## Royal DSM

A global purpose-led science-based leader in Health, Nutrition & Bioscience





## More than a century of successful transformation

**Coal mining** 

(Petro)chemicals

**Nutrition, Health** & Sustainable Living

Health, Nutrition, & Bioscience











2022





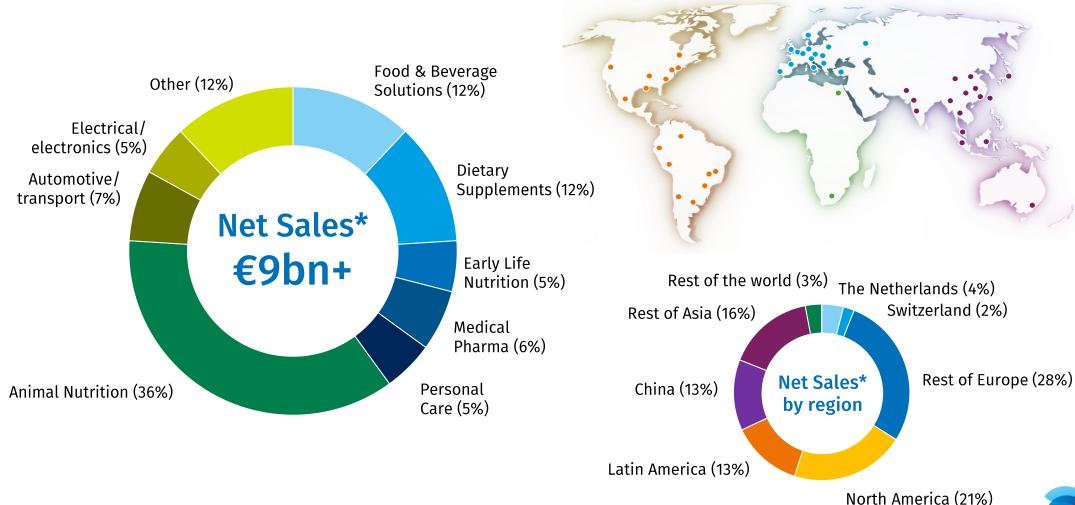






1902

## Today's global leader in Health, Nutrition & Bioscience







## Accelerating our purpose-led, performance-driven journey



Global food systems face multiple urgent environmental and societal **challenges** 



DSM has the **capability** and the **responsibility** to make a meaningful impact



DSM is fully focusing its resources on Health, Nutrition & Bioscience



Addressing these challenges offers exciting new market opportunities for DSM





## Multiple interconnected challenges to global food systems



(Hidden) Hunger and malnutrition



**Diet-related illnesses,** non-communicable disease, obesity



Vitamin and mineral deficiencies



Immunity incl. antimicrobial resistance

**Health for People** 





Emissions, incl. green house gasses (e.g. methane), nitrogen, ammonia and phosphorus



Loss of biodiversity, deforestation, land and ocean ecosystem loss



Food loss & waste

**Health for Planet** 

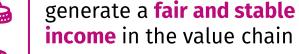




#### Inequality

Farmers unable to







Lacking **basic needs** such as food, healthcare and education

**Healthy Livelihoods** 





## Increased general awareness of the critical role of nutrition, supported by rapid developments in science & technology

#### **Trends and challenges**







Consumer

Society

**Environment** 

Market opportunity for solutions that offer health through nutrition

#### **Bioscience & technology advances**







Data & Digital



**Precision &** Personalization

Science & technology enabling unprecedented precision





## A unique business model and rich innovation pipeline

#### **Extending our value proposition**

#### **Precision & Personalization**

Digitization & Bioscience as a know-how multiplier



**Global Products** 

Science, Scale, Quality

**Local Solutions** 

Global network offering local (customized) solutions

#### **Growth themes inform our innovation focus**



#### **Precision**

Digitally-enabled business models



#### **Prevention**

Healthy solutions provided by nature



#### **Proteins**

Driving adoption of sustainable proteins to feed the population



#### **Pathways**

Sustainable ingredient manufacturing



## 150 years of scientific heritage with worldwide facilities

#### 1869

#### Gist- en Spiritusfabriek

First yeast and enzyme production at scale



(DSM acquired Gist-Brocades in 1998)

