Added value with DSM Vitamins in Personal Care

May 2018
Revealing the Power of Vitamins for Beauty Care

AGENDA

1. DSM at a glance
2. Vitamins: core ingredients for customer X
3. DSM Vitamins for Personal Care
4. DSM Supply Chain + Quality system
5. Vitamins Landscape
6. DSM’s sustainability engagement
7. Support: Application, Regulatory ..... 
8. Vitamins Innovation
9. Conclusion - Added value by DSM Vitamins
Revealing the Power of Vitamins for Beauty Care

1 DSM at a glance
Mission

• Our purpose is to create brighter lives for people today and generations to come

• We connect our unique competences in Life Sciences and Materials Sciences to create solutions that nourish, protect and improve performance
Building on an impressive history

Hoffman La Roche’s Vitamins (1930s)

Vitamins
Omega’s
Carotenoids
Premixes for food & feed
Enzymes
Minerals
Cultures & Yeasts
Nutraceuticals
Pharmaceuticals
Cellulosic bioethanol
Biomedical materials
Bio-plastics
High Performance Plastics
Polyamides and precursors
Resins for coatings and composites
Functional Materials
Solar - advanced surfaces

Gist-Brocades (1869)

Life Sciences

Biotechnology

DSM (1902)

Materials Sciences

Energy, chemistry & polymer technology

Chemical synthesis & biotechnology
Revealing the Power of Vitamins for Beauty Care

Vitamins: core ingredients for Customer X
L’Oréal, the global #1 in cosmetics, trusts on vitamins

42% of all new product launches in 2013/2014 contain vitamins
High consumer awareness of vitamins in cosmetics fostered by L’Oréal’s strong claims

<table>
<thead>
<tr>
<th>Vitamin E</th>
<th>Vitamin E</th>
<th>Vitamin A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Daily Dose of Pure Vitamin E</strong></td>
<td><strong>Antioxidant Night Concentrate</strong></td>
<td><strong>Complete Anti-Ageing Daily Moisturiser</strong></td>
</tr>
<tr>
<td>“.... continually deliver the anti-oxidant protection and moisture of pure vitamin E.”</td>
<td>“... 1% vitamin E, to neutralise free radicals and replenish skin’s lipids.”</td>
<td>“.... pro-retinol to fight five signs of ageing at once: wrinkles, dryness, dullness, sagging, and puffiness.”</td>
</tr>
<tr>
<td>Tocopheryl Acetate</td>
<td>Tocopherol</td>
<td>Retinyl Palmitate</td>
</tr>
</tbody>
</table>
Trustful source of vitamins - key to deliver on consumers’ expectations

Vitamins

- **Essential actives** for many global and regional brands
- Mass market + premium products
- “Quality seal” for consumers

“Because we are worth it”

Ready to pay a higher price

Without Vitamin
Price €17.98

With Vitamin
Price €22.23

Example L’Oreal
Boots, most popular cosmetic brand in UK trusts on vitamins

58% of all new cosmetic product launches in 2013-03/2015 contain vitamins
High consumer awareness of vitamins in cosmetics fostered by Boots’ strong claims

**Vitamin A**
- Foundation

“.... Pro-retinol complex ... vitamins A and E, to protect against the ageing effects of free radicals.
Retinyl Palmitate, Tocopherol

**Vitamin E**
- Cleansing oil

“... enriched with antioxidant vitamin E ...
Tocopheryl Acetate

**Pro-Vitamin B5**
- Make up removal wipes

“.... contains pro-vitamin B5 to moisturise and soften...
Panthenol
Revealing the Power of Vitamins for Beauty Care
DSM: The vitamin pioneer & leader

DSM, a pioneer in the vitamin journey
- As the longest-standing producer of vitamins in the world

DSM, a leader in vitamins for personal care
- The 1st to explore the beauty potential of vitamins
- The 1st to bring vitamins production on the industrial level
DSM offers the most comprehensive vitamins product portfolio, relevant for all cosmetic applications

**Water-soluble vitamins**
- Vitamin C: several derivatives
- Vitamin B3: Niacinamide, Niacin
- Pro-Vitamin B5: Panthenol, several related molecules
- Vitamin B6: Pyridoxine Hydrochloride
- Vitamin B7: Biotin
- Vitamin B9: Folic Acid

