods-based and standards-based regulations. Thus, its role is to protect people and enable businesses to understand their obligations.

Ahead of the UK's Exit from the EU, the OPSS and Trading Standards have been working to strengthen the UK's ability to intercept unsafe products at the border. According to the OPSS October 2019 Delivery Report, the previous year an additional £245,000 was invested to assist local authority-led teams at points of entry in England and Wales, taking the total BEIS investment on product safety via National Trading Standards to £1.45m. This included funding to 15 local trading standards teams to inspect items at ports, airports and postal hubs and

detain non-compliant and unsafe goods. The OPSS also works with local authorities in Scotland and Northern Ireland, including funding some additional activities, setting up coordination mechanisms and providing training.

The mission of the OPSS Research Programme, under which this project is being commissioned, is to: "To commission and assure high quality strategic science-based research to strengthen the evidence base for the development of product safety policy, delivery and enforcement, giving business the confidence to innovate and protecting consumers from unsafe products."

The purpose of this project is to expand and strengthen the evidence base regarding the effectiveness of OPSS activity and the consumer and business detriment avoided due to the Ports and Borders Programme by preventing unsafe and non-compliant items from entering the UK market. This will allow BEIS and OPSS to know the value for money provided by OPSS activity at ports and borders.

As noted below, there is an existing approach for estimating the social costs avoided as a result of these activities – 'the 2014 methodology' – however, OPSS wishes to build on and refresh these estimates via this project. As far as we are aware, the 2014 methodology does not distinguish between different types of detriment, distinguish between consumer and business detriment, or split detriment by commodity type. These three limitations, at least, should be resolved by the project.

Existing estimates of the value of the Ports and Borders Programme:

NTS Annual Reports from 2014/15 to 2019/20 present estimates of the monetary value of unsafe and non-compliant items being taken out of the UK supply chain due to activities at ports and borders. The approach taken to estimate these values is based on an independent methodology developed in 2014 ('the 2014 methodology') which provides an estimate of the saving to society per unsafe/non-compliant item removed from the supply chain. The original 2014 value was £30.80 per item and this has since been updated in line with inflation to £33.07 per item in 2019/20. Unfortunately, as far as we are aware, there is little publicly available information on how this estimate was arrived at.

According to NTS's 2019/20 Annual Report, over 4,000 ports and borders referrals were made over the year, and some form of safety issue was identified in around half (52%) of these cases. This prevented over 1.1 million unsafe and over 4.1 million noncompliant items from entering the UK supply chain and, based on the 2014 methodology, nearly £174 million of cost to society was avoided as a result (£37 million attributable to unsafe items removed from the supply chain, and £137 million attributable to non-compliant items taken out of the supply chain). Furthermore, this work ensured 3,681 serious injuries were avoided, 3,155 fires were prevented, and 11 lives were saved, based on the 2014 methodology.

Improving and refreshing the existing methodology and estimates:

As far as we are aware, the 2014 methodology does not differentiate between different types of detriment, or between consumer and business detriment, nor does it identify detriment by type of commodity – limitations which the present study should aim to resolve.

Various sources provide insights regarding how one might undertake a better and more nuanced assessment and quantification of detriment. For example, Davies (2010) assessed a method used to quantify the impact of the former OFT's consumer protection activities, which relied on converting a reduction in complaints into a financial estimate of avoided consumer detriment by applying a value per complaint, and finds it to be "problematic to apply" and in fact cited London Economics' (2009) consumer protection case studies for the OFT as a possible development towards a wider approach. Our case studies for the OFT involved developing an intervention logic models surveys and depth interviews, and utilising complaints data. Our study for DC DG Health and Consumers, also in 2009, provided an overview of

methodologies (at that time) for assessing 'personal' and 'structural' detriment and employed a comprehensive survey-based approach to estimate personal detriment in a particular sector. Citizens Advice (2016) conducted a consumer survey to estimate a UK-wide quantification of consumer detriment, taking into account the monetary and time costs of consumer detriment, as well as compensation received. More recently, the EU (2017) and OECD (2020) have published guidance on measuring consumer detriment. This guidance takes into account factors including what is being measured, ex-ante versus ex-post measurement, personal, structural and hidden detriment. London Economics (LE), along with partners VVA, Ipsos and ConPolicy, are currently undertaking a pan-European study on maximising the effectiveness of product recalls for the European Commission, including an assessment of the economic impact of increased recalls effectiveness and the business and consumer detriment of unsafe products remaining in consumers' hands.

