

Market Analysis on Green Chemistry & Technology

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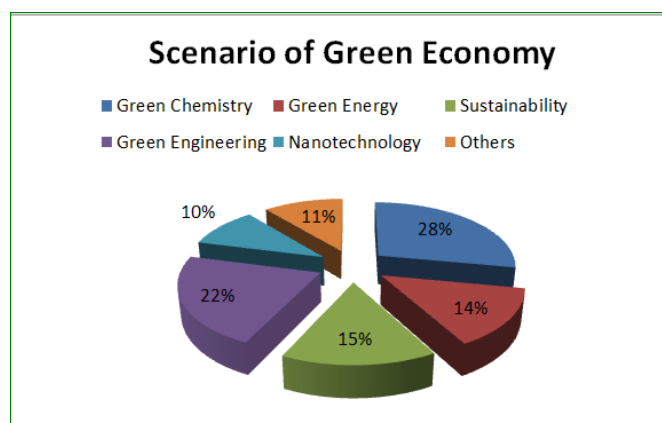
“Green Chemistry & Technology 2020” The theme of the conference is “[Green Chemistry & Technology](#)”. Which is going to be held on **October 14-15, 2020** at USA.

The global marketplace for renewable chemicals is predicted to grow from \$51.7 billion in 2015 to \$85.6 billion by 2020, with a compound annual rate of growth (CAGR) of 10.6% for the period of 2015-2020. Renewable alcohols dominated the market with about 40.7% of total sales in 2014, but will likely decrease to 39.1% market share by 2020. [Raw materials](#) for renewable chemicals production, which ranked second at a 40.6% market share in 2014, is predicted to fall to 35.5% during the forecast period (2015-2020) due to the uptake of alternative feedstock used in the production process. Bio-based organic acids, ketones, and aldehydes accounted for the third-biggest market share in 2014, at 8.1%, including some well-known and used chemicals. Market share for this segment should increase to 13.9% by the top year. Growing consumer awareness towards renewable chemicals and increasing environmental concerns are driving growth within the market.

The increasing demand for greener products, the growing need for cost-effective processing, cheaper feedstocks, and new product avenues are driving the commercialization of other chemical products. Current Research reveals in its new report that the recent economic turmoil in the U.S. economy and therefore the increased global demand for energy supplies and subsequent cost hikes in oil and gas also should spur significant growth rates. Alternative chemical products include chemicals produced from biobased feedstocks, also as end-use chemical products that incorporate both bio-based chemicals and green chemistry principles (i.e., end-use chemical products include cleaning products derived from bio-based ingredients and solvent-free cleaning products).

The total alternative U.S. chemical end-use product market should reach \$149.9 billion and \$884.1 billion in 2016 and 2026, respectively, reflecting a 10-year compound annual growth rate (CAGR) of 19.4%. Pharmaceuticals as a segment should increase from \$27 billion in 2016 to \$96.2 billion in 2026, growing at a 10-year CAGR of 13.5%. Alternative packaging products should reach \$25 billion and \$232.1 billion in 2016 and 2026, respectively, demonstrating a 10-year CAGR of 25%. The market for alternative cleaning and detergent products, estimated at \$29.3 billion in 2016, should reach \$158.7 billion in 2026 on a 10-year CAGR of 18.4%.

The marketplace for green chemistry is about to outpace the general global chemical market during the present decade. Companies are reducing their use and generation of hazardous substances, creating safer products and lowering the impact of processes on human health and the environment. The impetus for market growth stems from a combination of tightening regulations and demand from consumers for more sustainable products. The EPA continues to facilitate the adoption of this revolutionary and diverse discipline, which should cause significant environmental benefits, innovation and a strengthened economy.



Rising fossil fuel feedstock costs and stricter environmental regulatory controls are incentivizing manufacturers to use green chemistry technologies to offset the large capital investment required to change and/or upgrade current equipment and facilities. For the industry, the continual change in environmental matters means not only new risks but also new business opportunities. [Chemical producers](#) now understand that preventing pollution makes as much business sense as spending less on raw materials and capturing more market share.

Alternative [chemical products](#) also offer the industry new market opportunities in an otherwise stagnant marketplace dominated by big companies. In the alternative chemical segment, smaller players can compete with global conglomerates and gain market share quickly for specialty niche products. However, many dominant alternative chemical manufacturers are already making substantial footholds in these emerging markets.

