

SPICE YEAR 7 COMMITTEE 1 MEETING MINUTES JUNE 5TH, 2025



Minutes written by: Quantis

Participants (online, unless stated):

- Albea, Gilles Swyngedauw (on site)
- Aptar, Benedicte Luisi
- Axilone, Reynald Trochet
- Axilone, Augustin Maire du Poset (on site)
- Berry Global, Ellen Seyda
- Berry Global Anna Oliveras Torra
- Chanel, Helene Villecroze (on site)
- Coty, Vincent Delavenne (on site)
- Estée Lauder, Michael Christel
- Hermes Parfums, David Petit (on site)
- KAO corporation, Shu Genhaku
- KAO corporation, Shinya Oogane
- L'Oréal, Philippe Bonningue (on site)
- L'Oréal, Philippe Thuvien
- LVMH, Régine Frétard (on site)
- LVMH, Elsée Ekambi Eyoun
- Meiyume, Jan Porter
- Puig, Joachim Cons Garcia
- Shiseido, Yuria Miyabayashi
- Toly, Cheryl Bezzina
- Unilever, Frédéric Dreux
- FEVE, Fabrice Rivet
- PCPC, Kathleen Stanton
- MWE, Caroline Noyrez (on site)
- Quantis, Jules Faucher (on site)
- Quantis, Jean-Marc Fontaine (on site)
- Quantis, Victor Frontère (on site)

- Quantis, Elisa Jenny
- Quantis, Nassim Bami
- Quantis, Margaux Biharé
- Quantis, Colin Jury
- Quantis, Amandine Baylet

Excused SPICE Members:

- Sisley
- N°7 Beauty Company
- Canopy Planet
- CITEO
- Cosmetics Valley
- Detic
- Elipso
- FEBEA
- Recyclclass

Description: The Members of the SPICE initiative - the Sustainable Packaging Initiative for Cosmetics - gather for the first committee of the seventh year of the initiative.

Opening of the meeting

Introduction

Jean-Marc Fontaine (Quantis) welcomes all participants to the fourth committee of SPICE Year 7, presents the meeting's rules to ensure efficient discussions, and calls each member by company and name.

Meeting agenda

Jean-Marc Fontaine (Quantis) presents the meeting's agenda:

- 0. Antitrust Statement**
- 1. Year 7 overall review timeline & allocated budget**
- 2. YEAR 7 NEW WORKSTREAMS/ TASKFORCES**
- 3. Future of SPICE tool**
- 4. YEAR 7 CONTINUED WORKSTREAMS**

0. Antitrust statement

Caroline Noyrez (MWE) introduces the antitrust statement (antitrust and confidentiality undertakings) that was duly signed by all participants:

While some initiatives among companies may be both legal and beneficial to their industry, group initiatives between competitors are often suspected to be anticompetitive and therefore illegal by National Competition Authorities.

In this respect, being a member of such an initiative, as being part of any formal or informal meetings, where other competitors are present, may involve risks, especially regarding the type of information likely to be shared around the table.

As a general rule, participants shall not exchange any sensitive information in relation to their business or company nor reach any understanding, expressed or implied, with the object or effect of restricting competition. Participants may only discuss the issues at hand in the agenda of the meeting. Therefore, it is the responsibility of each participant to avoid raising improper topics for discussion.

Participants to the meeting must not discuss topics such as:

- Prices, including any subject relating to prices or its components such as discounts, rebates, surcharges, price changes, price differentiation, profit margins, price increases, credit, or any other sales condition;
- Costs, including any component relating to costs such as production or distribution expenses, formulas for cost accounting, methods for cost calculation;
- Information relating to sales and company's production, especially production volumes, sales profits, operating capabilities, level of stocks or supplies;
- On-going non-public litigations;
- Any of a company's upcoming and confidential projects, including those relating to sales and to marketing strategy, along with production and technology, wage policy, R&D programs;
- Information relating to the relationship with customers/suppliers (including terms and conditions).

This applies not only to discussions in formal meetings but also to informal discussions before, during and after meetings.

Participants shall observe the below procedure for each meeting:

- The agenda of the meeting, including the name and position of each participant, must be submitted to legal review prior to the meeting.
- The meeting shall be conducted on the basis of the agreed agenda only.
- The antitrust statement may be read by each participant at the beginning of each meeting.
- If the discussions turn to improper subjects during a meeting, the concerned participants will be required to put an end to the discussion and to leave the meeting immediately.
- A comprehensive summary of all meetings shall be taken and shall be submitted to legal review prior to circulation.
- The summary shall be circulated to all members as soon as possible after the meeting.
- Any comment or request for amendment shall be notified as soon as possible following receipt of the summary.

She specifies that his role is to ensure that participants will not exchange commercial sensitive information as regards competition rules and that SPICE is not used as a cover for an anticompetitive agreement. It is the responsibility of each participant to avoid raising any improper subjects during the meeting. She develops the list of topics that are considered commercially sensitive from a competition law perspective (prices, costs, customer, general strategy, etc.).

1. Year 7 overall review timeline & allocated budget

SPICE Publications year 6

Jean-Marc Fontaine (Quantis) reminds members of the SPICE Year 6 workstream publication, published on the website:

- Eco-design and circularity
- SPICE REUSE guidelines
- LCA of chemical recycling
- Product emissions data exchange guidance

Jean-Marc Fontaine (Quantis) presents the corporate members and associated members status. Clarins and JPMS are leaving the initiative. Steering Committee composition: same steer co as last year.

Jean-Marc Fontaine (Quantis) gives a snapshot of SPICE tool licensees for year 7.

Jean-Marc Fontaine (Quantis) presents the Quantis team, the priorities for year 7 and the timeline. The events and conferences where SPICE will be promoted during Y7 are presented. *If SPICE members have the chance to co-present on SPICE at an event or are aware of other relevant events SPICE could participate in, please reach out to us.*

No question or comment from SPICE members.

Jean-Marc Fontaine (Quantis) presents the year 7 proposed budget allocation aligned with SPICE members priorities.

SPICE YEAR 7 BUDGET VOTE | DO YOU APPROVE THE BUDGET ALLOCATION?

Company	Vote
Albea	Yes
Aptar	Yes
Axilone	Yes
Berry Global	Yes
Chanel	Yes

Company	Vote
Coty	Yes
Estee Lauder	Yes
Hermes Parfums	Yes
KAO	Yes
L'Oréal	Yes
LVMH	Yes
Meiyume	Yes
N°7 Beauty Company	Yes*
Puig	Yes
Shiseido	Yes
Sisley	Yes*
Toly	Yes
Unilever Prestige	Yes

* This member submitted their vote to Quantis prior to the committee meeting, as they were unable to attend.

Vote results– 18 voting members

YES 100% - NO 0% of voting corporate members.

SPICE members approved the SPICE year 7 budget allocation for defined priorities.

No question or comment from SPICE members.

2. SPICE Year 7 New Workstreams/ Taskforces

Product Emission data exchange taskforce

Margaux Bihare (Quantis) opened the session by thanking members for their contributions to the development of the Product Emissions Data Exchange guidance. The continuation of this work from Year 6 was validated by members during the last committee. The goal is to build upon previous efforts by enhancing methodological granularity and extending coverage to additional packaging materials.

In Year 6, SPICE introduced the topic of Product Emissions Data Exchange, outlining its significance and proposing a high-level guidance document. The publication focused on:

- Introduction to emissions data exchange
- Framework for collecting data from value chain partners
- Guidance on calculating supplier-specific emission factors (EFs)

A key conclusion from this workstream was the need for a more detailed, actionable methodology tailored to packaging material-specific requirements. To meet these expanded objectives, a dedicated taskforce (TF) has been formed. The TF includes a balanced mix of stakeholders:

- **Brands:** Chanel, LVMH, KAO – offering varied perspectives on packaging, regional market contexts, and maturity levels
- **Packaging Manufacturers:** Albéa & Axilone – bringing insights from Tier 2 suppliers and operational realities
- **Federation:** Elipso (French plastic packaging) – representing industry-wide viewpoints and market intelligence

Margaux extended thanks to the members who volunteered for this initiative.