#### 1930s

#### F. Hoffmann-La Roche

First chemical synthesis of vitamins



(DSM acquired Roche Vitamins & Fine Chemicals in 2003)

#### **Today**

~1,500 scientists in 35 research laboratories worldwide



Some of our bioscience research centers around the world



## Scientific leadership enhanced through high quality M&A



Strengthened bioscience capabilities and expanded global geographic reach

Adding new product categories and creating the most comprehensive portfolio of nutritional solutions

Building a unique business model with solutions/premix and extending this into precision and personalization



## Guiding our purpose-led, performance-driven culture

Our culture compass is a navigational tool that helps us steer DSM to where we aspire to be. It shows us **the future** we're aiming for, while allowing each of us to find our own ways of being DSM.

The compass also reflects our strategy to be **purpose-led** and **performance-driven**. Our purpose of creating brighter lives for all sits at the heart of the compass – it inspires everything we do. And we deliver performance by being more of who we are, and by taking decisions every day that show what we stand for.

The six outer sections of the compass – our ways of being DSM – help us define the culture we want to build and guide our day-to-day interactions and decisions.







### Three Business Groups with clear end-market orientation



## Animal Nutrition & Health

Radically more sustainable animal farming

€3.4bn\*



## Health, Nutrition & Care

Keeping the world's growing population healthy

€2.5bn\*



### Food & Beverage

Healthy diets for all through nutritious, delicious and sustainable solutions

€1.3bn\*



## **Animal Nutrition & Health (ANH)**

Sales €3.4bn\*









Poultry 46%

Swine

22%

Ruminants

23%

Aqua

9%

#### **Key trends ...**

**Professionalization of farming and ensuring** farmers can earn a living





marine resources









#### ... for which DSM is uniquely positioned

- 'We Make It Possible' with our current comprehensive portfolio of market-leading probiotics, prebiotics, enzymes and eubiotics for animal gut health
- World-leading science-based innovation program has developed global game-changers such as methane-inhibiting feed additive Bovaer® and algae-based fish oil alternative Veramaris®
- Unique global premix network with strong representation in every region of the world
- Leading advances in precision farming analytical/diagnostic services such as Sustell™, Verax and Erber Diagnostics (Romer Labs®)

#### **Recent acquisitions**





## Health, Nutrition & Care (HNC)

Sales **€2.5bn\*** 



Early Life Nutrition 18%



Nutritional Improvement

5%



Dietary Supplements

37%



Pharma/Medical Nutrition

15%



Personal Care & Aroma

20%



5%

#### **Key trends ...**

Consumer focus on proactive health and wellbeing and need for total solutions













#### ... for which DSM is uniquely positioned

- Science leader in specialty nutritional and personal care ingredients focusing on immunity, gut, brain and skin health including fermentation/advanced biotechnology solutions
- Broadest portfolio of vitamins, lipids, pre- and probiotics, personal care & aroma ingredients, plus natural materials for medical devices
- Truly global business with a premix network and market-ready solutions capability across all activities
- Strong B2C business (i-Health) with globally leading brands such as Culturelle®, AZO® and Estroven®
- Leading advances in personalized nutrition analytical/diagnostic services such as Hologram Sciences

#### **Recent acquisitions**





## Food & Beverage (F&B)

Sales







Savory



Beverages





Pet

€1.3bn\*

Dairy

30%

Baking & Confectionary 15%

20%

20%

5%

10%

#### **Key trends ...**

#### Consumer awareness of health and sustainability impact



Shift to plantbased proteins













#### ... for which DSM is uniquely positioned

- Market leader in food premixes with strong biotechnology competences, especially in food enzymes and cultures
- Partnering with customers to develop healthier products with the right taste and texture through integrated solutions
- Based on a broad ingredient portfolio for taste, texture and health, including innovations such as EverSweet™ sweetener and CanolaPro® plant-based protein isolate
- Fueled by strong expertise in nutrition, food and beverage application, biotechnology and sustainability

