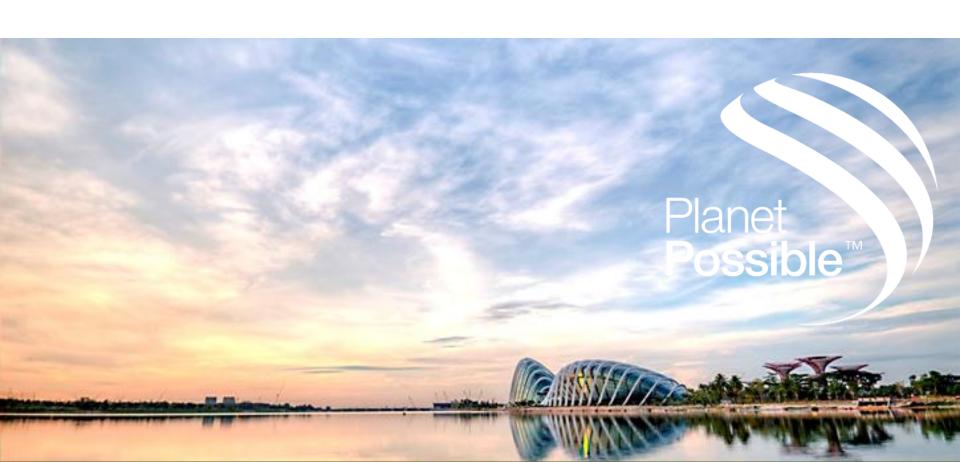
Life cycle thinking underpinning the road to circular economy

Johan Widheden, Senior Sustainability Expert







Leading global paints and coatings company and a major producer of specialty chemicals

- 46 000 employees,4 000 within RD&I
- 2 700 in Sweden,300 within RD&I



















What does AkzoNobel stand for?



Dow Jones

Sustainability Indices
In Collaboration with RobecoSAM

What kind of company do we want to be?

The world's first Paints and Coatings Company to chart a scientific path towards...

Zero

- Carbon in our use of energy
- Waste in our use of materials
- Harm from our products

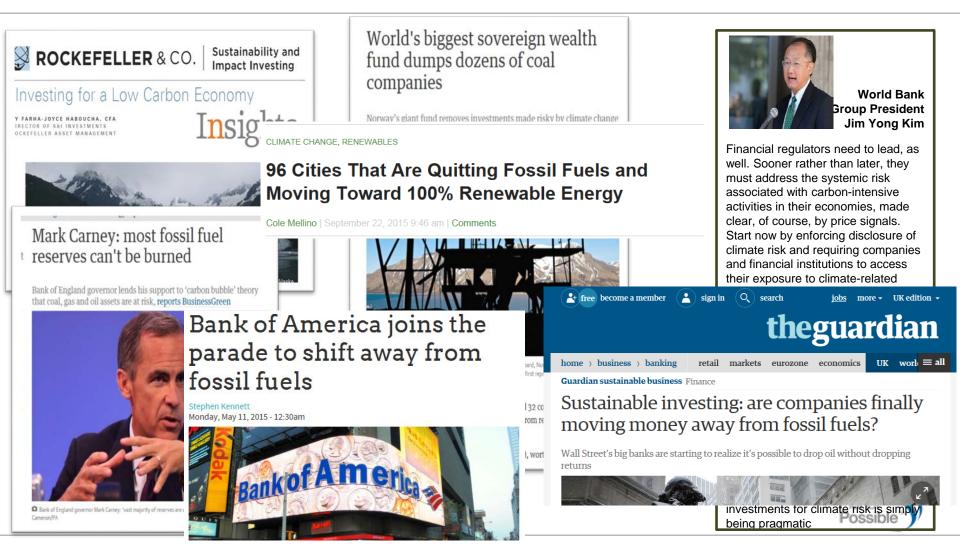


Business risks: Global financial implications

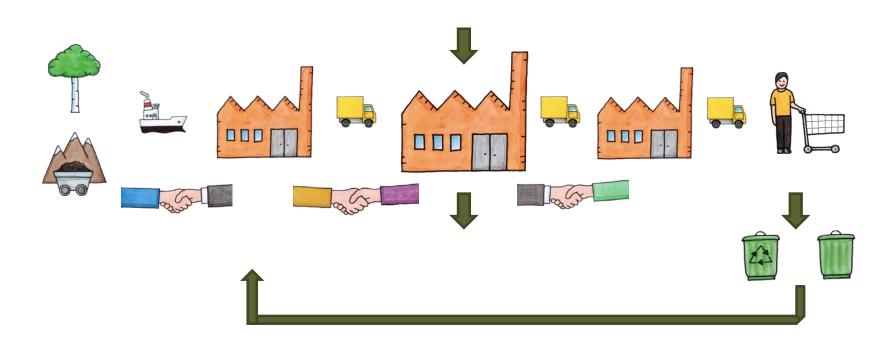
- □ China's Ministry of Environmental Protection calculates estimates the cost of pollution at roughly **3.5% of GDP**. Other sources say 6-7%. "China's pollution curbs may start slowing growth within months" (Bloomberg News, 2 oct. 2017)
- ■Without further mitigation action, climate change is projected to impact the global GDP by 1.0% to 3.3% by 2060, with projections up to 10% by the end of the century (OECD, 2015)
- ■A catastrophe caused by climate change was seen as the biggest potential threat to the global economy according to a survey of 750 experts conducted by the World Economic Forum in 2016.
- □ Large impacts on fresh water resources