The first TF meeting was held on **May 22**, with two primary objectives:

1. Review and revise the scope in line with budget constraints
2. Launch initial discussions on data collection from TF members to support methodology drafting

Packaging materials not prioritized by the TF, such as **glass and cardboard**, are currently out of direct scope. However, they may still be addressed through insights shared by members via a dedicated survey. The intention is to iteratively bridge the data gaps as the work progresses.

Margaux described the planning:

- **Summer 2025:** Finalize "Step 0" – reviewing scope and initial data consolidation
- **Post-Summer:** Begin methodology writing phase
- **Q&A session (TBC):** Present the draft methodology to members for feedback
- **Late Y7 Committee (Committee 3):** Potential vote on the finalized methodology
- **2026:** Publication and promotion of the updated guidance

Before concluding, members were invited to participate in a **poll to prioritize packaging materials** for future scope extension.

Q. Regine (LVMH): How are cardboard and glass going to be covered, as glass & cardboard suppliers are not part of the taskforce members?

A. Margaux BIHARE (Quantis): This is true that these materials can represent a significant part of the footprint. For now, these materials will be covered through the members' data and insights collection. If need be, we will ask taskforce members, particularly brands, to reach out to some of their suppliers to collect extra data if possible. It can become an iterative process, with back-and-forth between Quantis, taskforce members and their value chain partners. Thanks to this, we should have enough insights to cover those materials.

Margaux mentioned that a survey will be launched to know the members priorities to extend the scope of materials.

Q. Vincent Delavenne (COTY): Will the methodology be implemented in the next revision of the SPICE tool?

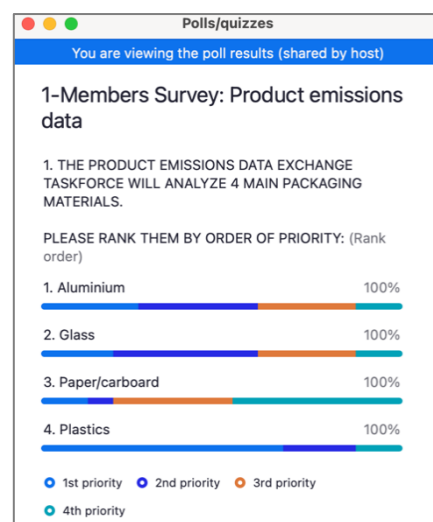
A. Margaux BIHARE (Quantis): We are not changing the methodology itself; we are adding on top of it. Regarding SPICE tool impacts, it could lead to more flexibility, but we are not sure when and how it will be impacting the tool as of now.

MEMBERS SURVEY|THE PRODUCT EMISSIONS DATA EXCHANGE TASKFORCE WILL ANALYZE 4 MAIN PACKAGING MATERIALS. PLEASE RANK THEM BY ORDER OF PRIORITY: Plastics, Paper/cardboard, Glass, Aluminium.

Results of the live survey:

The result of the survey shows that priorities in order are

1. Plastics
2. Glass
3. Aluminium
4. Paper / cardboard



No other questions or comment from SPICE members.

SPICE Claims Guidance

Elisa JENNY (Quantis) explains the structure of this workstream, which leverages a panel of experts to update the SPICE Claims guidance. Currently, 4 companies are part of the expert panel (L'Oréal, Coty, Estée Lauder & Puig).

Elisa JENNY (Quantis) calls for members to join the panel if they have claims expertise. Indeed, it would be valuable to have members from different geographies, such as Asia, which is not represented for now. Members can reach out to Quantis if interested.

Elisa JENNY (Quantis) then explains the context of this workstream. Over the past 5 years, a lot has happened on the regulatory front, which is a strong trigger to update the guidelines: claims must be substantiated & verified, and it is important to be clear on how to claim to ensure credibility and reduce legal risks. If SPICE does not work on this, there are risks of greenwashing allegations, market withdrawal, reputation damage or financial implications through fines.

Elisa JENNY (Quantis) details the objectives of this workstream:

- To have best-in-class packaging claims guidance, which is key for SPICE reputation and for whole industry
- To clearly link the guidance to the SPICE Tool, thus helping to attract new members
- To clearly distinguish between mandatory & best practices in communications
- To have an easy-to-use guidance for most of the departments who work with claims, i.e. marketing, packaging, R&D...

Elisa JENNY (Quantis) explains the proposed step-by-step approach:

- Scope validation, which has been done with the expert panel over Q2 2025.
- Guidance writing, which is ongoing thanks to Quantis' internal work. Timeline for first draft: end of June.
- Guidance review by expert panel. Timeline: up to September.
- Guidance check with members before publication. Timeline: Q3 2025
- Vote for publication. Timeline: last committee of SPICE Y7

Q. Ellen SEYDA (Berry): Will there be any kind of legal check included? We are facing many regulations, including PPWR with green claims only being allowed if certain minimum requirements are achieved. Thus, it would be great to have a legal check of the document.

A. Elisa JENNY (Quantis): For now, we have only planned a Quantis check with our internal experts on this matter.

A. Jean-Marc FONTAINE (Quantis): We have indeed Kathryn as a claims & communications expert who will review the applicable regulations, and our recommendations. We also have the brands involved in this panel, they contribute with all their experts to co-build the guidance, including their legal experts. However, the deliverable will be a guidance only: it is up to each company to check, for their products and markets, how compliant they are with local laws.

A. Elisa JENNY (Quantis): During the kick-off meeting, we discussed limitations of the guidance with members, and we agreed that some disclaimers will be added in the document to explain it is not a legal document.

Question in the chat – Jan Porter (Meiyume): For Asia, since there are multiple countries involved, are there any countries that are prioritized?

A. Jean-Marc FONTAINE (Quantis): There will be a survey at the end of the committee to help us prioritize the regulations to check. It is heavily related to this topic, and it will help to prioritize the countries.

A. Elisa JENNY (Quantis): During the kick-off meeting, we mentioned some regulations in Korea, Japan, China primarily. It was only briefly discussed.

No other question or comment from SPICE members.

3. FUTURE OF SPICE TOOL

Jean-Marc Fontaine (Quantis) reminds the context and the proposed solution to have SPICE Tool into eQopack platform, an advanced ecodesign platform built by Quantis which can boost the SPICE Tool. He reminds the audience that the SPICE Tool is a key asset of SPICE : it is recognized, accessible, user-friendly and it uses a recognized database also used by EBS. However, it must be updated to stay aligned with SPICE Tool users' expectations.

Jean-Marc Fontaine (Quantis) reminds SPICE members of the activities which took place over the past months to inform members of this upcoming change. In particular, 2 demo of eQopack and Q&A sessions took place in April for SPICE members to ask questions. All questions answered were shared via email. On May 23rd, 2025, SPICE Steering Committee confirmed alignment with the proposal.

Jean-Marc Fontaine (Quantis) reminds SPICE members of the features behind SPICE Tool in eQopack. In particular, he explains that eQopack will provide the engine & the features, including features that SPICE was planning on adding in the SPICE Tool before the merge. eQopack will be updated to provide a dedicated SPICE Tool branding in the user interface.

Jean-Marc Fontaine (Quantis) presents the foreseen next steps in case of positive vote for having the SPICE Tool in eQopack. One of the key points is to frame a service level agreement (SLA) between SPICE & eQopack, leveraging the Q&A discussions of April with SPICE members. A new formal agreement based on existing SPICE Tool contract will be co-developed with MWE and with Quantis's eQopack team. Its key terms will be submitted to SPICE members for validation.

Victor Frontere (Quantis) highlights that the service level agreement will reflect the key information shared during this committee, and what has been discussed over the past months and during the Q&A.

Q. Philippe BONNINGUE (L'Oréal): Will the Q&A be part of the SLA?

A. Victor Frontere (Quantis): During the Q&A, we clarified some questions on the agreement conditions between eQopack & SPICE, such as yearly contribution of SPICE to eQopack, services provided by eQopack. This will be reflected in the contract.

Q. Philippe BONNINGUE (L'Oréal): yes, but still. A lot of concerns were raised during the Q&A (governance, cosmetics voice versus other industries, value of 1\$ based on SPICE-tool vs 1\$ value into Eqopack, stability of the budget for the coming 2 or 3 years, ...), which was recorded.