#### **Recent acquisitions**







### Tastier and more nutritious plantbased choices

- There's growing consumer demand for plant-based alternatives alongside traditional meat and dairy, while the importance of a quality nutrition is also gaining increasingly widespread recognition
- Our customers seek to navigate the challenges of delivering food and beverage products that are simultaneously delicious, nutritious and sustainable so consumers can 'enjoy it all'
- DSM is uniquely placed to support the development of plant-based meat and dairy alternatives with solutions that deliver authentic taste, texture and mouthfeel along with a preferred nutritional profile, which enables producers to better manage salt, sugar and gluten







# Accelerating nutritional support for immunity

- The global public health crisis triggered by COVID-19 has highlighted the need for easily accessible dietary solutions that support proactive immune health
- Our customers need to go to market faster than ever before, delivering formats that can easily be integrated into consumers' dietary routines
- With our end-to-end capabilities, such as customized premix solutions, regulatory support and market-ready solutions, we are meeting this unprecedented need







## Making animal farming more sustainable

- Animal farming is a crucial source of nutrition for much of the world but accounts for 14.5% of all human-derived greenhouse gas emissions and this figure is set to rise
- Our customers need transformational ways to produce nutrition and health for all within planetary boundaries
- A key area where we contribute is through scientific breakthroughs that reduce livestock emissions, with solutions including:
  - Bovaer®: reducing methane emission in ruminants by inhibiting specific gut enzymes
  - ProAct: reducing nitrogen emissions in poultry by improving protein digestibility
  - VevoVitall®: safe alternative to antibiotics while reducing ammonia emissions in swine
  - Sustell™: Advanced digital service enabling farmers to measure their environmental footprint and identify opportunities for improvement











## Taking full responsibility for our own footprint and people

#### ESG targets (set in 2019) accelerated in 2021 and again in 2022

GHG emissions reduction 50% by 2030

Energy efficiency >1% avg. p/yr. till 2030 Purchased renewable electricity 75% by 2030

Employee engagement >76% by 2022 Safety Frequency Recordable Incidents <0.20 by 2027

Female executives 30% by 2025

- Validated science-based target on Green House Gases emissions reduction (scope 1&2) changed to 50% vs. 2016 baseline (was 30%)
- Targeting NetZero GHG emissions across our operations and value chains by 2050
- Raised internal carbon price from €50 to €100 per mt of CO2 to further guide investments and operational decisions
- Water reduction target set with 10% efficiency improvement on waterintake at sites in areas of water stress by 2030

#### **DSM top ranked in leading ESG-ratings**













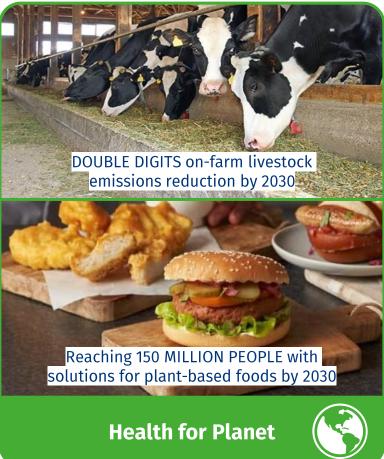






## Caring for the world through our food system commitments









## Building a company that delivers long-term profitable growth

Global food systems face huge environmental and societal challenges and offer opportunities



Consumer



Biotechnology breakthroughs



Environment

Precision &

Personalization

Data & Digital

DSM is uniquely positioned and has the **capabilities** to address these opportunities

Rich innovation pipeline



Great People, unique Culture

This creates purpose-led positive impact for **people** and **planet** 

Responsibility for our own footprint and people













Caring for the world with measurable food systems commitments

Health for People

Health for Planet

Healthy Livelihoods



Building a company that delivers long-term, performance-driven profitable growth

> Ambitious mid-term profit targets

Mid-single-digit % organic sales growth

Adj. EBITDA margins >20%

**High-single-digit %** annual adj. EBITDA growth



### BRIGHT SCIENCE. BRIGHTER LIVING.™



### Safe harbor

This presentation may contain forward-looking statements with respect to DSM's future performance and position. Such statements are based on current expectations, estimates and projections of DSM and information currently available to the company. DSM cautions readers that such statements involve certain risks and uncertainties that are difficult to predict and therefore it should be understood that many factors can cause actual performance and position to differ materially from these statements. DSM has no obligation to update the statements contained in this presentation, unless required by law

