

# Authorization of TRI for Asphalt Quality Analysis

Best Practice Stakeholder Collaboration and  
Implementation of Chemical Leasing



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## The Speakers



# Joint industry approach for sustainable future

## Dr. Knut Johannsen

- Head of material testing at EUROVIA Services GmbH, Germany
- Head of the working group „asphalt technology“ within the German Asphalt Pavement Association (DAV) and chairman of the German Asphalt Institute (DAI)



## Steffen Saecker

- Business Manager at SAFECHEM Europe GmbH, Germany, a subsidiary of The Dow Chemical Company
- SAFECHEM provides Chemical Product Services for the safe and sustainable use of solvents



## Asphalt Industry



# German asphalt industry at a glance



**613**

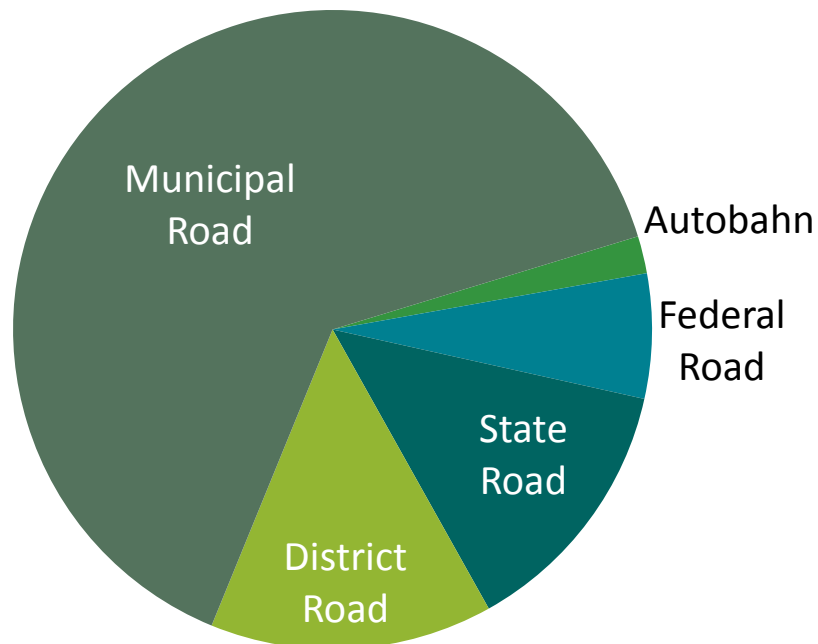
Asphalt Mixing  
Plants



**39 mio. tons**

Total Production  
of Asphalt Mix

## German Road Network



**687,548 km**

Total German  
Road Network



Appr.

**19,000**

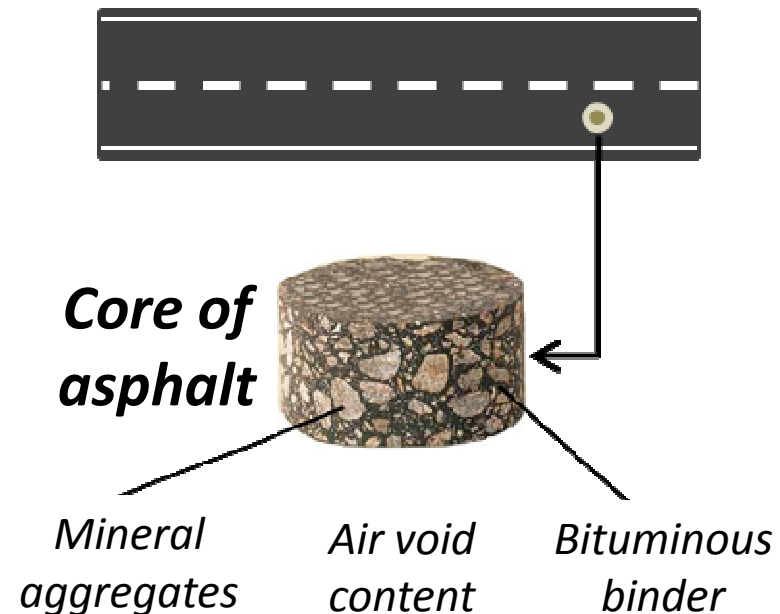
Related Jobs





# Asphalt quality assurance requires analysis

- Asphalt defined by composition
- Composition to be tested:
  - Prior to production
  - During production
  - Control after paving
- Trichloroethylene (TRI) as proven product of choice for asphalt extraction to analyse asphalt quality