As we are going to vote, we are voting considering the answers that pleased us during the Q&A. Thus, we need to trace that the vote is linked to the answers of the Q&A.

A. Jean-Marc Fontaine (Quantis): Everything we shared during previous presentations; committees & Q&A will be the baseline for framing the SLA between SPICE and eQopack.

A. Victor Frontere (Quantis): Exactly. All the precisions coming from Q&A iterations, including governance and stability of fees, will be translated into the SLA.

A. Jean-Marc Fontaine (Quantis): the Q&A report will not be an annex; it will be in the SLA.

Jules FAUCHER (Quantis) then presents an estimated planning for SPICE Tool migration. The planning is divided in 4 streams to represent the different teams, expertise & resources engaged in the project: Product Management / Development & integration / methodology & database / Legal, documentation & trainings.

A. Jean-Marc Fontaine (Quantis): This planning demonstrates how we have taken into consideration all comments from members in Q&A sessions. Also, one thing we thought about, maybe for Q2 2026, is the third-party review. Indeed, eQopack is a 3rd-party reviewed tool, like SPICE tool. By moving the SPICE Tool into eQopack, we might need to consider re-evaluating the methodology and calculation engine so it can remain third-party reviewed. And we could go further by thinking of a certification for the tool, which would bring extra value to the tool for users, and would complement the of the claims guidelines mentioned earlier.

A. Jules FAUCHER (Quantis): We had a question from a member about how to use SPICE Tool while merging into eQopack. Both can be used: while we work on migration, members can use the SPICE Tool. The key moment will be the deployment in Q1-Q2 2026. During deployment, we will copy-paste current data in SPICE Tool into eQopack. For a 2-3 weeks period during deployment, SPICE members won't be able to use SPICE tool.

However, after the migration, SPICE Tool will still be there and can still be used. It will help us to make sure we have properly migrated all the data.

Q. Vincent DELAVENNE (Coty): You say the environment for the user will not change; it is what is behind that will change. But will we have an ergonomic revolution, or minor changes?

A. Jules FAUCHER (Quantis): There will be 2 environments, but users can work with the exact same SPICE Tool environment in eQopack, with current data from SPICE Tool.

Q. Vincent DELAVENNE (Coty): Users are used to entering data in a certain way in the SPICE Tool. Will this change?

A. Jules FAUCHER (Quantis): The idea is to be as close as possible to the existing interface. We are aiming for 90-95% similarities.

Q. Vincent DELAVENNE (Coty): Good, it will not revolutionize how to enter data for users.

A. Jules FAUCHER (Quantis): Indeed. Also, eQopack is another tool, it has opportunities to improve on user experience and ergonomics. If we have to make improvements in eQopack to go to the level of SPICE Tool, we will make those improvements before we merge the two tools. We aim not to change the user experience.

Jean-Marc Fontaine (Quantis) moves to the vote after reminding the audience that all questions received over the past months on the topic have been successfully answered.

SPICE YEAR 7 VOTE | DO YOU APPROVE TO HAVE SPICE TOOL INTO EQOPACK PLATFORM AS ECO-DESIGN SOLUTION?

Company	Vote
Albea	Yes
Aptar	Yes
Axilone	Yes
Berry Global	Yes
Chanel	Yes
Coty	Yes
Estee Lauder	Yes
Hermes Parfums	Yes
KAO	Yes
L'Oréal	Yes
LVMH	Yes
Meiyume	Yes
N°7 Beauty Company	Yes*
Puig	Yes
Shiseido	Yes
Sisley	Yes*
Toly	Yes
Unilever Prestige	Yes

* This member submitted their vote to Quantis prior to the committee meeting, as they were unable to attend.

Vote results– 18 voting members

YES 100% - NO 0% of voting corporate members.

SPICE members approved to have SPICE tool into eQopack platform as eco-design solution.

No question or comment from SPICE members.

4. SPICE Year 7 Continued Workstreams

REUSE SPICE Insight

Margaux BIHARE (Quantis): One of the key topics of Y6 was the creation of the Reuse guidance, which aimed at building case studies of several reuse packaging options to study their environmental impact. As discussed during the last committee, the work is now done, the guidance has been published and promoted via a webinar earlier this year.

Where are we now?

- During C4, we agreed that SPICE would publish a SPICE Insight, i.e. a 2-pager to summarize the findings and to further promote the work that has been done.
- This is what we have been focusing on with SPICE members over the past months, particularly March/April.

What are the next steps on the SPICE Reuse guidelines?

1. SPICE Insight

- The SPICE Insight is now finalized, following two rounds of feedback from both SteerCo and SPICE members. Your comments on content and layout helped us improve the document with support from our marketing team.
- After the second round, members confirmed the document was ready for publication.
- We'll be asking for your formal vote on its release in a few minutes (last email update sent on April 29).
- If approved, the Insight will be published on the SPICE website — similar to the Ecodesign & Circularity Insight — and promoted via LinkedIn.

2. Sustainability in Packaging Europe' presentation:

- As mentioned during last committee, L'Oréal has identified a speaking opportunity at the 'Sustainability in Packaging Europe' event planned in Oct 2025 in Barcelona. Quantis & L'Oréal are working together to prepare this event and further promote the document.

3. FEBEA Workshop: I will let Jean-Marc comment on this part.

A. Jean-Marc FONTAINE (Quantis): Yes, we have been invited by FEBEA to present our SPICE reuse guidance, case studies, and insights to their working group members on reuse topics. This presentation took place on July 1st, offering an opportunity to share our work with FEBEA members. These are the next steps we are taking on the reuse topic.

We hope this will help promote the subject not only within SPICE member organizations but also externally. If you would like to support this effort by sharing the content on your social

media or through your company channels, please feel free to do so—it has strong potential to generate impact.

As Margot mentioned, the two upcoming events we'll be attending will also help further promote the topic and SPICE's insights. Additionally, the vote on publishing the reuse insights, which is set to launch now, will further contribute to this momentum.

SPICE YEAR 7 VOTE | DO YOU APPROVE THE SPICE INSIGHT ON PACKAGING REUSE FOR PUBLICATION?

Company	Vote
Albea	Yes
Aptar	Yes
Axilone	Yes
Berry Global	Yes
Chanel	Yes
Coty	Yes
Estee Lauder	Yes
Hermes Parfums	Yes
KAO	Yes
L'Oréal	Yes
LVMH	Yes
Meiyume	Yes
N°7 Beauty Company	Yes*
Puig	Yes
Shiseido	Yes
Sisley	Yes*
Toly	Yes
Unilever Prestige	Yes

* This member submitted their vote to Quantis prior to the committee meeting, as they were unable to attend.

Vote results— 18 voting members

YES 100% - NO 0% of voting corporate members.

SPICE members approved the SPICE insight on packaging reuse for publication.

No question or comment from SPICE members.

SPICE DATABASE

Glass dataset development (slide 48)

Nassim (Quantis): The Ecoinvent database continues to evolve annually, and version 3.11 has now been officially released. As we did last year, we will update our database this summer to integrate version 3.11. In the September committee meeting, we will present an impact analysis of the updates to clarify what has changed and which material categories are affected. For instance, if a specific material used in one of our processes is significantly impacted, we will highlight it and explain the reasons behind the change. The updated database will be implemented in October 2025.

SPICE Datasets- New data developments Y7-Survey (slide 49)

Nassim (Quantis): At the end of year 6, several new datasets were added to the database, and a survey was sent out to identify member priorities—materials marked in green indicate the highest priority. For the hot stamping process, a data supplier has been identified, and data collection is underway. PET without antimony has emerged as a high-priority dataset, confirmed by survey responses from 9 or 10 SPICE members and additional direct inquiries. These members have been contacted by email to either provide relevant data or suggest data supplier contacts; however, no data supplier has been identified yet. As a reminder, if you have data or data supplier contacts for any materials or processes of interest, feel free to contact the SPICE team or reach out to me directly.

Jean-Marc (Quantis): PET is considered impactful primarily because it uses antimony as a catalyser. To address this, we need to develop an alternative dataset for PET produced without antimony. However, obtaining reliable data for this option remains a challenge, and further information is needed to move forward. If you have any relevant data or contacts that could help, please don't hesitate to reach out to us.

