FEDERCHIMICA
CONFINDUSTRIA

Policy Advisory Group
ChemMultimodal Project:

Regional, National and European Policies for a sustainable chemical logistics

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Federchimica

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CHEMICAL INDUSTRY IN EUROPE

Lombardia: a region with a strong chemical vocation

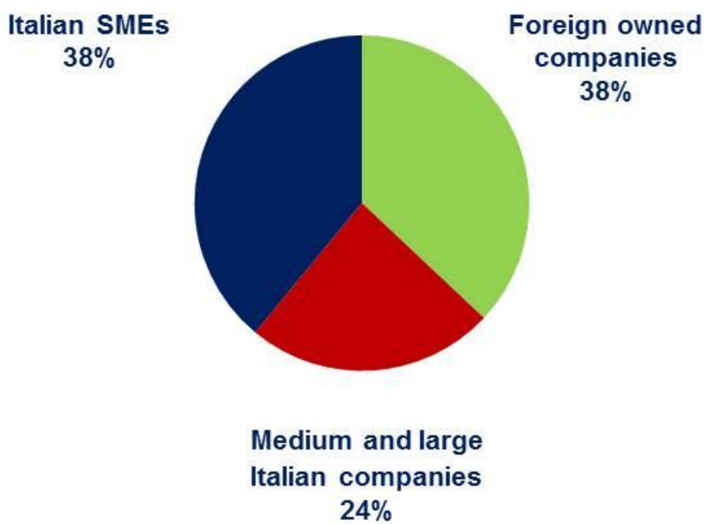
Number of chemical and pharmaceuticals employees

1. Nordrhein-Westfalen (DE)	121.884
2. Hessen (DE)	68.914
3. Bayern (DE)	68.563
4. Lombardia (IT)	**67.667**
5. Rheinland-Pfalz (DE)	67.366
6. Baden-Württemberg (DE)	65.416
7. Cataluña (ES)	49.878
8. Île de France (FR)	43.470
9. Vlaams Gewest (BE)	40.475
10. Rhône-Alpes (FR)	36.004

