



Summary Talking Points

Novozymes approaches to Resource Efficiency
and sufficiency
GMGSF, UNEA4

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Agenda

- Novozymes Introductions
- Enzymatic solutions from Novozymes
- Novozymes and Sustainable Development
- Concluding Remarks

Brief Introductions to Novozymes



Our purpose

T  **GETHER** WE
FIND
BIOLOGICAL 
ANSWERS FOR
BETTER **LIVES** IN A
GROWING
WORLD 
LET'S RETHINK TOMORROW

A short introduction to Novozymes – the global market leader in enzymes



6,500

employees

14%

of turnover spent on R&D

700+

products

7,000

granted and pending
patents

30+

different industries

2 billion €

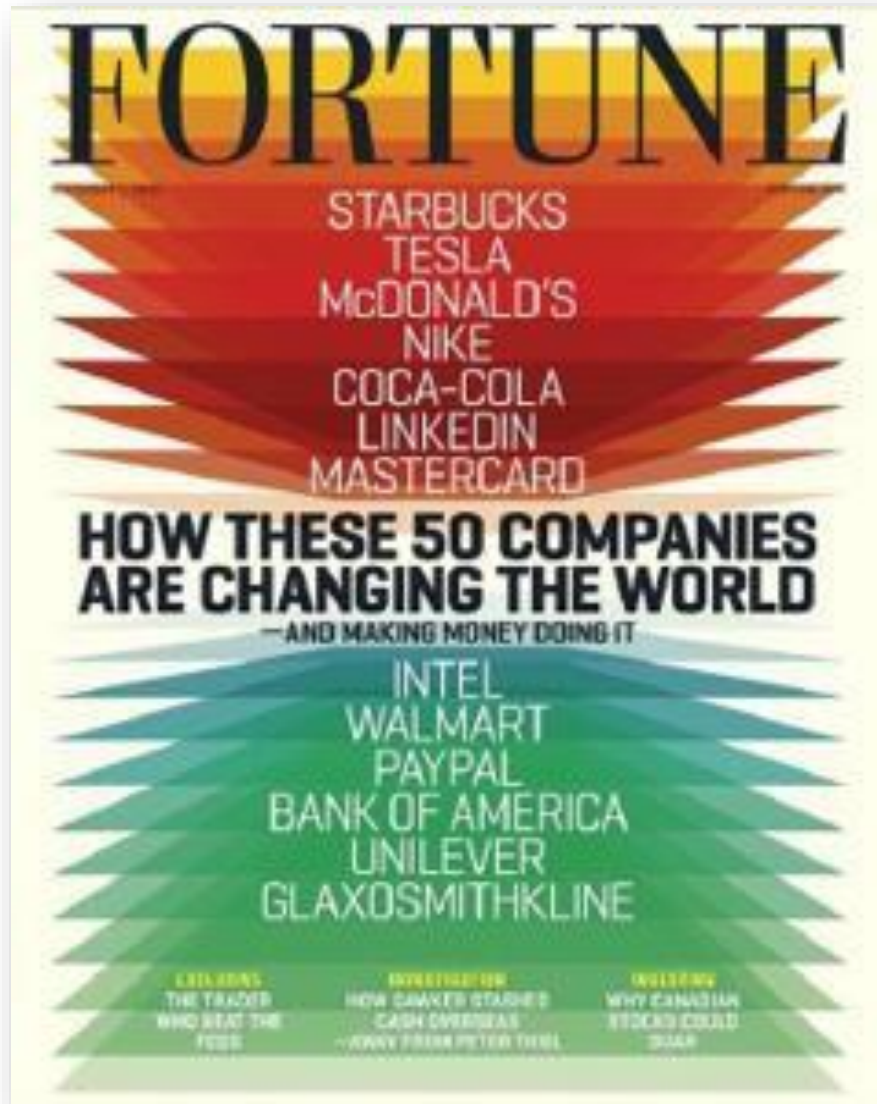
sales in 2016

130

countries

12 years

top of Dow Jones
Sustainability index



Novozymes
ranks #9 on
Fortune Magazine's list of 50
companies that are **changing
the world**

Helping world leaders achieve sustainability goals across industries



Household Care



Food & Beverages



Bioenergy



Animal Health & Nutrition



Agriculture



Biopharma



Textile



Pulp & Paper



Leather



Wastewater Solutions

And what are enzymes?

