The chemical industry is always in motion. Increasing consumption and innovation contribute to this, next to the fact that the industry is always searching for new products, materials and solutions due to scarcity of inputs.

This report reviews the trends and developments in the chemical and chemical distribution market. It should give a high-level insight in the global dynamics of the chemical and chemical distribution markets and its players.

The first chapter reviews the chemical landscape starting with an overview of global chemical production by region. Then we zoom in on the European market where we take a look at top chemical producing countries, market share, employment and types of chemicals that are produced. Finally, we take a closer look at the Dutch chemical market.

In the second chapter we focus on the chemical distribution market. Again, starting from a global perspective. The main topics are market size, growth drivers, trends and developments, the position of chemical distributors in the value chain and key industry players both internationally and in the Netherlands.

The chemical distribution market is highly fragmented where an estimated 10,000 distributors are serving end-users for their chemical needs. However, we see increasing levels of consolidation and record breaking levels of M&A activity in 2014. Chapter three is therefore devoted to global M&A activity in the chemical and chemical distribution market and why we observe increasing levels of M&A activity. Also, private equity firms are very active in acquiring and selling chemical distribution companies.

We believe the chemical (distribution) market in the Netherlands is a very attractive market since in the Netherlands the cooperation between chemical companies, universities and the government is very strong. Next to that, the geographical location of the Netherlands as a gateway into Europe, combined with the high levels of infrastructure and the attractive investment climate, will remain to attract investors.
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1 Chemical market
World
Europe
Netherlands
Global chemical market is dominated by China

Global chemical sales were EUR 3,156 billion in 2013

- **Rest of Europe** includes Switzerland, Norway, Turkey, Russia, and Ukraine
- **North American Free Trade Agreement (NAFTA)**
- **Asia excluding China, India, Japan, and South Korea (Rest of Asia)**
- Chemical industry excludes pharmaceuticals

* Rest of Europe includes Switzerland, Norway, Turkey, Russia and Ukraine
** North American Free Trade Agreement
*** Asia excluding China, India, Japan and South Korea

Source: Cefic
European chemical market sales were EUR 527 billion in 2013

Majority of European chemical sales is generated in 7 countries

- Employment level: 1.16 million people
- Import: EUR 369 billion (35.3% of global export)
- Export: EUR 431 billion (42.5% of global export)

European sales nearly double while global market share halves

- EU chemical sales
- % of global chemical sales

Petrochemicals face a sharp decline in 2013

- Majority of European chemical sales is generated in 7 countries
- Employment level: 1.16 million people
- Import: EUR 369 billion (35.3% of global export)
- Export: EUR 431 billion (42.5% of global export)

Other countries:
- UK 6.8%
- NL 9.6%
- DE 28.4%
- FR 14.9%
- IT 9.6%
- ES 7.4%
- BE 6.9%

European chemical market sales were EUR 527 billion in 2013

Petrochemicals and specialties make up half of European sales

Source: Cefic
The Dutch chemical market is one of the largest in Europe

Overview of the Dutch chemical market

- After a struggling 2014, production volumes increased by 4% and export increased by 1.3% in the first quarter of 2015. Sales in the Dutch chemical market equal almost EUR 50 billion annually.
- The Dutch chemical market...
  - ... is one of the largest producers in Europe and belongs to the global top;
  - ... is one of the top sectors ("topsectoren") in the Netherlands;
  - ... employs 44,000 people (57,000 including pharma);
  - ... has a share of approx. 19% in the Dutch industrial sector;
  - ... is part of the ARRRA (Antwerp-Rotterdam-Rhine-Ruhr-Area);
  - ... has a favorable business climate due to availability of resources and infrastructure;
  - ... is highly innovative and spends almost EUR 1 billion in R&D annually;
  - ... is spread across six key regions.