In terms of specific existing estimates/inputs on which a new methodology might draw, while it is not related to product safety enforcement activities specifically an EU study provides figures for the average financial detriment value per problem (in EUR) associated with different categories of goods and services. Importantly, the study provides UK-specific data since the study was conducted in 4 EU countries, one of which was the UK. In the table below we summarise the study's key findings for UK consumers, for the product categories of large household appliances and clothing, footwear and bags.

	Large household appliances	**Clothing, footwear and bags**
Total financial detriment	Before redress: €1.7 Bn After redress: €883 Mn	Before redress: €430 Mn After redress: €178 Mn
Financial detriment per problem		
Face-to-face survey respondents	Before redress: €405 After redress: €283	Insufficient data
Online survey respondents	Before redress: €326 After redress: €173	Before redress: €59 After redress: €22

Our methodology section presents information on a range of different data sources that we are aware of which could be used to finetune estimates of detriment, including

- OPSS/NTS and TSS databases;
- EC DG Justice and Consumers' 2017 study prepared by Civic Consulting, which developed a robust methodology to assess the financial consumer detriment;
- Results of the EC's Consumer Market Monitoring Survey 2019 on the median financial loss per problem experienced by consumers of electronic products and household appliances;
- Data with the detailed estimates of consumer detriment from a Citizens Advice consumer survey; and
- Further supporting data from UK Manufacturers' Sales by Product Survey (Prodcom) 2019) and UK retailers' sales value and volume by commodity (as seen in Retail Sales Index: Pounds data tables)

Aims of the project:

The project should deliver a robust methodology for assessing and assigning monetary value to the detriment avoided by the Ports and Borders programme. The methodology needs to differentiate between detriment caused to consumers and businesses respectively, categorise and, where possible, quantify and monetise different forms of detriment, and separate detriment by type of commodity (not) entering the market. As per best practice in impact assessments, the methodology should be underpinned by a robust counter-factual for the

activities being assessed/valued, i.e. in this case the detriment that would have occurred in absence of OPSS activities.

Where possible the methodology should allow detriment avoided to be identified, estimated and valued specifically for vulnerable consumers, as well as small businesses. Various definitions of vulnerability exist (and are used by different public institutions) but factors that are commonly seen as being indicators of vulnerability are age, disability, low income and certain types of family situation (e.g. single parents). Furthermore, recommendations should ideally also be made regarding how further elements of detriment – such as macroeconomic impacts, growth, tax revenues, injuries, deaths or other health aspects – might be quantified in subsequent research.

