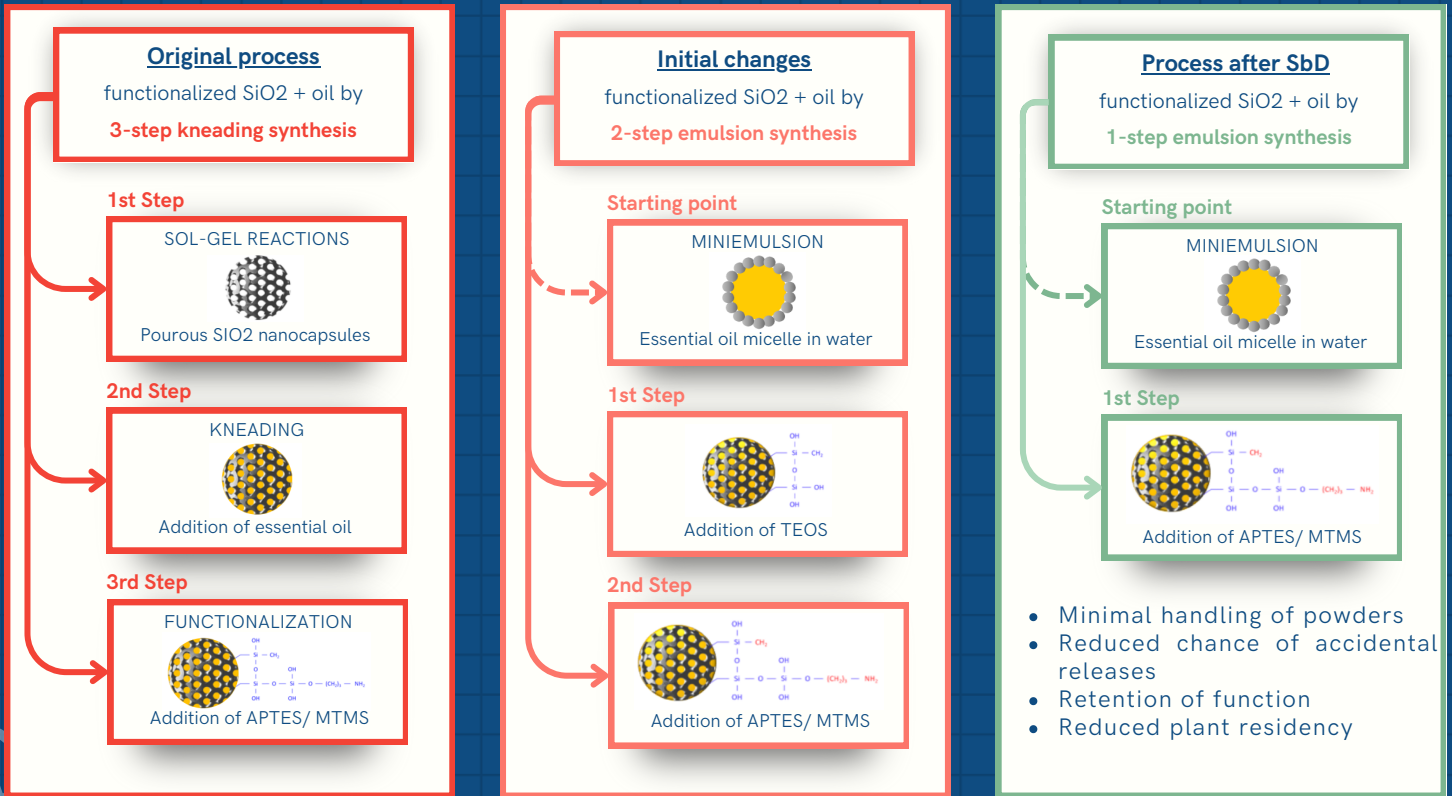
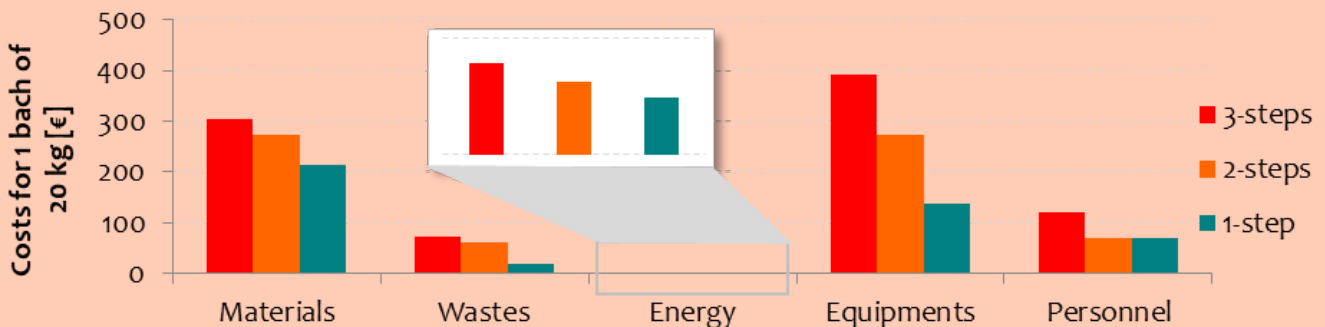


The theory of Safe-by-Design (SbD) is laudable but it needs to be seen in practice to demonstrate its utility. LAURENTIA Technologies is a SME specialized in R&D of new materials and technologies. The company functionalize microcapsules (biocidal & antioxidant functionalities) for cosmetic applications to reduce toxicological effects. The functionalisation of capsules together with the use of green materials (silica and natural essential oils) enhance the safety and sustainability, added values in a market dominated by microplastic capsules. The goal of SbD was to redesign the process to reduce exposure and risk for workers, reduce costs whilst maintaining the function of the final product.



Financial implications of SbD



Conclusion: Performance against 3 pillars of SbD

Pillar 1: Substance and product

- Product has lower risk concerns than others used for the same purpose

Pillar 2: Process

- Exposure to powders reduced
- Fewer resources required and waste generated meaning lower exposure to workers and environment

Pillar 3: Use and end-of-life

- Unchanged

Whilst showing improvement or no change to all the pillars of SbD, costs have been reduced and performance maintained. Aspects of sustainability have also been improved.