**Oil-soluble vitamins**
- Vitamin A: several derivatives and forms
- Vitamin E: Synthetic and natural source
- Vitamin D3: Regulatory restrictions
- Vitamin K1: Regulatory restrictions
- Vitamin C: several derivatives
- Vitamin B3: Niacinamide, Niacin
- Pro-Vitamin B5: Panthenol, several related molecules
- Vitamin B6: Pyridoxine Hydrochloride
- Vitamin B7: Biotin
- Vitamin B9: Folic Acid

**Synergistic Blends**
- Radiance CR: Skin care
- BeauPlex® VH: All applications

---

**Skin Care**

**Hair Care**

**Make up**

**Toiletries**

**Sun Care**
DSM Vitamins Portfolio for Personal Care

**Vitamin A**
- Group of molecules derived from retinal / beta-carotene
  - Retinyl Palmitate
  - Retinyl Acetate
  - Retinol
- Anti-aging, anti-wrinkle, strengthening barrier function

**Vitamin E**
- Tocopherol associated antioxidants
  - DL-α-Tocopherol
  - DL-α-Tocopheryl Acetate
  - Mixed Tocopherols
  - Nat. Vit E Sun Flower
- Free radical scavenger, antioxidant

**Vitamin C**
- Ascorbic Acid and derivatives
  - Ascorbic Acid
  - STAY-C® 50 (sodium ascorbyl phosphate)
  - Ascorbyl Palmitate
  - Sodium Ascorbate
- Antioxidant, broad efficacy profile substantiated for STAY-C® 50

Oil soluble

Oil soluble

Water soluble
**DSM Vitamins Portfolio for Personal Care**

<table>
<thead>
<tr>
<th>Vitamin B3</th>
<th>Pro-Vitamin B5</th>
<th>Vitamin B6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niacin-associated molecules, core of co-enzymes of NAD and NADP</td>
<td>Products derived from Pantothenic Acid - widely occurring in vegetable and animal foods</td>
<td>Generic term for 2-hydroxy 2-methylpyrimidine derivatives exhibiting the biological activity of pyridoxine</td>
</tr>
<tr>
<td>Niacinamide PC <em>(cosmetic grade)</em></td>
<td>D-Panthenol</td>
<td>Pyridoxine Hydrochloride</td>
</tr>
<tr>
<td>Improves barrier function, skin lightening, anti-acne</td>
<td>D-Panthenol 75 L</td>
<td>Essential for normal skin metabolism, contributes to refine skin</td>
</tr>
<tr>
<td>D-Panthenol 50L</td>
<td>Ethyl Panthenol</td>
<td>Calcium Pantothenate</td>
</tr>
<tr>
<td>D-Panthenol</td>
<td>Calcium</td>
<td>Water soluble</td>
</tr>
<tr>
<td>Water soluble</td>
<td>Water soluble</td>
<td>Water soluble</td>
</tr>
</tbody>
</table>

**Nicotinic Acid**

**Pantothenic Acid**

**Vitamin B6**

**DSM**

*Bright Science. Brighter Living.*
DSM Vitamins Portfolio for Personal Care

**Vitamin B7**

- Vitamin H, Co-Enzyme R, Biotin required for growth, co-enzyme of some key metabolic enzymes
- D-Biotin

Strengthening of brittle nails and hairs
Wrinkle reduction, skin lightening

**Vitamin B9**

- Folacin, vitamin BC, Folic Acid, *Lactobacillus casei* factor, involved in many important biological pathways
- Folic Acid

Helps slowing down premature skin ageing, modulates, increases DNA repair

Slightly water soluble

Water soluble
Radiance CR

Vitamins active complex for a radiant look consisting of stable Vitamin C derivative and Vitamin H (Biotin) in a carrier.
Water soluble powder

Sodium Ascorbyl Phosphate (STAY-C® 50), D-Biotin

Lightens age spots and skin tone
Enhances recovery of skin barrier damage
Reduces wrinkles, smoothens skin surface

Before application  After 3 months

BeauPlex® VH

All-in-one vitamin compound.
Supports vitamin claims, ease of handling, reduced manufacturing time.
Water soluble powder

Niacinamide, Ca-Pantothenate, Vit E acetate, Sodium Ascorbyl Phosphate, Vitamin B6

New Products
Line extensions
Re-launches
Sodium Ascorbyl Phosphate, stable vitamin C derivative, with most comprehensive claim opportunities and substantiated efficacy - example below: anti acne activity

**STAY-C® 50**

Comparable activity in reducing acne vulgaris as prescriptive drug Benzoyl Peroxide (both at 5%)