Dataset validated and ready to be implemented (slide 51)

Nassim (Quantis): As you know, the team has been working on developing new glass datasets that are more representative of the cosmetics sector, as the current dataset in SPICE is more generic. To achieve this, we collaborated with data suppliers to build the new dataset. Following several rounds of technical and quality reviews by Quantis experts, the results were shared with these suppliers. We also had a call with FEVE, who kindly provided the environmental life cycle assessments for the existing SPICE glass dataset. This allowed us to present the findings and address any questions raised.

Quality data review approach in Quantis (slide 52):

Nassim (Quantis): It's just an overview of the quality review approach we have at Quantis. So the model we constructed with the suppliers' data was reviewed by a Spice experts internally after the construction of the model and in addition, the model has been reviewed by another Quantis experts externally to SPICE projects to ensure the robustness and accuracy to the model.

Q. Ellen Seyda (Berry Global): Have you ever contacted IPC or EVA to use some of their data? (for silkscreen printing)

A. Nassim (Quantis): No but it's something we can do.

Jean-Marc (Quantis): Limitations here is going to be possibility for them to share the data because it might be confidential and the modelling. At Quantis, we work with both primary and secondary data sources, and we use this information to model datasets for SPICE.

Ellen Seyda (Berry Global): Yeah, I think IPC also made some of the datasets on their own using the equipment they have in the lab and their own machinery. So, I think it might be an opportunity to include additional data that isn't usually available in standard datasets.

Jean-Marc (Quantis): We will contact them, if you have a contact, you can share it with Nassim or myself.

Ellen Seyda (Berry Global): I will.

No question or comment from SPICE members.

SPICE Datasets (Glass specific datasets) (slide 53)

Nassim (Quantis): The question of how virgin glass is defined was raised during the last committee meeting. Virgin glass refers to glass with no cullet content, even though in practice, some processes systematically include cullet in their inputs. For example, we received data from suppliers indicating 20–40% post-industrial recycled (PIR) cullet in their processes. However, we had to classify these as virgin materials for two reasons:

4. PIR cullet is considered recycled material according to the SPICE methodology.
5. To construct the datasets and implement them into the Circular Footprint Formula, we needed to use a theoretical virgin glass value—meaning 0% recycled—and a corresponding 100% recycled material. This allows users to manually enter their actual PCR (post-consumer recycled) content in the tool.

As reminder, the maximum PCR input in the tool will be set at 40%, reflecting the current practical limits in the glass industry. The same logic applies to the recycled datasets, which are modeled using 100% internal cullet.

As mentioned, this approach is purely theoretical since we know the industry typically does not exceed 40% recycled glass content in practice. However, to construct the Circular

Footprint Formula, we deliberately chose to model both a 0% cullet (virgin) dataset and a 100% cullet (recycled) dataset.

To build the recycled glass dataset, we relied on the hypothesis from the FEVE website, which states that every 10% increase in cullet content leads to approximately a 2.5% reduction in furnace energy consumption. Based on this, a 100% cullet scenario would correspond to a 25% energy reduction.

Regarding technology, the data we received were based on standard gas furnaces, which include some electricity consumption due to melting process and additional ancillary equipment.

Q. Philippe BONNINGUE (L'Oréal): I'm a little bit confused about the 40% PCR maximum in glass and the 100% internal cullet. So, am I correct in understanding that as soon as we enter 40% PCR, the footprint is equivalent to 100% internal cullet—meaning that if we enter 60%, it would be the same?

A. Nassim (Quantis): No, if you input 40% PCR cullet, the dataset will reflect a 40% PCR scenario. In the Circular Footprint Formula, this means the impact will be calculated as a weighted average: 40% from the 100% recycled glass dataset and 60% from the virgin glass (0% cullet) dataset.

This is how the formula is built—it splits the impact between virgin and recycled components. However, the recycled material impact used in the formula comes from a dataset modelled as if it were 100% recycled, which is why we refer to it as theoretical.

A. Jean-Marc (Quantis): The table we see here is only for defining the dataset, and the 40% maximum is based on cosmetic glass flaconnage quality. That is the threshold to say you cannot use more in practice as per flaconnage glass manufacturers. What we see here for Virgin and Recycled is only for the theoretical calculation afterward. The glass dataset itself is named according to the market segment, such as Virgin Glass – Luxury or Virgin Glass – Mass Market. After selecting the appropriate dataset, the user can then choose a PCR percentage between 0% and 40% and then the calculation using the CFF will be applied.

Fabrice Rivet (FEVE): I'm not sure if it's just a semantic issue or something more substantial, but there's a confusion in the slides between internal cullet and post-industrial cullet. Internal cullet is not the same as post-industrial—internal cullet refers to in-house scrap that is immediately recycled back into the furnace, whereas post-industrial cullet involves sending articles outside to another process, like a feeding line, and then recovering breakages from that line to reintroduce into the furnace.

These are two distinct categories, and they should not be conflated in the table. For example, when you mention internal cullet—and “cullet” is always singular—it should be referred to as

internal cullet between 20% and 30%. If it is internal cullet, then it is not post-industrial, so referencing PIR (post-industrial recycling) in that context is not appropriate.

Jean-Marc (Quantis): Maybe, to avoid confusion, we can add the clarification that Post industrial recycled (PIR) cullets, which can be either internal or external cullets, are not considered as Post consumer Recyclable (PCR).

SPICE Datasets for virgin cosmetics glass (single score results) – (slide 54)

Nassim (Quantis): We are only focusing on the datasets we will implement. In fact, we now have two datasets: one for mass market glass and one for luxury market glass. These categories were already defined in previous committee meetings. What we are doing here is comparing the new datasets to the current dataset in SPICE, so you can clearly see the differences.

The impact of glass is increasing in the new datasets compared to the current one in SPICE. This can partly be explained by the fact that the previous glass dataset used Ecoinvent 3.8 and the EF 3.0 impact assessment method, which is not aligned with the SPICE methodology. This misalignment already helps explain part of the difference, as the older database and methodology may have underestimated impacts compared to more recent versions.

The differences could also be explained from modelling assumptions, such as the percentage of internal cullet or PIR cullet used in the existing dataset. Additionally, the previous model might have assumed lower energy consumption, possibly because it represents a different industry sector.

However, we can't analyse these differences in full detail, as we don't have access to the original model's internal parameters—only to the results. That said, the overall impact distribution trends in the datasets we developed were consistent across environmental categories when using Ecoinvent 3.10 and EF 3.1.

We also reviewed a general Ecoinvent glass dataset (not specific to cosmetics), and its impact distribution pattern was similar. This consistency gave us confidence in the reliability of the new datasets we constructed.

SPICE Datasets for virgin cosmetics glass (climate change results) – (slide 54)

Nassim (Quantis): It's the same slide—just meant to show you the values for the climate impact specifically. It might make things easier to visualize. But again, yes, we are seeing an increase in the impact of glass, which will now be more representative of the cosmetics sector.

Q. Frédéric Dreux (Unilever): In the scope now, we still don't have the electric furnace of alternative source of energy for the furnace?

Nassim (Quantis): For now, the dataset is based on standard gas furnaces, with some additional electricity consumption accounted for, mainly due to ancillary equipment or the

melting process itself. We did explore the possibility of including electric furnace data, as discussed in previous committee meetings. However, due to an insufficient number of data points, we have set that aside for the moment. That said, if any members or contacts have relevant data or data supplier references, we would be happy to collaborate on the development of updated glass datasets.

Q. Frédéric Dreux (Unilever): I've already shared my data, but I understand you might need more input. This is a growing area of interest in the industry, and I just want to make sure we keep track of it so we can incorporate it at the right time.

A. Victor (Quantis): Yes, you're right. The machinery and industrial equipment used by suppliers are evolving rapidly. What may not have been available—or too early to share—a few months ago is changing quickly. It's important that we stay in touch with data suppliers and continue gathering updated data as it becomes available.

Fabrice Rivet (FEVE): As you can imagine, it's very difficult for us to validate this data because it's fully aggregated and reflects the entire life cycle. This includes upstream processes like raw material extraction, electricity production, and other stages that we don't have visibility or control over. We haven't been able to review any gate-to-gate data—meaning data from the glass factory alone—which makes it hard to assess whether the figures are accurate or meaningful. So, it's challenging for us to give a clear yes or no on the validity of the dataset.

