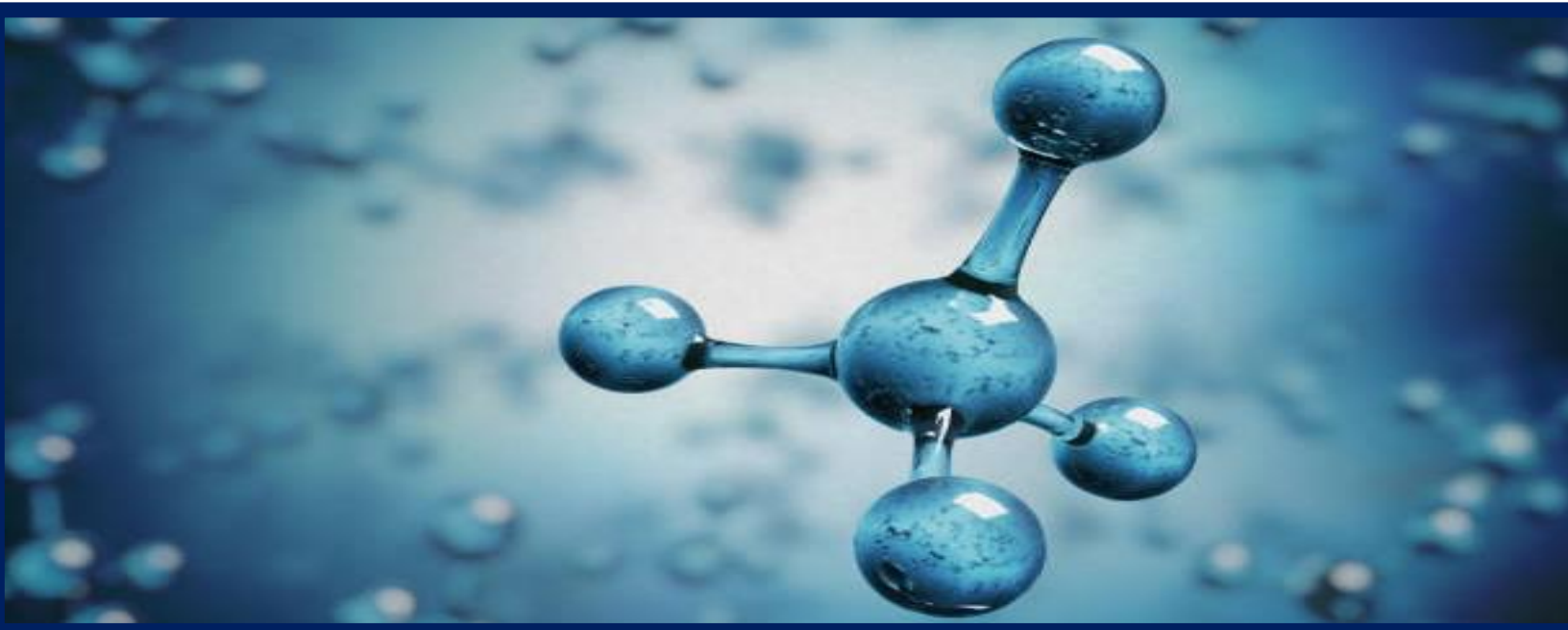


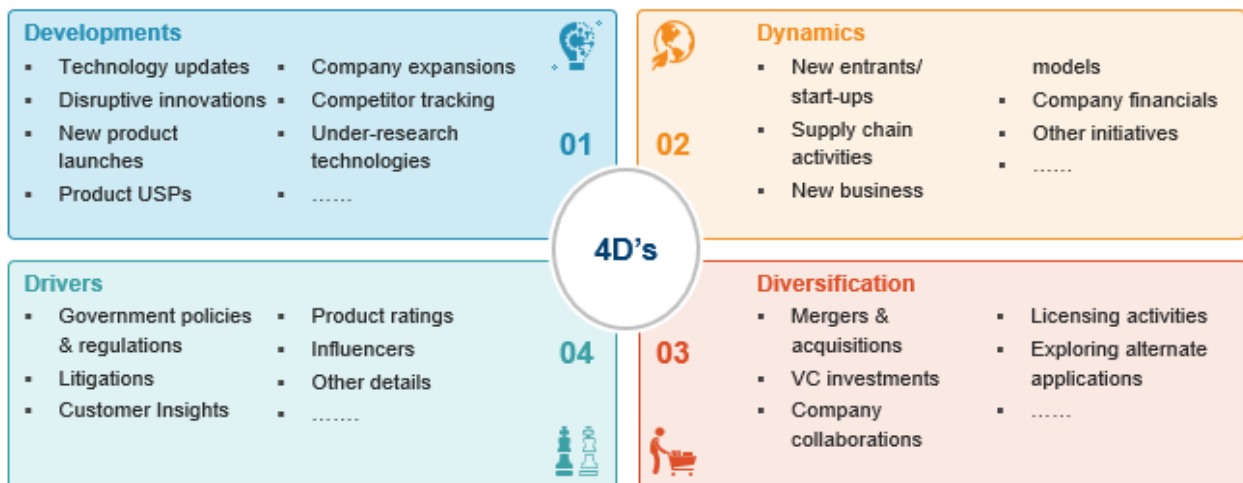
# INTELLOTRACKER

## METHANE CAPTURE & UTILIZATION

May 2023



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





## DEVELOPMENTS

Technology / Innovations		The Coal Basin Methane Project (CBMP) is working toward a plan to capture and dispose of the approximately 1.3 million cubic feet of methane trapped in the Redstone mines. <i>Source: <a href="#">The ASPEN Times</a></i>
Technology / Innovations		A project team at Cornell University led by Philip Milner won an RCSA grant for their research on electro-swing modulation of lipophilic environments for direct air capture of methane. <i>Source: <a href="#">Cornell News</a></i>
Technology / Innovations		Anglo American is reducing its methane footprint by capturing methane from their underground coal seams and supplying that fuel to nearby homes and businesses and using it to produce electricity for the grid. <i>Source: <a href="#">Bloomberg</a></i>
Technology / Innovations		A team of researchers from the University of Science and Technology (USTC) has developed an efficient photocatalytic methane halogenation technology using only light, methane and seawater, the products of which can further transform into methanol and pharmaceutical intermediates. <i>Source: <a href="#">Hydrogen Central</a></i>



## DYNAMICS

New Entrants		The U.S. Trade and Development Agency (USTDA) has approved grant funding to the Prabha Energy Private Limited (PEPL) for a feasibility study to develop a coal mine methane (CMM) recovery facility in the Jharia coalfield in Jharkhand. <i>Source: <a href="#">Economic Times</a></i>
New Entrants		TOKYO-Mitsui O.S.K. Lines, Ltd. Has joined the Methane Abatement in Maritime Innovation Initiative (MAMII) tasked with reducing methane emissions across the maritime industry in the world. <i>Source: <a href="#">MOL Website</a></i>
