

Petrogenium.

CHEMICAL WASTE RECYCLING AND WASTE TO PRODUCTS SERVICES



Our team specialize in transforming waste management challenges into sustainable and profitable opportunities.

We offer comprehensive technical solutions in three key areas: Chemical Waste Recycling, Waste to Products and Waste to Energy.

Petrogenium. can assess and improve your plant's availability and operability. Based on quantifiable benefits, ease of implementation and estimated capital cost we can prioritise implementation.

Petrogenium. offers comprehensive services to refineries, waste recycling companies, airlines, investors, infrastructure and Green Tech funds and top consulting firms. These services include technical advice and technical due diligence on the conversion of municipal solid waste, mixed plastic wastes and Refuse Derived Fuel to hydrocarbons, high-quality raw materials and energy, helping companies in their transition towards circularity and improving operations and profitability. We can assist you in solving technical challenges such as fouling of heat exchangers and hot gas filters, plugging, achieving stable and continuous operation and avoiding plant operation upsets.

Typical services offered:

Recycling Wastes to value-added products

Transform waste into valuable products.

- Technical advice on gasification of Municipal Solid Waste, syngas to fuels and waste co-processing in FCC, or other refinery units
- Feasibility studies and project planning
- Technology selection and integration

Petrogenium. offers technology assessment, technical advice and due diligence to companies on the conversion of municipal solid waste, mixed plastic waste and Refuse Derived Fuel to manufacture hydrocarbons, high-quality recycled oils and energy. We leverage multi-disciplinary expertise in engineering, thermal and catalytic conversion, refining technologies and operational excellence.

Recycling of mixed plastics by pyrolysis

- Detailed technology and engineering reviews of existing plant operations and processes
- Tangible, actionable recommendations on process improvements, also to increase plant availability
- Advanced sorting and processing technology recommendations

Waste to Energy

- Technical due diligence of existing processes and process improvement recommendations

Waste Recycling and Waste to Products Services and Benefits

- Leverage multi-disciplinary expertise in engineering (e.g. heat transfer and heat exchangers, process control and automation, guard filters, coke filtration and fouling), as well as in thermal and catalytic conversion, refining technologies, Renewable Refining and operational excellence.
- Technology assessment and technical due diligence for refiners, private equity and infrastructure funds, assisting recycling companies, state and municipal authorities.
- Mastering technical challenges in catalysts, corrosion, fouling, metallurgy, and process optimisation.
- Delivers tangible benefits, increasing plant availability and saving time and money.

Recent completed Petrogenium. waste circularity projects include:

- European refiner. Technology assessment on the gasification of Municipal Solid Waste to fuels
- Technoeconomic landscaping of conversion of municipal Solid Wastes to fuels for a large integrated oil & Gas Company in the Middle East.
- Technology & engineering review for a European company converting mixed waste plastics to recycled oils led to 16 prioritised Opportunities for plant Improvement and led to an increase in plant availability.
- Refiner, Europe. Expert feasibility study on recycling pyrolysis oil mixed plastics and Refuse Derived Fuel in an FCC Unit.
- European Refiner. 2nd pair of eyes technology screening review on the gasification of waste and other feedstocks; integration into an existing refinery.



Why select Petrogenium.?

Every step of the way, you can lean with confidence on the 30-year world-class experience and hands-on know-how of our consultants in energy efficiency technologies and refinery operations.

Because Experience Matters

www.petrogenium.com

Contact Petrogenium.:

Stefan Kardos

Director

Mobile: +31 (0) 6 39 88 65 84

Email: stefan.kardos@petrogenium.com

Colin Schaverien

Renewable Resources Practice Lead

Mobile: +31 (0) 62 869 79 42

Email: colin.schaverien@petrogenium.com