



# Key Drivers for the Sustainable Transport of Chemicals

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# Major logistics and supply chain challenges



Pressure to reduce transport carbon footprint

More stringent regulatory requirements

Pressure to reduce costs

Customers demanding faster more agile supply chains

Need for better infrastructure

Increasing congestion

Need to further improve safety standards

Keep licence to operate



# Cefic SIG Logistics Member Companies





# Cefic Logistics: Vision & Mission

## Vision



- ◆ The chemical industry is managing its supply chains in such a way that it is at the forefront of logistics development, safety and sustainability, offering a competitive edge in the global environment.

## Mission



- ◆ To identify and prioritise key logistics opportunities and challenges for the chemical industry, including societal and political issues and developments, and to develop and steer a strategy and action programme to address these, taking into account legal, political and company boundaries.



# Cefic Logistics: Objectives

- **Promote cost effective, safe and sustainable logistics, supporting the chemical industries' Responsible Care Programme.**
- **Develop and promote industry best practices.**
- **Advocate the chemical industries' position in relation to legislative and regulatory initiatives.**
- **Benchmark the performance of the chemical industry over time and evaluate the impact of initiatives undertaken so far.**
- **Identify and evaluate societal issues and developments.**

# Cefic Logistics Priority Areas



## Best Practices

Cargo Securing  
Learning from Accidents  
RailTech  
Transport Equipment  
Driver Treatment & Waiting Times

## Policy & Regulations

Transport Regulations  
Maritime & Barge Transport Safety  
Vehicle Weights

## Promotion & Communication

Promoting Best Practices

## Services and Systems

SQAS  
Transperanto  
ERICards  
ICE  
Emergency Response

***Priority issues are currently being reviewed by the Cefic Strategy Implementation Group (SIG) Logistics***

# Main Cefic achievements to date



## Development of Best Practice Guidelines

- Behaviour Based Safety (BBS)
- Logistics performance reporting
- Driver shortage
- Driver waiting times
- Transport equipment
- Security of transport



## Managing SQAS

- A world class assessment system for LSP's:
- 6 SQAS modules
  - 70 accredited assessors
  - 3,000 assessments
  - 16,000 consultations



## Advocacy of chemical industry positions

- Dangerous goods regulations
- European transport policy
- Cargo securing
- Vehicle weights (44T)

# ECTA, a Responsible Care Partner of Cefic

- *A commitment to continuous improvement of the chemical transport industry*
- *Additional agreements with other sectors (cleaning stations, warehousing) should be reached in the future*



