

***Unlimited.* DSM**

**DSM Food Specialties**  
***Innovation – Driver for Growth***

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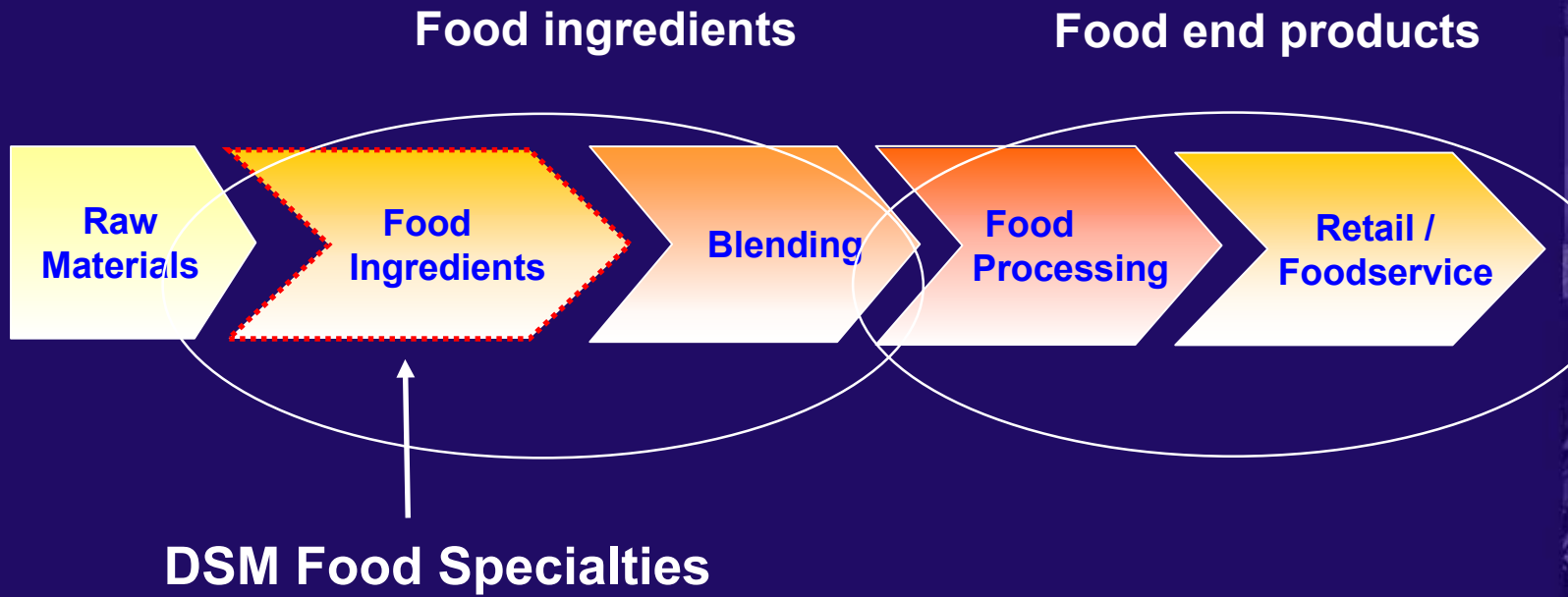


# Main topics

- The market
- Core competences
- Innovation Strategy



# The food value chain



CONSUMER

# Food ingredients value chain

**Sources:**  
Plant, Animal, Chemical, Micro-organism

**Technologies:**  
Fermentation, Chemical synthesis, Extraction

**Food Ingredients**  
> € 35 bn (4-5% AAGR)

preservation, taste, texture, colouring,  
processing aid, health & nutrition

**Unprocessed food segments**

**Processed food segments**  
> € 1500 bn (1-2% AAGR)

**Dietary supplements**  
> € 37 bn (5% AAGR)

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# Food manufacturers rationalize and concentrate



## Key observations

- ❑ Affected by power of retailers
- ❑ EBIT average: 9%
- ❑ Focus on core competences (marketing)

## Business dynamics:

- ❑ Are successful in passing on pressure from retailers
- ❑ Large FM's tend to source directly from 'two best in class'; smaller FM's favour 'one-stop-shop'
- ❑ Globalisation / concentration
- ❑ Shorter innovation cycles
- ❑ Large FM's increasingly focus on health and nutrition

