

De sleutelrol waarmaken
ROUTEKAART CHEMIE 2012-2030
Fulfil the key role
CHEMISTRY ROADMAP 2012-2030

Innovative opportunities for
Green House Gas reduction

- Prepared by:
 - VNCI – Netherlands Chemical Industry Association
 - NL Agency – part of Ministry of Economics Affairs, Agriculture and Innovation



NL Agency
Ministry of Economic Affairs, Agriculture and
Innovation

Henk van den Berg



Roadmap for the chemicals sector:

- Produced as part of Multi-Year Agreement on Energy Efficiency (MJA3) + Multi-Year Agreement on Energy Efficiency for ETS Companies (MEE)
- Chemical industry goal: 40% reduction greenhouse gas emissions - GHE - 2005 to 2030 based on solutions in the roadmap
- Bottom-up approach ongoing and potential options for CO₂ eq reduction, input from companies, institutes and experts
- Authorities to cooperate



NL Agency
Ministry of Economic Affairs, Agriculture and
Innovation



Directions innovative GHE reduction

1. Sustainable products to be developed - **high**
2. Replacement of fossil fuels – renewables to chemical products – **middle potential**
3. Closure of the materials chain, e.g. post use recycling - **middle**
4. **Energy efficiency - including process intensification – high potential**
5. Carbon Capture and Storage or Usage – **high**
6. Renewable energy, development + application - **limited**



NL Agency
Ministry of Economic Affairs, Agriculture and
Innovation



Conclusions – chemical industry

- A key player as enabler of sustainable products
- For 2005-2012 a substantial contribution reduction energy + GHE
- Many projects ongoing + planned
- LCA can provide better insight in opportunities, also to quantify CO2 reductions
- **Process Intensification – results achieved + potential**



NL Agency
Ministry of Economic Affairs, Agriculture and
Innovation

<http://www.routekaartchemie.nl/>