We would also have welcomed an external third-party review of the collected data, but that hasn't taken place. Additionally, if I understand correctly, the dataset is based on just two plants, which raises both confidentiality concerns and questions about representativeness. It's also unclear whether the data comes from within Europe or outside, adding to the uncertainty.

Finally, we still have many open questions. We received the minutes from the meeting with Quantis just yesterday and need to review them thoroughly to identify any further points requiring clarification.

Jean-Marc (Quantis): Indeed, we held a session on May 27th with FEVE and some of your members to present the results and ensure transparency throughout the process. During this session, we addressed all questions related to the methodology, which follows the PET/SPICE framework. The scope applied aligns with SPICE's expectations: cradle-to-gate for internal member work and cradle-to-grave when discussing final product impacts.

For the data, we worked with three different suppliers, combining their inputs with Ecoinvent datasets to construct robust and comprehensive datasets. To ensure representativeness, we incorporated both European and non-European data, as SPICE operates on a global scale and the tool is used by brands worldwide. Our aim was to maintain both accuracy and relevance across regions.

Regarding confidentiality, because we used three distinct data sets, individual plant-level details are anonymized and cannot be traced back, which ensures privacy while still allowing for reliable modelling. This approach is consistent with how we've developed datasets for the SPICE database in the past.

Additionally, we introduced an extra layer of quality assurance by involving Colin (Quantis)—an external expert to the SPICE team with many years of LCA review experience. He conducted a thorough review of the model, the data, and the outputs, further strengthening the credibility of the process.

Colin (Quantis): Regarding confidentiality, there are absolutely no concerns. First, we are not sharing any process-level data—not even inventory flows. We are only providing final results, which makes it impossible to perform any reverse engineering to trace back to the process data from individual suppliers. Moreover, the data from the suppliers have been aggregated and mixed, further ensuring that no retro-calculation is possible. On this point, there is absolutely no doubt.

That said, the more suppliers we can involve, the better and more representative the dataset will be. Engaging additional suppliers in this development process would be extremely valuable. If FEVE has access to suppliers producing cosmetic glass, it would be great to explore ways to involve them to further improve the representativeness of the datasets.

For now, we have three suppliers who have provided primary data, and this is already a strong foundation. Using datasets based on actual supplier input for cosmetic glass is far more relevant and accurate than relying on generic datasets developed for mass market glass. There is no doubt about that.

Q.Fabrice Rivet (FEVE): But you have three suppliers—only two of them contributed to some of the sub-categories you showed, isn't that, right?

A.Nassim (Quantis): Yes, we have three suppliers who submitted data overall. All three contributed to the luxury and mass market glass datasets. However, only two of them provided data for mass market glass, while the third submitted data exclusively for luxury glass. That's why we supplemented the mass market glass dataset with data from Ecoinvent to complete the average.

Of course, having more suppliers involved would improve robustness. But even with the current input, the mass market dataset is sufficiently solid. The quality of glass defined as "mass market" is inherently lower than that of luxury glass, and the dataset is consistent enough that the Ecoinvent data aligned well with the results from the two suppliers.

Yes, it's true that ecoinvent's glass dataset isn't designed specifically for the cosmetics sector, but as Colin pointed out, this was the most reasonable and consistent approach we could take given the available data.

Colin (Quantis): The results are quite coherent and align with expectations. It's consistent to see that cosmetic mass market glass has a slightly lower impact than cosmetic luxury glass. We also expected, and observed, that cosmetic glass in general has a higher impact than general mass market glass, which further supports the validity of the datasets.

Fabrice Rivet (FEVE): Yes, that makes sense indeed, but I just cannot validate the data because I don't have enough detailed information. The data isn't disaggregated enough. I may have a general idea of the glass production process, but once it's all mixed into a black box with other elements—like raw material extraction, electricity production, transport, etc.—I simply don't have the tools or visibility to assess or validate it properly. So I'm not saying the data is incorrect, just that with the current level of detail, I'm not in a position to confirm or reject its validity.

Q. Philippe BONNINGUE (L'Oréal): But will you soon be in a position where you (the FEVE on behalf of the glass-makers) can validate the data—yes or no? We need to ensure that all members are aligned.

Victor (Quantis): I think there are two aspects to consider here. First, we could share information about the differences between the results from the three suppliers, without disclosing the exact values. What we can say is that the variation between suppliers is low, which supports the consistency and robustness of the dataset. Second, if the concern is about seeing the results broken down by life cycle stages—such as raw material extraction, production, and end-of-life—there should be no confidentiality issue. These breakdowns will be visible anyway in the SPICE tool once the dataset is implemented.

Colin (Quantis): I believe what Fabrice is looking for is a view into the inputs and outputs—specifically, the energy consumed, the types of raw materials used, and so on. And at this stage, the issue is one of confidentiality.

The question is whether the data suppliers agree to allow access to their primary data by someone other than Quantis—and if so, what level of access they are comfortable with. That's something we could certainly discuss with them. One possible solution would be to share aggregated datasets instead of individual supplier data, which might help address the confidentiality concerns.

Another option would be for FEVE to provide the aggregated primary data they used in their own assessments. That way, we could perform a comparison and highlight the differences between their dataset and the one we've developed, without breaching any data supplier confidentiality.

That said, I don't think it's surprising that cosmetic glass shows a higher impact than FEVE's dataset. After all, FEVE's data includes cullet, which leads to lower energy consumption. It's expected that cosmetic glass, with less cullet and higher aesthetic and quality demands, would have a higher footprint.

Fabrice Rivet (FEVE): I'm not surprised that the impact is higher—what I can't validate is the magnitude of the increase. As I've mentioned before, we don't have any flaconnage-specific data at FEVE, simply because we've never collected it.

Jean-Marc (Quantis): Nassim pointed that the main difference is the Ecoinvent version 3.8 for FEVE and the version of the PEF 3.0. And for spice we are using Ecoinvent 3.10 and EF 3.1.

Colin (Quantis): Maybe FEVE could update their glass dataset using the same Ecoinvent version and characterization method. That way, we might see that the difference is smaller than what's shown on this slide.

Fabrice Rivet (FEVE): Yes, but we still wouldn't be able to validate the data.

Jean-Marc (Quantis): What we're presenting here is the result of a year and a half of work, which has been reviewed and validated by the three suppliers. The goal today is to present the results and propose to include these new cosmetics glass datasets in the SPICE tool, so we can offer three optional datasets: mass market, luxury glass, and FEVE? This would allow us to provide more specific datasets for cosmetic glass and give users a broader choice for simulation.

Vincent Delavenne (COTY): Users will be able to choose the reference they want to use. However, we also need to be clear that if a dataset carries the SPICE stamp, it should be understood whether the figure was selected by the client or if it reflects the year and a half of collaborative work done with the three suppliers. It's not easy to have both a SPICE-endorsed figure and a user-selected figure under the same stamp.

Jean-Marc (Quantis): We are making these datasets available in the SPICE tool. However, it's important to understand that third-party verification within the SPICE tool applies to the methodology and the engine itself—not to the results—because the results depend entirely on the inputs provided by the user. The SPICE tool guarantees a consistent and standardized Life Cycle Assessment (LCA) methodology; however, the accuracy of the results depends on the quality and completeness of the user-provided data.

This distinction is critical and is aligned with the claim's guidance. We do not certify the user's inputs—we don't verify what weight, specifications, dataset selections, or production locations they enter. The responsibility lies with the user to accurately declare those details.

What is certified is the method (the PEF method), the quality of the datasets, and the process used to generate the results. The results themselves are only as reliable as the inputs provided, so our certification applies to the process, not the outcomes.

Philippe BONNINGUE (L'Oréal): So, if we want to promote glass, we'll choose the FEVE dataset. If we want to give a less favorable footprint for a glass project, we'll choose the luxury dataset.

Victor (Quantis): There are two possible approaches: either we keep all three datasets, or we keep only the two that are cosmetic-specific. Of course, it's up to the SPICE members to decide, but keeping all three puts the responsibility squarely on the user.