**Responsible Care**<sup>®</sup>  
OUR COMMITMENT TO SUSTAINABILITY

**SOLVAY**



*Passing Responsibility  
along the chemical value chain*

SOLVAY SA

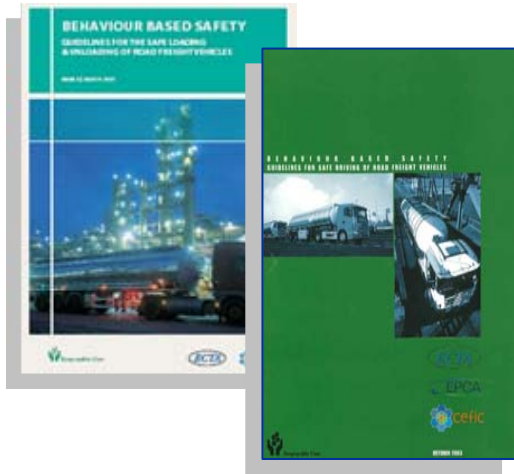


# Cefic Best Practice Guidelines



## Behaviour Based Safety (BBS)

Vehicle driving & Loading/discharging



## Logistics performance reporting



## Transport equipment



## Security of transport

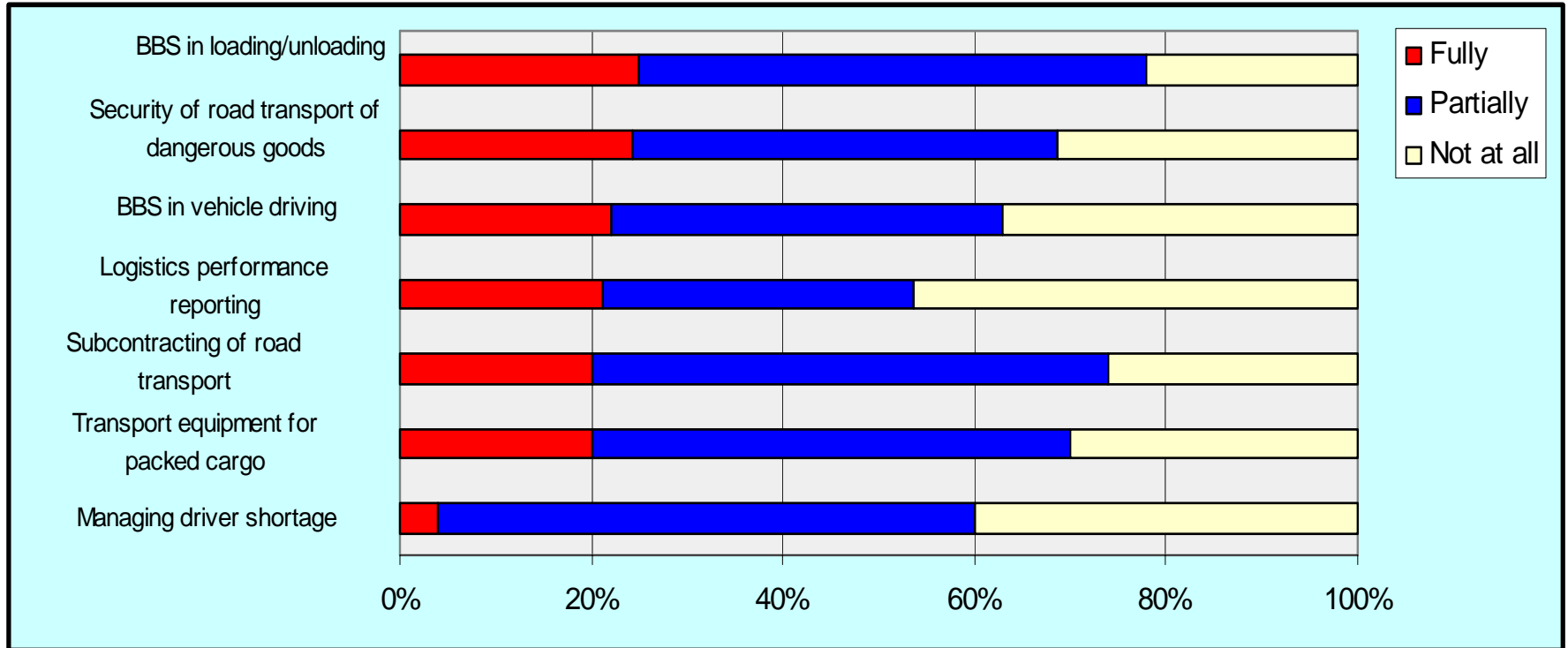


## Driver shortage & waiting times



\* Developed in co-operation with ECTA

# Implementation of best practices by Cefic member companies



“To which level have the Cefic logistics best practices been implemented in your company?”

