RPA
Risk & Policy Analysts

European Commercial Refrigeration Study Questionnaire Launch Event

Presentation to

Cold Chain Stakeholders

11 April 2025

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Agenda

- **Workshop admin**
- **Introduction to RPA**
- **Introduction to the Commercial Refrigeration study**
  - Purpose
  - Aims
  - Scope
  - Approach
- **Introduction to the questionnaire**
  - Data requested
  - Data handling and security
  - Collation, aggregation and anonymisation
- **Guided questionnaire walkthrough**
- **Next steps**
- **Questions**

Workshop admin

- **Please note this meeting is being recorded**
  - A recording is being made for stakeholders who are unable to attend or who join the process later
  - A copy of the recording (along with the slide deck) will be provided to all participants
- **Competition law rules and restrictions are also in effect**
- **Please use the chat function to ask any questions or raise points of interest throughout the session**
  - That chat will be monitored by my colleagues who will answer your questions on a rolling basis, and I will periodically pause to allow for repeated or pressing questions to be addressed live

RPA panellists

Robert White
Senior Economist
Project Manager

Dr David Carlander
Chemicals director
Project Director

Ruby Button
Economist
Data Modelling Team

Richard Stenning
Senior Consultant
Literature Review Team

Introduction to RPA

- An independent consultancy firm established in 1990 specialising in the fields of chemical policy (UK & EU), sustainability, economics, environmental economics and assessment, and social policy research
- Extensive experience with PFAS substances (including F-gases) via previous public and private client work engaging with the UPFAS restriction proposal
- Previously conducted other commercial refrigeration reviews and assessments

Purpose

- To produce a thorough overview report, for use by EFCTC and industry when engaging with regulators, on the technical performance and cost of ownership of F-gas commercial refrigeration equipment and possible alternatives
- Data on the performance and cost of different systems and refrigerants exists however it is incomplete and not accessible from a single source
- Therefore, in addition to conducting a thorough overview assessment a wider purpose of this project is to begin to draw together available literary and industry data on commercial refrigeration into a single easily accessible space
- RPA are acting as an independent third party on behalf of cold chain stakeholders to pull together the necessary data on both natural and F-gas refrigeration to draw insightful conclusions for both industry and regulators

Aims

- **There are 5 key aims of this study:**
  1. To conduct a comprehensive literature review of F-gas and alternative refrigerant systems across Europe
  2. To collate literature findings with industry data following a comprehensive round of consultation with cold chain stakeholders
  3. To compare system performance standards across European climate zones and supermarket footprints
  4. To assess the total cost of ownership of different system configurations to supplement performance reviews
  5. To create a concise easily digestible report usable to both EFCTC members and regulators
- **We are engaging with cold chain stakeholders to complete aim 2 which is vital to the overall projects' success**

