BITS ON SUSTAINABILITY From single-use plastic to paper?

Plastics and plastic packaging are such an integral and critical part of the global economy. Plastic production increased from 15 million tons in 1964 to 311 million tons in 2014, and the increase keeps growing. **Plastic packaging accounts for 26% of the total volume** of plastic used. Plastic packaging provides direct and indirect economic benefits (mainly the level of preservation of goods and fuel consumption for transportation due to the reduced weight of the packaging).

To date, 95% of plastic packaging material - valuing \$80-120 billion each year - is disposed of after a short first use. **Only 14% of plastic packaging is collected for recycling** (this drops to 5% actual recycling by removing losses in sorting and reprocessing). In addition, plastics are mostly recycled into lower value applications in turn no longer recyclable after first use, and **the recycling rate is well below the rates for paper** (58% globally) iron and steel (70-90%). The main difficulty in recycling plastics is due to the multitude of existing polymer materials on the market, often not being recyclable together, as opposed to paper and cardboard, a single process being recycled.

Every year, **8 million tons of plastic are lost to the ocean** - representing the content of 1 truckload of waste per minute; if no sound action is taken, this is expected to be 2 per minute by 2030 and 4 per minute by 2050. Over 150 million tons of plastic are estimated to be in the oceans.

Thus, the oceans are likely to contain 1 ton of plastic for every 3 tons of fish by 2025 and by 2050, the risk is to have more plastic than fish (by weight).

The transition from plastic to more sustainable materials, such as paper, is underway: a process implying a far-reaching transformation



Bits on sustainability are written by Fedrigoni's Sustainability Team and are part of the Group commitment to spread the culture of sustainability.

Contacts

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Sustainable packaging made with more than 80% of paper

Sources:

Group Code of Ethics

Group Sustainability Policy

Group Sustainability Report

The new plastic economy: rethinking the future of plastic & catalyzing action of both design and habits. In asking whether this represents a more sustainable choice, comparative analyses of the life-cycle impacts (LCA) of both materials need to be developed. While waiting for certified and comparable numbers, it is useful to start with two early green benefits:

- Paper comes from a renewable source (pulp) that can be sustainably handled according to the Forest Stewardship Council, (FSC[®]) guidelines
- **Paper-based products are mostly recyclable** and have a lower impact on the environment from an end-of-life perspective, consistent with the principles of the circular economy

Making Progress approach of **Fedrigoni** leads us every day in avoiding greenwashing and contributing effectively to:

- a) Always use 100% FSC®-certified pulp
- b) Offer solutions to replace disposable plastic packaging with our best paper-based applications, hallmarked by excellent technical and aesthetic qualities
- c) Develop comparative LCAs of single-use plastic products and paper-based replacements (by 2023)
- d) Scientifically assess the impact of coatings used on our papers, whether there is any involvement in the possible production of microplastics (a topic that is still little investigated and known), and appropriately evaluate the effects on the end-of-life and recycling of paper
- e) Pursue and deepen collaboration with our major suppliers to steadily improve the sustainability profiles of raw materials other than pulp
- f) Market papers and labelstock with third-party certifications of recyclability
- g) Gradually replace plastic films with recycled content or bio-based materials
- h) Gradually replace non-recycled plastic-based packaging of our products
- i) Replace disposable plastics still present at our locations (e.g., plastic bottles and the like)

Making it Happen. Making a difference **Making Progress**

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