

# Future proofing business in the transition to a low carbon economy

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March, 2017  
Japan

# Content

- **Sustainability at Royal DSM**
  - Sustainable Growth Areas & integrated strategy
  - Why we are involved in the climate agenda, and our approach
  - How DSM solutions are enabling a low carbon economy
  
- **Two examples of how we drive change**
  - Carbon pricing (systemic change)
  - Bright Minds Challenge (bottom-up change)

# DSM focus on 3 Sustainable Growth Areas



NUTRITION



CLIMATE CHANGE & ENERGY



RESOURCE SCARCITY



# Our integrated strategy & targets

## Driving Sustainable Markets

- Nutrition
- Climate & energy
- Circular and bio-based economy

## Sustainable Growth Areas

## Sustainability as Business Growth Driver

Eco+

People+

## Brighter Living Solutions

- Profitable solutions better for people and planet
- 65% of DSM products by 2020

## Securing Sustainable Operations

GHG efficiency  
Renewable  
energy

Health & Safety  
Engagement  
Diversity

## Sustainable Operations

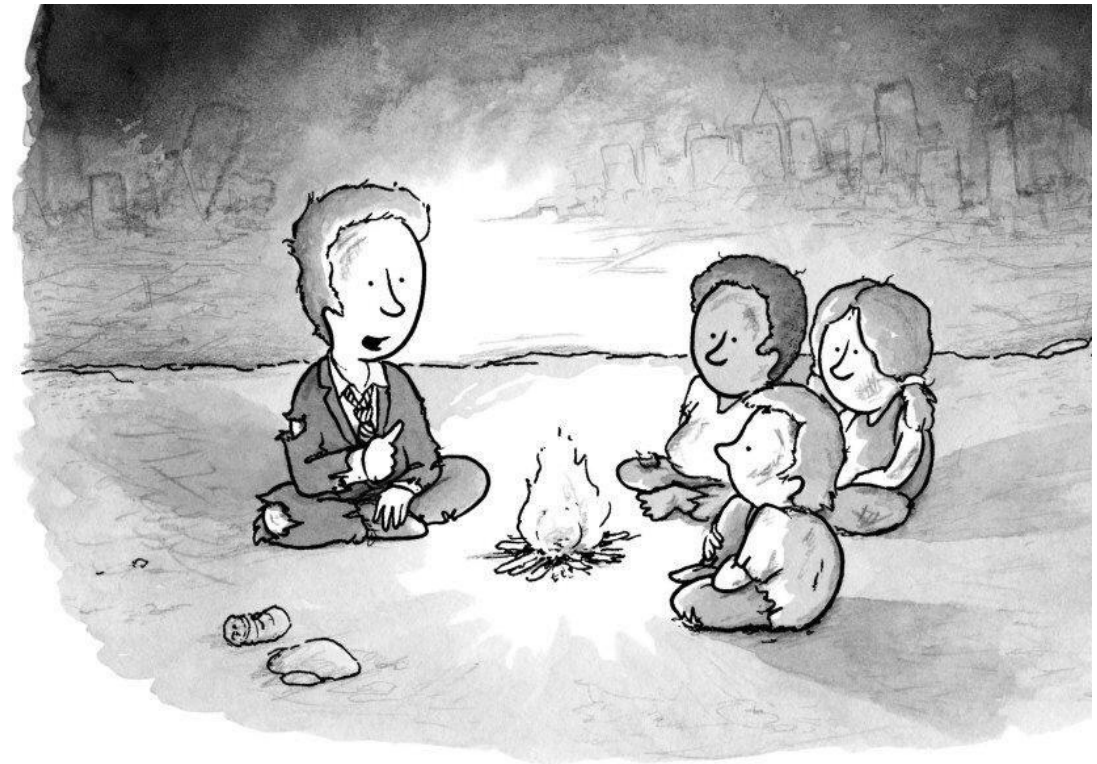
- GHG efficiency improvements 40-45% by 2025 (1)
- % of purchased electricity from renewables 50% by 2025
- Employee engagement favorable score 75% by 2020
- Safety: Frequency recordable index 25% by 2020
- Leading in reporting benchmarks Gold class DJSI

(1) Relative improvement as compared to baseline 2008

# Why are we involved in the climate agenda?

## RESPONSIBILITY

to act →



*“Yes, the planet got destroyed, but for a beautiful moment in time we created a lot of value for shareholders.”*

