Should we stop serving this market?[1]

In 2022, the leadership at Formulation, now part of Syensqo, decided it was time for a bold decision. For a number of years, one of their products had been placed in the "challenged" category by the company's Sustainable Portfolio Management tool following a ban in the EU. Efforts had been made to move customers to an alternative but some preferred to stick to the original product. The question for the business unit was: should they exit the market ?

From Solvay to Syensqo

Founded in Belgium in 1863 by Ernest Solvay based on a new innovative production process for soda ash, the Solvay company grew over the years to become a global chemical company operating in 61 countries and employing 22,000 workers. In 2022, the Solvay group was active in basic chemicals, specialty polymers and composites, and advanced solutions for surface chemistry and liquid behavior. It served clients in sectors as diverse as the aerospace and automotive sectors, agriculture, mining, oil & gas, healthcare, electronics, consumer goods, food, and construction. These products and markets had very different dynamics and implied different operating requirements and investment needs. For these reasons and to support the growth of the group's activities, CEO Ilham Kadri announced in 2022 a plan to split the company into two independent industry leaders: one focused on basic chemicals, and another on chemical specialty activities. The split took place in 2024 and resulted in the spin-off of specialty activities into a new company, Syensqo.

The Sustainable Portfolio Model

The Sustainable Portfolio Management tool originated in discussions within Solvay's executive committee regarding the group's mission, vision, and values. The CEO and top management wanted to understand how sustainability trends impacted the company's profit and loss account. No such tool existed off the shelf, so the company set off to develop one.

The result was the Sustainable Portfolio Management tool. Launched in 2008, it assessed each product along two dimensions, its environmental impact and its market alignment. Given its intended role, the analysis was decidedly forward-looking, approaching both dimensions over a 10-year time horizon.

Environmental impact was assessed based on 21 indicators, including climate change, land use, toxicity, and ocean acidification, accounting for impacts from the company's operations and upstream in the supply chain (cradle-to-gate, see **Exhibit 1**). For each indicator, the impact was then converted into a Euro figure, assuming the company paid for the "true costs" of the impact. For example, in 2024, greenhouse gas emissions were priced in the SPM tool at 100 EUR a ton, much above prevailing carbon prices worldwide. The reason was the forward-looking role that the tool was intended to play. The sum of the environmental impacts of each product was then divided by the sales of that product to

[1] Date: March 2025. This case was prepared by Prof. Estelle Cantillon as a basis for discussion at the fourth UCB-SBSEM "Business and Society" symposium in May 2025 to illustrate the use of decision frameworks in the context of difficult decisions. The case is based on actual events, but some names, dates, and numbers have been altered to protect the protagonists' privacy or commercially sensitive information.

get an index of operational vulnerability. Products with a high monetized environmental impact per sales unit were considered high risk. Customers might seek lower-impact alternatives. Jurisdictions may start introducing taxes on pollution that would more closely reflect their actual impact, increasing production costs. Products with low monetized environmental impact per unit of sales were viewed as less vulnerable.

For each product-application, the market alignment dimension sought to capture the risks and opportunities arising from its entire value chain, including its end-of-life treatment (cradle-to-grave or cradle-to-cradle). Unlike the first dimension, the analysis also addressed social and health issues. The assessment relied on detailed qualitative data collection of sustainability-related market signals. The questionnaire covered four themes: health & safety, climate, resources, and opinion leaders (**Exhibit 2**). The results were then fed into a hierarchical decision tree that sought to answer a simple question: Is this product, in this specific application, part of the problem or part of the solution? For example, a product banned by a supranational authority or two OECD countries for an application would be classified as "challenged" for that application. If the ban applied only in one OECD or key partner country, it would be classified as "exposed". If, instead, the product helped consumers reduce their energy consumption, a benefit would be recorded. Importantly, benefits would only count towards market alignment if the product was not challenged or exposed.

