

4 DECADES OF PERMANENT CHANGE IN THE CHEMICAL INDUSTRY - HOW M&A CONTRIBUTES TO INNOVATION AND GROWTH



Dr. Uwe Nickel

*by Dr. Uwe Nickel & Artur Maibach,
Proventis Partners*



Artur Maibach

ProventisPartners.

► *The First Wave - Transformation Through Environmental Protection and Globalization*

More than 40 years ago, the world of the chemical industry began to transform, driven by environmental protection requirements that were the result of a series of accidents: Seveso in 1976, Bhopal in 1984, Schweizerhalle in 1986. This led to a widespread and international change in environmental awareness and initial product shifts in the chemical industry. "Innovation" meant not new molecules, but the same ones with reduced environmental impacts.

Then, in the mid-80s, the 'New Normal' swept over the European dye industry, as Chinese copy-cats began flooding the European market, the unrest and rethinking continued in European boardrooms. Decades of "distributing" chemical products that enjoyed long patent protection came

to an end - in addition to the new environmental requirements. However, it took almost another decade for this to truly be reflected in the strategies of companies. It was simply inconceivable that significantly cheaper products, which just about met quality requirements and mostly came to Europe through distributors, could become competitive - environmental protection remained a local to regional issue. All of this didn't come out of nowhere because much know-how about dyes and pigments was transferred to Asia through Russia as part of reparations after World War II. The concept of "good enough quality" circulated even among customers who realized that various products also worked with cheap raw materials from Asian and Indian sources - the dam was broken, and as a result, the textile dye industry - one of the cornerstones of the chemical industry - firstly migrated to Asia.



Figure 1: Producer Price Index Germany – Chemicals (Source: Destatis)

As a consequence, prices dropped and took almost a quarter of a century to balance out. In the 1990s, this trend extended to almost every sector of the chemical industry, and globalization and cost savings became the new challenge. Many large companies moved to China and India, which rose to become global production hubs, leading to an ac-

celerated transfer of Western - no longer patent-protected - know-how. Not everyone succeeded, and almost all major companies of the time, such as BASF and Hoechst Sandoz, paid the price for their learning curve. However, the trend remained unbroken, and as a result, China emerged as the global supplier in a changing world.

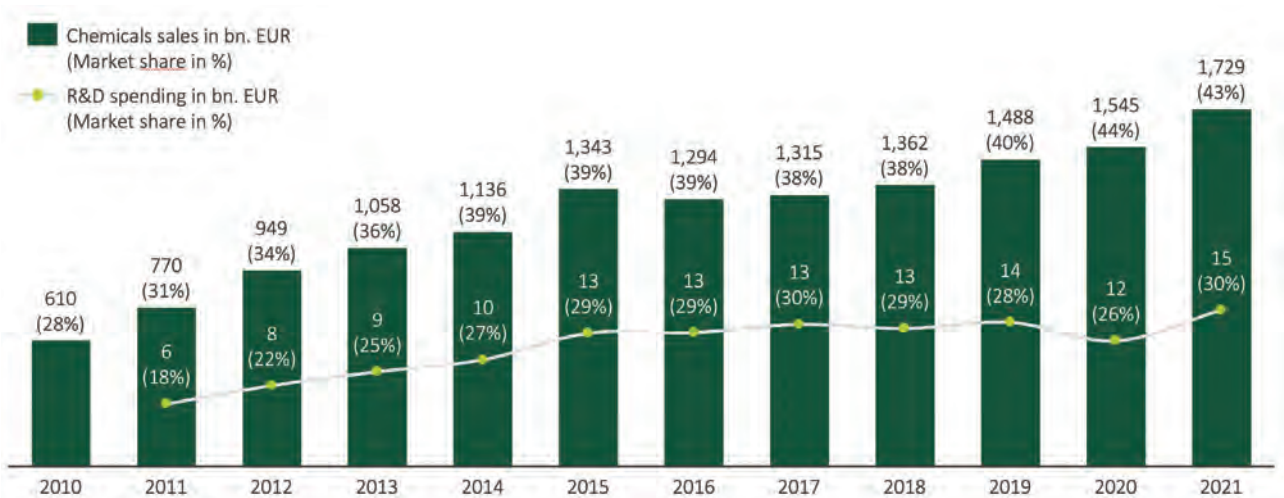


Figure 2: China – Sales chemicals and R&D spending (Source: CEFIC)