**Overall improvement**

**STAY-C® 50** cream 3%, 2 times/day applied

**Reduction inflammatory lesions**

Significantly (* < 0.001 compared to day 0) reduced inflammatory lesions at each day of evaluation

**STAY-C® 50** has shown strong anti-acne activity
Revealing the Power of Vitamins for Beauty Care
The supply network of DSM Nutritional Products consists of 10+ straight and forms production sites, 40+ HNH and ANH premix plants, 7 nutritional lipids plants, 10+ global and regional/local distribution centers around the globe.
DSM production sites for vitamins

- Dally, Scotland
  - Vit C Panthenols
  - Pantothenates
- Sisseln, Switzerland
  - Vit A, E, K₁
  - Folic acid
- Belvidere, NJ
  - Vit C forms
- Lalden, Switzerland
  - Intermediates for Vit A, E
- Village-Neuf, France
  - Biotin
  - STAY-C® 50
- Grenzach, Germany
  - Ascorbyl Palmitate, D3 Intermediates
- Xinghuo, China
  - Vit A, Vit B₆
Full control of complex production and supply chain is key for success

Manufacturing experience around the world
• for vitamins and premixes at consistent quality for target industries
⇒ DSM fulfills and guarantees customers’ and partners’ quality demand

Production technology
• State of the art technology in all major vitamins
• Investment in new world class plant Vitamin B6 in China
⇒ Proves DSM’s commitment in keeping technology leadership and cost competitiveness

Global logistics for local customers
• Global - Regional DCs - Local warehouses
⇒ Close to the customer - guarantees a high supply reliability

Supply response:
• Standard products on stock in global and regional/local warehouses
• Complying with regular and unforeseen demand in the fastest way possible
⇒ Ensures a high service level

Quality Product
Speed
Reliability
for our customers

DC = Distribution center
DSM - Leading Vitamin Production Capabilities

Vitamin E

- Sisseln, Switzerland - largest Vitamin E production of the world, today’s plant inaugurated in 2004
- Capacity can cover more than 1/3 of the global feed, food, pharma and cosmetics market
- Fully backward integrated in a world-class production set-up
- Highly performing acetylene production process with best sustainability results in the market place
- Complete zoning concept implemented
**DSM - Leading Vitamin Production Capabilities**

**Panthenol**

- All Panthenol products are produced in Dalry, Scotland, in a world-class DSM-owned facility

- Over 50 years of production experience of products fit for the Personal Care, Food and Pharma market

- All equipment used is dedicated to Panthenol production, eliminating the potential for cross contamination.

- Own energy production, surplus is supplied to the local grid

- Continuous improvement of process and plant and full implementation of zoning concept.

**High transparency:** all our manufacturing sites are successfully audited by customers and authorities many times every year
DSM- Vitamin B6 investment

Vitamin B6

- The new plant in Xinghou, China guarantees DSM’s Quality for Life™ standards
  - Quality
  - Reliability
  - Traceability
  in a most sustainable production environment

Highest commitment into the vitamin supply chain by investing into a state of the art Vitamin B6 plant in China
## Quality for Life - Key Differentiator
Global quality management system fully applied for Vitamins

### Industry quality standards
- Products and production processes compliant to GMP(ICHQ7), HACCP, ISO-9001, ISO-14001 and FSSC 22000
- Strict internal program in place to keep and ensure industry quality standards

### Supplier approval
- Stringent quality approval and audit process for all suppliers

### Retained samples
- Kept for at least 6 years

### Complaint system
- Complaint system in place to call in experts from all disciplines and places
- Joint efforts for the best solution for the customer

### Track and Trace
- 24 hour “Track and Trace” system to initiate product tracking and recall in the event that this is needed

*guarantees a consistent quality at the required level meeting customers’ needs*
Revealing the Power of Vitamins for Beauty Care

Vitamins Landscape
Number of Vitamin producers doubled

- China/India producers doubled in last 10 years
- Number does not reflect market relevance
- DSM has successfully managed its vitamins business for more than 50 years

DSM defends leader position to match customers’ needs

- Programs to keep excellence in operations
- Sustainability a KPI at all levels
- Investment for higher competitiveness
  - new Vitamin B6 plant
  - acquisition of vitamin C plant
Several China Vitamins producers forced to shut down production

Strict environmental regulations implied by central Government and Provinces
- Water and air emission targets
- Many vitamin producers on central 2014 watch list monitoring pollution
- In addition, regular reports on air pollution requested by Provinces

