

The Global Market for Biobased and Sustainable Plastics

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Abstracts

The bio-based and sustainable plastics sector aims to create green products from biological based inputs, residue and wastes. This will play an important role in global efforts to achieve a green circular economy. Compared to the conventional plastics sector the industry is small, but undergoing rapid developments due to new technological innovations and increased consumer and industry demand. A market boom is expected over the next few years, with production capacities to increase by >30% by 2025, with capacities in areas such as Bio-PLA growing from 100,000s tons per annum to multi-million tons.

Report contents include:

Analysis of non-biodegradable bio-based plastics and biodegradable plastics.

Global production capacities for bio-based and sustainable plastics, market demand and trends 2019-2030.

Analysis of bio-based polymers market including Polylactic acid (Bio-PLA), Polyethylene terephthalate (Bio-PET), Polytrimethylene terephthalate (Bio-PTT), Polyethylene furanoate (Bio-PEF), Polyamides (Bio-PA), Poly(butylene adipateco-terephthalate) (Bio-PBAT), Polybutylene succinate (PBS) and copolymers, Polyethylene (Bio-PE), Polypropylene (Bio-PP)

Analysis of biodegradable polymers including Polyhydroxyalkanoates (PHA), Polysaccharides, Microfibrillated cellulose (MFC), Cellulose nanocrystals, Cellulose nanofibers, Protein-based bio-plastics, Algal and fungal.



Market segmentation analysis for bio-based and sustainable plastics including packaging, consumer products, automotive, building & construction, textiles, electronics and agriculture markets.

More than 300 companies profiled . Companies profiled include major producers such as NatureWorks, Total Corbion, Danimer Scientific, Novamont, Mitsubishi Chemicals, Indorama, Braskem, Avantium, Borealis, Cathay, Dupont, BASF, Arkema, DuPont, BASF and many more. Profiles include bio-based and sustainable plastics products and production capacities.

Profiles of start-up producers and product developers including AMSilk GmbH, Notpla, CARAPAC Company, Loliware, Bolt Threads, Ecovative, CH-Bioforce Oy, Xampla, Spero Renewables, Checkerspot, Kraig Biocraft Laboratories, Spiber and many more.



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Figure 57. Cellulose Nanofiber (CNF) composite with polyethylene (PE).

Figure 58. PHA production process.



Figure 59. Cutlery samples (spoon, knife, fork) made of nano cellulose and biodegradable plastic composite materials.

Figure 60. Non-aqueous CNF dispersion 'Senaf' (Photo shows 5% of plasticizer).

Figure 61. CNF gel.

- Figure 62. Block nanocellulose material.
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