Sales and production growth are under pressure

The Netherlands is net exporter of chemicals, mainly within the EU

Sources: VNCI, CBS
2 Chemical distribution market

World

Market leaders

Netherlands
Global chemical distribution markets grow continually

Chemical suppliers have 4 channel-strategy options

1. Key account manager
2. Regular account manager
3. Commercial account manager
4. Third-party sales

- Value buyer: relationship focused
- Price buyer: transaction focused

Growth is driven by emerging economies (CAGR 2008 – 2013)

- North America: 2.6%
- Western Europe: 1.6%
- Central and Eastern Europe: 6.0%
- China: 10.2%
- Middle East and Africa: 10.2%
- Latin America: 8.6%
- Rest of Asia-Pacific: 10.1%

Third-party chemical distribution market reached EUR 168 billion

- The market is categorized into commodity and specialty segments.
- **Commodity chemicals** are produced and consumed in bulk, with relatively transparent pricing and limited variation among suppliers.
- Estimated market size of EUR 97 billion with CAGR of 6.2%.
- **Specialty chemicals** are typically produced in smaller volumes and are, in many cases, proprietary formulations that customers use in specific applications.
- Estimated market size of EUR 71 billion with CAGR of 7.0%.
- Growth is largely driven by the underlying growth of chemical consumption, which averaged 4.4% annually between 2008 and 2013. Additionally, the share of outsourced to third-party distributors rose from 9.1% to 9.7% during the same period.

Third-party distribution is expected to grow steadily

- CAGR 6.5%
- CAGR 5.6%

*Assumed stable Euro exchange rates since 2008

Source: BCG
There are many roles that chemical distributors can have

Chemical distributors play a critical role in matching supply and demand

Added value by chemical distributors

- Purchase
- Transport
- Storage
- Filling
- Packing
- Labeling
- Mixing
- Blending
- Formulating
- Extensive
- Technical
- Support
- Vendor-
- Managed
- Inventory
- Bundling
- Transport
- Chemical
- users

- Chemical
- producers

Other distribution models are logistics only (do not take ownership of the product) and trading companies (do not provide value added services)

Fragmentation and consolidation

- Top companies dominate specific markets but there are few global powerhouses.
- North America is the most consolidated market, with the top three players collectively holding a 30% to 40% market share, followed by Europe where the top three holds between 15% and 20%.
- Asia is the largest chemical distribution market and also the most fragmented with the top three players collectively holding a 6% to 10% market share.
- Market share of the three largest distributors globally increased from 12.5% in 2011 to 13.3% in 2013.
- Consolidation is driven by preferred partnerships, regulation (e.g. REACH in Europe) and M&A.

Chemical distribution market remains highly fragmented

Third-party chemical distribution market is valued at EUR 168 billion

Sources: BCG, Brentntag
Global leaders in chemical distribution

Leading chemical distributors by region based on 2013 sales

**Global top 10**

- BRENNTAG
- UNIVAR
- HELIT
- nexeo solutions
- IMCD
- ICC
- Blisterfeld
- Jepsen & Jessen
- azelis
- STOCKMEIER CHEMIE

**North America**

1. UNIVAR
2. BRENNTAG
3. nexeo solutions
4. HELIT
5. IMCD

**Europe**

1. BRENNTAG
2. HELIT
3. UNIVAR
4. IMCD
5. STOCKMEIER CHEMIE

**Asia**

1. BRENNTAG
2. BM
3. HELIT
4. ICC
5. ICC

**Middle East and Africa**

1. PETROCHEM
2. Protea
3. ICC
4. REDA Chemicals
5. SOLVOCHEM

**Latin America**

1. BRENNTAG
2. HELIT
3. quantIQ
4. Manuchar
5. MCassab

Source: ICIS
Dutch chemical distribution market

Top 5 Dutch chemical distributors (2013 sales in million EUR)

1. IMCD 1,233
2. BARENTZ 880
3. CALDIC 726
4. Ecem 144
5. will & co 86

- There are large (multinational) players active in the Dutch market but also many smaller independent players.
- The large number of relatively smaller players is the result of the many niches and roles chemical distributors can have.
- Adding value to chemicals and transporting them to the hinterland and beyond is a specialty of the Netherlands.
- Chemical distributors are located near the large chemical regions in the Netherlands, such as the Rotterdam harbor, as presented on page 7.
- Companies benefit from the geographic location and infrastructure of the Netherlands as the gateway to the rest of Europe.