Substitution Required



## Substitution of TRI needs time

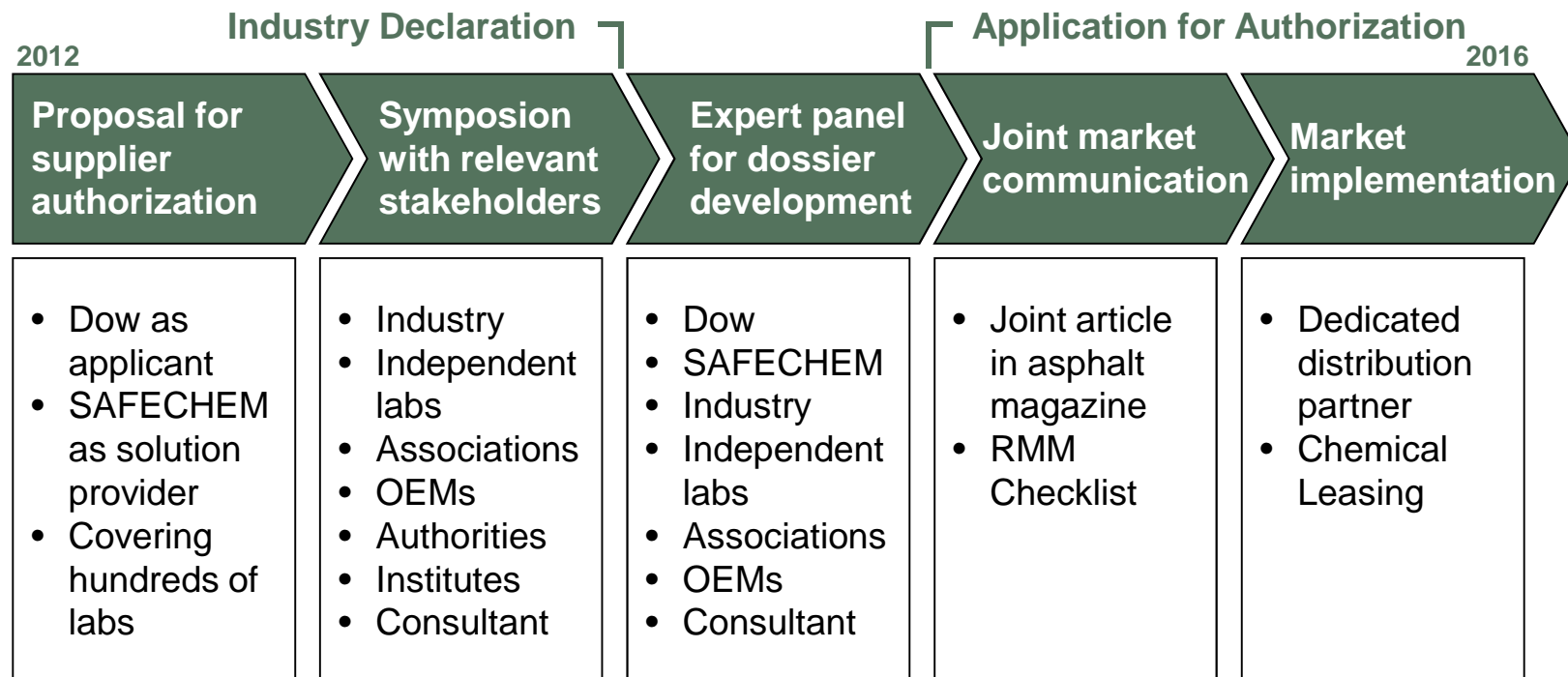
- TRI
  - Substance of Very High Concern (SVHC) – substitution required
  - Subject to Authorization under REACH (sunset date April 2016)
  - Specified in German Industry Norm for asphalt extraction
- Substitution
  - Research project supported by German government
  - Caprylic acid methylester as renewable solvent
  - Estimated implementation time of 10 years



