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Pipelines, a key logistics asset for the Chemical industry

08-09-2016

Agenda

The chemical industry in Belgium/Europe

The importance of pipelines for the chemical industry

Chemical industry and life sciences in Belgium, a major economic player

Key figures 2015

- Turnover: € 64.3 billion
- Direct employment : 88,700
- Indirect employment: 150,000
- Investments: € 1.93 billion
- R&D expenditures: € 3.6 billion
- Trade surplus: € 21.1 billion



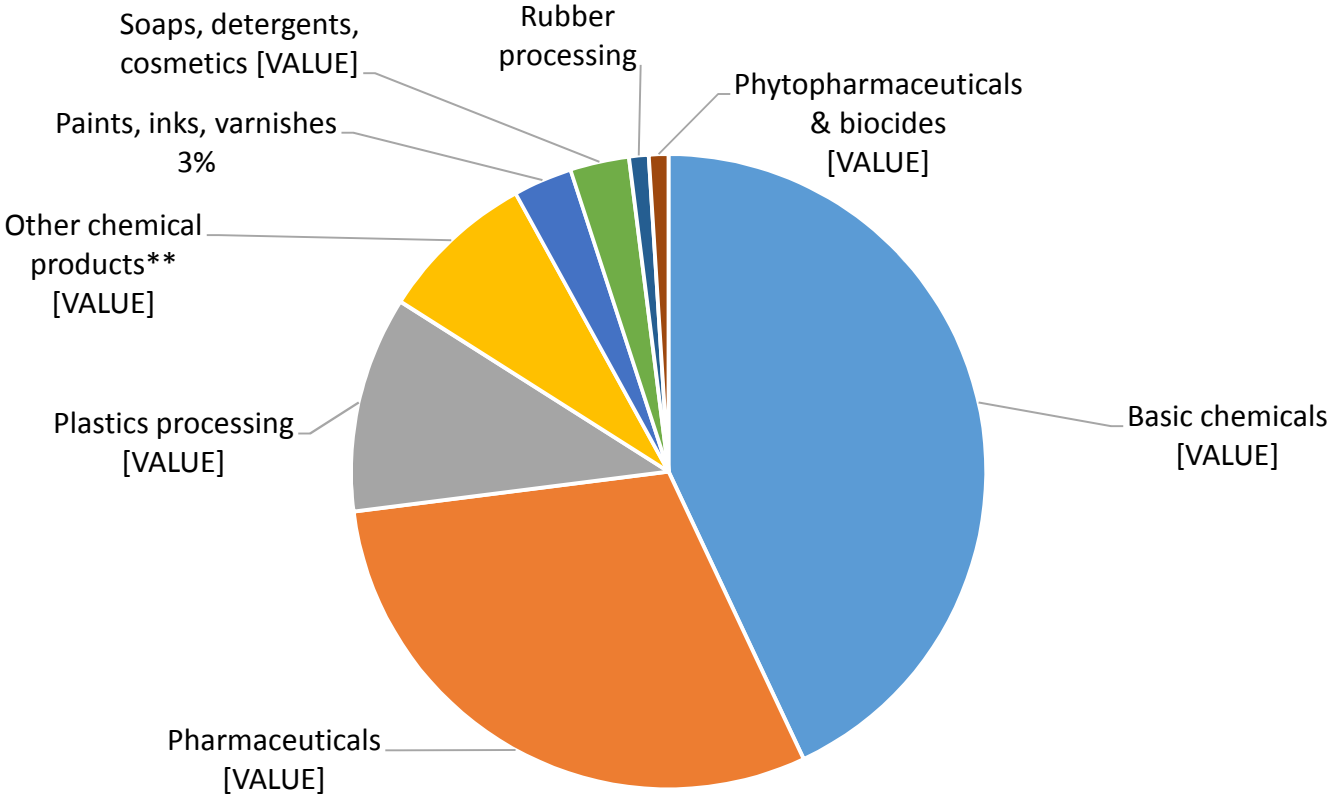
A homogenous and integrated sector



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Turnover by sub-sector in 2015 ***



