



Summary of WRAP Quality Assurance processes related to support on Defra's Resources and Waste Strategy Impact Assessments

Context

WRAP has supported Defra in undertaking modelling and calculations specifically relating to household and non-household collections. This analysis featured in the Consistency Impact Assessment (IA). The analysis also included apportioning resources and associated costs for Extended Producer Responsibility and that respective IA. Further analysis on these numbers and other calculations related to EPR, DRS and modulated fees were undertaken by Defra staff.

Principles

WRAP builds quality assurance into its workstreams following the AQUA book guidelines <https://www.gov.uk/government/publications/the-aqua-book-guidance-on-producing-quality-analysis-for-government> with proportionality to the analysis and the intended use of outputs. In the case of the resource management cost and performance calculations for household and non-household municipal services this involves peer review throughout the project life cycle using a mixture of internal and external resources. For WRAP Quality Assurance (QA) starts before the project begins in scoping out and designing the modelling approach, includes scenario selection with Government and using Industry preferred options, assumptions gathering related to the preferred scenarios, review of the logic for assumptions and data application, and a review of the forecasting and modelling outputs.

Application

For the IA related Consistency models, the core QA approach requires peer review in 3 core areas. These areas cover the general structure and architecture of the model/s and supporting workbooks in what the analysis is trying to achieve, the use of Industry assumptions and data to be used in calculations, and on-going review of data inputs and outputs of the results. WRAP uses a range of experienced analytical staff to perform the calculations and a buddy system to review modelling inputs and outputs with recordings of version and change control on each spreadsheet. Staff who are Technical Specialists make checks throughout to ensure that the input values and results relate to and are representative of Industry experience. The role competencies for staff involved in analysis vary in the levels of QA each are skilled in delivering and so different resources are scheduled in according to the level of the task. This approach helps to ensure that checks are made throughout the project lifecycle to ensure contingency to keep projects moving forward even when resources are strained. For areas where data may be less certain WRAP focuses its resources to ensure that a range of sensitivities are considered on high impact variables and that more resource is placed on obtaining better estimates going forward in these key areas.

The analysis for both household and non-household cost and recycling performance uses external peer reviews at the main project stages outlined. The external peer reviews come from a wide range of expert technical suppliers working as contractors on WRAP frameworks. The technical suppliers undertake the reviews and also engage directly with Industry to both source and review assumptions relative to the sector in scope of analysis. WRAP and its contractors regularly engage with service collectors and businesses receiving the collections within the Industry to review and ensure that assumptions and approaches are reflective of real-world situations.

WRAP uses expert contractors procured via frameworks with skills and insights to gather Industry data and offer perspectives on their application to the analysis. Outputs of the analysis are also sense checked with Industry, internal staff, and contractors. In particular for the household scheme and performance data assumptions, these are sourced directly from Local Authorities. The assumptions on performance of collection systems are updated annually through the published statistics at laportal.wrap.org.uk and undertake further peer review to ensure they are fit for application in the models.

Uncertainty

A key aim of the analysis is to provide a useful indication of potential outcomes in future recycling scenarios across a diverse range of Local Authority and business settings. Relative to this purpose the main limitations of the analysis relate to the information available from and submitted to data frameworks such as Waste Data Flow and Waste Data Interrogator. The complexity of business collections, commercial sensitivity of pricing and absence of a widespread scheme profile database limit the reliability of non-household municipal costings and performance estimates. Although scheme information is much better for household collections the diversity of property types and some sensitivity in local pricing reduces the accuracy of service costs. WRAP undertakes additional work to try and help mitigate the issues in using a range of baseline scenarios, sensitivity analyses, extensive national and regional surveys to supplement the data and assumptions where there may be gaps or reduced sample sizes.

Summary

Overall, WRAP puts in place robust checking processes to ensure its analysis is of a very high quality to support Defra in its work streams. Given the huge quantities of data sets used in the analyses across diverse municipal sectors it is important to ensure that the best available approaches are used and that where there may be uncertainty this is identified, addressed and communicated effectively.

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