Between luxury and mass market, the choice is more objective—users know their product, and can decide accordingly. If we assume that all SPICE tool users are cosmetic brands, then—with perhaps a few exceptions—they will be using either the mass market or luxury dataset. The FEVE dataset, unless in a very specific case, is unlikely to be relevant, as it is not representative of flaconnage or cosmetic glass but rather of sectors like beverages or food.

Then, as discussed earlier, if we go with the first option (keeping the three datasets), it's important to bring in reassurance mechanisms. New members should have clarity about how the data was built. So, we have two paths:

Vote today on implementing the datasets, with two sub-options:

- Keep all three datasets
- Keep only the two cosmetic-specific ones

Alternatively, provide additional reassurance elements:

- A breakdown of impacts between raw materials, processing, and end-of-life—which is easy to share.
- An overview of the differences between the three suppliers—we've mentioned they are small, and we could provide that comparison in factual terms.
- Lastly, for members who already have data from their own suppliers, you can compare those with the aggregated datasets we present. This could serve as a form of internal validation.

Jean-Marc (Quantis): And just to recall, the request to include the two new datasets came from members during the last two committee meetings, specifically to expand the options for cosmetic-specific datasets. And this isn't unique to glass. In SPICE tool, users already have to make choices among multiple datasets for certain materials—for example, cardboard, where you can choose based on quality or grade.

The purpose is not to choose a dataset that favors or disadvantages a material, but rather to select the most representative dataset for your actual use case. That's what supports meaningful comparison and decision-making. So, what we're proposing here is to offer cosmetic mass market and cosmetic luxury glass datasets to reflect the diversity in the industry more accurately.

Philippe BONNINGUE (L'Oréal): I fully understand what Jean-Marc is saying, and I agree we can choose either the mass or luxury dataset. But what concerns me is that the glass expert (FEVE) within SPICE cannot validate what dataset the members will end up using.

That's really a blocker for me. I just don't want to end up in the same situation we had 18 months ago, when a glass expert publicly criticized the SPICE dataset reliability as being totally unfit. I want to avoid a repeat of that, at all costs for the renowned reliability of SPICE methodology/footprint.

To me, there are two options:

- We provide Fabrice—or whoever represents the glass industry—with additional elements that allow them to say: “I may not be able to confirm the exact values, but I agree that the SPICE dataset (mass or luxe) should have a higher impact than the one from FEVE.” In this case, we receive a kind of acknowledgment, which would give the dataset legitimacy.
- If we don't receive that acknowledgement, then implementing the dataset becomes a decision without the FEVE support, and that's far from ideal within a collaborative member-based initiative like SPICE.

Colin (Quantis): The three data suppliers didn't raise any objections to the results. They provided us with their primary data—even knowing that the results would appear worse compared to the previous dataset. So, do we really need an external validation? Of course, external review is always ideal, but the data suppliers themselves—who are directly impacted by these results—accepted them without contest. For me, that's the strongest form of validation we can have.

Nassim (Quantis): Exactly. We showed them more detailed results—they saw their individual performance, the averages, and how they compared to the existing dataset. They understood the positioning and still did not object.

Philippe Bonningue (L'Oréal): OK, then the question becomes: if the data suppliers themselves agree, Fabrice, why are you not?

Fabrice Rivet (FEVE): I don't know who the data suppliers are, but I'm not sure they're able to validate the results. Maybe they were silent simply because, like me today, they're not able to say anything. Someone takes their data, mixes it with a lot of other data, applies EF 3.1 and Ecoinvent 3.10.

Frankly, I'm not surprised the impact is higher—but the magnitude here is a factor of two. And this is based on the single score, which means all environmental impacts have been combined. That adds yet another layer of complexity with weighting, etc. I'm quite certain that no glass maker can comment meaningfully on that. You really need to be an LCA expert and fully understand the methodology to interpret it correctly. How do you explain the gap in magnitude between climate change and the single score? We know the single score is very complex to calculate.

Colin (Quantis): What I wanted to say is that across the three data suppliers, the differences in energy consumption, raw materials, and so on weren't very significant. That means if there

had been a big variation between data suppliers, it would have raised concerns about the representativeness of the data. But in the end, that's not the case. The data suppliers provided more or less similar data, so even without being an LCA expert, it's fair to conclude that similar inputs lead to similar results.

Fabrice Rivet (FEVE): Yes, but the issue is how you move from those specific datasets to a cradle-to-grave approach—that part remains a black box for us. Of course, when you show the data suppliers their own specific datasets, I would expect—and hope—they agree those are indeed the data they provided.

Victor (Quantis): Let's say the data suppliers already have their own LCA or carbon footprint calculation tools. If they compare our results with their own and find they align, I don't see where the problem is.

Fabrice Rivet (FEVE): I don't know if they did it.

Vincent Delavenne (COTY): Now that we have results from three data suppliers, wouldn't it be relatively easy for FEVE to contact a few additional data suppliers and say, "Hey, we've got this data from three sources—can you confirm whether your data falls within a similar range?"

Maybe some data suppliers have just been waiting for someone to take the first step. They might know their impacts are above the FEVE dataset, but now that there's a reference point, FEVE could take a clearer position.

A 50% change in results is significant—it can really shift how customers interpret the environmental impact. That's why we need to be confident in the validation process.

As for the choices, maybe we don't truly have three options. In the end, we may need to choose one. But at the same time, having the support or endorsement from the glass federation is very important.

Fabrice Rivet (FEVE): In the call we had with Quantis on May 27, I invited my members—and nearly all of them attended. We discussed the data afterward, and no one was able to say whether the figures were more or less accurate. That's why I'm saying today: I'm not able to validate these numbers.

Philippe Bonningue (L'Oréal): But Fabrice, would you oppose SPICE members validating/using the dataset (mass or luxe)? You may not be able to confirm the data yourself, but would you object if the SPICE members, after listening to everyone, agreed that the trend aligns with expectations, even if the magnitude is un-favorable (but true) for the glass industry? In other words, would you oppose the SPICE members validating and adopting the two scenarios—mass market and luxury glass?

Fabrice Rivet (FEVE): Well, I represent a modest association, and I don't have voting rights within SPICE. So, it's up to you to decide what you want to do.

Philippe Bonningue (L'Oréal): I know you won't be voting, and that's exactly why I framed the question more broadly than just a vote. A vote is straightforward as "SPICE democracy-approach" decides. But what I care about is the spirit of collaboration. And to me, that spirit is compromised if the glass expert says they can't validate the dataset—because that creates a real blockage. However, if in the end the glass expert (FEVE), whom we're grateful to have as part of the SPICE committee, is not aligned with what the SPICE members decide to do with the data, then that's concerning.

At this, you can say « I can't validate. I agree with the overall evolution; it is worse for the cosmetics industry (than for beverage/food industry). I can't bless it per se, but I agree with the fact that SPICE members will use such data for their simulation ».

Fabrice Rivet (FEVE): No, you are going too far. My position is that I am not able to validate.

Q. Ellen Seyda (Berry Global): I would like to see all three datasets included, but of course, the FEVE dataset would need to be updated to the latest version to be comparable. For us, we don't only work with cosmetic packaging, so it would be useful to have the FEVE dataset available as well—for instance, for applications like reusable yogurt glass jars or similar. I think once the FEVE dataset is updated, we'll probably see that the difference is not as large as it appears right now.

A. Jean-Marc (Quantis): Yes, we can certainly recommend updating the FEVE dataset using Ecoinvent 3.10 and EF 3.1 to make it comparable.

A. Victor (Quantis): Following Ellen's question, Fabrice, would you be able to provide the updated dataset?

Fabrice Rivet (FEVE): We don't have an update using Ecoinvent 3.10 and EF 3.1. To do that, we would need to conduct a new LCA.

Q. Hélène Villecroze (Chanel): What is included in the calculation in terms of life cycle stages?

A. Nassim (Quantis): The results presented here are based on a cradle-to-gate scope. That means it covers everything from raw material extraction up to the point where the product leaves the factory gate. This is the scope we used when presenting results to data suppliers. However, in the SPICE tool, the scope is broader—it's cradle to grave—so users can assess the full life cycle impact of their products.