Source: calculations on Eurostat, Istat, INSEE 2014

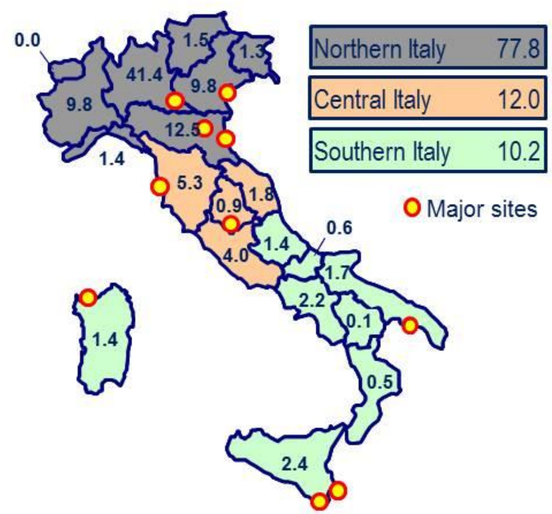
CHEMICAL INDUSTRY IN ITALY

Distribution of Italian chemical production



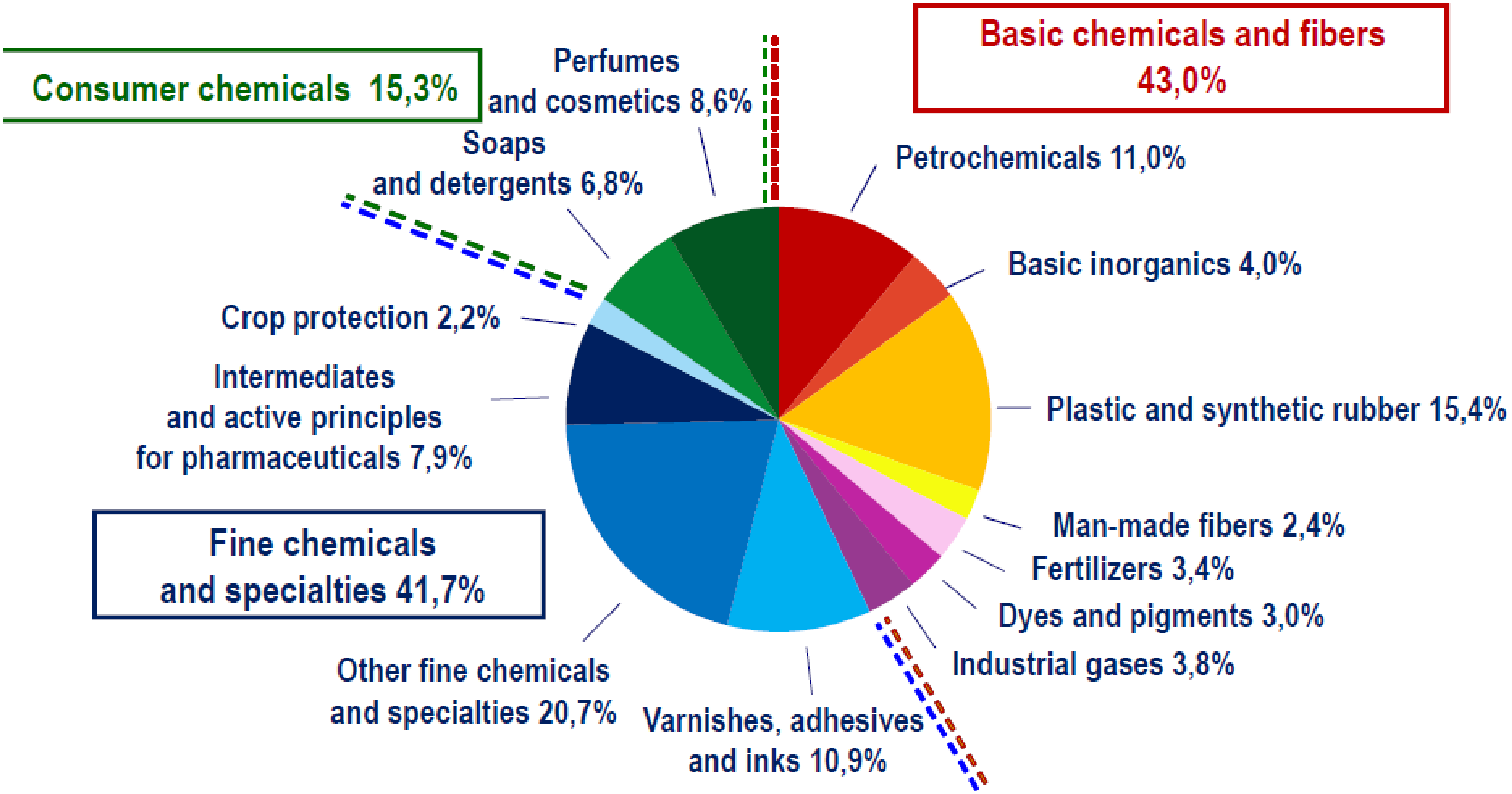
Note: large companies are those with world sales above 100 million Euros
Source: Federchimica, 2016

Distribution of chemical employment and major sites



Note: chemicals excluding pharmaceuticals
Source : Federchimica, Istat 2014

CHEMICAL INDUSTRY SECTORS



Note: excluding pharmaceuticals

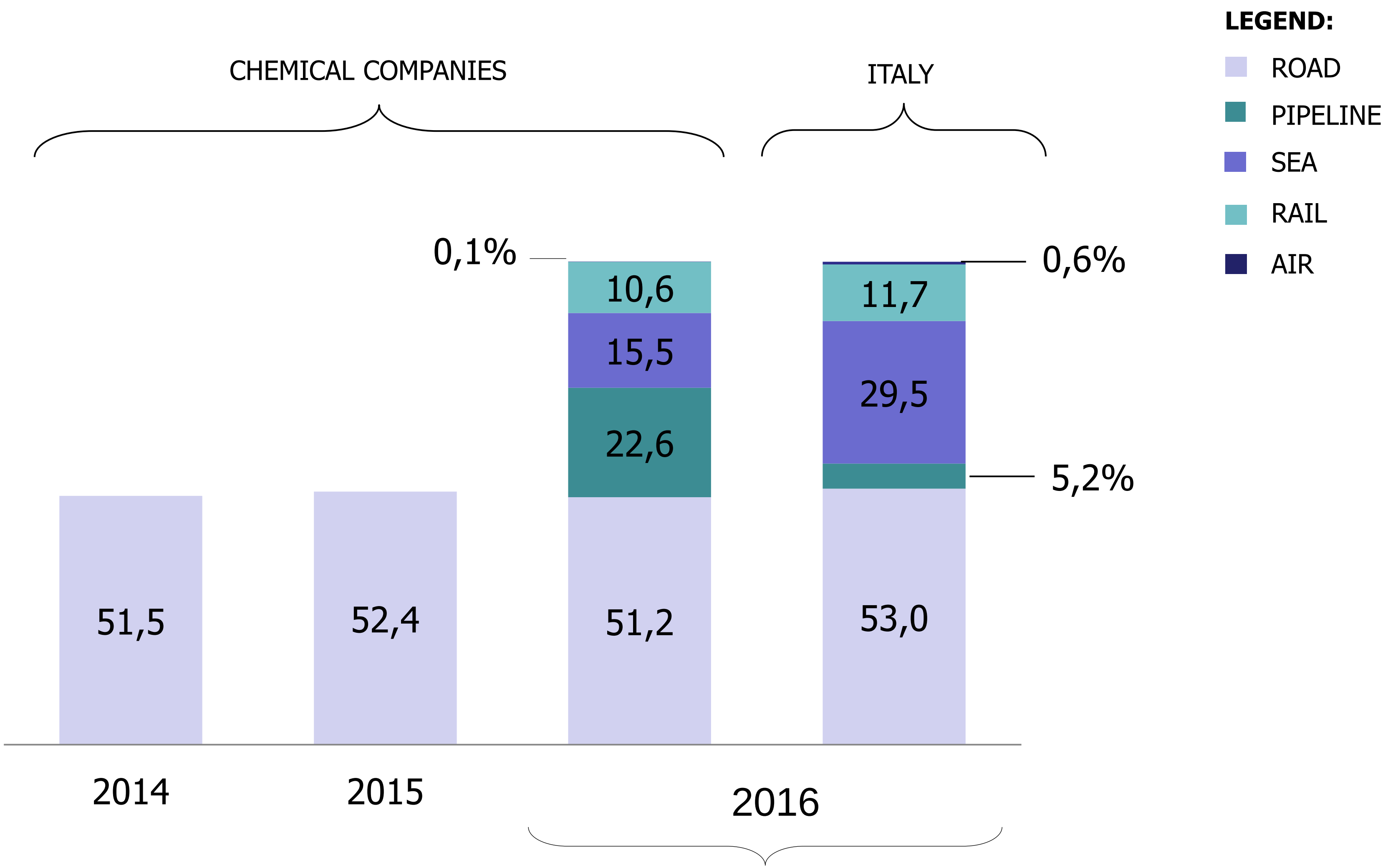
Source: Federchimica on Istat, year 2014