At the end of the process, the product was placed on a graph, with the x-axis representing its market alignment and the y-axis representing (in reverse order) its environmental impact per sales unit (**Exhibit 2**). Products in the bottom left corner displayed a high operational vulnerability and faced challenges in some markets. On the other hand, products in the top right corner had low operational vulnerability and generated at least one sustainability benefit. They were considered solutions. In between were "potential" and "transition" products. Potentials were relatively market-aligned products but suffered from a high environmental footprint. A reduction of their environmental footprint, if possible, would make them solutions. Transition products were weak on one of the two dimensions, with lower upside potential. When used to assess the product portfolio of a business unit, revenue information was added to the graph as a heat map to help the business unit's leadership visualize the unit's competitive standing and business opportunities (**Exhibit 3**).

Starting in 2012, the SPM tool was systematically applied to all products. It received a further boost when it became clear that products in the solutions category also experienced higher growth. Over the next decade, the SPM tool was used to inform a wave of mergers, acquisitions and divestments that significantly reshaped the group into a leader in advanced materials and specialty chemicals, and it became core to the yearly strategic reviews of business units.

The corporate SPM team worked closely with business units for the yearly SPM assessment. Business units provided the relevant technical and market expertise. The SPM team coordinated the assessment and carried out the analysis. SPM assessment reports were discussed with the business units' leadership and integrated into their strategic and operational plans. As of 2024, the tool was systematically applied to all research and innovation, M&A, and investment projects. It covered 85% of the existing product portfolio.

Formulation: We have a problem

Formulation was one of Solvay's global business units (GBU). Headquartered in the US, the unit was a global leader in specialty chemicals, offering high-performing, differentiated solutions across the agrochemical, home and beauty care, coatings, and industrial markets. In 2022, it accounted for around 14% of Solvay's sales.

One of Formulation's key products was surfactants. Surfactants were chemical compounds that decreased the surface tension between two liquids, a liquid and a gas, or a liquid and a solid. This property allowed, for example, different liquids to mix smoothly rather than remain separate, and it explained why they were used in shampoos, detergents, paints, and lubricants, among other things.

Surfactants were not without problems, however. Some were persistent in the environment, and concerns about their long-term impact on human health and fauna had led the EU to ban some surfactants. As a result, Formulation's historical and leading surfactant product was classified as "challenged" when the SPM tool was first applied, initiating a series of yearly conversations between the SPM team and the leadership of Formulation (**Exhibit 4**).

At the time, Formulation had already developed a safer surfactant alternative, which the production sites currently producing the challenged surfactant could produce. The alternative had essentially the same properties (without the environmental disadvantage), but it came with 5% cost premium. Customers producing for the EU market had little choice but to switch. This was not the case for those producing for the rest of the world, which represented the majority of the client base for Formulation.

The business unit started to encourage its customers to switch, beginning with those customers already boasting sustainability ambitions. This strategy worked well for new product uses, which adopted the alternative from the beginning. This was more complicated for older products because, even if the properties were the same, the process involved reformulation and requalification. For products that came with guarantees, such as paints, the customer had to redo all their product tests to be able to continue to offer the product guarantees they used to offer.

We need to take a decision

Within 10 years of the placement on the "challenged" list, Formulation had been able to move the majority of its surfactant sales to the new surfactant, but a critical mass of customers did not switch

