DSM Transformation: The Learning Cycle of Innovation

Hein Schreuder
Vlerick Business School

Until 2012: Executive Vice President
Corporate Strategy & Acquisitions
Royal DSM N.V.
Our history

Making the next leap: entering a new era

Coal Mining
Commodity Chemicals
Specialty Chemicals
Life Sciences & Materials Sciences
DSM: Ability to Change

Evolution


Technological competences
- Mechanical engineering
- Chemical engineering
- Polymer technology
- Material science
- Fine chemicals
- Modern Biotechnology

Classical Biotechnology

Biorenewable / Biomedical / Nutrition
Life Science Products
Performance Materials
Petrochemicals
Fertilizers
Coal
DSM: Transformation 1995-2012

* 2012 = 2 * H1 including pro-forma sales
Kensey Nash, ONC, Tortuga and Fortitech
Corporate Strategy Dialogues

CSD Process


Clarifying the corporate strategy

Vision 2005: Focus and Value

Profitable Growth

Vision 2010: Building on Strengths

CSD Process

CSD Process

CSD Process

Vision 2010

(mid term review)

DSM in Motion:

Driving Focused Growth

Acceleration

Vision 2010

BRIGHT SCIENCE. BRIGHTER LIVING.
Evolutionary Transformation: S.O.S.!
Innovation Strategy 2005 - 2010

Strategy
Target: € 1bn extra from Innovation
Innovation Strategy 2005 - 2010

Strategy
Target: € 1bn extra from Innovation

Organization
Chief Innovation Officer
DSM Innovation Centre
Billion Bunch
4 EBAs
Accelerating and supporting innovation

**New Business Development**
- EBA Biomedical
- EBA Bio-based Products & Services
- EBA Advanced Surfaces
- Business Incubator
- "BOP" project

**Enablers**
- Excellence in Innovation
- CTO Office
- Licensing
- Venturing
Innovation Strategy 2005 - 2010

**Strategy**
Target: € 1bn extra from Innovation

**Signals**
Innovation Reporting
Innovation Diagnostic

**Organization**
Chief Innovation Officer
DSM Innovation Centre
Billion Bunch
4 EBAs

Page 9
Innovation Practices now above Industry Average, but still work to be done!
Innovation Strategy 2005 - 2010

Strategy
Target: € 1bn extra from Innovation

Systems
Innovation Reporting
Innovation Diagnostic

Organization
Chief Innovation Officer
DSM Innovation Centre
Billion Bunch
4 EBAs
Innovation

Proud to have achieved

- €1bn sales from innovation
- Increased speed of innovation
- Setting up (4) EBAs
- Setting up innovation infrastructure/culture
- External recognition as leading innovator

Next level aspiration

- Innovation sales 20% of total sales
- EBA sales > €1bn (2020)
- Innovation focus on defined platforms
- Value creation via best practices
- Set up Innovation Centers in China/India

From building the machine to doubling the output
Lessons from DSM case

- Innovation can be planned
- Innovation cycle: Strategy - Organization - Signals
- Completion of entire Innovation Cycle necessary!
- So, you need perseverance
- And also some luck 😊
DSM in motion: driving focused growth

People - Planet - Profit: creating value along three dimensions
Venturing Portfolio: Direct Investments

### Climate & Energy
- bioprocess control
- GREEN BIO
- NOVOMER
- CAMBRIOS

### Health & Wellness
- Provexis
- IntegraGen
- Sol-Gel Technologies
- Ganeden
- Harland Medical Systems
- IQtherapeutics
- CellMade
- qennix

### Functionality & Performance
- Van Technologies, Inc.
- SupraPolix
- InMat
- SkySails
- verdezyne™
- upfront
- Segetis
- XOLVE
- DSM
Open Innovation in practice

Licensing

Mergers & Acquisitions

Internal Development

Venturing

Scientific Advisory Board

Research Alliances & Cooperations
Contrasting principles of Innovation

- **Closed**
  - All smart people work for us
  - Invent, develop, produce yourself
  - Discover and get to market as No1
  - Commercialize quickly
  - Create most and best idea’s to win
  - Control your IP to defend positions

  - **The Lab is our World!**

- **Open**
  - Most of the smart people do *not* work for us
  - Add internal & *external* forces
  - We can profit from *outside* R&D
  - Choose the best *business model*
  - Use internal and *external* idea’s to win
  - Profit from other’s and *combine* with own IP

  - **The World is our Lab!**
## Pros and Cons of Open Innovation

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Shorter time to market</td>
<td>- Info overflow</td>
</tr>
<tr>
<td>+ Higher chance of success</td>
<td>- Culture change is slow</td>
</tr>
<tr>
<td>+ More funnel output</td>
<td>- Many legal contracts</td>
</tr>
<tr>
<td>+ Lower innovation costs</td>
<td>- IP leakage (China)</td>
</tr>
<tr>
<td>+ Mitigated risk (options)</td>
<td>- Balance of power</td>
</tr>
<tr>
<td>+ Reputation; recruitment</td>
<td>- Less job rotation</td>
</tr>
<tr>
<td>+ Knowledge based economy</td>
<td></td>
</tr>
</tbody>
</table>