

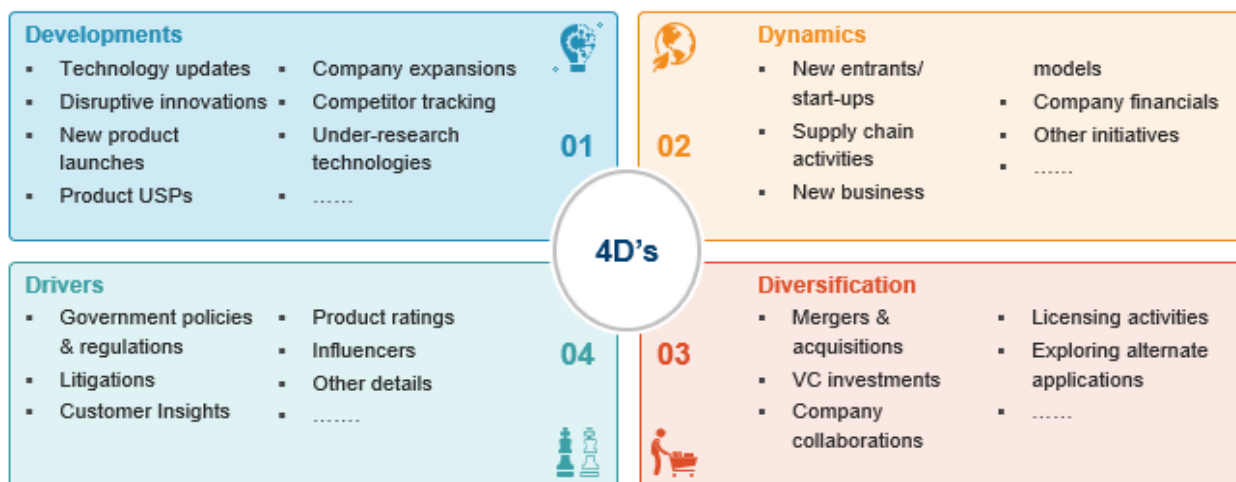
INTELLOTRACKER

Bio-based composites for transport industry

April 2023














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










DEVELOPMENTS

Technology/ Innovations		The ultra-light aerogel materials capable of cutting CO2 emissions of aircraft and other vehicles ultimately developed graphene-based aerogels to be used for soundproofing and heat shielding. <i>Source: Magazine</i>
Technology/ Innovations		The university is creating carbon-neutral fuels to power the transportation sector through deconstructed, non-food plant materials. <i>Source: University news</i>
Technology/ Innovations		The composite materials consist of flax fibers, which act as a reinforcing element, and the biopolymer chitosan, derived from chitin and holds the flax fibers together used as a replacement of materials in construction, sports equipment, cargo crates. <i>Source: Techxplore</i>
Technology/ Innovations		Lamborghini's HPEV (High Performance Electrified Vehicle) hybrid super sports car features a multi-technology carbon fiber, it features a front structure in Forged Composites; a special material made of short carbon fibers soaked in resin. <i>Source: Greencarcongress</i>
New Product Launch		Schütz Composites (Selters, Germany) will be presenting a wide range of applications for its lightweight materials to highlight their numerous advantages with coremaster brand honeycomb material. <i>Source: Compositeworld news</i>
Technology/ Innovations		The process of applying cotton wastes in the nanocellulose reinforced composites using an integrated nano fibrillation technique finds applications in the transportation industry, such as interior components of automobiles and aircraft <i>Source: Nature article</i>
Technology/ Innovations		EconCore is presenting a 100% bio-based composite panel that has excellent mechanical properties, while still being cost competitive to traditional sheet materials. <i>Source: Company Website</i>
Technology/ Innovations		The invention relates to adhesive compositions, particularly 1K and 2K adhesive compositions used in automotive and wind turbine technology. <i>Source: Patent</i>
Technology/ Innovations	Inventor-Mahajan Gaurav Sadashiv	Innovation focuses on reducing plastic use to produce automobile interior and door panels using renewable natural resource banana fiber. <i>Source: Patent</i>
Technology/ Innovations		The process of separating cellulose nanofibers from agro waste and integrating it with the biopolymer system to develop a bio-degradable system that can pave the way for changes in the automobile, biomedical, and packaging fields. <i>Source: Article</i>
Technology/ Innovations		The research focusses on the synthesise of a cost-effective biodegradable green composite for various low- and medium-load applications. <i>Source: Hindawi article</i>
Technology/ Innovations		Plant-based ekoa composite material is featured in the Palisade concept vehicle as a luxury and interactive finish which is developed from renewable flax fibers and bio-based thermoplastic. <i>Source: Compositeworld news</i>






DIVERSIFICATION

Company Collaboration		Lehvos Group is introducing bio-based polyamides (PA) reinforced with carbon fibers for deployment in bicycle frames by development of V Frames' injection molding technology and bike frame products. <i>Source: Plasticstoday news</i>
Company Collaboration		In collaboration with AWOS, the HAZE team is using carbon fiber in its vehicle frames and integrating AWOS's submersion sensors to give drivers and passengers a better chance of escaping a vehicle filling with water. <i>Source: Magazine</i>
Company Collaboration		Carbon Mobile, a deep-tech startup that develops radio-enabled carbon fiber composites in electronics devices, and chemicals company SABIC have entered into a strategic collaboration to drive industry-wide adoption of next-gen, advanced carbon fiber composites in devices. <i>Source: Compositeworld news</i>
Merger & Acquisitions		A new major global engineering materials entity, 'Envalior', emerged April 1, 2023, bringing together two highly complementary industry leaders DSM Engineering Materials (DEM) and Lanxess High Performance Materials (HPM) <i>Source: Plastic technology news</i>
VC Investment		Emissions Reduction Alberta (ERA) is putting \$10 million into INCA Renewtech's hemp fiber processing and composites manufacturing facility under construction in Vegreville, Alta. <i>Source: Magazine</i>

 DRIVERS		
Government Policies		Federal law and the Federal Acquisition Regulation (FAR) require federal agencies and federal contractors to purchase biobased products in categories designated by the USDA. The regulations are laid down by USDA. <i>Source: News</i>
Government Policies		The market is driven by factors like the stringent eco-friendly regulations & rising popularity of 3D printing, Carbon fiber is being extensively deployed in the automotive industry for the creation of 3D-printed car parts. <i>Source: GlobalNewswire</i>

SOLUTION PORTFOLIO – TECHNOLOGY RESEARCH & ADVISORY

		
IP Strategy	Technology Intelligence	Growth & Strategy
How best can we proactively manage and monetise our technical knowhow / intellectual property?	How best can we keep abreast of technology trends, competitor activity and headwinds / tailwinds in our domain?	Which technologies do we invest in? How do we ensure quick wins? Speed to market?
<ul style="list-style-type: none"> IP Portfolio Analysis IP Monetisation IP Valuation Prior Art Searches 	<ul style="list-style-type: none"> Competitor Benchmarking Tech / IP Landscapes Technology Watch Market Analysis / Trends 	<ul style="list-style-type: none"> R&D Strategy Roadmaps Technology Scouting Open Innovation Product Development



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