Total market size:  
€ 1,500 bln; top-10: 12%  
market share (ranked by  
processed food and  
foodservice sales in € bln)

Nestlé:	48,6
Philip Morris:	28,9
Unilever:	22,6
Coca Cola:	22,3
PepsiCo:	22,2
Diageo:	17,0
Mars:	16,7
Anheuser B.	13,4
Danone:	13,2
Kirin:	13,0

# Ingredient players innovate and consolidate



**Total market size: € 35 bln; top-10: 21% Market Share** (ranked by ingredients sales in € mln)

IFF/BBA	960
D.Cultor	900
Ajinomoto	800
<b>DSM Food</b>	<b>775</b>
Quest	675
Lesaffre	650
Sensient	600
Degussa/H&N	600
Roche V&FC	500
Chr. Hansen	465
Rhodia Food	440

## Key observations

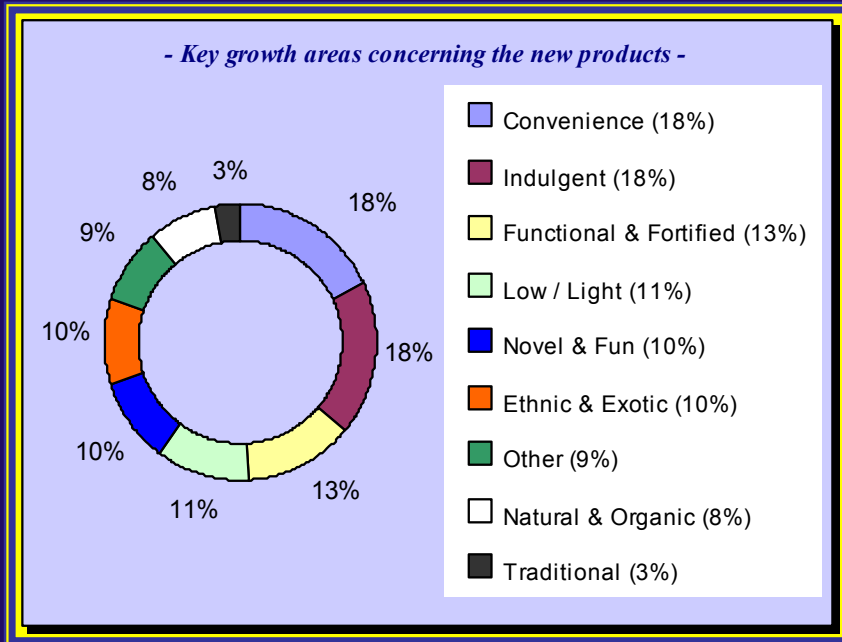
- ❑ Highest growth and profitability in the chain
- ❑ EBIT average: 11-27%
- ❑ Highly fragmented market and players that position themselves differently
- ❑ Large players all have a strong worldwide distribution network
- ❑ Drive innovative (R&D and application know how based) ingredients

## Business dynamics:

- ❑ Concentration via mergers and acquisitions, but still fragmented
- ❑ Because of fragmentation, different strategies and positionings can and will be pursued
- ❑ Strengthen blending & formulation capabilities
- ❑ Above average growth outside the Western world
- ❑ Backward integration is not an option