## OPPORTUNITY

for growth →

*IEA: climate deal unlocks \$13.5 trillion of investments in energy efficiency and low carbon technologies by 2030 - \$8.3 trillion of which in the transport, buildings and industry sectors.*



# Our approach

## REDUCE our own footprint

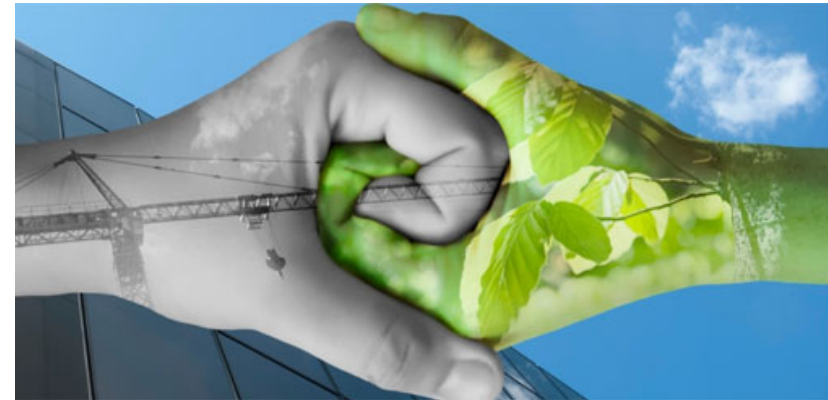
realize 40-45% GHG efficiency improvement 2008-2025 (via energy efficiency, 50% renewable purchased electricity, internal carbon price)

## ENABLE low carbon economy

identify (and seize!) business & innovation opportunities arising from countries' climate action plans ("NDCs")

## ADVOCATE climate action

creating markets in which our low-carbon products can *thrive*, with a focus on renewable energy and carbon pricing



# Working together with our climate partners.....

By joining forces with other businesses, jointly sending a positive signal, we can de-risk politics: business *wants to partner* on climate action

We welcome the focus on climate change at the 2015 World Bank Group/IMF Spring Meetings

## Let's partner on climate action. Now.

We are CEOs from 43 companies and 20 economic sectors. With operations in over 150 countries and territories, together we generated over \$1.2 trillion of revenue in 2014.

In the spirit of the World Economic Forum to foster public-private cooperation, we affirm that the private sector has a responsibility to engage actively in global efforts to reduce greenhouse gas emissions, and to help the world move to a low-carbon, climate-resilient economy.

We call upon governments to take bold action at the Paris climate conference (COP21) in December 2015 to secure a more prosperous world for all of us. We are already taking action, and we stand ready to work together with the international community to help deliver practical climate solutions.

We have prepared a statement outlining our vision. Please go to [medium.com/@ClimateCEOs](http://medium.com/@ClimateCEOs) to read our full message. #ClimateCEOs

**Signatories**

<p>Olof Persson, President and CEO, AB Volvo Pierre-Henri de Gombert, Chairman and CEO, Acelion Joel Massad, Subconcrete Director, Chairman and CEO, Acciona Tom Bockholt, CEO, Aker-Nobel Michael Chikvasia, Chairman of the Board of Management (CEO), Alliant Gregory Boudhsson, Chairman, Anip Group Geir Inge Helgeson, CEO, BT Group Hårik G. Christensen, President and CEO, Centrow Frank Appel, CEO, Deutsche Post DHL Group Heath Packer, CEO, DSM Energy Andrew H. Liveris, President, Chairman and CEO, Dow Chemical Company Francisco Serrano, CEO and General Manager, Enel SpA Hans E. Verbergh, President and CEO, Heineken Gérald Meislinck, Chairman and CEO, GDF SUEZ Brunando Grillo, CEO, Grupplo Investimentos A.J. Gulabchand, Chairman and Managing Director, Hindustan Construction Company Shaun Gullick, Group CEO, H2O Holdings Igorado S. Galia, Chairman and CEO, Iardrol Petter Agnert, President and CEO, INRA Group Ralph Harms, CEO, ING Group Sandra Wu Wen-Hsi, Chairperson and CEO, Kikkai Kogyo Co., Ltd.</p>	<p>Bruno Lafont, Chairman and CEO, L'Oréal Marc Rutland, CEO, Merck and Spence Nikolaus von Bonsdorff, Chairman of the Board of Management, Munich Re Torben Møller Pedersen, CEO, ParstolDenmark Eric Rondolat, CEO, Philips Lighting Feike Sijbesma, CEO and Chairman of the Managing Board, Royal DSM Fassvan Mooker, President and CEO, Royal Philips Jean-Pascal Tricoire, Chairman and CEO, Schneider Electric Fealy Ganasa Widjaja, Chairman and CEO, Sinar Mas AgroBusiness and Food Jean-Pierre Clamadieu, CEO, Solvia Christian Rynning-Torresen, President and CEO, Statoil Jean-Louis Chassagnac, CEO, Suez Environment Takashi Nishizaki, President and CEO, Sunbay Holdings Tad Tarkenton, Chairman, Sutton Energy Michel M. Lina, Group CEO, Swiss Re Masashi Murotsuchi, Chairman of the Board, Tohoku Corporation Paul Polman, CEO, Unilever Antoine Péroz, Chairman and CEO, Veolia Anders Runvad, Group President and CEO, Verbe Wind Systems Anthony Frank, Executive Chairman, Way Industries David W. Kenney, Chairman and CEO, The Weather Company Kwok Khuen Hong, Chairman and CEO, Wincor International</p>
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## Climate Action Is Our Business Too