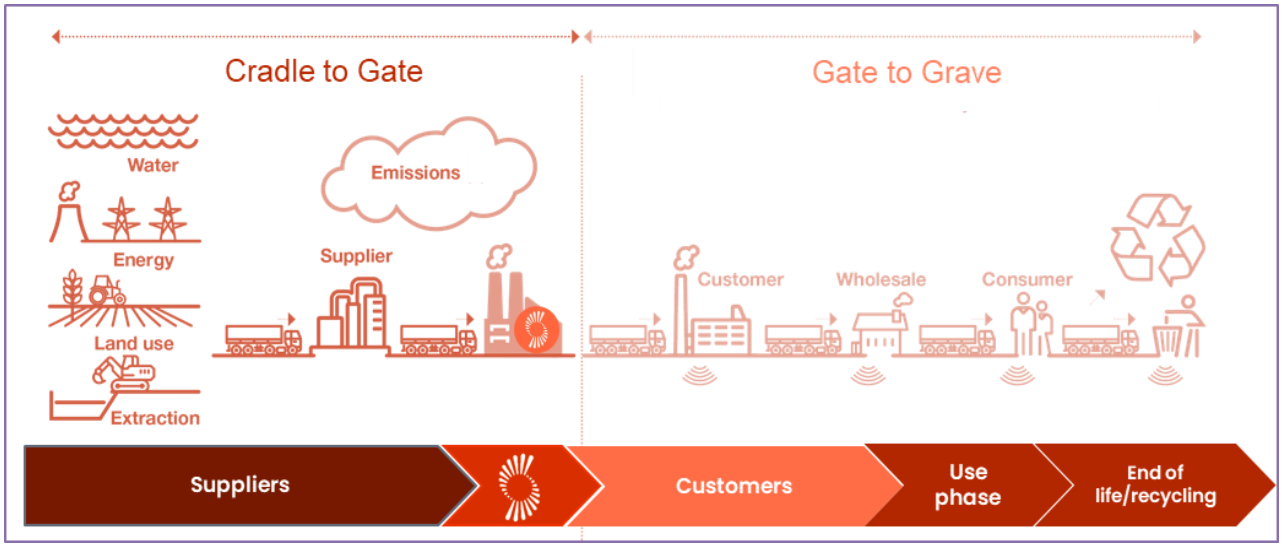
Exhibit 5). With no further progress in sight, Formulation's management faced a dilemma. Solvay had announced its new 2030 sustainability program, Solvay One Planet, which placed sustainability at the core of the group's growth strategy. The new strategy increased the reputational stake for continuing to produce a product known to be harmful when a safer alternative existed. Could Formulation afford to be the last to switch based on the current risks and opportunities analysis?

Over the past few years, Formulation's management had grown in maturity when it came to sustainability. Working with clients to convert them to the alternative had shown them they could be partners for change. They were also starting to receive signals from the business that sustainability was becoming important for their clients. The yearly SPM report reminded them of the need to reduce the number of challenges to which the business unit was confronted.

At the same time, the challenged surfactant still represented approximately 5% of Formulation's turnover, and there was no regulatory pressure to change in those remaining markets. Moreover, some of Formulation's clients, including a big one, critically relied on the product. For them, stopping production amounted to a serious breach in the relationship. They could decide to move their entire business to a competitor. Employment and sales were at stake.

