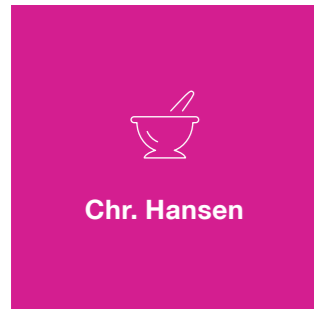


Chr. Hansen

Natural solutions

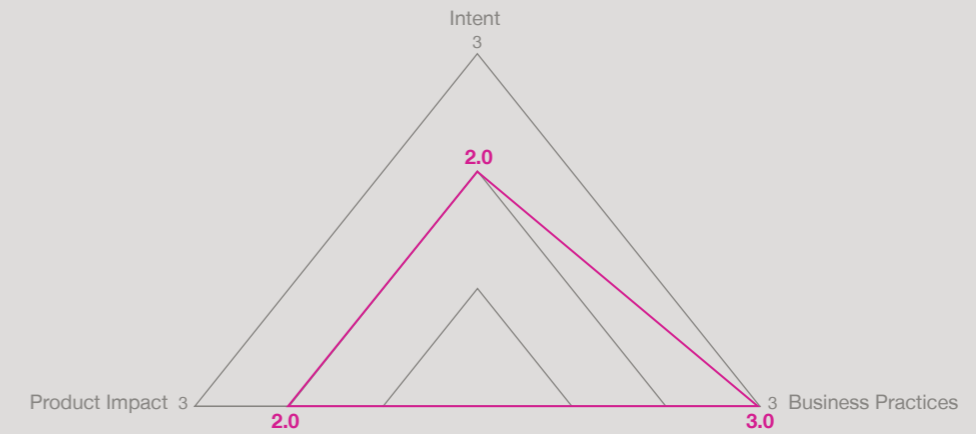


Christian Hansen is a Danish life-sciences company specialising in development and production of cultures and enzymes for the food industry. The company also makes probiotics that are used as food supplements (for human and animal health and plant protection) and natural colourings.

Investment Case

What challenge is the Company tackling?	Healthy food is the root to good health. Chr Hansen supplies material ingredients that shape the nutritional value, health benefits and taste of consumer products. It is playing a helping role in feeding the world's growing population. While its health and nutrition sales are still small, it should continue to enable a shift from toxic pesticides and fertilizers to more environmentally friendly agriculture, as well as improving our health through reducing the use of antibiotics in animal husbandry and supporting our microbiome
Is the Company's offering sufficiently different and better than the status quo?	Chr Hansen have the benefit of manufacturing at scale, a vast library of bacterial strains and a significant focus on R&D. The business is divided into three segments: Food Cultures & Enzymes (60% of revenues), Health & Nutrition (20% of revenues) and Natural Colours (20% of revenues). It is the first two segments in particular which we believe challenge the status quo. In Food Cultures & Enzymes key areas of growth are in supporting a natural way of reformulating products with lower salt, sugar, fat, lactose or gluten, and in bioprotection –making food last longer. In Health & Nutrition, the company is focusing on areas such as replacing chemical fertilisers with biologically based applications, replacing antibiotic growth promoters in the livestock industry, developing probiotics as dietary supplements and also pharmaceutical-grade probiotics for medical use,
Is there a committed management team? What have they done before?	The current top management team is relatively new, and it is perhaps too early to judge their achievements. The CEO, Mauricio Graber, joined in 2018 from Novozymes (a competitor). Chr Hansen also recently recruited Novozyme's Chief Scientific Officer as their new Head of Research. Chr Hansen has a long-term focused strategy, while building on the company's strength and increasing R&D spend in exciting areas such as human health.
How does the Company treat stakeholders?	The company has a collaborative approach, working closely with customers to develop products to help them solve problems. They score higher than their benchmark in employee surveys with the executive board and senior management focusing on diversity and inclusion objectives. Chr Hansen is a non- hierarchical organisation, which is typical of Scandinavian companies.
Is there a potential to create a profitable and defendable business?	Chr Hansen is already a profitable business with attractive financial characteristics. Denmark, Medicon Valley in particular, has deep historic roots in strong research and production processes of microorganisms. The company's know-how of the production processes and a large installed capacity underpin the operational leverage. There is scope for returns to increase. Chr Hansen is the leading player in most of the areas in which it operates. For example, in Food Cultures & Enzymes the company commands more than 40% of the market, while its probiotics are the best scientifically documented probiotics globally. The company's commitment to invest for the long run and the support from the long- term shareholders could make this business well-guarded from the competition.
Is the business attractively valued?	A combination of attractive growth opportunities and operational leverage can translate to high teens earnings' growth. In 5 years this will put the company on the current PE of 20x. Valuation looks attractive, assuming that there is still plenty of growth to come after 5 years, e.g. human/animal health and plant protection businesses might be gathering a growth momentum by this time. The market tends to focus more on the short and mid-range opportunities rather than potentially much larger human health-related markets in the more distant future.

Impact Analysis



Product Impact

Chr. Hansen is working in a number of different areas addressing very different challenges and therefore, whilst the individual areas may not have significant breadth, the combination is much more compelling.

Intent

The positive change case is clearly articulated and ingrained in the forward-looking strategy which includes specific targets to drive increasing positive impact over time.

Business Practices

The company has developed good practices across its value chain. It has a strong programme of environmental targets and key initiatives addressing employee satisfaction and safety.

	Relevant Targets	Relevant Products
2 ZERO HUNGER 	Target 2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.	Chr Hansen's plant health solutions replace chemical fertilisers with biologically based applications which increase agriculture output without negative consequences on the environment. The animal health solutions replace the use of antibiotics in livestock which lead to antibiotic resistance.
3 GOOD HEALTH AND WELL-BEING 	Target 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.	Chr Hansen's human health products, enzymes and cultures promote better diet and reduce the risk of obesity.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	Target 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses. Target 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.	Chr Hansen's bioprotective products enhance shelf life using natural ingredients and help to reduce food waste. The company's biologically based fertilisers and animal health products reduce usage of chemicals in agriculture.

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