## Industry Cooperation



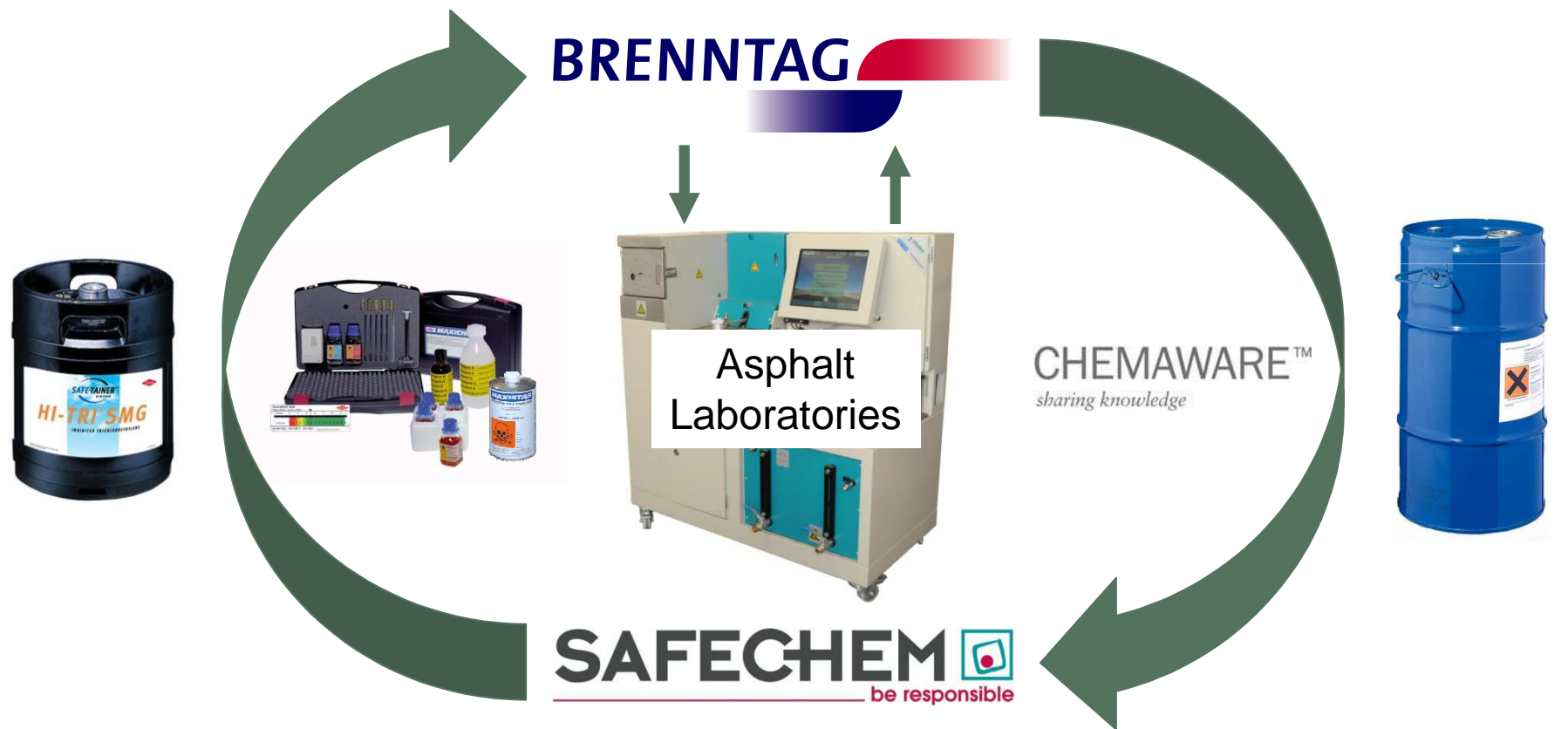
# Joint development of sustainable strategy



