A short introduction to the world of Human Nutrition & Health

DSM Nutritional Products

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Our challenge: help keep the world’s growing population healthy

Population today: 7.2 bn
2019: 7.6 bn

138 m births in 2015 with average life expectancy of 71.3 years

Pensioners on the rise
today: 990 m
2019: >1.6 bn

Source: Euromonitor
The double burden of malnutrition

Obesity has more than doubled since 1980. In 2014, 1.9 billion overweight (BMI 24+), 600 million obese (BMI 30+).

Global diabetes prevalence:
Today 8.4%, 2019 8.8%

+ a high number of undiagnosed people

Source: Euromonitor / WHO
Malnutrition negatively impacts individuals and society

**SOCIETY**
Negative impact on health, learning ability and productivity
= Tragic loss of human potential

**ADULTS**
Less productivity, higher healthcare costs
= Less chance to escape poverty

**THE ECONOMY**
Hidden hunger results in GDP losses of approximately 2-3% per year

**CHILDREN**
Impaired physical and mental development
= Fewer chances in life

Source: [www.thousanddays.org](http://www.thousanddays.org)
I want a brighter world.
Adequate nutrient intake is essential at every stage of life

Consumers become more and more aware of the importance of adequate amounts of micronutrients on health and well-being.
A healthy life starts before birth

The right nutrition before pregnancy and in the 1,000 days between a woman’s pregnancy and her child’s second birthday builds the foundation for a child’s ability to grow, learn and thrive.

Source: www.thousanddays.org
Children who get the right nutrition in their first 1,000 days...

... are 10x more likely to overcome the life-threatening childhood diseases.

... are more likely to have healthier families of their own.

... complete 4.6 more grades at school.

... earn 21% more in wages as adults.

Source: www.thousanddays.org
The first 1,000 days echo to the rest of life

1’000 days principle: “early programming of infants”

- Maternal nutrition may have a long-term influence on the risk of chronic diseases in later life.

Triage theory by Bruce Ames

- Even modest micronutrient inadequacies have long-term effects on health!
- Continuous intake of sufficient levels of essential micronutrients

Source: www.thousanddays.org
Even with balanced diets, nutritional gaps exist. What can we do to close them?

3 simple steps to improve nutrient intake

1. EDUCATE in healthy nutrition
2. ENRICH diet with fortified foods
3. ENHANCE supplementation

Our company at a glance

**DSM is a global, science-based company active in health, nutrition and materials.**

By connecting its unique competences in Life Sciences and Materials Sciences, DSM creates value along three equally important dimensions: People, Planet and Profit.

![Graph](image)

- **24,500** employees
- **200** R&D and scientific experts
- **5** Nutrition Innovation Centers
- **29** production sites, including **14 premix plants** located worldwide.
- **Global network of sales offices and regulatory experts.**

**DSM Nutritional Products:**

- Leading global supplier of vitamins, carotenoids, omega-3 & 6 nutritional lipids, nutraceutical ingredients and customized state-of-art premixes (Fortitech®).

- **200** R&D and scientific experts and five Nutrition Innovation Centers.

- Global network of sales offices and regulatory experts.
We can help you get to market faster with appealing nutritional solutions that work

Customer segments
Food & beverage, nutritional supplements, infant nutrition, pharma, base-of-pyramid

Products & customized solutions
Quali®-Blends or individual ingredients

Health benefits & lifestyles
Consumer motives to buy health products
...with the customer brand as the core focus

Customer brand solutions
Consumer insights
Co-creation hubs in Nutrition Innovation Centers
Trademark license options
FourFactors® brand analysis
Pack talk / design bridging
Consumer PR
...and backed by our Quality for Life™ promise

Quality
Reliability
Traceability
and...Sustainability!

Peace of mind!
How can we *Health* you?

Our Health Benefit Solutions address the main consumer health concerns.
Fighting malnutrition: DSM’s commitments and partners

**Nutrition Improvement Program**

Develops effective nutrition solutions to improve public health for 4 billion people at the base of the pyramid.

**NGOs**

- World Vision
- Save the Children
- PATH
- Mercy Corps
- IRD

**International organizations**

- WFP
- UNICEF
- GAIN
- Scaling Up Nutrition
- World Health Organization

**Private sector partners globally**
The Nutrition Science and Advocacy is core to our business. We are engaged in a comprehensive strategy that addresses the requirements of nutritional solutions.

Each year DSM reaches approximately 1 billion consumers globally with our positive nutrition science, information and messages.
We can help you get to market faster with appealing solutions that work
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R&D and Innovation

Market-specific competences based on technology-driven set-up

Business

- Human Nutrition
- Personal Care
- Animal Nutrition

Joint Competences

- Discovery & Early Efficacy: natural Product, enzymes, active ingredient
- Safety (Bioavailability, ADME, tolerance, safe intake levels)
- Formulation (micro-encapsulation, recipes)
- Application in Feed, Food & Nutritional Supplements and Personal Care
- Process Research/Strain Development / Process Development
- Analytics

Industry-specific Competences

- Human evidence
- Skin & hair efficacy
- Target animal efficacy