Consequences for various vitamin producers in 2014/2015
- Temporary shut down of production
- Fines (eg double sewage fee)
- Investment in waste water treatment
- Stop of new projects/plants

Province environmental targets
- Beijing
- Long term production control plan to reduce the industrial emissions
- Only implement production control plan with orange air pollution alert
- Plants shut down due to illegal waste discharge

10 Vitamin producers affected
2 companies: affected product is vitamin C
3 Vitamin producers affected
8 companies: affected products: Vitamin A, D3, E, Biotin, Calpan, Panthenol, B1, B6, Beta Carotene
Financial challenges for several China Vitamins manufacturers

**NEPG**
Vitamin C

**ZMC**
Vitamin A & Vitamin E

**Xinfu**
Panthenol & Calpan

Competitive market environment negatively impacts profitability of Chinese Vitamins producers and continuity of business.

Source: Annual reports
Severe environmental non-compliance of Chinese Folic Acid producers

2014/2015 Folic Acid output drastically reduced

DSM, the only reliable producer of the food / pharma grade, also used in cosmetics
# Security for full vitamins portfolio by DSM

<table>
<thead>
<tr>
<th>Number of vitamins offered by Eastern producers</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 China and 10 India producers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 China producers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 China producers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 China producer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 China producer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 China producer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DSM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Supply security for all vitamins by DSM - Excellent history of safe and reliable business and support

Majority of China companies are single vitamin producers.
- Their financial performance is highly dependent on this one single product
- No or very limited additional support and service
Revealing the Power of Vitamins for Beauty Care

DSM’s sustainability engagement
Sustainability becoming a KPI in B2B

67% CEOs admit that business is not doing enough to address sustainability challenges (2)

73% consumers say businesses are failing to take care of the planet and society (3)

Many companies have found that the greatest opportunity for reducing their environmental impact and increasing social stewardship lies within their supply chain (4)

DSM has a sustainability program in place fully supporting the cosmetic manufactures and brands

2) UN Global Compact-Accenture CEO Study on Sustainability, published in 2013
4) KPMG study 2010, Sustainability in B2B world
Amore Pacific

Creating Sustainable Values

AMOREPACIFIC has been implementing sustainability management to contribute to improving the quality of life for everyone. We are leading the movement in creating a more beautiful world through our innovation activities for consumers, efforts to reduce environmental impact, win-win cooperation with our business partners and social contribution programs.
Sustainability at the core of corporate strategy

By connecting our unique competences in Life Sciences and Materials Sciences

DSM is driving economic prosperity, environmental progress and social advances to create sustainable value for all stakeholders simultaneous

Executive pay is linked to achievement of sustainability goals

Sustainability became a business growth driver for DSM
DSM Sustainability: building on strong foundations

Growth Drivers

Sustainability Position

- Resources depletion
- Safer alternatives
- Reducing eco footprint
- Eco System Quality

Planet

Sustainability Strategies

ECO+

Product solutions that create more value with less environmental impact *

90% of our Vitamins are ECO+

People +

Product solutions that create a measurable better impact on the lives of people *

* than competing alternatives commercially available, fulfilling the same function.
Sustainability improves environment

DSM Eco+ targets in Operations and overall progress

1 Numbers between brackets represent a negative number, i.e. a deterioration in performance.
2 In the calculation that accounts for changes in production volume, DSM’s GHG emissions decrease by 16% in 2014 compared to 2008.

VOC: Volatile organic compounds
SO2: Sulfur dioxide
NOx: Mono-nitrogen oxides
COD: Chemical oxygen demand