 By Feike Sijbesma

Climate change is real. The scientific debate is over: the evidence is overwhelming. Delaying action is no longer an option. It is time for concrete and effective action. Use of alternative energy sources should be scaled up. This is, in short, the unified message a [group of 43 CEOs](#) including myself are sending world leaders today as they gather in Washington DC for the World Bank & IMF Spring Meetings.



# ... to realize our climate commitments

Among other, we've made the following commitments to our climate partners. Together with hundreds of other companies, we can have a major impact.



Procure 100% of electricity from renewable sources



Put a price on carbon



Responsible corporate engagement in climate policy



Join the Low Carbon Technology Partnerships Initiative (LCTPi)





# Enabling a low carbon economy: CleanCow

- Societal challenge
- Livestock are responsible for methane emission, a GHG that causes global warming.
- DSM solution
- CleanCow is a feed additive solution under development for reducing the environmental impact of milk and beef production and with the potential to improve performance, like increased milk yield, increased body weight gain or better feed efficiency.
- Eco+
- *Impact on the environment:* Reduces methane emissions by at least 25-30% in vivo.



Emissions

More information:

[www.dsm.com/corporate/science/competences/chemical-sciences/project-clean-cow.html](http://www.dsm.com/corporate/science/competences/chemical-sciences/project-clean-cow.html)



# Enabling a low carbon economy: Niaga® sustainable carpet technology

## Societal challenge

Traditional carpet manufacturing technologies use multiple materials that cannot be effectively separated and recycled at the end of their useful life. All carpets end up in landfills and incinerators.

## DSM solution

Niaga® Technology develops technologies and designs products by using pure materials only. Materials that can simply be reused over and over again. Endlessly. So they will never turn into waste, but live again and again.

## People+ & Eco+

*Impact on environment:*

Niaga® Technology uses up to 95 % less energy than conventional technologies.

*Impact on lives of people:* Niaga® Technology makes carpets intrinsically flame retardant without the need for potentially harmful flame retardants.



Energy

Resources

Health

# Two examples of how we drive change:

1. Driving systemic change to accelerate the low carbon transition of our global economy - and in anticipation of that: our own organization



*Carbon Pricing  
Leadership Coalition  
& DSM's internal  
carbon price*

2. Enabling bottom-up change to stimulate innovators in renewable energy



*Together with  
partners, we  
identify & support  
pioneers in energy  
storage and solar  
energy*

# Carbon Pricing Leadership Coalition

## What is it?

- A **voluntary initiative** to catalyze action towards the successful implementation of carbon pricing (via tax / emissions trading scheme).
- Brings together **over 200 stakeholders**: leaders from government, business and civil society.

## Goal is for carbon prices to:

- **expand**: coverage of global GHG emissions 50% in 2020s
  - currently, this is just 13%
- **deepen**: increase price levels to ensure they are meaningful
  - currently, most prices are below \$10/CO<sub>2</sub>
- **connect**: more “linkage” between carbon pricing systems across world
  - currently, i.e. California and Quebec schemes are linked