Business risks: Financial institutions

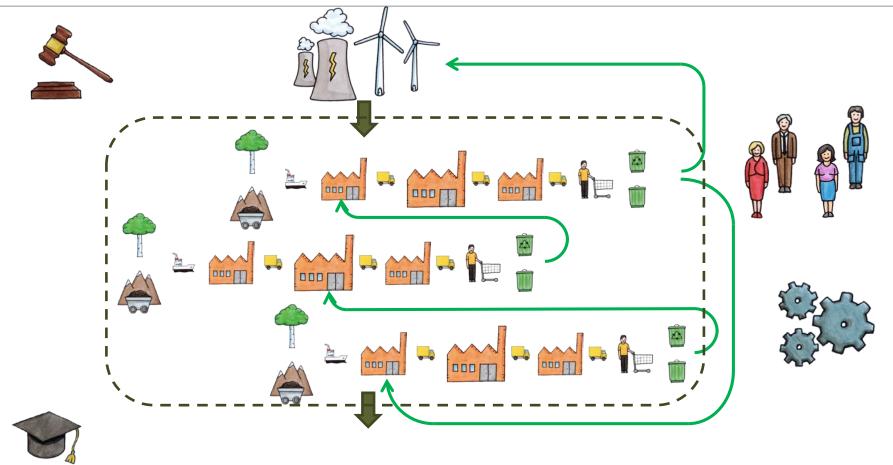


How do we view companies?





Companies in a societal context





AkzoNobel eye-opener: Carbon footprint of our products through the value chain

Raw materials

Upstream

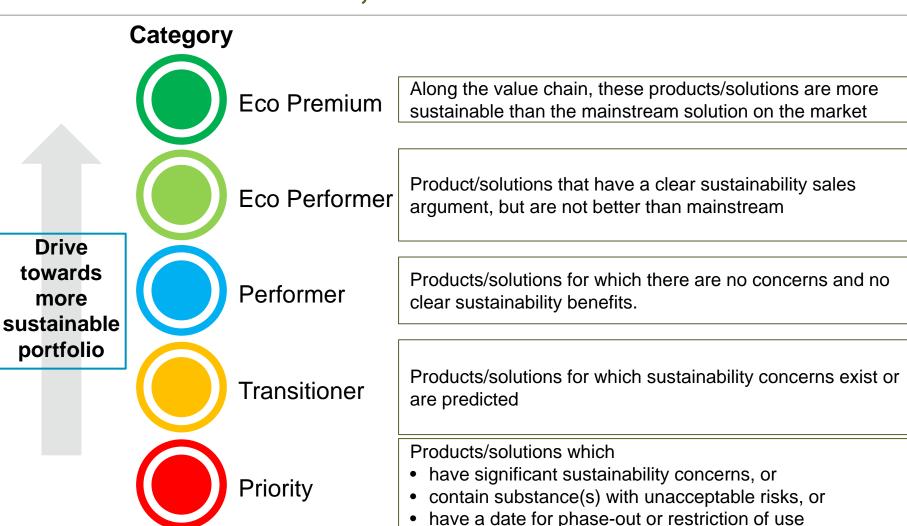
30% is own emissions 70% from energy use

Our operations

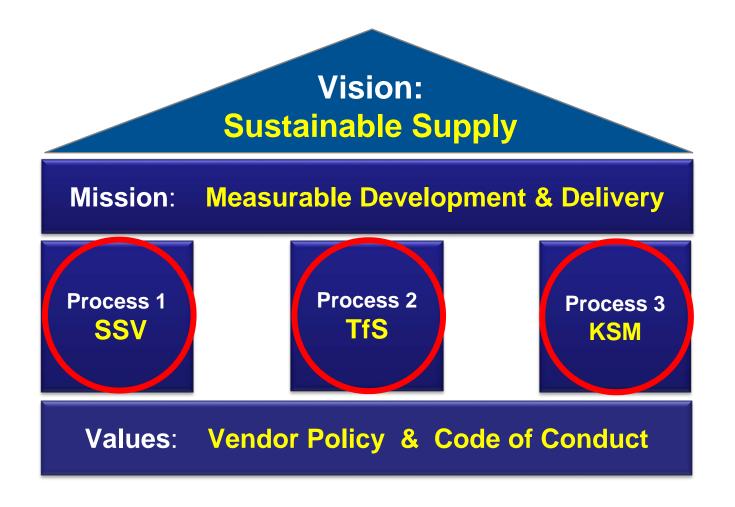
50% is customer application, 25% is end-of-life and 25% is VOC emissions

Downstream

Innovation process: Portfolio Assessment, based on WBCSD



Supplier Sustainability Framework



Sustainability assessment of investments >5 MEuro

3 stage gates:

- 1. Planning phase: Basic information high level information
- 2. Idea Phase: Sustainability Screening detailed information
- 3. Pre-project and design phase : Full sustainability assessment Ecoefficiency assessment + Carbon Pricing

1

Step 1: Basic information Perform during the planning phase, and update every 6 months for ExCo review of all future major CAPEX.

Responsible: Supply Chain Manager (as part of CAPEX) 2

Step 2: Sustainability Screening Performduring the idea phase, and use as a basis of discussion with AkzoNobel Sustainability.

Responsible: Project Manager of investment

3

Step 3: Full Sustainability Assessment Initiate during the study, and run through the pre-project/basic engineering design. The results shall be included in the full AR of the investment.

Responsible: Project Manager of investment

Follow-up

Initiate after one year of operations.

Responsible: Supply Chain Manager

Cooperation and trust is imperative!





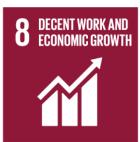


































Partnerships





























We need leadership!

We need visions!

We need BHAGs!

We need to be brave!