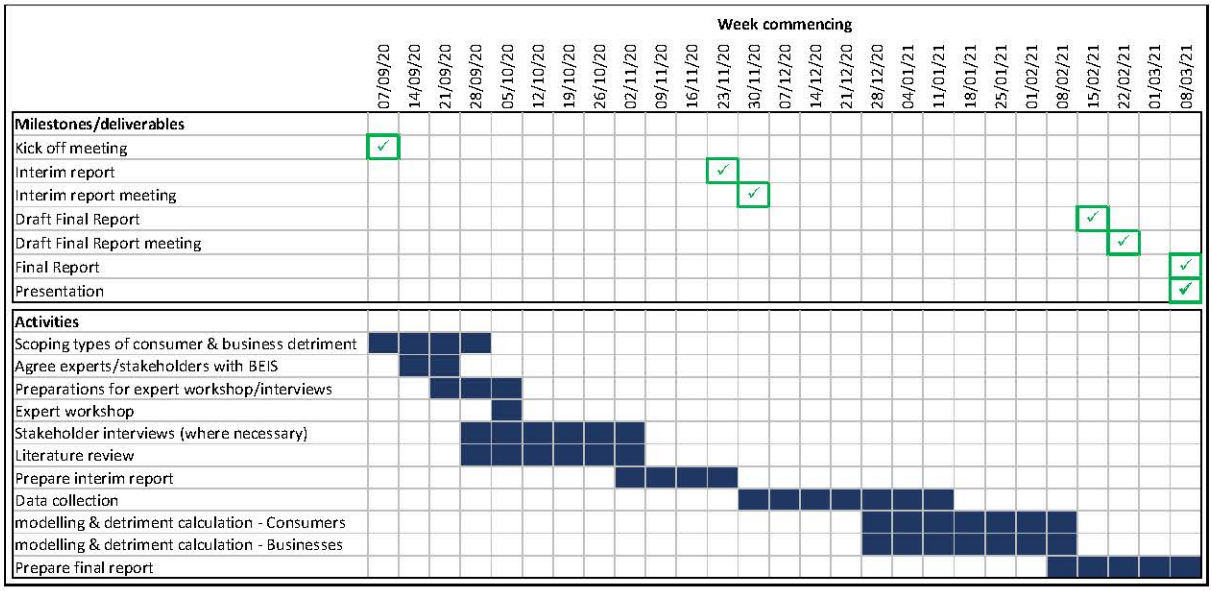
A key output of the project will be a Microsoft Excel-based model which adopts best practice modelling practices and implements the quantification/valuation approach developed during the study. This should be a model that BEIS/OPSS can use going forward based on data that is already routinely collected (and so should not rely on new data collection) and core assumptions that are established during the study based on academic and other evidence.

How you will ensure the successful delivery of the project:

In our response to PROJ1.1 we have set out a thorough approach to the study involving our approach to scoping different types of detriment, literature review, stakeholder and expert engagement, data collection and modelling of the business and consumer financial detriment avoided due to the Ports and Borders Programme. We understand that a quantification should also take into account the differential impacts experienced by consumers in situations of vulnerability, and we outline potential approaches to accounting for consumer vulnerability in the quantification. Our approach allows for expert and stakeholder review of the key types of detriment, relevant literature and information sources, and key modelling assumptions. Moreover, we identify the key sources of data, the data 'wish-list' and our approach takes into account the major assumptions, caveats and data gaps transparently, so that BEIS/OPSS can use and update the model with a clear understanding of any data limitations. As shown in our response to PROJ1.2 we have assigned an experienced team with the necessary skills and well as experience in the area in order to deliver the project. Finally, in our responses to PROJ1.3 and PROJ1.4 we have set out a detailed project plan and timeline and risk management strategy.

PROJ1.4: Project plan and timescales

The figure below presents our project plan and timetable within the overall timescales set out in the Specification, showing the key milestones and how the project activities will run sequentially and/or concurrently. As shown, we propose to deliver a **Draft Final Report** 3 weeks prior to the **Final Report** deadline and have to a hold a meeting with BEIS the draft the week after the draft is delivered. This will allow us to take on BEIS's comments and suggestions regarding the report into account before final delivery. Similarly, we include a meeting the week after delivery of the **Interim Report** to listen to and discuss BEIS's feedback. In addition to these report-related meetings (and kick off meeting), we would also provide **regular weekly or biweekly progress updates** by email or phone, as preferred by BEIS, as regular contact and feedback will ensure there are 'no surprises' for BEIS and the project progresses



PROJ1.5: Risk management – In the table below we set out our approach to mitigating the risks we foresee when undertaking this assignment.

Risk	Impact	Likeli-hood	Mitigation
Insufficient expertise of project management	High	Very low	[redacted]
Insufficient quality assurance procedures	High	Very low	
Inability to deliver a product that meets the client needs	High	Very low	

			[redacted]
Inability to deliver work on time and in budget	High	Very low	
Insufficient coverage and understanding of subject area	High	Very low	
Inability to find adequate data	High	Very low	

Part 1: Contract Terms

Contract Terms v6.0