



Human Nutrition

Jeremy Xu - President Human Nutritional & Health

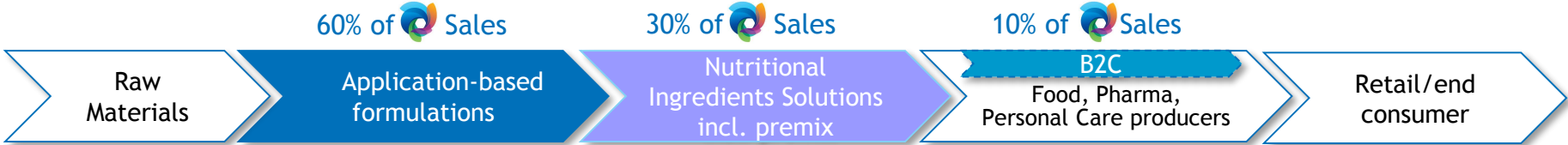
ROYAL DSM
HEALTH NUTRITION MATERIALS



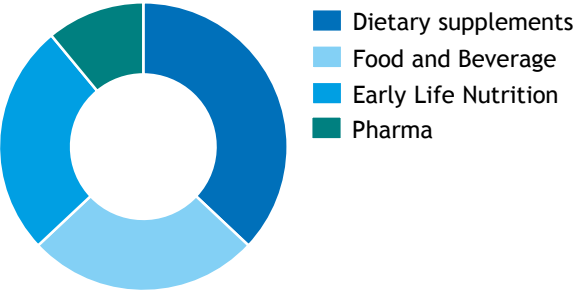
Safe harbor statement

- This presentation may contain forward-looking statements with respect to DSM's future (financial) 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, www.dsm.com

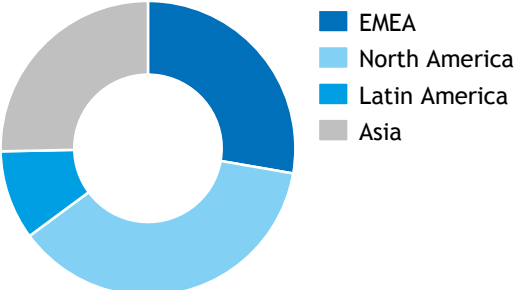
Human Nutrition & Health: €1.8bn sales (2016)



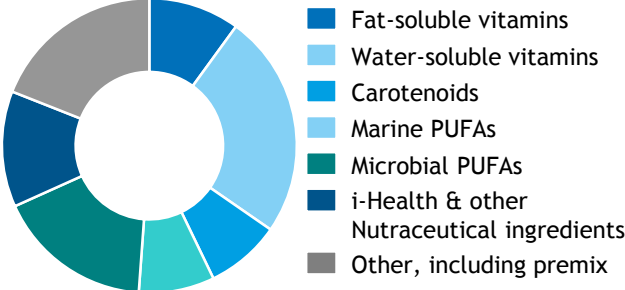
Sales by application landscape (%)



Sales by region (%)



Sales related to ingredient (%)



