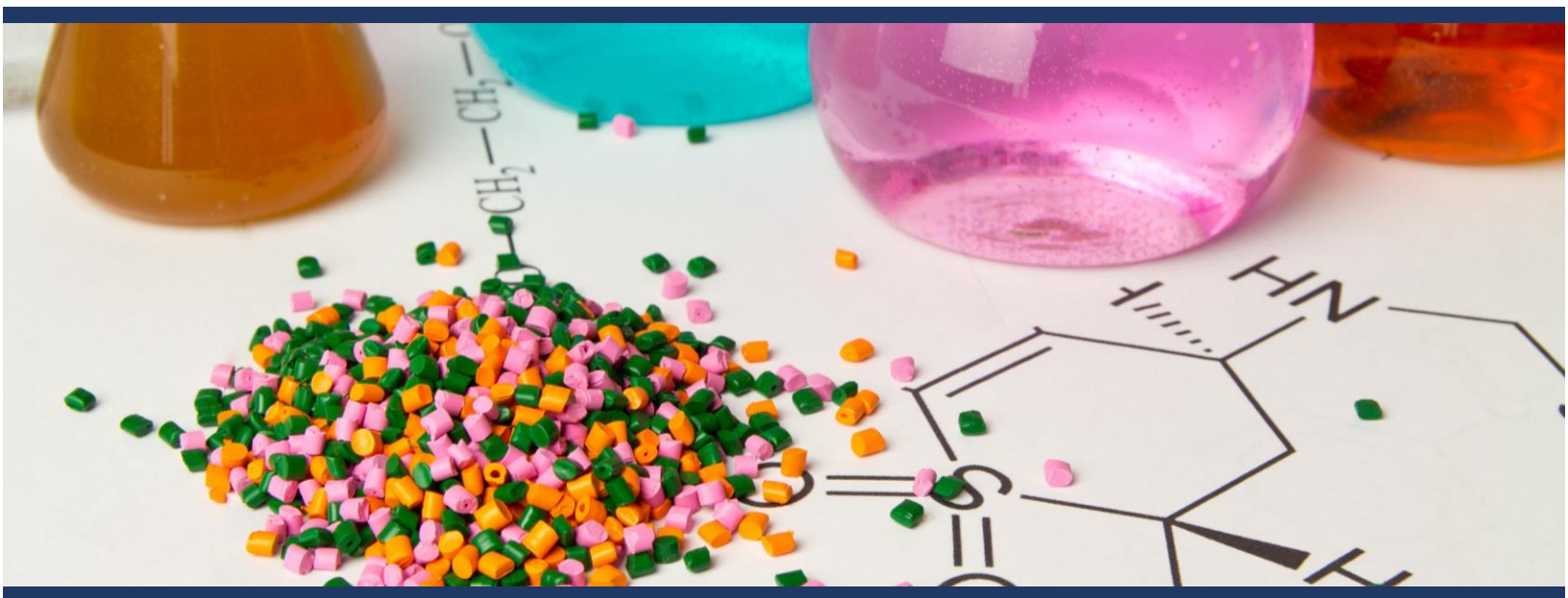


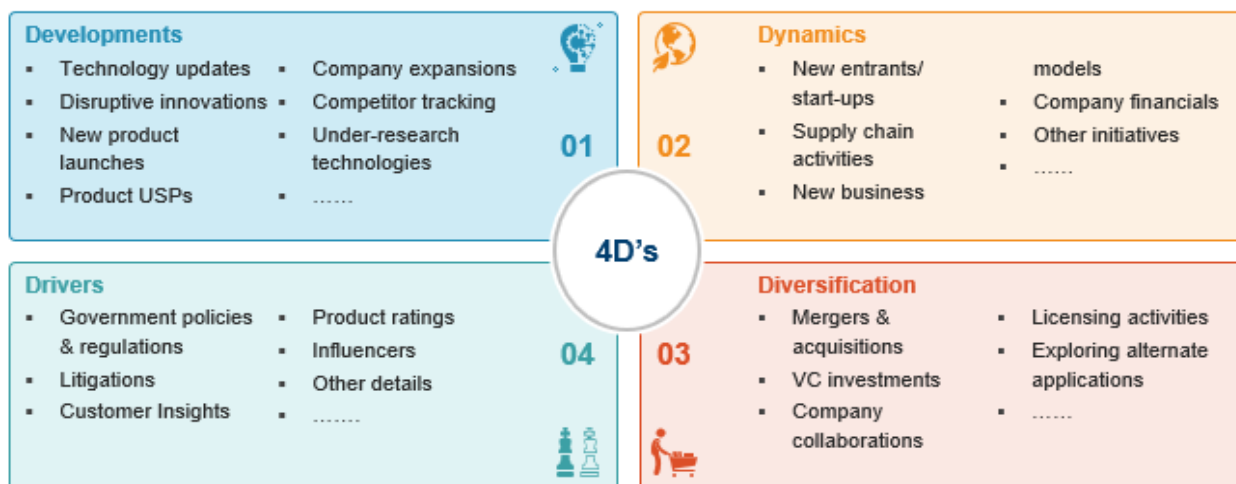
INTELLOTRACKER

Chemical Recycling

April 2023



ARANCA'S QUARTERLY SECTORIAL UPDATE ACROSS FOUR DIMENSIONS....





