



Purac: Our growth journey to a sustainable future



CSM Investor Event
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Agenda

- Celebrating 80 years of experience in 2011 while looking with confidence to the future
- Exploiting the core competencies of Purac in the biobased space by building a sustainable position
- Focus areas: preservation, green chemicals, bioplastics
- Innovation is driving Purac's growth
- Being fit for growth: organizational focus and investments
- Building our future now

Purac: 80 years of experience to lead the trend of natural sustainable solutions

Food market:

- Leader in natural preservation solutions
- Leader in Calcium fortification in drinks



Chemicals & Pharma markets:

- Leader in biobased building blocks
 - Lactides for bioplastics
 - Lactic Acid and Succinic Acid as platform molecule for biobased chemicals

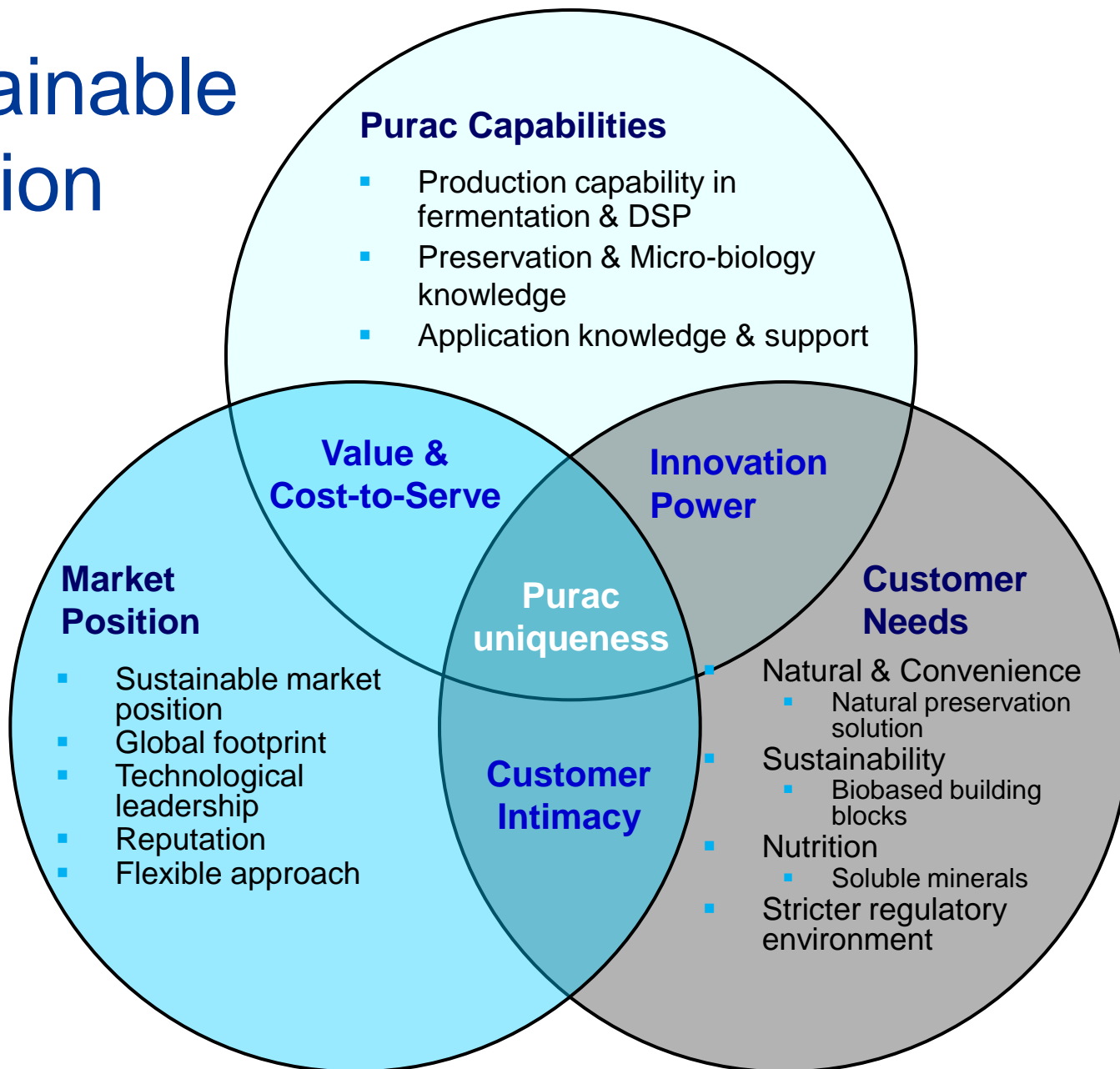


Purac is on track to exploit the potential of the biobased economy

- CSM has embedded sustainability in its culture and businesses.
 - Purac at the forefront
- Sustainability and natural food preservation
 - Environmental friendly solutions for food safety & longer shelf-life
 - Less waste, less waste handling and processing and less energy use for production and distribution of food products
- Sustainability is key in biobased chemicals and bioplastics:
 - New biobased building blocks: Lactides & Succinic Acid
 - New Lactic Acid process improving the CO₂ footprint:
 - Gypsum free Lactic Acid manufacturing
 - Use of alternative substrates (“Non Food”)



Sustainable Position



Exploiting Purac's competences

- Purac: a unique fermentation powerhouse
- Solid technological platforms coped with application expertise built through market understanding
- Well balanced manufacturing footprint, covering different geographies, technologies, raw material trends
- Innovation driven organization
- Market driven initiatives through partnering with leading customers (Customer Intimacy)