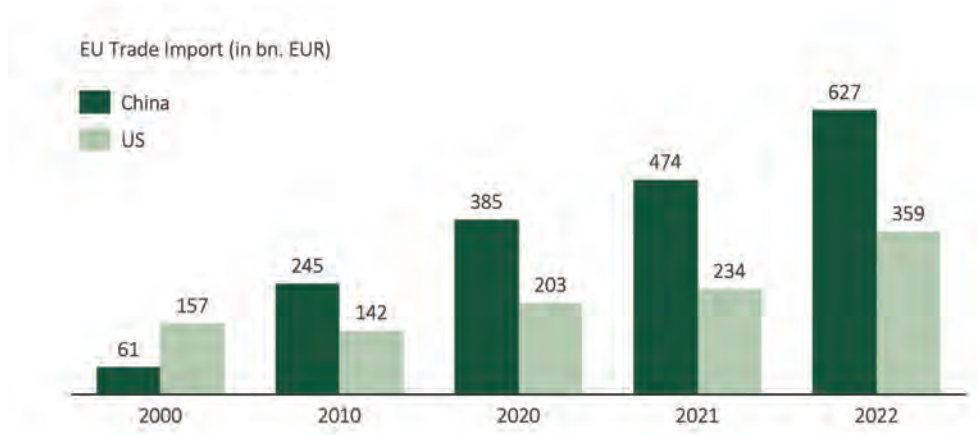


Figure 3 : EU Trade Import (Source: Eurostat, European Commission)

► **The Next Wave - Transformation Through Consolidation**

One outcome of these massive changes was a broad commoditization of products, leading to a focus on core businesses. M&A in the chemical industry gained momentum. The split of the Swiss pharmaceutical-chemical industry into Clariant, Novartis, and CIBA was a significant event. When

the world's largest chemical corporation, Hoechst, divested its \$10 billion specialty chemicals business in the mid-1990s and sold it to Clariant, the Swiss spin off from Sandoz, only to later completely vanish from the scene, this marked another chapter in the ongoing transformation. By the time BASF divested Knoll Pharma in 2000, it was no longer considered extraordinary.

Year	Merger	Year	Merger
1998	BP / Amoco	2015	Merck / Sigma-Aldrich
1998	Zeneca / Astra	2015	Albemarle / Rockwood Holdings
1999	Elf Aquitaine / TotalFina	2017	Sherwin-Williams / Valspar
1999	Rohm and Haas / Morton International	2018	Bayer / Monsanto
2000	Monsanto / Pharmacia	2018	Praxair / Linde
2001	Dow Chemical / Union Carbide	2021	Sinochem / ChemChina
2008	ICI / AkzoNobel	2022	DSM / Firmenich
2008	BASF / Ciba	2023	Chr Hansen / Novozymes
2008	Ashland / Hercules	2023	Solenis / Diversey

Figure 4: Selected mergers in the chemical industry – Announced + Closed (Source: Capital IQ, Mergermarket)

The separation of the specialty chemicals and plastics business from the Bayer Group, leading to the establishment of Lanxess and Covestro (which is currently in acquisition talks with Adnoc, the UAE investor) in the years 2004 and 2015, became standard and a part of the ongoing process of change.

This wave of consolidation continues to this day, resulting in significant transactions in the chemical and pharmaceutical industries. Between 2000 and 2023, globally, there were more than 50 major transactions in the chemical industry, each with a value exceeding 1 billion USD.

Year	Acquirer / Target	Year	Acquirer / Target
2023	IMCD N.V. / Needfill Co., Ltd.	2022	Caldic B.V. / Betaquimica, S.A.
2023	Barentz International BV / Unijaya	2022	Barentz International BV / Viachem, Ltd.
2023	Brenntag SE / Colony Gums, Inc.	2022	Azelis Group NV / Eurotrading S.p.A.
2023	Safic-Alcan / Southern Chemicals (Pty) Lt	2022	Caldic B.V. / Avatar Corporation
2023	Brenntag SE / Operating business of Chemgrit SA	2022	IMCD Mexico S.A. de C.V. / PromaPlast Resinas
2023	Univar Solutions Inc. / FloChem Ltd.	2022	Brenntag SE / Prime Surfactants Limited
2023	IMCD N.V. / Sachs Chemical, Inc.	2022	H.I.G. Capital, LLC / Avient Distribution Business
2023	IMCD UK Limited / O&3 Limited	2022	Univar Solutions Inc. / Vicom Distribución.
2023	Azelis Group NV / Sirius International Water T.	2022	Stockmeier Holding GmbH / Gamma Chimica S.p.A
2023	Azelis Group NV / Gillco Products, Inc.	2022	DKSH Holding AG / Georg Breuer
2023	IMCD N.V. / KOI Knowledge Oriented	2022	Barentz International BV / ACE Trade spol. s r.o.
2023	IMCD N.V. / ACM AB	2022	DKSH Holding AG / Refarmed Chemicals SA
2023	Formerra / Total Polymer Solutions	2022	Safic-Alcan Deutschland / European Additives GmbH
2023	RelaDyne, Inc. / Allied Oil & Supply, Inc.	2022	Caldic B.V. / Food Industry Technology
2023	Apollo Global / Univar Solutions Inc.	2022	DKSH Holding AG / VICTA FOOD SRL
2023	Safic-Alcan SAS / PNP Srl	2022	Barentz International BV / Unipex Group S.A.S.
2023	IMCD UK Limited / Orange Chemicals Limited	2022	IMCD UK Investments Ltd / Evenlode Foods Limited
2023	Safic-Alcan SAS / 4Plas Ltd.	2022	Brenntag SE / Y.S. Ashkenazi Agencies
2023	OQEMA GmbH / STERA Chemicals SRL	2022	Stockmeier Holding GmbH / New Química S.L.
2022	Caldic B.V. / Concentrated Active I&F	2022	OpenGate Capital, LLC / Chemsolv, Inc.
2022	Caldic B.V. / Connell Bros. Co. LLC	2022	OQEMA AG / TECNUFAR IBÉRICA S.L.