Closed-loop Solution



## Best practice risk management measures



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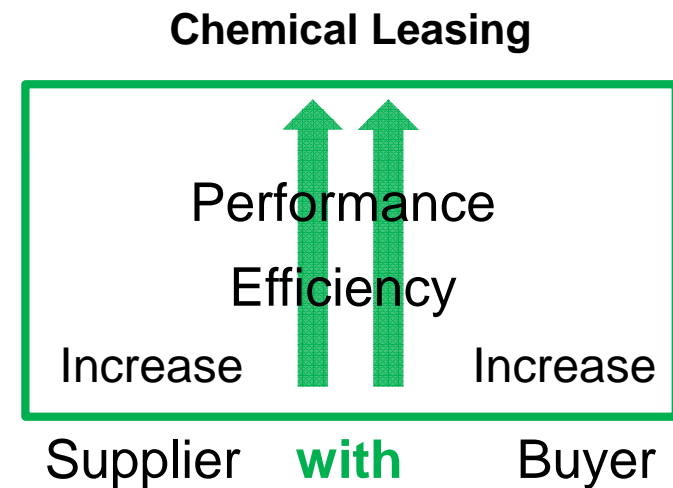
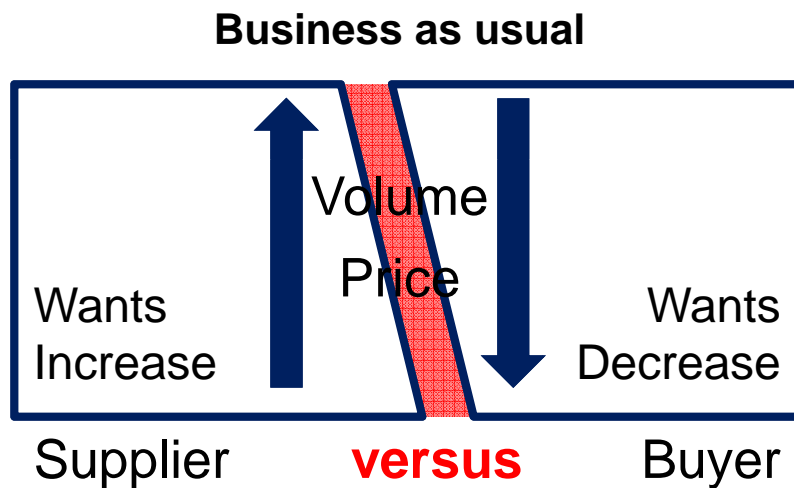
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be responsible

