



Science For A Better Life



## Sustainability at Bayer

Presented to:  
**ACCO Operation Supply Chain Workshop**

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## Disclaimer

**Forward-Looking Statements:**

This presentation contains forward-looking statements based on current assumptions and forecasts made by Bayer Group or subgroup management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual assets, financial position, earnings, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports, which are available on the Bayer website at [www.bayer.com](http://www.bayer.com). The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

**Important Information:**

The names "Bayer Schering Pharma" or "Schering" as used in this presentation always refer to Bayer Schering Pharma AG, Berlin, Germany, or its predecessor, Schering AG, Berlin, Germany, respectively.

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**108,400 employees**

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**Full year sales: EUR 31.2 billion**

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**302 subsidiaries**

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**R&D expenditures: EUR 2.75 billion**

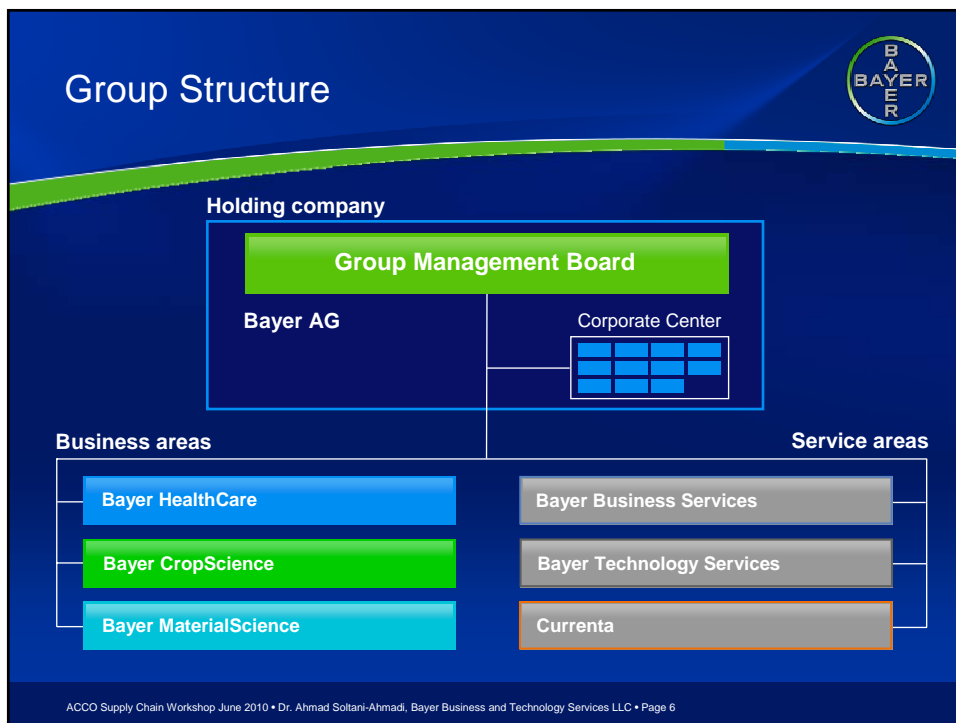
As of December 31, 2009

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## Business Areas



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## The Bayer Sustainability Concept


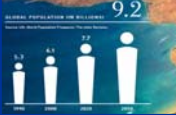



**Goal:** Successful and sustainable business in harmony with social objectives and needs

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## Challenges from Global Mega-Trends



<h3 style="text-align: center;">Longer life</h3> <p>Longer life expectancy results in increasing demand for innovative medicine and therapies</p>  <p>Ensure sufficient quality food supplies while acreage per capita is decreasing</p> 	<h3 style="text-align: center;">More People</h3> <p>Growth of population results in increasing demand for quality food, energy and medicine supply</p>  <p>Increase energy efficiency and supply alternative energy feedstocks</p>  <p>Reduce greenhouse gas emissions while economies are growing</p>
<h2>Food Supply</h2>	<h2>Climate Change</h2>

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## Examples of Leveraging Process, Product and Commercial Innovation to Address Global Challenges