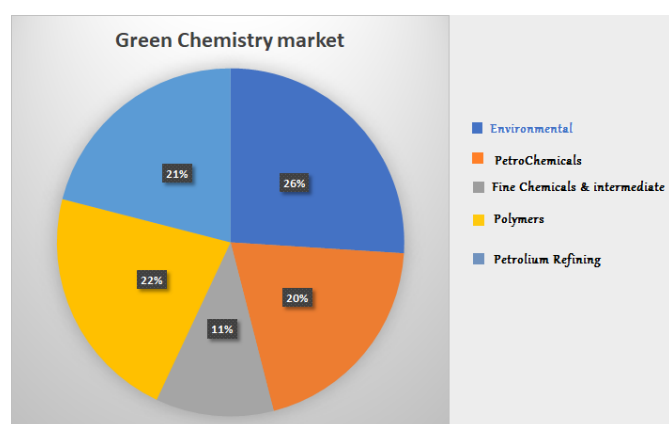
The global marketplace for green chemistry, which

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incorporates biobased chemicals, renewable feedstocks, green polymers and less-toxic chemical formulations, is projected to grow from \$11 billion in 2015 to only about \$100 billion by 2020.

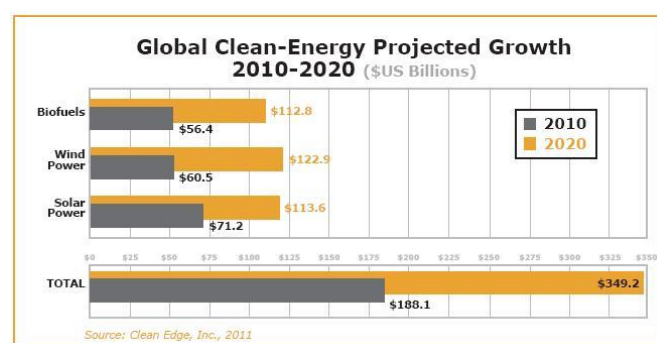
According to Pike Research, the North American marketplace for [green chemistry](#) is projected to grow from \$3 billion to over \$20 billion during an equivalent period. Renewable chemicals derived from bio-based feedstocks using environmentally friendly production technologies has gone global. BCC Research estimates in its new report the worldwide industry will grow to over \$1.5 trillion per annum when bio-based and renewable products replace existing products and supply new revenue sources to companies and regional economies.



Renewable chemicals or bio-based chemicals are obtained from renewable sources such as biomass, organic waste products, microorganisms, agricultural waste and agricultural feedstocks are used to produce other chemicals. They are used in various applications across different industries such as in pharmaceuticals, housing, transportation, textiles, environment, hygiene, and food processing. The manufacture of lubricants and surfactants, resins, commodity, and plastics for environmental purpose use renewable chemicals.

The global marketplace for renewable chemicals is predicted to grow from \$51.7 billion in 2015 to \$85.6 billion by 2020, with a compound annual rate of growth (CAGR) of 10.6% for the period of 2015-2020. Raw materials for renewable chemicals production, which ranked second at a 40.6% market share in 2014, is predicted to fall to 35.5% during the forecast period (2015-2020) due to the uptake of alternative feedstock used in the production process. The enzyme industry has experienced significant growth during the last decade due to the global, growing demand for cleaner and [greener technology](#) to preserve the environment. According to BCC Research, the global market for industrial enzymes is

expected to grow from nearly \$5.0 billion in 2016 to \$6.3 billion in 2021, demonstrating a five-year compound annual growth rate (CAGR) of 4.7%. As a segment, food industrial enzymes should approach \$1.5 billion and \$1.9 billion in 2016 and 2021, respectively, growing at a five-year CAGR of 4.7%. Animal feed industrial enzymes, as a segment, is forecast to total \$1.2 billion and nearly \$1.6 billion in 2016 and 2021, respectively, reflecting a five-year CAGR of 5.2%. This market segment is expected to rise due to higher investments in renewable sources of energy and increased demand for animal feed products. Growing consumer awareness towards renewable chemicals and increasing environmental concerns are driving their growth within the market. In addition, regulators in the U.S., U.K. and E.U. have formulated rules concerning the manufacture and disposal of petrochemicals, which have helped to boost the renewable chemicals consumption during the past few years as companies seek compliance.



Energy supply chain issues are a crucial market driver. Fossil fuel-based resources are finite available and face continuing and increased demand. Almost 80% of obtainable raw materials and energy sources are consumed by on the brink of 20% of the developed world's population. China and India, both of which have populations of over 1 billion people, are exhibiting rapid economic process, which is boosting demand for energy and chemicals production.