Our challenge is to help keep the world's growing population healthy

Key trends driving the markets for Human Nutrition & Health

01 MACRO-ECONOMIC



1 B new consumers



Ageing Population



Rising Health Care costs

ORGANIC GROWTH

02 INCREASING FOCUS ON HEALTH & WELLNESS



Gut Health & Microbiome



Active Nutrition



Personalized Nutrition

NEW MARKET OPPORTUNITIES

03 VALUE CHAIN SHIFTS



Small Brands on the rise



Big Brands need Customized Products



Digitalization/E-commerce

FORWARD INTEGRATION

04 SUSTAINABILITY



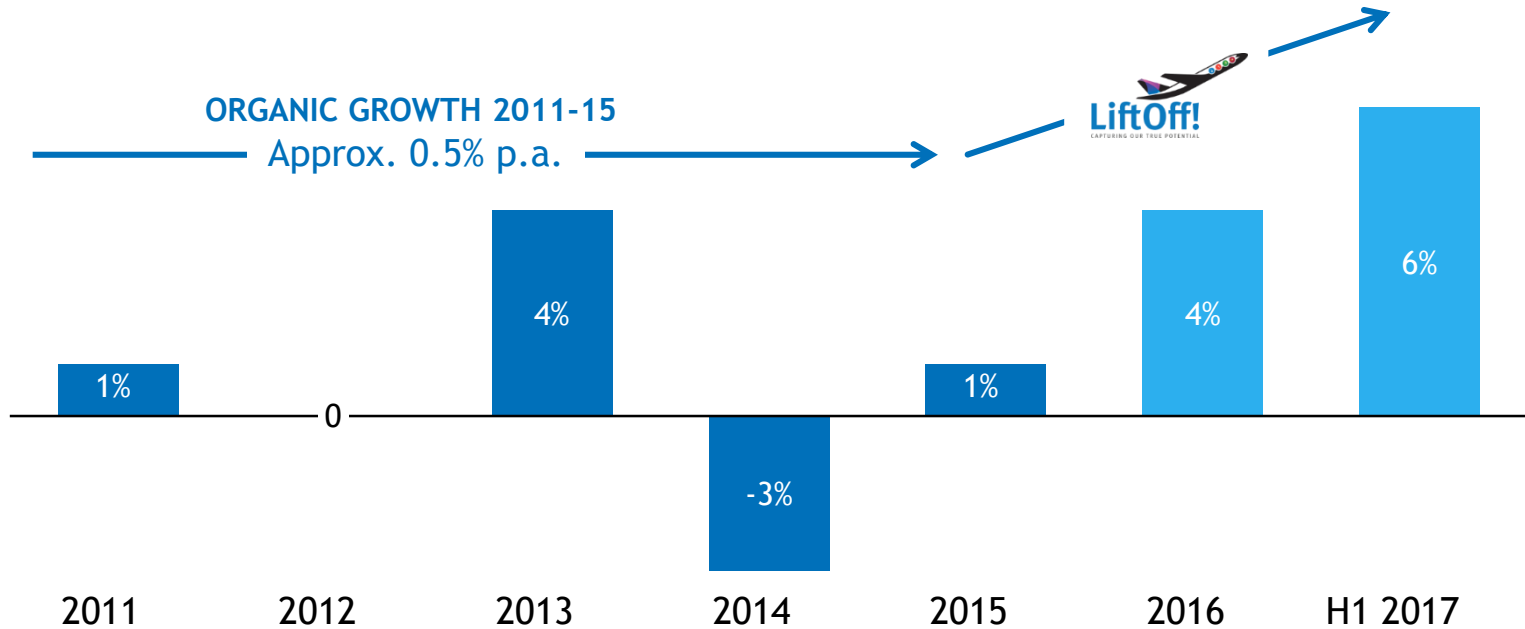
Natural/Non-GMO



Manufacturing:
• Sustainability
• Fermentation

RISE OF BIOTECHNOLOGY

Growth driven by LiftOff! program, increased segment focus and business models



Strategy of Human Nutrition & Health is focused on delivering value across three horizons concurrently

Horizon 1 DO BETTER

Sales excellence

- Customer segmentation
- Project and funnel management
- “White spots”/ winning customers and channels

Operational excellence

- Premix integration
- Omega 3 fatty acids



Horizon 2 DO DIFFERENT

Segment marketing steering

- From product to segment marketing ...
- ... with segment-specific local solutions
- ... and aligned front-end operating model



Horizon 3 BUILD THE FUTURE

New growth initiatives

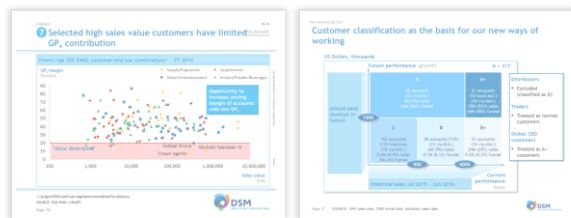
- B2C development
- Innovation agenda
 - ✓ Plant-based proteins
 - ✓ Gut health (pre-/probiotics)
 - ✓ Vitamins
 - ✓ New nutritional lipids
- Personalized Nutrition
- Further differentiate via our Unique Nutritional Science & Advocacy capabilities

Human Nutrition growth recovery in 2016 and 2017 enabled by LiftOff!



