

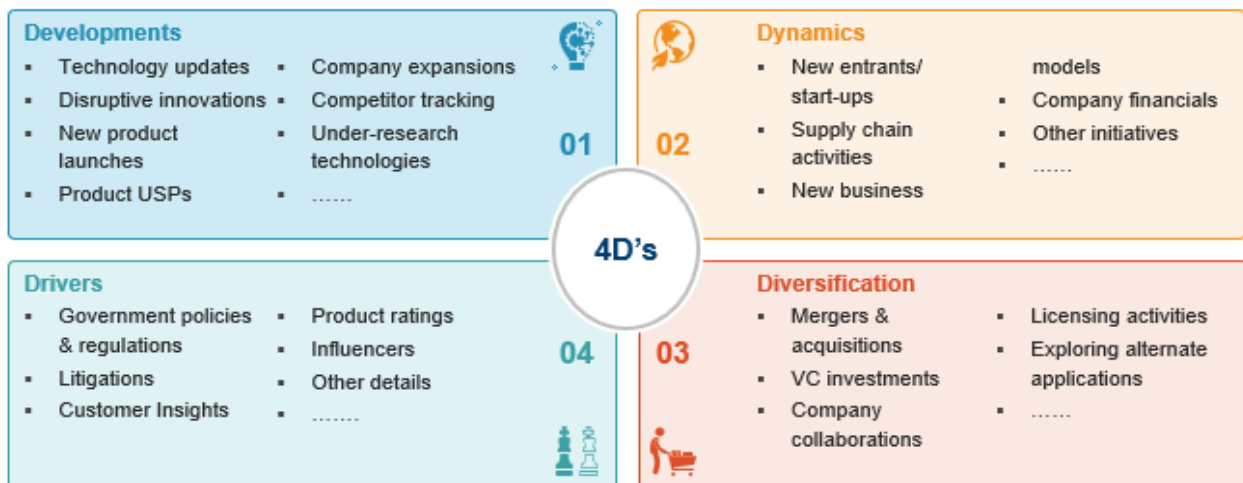
INTELLOTRACKER

Smart Tyres

May 2023



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





DEVELOPMENTS

New product launch		A real-time smartphone application-based alarm system for inflation and temperature breaches will be made possible by JK smart tires having built-in sensors to recognize changes in temperature or pressure and send alarms to their app, displayed on a mobile device. <i>Source: Newspaper Article</i>
New product launch		The SMART Tire Company (STC) aims to reinvent the wheel by making it long-lasting and puncture-proof. STC uses memory alloys to make its tires, developed in partnership with NASA Glenn Research Center, which are unaffected by punctures. <i>Source: Autoevolution</i>
Technology/Innovations		Bridgestone's "The Smart Corner" technology combines Enliten EV Concept Tire with Firestone Airide's Concept EV Air Springs. The parts work together using cloud-connected sensors in the tires and air springs, enabling them to give real-time predictive insights to improve safety, efficiency, and productivity. <i>Source: The drive</i>
Technology/Innovations		Continental Tires has introduced new ContiConnect Live cloud-based solution to assist fleets in real-time while delivering intelligent digital tire monitoring of all vehicles in the fleet <i>Source: Fleet Equipment</i>
Technology/Innovations		JK Tyres is leveraging AI, ML technologies to cater to the high-end car segment. In designing the grooves for tyre for water wading capability to avoid aquaplaning, data is continuously required to work and improve upon, AI and ML will do the simulation for the same. <i>Source: Autoeconomics</i>
Technology/Innovations		IIT Kharagpur carried out a comprehensive characterization of the electrical conduction and strain sensing behavior of a natural rubber (NR)-based commercial tire tread composite combining the reinforcement of a carbon black-conductive nanofiber dual filler system to be used as a sensor for tires. <i>Source: Rubber Chemistry and Technology</i>
Technology/Innovations		Bridgestone has a patent published claiming a transponder arranged in contact with the body ply at a flap of the body ply and is located below an edge of the body ply between the edge of the body ply and the bead of the tire with minimum stress on the transponder to minimize transponder radio frequency communications disturbances and interference. <i>Source: Patent</i>
Technology/Innovations		Sensata Technologies is researching on a Vehicle sensor learning using a low power wake-up receiver, comprising of a tire monitoring having a low power receiver and a transceiver receives, at the low power receiver, a radio frequency (RF) activation signal from a remote device, transitions to a wake state in response to receiving the activation signal, and transmits, via the transceiver, <i>Source: Patent</i>



DYNAMICS

Supply Chain Activity	 	Continental's tire division and Siemens have signed a strategic supplier agreement. Siemens will supply automation and drive technology for Continental's tire factories worldwide in its capacity as a preferred supplier to further optimize Continental's global tire production with innovative control and automation technology. <i>Source: Company Website</i>
Market Expansion		China-based tyre manufacturer Prinx Chengshan is in the process of expanding in the wider Asia-Pacific area. Technology innovation centre and new energy collaborative research centre has vigorously conducted cutting-edge tyre technology research, created an international standard new product matrix, and achieved fruitful results. <i>Source: TyrePress</i>
Market Expansion		Continental Tires India is gearing up to launch "Intelligent Tyres" (I-tyres) for the commercial vehicle segment in the first quarter of 2023. The I-tyres are equipped with sensors developed by Continental's automotive arm and are designed for tubeless tyres to enhance safety on Indian roads. <i>Source: TyreMarket</i>



DIVERSIFICATION

Company Collaboration	 	Goodyear and Gatik have demonstrated a proof of concept which utilizes the tire maker's SightLine technology to estimate tire-road friction potential. The same sensors within the tires also deliver real-time information to Gatik's automated driving system (ADS). <i>Source: TireTechnology International</i>
VC Investments		JK Tyre has secured a \$30 Million investment from the International Finance Corp (IFC) to help finance the expansion of manufacturing capabilities and integrate "resource-efficient" technologies to enhance safety and longevity. <i>Source: Tire Business</i>
Merger & Acquisitions	 	Hankook & Company, a leading tyre manufacturer in Korea, has recently acquired Korean startup 3Secondz to enhance its advantages in the areas of tyre development by leading AI-related technologies in the mobility field. <i>Source: TyreSeeker</i>

Licensing Activities		<p>Confidex signed a licensing agreement with Michelin related to implementation of a RFID tag in the car tyre. It will soon be available for passenger cars, trucks, and commercial vehicles tires, enabling the democratization, expansion, and capillarity of RFID technology.</p> <p>Source: Company Website</p>
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DRIVERS

Others		<p>Apollo Tyres Ltd, in partnership with the Telangana Govt, announced the launch of a Digital Innovation Centre in Hyderabad that will use new age technologies like IoT, Cloud Computing, Artificial Intelligence (AI), Machine Learning (ML), Robotic Process Automation (RPA) and Block Chain to help develop and deliver new business models and market leading customer service.</p> <p>Source: Company Website</p>
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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?

- 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

<p>GROWTH ADVISORY</p>	<p>INVESTMENT RESEARCH & ANALYTICS</p>	<p>VALUATION & FINANCIAL ADVISORY</p>	<p>TECHNOLOGY RESEARCH & ADVISORY</p>	<p>PROCUREMENT & SUPPLY CHAIN INTELLIGENCE</p>
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