They are nature's tools – they **speed up vital biological processes**

They are **pure proteins**

They are **present in all living cells**. For example they help digest food

They are **highly specific**. Specific reactions and specific substrates

They are **catalysts**. We use them to speed up chemical reactions – enabling milder processes and saving time, energy and water

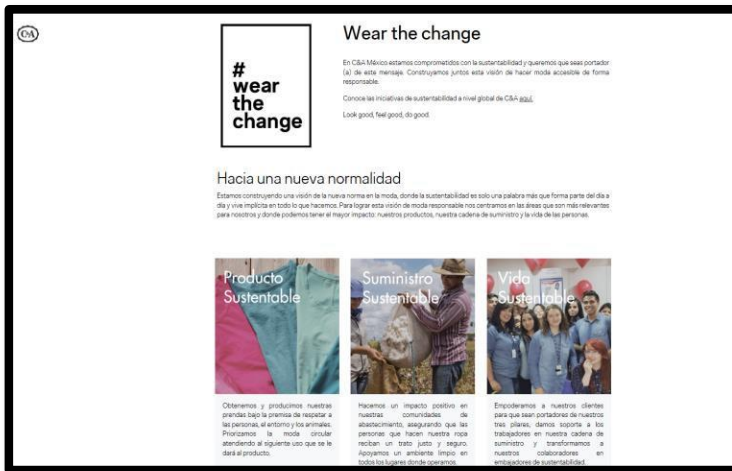
They are **fully bio-degradable** and break down to harmless amino acids

Novozymes and Sustainable Development

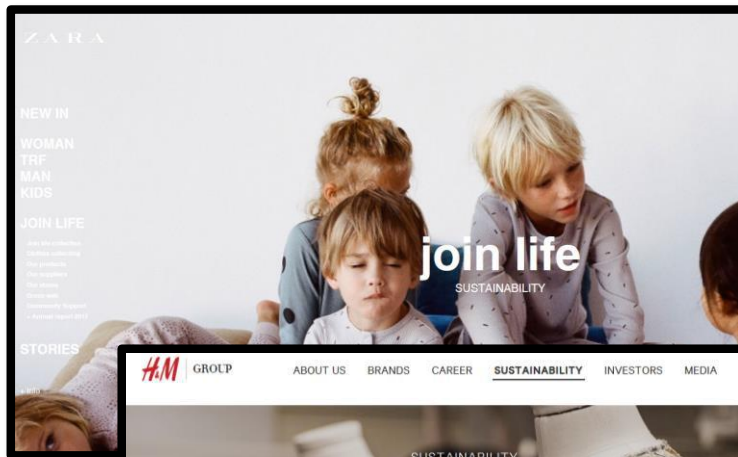


Sustainable and circular fashion is high on brands' agenda

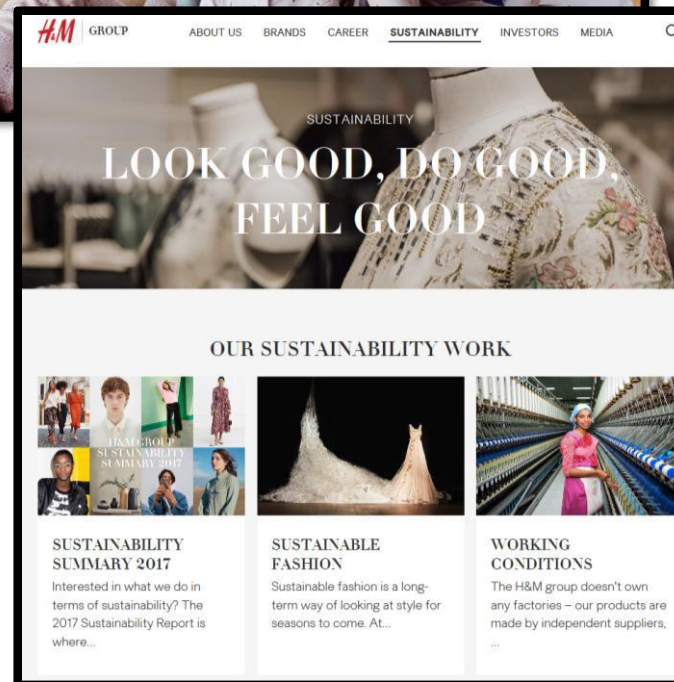
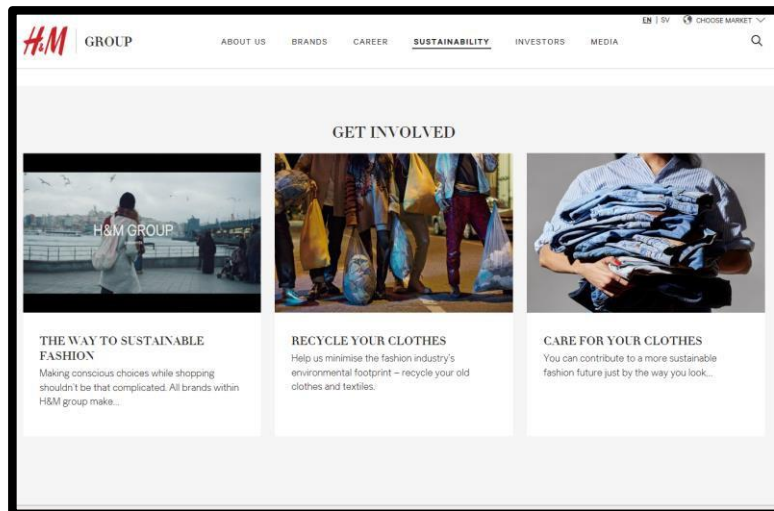
C&A



Inditex owns Zara, Bershka, Stradivarius, etc.