Hélène Villecroze (Chanel): So in this slide, it's cradle to gate—meaning for example, up to supplying an undecorated perfume bottle. Just the fabrication of the glass bottle itself, up until it leaves the furnace once cooled, correct?

A. Nassim (Quantis): Exactly, yes.

Fabrice Rivet (FEVE): It is cradle to gate on the slide?

Victor (Quantis): Yes

Fabrice Rivet (FEVE): So maybe that's where we have a difference, because you're considering 20% recycled content here, but not yet the credit for recycling incorporated in the next step—so the 80% in the CFF, is that correct?

Colin (Quantis): That's correct. What we're showing here is 100% virgin material, and we're not considering the benefit of recycling.

Fabrice Rivet (FEVE): So, the datasets aren't comparable. For us, it's not 100% virgin—the FEVE dataset includes 50% recycled content, which reflects the European average.

Colin (Quantis): Yes, that's one of the reasons why, as I mentioned before, our dataset does not include cullet. And when cullet is used, there's less energy consumption and fewer emissions. So that's part of the explanation for the difference in results.

Fabrice Rivet (FEVE): That's why we find it misleading to put both datasets on the same graph—it's not a valid comparison.

Nassim (Quantis): But Fabrice, we don't know that for sure because the dataset currently in SPICE is labelled “virgin glass,” and we don't have visibility into the actual percentage of PCR or cullet in your dataset. As I explained earlier, we also don't know how much credit is being considered in your dataset, and that could explain some of the differences.

Colin (Quantis): You're right—we didn't consider end-of-life recycling benefits here. This is strictly production-stage data. The benefits of glass recycling will be accounted for once the full life cycle is modelled in the SPICE tool.

Fabrice Rivet (FEVE): OK, then maybe we should start comparing apples to apples—that would make more sense.

Victor (Quantis): Yes, I agree, and we do need to move on. What I suggest is organizing an information session with all members and FEVE. Fabrice, you're welcome to invite your members. In the meantime, we can share more information, clarify the data splits, and discuss differences between data suppliers—without disclosing confidential information. But right now, we are not comparing apples to apples because the Ecoinvent version and EF method used in your data are different from what we've used. So if you can align with us on the same Ecoinvent and EF version, that would help. But even then, as you said, there will still be differences—especially regarding cullet content—and that's something we won't change.

Frédéric Dreux (Unilever): I'd also be interested in seeing scenarios with 20% PCR, because many suppliers in the beauty sector are now converging around that baseline. I'd like to see how the numbers shift when that's included.

Victor (Quantis): Yes, that's easy to do. We can show results that reflect 20% PCR content. Several data suppliers are already implementing this—some continuously, others in batches. So it's a good intermediate value to start with.

Fabrice Rivet (FEVE): But Frédéric, you won't see a big difference if it's cradle-to-gate. With 20% cullet, the benefit is only about 4%, because the impact reduction is relatively small at this stage. You only see the full benefit of recycling when you close the loop and account for the recycling rate at end-of-life.

Frédéric Dreux (Unilever): Which would be fair—especially for transparent cosmetic glass jars that do enter the recycling stream.

Victor (Quantis): Yes, we'll also show the cradle-to-grave data to provide a full picture and ensure everything is comparable.

Jean-Marc (Quantis): So, in conclusion, we're not proposing to move forward with a vote just yet. First, we need further clarification with FEVE on what can be shared. If FEVE can update their dataset, and we can compare results using our sandbox with cradle-to-grave modelling, we'll be in a better position. Once we reach more clarity, we can hold a dedicated session with the SPICE members.

No further question or comment from SPICE members.

CLP (Closed Loop Partners) - Presented by Georgia Sherwin

Georgia Sherwin (CLP) Georgia presented CLP, history, background and main initiatives.

1. About CLP: Georgia presented CLP (Circularity Lab Project), its mission and initiatives. Based in the US, CLP operates with an innovation center and testing infrastructure.

2. US Context

- ⅔ of Americans rely on single-stream recycling — leading to high contamination.
- Small packaging (<2 inches) is often discarded or “wish-cycled,” contaminating other streams.

3. Challenges

- Small formats disrupt glass recycling and reduce material value.
- CLP visited MRFs across the US to assess system limitations.

4. Key Findings

- Collection pathways and tech solutions exist (e.g. MRF + glass plant colocation).
- Market demand is present, but MRFs deprioritize small formats — brand investment is needed.
- CLP plans a proof of concept to test feasibility, cost, and provide a state-level roadmap.

5. Next Steps

- CLP is seeking funding for the pilot, aiming to hand it over to PROs.
- Targeting cosmetics and other sector-specific formats.
- Findings to support future policy development (e.g. CAA and state laws).

Cheryl Bezzina (Toly), *in the chat* : Thank you Georgia for the interesting presentation. Let's not forget that small packaging will be banned in 2030 in Europe too, 2 years before SB 54 (if PPWR is not pushed back, of course). So it would be good to see a similar initiative in Europe as well (unless I am not aware of an existing initiative working on this actively).

Philippe BONNINGUE (L'Oréal): Thank you very much Georgia for taking the time to introduce the project after the 1st introduction during the Recyclability taskforce).

Just to give a bit of context — the reason I invited CLP to present today is because, for some time now, we at L'Oréal have been concerned about the California law banning non-recyclable packaging by 2032.

The issue is: we can't simply scale up our products to meet recyclability criteria — we're not going to launch a 1.5-liter mascara just to make packaging bigger in order to be deemed 'recyclable' in CA-USA.

So, the aim of Georgia's presentation today is to help us understand what can be done. It's something we should all start thinking about.

This proposal has already been shared with the Recyclability Task Force, and, as Jean-Marc mentioned, with the SPICE Steering Committee as well.

Victor FRONTERE (Quantis) :

Just to be clear, at least for now, there is no link between SPICE and CLP.

This is just like an instant to present your CLP initiative and for you to be aware, especially brand owners. I guess the picture is a bit different for packaging suppliers. Following we are proposing a poll for seeing who would be interested in CLP Consortium for Small-Format Packaging Recovery information. It's for you to also feel if there is an industry traction maybe on this, at least between brand owners that operates in the US. It is only a poll again, no commitment or any link at least today with Spice.

Philippe BONNINGUE (L'Oréal): May I make a suggestion, because I ask for this poll as a temperature-check among members, but I realize now that it might be quite difficult to answer in a straight way.

So can we change "Is your company interested" with "Might your company be interested" because there is no commitment, but the idea is to know if you could see a value in this initiative and you might need more information to know for sure if you're interested or not.

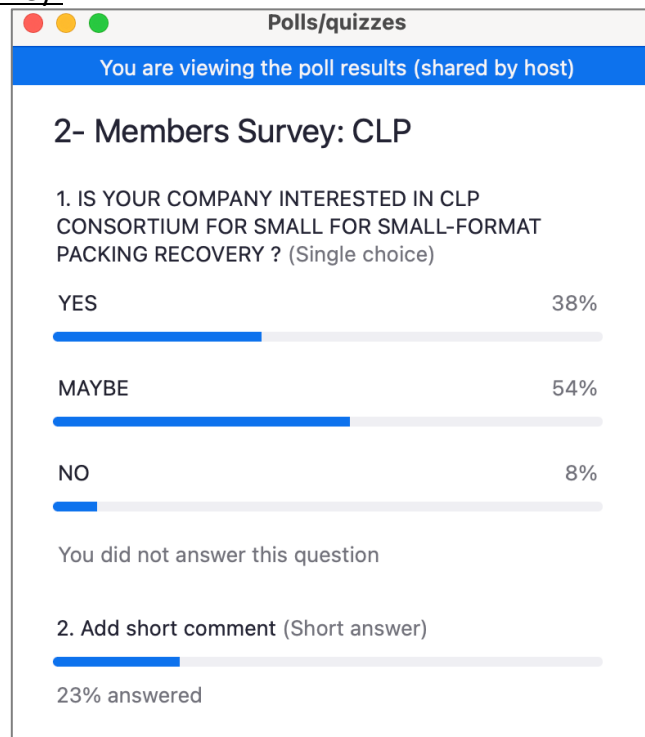
Jean-Marc FONTAINE (Quantis): We will now start the poll to ask SPICE members whether your company might be interested in CLP Consortium for Small-Format Packaging Recovery

information. The results will be shared to SPICE members and to CLP/Georgia through Elisa. It's helpful for the future, and interesting for the brands to be aware of this.

