

Alcimed

Press Release

Plastic packaging: a new challenge for food manufacturers

Paris, June 20th, 2018

ALCIMED, an innovation and new business consulting firm, studied food industry positioning in order to address plastic packaging challenges.

In August 2017, striking figures were released: more than 6 billion tons of plastic waste have accumulated since 1950, which represents the equivalent in weight of 822,000 Eiffel towers.¹ While a small portion of this waste has been incinerated or recycled, 79% ended up in landfills or remained in the environment, most collecting in the oceans. In addition, most of these plastics are made of poorly biodegradable materials and could stay in the environment for hundreds of years.

Prompted by staggering consequences in terms of pollution (e.g. with the discovery in the Pacific ocean of the so-called "7th continent", which is composed of plastic waste measuring six times the size of France) and the impact on flora and fauna (e.g. Greenpeace claims the death of 1.5 million birds and marine mammals per year), industries and public authorities are taking action.

Thus, since 2015, the EU aims at reducing the consumption of plastics. Examples include a ban on single-use plastic bags in French supermarkets, or the Swedish obligation for retailers to inform customers about the environmental impact of plastic bags (and the environmental benefits of not using them). This objective has provided the means for consumers to reduce their ecological impact.²

In January 2018, China, which was recycling about half of the world's plastics and paper products, implemented a ban on household plastic waste imports from other countries.³

This announcement created a major recycling crisis, notably for European countries, which must encourage sustainability in the packaging sector, as only one third of plastic waste is currently recycled. Thus, the European Commission "is thinking more urgently about a strategy to reach its waste reduction targets of 50% of plastic waste recycled within its member states by 2030, and 100% by 2040"⁴.

In this context, the UK announced, in early 2018, a 25-year environmental plan that includes a landmark measure on plastic waste control. Other measures mentioned in the plan encourage supermarkets to set up an alley of products free of plastic packaging – something the British supermarket chain Iceland promised to do within 5 years⁵.

¹ <http://www.novethic.fr/actualite/environnement/pollution/isr-rse/le-chiffre-plus-de-6-milliards-de-tonnes-de-dechets-plastiques-accumules-depuis-1950-144707.html>

² <http://thewaveswemake.se/malinviolawennberg/2017/06/01/sweden-enforcing-new-policies-plastic-bags/>

³ <https://www.nytimes.com/2018/01/11/world/china-recyclables-ban.html>

⁴ <https://www.consoglobe.com/recycler-plastique-enjeu-ue-cg>

⁵ <https://www.la-croix.com/Monde/Europe/Britanniques-incites-limiter-emballages-plastiques-2018-01-11-1200905168>

These major challenges concerning plastic consumption are a driving force for innovation, in hopes of developing the packaging of tomorrow and finding a replacement for plastic.

Several innovative start-ups are working on new solutions based on vegetable waste (to produce "100% vegetable" packaging, for example Lyspackaging's technology based on sugarcane waste) or on algae (such as AlgoPack).

Other initiatives aim to enhance the biodegradability of the plastic materials, but are facing challenges in maintaining similar properties to those of petrochemical plastics, such as flexibility, durability, and food protection provided today by UV or CO₂ barriers...

For example, the Israeli start-up Tipa is developing packaging solutions that are "entirely compostable, just like a fruit peel". Finally, some start-ups are even going further in the process. For example, Lactips is working on the development of edible plastic materials based on milk casein, which can be used in particular for single-dose dissolvable packaging.

The rise of environmental demands from the public – demands that are being translated into regulatory constraints – is now a strong driver for manufacturers. Considering the abundance of innovations, those manufacturers are still looking for well-performing solutions that are adapted to the constraints of mass consumption while guaranteeing the food preservation and safety expected by consumers.

About Alcimed - www.alcimed.com

Created in 1993, ALCIMED is a consulting company specializing in innovation and the development of new markets, specializing in life sciences (health, biotech, agri-food), chemistry, materials and energy as well as in aeronautics, space, defense and public policies. It works with major industrial groups, ETIs and SMEs, investment funds and institutional players. Thanks to its 200 high-level employees, ALCIMED supports its clients in the exploration and development of their unknown lands: new technologies, new offers, new geographies, possible futures, new ways of innovating. The company, which has its headquarters in Paris, is present in Lyon and Toulouse, as well as in Germany, Belgium, Switzerland, the United States and Singapore.

Alcimed is a member of CroissancePlus and the ACI (Association des Conseils en Innovation).

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