Source: DG Statistics based on VAT returns

* Including industrial gases, dyes, fertilizers, basic organic and inorganic chemicals, polymers

** Including synthetic fibres, adhesives, essential oils, chemicals for the photographic industry

*** Based on core business



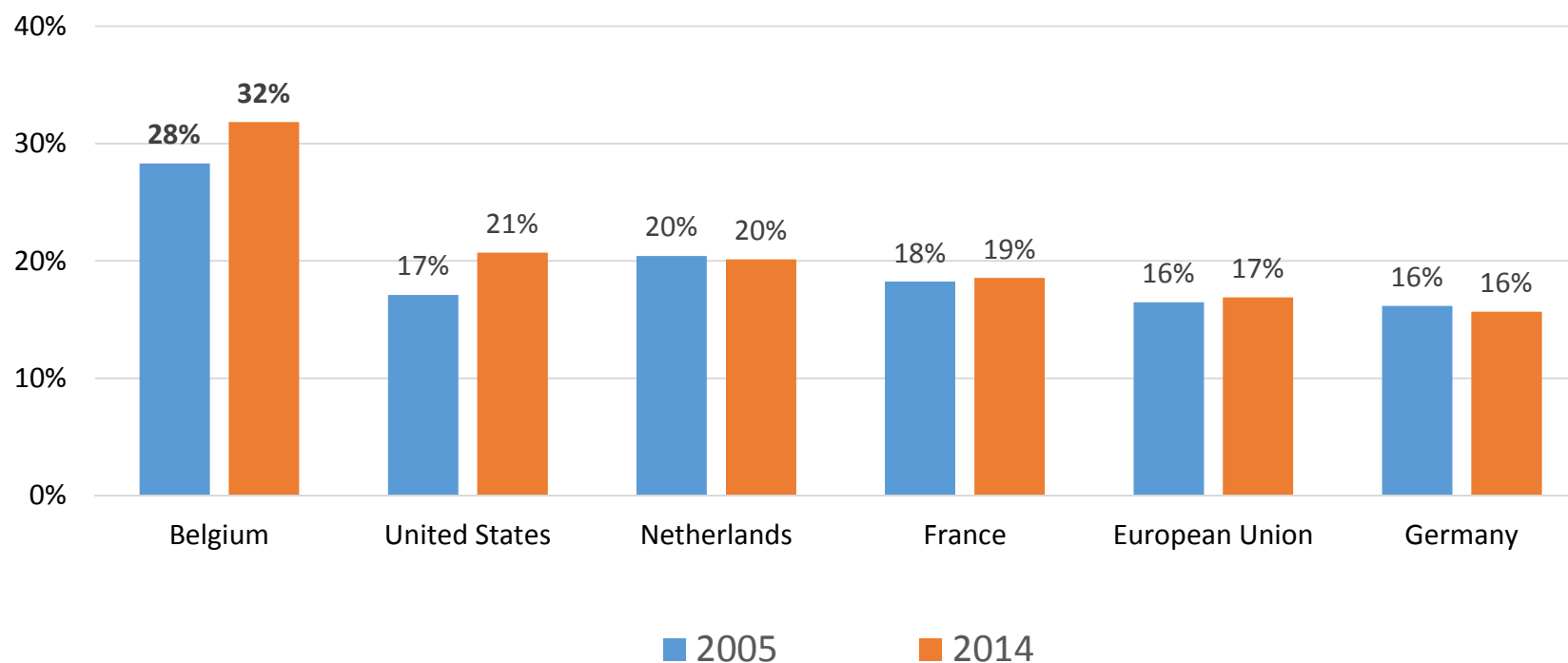
A powerful industrial player in Belgium



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Share of chemicals and life sciences in the total added value of the manufacturing industry