MEMBERS SURVEY | IS YOUR COMPANY INTERESTED IN CLP CONSORTIUM FOR SMALL FOR SMALL-FORMAT PACKING RECOVERY?

- Option A: YES
- Option B: MAYBE/ Not yet
- Option C: Not interested

Results of the live survey:



No further questions or comments from SPICE members.

Recyclability Taskforce

Recyclability Task Force - Presented by Elisa JENNY (Quantis)

Elisa JENNY (Quantis): presented the task force, highlighting the diverse stakeholder group involved, including brands, manufacturers, and recyclers. She explained that the task force remains essential due to ongoing regulatory and technical developments in recyclability. The group aims to stay aligned on evolving best practices, test outcomes, and shared recommendations.

Two main focus areas were outlined: continued collaboration with CETIE, especially on traffic light evaluations, and broader engagement on global EPR schemes, recyclability testing, and stakeholder mapping.

A key deliverable, the SPICE Insight, has been kicked off, with an evolving objective to clarify differing recyclability definitions and collection practices across regions. Initially, the task force intended to focus on obstacles at recycling centers. However, during the kickoff discussion, the scope and objectives were slightly revised. Members emphasized that, before addressing these obstacles, it was important to first clarify the differences in definitions—specifically, what “succeeding” means in the US versus the EU—even before reaching the sorting stage. The next alignment discussion is scheduled for June 30th.

The Task Force also aims to explore new ways to develop more design-for-recyclability references in Year 7 and see how SPICE could engage at the EU level to represent cosmetic-specific constraints. There is also an objective of being more solution-oriented regarding recyclable packaging perspectives— and not only referring to what is being said by CETIE, etc.

Jean-Marc FONTAINE (Quantis): I just want to highlight one comment we receive on the chat that is a good transition for going to the Recyclability Task Force. There's a mention of the PPWR and similar bans in Europe in 2030. "we should we have a similar incentive in Europe."

Michael CHRISTEL (Estée Lauder): I think there was a mention during last recyclability taskforce for looking further at metal in the plastic streams, in addition to metallization.

Jean-Marc FONTAINE (Quantis): It's the conversation we had during the Taskforce and we can include this in Recycless test plan for this year.

Elisa JENNY (Quantis): Yes, we opened the floor for this.

Gilles SWYNGEDAUF (Albea): Just to commit for C Class metal are forbidden. There is no need to do any test. As soon as you have 1 milligram of metal, you are not recyclable.

Vincent DELAVENNE (COTY): CITEO has done a fantastic work on compiling all packaging regulations, but it is dedicated to the food industry. Why don't we go inside the matrix of recyclability of CITEO and update it to highlight what is the problem with cosmetic, and highlight the difference between average packaging and cosmetic packaging? They have done a great work!

Gilles SWYNGEDAUF (Albea): Unfortunately, the rules of CITEO will be obsolete 1st of January 2030 and probably even before, because at that time this will be the delegated act of the PPWR that will be the only rule for all the packaging whatever they are. Also, the rules of PPWR that will be based on the same standard, not on CETIE standard. CETIE has no value as an organization because European Commission discuss with CEN not with CETIE. So the CETIE can propose some input but at the end that will be the standard of CEN that will be used as a base for the design for recycling. We must be very clear on that.

And as Philippe B. mentioned, size is not an issue for the D4R criteria. But be careful, there is not only size when we speak about sorting. As we said, shape, weight, decoration could have a huge impact.

By the way, Ellipso and FEBEA have published a guide on recyclability that is now available. It's totally free and I believe it's insightful and you should look at it because it focuses on plastic packaging for cosmetics. It provides information about the products that we are either producing or selling every day and it explains the difference between the French system that we have today and the future new system we'll have thanks to PPWR.

Jean-Marc FONTAINE (Quantis): This report is going to be shared in the next taskforce as FEBEA joined the Taskforce recently, it could be good to have them presenting it to the taskforce members.

Yuria MIYABASHI (Shiseido), *in the chat*: I am a bit concerned about decoration on PET bottles as well (in addition to sleeves and labels) Currently no ink or printing cannot be conducted, but as cosmetic is a luxury good, this restriction is pretty much equal to not being able to use PET bottles.

PPWR vs California SB54 discussions:

Philippe BONNINGUE (L'Oréal) : So, if you want a clarification on the PPWR: the PPWR says you must be designed for recycling by 2030. "Designed for recycling doesn't mean recyclable at scale." In California for 2032, it's "recyclable at scale". And the CA-definition of the "at scale" is very different from the "at scale" definition of the PPWR 2035.

Because in the US you have to make sure that indeed, as soon as you collected, sorted, converted to a recycled material, you have to show that you have what they call "a responsible end market REM", which means that you know what to do with what you collected and recycled, which is more complex than in Europe.

And the big gap between Europe and California is that within the PPWR for design for recycling, size is not a criteria.

So, you could be small (for PPWR 2030), if you don't have disruptors, you would be deemed for "designed for recycling". In Europe in 2035, it will be "at scale" . So maybe we'll see how "at scale" considers the size later on.

But keep in mind that size is not considered for design for recycling in Europe, because the cosmetics industry has pushed the European Commission to precise this definition, and split the accountability of each actor.

Vincent DELAVENNE (COTY): In California, clearly today we have a list of what is said to be recyclable. Small products are not in the list, flexible products are not in the list.

So, either we act to have something on the list because we can show through CLP or whatever or if we don't act, we won't be able to buy or sell. And the fine in California is \$65,000 per day per product. If you sell or buy non-compliant products, you get fined.

But if for the bottle in California, the cap is not attached to the bottle like it is in Europe today, the cap will become a small pack right?

So we cannot sell any bottle if they don't prove that they can collect the cap of the bottle at scale.

Philippe BONNINGUE (L'Oréal) : Sure.

Frederic DREUX (Unilever) : Indeed the big thing about the California bill is that if you confront it to the reality of the shelf now and not only for cosmetic there is a lot of shocking things.

For example: "flexible" is not "collected". And there is some shelf and some segment where everything is around "flexible".

If in 2032 you cannot do flexible anymore because they are not recycled at scale in California, there is a lot of segments impacted (snacks for example), many segments where there will be a huge trouble too. But the question is where it will go when they meet the reality, which side of the coin it will go and that is difficult to tell now.

Ellen SEYDA (Berry), in the chat : "At scale" is only per material category. e.g. PP rigid

Cheryl Bezzina (TOLY), in the chat : Isn't the size a disruptor for PPWR criteria? Or was an update to the criteria published that maybe I missed? Would appreciate links to latest documentation just in case I missed it. Thank you for the clarification.

Ellen SEYDA (Berry) : In the CEN design for Recycling Guidelines drafts, that should be used as baseline for the delegated act (2028), size is not a criteria. This was discussed with the commission. Some EU countries e.g. Netherlands and Germany already recycle small packaging Formats, at least in some regions.

Benedicte LUISI (Aptar) : Indeed for glass Stream, Regarding the work of CETIE and CEN on the recyclability of glass-based packaging, we will need to know as soon as possible the main orientations of the "traffic light table"? What are the materials in the red category and the impact on cosmetic packaging (perfume bottles...), how are metal components such as springs and balls considered?

Regulatory Hub

Jean-Marc FONTAINE (Quantis): due to time constraints during the end of the committee, we will share the survey of the SPICE regulatory hub with the meeting minutes of this committee. The objective of the survey is to collect SPICE members list of Relevant regulatory considerations around the world, priorities among members prioritize for which we should create a focus card.

Next steps

Jean-Marc FONTAINE (Quantis) explains the timeline and next steps for SPICE year 7, which will be used to prepare:

- SPICE year 7 committee #2, scheduled on September 18th afternoon. An email and Zoom invitation will be sent to members to confirm their presence.
- The next Steering committee will be scheduled before next committee.
- For the new specific cosmetics Glass datasets, we will prepare details presentation to explain to all SPICE members during a dedicated session.

Closing of the meeting