

MARKETS FOR FUNCTIONAL FOODS

Prepared by:

CPL Business Consultants

Innovation Centre, Milton Park, Abingdon, Oxfordshire, OX14 4RY

Tel: +44 1865 257 057, info@cplconsult.com, www.cplconsult.com

Dr Matthew Jones

Dr Deborah Cross

Joe Hart

Dr Robert Harwood

STRATEGIES TO GROW YOUR BUSINESS

TABLE OF CONTENTS

OBJECTIVE	4
SCOPE	4
METHOD	4
ABOUT THIS REPORT	4
ABOUT THE SUMMARY REPORT	4
ABOUT THE REFERENCE REPORT	4
PRINCIPAL FINDINGS	6
<i>Review of the Client's Products and Semi-Finished Range.....</i>	<i>6</i>
<i>Markets.....</i>	<i>6</i>
<i>Retail Products and Supermarket Survey</i>	<i>7</i>
<i>Competitive Landscape</i>	<i>8</i>
<i>Extraction and Water Removal Technologies</i>	<i>10</i>
<i>Regulations.....</i>	<i>12</i>
<i>Contacts.....</i>	<i>12</i>
<i>News</i>	<i>15</i>
CONCLUSIONS.....	16
RECOMMENDATIONS	17
OUTLINE BUSINESS PLAN	19
MARKET SEGMENT	19
<i>Which product sectors would make the most strategic sense and how should it proceed?</i>	<i>19</i>
<i>Which geographical markets should the Client target?</i>	<i>20</i>
<i>What raw materials should the portfolio contain?</i>	<i>21</i>
<i>Which health benefits are of most interest?</i>	<i>22</i>
SCIENTIFIC EVIDENCE.....	24
<i>Documents.....</i>	<i>24</i>
<i>Studies</i>	<i>26</i>
PRODUCT FORMATS	28
CUSTOMERS	28
ANALYSIS OF THE CLIENT'S PORTFOLIO	31
THE PRODUCT RANGE.....	31
PHYTONUTRIENT TYPES AND THEIR BENEFITS.....	33
<i>Carotenoids</i>	<i>33</i>
<i>Sulphur-Containing Phytochemicals.....</i>	<i>35</i>
<i>Phycocyanin</i>	<i>35</i>
<i>Nitrates</i>	<i>36</i>
<i>Polyphenols</i>	<i>36</i>
<i>Phosphatidylserine</i>	<i>39</i>
PHYTONUTRIENTS PRESENT IN THE CLIENT'S RAW MATERIALS.....	40
HEALTH BENEFITS ASSOCIATED WITH THE CLIENT'S RAW MATERIALS	45
ASSESSMENT OF SUPPLEMENTS AND SUITABILITY OF THE CLIENT'S PRODUCTS AS SUPPLEMENTS	49
MARKETS	54
<i>Phytonutrients Market.....</i>	<i>54</i>
<i>Nutraceutical and Functional Foods Market</i>	<i>55</i>
<i>Asian Markets.....</i>	<i>59</i>
RETAIL PRODUCTS AND TRENDS.....	66
<i>Dietary Supplements.....</i>	<i>66</i>
<i>Beverages</i>	<i>70</i>
<i>Baked Products and Snacks.....</i>	<i>76</i>
<i>Packaged Store-cupboard Items.....</i>	<i>78</i>
SUPERMARKET SURVEY	79
<i>Product Claims.....</i>	<i>79</i>
<i>Raw Materials</i>	<i>80</i>

COMPETITIVE LANDSCAPE	83
SUMMARY OF PRODUCTS AND PLAYERS	83
17 KEY PLAYERS	86
PRODUCTS AND THEIR POSITIONING	122
<i>Product Examples.....</i>	<i>123</i>
<i>Products Combining Fruit with Other Active Ingredients.....</i>	<i>135</i>
COMPARISON OF THE CLIENT'S RANGE WITH COMPETITOR OFFERINGS	135
EXTRACTION AND WATER REMOVAL TECHNOLOGIES.....	144
EXTRACTION TECHNOLOGIES	145
<i>Subcritical Water Extraction.....</i>	<i>146</i>
<i>Solvent Extraction: CO₂ Extracts.....</i>	<i>152</i>
<i>Steam Distillation (Essential Oils).....</i>	<i>153</i>
<i>Solvent Extraction: Absolutes and Concretes.....</i>	<i>154</i>
<i>Natural Deep Eutectic Solvents (NaDES).....</i>	<i>155</i>
WATER REMOVAL TECHNOLOGIES	158
<i>Osmotic Dehydration.....</i>	<i>159</i>
<i>Thin Film Drying.....</i>	<i>159</i>
<i>Further Processing.....</i>	<i>161</i>
<i>Freeze Drying Variants.....</i>	<i>162</i>
REGULATIONS.....	163
<i>The Codex Guidelines for Nutrition and Health Claims</i>	<i>164</i>
SCIENTIFIC SUBSTANTIATION OF HEALTH CLAIMS	167
WHAT CLAIMS CAN BE MADE.....	168
REGULATIONS BY COUNTRY	175
<i>Australia and New Zealand.....</i>	<i>176</i>
<i>China.....</i>	<i>181</i>
<i>Hong Kong.....</i>	<i>185</i>
<i>Japan.....</i>	<i>186</i>
<i>Indonesia.....</i>	<i>191</i>
<i>Malaysia.....</i>	<i>191</i>
<i>Philippines.....</i>	<i>193</i>
<i>South Korea.....</i>	<i>194</i>
<i>Singapore.....</i>	<i>199</i>
<i>Taiwan.....</i>	<i>200</i>
<i>Thailand.....</i>	<i>201</i>
<i>Vietnam.....</i>	<i>202</i>
CONTACTS	203
CONTACTS SUMMARY.....	203
<i>Ingredients Trends and Regional Differences</i>	<i>203</i>
<i>Supporting Data</i>	<i>206</i>
<i>Key Segments and Health Effects</i>	<i>207</i>
<i>Products Types and Formats.....</i>	<i>208</i>
<i>Challenges.....</i>	<i>209</i>
<i>Regulatory Environment.....</i>	<i>211</i>
<i>Market and Competition.....</i>	<i>211</i>
CONTACT REPORTS – 39 PRIMARY MANUFACTURERS	213
CONTACT REPORTS – 5 DISTRIBUTORS	262
CONTACT REPORTS – 11 END PRODUCT MANUFACTURERS	266
4 INDUSTRY EXPERTS	279
NEWS.....	283
NEWS SUMMARY	283
<i>Company News.....</i>	<i>283</i>
<i>Product Research</i>	<i>284</i>
<i>Market News.....</i>	<i>287</i>
20 COMPANY NEWS ARTICLES.....	288
43 SCIENTIFIC EVIDENCE AND PRODUCT NEWS ARTICLES.....	311

18 MARKET NEWS ARTICLES	362
APPENDIX.....	390

48 TABLES

72 FIGURES