**SOURCE: Cefic member survey, May 2009**

# SQAS

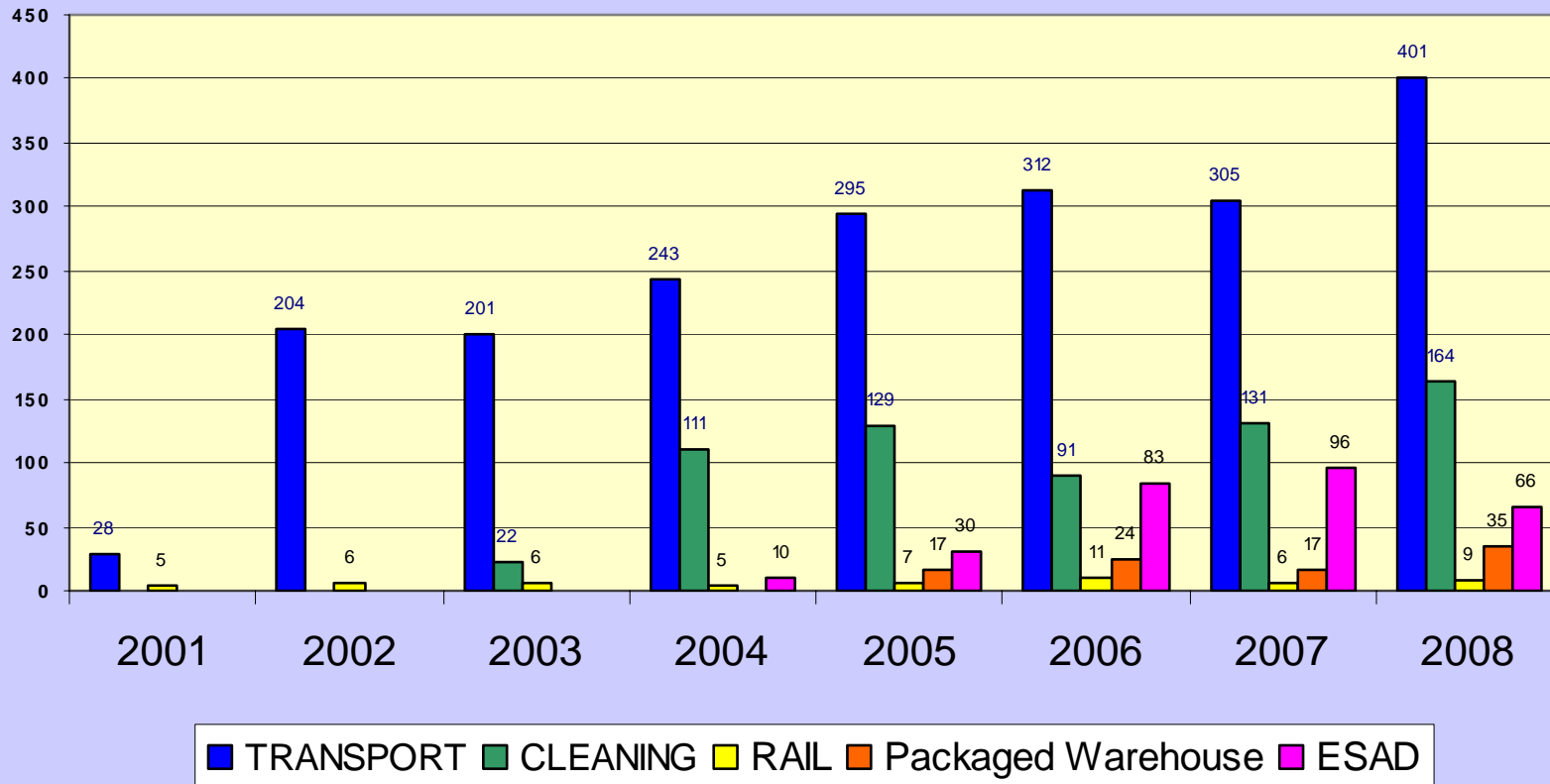


- ◆ A system to evaluate the quality, safety, security and the environmental performance of Logistic Service Providers and Distributors in a uniform manner by single standardised assessments carried out by independent inspectors
- ◆ Common industry questionnaires
- ◆ Training, accreditation and quality monitoring of assessors
- ◆ Electronic database of assessment reports
- ◆ SQAS Service Group of chemical companies
- ◆ Drives continuous improvement of standards
- ◆ Cost effective: single evaluation instead of individual assessments



# Number of SQAS assessments

Number of SQAS assessments on the database per module / per year



Total of 3357 assessments in the SQAS database

# SQAS Service Group

## 42 member companies

Albermale Europe Sprl

Afton Chemical Sprl

Air Liquide SA

Air Products & Chemicals Inc.

