

Turning Wastes Into Intelligent Assets









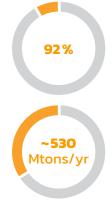
Industrial packaging, for example pallets and crates, is one of the main components of goods' transportation globally. There are two types of packaging including standardsize, such as Euro or US pallet sizes, and non-standard size packaging. While standard-size packaging has low durability of only few usages, non-standard size packaging is usually only single-use which imposes even higher degree of inefficiency that results in dramatic wastes of natural and financial resources. Globally, it is estimated that up to 40% of pallets and crates are used once before being disposed.



Approximately 30% of global wood production is used for industrial packaging, which are often used only once. This makes industrial packaging the main source of global wood waste with estimations show a whopping 40 million tons of waste annually.

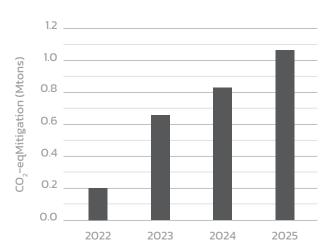


In total, freight transportation is responsible for 7%, and goods manufacturing is responsible for 18% of global GHG emissions. In Ponera's main markets, 20% of these freight and manufacturing emissions are caused by industrial packaging.

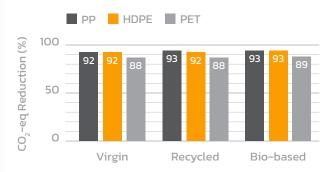


Material 34%Shipment 66%

The global implementation of our solution according to the current metrics, would result in 92% reduction in carbon footprint of industrial packaging, where 34% is due to the use of durable material and 66% from the shipment process. This amounts to mitigation of about 530 Mtons of CO₂-eq per year. Based on the market forecasts, this mitigation potential can rise up to more than 800 Mtons/ yr by 2030.



Based on our projections and growth targets, we expect that the long-term $\mathrm{CO_2}$ -eq mitigation from commercialization of our solution to reach 1.1 Mtons of emissions in this industry by 2025. This amount is equivalent to about 3% of yearly emissions in Switzerland. Ponera Group has defined a roadmap to achieve the highest obtainable impact in relation to the business development and global supply chain readiness.



Based on full implementation of our solution , the comparison between three sources of polymer shows that Bio-based polymer has slightly higher carbon foot-print reduction compared to recycled and virgin polymer in the current industrial environment. However, the type of polymer has higher impact on level of CO₂ mitigation. The calculations are based on recycling of the material for the end-of-life process.

Impact on UN Sustainability Goals.