SALES EXCELLENCE

- Customer segmentation
- Price and margin management
- +20% funnel conversion
- +80% larger Funnel 2018



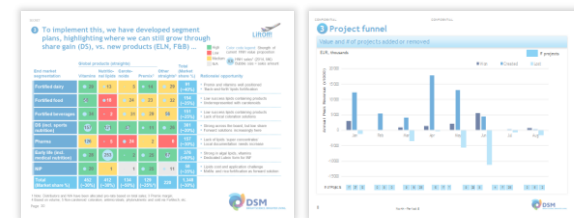
ENABLERS

- Integrated sales force organization
- Goal setting on funnel building and project commercialization
- Structured Performance dialogues



STRATEGIC MARKETING

- Segment pricing
- Segment steering, from product to segment marketing
- Driving segment-specific solutions and innovations



Focus on strategic segments combined with business models and regions will further drive growth

MARKET GROWTH



3-5%

Dietary Supplements



2%

Early Life Nutrition



1-2%

Food & Beverage



4-6%

Pharma



~2-3%

Human Nutrition
relevant market

GROWTH ENHANCED BY

GEOGRAPHIES
(EMEA, ASIA)



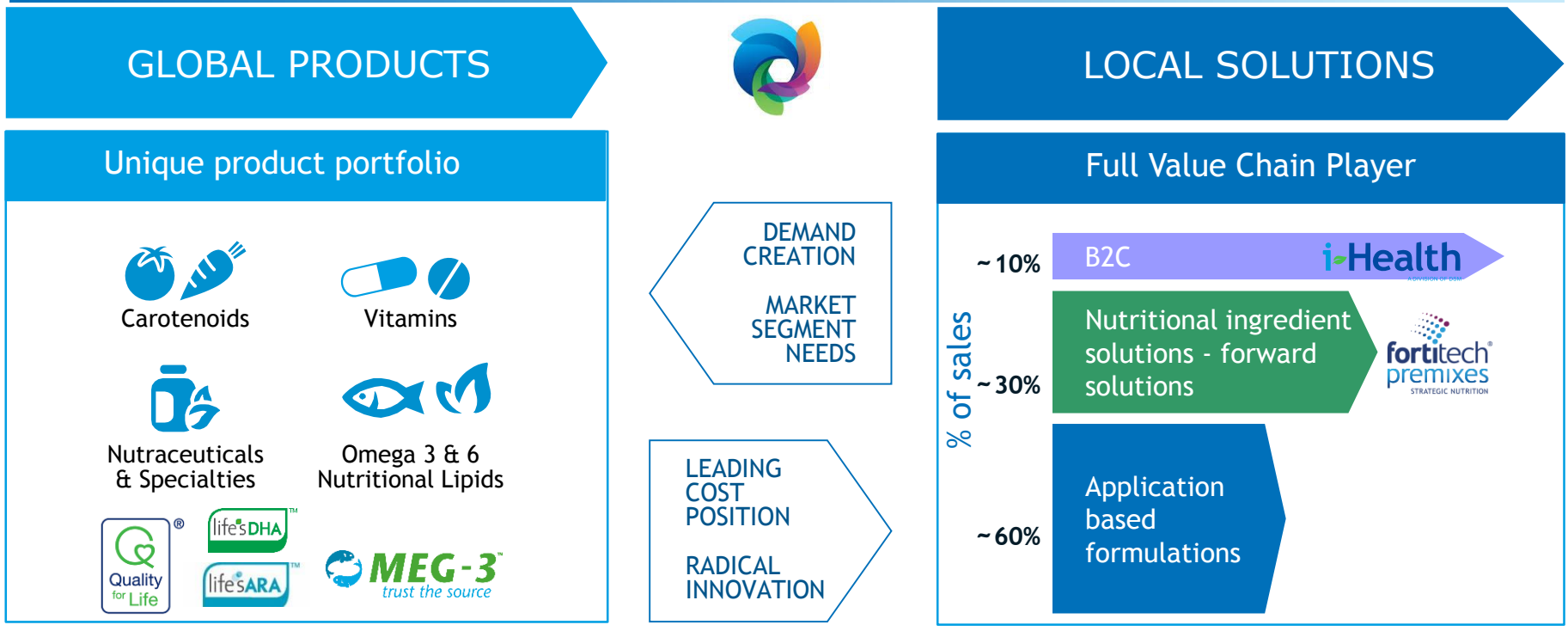
fortitech[®]
premixes
STRATEGIC NUTRITION



i-Health
A DIVISION OF DSM



Business model with economies of scale and local customer intimacy drives above market growth



