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# Developing Internal and External Offset Projects

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# Solvay experience in European ETS

- ETS trigger strong MRV at each Solvay plant under ETS.
  - Robust Monitoring is essential for action on GHG emissions as well as industrial performance.
  - MRV allow clear understanding of Abatement cost Within Solvay sites.
- Action plan and at different ETS price levels:
  - 1) industrial improvements at ETS plant – technology deployment, energy efficiency
  - 2) operational arbitrage decisions (eg fuel switch)
- Identification of Internal emission reduction projects

# Solvay Energy Services to take advantage of offset opportunities

- ETS and Organizational Innovation: SES
  - In Solvay, ETS also meant Organizational Innovation and Partnership:
    - Solvay Energy Services a new specialized team in Carbon and Energy;
    - Partnership to complement in a strategic way our resources

Solvay partners  
with Société  
Générale in 2006

**Solvay join forces with Société Générale to add CO<sub>2</sub> trading and risk management** know-how to its technical competence: **unique combination** of industrial and financial expertise

Top player in CO<sub>2</sub>  
markets

Solvay's emission reduction projects portfolio and carbon trading activities expanded outside the Solvay group; in the period 2006 - 2012:

~ 680 Mt of CO<sub>2</sub> traded worldwide (CER+ERU+EUA)

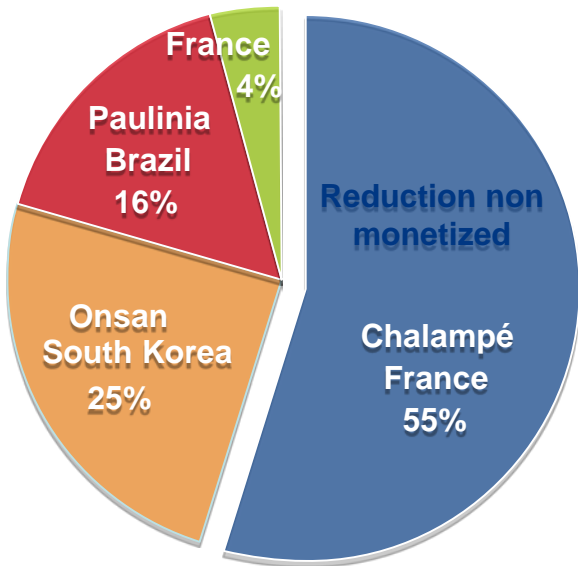
~ **7% market share** worldwide

# Solvay experience with offsets

- Offsets offer proactive companies opportunities to reduce emissions profitably outside the ETS plants :
  - Solvay used CDM and JI to make reductions not only at Solvay plants, but also at 3rd party plants.
  - EU-ETS platform enabled participants to hedge and trade in an efficient manner.
  - Diversified participants provided liquidity in the market

# Solvay, main internal reduction projects

Share of emission reductions by project



about 16 million CER/ERUs year

# Solvay Carbon Offset project facts

Energy efficiency in cement plant, China



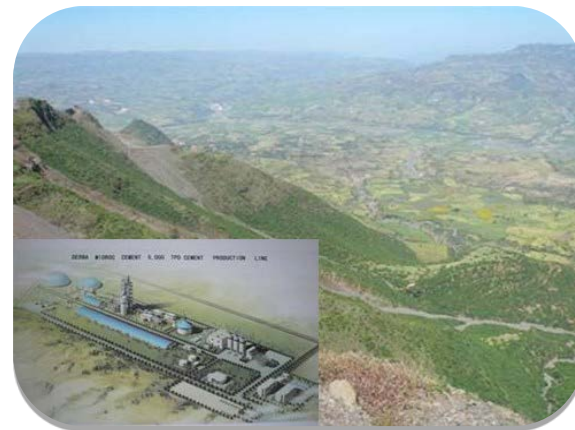
**62** External CDM projects, generating ca 7.5 M CERs/year

**4** Internal CDM projects, generating ca 14 M CERs/year

**2** Internal JI projects, generating ca 2 M ERUs/year

**1** Internal Offset project for California Cap&Trade, generating ca 120k ERs/year

Cement Raw materials Change, Ethiopia



Wind, Inner Mongolia, China



Biomass from bagasse, Mexico



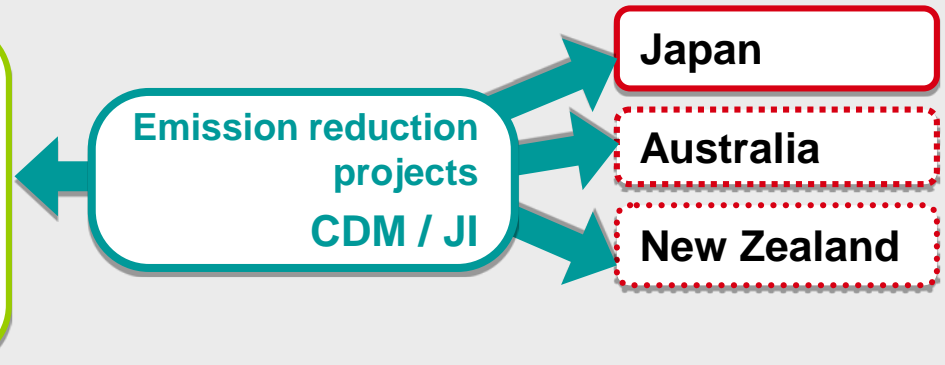
# Solvay committed to sustainable growth

## Kyoto Protocol- derived

- **Objective:** 5.2% drop all greenhouse gas emissions from 1990 levels in developed countries
- **Flexibility mechanisms:** CDM, JI, International Emission Trading (ETS)
- **Carbon currencies:** AAU, CER, ERU

### EU ETS Market

- **Objective:** 8% reduction in CO<sub>2</sub> emissions from 1990 levels in the EU at minimal cost
- **Players:** 5 industrial sectors
- **Carbon currencies:** EUA, CER, ERU



- Solvay is committed to further reduce green house gas emissions by 10%

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