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Decoupling plastic waste from growth: The role of design in removing blockages to the circular economy

ABSTRACT. When it comes to the circular economy we are way past the point of bold statements and definitions. It is time to take transformational actions and this involves closing the loop on everything that we produce. This is not about finding “easy fixes” that may recycle materials on the one hand whilst increasing our carbon footprint. We need to address every single facet of what we do to ensure our environmental footprint is minimized. As such we have a careful balancing act to perform that requires honing our focus on managing plastic in a way it has never been managed before—as a resource rather than waste. We now have the technologies to achieve this yet we are hampered by poorly designed packaging and inefficient mechanisms of material collection and recycling. We need to ask ourselves a whole range of new questions such as, what are the blockages to the circular economy in the recycling industry? What does tomorrow’s bottle look like? What are the most efficient solutions to start solving these issues immediately? This paper covers the current targets and drivers, the blockages and the solutions to unlock the real value of high-quality post-consumer recycled materials, starting with how we design packaging for a true circular economy to maximize these resources. Every facet of plastic’s impact on our lives and the planet needs to be reviewed: from how we produce it, shape it and use it to how we collect, recycle, reuse and deal with the unrecyclable—such as food-grade recycled polypropylene (rPP), as we discuss here.

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