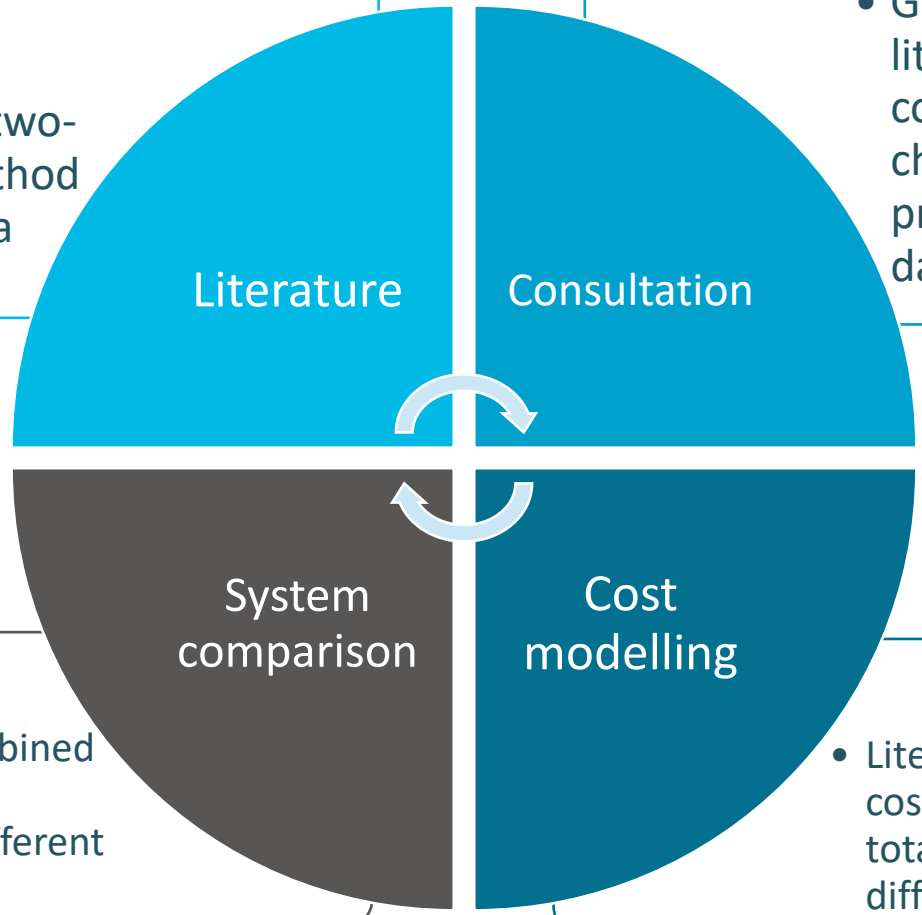
Scope

- **Stakeholders: 4 groups of interest from the cold chain**
  - Refrigerant manufacturers
  - Refrigeration system manufacturers
  - Supermarkets
  - Refrigeration system installers and maintainers
- **Refrigerants: F-gas and natural refrigerant (full list in the questionnaire)**
- **Refrigeration systems: centralised systems of various architectures (full list in questionnaire)**
- **Store sizes: Two categories of supermarket distinguished by store footprint**
  - Supermarkets: A primarily food retail store with a footprint between 400m² but less than 4,500m²
  - Hypermarkets: A primarily food retail store with a footprint equal to or greater than 4,500m²
- **Climate zones: A list of countries in each designated zone is available in the survey**
  - Cool: Nordic climates (cold winters mild summers)
  - Warm and temperate: Eastern, Middle, and Western Europe (cold/mild winters with hot dry/humid summers)
  - Hot: Southern Europe (Mediterranean climate)

Approach

- Literature used for scoping, developing initial results and a two-way verification method for consultation data

- Gaps exist within literature requiring consultation with cold chain stakeholders to provide a comprehensive data set



- Performance data combined with cost estimates to compare systems in different climate zones

- Literature and consultation cost data used to extrapolate total cost of ownership of different refrigeration systems

Commercial Refrigeration Stakeholder Survey

What is being asked for and how will your data be used

Key data we are requesting

- **Technical and performance data**
  - Refrigerant leakage rates
  - Maintenance frequency
  - Safety risks (including fire and explosive risk)
  - A performance metric value (e.g. COP, EER, TEWI) for each refrigerant/system combination
- **Costing data**
  - Refrigerant costs
  - System lifespans
  - Cost of installation (equipment + labour costs)
  - Cost of maintenance
  - Energy consumption
- **We are requesting this data across supermarket sizes (supermarkets and hypermarkets) and climate zones (cold, mild, and hot) to be more nuanced in our system comparison decisions**

Data handling and security

- Survey is hosted on EU Survey, an online platform operated by the European Commission with all data stored on European servers, meaning all data supplied via the platform is protected under GDPR
- Only RPA has access to your responses in EU Survey and these will never be shared with EFCTC, their members or any third party (typical RPA practice)
- RPA will collate, aggregate, and anonymise survey responses and then further collate and aggregate survey data with literature findings in accordance with Cefic statistical rules preventing individual respondent identification
- RPA has 30+ years experience handling, protecting, and anonymising confidential data for industry reports

Collation, aggregation, and anonymisation

- **All data collected via the questionnaire will effectively go through two phases of collation and aggregation**
  - Survey data once extracted will be collated with respective values from the literature review and then all values will be aggregated together (either by averages or ranges) before being presented in the final report
  - Therefore, any data supplied in the questionnaire will be aggregated with all other survey responses and then further aggregated with literature data
- **This collation and aggregation process will ensure that any values presented in the final report are not traceable or associated with any one single questionnaire respondent thus granting anonymisation**
- **For qualitative information RPA will again aggregate together repeated themes and consensus between questionnaire responses and literature before presenting qualitative points and if direct quotes are required the permission of the submitter will be sought but they will not be named**