A more comprehensive discussion of the risk factors affecting DSM's business can be found in the company's latest Annual Report, which can be found on the company's corporate website, <a href="https://www.dsm.com">www.dsm.com</a>





# Purpose-led innovations drive team performance

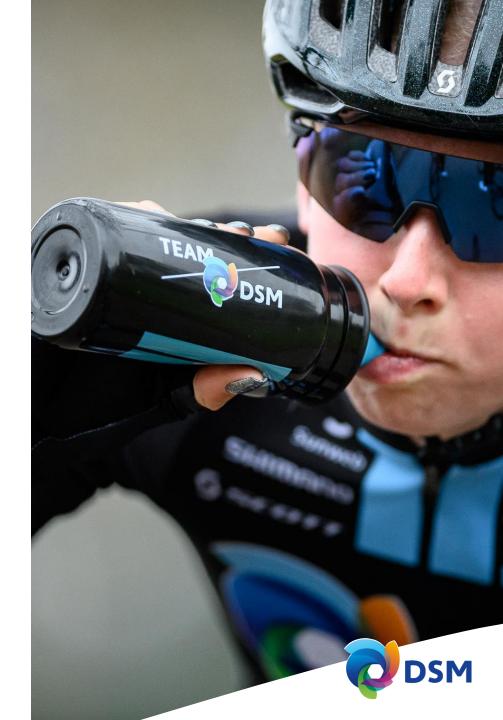
- Bringing together our complementary competences in Nutrition and Materials, we enable pro-athletes competing in the pinnacle of world cycling to be the best that they can be, inside and out
- Our solutions for Team DSM include:
  - Nutritional supplements supporting health and immunity such as our plantbased Life's™OMEGA, 85% more potent than fish oil
  - Sun protection so riders can train and compete outside safely
  - Protective Dyneema® in cycling jerseys
  - Lightweight, breathable rain jackets with environmentally-friendly Arnitel®











## Zero-calorie fermentative Stevia sweetener launched

- As consumers around the world strive for healthier lifestyles, food & beverage manufacturers are looking to deliver zero-calorie sweeteners
- We joined forces with Cargill in the 50:50 joint partnership Avansya to meet this demand
- Meanwhile consumer end-products including EverSweet™ have been launched successfully by our customers, with many more product development projects underway







## Fighting climate change one burp at a time

- Methane is a greenhouse gas which significantly contributes to climate change. Ruminants (mainly cows) emit about 20% of all methane gasses globally
- A quarter of a teaspoon of our feed additive per cow per day inhibits the enzyme that triggers methane production in a cow's stomach and reduces methane emissions by ~30%
- This significantly reduces the environmental footprint of dairy and beef products, a key source of protein around the world







# Omega-3 rich in EPA and DHA from natural marine algae

- Fish is an important source of nutrition— especially salmon—is a rich source of the two essential omega-3 fatty acids (EPA and DHA) vital for brain, eye and heart health
- DSM and Evonik have joined forces to create Veramaris® an algal oil containing EPA and DHA for fish feed, helping to conserve wild fish stocks and enable the aquaculture industry to grow sustainably
- We are also incorporating it into feed for shrimp, as well as into pet food









## **Delivering sustainable mobility**

- Original Equipment Manufacturers are continuously looking for smart engine solutions to meet ever stricter automotive emissions standards
- Our range of advanced engineering recycled- based and bio-based materials with high heat and abrasion resistance and low friction helps our customers to reduce emissions from cars, combatting climate change while simultaneously complying with emission legislation









# Bio-based Dyneema® supporting a low-carbon economy

- Every year, humans are now consuming 1.7x the amount of resources that the earth can replenish and feedstocks have a major impact on carbon footprint
- To enable a low-carbon economy necessary for combating climate change we introduced bio-based Dyneema® (used for ropes and lines, outdoor and sports)
- Production of 1 metric ton of bio-based Dyneema® generates 5 metric tons less CO<sub>2</sub>eq than the same volume of fossil-based Dyneema®
- We aim for >60% of Dyneema® fiber feedstock to be bio-based by 2030