- Novel crop protection solutions and improved crop varieties
- New solutions addressing urgent medical needs and improving health of humans and animals
- New applications for high-tech materials and optimization of processes
- Polyether synthesis with IMPACT catalysts
- Hydrochloric acid electrolysis for chlorine production
- Gas phase Phosgenation for TDI production
- Bayer Climate Check Tool
- Others

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## The Bayer Climate Check offers a climate-relevant decision-making basis for the design of production processes to complement the usual profitability calculations



- **Bayer Climate Check consists of two components**
  - Climate Footprint
    - A unique key performance indicator to assess climate impact of Bayer production processes
    - Relevant for existing units, current projects and future processes
  - Climate Impact Analysis
    - Systematic analysis of production and supporting processes
    - Generates a ranking of measures for all relevant processes/plants to achieve CO<sub>2</sub>e reduction potential identified by Climate Footprint
- **Review of 100 Bayer production sites and introduction of specific improvement measures**

**Bayer Technology Services will also offer the Bayer Climate Check to other customers**

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## Bayer Climate Program to Addresses Climate Change with Ambitious Reduction Targets until 2020

Global greenhouse gas emissions: Reduction 2005 to 2020

Maintenance of 2007 level of greenhouse gas emissions at Bayer Group up to 2020 according to today's estimates despite growth in production

<b>MaterialScience</b>	Reduction of specific greenhouse gas emissions by <b>25 %</b> per metric ton of sales product*
<b>CropScience</b>	Reduction of absolute greenhouse gas emissions by <b>15 %</b>
<b>HealthCare</b>	Reduction of absolute greenhouse gas emissions by <b>5 %</b>

Investment of €1 billion in climate-relevant R&D and other projects from 2008 to 2010

**Sustainability in procurement and supply chain are also key components of Sustainability concept and Bayer Climate Program**

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## Procurement is leading the carbon foot-print reduction from fleet. Overall the realized achievements are positive. Some countries require further reduction.

CO2 cap is still under negotiations


**Bayer Received the International Fleet Green Award 2009**

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## Sustainability and Network Optimization




- Bayer has been modeling its outbound network using linear modeling since 2001.
- Modeling provides supply chain efficiencies that positively impact both the environment and the bottom line.
- As linear modeling technology advances there is additional benefit in our abilities to both calculate and optimize GHG emissions.

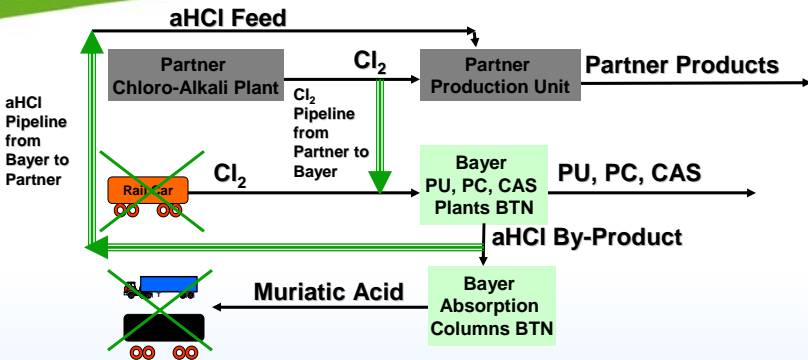


“We are aiming for Sustainability in everything we do.”  
 Werner Wenning.

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## Partner-Bayer aHCl-chlorine exchange deal via pipeline is a great example of the type of value or solution procurement and supply chain professional can deliver





... Improving safety, reliability and economy of supply while reducing HSE&Q risks and improving carbon foot-print – to be calculated.

- ✓ reduction of rail car and truck traffics for chlorine and muriatic acid
- ✓ reduction of water and energy consumptions for absorption columns
- ✓ reduction of water and energy consumptions due to lower capital investment

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## Questions for Discussions



- From sustainability perspective what is the best-in-class or optimal supply chain organization for a multi-national?
- How to engage executives with procurement and supply chain which are key levers for generating sustainable values?
- How to align organization structure in multi-national to ensure congruent organization and seamless execution especially with regards to procurement, logistic, facility and product development?
- How to develop NPV-based business case and risk analysis for sustainability initiative by properly monetizing collateral benefits of a project such as reputation, compliance, tax, etc?
- How to develop talent so as to enable business solution offering?
- Others?

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