- From risk management to consumer communication
- "LOOK GOOD, DO GOOD, FEEL GOOD"
- Conscious Collection
- Join Life
- #Wear the change



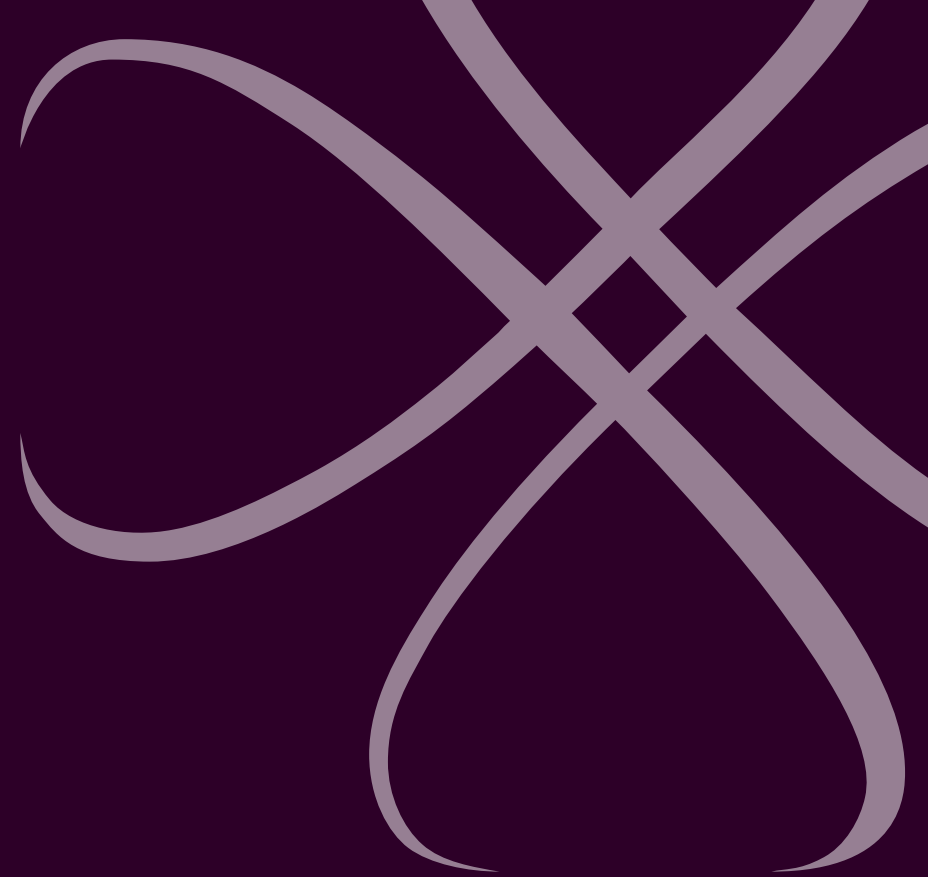
Delivering textile applications that impact the textile industry

Savings in the mills and laundries by Novozymes applications

	 Water savings	 Energy savings	 Chemical savings
Desizing	N/A	4,400 kg of CO₂ ~ taking 1,800 cars off the road	3,500 tons ~ reducing pressure on water cleaning and the aquatic environment
Bioscouring	100,000 m³ ~ the annual fresh water consumption of 1,700 European households	5,000 kg of CO₂ ~ taking 2,000 cars off the road	335 tons ~ reducing pressure on water cleaning and the aquatic environment
Bleach clean-up	100,000 m³ ~ the annual fresh water consumption of 1,700 European households	2,000 kg of CO₂ ~ taking 850 cars off the road	N/A
Biopolishing - CombiPolish	150,000 m³ ~ the annual fresh water consumption of 2,500 European households	3,800 kg of CO₂ ~ taking 1,500 cars off the road	N/A
Denim abrasion	13,000 m³ ~ the annual fresh water consumption of 220 European households	100 kg of CO₂ ~ taking 44 cars off the road	N/A

Calculations are based on Novozymes’ Life Cycle Assessments, validated by 3rd party. Number per year is based on assumed production of 5,000 tons of textiles per year (average for a medium textile mill and laundry). An average European consumes approximately 60 m³ of fresh water for the household per year and an average passenger car emits around 2.4 tons of CO₂ per year.

Conclusion Remarks





Business is already – and will be even more so in the future

Not only do we have a responsibility to help deliver on this agenda, we also have an opportunity to create better products and better solutions.