Sources: ICIS, ChemAgility
3 M&A activity

Chemical companies
Chemical distributors
Private equity
After a strong 2014, M&A levels even further boosted in Q1 2015

Rebound in global chemical M&A

- Global chemical deals reached unprecedented levels in 2014.
- Cross border M&A activity is rising in terms of both deal value and volume.
- Asia led in total deal volume in the first quarter of 2015 with 122 deals.
- North-America saw the largest deals, with an average deal value of more than EUR 167 million.
- 4 Megadeals (deals valued over USD 1 billion) in the first quarter of 2015 are collectively valued over EUR 8.2 billion or almost 60% of total deal value.
- Compared on a year-over-year basis there was a slight increase in both deal value and volume in the first quarter of 2015.
- Financial investors are becoming more involved in chemical deals, responsible for more than 30% of deal volume in the first quarter of 2015 compared to less than 15% in 2013.

Both deal value and volume are rising

<table>
<thead>
<tr>
<th>Year</th>
<th>Deal Value</th>
<th>Number of Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>10</td>
<td>15</td>
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<td>60</td>
</tr>
<tr>
<td>2014</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

USD / EUR = 0.90

Sources: ICIS, Deloitte, PWC
The chemical distribution market shows a strong increase in M&A

M&A will be a decisive part of chemical distributor’s growth ambitions

- Despite ongoing consolidation, the chemical distribution market remains extraordinarily fragmented.
- The market is characterized by a diverse set of players and a wide range of capabilities.
- Consolidation is needed since companies need to enhance their value proposition to customers with products, capabilities and scale, leading to opportunities abound for companies with strategic and global expansion plans.
- Nexeo’s M&A strategy is, for instance, aimed at a strong strategic fit the with target whereas Brenntag continues to make mid-sized acquisitions with high synergy potential globally.
- China and the rest of Asia, as well as other emerging markets become more attractive as the distribution model is evolving from slightly transactional to value-added.
- Companies like IMCD and Brenntag, for example, made 14 and 11 acquisitions respectively in emerging markets from 2008 to 2013.

“The industry needs to consolidate”
David Bradley, CEO Nexeo Solutions

“We see ourselves as a consolidator”
Steve Holland, CEO Brenntag

Main reason for M&A is to enter new geographies


Deal size (2013 – 2014, EUR)

Upwards trend of M&A activity

Sources: ICIS, Deloitte, PWC, FECC
Private equity invests heavily in chemical distributors

Many of the leading distributors are or were owned by private equity

- **Azelis** was bought by Motion Equity Partners in 2003 and subsequently sold in 2007 to 3i Group. In February 2015 Apax Partners announced the acquisition of Azelis from 3i Group.
- Riverside acquired **Drex-Chem** in December 2014.
- Sagard Private Equity Partners acquired **Safic-Alcan Group** from Parquest Capital in October 2014.
- Bain Capital also held **Brenntag** in its portfolio from 2004 until 2006 when they sold their stake to BC Partners. BC Partners exited Brenntag via an IPO in 2014.
- **Univar** was acquired by CVC Capital Partners from Dutch HAL Investments in 2007 and sold a minority stake to Clayton, Dubilier & Rice in 2010.
- **TPG** acquired **Nexeo Solutions**, formerly part of chemical producer Ashland, in 2010.

Why private equity gets involved

1. Fragmented market with ample room for consolidation
2. Economies of scale
3. Movement from a relationship business to a quantity business
4. Availability of large deals
5. Specialized market
6. High return on investment

- The chemical market has very similar dynamics as the chemical distribution market.
- Private equity will also get more involved in emerging markets.