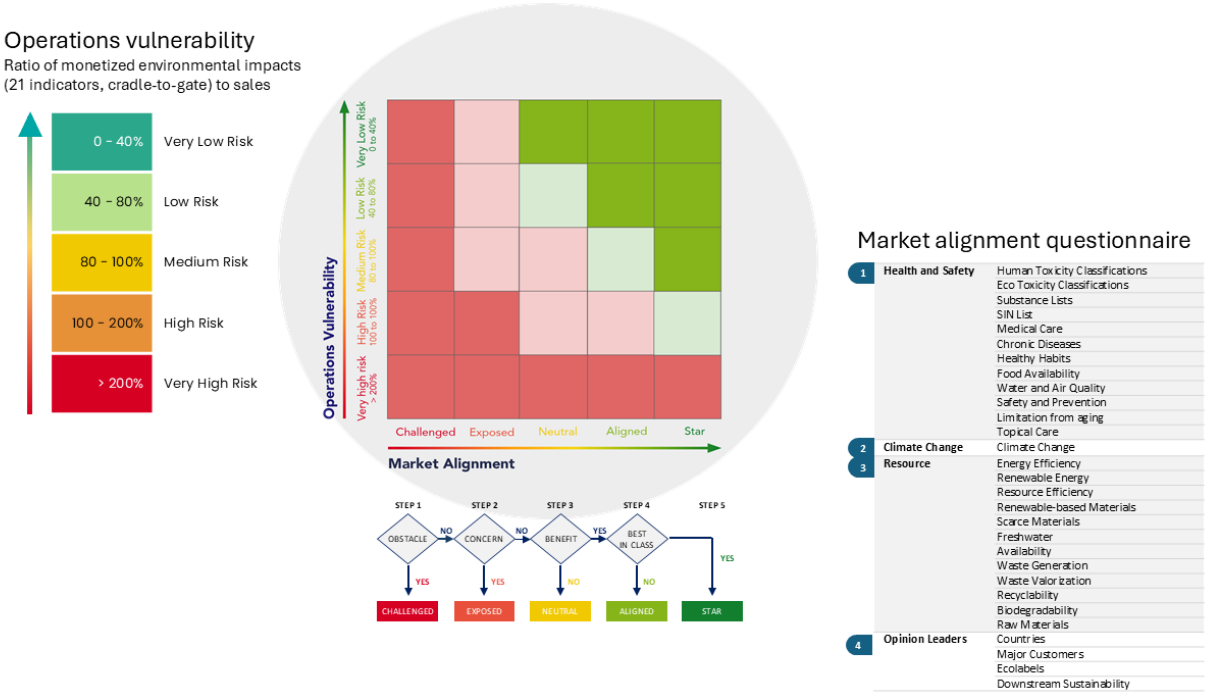
Exhibits

Exhibit 1: Cradle-to-gate, cradle-to-grave scopes of analysis in the SPM



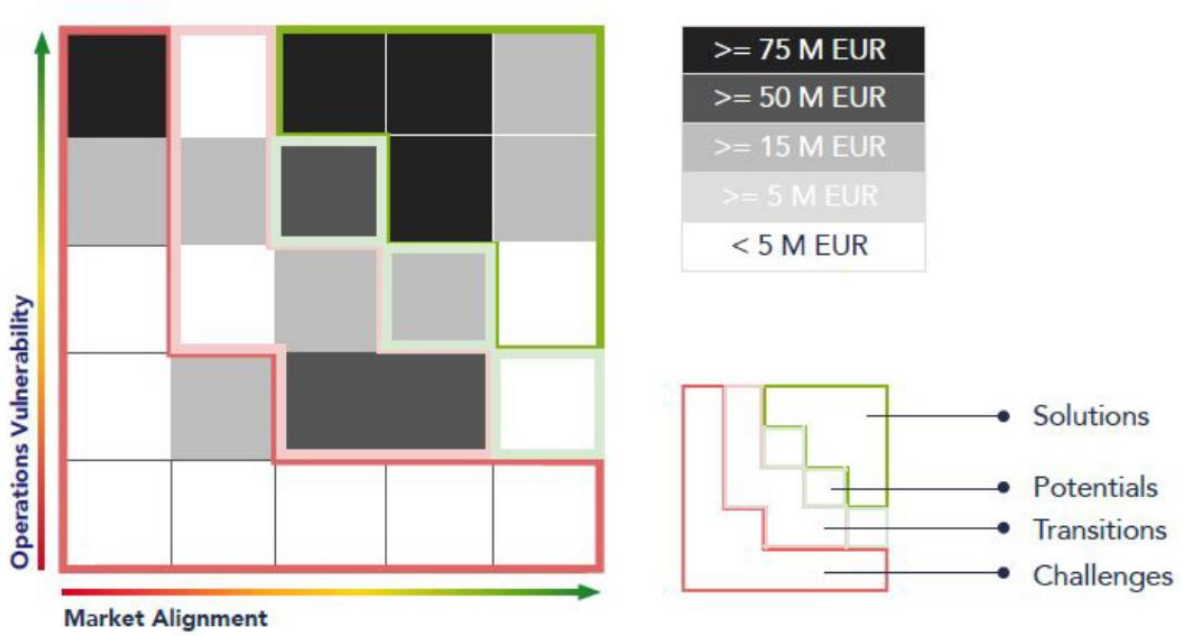
Source: Company material.