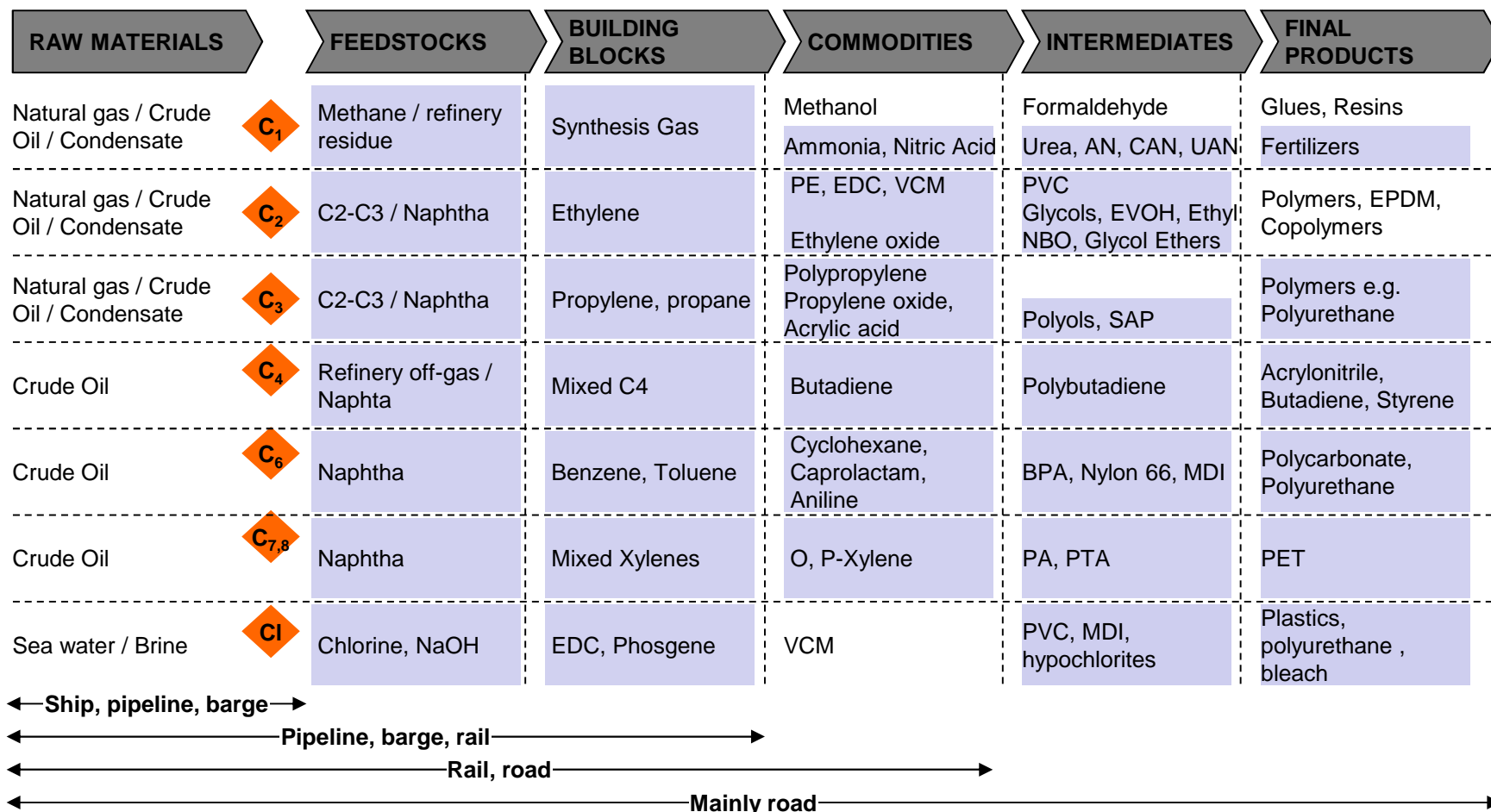
Source: NBB according to national accounts (value added based on SEC 2010), Eurostat (national accounts); Bureau of Economic Analysis (www.bea.gov) for US, Germany and EU data: estimate based on 2013 figures