Survey demonstration

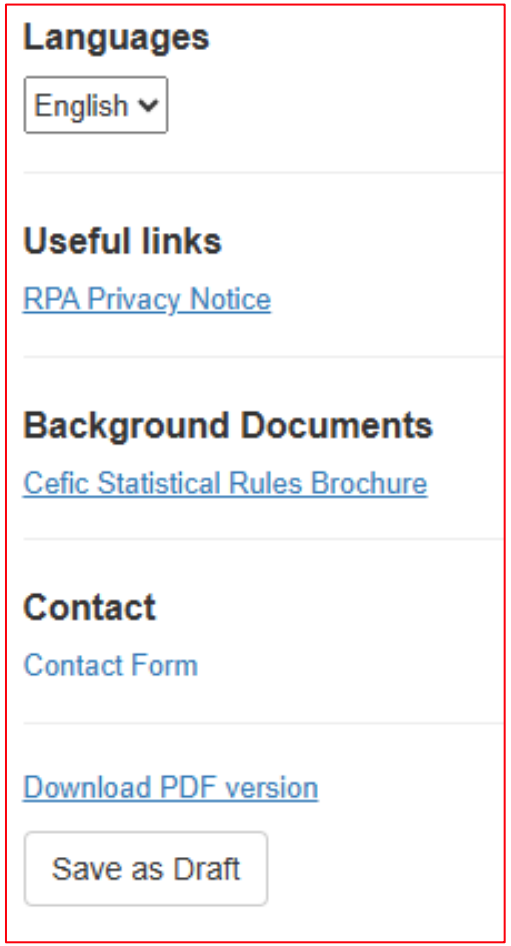
Survey link: https://ec.europa.eu/eusurvey/runner/CR_Overview_Study

Sharing your survey internally

- The survey does not need to be completed in one go, it can be completed iteratively with the “Save as Draft” function
- After clicking this option, a unique link will be generated which can be shared with others to access the survey and add more data
- Each time you enter new information into the survey you need to click the “Save as Draft” button again (the access link will not change)
- Once your survey answer is complete you must select “Submit” at the end of the survey not “Save as Draft” as the study team cannot access drafts
- Please note it is not advised to have multiple people accessing the link and inputting data simultaneously as this can cause syncing and lost data issues

Survey admin notes

- The survey is available until 11:59pm on the 30/05/2025
- The survey has been machine translated into all official languages of the EU27
- Should you need to review the RPA privacy policy or Cefic statistical rules these are available to access in the survey
- If you have questions or any issues you can contact Robert White at RPA directly (Robert.white@rpaltd.co.uk) or use the contact form function in the survey
- Should you wish to view the full survey (some questions are hidden by conditions) you can download a PDF version of the survey
- NDAs can be arranged and signed upon request if required



Next steps

- Review the questionnaire early and complete what information you can initially
- Create and save a draft response and distribute this within your organisation to relevant parties
- Distribute the questionnaire link and this presentation to customers and clients to increase data catchment
- Reach out to RPA as soon as possible with any comments or questions

Q&A (1/2)

- **When is the final report from the study scheduled to be completed and will it be available to all to view?**
  - The study by RPA is currently forecast to conclude and report by the end of July, this is subject to change should any extensions or delays to the questionnaire occur. Regarding the final report availability, RPA is contracted to deliver its report to EFCTC, and they will conclude on how to distribute the report or its findings.
- **Is the EI metric from the Eco-design regulation captured in the performance metric question**
  - The EI metric from the eco-design regulation is not currently one of predefined answer options in the performance metric questions. However, within this question there is an “other” answer option which can be used to provide EI metric data. If so, required RPA can include this as an answer option in an update for the survey.

Q&A (2/2)

- **Are there any questions which are open to all respondents? For example, when talking about cost of installation can only system installers reply?**
  - Within the technical questions section most questions are available to all respondents and are not connected to the stakeholder group identification question. Within the costing section however there is more conditional rooting which means only certain stakeholder groups will be able to view certain questions. This rooting can be amended by RPA if so required but also respondents can download a PDF version of the document to be able to view all questions if they so wish and can provide answers to these via PDF or the comment section in the final survey page.
- **For questions regarding the energy consumption of systems will you accept data only from field-based tests or will modelled results also be acceptable?**
  - Yes, energy consumption data from field test and models is acceptable for submission in the survey we do however ask for respondents to identify when they have submitted modelled or field-tested data for our own records.

Thank You

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