Akzo Nobel

Arizona Chemical AB

Arkema

BASF SE

Bayer AG

Borealis Polymers

BP Chemicals

Celanese Chemicals Europe GmbH

Clariant International

Dow Europe S.A.

DSM

Dupont

Eastman Chemical

Evonik

ExxonMobil Chemical

F. Hoffmann-La-Roche Ltd

Hunstman Holland BV

Ineos

Infineum

Lanxess Deutschland GmbH

Lucite International UK Ltd

LyondellBasell Industries

Odyssey Logistics Europe

Perstop AB

Petresa

Polimeri Europa

Procter & Gamble

Repsol Quimica

Rhodia

Sabic EuroPetrochemicals BV

Shell Chemicals

Solvay S.A.

Syngenta Ltd

Tessenderlo Chemie N.V.

Thermphos International B.V.

Total

Total Petrochemicals

Wacker Chemie AG

# Cefic Logistics: Advocacy



## International Regulations for the Transport of Dangerous Goods

- Cefic's objective is to ensure that the regulations stay in line with best industry practice, avoiding over-regulation. Cefic promotes international and intermodal harmonisation of the regulations.



## European Transport Policy

### Specific topics of special interest to the chemical industry including

- Securing of packed cargo on road vehicles
- Vehicle Weights and Dimensions: increase of the authorized vehicle weights to 44 tonnes for road transport and 50T for intermodal transport

# Carbon footprint of chemical transport



- ◆ Increased pressure on transport to reduce its environmental impact in the future through
  - Internalisation of external costs
  - Road charging schemes
  - Emission trading schemes
- ◆ Many actions already taken to increase transport efficiency and safety which had a positive effect on environmental performance
- ◆ CEFIC is looking at
  - Measures to decrease carbon footprint of chemical transport
  - Methodology to measure and assess CO<sub>2</sub>
    - ◆ Collaboration of Professor Alan McKinnon)

# Key drivers for sustainable transport in Solvay



- ◆ Safe and sustainable transport is critical for the Chemical industry; we **MUST** balance profitability with environmental and societal impacts

**Profitability**  
Competitive, Reliable &  
Efficient transport

**Society**  
Safety & Security  
Regulations  
Drivers



**Environment**  
Carbon footprint  
Pollution  
Congestion



# Key drivers for sustainable transport in Solvay

## ◆ Good news

- The 3 objectives of sustainability are not incompatible!
- Transport costs reduction frequently goes alongside with minimizing environmental and societal impact ...

## ◆ Key drivers for environment

- Reduce distances by optimizing sourcing of products
- Increase payload (advocate for maximum authorized weight)
- Avoid transport having our main customers located in our plants!
- Measure and reduce carbon footprint of transport (with a common method)
- Increase intermodal/rail/river share to reduce road congestion (as long as it is economical!)

# Key drivers for sustainable transport in Solvay



## ◆ Key drivers for safety

- Set up specific management systems for transport of hazardous materials and rigorous audit; target is 100% SQAS suppliers
- Reduce or seek alternatives to road transport for hazardous substances: railways, waterways, pipelines
- Closely monitor all transport accidents and corrective actions
- Use of an international service – Carechem24 – to provide assistance in the event of an accident/incident
- Provide training for drivers in case of self-loading
- Implement CEFIC best practices when applicable
- And ... strive for operational excellence!

**We certainly have come a long way, when it comes to safe, reliable and efficient transportation ...!**



**... and we still have to work on making our chemical logistics even safer, more reliable, efficient and thus more sustainable!**



a Passion for Progress<sup>®</sup>