Being fit for growth: building our future now

- Our investments are catered to fully exploit Purac's current and future potential
 - Strengthening our base where Purac's leading positions is undisputed
 - Supporting the growth of future well defined opportunities
- Innovation is key to continue the exploration and developments of new opportunities and new business areas
- Organizational development to support growth in knowledge base, core competencies, new business areas and new geographies.
- The assets base develops to cater for growth initiatives, new markets and new technologies
- Leading positions in selected Product Market Combinations



Being fit for growth: innovation

- Increase of innovation spend 3.1% in 2009 (4.0% in 2010) to 4.6% in 2011
- Balancing medium to longer term initiatives
- Increase growth through innovation: from 10% in 2009 (9% in 2010) to 13% in 2011
 - Exploiting New application areas e.g. PURAC Fit for low calories beverages
 - Developing new solutions e.g. ferments for Natural Food Preservation
 - Exploring new markets e.g. bioplastics
 - Improving our manufacturing technologies
 - Gypsum-free Lactic Acid process
 - Alternative substrates (biomass)



Being fit for growth: organizational development

- Step up in organization:
 - Stronger capabilities: New Competence Center Fermentation
 - Dedicated and focused resources in PLA
 - PLA Innovation Centre
 - PLA Business Development organization
 - Strengthened Business Development organization to accelerate 'New Products to Market' introduction
 - New Assets development organization to develop manufacturing footprint



Being fit for growth: new assets

- Investment in new Biomaterials plant in the US
 - EUR 15 mil in 2011/2012
 - Drug deliveries and medical devices based on resorbable polymers
 - Strengthen customers partnerships with two manufacturing locations
- Several debottlenecking initiatives:
 - Increase Lactic Acid output in 2011/2012
 - Capacity increases in Thailand, USA and Brazil