The high level of integration and diversity across the value chain is unique in the world



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Synergies in energy, process integration and logistics offer world class cost effectiveness



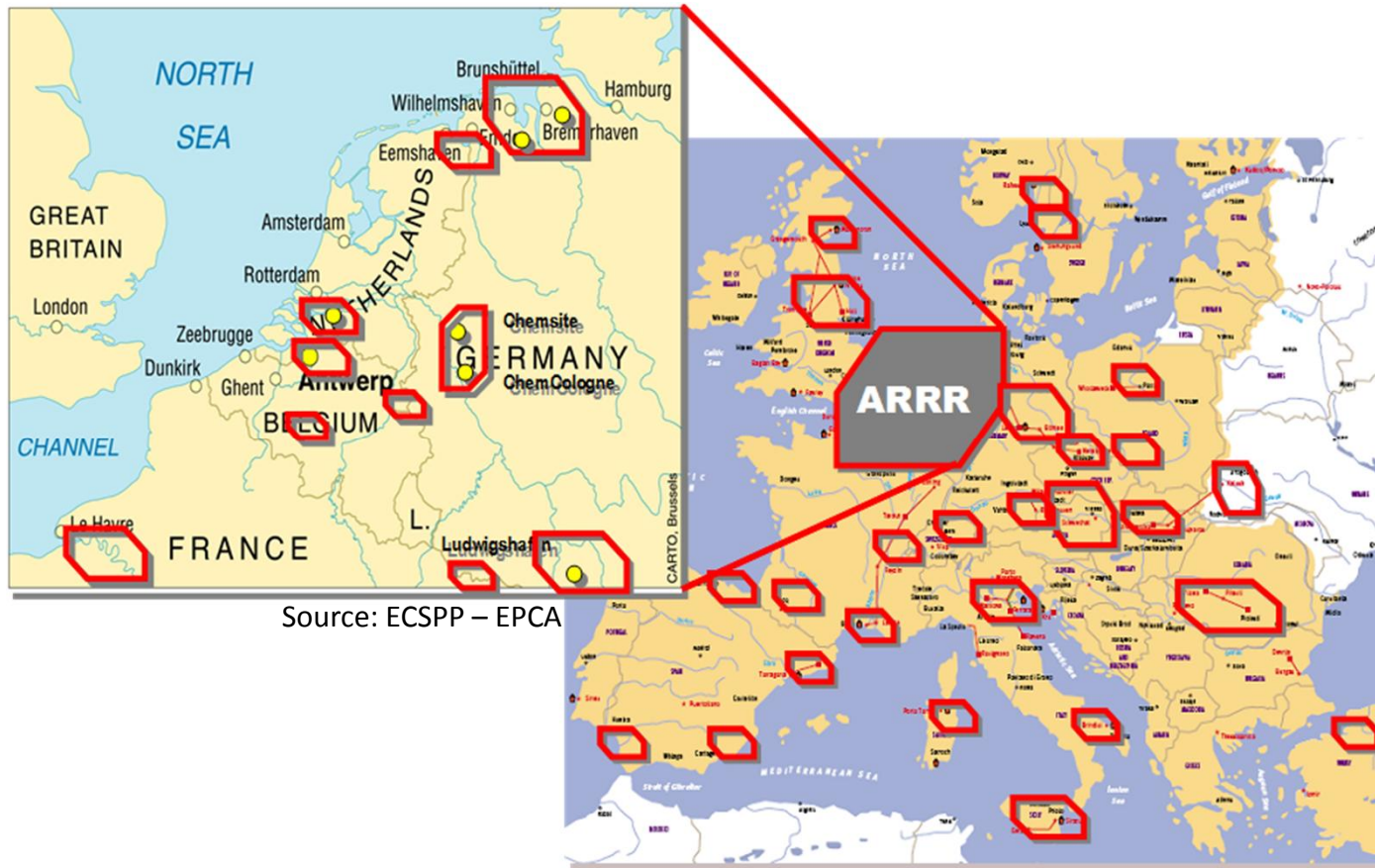
■ items are produced in the cluster

The largest concentration of chemical industry is located in the Antwerp-Rotterdam-Rijn-Ruhr region



