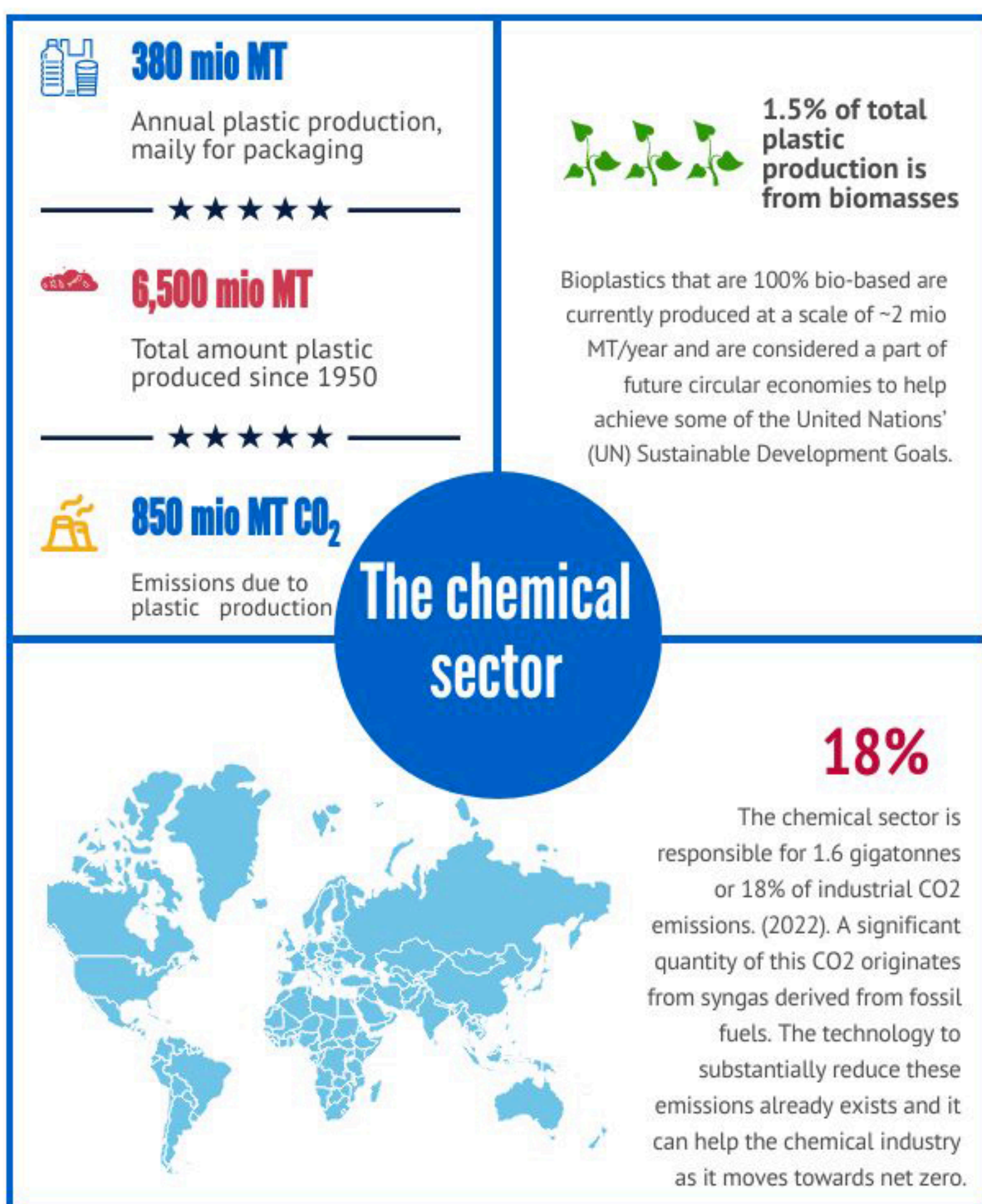


Sustainability in the chemical sector

The chemical industry is essential to modern life, supplying materials for pharmaceuticals, plastics, construction, and electronics. With rising product demand, there's an increasing focus on the industry's environmental and health impact. This infographic about sustainability in the chemical sector, addressing challenges and potential solutions.

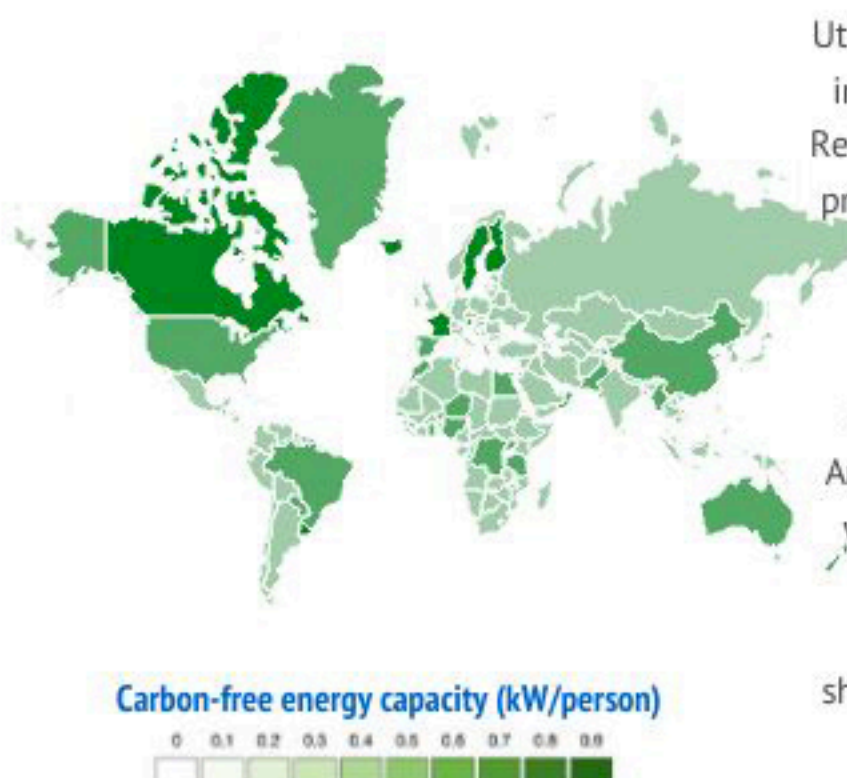


The route to net-zero

Carbon capture and storage is the most used approach deployed by companies to mitigate climate change by reducing carbon dioxide (CO₂) emissions from industrial processes and power generation. Chemicals from **biomasses**, often referred to as bio-based chemicals, are derived from renewable sources such as plants, agricultural residues, or algae. These sustainable alternatives offer a reduced environmental footprint compared to traditional petrochemicals. **Recycling** is by far the most potent strategy to curtail carbon footprint by diverting materials from landfills and diminishing the need for raw resource extraction.



Carbon-free energy to improve LCA



Utilizing carbon-free energy sources is a pivotal strategy in reducing the carbon footprint of chemical processes. Renewable energy, such as solar, wind, and hydropower, provides a sustainable alternative to conventional fossil fuel-based energy, significantly lowering greenhouse gas emissions associated with chemical production. **Canada**, Norway, Paraguay, Iceland, Sweden, and Uruguay are leading the charge towards clean energy. Among the top world economies, Canada is the country with more energy from carbon-free sources. Norway is the only country that has achieved 100% carbon-free energy 1 (carbon credit). However, if we consider the share of electricity that is low-carbon, France gets more than 90% of its electricity from low-carbon sources 2.