# Food Segments driving Product Innovation



**Convenience (18%) and Pleasure (38%)**  
driven by medium sized food  
manufacturers

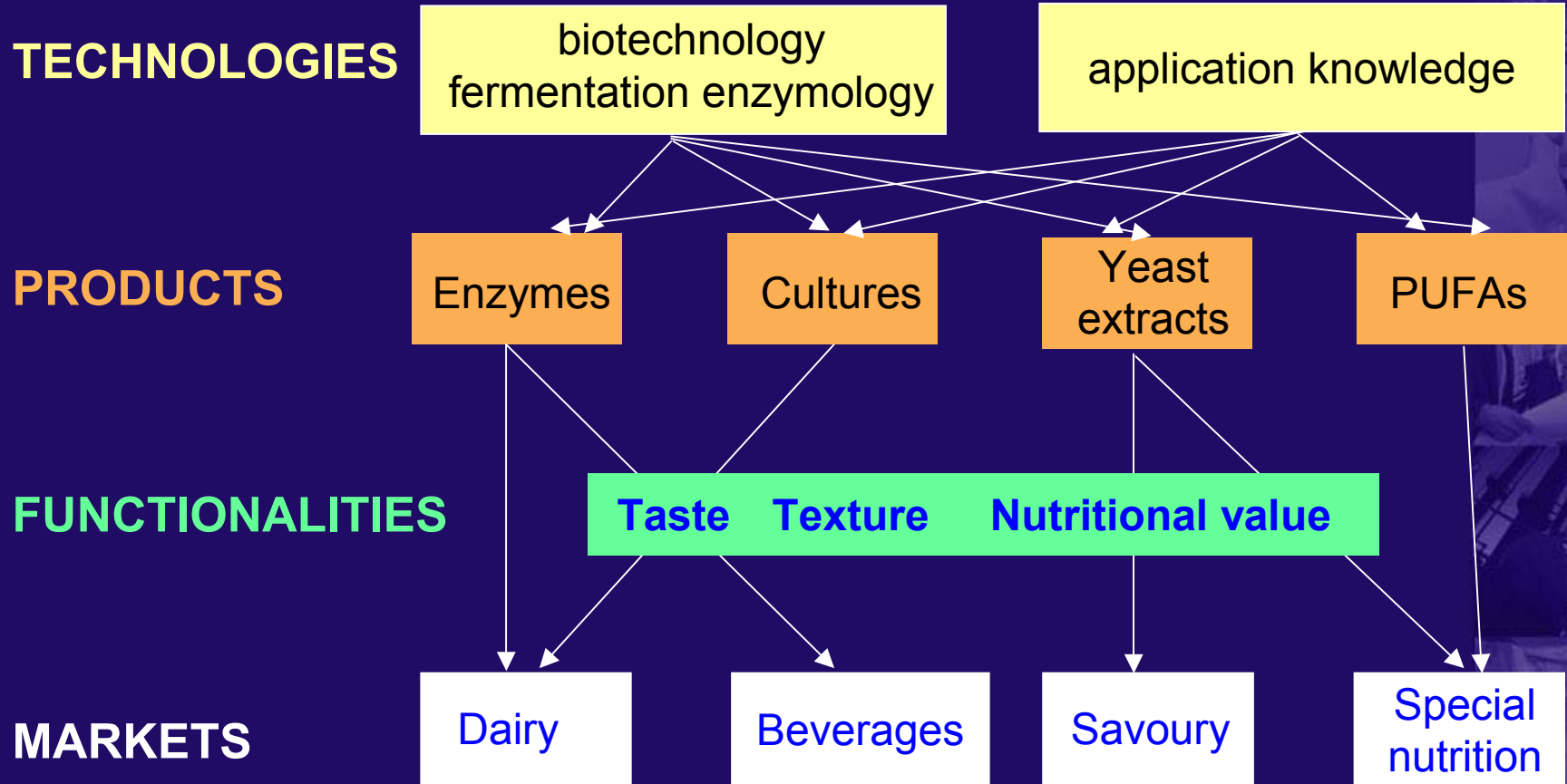
- mainly (incremental) application  
development

**Health (32%)**  
will be more and more driven by  
the large food manufacturers






- mainly radical innovation

- Innovation in the food industry is mainly incremental, with the exception of health & nutrition
- Breakthrough innovations driven by the ingredients industry mainly

# Core competences



# Market position

Dairy	Savoury	Beverages	Agri	Nutrition
 <p>Milk   Yoghurts Desserts</p> <p>Cheese</p> <p>Tests   Cultures Enzymes</p> <p>Cultures Enzymes Preservatives</p>	 <p>Flavours   Fermentation Seasonings</p> <p>Soaps   RTE Snacks etc.</p> <p>Yeast   Yeast Extracts   Extracts HVP's</p> <p>Yeast extracts HVP's Blends</p>	 <p>Fruit   Beer &amp; Wine Juices   Alcohol</p> <p>Enzymes   Yeast</p> <p>Enzymes</p> <p>Yeast Enzymes</p>	 <p>Feed</p> <p>Enzymes</p>	 <p>Health Food Infant</p> <p>Fatty acids <math>\beta</math>-carotene</p>