Supply Chain Activities		TotalEnergies and Colorado State University are collaborating to establish a protocol of qualification for methane measurement technologies. <i>Source: <a href="#">Total Energies Website</a></i>
Supply Chain Activities		The Oil and Gas Climate Initiative (OGCI), along with greenhouse gas monitoring company GHGSat and Norwegian climate consultancy Carbon Limits, successfully detected and measured methane emissions from six Iraqi oil fields using satellite technology. <i>Source: <a href="#">Journal of Petroleum Technology</a></i>
Supply Chain Activities		Chevron conducted a 20-day drone campaign offshore Angola as part of Chevron's ongoing efforts to find and minimize methane emissions throughout our worldwide operations. <i>Source: <a href="#">Chevron Website</a></i>



## DIVERSIFICATION

VC Investment		Australian startup Rumin8, developing a dietary supplement to inhibit the production of methane using red seaweed, has secured \$12 million (£9.7 million) in capital from Breakthrough Energy Ventures, which Bill Gates established in 2015. <i>Source: <a href="#">The Hindu</a></i>
VC Investment		Windfall Bio raised \$9 Million seed funding to launch the first-ever methane-to-organic fertilizer solution. <i>Source: <a href="#">Waste360 Newspaper</a></i>
VC Investment		The U.S. Department of Energy (DOE) has provided \$47 Million in funding for 22 research projects to reduce methane emissions from Oil and Gas sector. <i>Source: <a href="#">Energy.Gov Newspaper</a></i>
Company Collaboration		Valio along with VTT is working on an international research project exploring the use of plasma technology to capture the methane in the barn air and break it down into carbon dioxide. <i>Source: <a href="#">Feed Navigator Newspaper</a></i>
Company Collaboration		Aemetis in collaboration with PG&E is capturing methane from California dairy farms to be used as a new source for natural renewable energy in transportation. <i>Source: <a href="#">abc7 Newspaper</a></i>