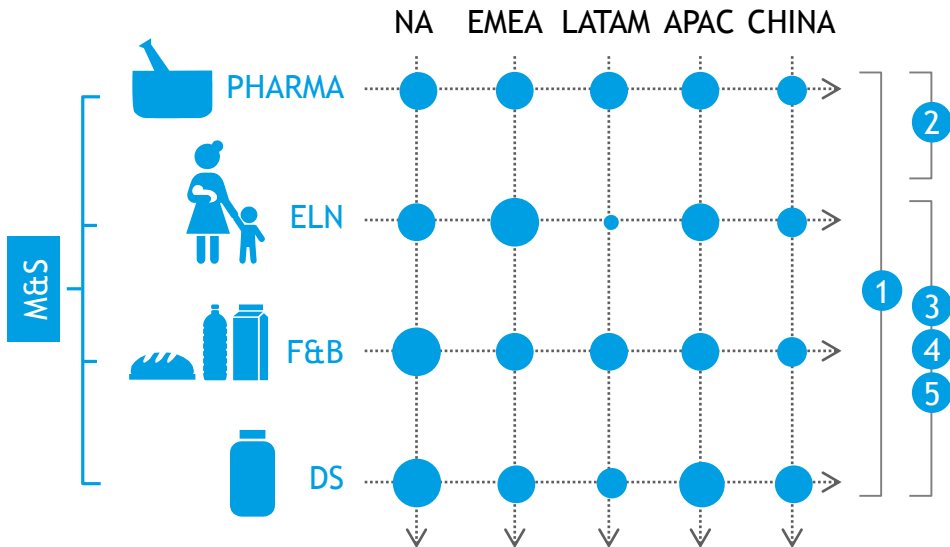
The best of both worlds: economies of scale AND local customer intimacy

Region and segment matrix drives Innovation priorities to deliver growth in Horizon 2 and 3

SEGMENT-DRIVEN ORGANISATION

MARKET SEGMENT STRATEGIC PLANS

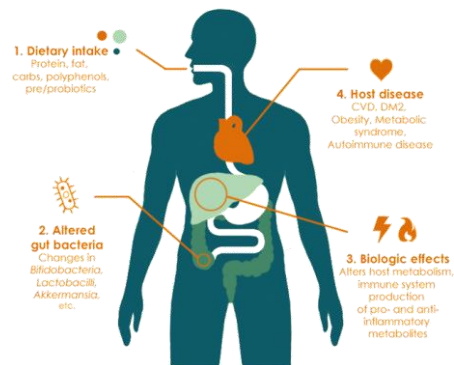
MARKET-DRIVEN INNOVATION



AREA	Current Market size (€ bn)	Market Growth 5-Year CAGR
1 Gut health <ul style="list-style-type: none"> Probiotics Prebiotics/ HMO 	~2.5	~8%
2 Vitamins in Pharma applications (e.g., MedDay)	~0.6	~4-5%
3 Plant-based proteins/ specialty proteins	~5	~8%
4 Nutritional lipids <ul style="list-style-type: none"> High potency 	~0.5	~4-5%
5 Personalized Nutrition	~0	↑↑

Key innovation focus areas to shape high growth opportunities

GUT HEALTH



- Expanding beyond food & nutrition focus to maintaining health and treating disease states
- DSM best positioned given evidence of vitamins & lipids as modulators of the human microbiome

VITAMINS IN PHARMA APPLICATIONS

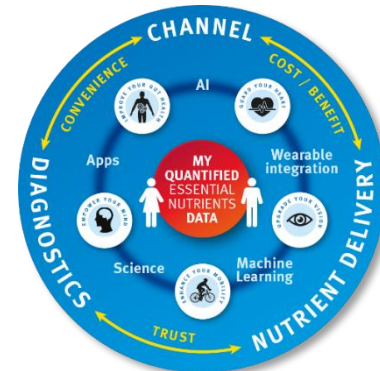


medDay
PHARMACEUTICALS

Multiple examples:

- Biotin - multiple sclerosis
- Omega 3 - triglycerides
- High-potency versions of vitamin D3, folate

PERSONALIZED NUTRITION



- Rapid development
- Requires technology (diagnostics) and distribution (channel) developments and partnerships
- DSM best positioned as “product and science” partners

Confident on continued organic growth in Human Nutrition in coming years

- Organic growth supported by ~2-3% **market growth, and...**
 - ✓ **Commercial excellence**
 - ✓ **Geographic expansion** of core B2B segments
 - ✓ **B2C model | i-Health:** expansion outside North-America
 - ✓ **Nutritional Ingredients Solutions:** strong growth in Food & Beverage, Early Life Nutrition and Dietary Supplements premix
 - ✓ Start of commercialization of strong **innovation pipeline**

Enabling organic growth of ~5% in Human Nutrition



BRIGHT SCIENCE. BRIGHTER LIVING.™