## Chemical Leasing



## Performance-oriented business model

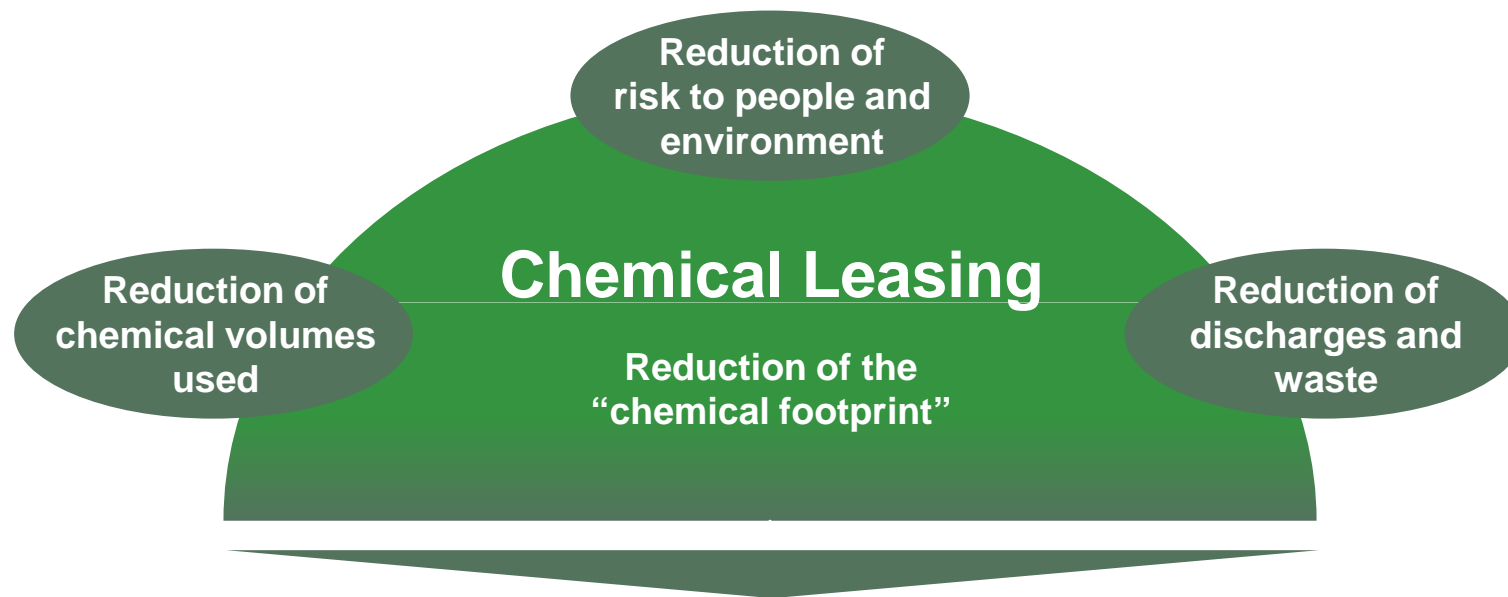




## Chemical Leasing



## Common goals of supplier and user



Supported by



Bundesministerium  
für Umwelt, Naturschutz  
und Reaktorsicherheit

Umwelt  
Bundesamt



lebensministerium.at



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Bundesamt für Umwelt BAFU  
Office fédéral de l'environnement OFEV  
Ufficio federale dell'ambiente UFAM  
Uffizi federal d'ambient UFAM





# Common goals with REACH



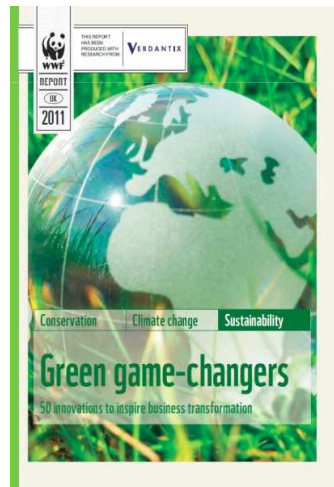
- Both intend to reduce the risks resulting from the use of chemicals
- Both intend to improve the industry's competitiveness through responsible manufacture and application of chemicals
- Both intend to create benefits from an intensified sharing of know how and information.
- REACH will boost Chemical Leasing for different reasons:
  1. Promotion of information exchange
  2. Higher recognized value of solutions for risk management

Source: [www.chemicalleasing.com](http://www.chemicalleasing.com)



## Awards and Studies

# Recognized as best practice model



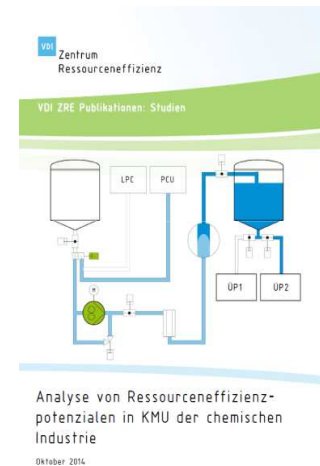
2011  
WWF



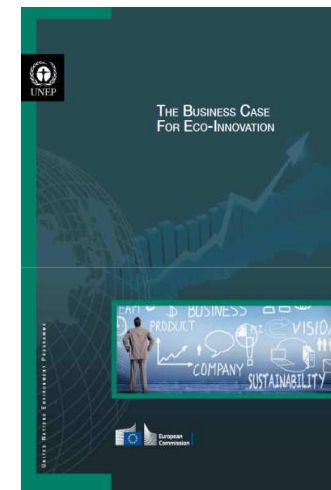
2012  
UNIDO/BMU



2013  
BMU/BDI



2014  
VDI



2014  
UNEP

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