Strategy of private equity

- **Initial investment**
- **Efficient capital structure**
- **Operational improvement**
- **Expansion (e.g. buy and build)**
- **MBO / MBI**
- **Carve out**
- **Public to private**
- **Exit**
  - **IPO**
  - **Financial buyer**
  - **Strategic buyer**

Source: Journal of International Management Studies
4 IMAP DB&S

Industry expertise
About IMAP DB&S
Contact information
IMAP has ample experience in the chemical distribution market

References

Univar, one of the world’s leading distributors of industrial and specialty chemicals, acquires Brazilian distributor Arinos, a leading distributor of specialty and commodity chemicals.

Quimitenica.com, one of the most important chemical industry players in Portugal and active in the distribution of chemicals, acquires Cofarcas, a chemical distribution company from Spain.

Overlack, a leading European chemical distributor from Germany, acquires EURO-Sarm to become the second-largest distribution company dealing with chemical products in the Czech Republic.

The management of Warwick International Holdings, the UK based producer of chemicals and specialty distributor, completed a buy-out backed by Close Brothers Private Equity.

Bunzl, a international distribution and outsourcing group, acquires Clean Care, one of the leading players in the market for cleaning supplies and equipment from Denmark.

Source: IMAP
More than 2,100 transactions during the last 10 years

IMAP global coverage

- Argentina
- Belgium
- Bosnia and Herzegovina
- Brazil
- Canada
- Chile
- China
- Croatia
- Czech Republic
- Denmark
- Egypt
- Finland
- France
- Germany
- Hungary
- India
- Ireland
- Italy
- Ivory Coast
- Japan
- Mexico
- Montenegro
- Morocco
- Netherlands
- Norway
- Peru
- Poland
- Portugal
- Kosovo
- Russia
- Senegal
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States
- Vietnam
About IMAP DB&S

**IMAP DB&S profile**

- IMAP DB&S is an independent corporate finance boutique with experienced professionals and a combined track record of more than 200 successfully finished transactions.
- IMAP DB&S, located in Rotterdam and Amsterdam, is entrepreneurial and solution-oriented.
- The team of IMAP DB&S includes five partners which together bring over 100 years of experience in M&A, refinancing, valuations and business excellence to the Dutch market.
- Services cover a wide range of corporate finance services, including financial and strategic advice, prior and during all types of M&A transactions.
- Focus is on medium to large, national and international M&A transactions with a transaction value of EUR 5 to EUR 250 million.
- IMAP DB&S has one registered valuator; member of the Dutch Association for register Valuators (NIRV).
- In 2011, IMAP DB&S established a China Desk for Chinese parties that want to do acquisitions in Europe and particularly in the Netherlands.
- IMAP DB&S is the exclusive partner of IMAP in the Netherlands. IMAP is the world’s leading and largest international network of M&A advisors in the segment of medium-sized companies.
- The team has a strong and extensive network in a variety of sectors.
- IMAP DB&S brings the right skills and “hands on” seniority at the table, as well as a flexible approach in these rapidly changing times and circumstances.
- A totally independent and entrepreneurial advisor, not affiliated with other parties and without conflicts of interest.

**Recent transactions by IMAP DB&S**

- **AGRO Merchants Group**
  - Warehousing and distribution
  - Alpharetta, USA
  - Acquired 100% of the shares in ADB Cool Company
  - Warehousing and distribution
  - ’s Gravenzande, Netherlands
  - Advised the Seller

- **Hansol**
  - Paper Producer
  - Seoul, South Korea
  - Acquired Telrol B.V.
  - Label Printer
  - Almere, The Netherlands
  - Advised the Seller

- **Van Bunningen Woerden**
  - Automotive Retailing
  - Woerden, Netherlands
  - Acquired the activities of Schakel Autogroep
  - Automotive Retailing
  - Utrecht, Netherlands
  - Advised the Buyer
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