Full transparency on environmental performance for vitamin production sites

Emissions 2014 / Reduction in % vs 2013

<table>
<thead>
<tr>
<th>To water</th>
<th>COD (net)</th>
<th>Reduction</th>
<th>N (net)</th>
<th>Reduction</th>
<th>P (net)</th>
<th>Reduction</th>
<th>Total heavy metals</th>
<th>Reduction</th>
<th>Total AOX</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dalry</td>
<td>122</td>
<td>30%</td>
<td>113</td>
<td>(7)%</td>
<td>11</td>
<td>(26)%</td>
<td>0.04</td>
<td>50%</td>
<td>0.03</td>
<td>(200)%</td>
</tr>
<tr>
<td>Grenzach</td>
<td>265</td>
<td>(2)%</td>
<td>30</td>
<td>9%</td>
<td>1</td>
<td>26%</td>
<td>0.11</td>
<td>31%</td>
<td>0.32</td>
<td>(10)%</td>
</tr>
<tr>
<td>Sisseln</td>
<td>678</td>
<td>4%</td>
<td>85</td>
<td>1%</td>
<td>2</td>
<td>(33)%</td>
<td>0.03</td>
<td>73%</td>
<td>1.43</td>
<td>34%</td>
</tr>
<tr>
<td>Village-Neuf</td>
<td>22</td>
<td>6%</td>
<td>2</td>
<td>16%</td>
<td>3</td>
<td>(69)%</td>
<td>0.02</td>
<td>33%</td>
<td>0.03</td>
<td>57%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To air</th>
<th>Dust</th>
<th>Reduction</th>
<th>NOx</th>
<th>Reduction</th>
<th>CH4</th>
<th>Reduction</th>
<th>VOC</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dalry</td>
<td>0.63</td>
<td>6%</td>
<td>67.08</td>
<td>37%</td>
<td>304.00</td>
<td>30%</td>
<td>394.00</td>
<td>12%</td>
</tr>
<tr>
<td>Grenzach</td>
<td>0.09</td>
<td>10%</td>
<td>2.10</td>
<td>(11)%</td>
<td>4.40</td>
<td>6%</td>
<td>11.36</td>
<td>(21)%</td>
</tr>
<tr>
<td>Sisseln</td>
<td>2.36</td>
<td>(7)%</td>
<td>44.59</td>
<td>(3)%</td>
<td>101.60</td>
<td>(62)%</td>
<td>12.43</td>
<td>25%</td>
</tr>
<tr>
<td>Village-Neuf</td>
<td>16.58</td>
<td>(111)%</td>
<td>9.81</td>
<td>10%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Emissions data are the totals of emissions from individual sources.

Numbers in ( ): increase  
COD: chemical oxygen demand  
N: nitrogen  
AOX: the sum of adsorbable organically bound halogens (X = halogen)

P: phosphorous  
NOx: mono-nitrogen oxides  
VOC: Volatile organic compounds

Significant carbon footprint reduction for key intermediate of vitamin E production

- Acetylene is a key material for the synthesis of vitamin E
- There are two processes used to produce Acetylene:
  - “Partial Oxidation”
  - “CaC₂ Process”
- In terms of Carbon Footprint, Partial Oxidation is 5 times better than the CaC₂ Process
- DSM is using the Partial Oxidation, majority of Chinese producers use the CaC₂ process
DSM looks at all stages of the lifecycle for improvement in sustainability (ECO+, People+)

- Integrated in the innovation process
- To identify and create ecological benefits at any stage

- Developed by DSM
- Assesses the impact on the people involved in making and using the products.
DSM, in 2014, together in group of 11 European industry leaders, developed a People metrics for measuring products’ social impact.

- Roundtable for Product Social Metrics, a cross industry collaboration, comprises Ahold, AkzoNobel, BASF, BMW Group, DSM, L’Oréal, Marks&Spencer, Philips, Reckitt Benckiser, Steelcase and Goodyear.

- Practical method applicable in diverse industries
- 19 quantitative and qualitative indicators
- Built on international standards

DSM played prominent role in first step towards global standard for social LCA.
DSM a reliable and sustainable partner

DSM achieves Advanced level for CSR engagement: 69/100

DSM continues to be one of the frontrunners in the chemical sector in last years and often No1 in this sector

DSM motivates employees to become active contributors to the Earth Day Concept and sponsors campaigns

Trademark and seal of our quality management system and symbolizing our commitment to environment and people

DSM contributes in both initiatives that aim to monetize the social and environmental externalities companies and products create
Revealing the Power of Vitamins for Beauty Care
We capitalize in Personal Care on the broad and deep vitamins expertise due to our leader position also in Human and Animal Nutrition and Health

- Full overview what is going on in vitamins in all aspects
- Dedicated and experienced team of research scientists for vitamins
- More resources on application research & development spent than any other company in the industry.
- Comprehensive documentation (technical, supporting, regulatory documentation)
- Building and protecting the intellectual property of our vitamins, their production processes and formulations
Experienced and dedicated regulatory team behind Vitamins