Exhibit 2: The Sustainability Portfolio Model



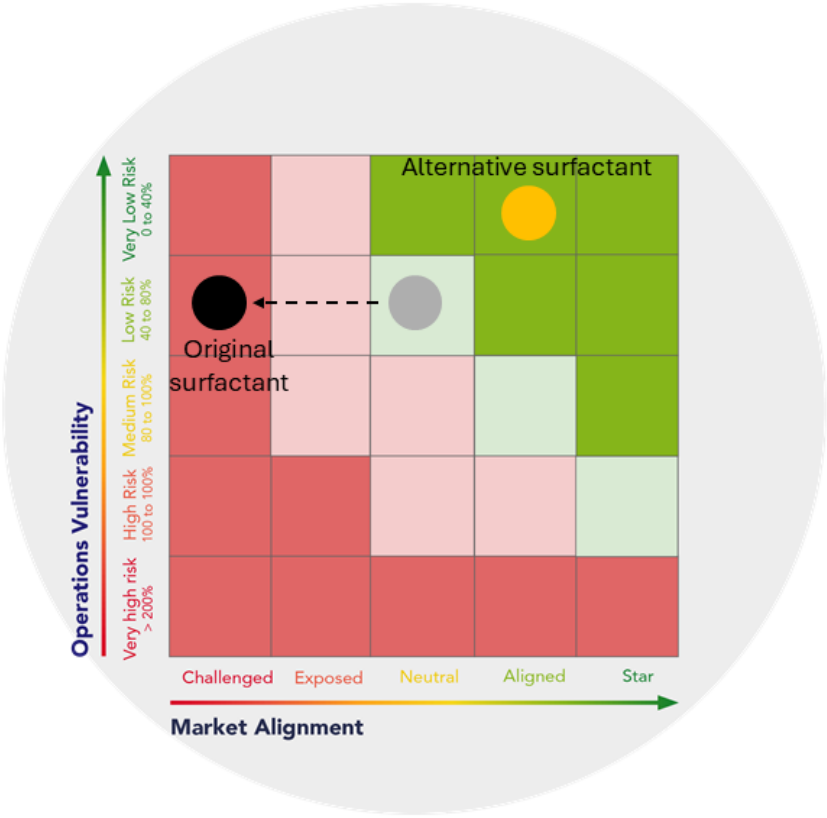
Source: Company material. Products in the dark green part of the graph are solutions. Products in the dark red part of the graph are challenges. Light red products are transition products. The light green area corresponds to products with potential if appropriate action is taken.

Exhibit 3: Stylized SPM report for a business unit



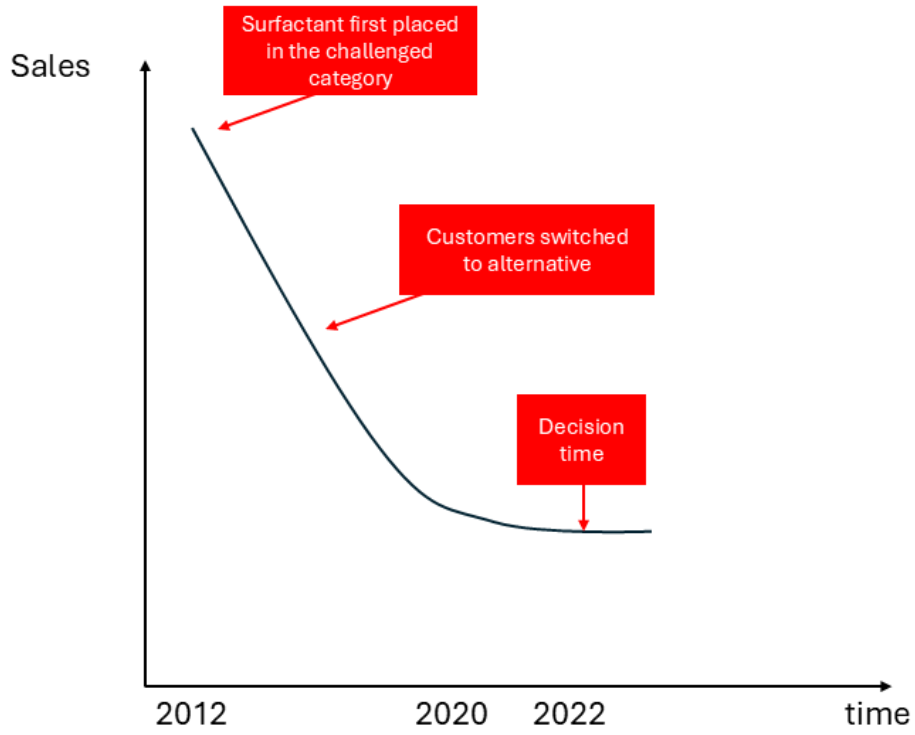
Source: Syensqo's Sustainable Portfolio Management guide, available at : https://www.syensqo.com/en/our-impact/sustainability/sustainable-portfolio-management-tool. Darker areas represent higher portfolio revenue at stake.

Exhibit 4: Change in the classification of the original surfactant



Source: Author's elaboration based on company material.

Exhibit 5: Evolution of sales of the challenged surfactant



Source: Author's elaboration.