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Source: ECSPP – EPCA

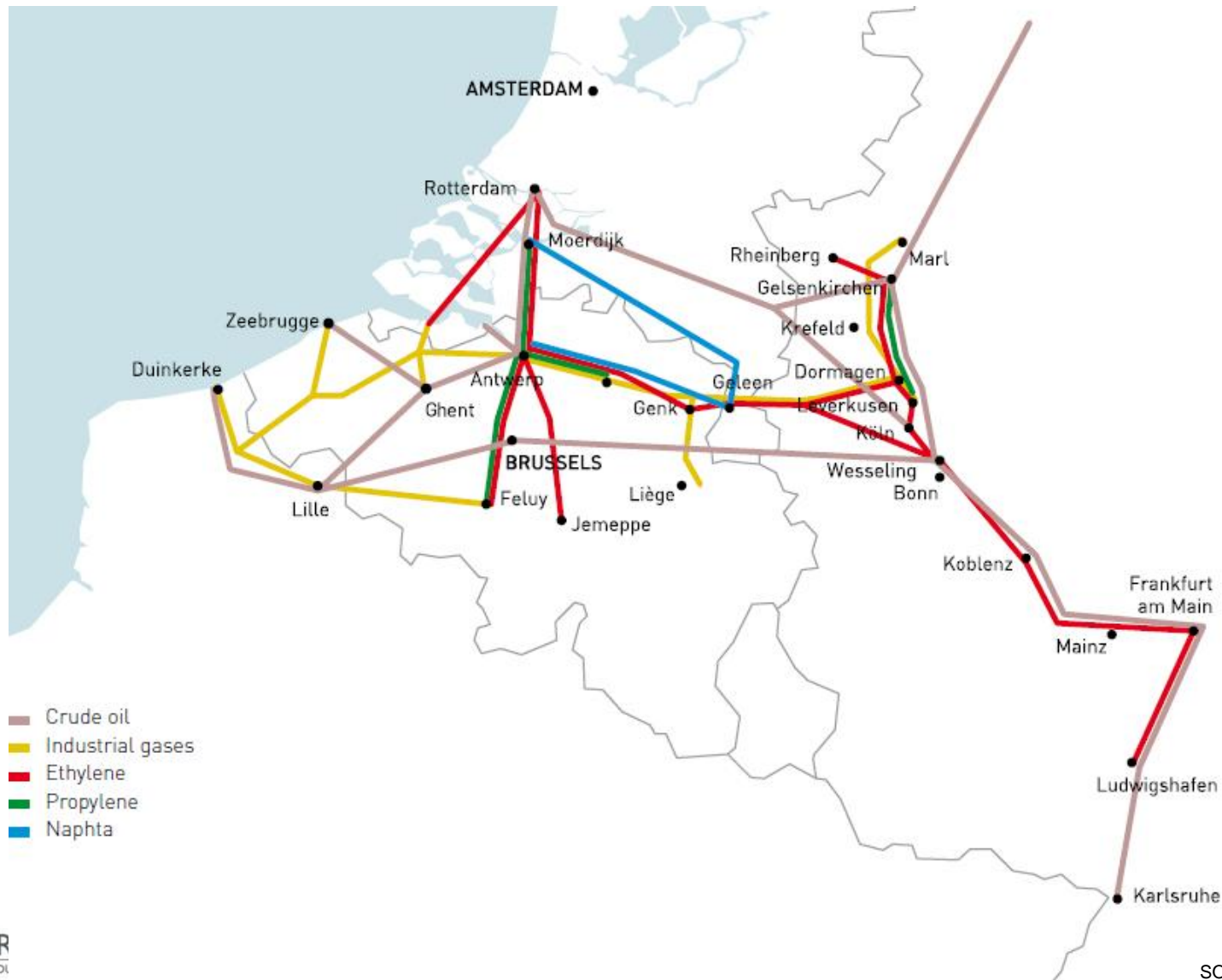
The strength of this mega chemical cluster (ARRR) lies in excellent hinterland connections and closely interwoven activities