- Global and regional experts representation ensuring a global network and presence in main trade associations of Food, Feed, Pharma & Cosmetics
- Multi-industry expertise and vision (e.g: Beauty from within, excipients)
- Strong leadership in advocacy
- Personal Care specific:
  - Product defense: Arbutin, Peanut oil, PARSOL® 340 and others is part of DSM Responsible Care culture
  - Strong representation in EFFCi WG’s (Regulatory Affairs and Product safety, Ingredient of Natural Origin, Nano TF, GMP, toxicology, sustainability TF)
  - Chairman position in the EFFCi WG International Regulation
  - China (CAFCI), US (PCPC), France (Febea), Germany (TEGEWA) representation
Ask DSM for questions on Vitamins

We help newcomers in the industry to better understand vitamins and provide practical guidance.
Revealing the Power of Vitamins for Beauty Care
We bring new science to customers

Many sources screened and evaluated to identify opportunities of cosmetic relevance

Poster at: ISBS/SICC 1st JOINT INTERNATIONAL CONGRESS - Ageing Skin: Diagnostic Tools and Cosmetic Treatment, Oct 15th-16th Milan 2013
2015, new consumer survey on vitamins in personal care

New Vitamins Awareness and Behavior Study

- **Global quant understanding**
  *Study to understand awareness, usage in Personal Care and vitamin ‘value’*

- **Qualitative understanding**
  *Going beyond the what to get a deep understanding to unlock opportunities*

- **Combining the what and the why**
  *Building a consumer framework and lens to DSM science*

Differentiated solutions that really matter
Vitamin Innovation in HNH, opportunities for Personal Care

What

New processes
Differentiation
New science
Next generation of vitamins

How

Technology competences
Chemistry
Biotechnology
Extraction

Formulation R&D Competences
Beadlets, Extrusion, Emulsions, New technologies

New benefits and the communication around this

R&D
Precursors, derivatives of vitamins (MTHF, HyD, NR etc.)
Revealing the Power of Vitamins for Beauty Care

Conclusion – Added value of DSM Vitamins
Added value with DSM Vitamins

- Trouble free business
- No production fall outs
- Whenever there is a crisis, we are with the customer
- Investment programs to stay fit and competitive for the future
- Sustainability at the core of the business
- DSM is the longest standing Vitamin supplier with the highest quality & ethical standards

1. History of reliable and safe business
2. Excellence in operations
3. Best supply chain worldwide
4. Application, regulatory, science expertise
5. Transparency on sustainability goals and performance
6. Fully embedded in food, pharma, feed industries
Disclaimer

Copyright © 2018 DSM Nutritional Products, 4002 Basel, Switzerland. www.dsm.com/personal-care. All rights reserved.
Although DSM has used diligent care to ensure that the information provided herein is accurate and up to date, DSM makes no representation or warranty of the accuracy, reliability, or completeness of the information. This presentation only contains scientific and technical information for business to business use. Country or region-specific information should also be considered when labeling or advertising to final consumers. This publication does not constitute or provide scientific or medical advice, diagnosis, or treatment and is distributed without warranty of any kind, either expressly or implied. In no event shall DSM be liable for any damages arising from the reader’s reliance upon, or use of, these materials. The reader shall be solely responsible for any interpretation or use of the material contained herein. The content of this document is subject to change without further notice. Please contact your local DSM representative for more details. All trademarks listed in this brochure are either registered trademarks or trademarks of DSM in The Netherlands and/or other countries unless explicitly otherwise stated.
Back - up

Additional slides, partly with more comprehensive data than in main presentation
Partnerships combating malnutrition

Offering tailored nutritional solutions to fight malnutrition around the world

- DSM - UN World Food Program partnership strengthened to combat global malnutrition: double number of beneficiaries to 30 million per year by 2015

- DSM is engaged in various nutrition partnerships, including: Scaling Up Nutrition movement (SUN), US Agency for International Development (USAID), Mercy Corps’ food cart social enterprise KeBAL, World Vision International, Partner for Food Solutions

- DSM also supports healthier diets in the Western world by advocacy, innovations, etc.

People, Planet, Profit: We cannot be successful in a world that fails
DSM Sustainability: building on strong foundations

Credible Qualifiers
Triple P Foundation

- Greenhouse Gas Emissions
- Energy Efficiency
- Water

Growth Drivers
Sustainability Position

- Human Health
  - Resources depletion
  - reducing eco footprint
  - Eco System Quality
  - Safer alternatives

Sustainability Strategies

ECO+

- Product solutions that create more value with less environmental impact*
- 90% of all our Vitamins are Eco+

People

- SHE
- Diversity
- Employee Engagement Survey
- Vitality

People +

- Product solutions that create a measurable better impact on the lives of people*

* than competing alternatives commercially available, fulfilling the same function.