# 2001 sales related to Innovation

- 33% of sales based on Breakthrough Innovations (*Highest margins*)
- 33% of sales based on Incremental Innovations
- 33%: Other

*Continuation and enhancement of focus on Breakthrough Innovations is required.*



# Strategic intent

- Enhance position with a broad line of products and applications in Food and Feed.
- Acquire leading positions (first or second) in all sectors in which DSM Food Specialties is active through:
  - Breakthrough innovations
  - Organic growth
  - Acquisitions



# Strategy for innovation (I)

- Focus on nutrition for food and feed
- The relative spending on Breakthrough Innovation will increase from 20% in 2001 to 40% in 2003.
- R&D expenditure will be kept at a level of 8% on turnover (AAGR >15%)
- Create leadership positions through using proprietary technologies (*genomics*) and building on patent position
- Focus on core technologies (fermentation, enzyme technology)

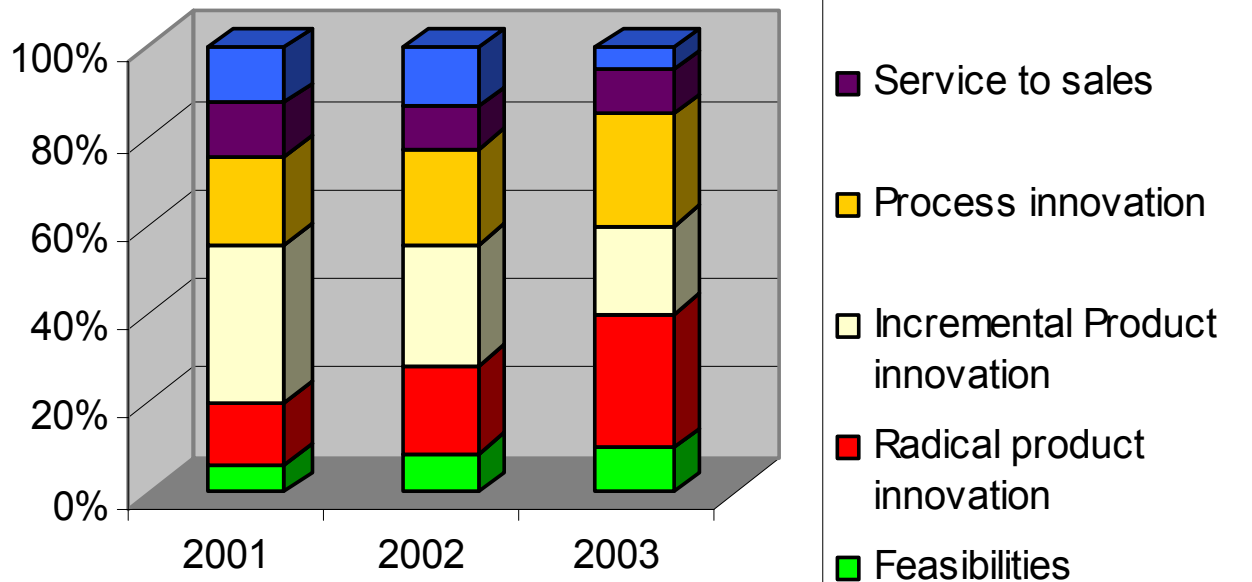
# Strategies for Innovation (II)

- Focus on application know-how (€ 12 mln investment in Food Innovation Centre)
- Focus on key functionalities: Nutrition, Texture and Taste
- New cooperations/partnerships
- Venture Capital
- Exploring and analyzing trends in food and feed markets