Being fit for growth: New technologies to strengthen market position

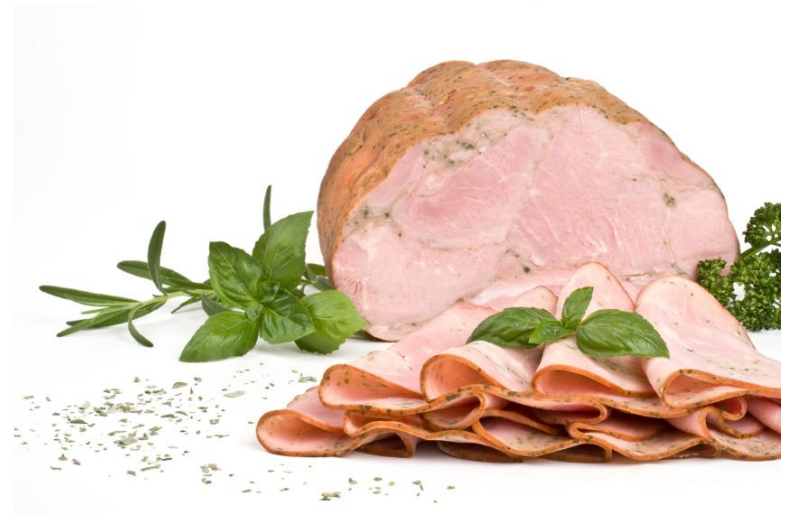
- New Lactides plant in Thailand (EUR 45 mil in 2010/2011)
 - Completion of the investment in the 2nd half of 2011
- New food ferments plant in the Netherlands (EUR 17 mil in 2011/2012)
 - Ferments and other ingredients to support growth in Natural Food Preservation
 - New Technology platforms to cover new spoilage micro-organisms
- New gypsum-free process in the USA (EUR 25 mil in 2011/2012)
 - Expand production capacity with new state-of-the-art technology
 - 40% capacity increase
 - Sustainability: improve CO₂ Footprint by 65%



The Purac food business

From product to benefits & solutions

- Creating customer value
 - Quantification of our proposition's perceived value and benefit
- Broadening the market horizon to grasp opportunities through our competencies base
 - Leading the market of 'Natural Food Preservation'
- Leading the market of Lactic Acid and its derivatives in food
 - Taste & Nutrition
 - Developing new applications
 - The bright future of Calcium fortification



Exploiting the potential of biobased chemicals

- Lactic acid is a very versatile molecule:
 - Biobased, renewable, favorable CO₂ footprint
 - Purac is continuously exploiting its application strength, by looking after areas where Lactic Acid derivatives can substitute, in an effective way, oil based chemicals
 - Application equivalence or superiority
 - 'Cost-in-use'
 - Solvents: Agrochemical, electronics
 - Detergents
 - Animal health



The PLA journey: innovation and market development

- Purac shaping the future of biobased plastics
- Market for PLA is estimated to reach over 3 million tons within 10 years
- Segments with highest penetration potential for PLA
- Lactides plant in Thailand under construction
- Customers and partners continue to develop and start to supply the market
- Indorama alliance opens door to the untapped segment of fibers



The bioplastic strategy takes momentum

- Our technology opens new interesting application areas:
 - D-Lactide to explore new application areas (e.g. engineering plastics)
- Our business model requires a selected multi-phased approach:
 - Pilot scale manufacturing (5-10 k ton)
 - Medium sized plant (20-50 k ton) with on-site plants
 - Large scale operations with dedicated plants and new business model (including Joint Ventures)
 - Joint facilities to achieve cost leadership
 - Synergies in operating costs as well as investments



Next generation technology to strengthen our sustainability path

- Gypsum-free technology:
 - Patented technology
 - After two years of experience in NL, to be adopted in our next investments, starting from the expansion in USA (2011/2012)
- Reduction of our CO₂ footprint
- An answer to the 'Food for Fuel' discussion:
 - New generation technology
 - Partnering with other players in the value chain:
 - Exploit bio-refineries
 - Being in the lead in biobased chemicals



The future has already started

- Existing Food and Chemicals & Pharma business
 - Continuation of solid growth at 8-10% through innovation, geographical expansion and new market opportunities
 - EBITA and ROCE at min. 15%
- PLA has an upward potential for massive growth
 - PLA market estimated at 3 mil ton by 2020
 - Ambition level to attain 50% market share
 - This equates 20 times the size of our Thailand factory
 - EBITA and ROCE target at min. 15%