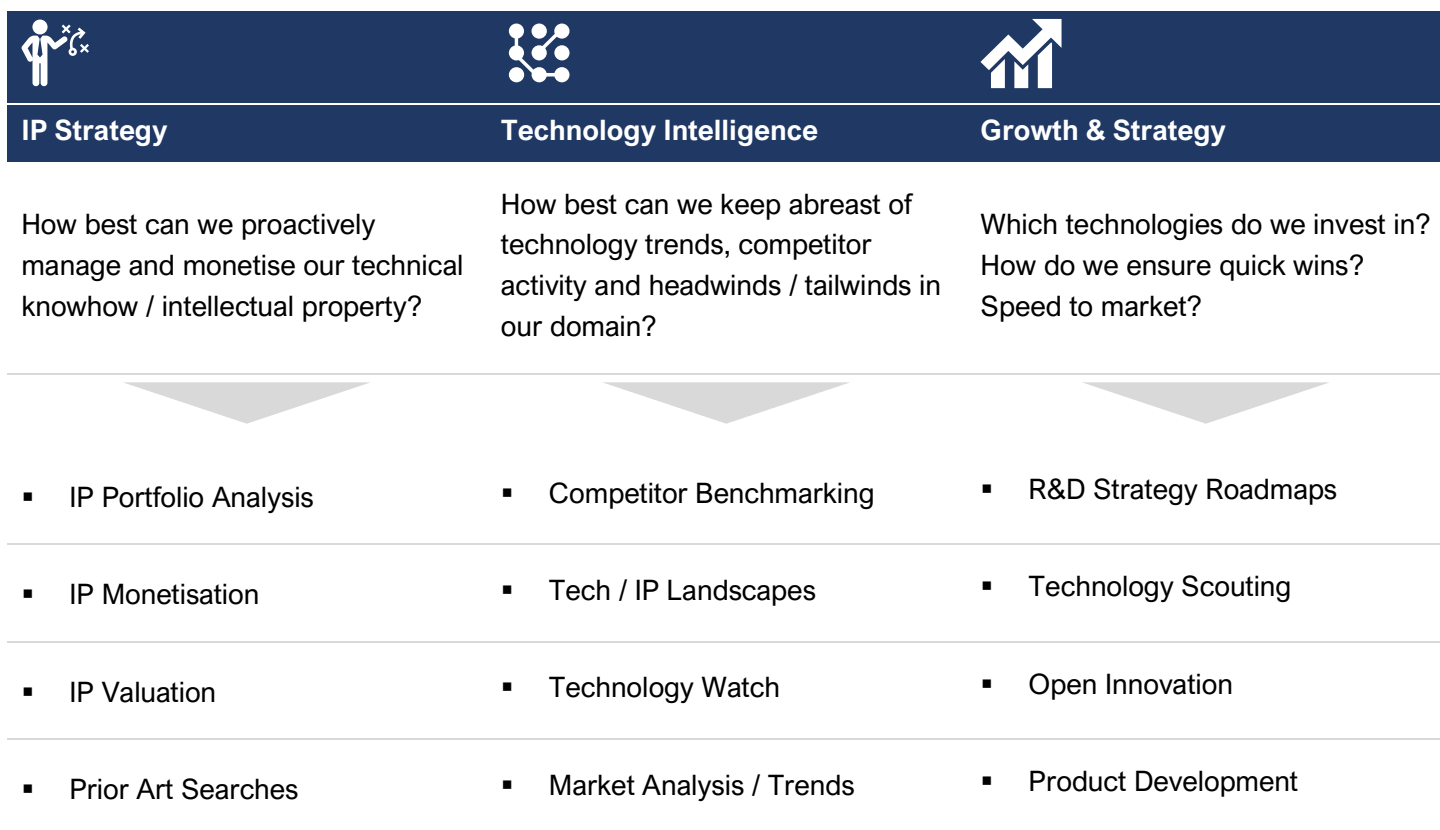


## DRIVERS

Company Policies		Danone targets a 30% absolute reduction in methane emissions from fresh milk used in its dairy products by 2030. It is the first food company to align targets with the Global Methane Pledge. <i>Source: <a href="#">GlobalNewsWire</a></i>
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Government Policies		The government of China has published policy guidance on cutting methane from rice farming, while new planting methods (furrow flooding) and technologies are being tested in the field. Source: <a href="#">China Dialogue Newspaper</a>
Government Policies		In 2021, the Chinese government announced its intention to develop a National Methane Action Plan under the leadership of the Ministry of Ecology and Environment. The plan is expected to be released in 2023. Source: <a href="#">IEA</a>
Government Policies		UNEP's International Methane Emissions Observatory (IMEO) will expand its operations to other sectors than fossil fuel and will provide open reliable actionable data to the individuals who act to reduce 150 Mt of methane emissions by 2030. Source: <a href="#">UNEP</a>
Government Policies		The Department of Environment, Food and Rural Affairs (Defra) released its Environmental Improvement Plan that focuses on water quality, methane emissions and nitrogen pollution. Source: <a href="#">Dairy Reporter</a>
Government Policies		The Australian Government is funding the \$6 million Methane Emissions Reduction in Livestock (MERiL) Stage 1 program to support research and development of methane-reducing livestock feed technologies. Source: <a href="#">Government Website</a>

## SOLUTION PORTFOLIO – TECHNOLOGY RESEARCH & ADVISORY



GROWTH ADVISORY	INVESTMENT RESEARCH & ANALYTICS	VALUATION & FINANCIAL ADVISORY	TECHNOLOGY RESEARCH & ADVISORY	PROCUREMENT & SUPPLY CHAIN INTELLIGENCE

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