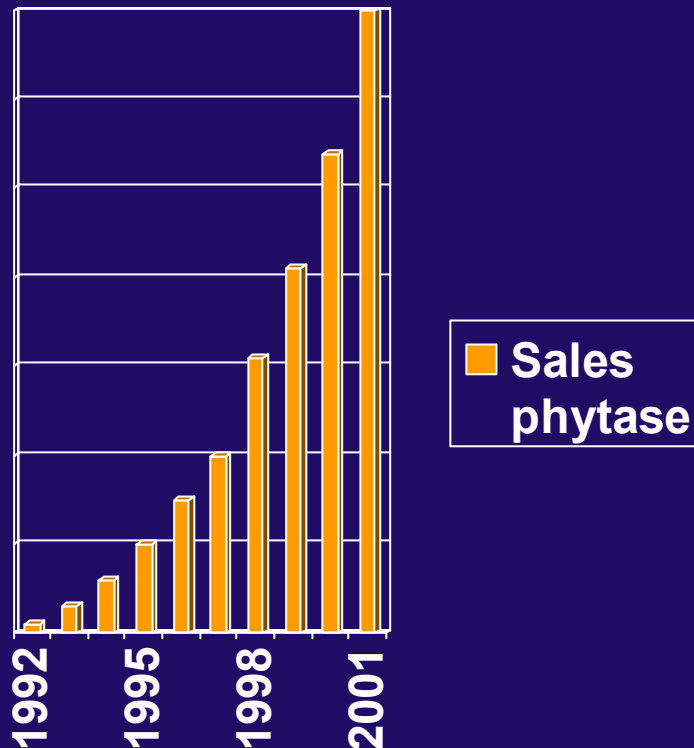


# Increasing focus on Breakthrough Innovation

Trend in R&D portfolio.



# Breakthrough Innovations Track Record: Natuphos® Phytase



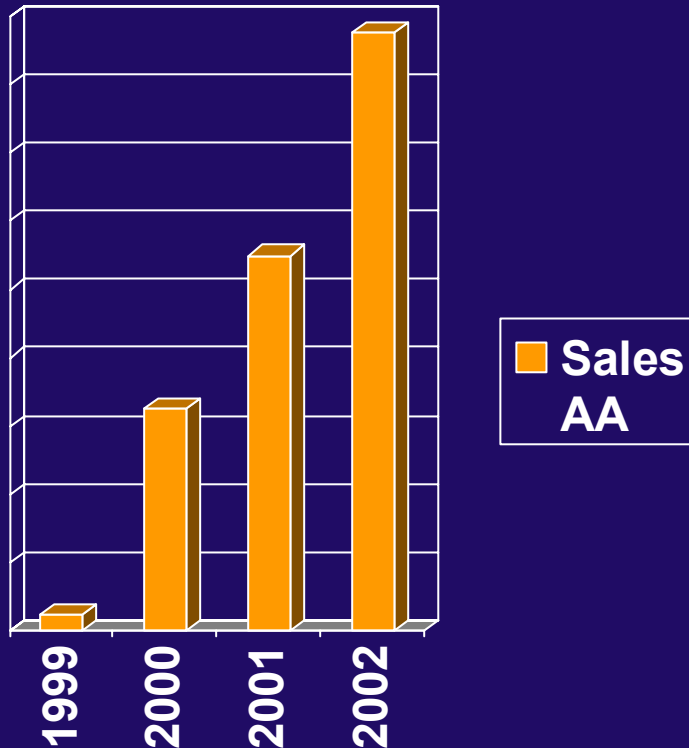
- Launched 1991
- Innovative product, unique world leading position
- Proprietary technology; strong patent position
- 2001 Market for Feed Enzymes €150 mln (AAGR 14%)

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# Breakthrough Innovation Track Record: Arachidonic Acid



- Launched 1999
- Innovative product, unique world leading position
- Market for Infant Formulae > €10 bn (AAGR 4%)
- Market for AA > € 30 mln (AAGR 40%)

# Examples of new breakthrough products in pipeline

- Specific enzyme to debitter whey protein hydrolysates\*
- Specific enzyme to clarify wine\*
- Specific enzyme to remove haze from beer\*
- New processed flavours
- Specialty texturizer on fungal protein basis
- Joint project with Numico on sports nutrition\*
- Natural substitute for growth promoting antibiotics (combination of AA and specific enzymes)\*

*\*Genomics technology*

# On track for further growth

- **Excellent track record; highly profitable**
- **Unique combination of core technologies and product portfolio**
- **Strong positions in key growth product market combinations**
- **Well positioned to expand further via breakthrough and incremental innovations/autonomous growth and selected acquisitions**



# Forward looking statements

This presentation contains forward-looking statements. These statements are based on current expectations, estimates and projections of DSM management and information currently available to the company. The statements involve certain risks and uncertainties that are difficult to predict and therefore DSM does not guarantee that its expectations will be realized. Furthermore, DSM has no obligation to update the statements contained in this presentation.

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