Key challenges

At Whirlpool, we have focused our first assessment on a single production plant, producing only washing machines. All inputs were referred to one washing machine unit, but easily scalable to the whole production units. For us, one of the main challenges were data availability at the level of detail needed by the tool. Several of our Bill of Material (BOM) items are components / assembly that we buy from suppliers, requiring detailed information from tier 2 and beyond suppliers (for example, for control boards we don’t require every single material composition).

Solutions

We had several “product teardown analysis” made to compare our products with similar products from the industry. Such analysis produces a very detailed list of information, including mass and typology / composition of material and chemicals used. Due to the labor intensiveness of this process, we only perform detailed analysis on a limited number of products. To run the tool, we selected a product (washing machine) among the ones used for the teardown analysis that we consider as being representative of what we produce in the manufacturing plant selected for the assessment.

Results

The assessment confirmed our assumptions that we use materials that can be currently recycled (and they are in the so-called open loops), but we don’t currently use a high percentage of recycled materials in our products. In other words, our products have the potential to be much more circular than what we see today. Our number one priority will be to focus on the development of recycled plastics to increase the circularity indicator and help us meet our goals to improve the amount of recycled content in our products as we have pledged.