

Two issues are well known to many industrial companies to achieve their circularity and decarbonization goals: the generation of complex carbon-based waste, and the cost of its associated management and, the dependence on fossil energy and fossil-based raw materials prevent many industries from decarbonizing.

Blueplasma Power has a patented solution to solve these problems in some industries converting industrial complex carbon-based waste (plastic, paper, textile, biomass, solid digestate, oils,...) into CO<sub>2</sub> - free Hydrogen and Circular Carbonates (soda ash, caustic soda, sodium bicarbonate, potassium carbonate), with a 80% lower CO<sub>2</sub> footprint which is very important in order to decarbonize some industries like glass, detergent, chemicals, etc.

BluePlasma Power gasification technology has the following strengths:

- Small plant size: as a result of higher performance due to milder and safer operating conditions, which allows to have a minimum plant scale of up to 2,000 Tn/year of waste (250 kg/h waste).
- Feedstock Flexibility: valorisation of waste from very different sources (plastics, paper, foams, biomass, digestate, textile,...), also mixed between them, so we are a real solution to landfill or incineration.
- Flexible range of high added value outputs: the plants can be located in the facilities of industrial companies that generate waste that has a high management cost, or in the facilities of waste managers, landfills or incineration plants, to make their current processes more costly efficient and decarbonise them.

The valorisation of complex waste as a new raw material to manufacture more circular chemical products with a lower CO<sub>2</sub> footprint has become a real possibility, benefiting different industries: both the waste generator and the user of chemical products.