TRAFFIC OF CHEMICALS FROM AND TO ITALY

BILLIONS OF EUROS	Import	Export
North Africa	372,5	785,6
America	1.198,9	2.309,4
Asia	4,207,2	3.513,8
Europe	28.832,5	18.405,7
Middle East	1.297,1	1.033,5
Total	**34.667,5**	**25.513,9**

SOURCE: Istat, Anno 2013

DISTRIBUTION OF MODES OF TRANSPORT IN ITALY



SOURCE: Federchimica - Responsible Care; Ministero delle Infrastrutture e dei Trasporti.

CHEMICAL LOGISTICS

TYPES OF CHEMICALS	TRANSPORTATION MODE	CHARACTERISTICS
The basic chemistry produces the fundamental constituents of the supply chain for downstream chemical companies. It covers about 42% of Italian chemical production.	pipeline and rail are used too	It is a sector made up of a limited number of large producers. It can handle «difficult» products: chemicals that require particular attention during the transport, storage and handling phases. Companies are often willing to focus on security, the possibility of storage and skills to the detriment of costs and procedures. Request for reliability in deliveries to customers. It is a traditional logistics.
The fine and specialized chemistry accounts for about 43% of the total, is very complex and provides all the other industrial sectors with highly differentiated intermediate goods able to guarantee the desired performance.	Road and sea prevail	It depends on the value of the products: Chemical products with high added value: they are products that travel in small quantities, but with a huge economic return. For this type of product, given the large profit margin, road transport has minimal impact, preferring "target oriented" solutions (customer-built model). Chemical products with low added value: the cost of transport significantly affects the cost of the product and therefore the best mode of transport ("cost oriented") must be carefully assessed. Request for flexibility.
Detergents and cosmetics, as well as some types of paints and varnishes, are intended for the final consumer and represent the remaining 15% of production.	Road is mainly used. Air transport is also used for these sectors.	Products in general with low risk. Attention to the aspects of marketing and eco-sustainability. Most products are high added value

CRITICAL ISSUES FOR INTERMODALITY

ISSUES	COMMENTS
Infrastructural deficiencies, especially if dedicated to dangerous goods	Lot has been done in the last past years (ferrobonus, marebonus, RFI investments, etc.) but still: there are difficulties in maintaining private railway sidings; Lack of added value services within the intermodal terminals
Restrictions on dangerous goods (Severe restrictions on single wagon traffic; blocks for some goods as chlorine and fluorine by rail)	Some private rail companies are trying to revamp single wagon transport.
Magnitude and resonance of eventual event, even if rare (e.g. Viareggio by rail; Flaminia by sea)	From these events derive restrictive and anticompetitive regulations
High costs for logistics compared to EU (+ 25%)	we lose competitiveness
Longer time and higher costs for multimodal transport compared to road	companies must have the commitment for the modal shift
Conflicting regulations between neighboring European countries.	In many cases these regulations have stimulated the supply chain towards an improvement in performance, guiding it towards innovative solutions and more sustainable choices.