# 90 countries mention carbon pricing in their national climate plans, several even consider it *conditional*

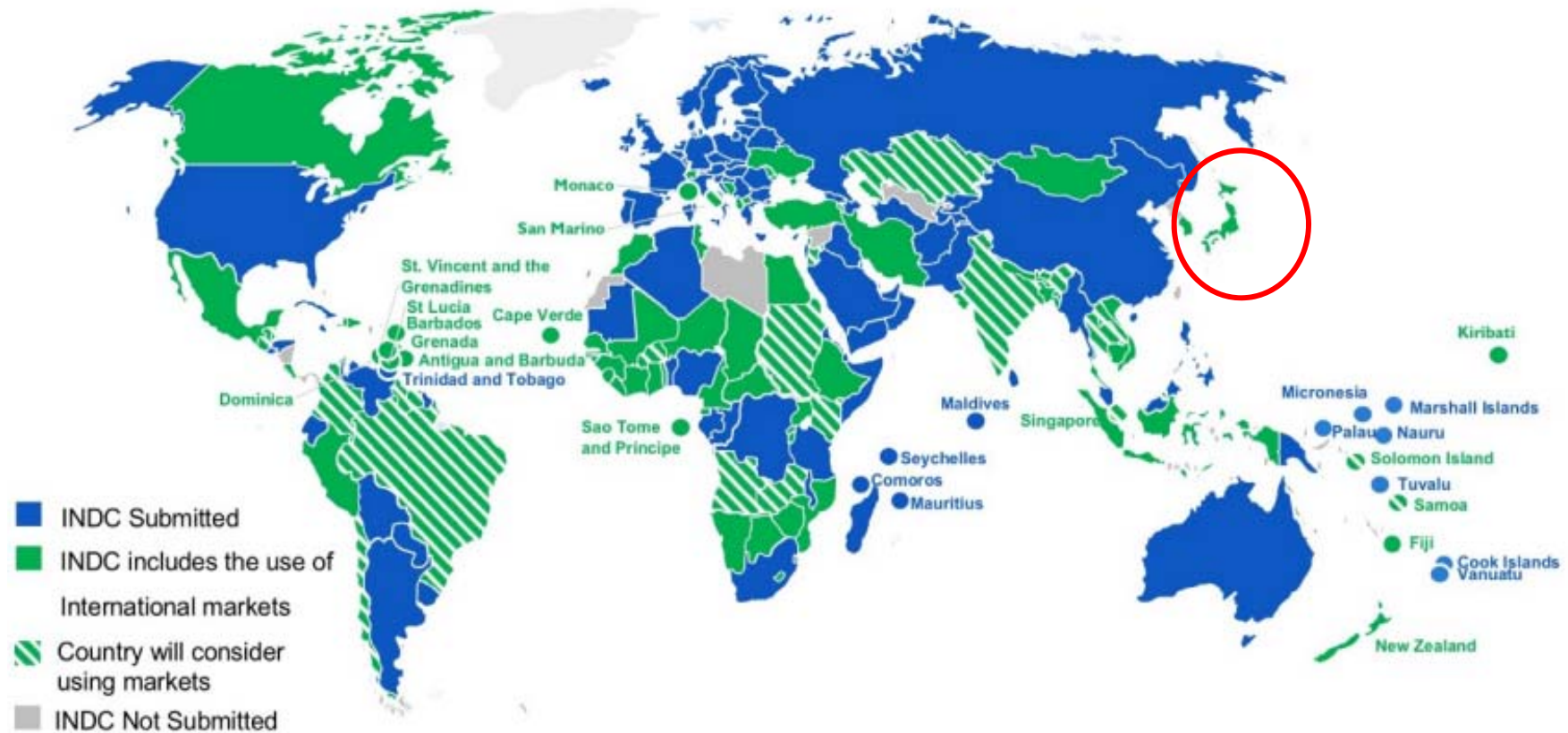


Figure 1: Carbon Markets and INDCs. Map provided by IETA's [INDC Tracker](#).

Link to source

[http://www.ieta.org/resources/Resources/Reports/Carbon\\_Pricing\\_The\\_Paris\\_Agreements\\_Key\\_Ingredient.pdf](http://www.ieta.org/resources/Resources/Reports/Carbon_Pricing_The_Paris_Agreements_Key_Ingredient.pdf)



# DSM involvement in carbon pricing

Examples:

- Internal carbon price of €50/CO<sub>2e</sub> (when reviewing large investment decisions)
- Initiated an online learning community with webinars on internal carbon pricing (editions: DSM, Microsoft, Yale, Mahindra)
- To stimulate discussion on “meaningful carbon price levels”:
  - “*Carbon Pricing Corridors Initiative*”
  - High level discussion among CEOs at the WEF in Davos 2017

CEO Feike Sijbesma is co-chair of the Carbon Pricing Leadership Coalition’s High Level Assembly



# €50 internal carbon price

Helps us to:

- ✓ spot energy/cost saving opportunities at an early stage
- ✓ redirect and/or scale up investments towards low-carbon technologies and low(er) carbon energy sources
- ✓ understand future costs/risks and build confidence to all stakeholders (incl. investors) that we are preparing DSM for a future in which carbon will increasingly have a price
- ✓ raise environmental awareness

How:

- €50 per ton CO<sub>2e</sub> (investment proposals must submit two business cases: one with, and one without the internal carbon price)
- Official corporate policy; required when reviewing large investment decisions, requiring significant capital expenditure

Has enabled decision-making on:

- Energy savings projects, renewable energy projects, and generally to improve our “integrated reporting & decision-making”

And we are not alone....