DEVELOPMENTS

Technology/ Innovations		iCOUP scientists from the Department of Energy's Argonne National Laboratory and Cornell University have developed an innovative catalytic method to turn discarded HDPE plastic into a new sustainable and recyclable substance. Source: Azocleantech
Technology/ Innovations		Eastman is highly active in the chemical recycling field. It has recently patented a process for separating an olefin-containing stream to form one or more product streams with enhanced separation efficiency. Source: Patent
New manufacturing set-ups		Agilyx and Ineos Styrolution are moving forward with their PS chemical recovery project in Illinois, USA, and expect to complete engineering this year. The facility will be capable of processing up to 100 tonnes of post-consumer polystyrene per day. Source: Chemanager
New manufacturing set-ups		Sumitomo Chemical (Japan) has built a new pilot facility for chemical recycling of acrylic resin (PMMA) at its Ehime Works in Niihama City, Japan. Sumitomo Chemical developed this technology in collaboration with The Japan Steel Works, Ltd. Source: Chemengonline
New Product Launch		An Australian startup company Samsara is planning to commercialize an infinite plastics recycling process that uses enzymes to break down complex plastics into their original monomers. Source: Sustainability



DYNAMICS

Supply Chain Activities		Polynate, (a JV between Quantafuel and Geminor), wants to increase presence in the value chain for plastic waste recovery in the Nordic nations and the UK. Source: Recycling-magazine
Supply Chain Activities		TotalEnergies and Paprec have inked a long-term business deal to create a value chain for enhanced reprocessing of plastic film waste. TotalEnergies' upcoming advanced plastic recycling facility in Grandpuits will be supplied under the terms of the deal. Source: Company website
Supply Chain Activities		BD in collaboration with waste management firm Casella is working on the recycling of medical waste into new medicinal goods via mechanical and chemical processes. This pilot project will recover and recycle BD syringes discarded by healthcare facilities. Source: Plasticstoday







DIVERSIFICATION

Company Collaborations		Aduro Clean Technologies and Chemelot Innovation & Learning Lab are collaborating to carry out an experimentation programme to optimise its water-based chemical recycling platform. Source: Globenewswire
Company Collaborations		Saipem and Garbo have inked a collaboration to support the industrialization, development, and worldwide marketing of a novel plastic recycling technology. ChemPET is Garbo's patented depolymerization technology that recycles PET. Source: Chemengonline
Company Collaborations		Flowserve and Clariter have entered strategic collaboration to advance the production of Clariter's green petrochemicals using chemical recycling. Clariter's method converts most plastic wastes into new crude oil-free goods for commercial and daily use. Source: Businesswire
Company Collaborations		Recycling start-up Freepoint Eco-Systems and Alterra have revealed a collaboration to build a big pyrolysis-based chemical recycling plant in the US Gulf Coast Region. The facility will utilise Alterra's proprietary thermochemical liquefaction process technology. Source: ICIS
VC Investments		LyondellBasell and KIRKBI, have announced an agreement to invest in APK (specialised in a unique solvent-based recycling technology- Newcycling®) for multilayer LDPE. Source: Company website
Mergers & Acquisitions		NextChem, a subsidiary of Maire Tecnimont, has signed an agreement with Biorenova. to acquire, scale up, and industrialise the proprietary CatC technology - a continuous chemical recycling process to recover monomers with ultra-high levels of purity. Source: Hydrocarbonengineering
Mergers & Acquisitions		Borealis has purchased a majority share in Renasci, inventor of the Smart Chain Processing (SCP), to expand its access to chemically recycled feedstock. SCP allows the handling of multiple waste sources under one roof using various recycling technologies. Source: Packagingeurope
Licensing Activities		RePEaT has licenced its chemical recycling technology for polyester products to Zhejiang Jianxin Jiaren New Materials. RePEaT will provide a technique that utilises the organic compound DMT to chemically decompose, convert, and then repolymerize polyester. Source: Indiantextilemagazine



DRIVERS

Litigations		The bill HB 1616 is amended to extend the timeline for building the pyrolysis or gasification plant, in Illinois. Previously the pilot project was supposed to start by June 2025, which now changed to June 2027. <i>Source: Wastedive</i>
Government Policies		The US Department of Energy is planning to invest in long-term R&D, to enhance plastic recycling technologies that will reduce energy usage and emissions. The DOE released its strategy, which asks for advancements in specific chemical recycling technologies. <i>Source: Wastedive</i>
Other Relevant Information		UK government is funding demonstrator projects, on chemical recycling, through UKRI's Smart Sustainable Plastic Packaging programme. Environmental minister noted that, chemical recycling is a potentially complementary route for plastic recycling. <i>Source: Letsrecycle</i>
Government Policies		Utah has become the 22nd state in the nation to pass legislation regulating advanced recycling as industry in the 2023 legislative session. The regulatory certainty given by HB 493 motivates companies to engage in the construction of advanced recycling sites. <i>Source: Americanchemistry</i>

SOLUTION PORTFOLIO – TECHNOLOGY RESEARCH & ADVISORY



IP Strategy

How best can we proactively manage and monetise our technical knowhow / intellectual property?



Technology Intelligence

How best can we keep abreast of technology trends, competitor activity and headwinds / tailwinds in our domain?



Growth & Strategy

Which technologies do we invest in?
How do we ensure quick wins?
Speed to market?

- IP Portfolio Analysis

- IP Monetisation

- IP Valuation

- Prior Art Searches

- Competitor Benchmarking

- Tech / IP Landscapes

- Technology Watch

- Market Analysis / Trends

- R&D Strategy Roadmaps

- Technology Scouting

- Open Innovation

- Product Development



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SUPPLY CHAIN
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