A dense pipelines network which connects regions in Western Europe and ensures direct access to feedstocks



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SOURCE: EPCA

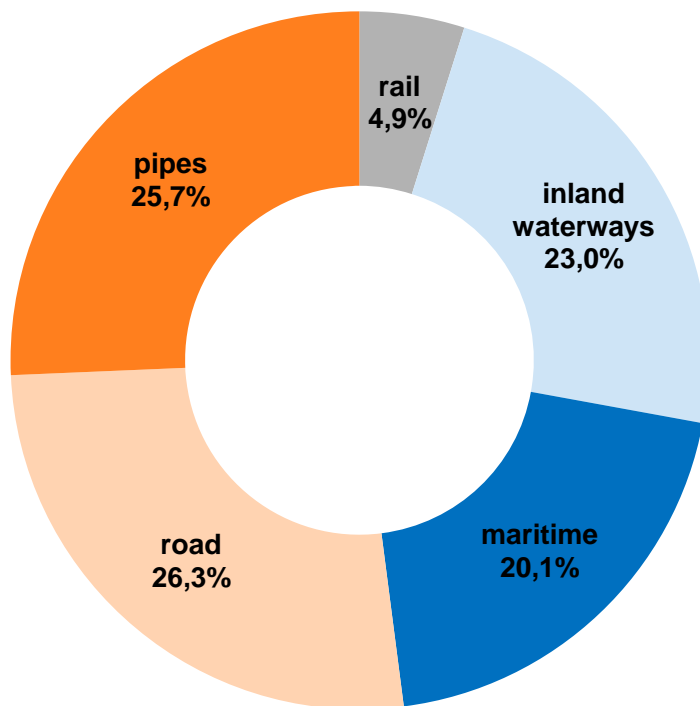
With more than 25% of the volume transported pipelines are a very important mode of transport for the Belgian chemical industry



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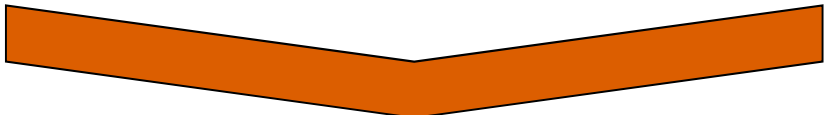
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Transport activities of the chemical and life sciences industry:
modal breakdown for 2011 by volume



■ About 22,5 millions tons chemical products transported by pipelines

Raw materials also by pipelines



1,1 millions tankers off the road each year

SOURCE: Statistics Transport SPF Economy (except pipelines); FETRAPI (pipelines)
calculations essencia



Pipelines are safe, cost-effective, environmental friendly means of transport



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- Pipelines **relieve** road **congestion**

Pipelines are virtually **invisible** and therefore do not pollute the landscape

Pipelines are much **safer** than any other means of transport

Pipelines are very **energy efficient**

Pipelines keeping noise nuisance and **environmental pollution** (CO₂, NO_x, ...) to a **minimum**



Pipelines are of strategic importance for the (petro)chemical industry



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• Good and efficient pipelines network helps companies to **increase and optimize** their **capacity** utilization level

Pipelines allow **smooth/secured supply** of energy and feedstocks (e.g. natural gas, ethylene, naphtha)

Pipelines ensure **integration** at product level as well as in the field of energy, technical gases and utilities

Pipelines enable the European chemical industry to be more cost-efficient and thereby help the chemical industry to resist competition with regions where energy, raw material and labour costs are significantly lower