**1,249 companies**

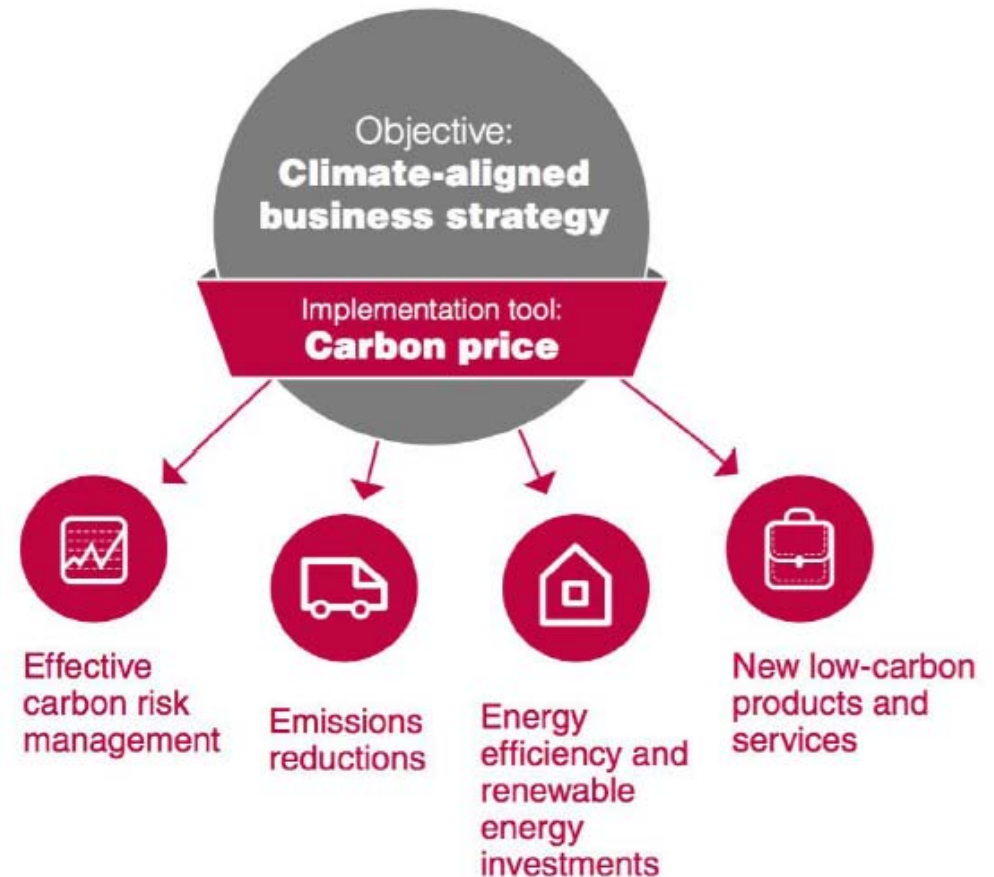
Disclose plans or current practice of placing a price on their carbon emissions as an approach to managing carbon risk.

**147**

**of these companies**

Are taking this approach further, by embedding a carbon price deeper within business strategies and operations to help take tangible action on climate change

CDP Carbon Price Report 2016



100+ Japanese companies report to CDP that they are (planning to) use one, too.





## Video: Qichao Hu

Creating safer, longer lasting and more sustainable battery for next generation electronics





# DSM & partners are helping innovators like Qichao

## Who has applied?

40 academics, entrepreneurs, technologists with solutions

- in solar or energy storage
- ready to scale up: patent / working prototype

From the top 10 (determined by public voting), an expert panel picks the top 3. Who wins, will be revealed in June.

## What's at stake?

- Winner: 500 hours of tailored commercial, IP and technical support
- Runners up: 250 & 125 hours of similar support
- Top 10: feedback from an influential panel of judges
- All: global exposure

# Together with our partners



**GREENTOWN LABS**



Thank you



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