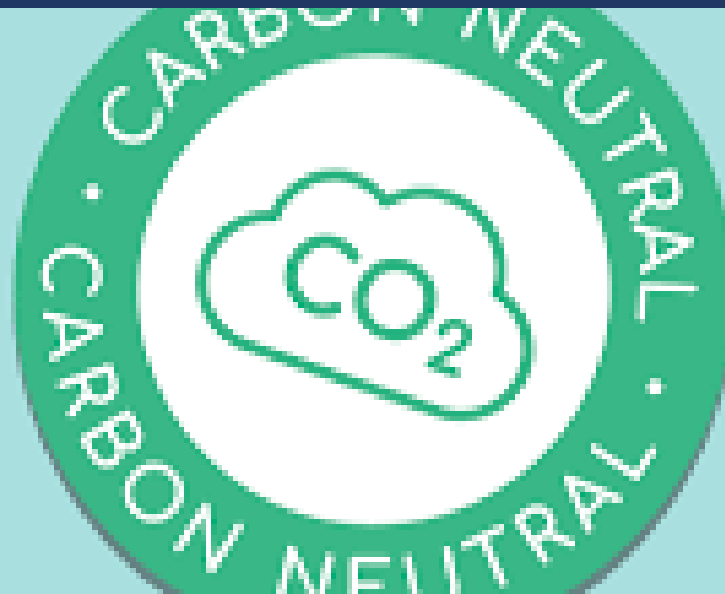


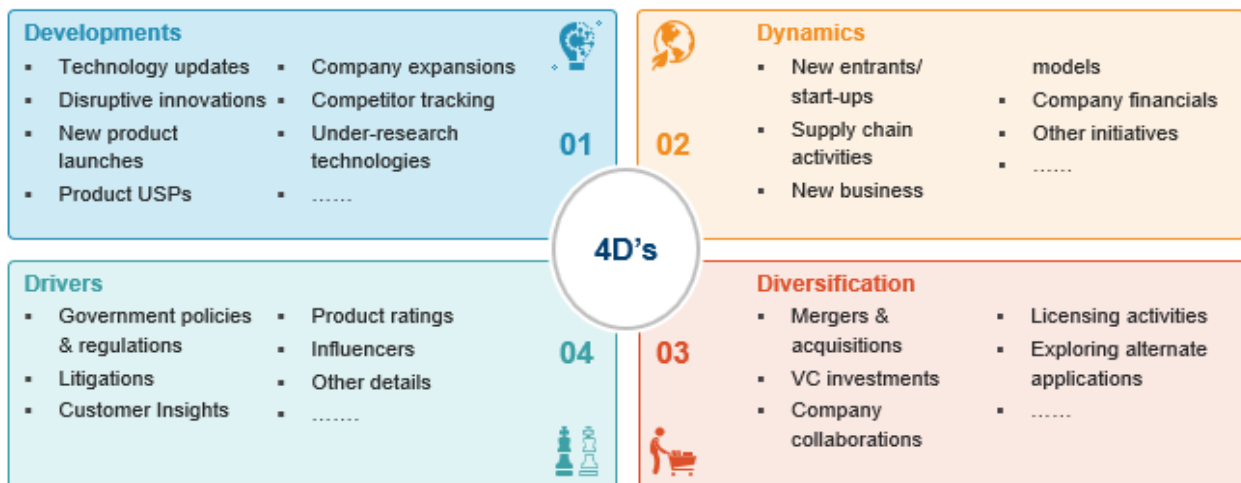
INTELLOTRACKER

CARBON NEUTRAL CHOCOLATE

JUNE 2023



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





DEVELOPMENTS

Technology/ Innovations		To develop the new cacao-free chocolate, the team explored a long list of potential ingredients. Two key ingredients are carob and barley. In traditional chocolate, cocoa beans are fermented and roasted before they're mixed with sugar; the startup does the same thing with these ingredients. <i>Source: Fast Company</i>
Technology/ Innovations		Voyage has launched cocoa- free ingredients to reduce climate implications. <i>Source: Forbes</i>
Technology/ Innovations		Combining Nocoa Concentrate and Nocoa Butter creates Nocoa, a "delicious cocoa-free chocolate, with 90% less CO2." The crops are grown and harvested locally, and the chocolate is made at the company's headquarters in Munich, reducing precious carbon miles. <i>Source: Tech.eu</i>
Technology/ Innovations		Planet A Food's oat fermentation ingredients stand as equals next to cocoa butter and cocoa powder – and the largest confectionery companies globally agree. However, Planet A Foods has an irrefutable advantage: 92% less CO2e emissions. <i>Source: Carbon Cloud</i>
Technology/ Innovations		The cocoa bean, from which the key ingredient in chocolate is derived, has never been cultivated in Israel. Celleste Bio's high-quality cocoa is produced in a laboratory by growing plant cells almost as easily as growing yeast. Put them in a solution of sugar, water and vitamins and they will keep multiplying and growing. <i>Source: Israel 21 C</i>
Technology/ Innovations		Nukoko uses precision fermentation to create delicious chocolate alternative from locally sourced beans. This reduces carbon emissions by 90% compared with traditional chocolate. <i>Source: LinkedIn News</i>



DYNAMICS

Market Expansion		Having secured \$5.6m in investment, cocoa-free chocolate alternative brand WNWN is preparing to enter the UK and EU retail markets. <i>Source: Food Navigator Europe</i>
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DIVERSIFICATION

VC Investment		London-based sustainable chocolate business, Love Cocoa, has secured a \$4.25 million investment funded by venture capital investor, Richard Koch. The funds will be used to grow Love Cocoa's senior management team, launch its first brick-and-mortar store and expand retail distribution. <i>Source: Food Bev Media</i>
Collaboration		The unique-tasting, responsibly sourced chocolate, created in Vietnam by joint venture Puratos Grand-Place Indochina (PGPI), was found to meet the requirements of the carbon neutral standard. It aims to reinvent the chocolate process by combining fermentation in wooden acacia boxes with slow roast methods to create 'tree to bar' chocolate in 60 days. <i>Source: Puratos</i>



DRIVERS

Government Approval		The regulation affects seven specific commodities (cocoa, coffee, soy, palm oil, wood, rubber, and cattle) and their derivatives, as well as products made using these commodities (e.g. leather, cosmetics, chocolate etc.). Over the course of the next two years a review will be carried out, potentially adding additional products to this list. <i>Source: Kpmg Belgium</i>
Government Regulation		BEUC takes issue with carbon neutral claims, even when carbon offsetting projects are funded to achieve it. The consumer organisation argues the claim is 'scientifically inaccurate', since the production of all food and drinks will always necessitate the emission of carbon. <i>Source: Food Navigator Europe</i>

SOLUTION PORTFOLIO – TECHNOLOGY RESEARCH & ADVISORY

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



GROWTH ADVISORY



INVESTMENT RESEARCH & ANALYTICS



VALUATION & FINANCIAL ADVISORY



TECHNOLOGY RESEARCH & ADVISORY



PROCUREMENT & SUPPLY CHAIN INTELLIGENCE

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