Figure 5: Selected transactions in the chemical industry with a transaction volume > USD 1 billion - Announced + Closed (Source: Capital IQ, Mergermarket)

More deals will follow, and companies are using M&A as an opportunity for new, transformed growth. Today, it's commonplace for companies to spin off parts of their businesses and form new alliances, such as the

split of Dupont in 2019, the separation of Lonza Specialty Ingredients (LSI) leading to the creation of Arxada in 2021, or the merger of DSM with Firmenich in 2022.

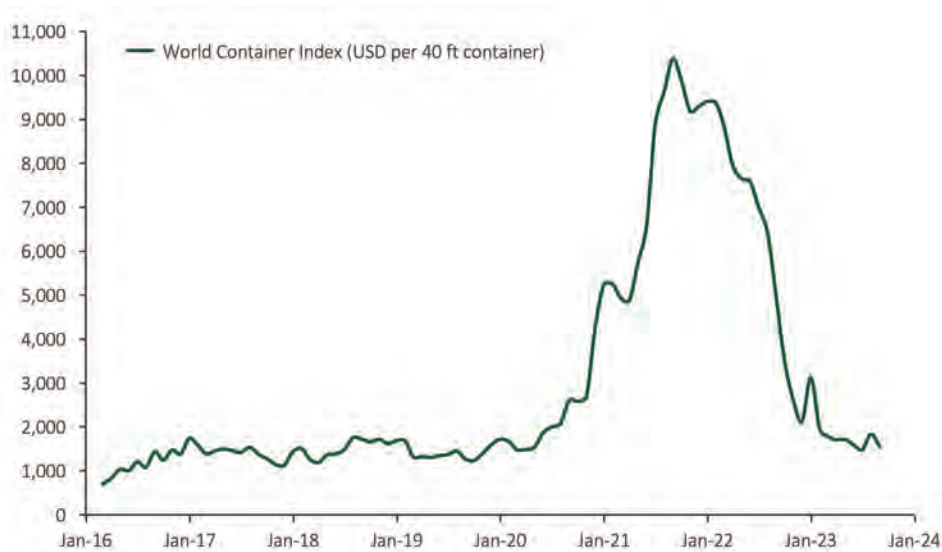


Figure 6: Container freight price development (Source: Drewry - Composite)

► *The Current Waves - Transformation Marked by Changed Raw Materials and ESG*

However, this transformation is far from complete, and new chapters have been written since the end of 2010. One notable change is the altered supply chain

landscape due to increased raw material prices, as well as significantly more volatile transportation costs and bottlenecks.

This has led, among other things, to substantial changes in the chemical distribution sector.

Year	Acquirer / Target	Year	Acquirer / Target
2023	IMCD N.V. / Needfill Co., Ltd.	2022	Caldic B.V. / Betaquimica, S.A.
2023	Barentz International BV / Unijaya	2022	Barentz International BV / Viachem, Ltd.
2023	Brenntag SE / Colony Gums, Inc.	2022	Azelis Group NV / Eurotrading S.p.A.
2023	Safic-Alcan / Southern Chemicals (Pty) Lt	2022	Caldic B.V. / Avatar Corporation
2023	Brenntag SE / Operating business of Chemgrit SA	2022	IMCD Mexico S.A. de C.V. / PromaPlast Resinas
2023	Univar Solutions Inc. / FloChem Ltd.	2022	Brenntag SE / Prime Surfactants Limited
2023	IMCD N.V. / Sachs Chemical, Inc.	2022	H.I.G. Capital, LLC / Avient Distribution Business
2023	IMCD UK Limited / O&3 Limited	2022	Univar Solutions Inc. / Vicom Distribución.
2023	Azelis Group NV / Sirius International Water T.	2022	Stockmeier Holding GmbH / Gamma Chimica S.p.A
2023	Azelis Group NV / Gillco Products, Inc.	2022	DKSH Holding AG / Georg Breuer
2023	IMCD N.V. / KOI Knowledge Oriented	2022	Barentz International BV / ACE Trade spol. s r.o.
2023	IMCD N.V. / ACM AB	2022	DKSH Holding AG / Refarmed Chemicals SA
2023	Formerra / Total Polymer Solutions	2022	Safic-Alcan Deutschland / European Additives GmbH
2023	RelaDyne, Inc. / Allied Oil & Supply, Inc.	2022	Caldic B.V. / Food Industry Technology
2023	Apollo Global / Univar Solutions Inc.	2022	DKSH Holding AG / VICTA FOOD SRL
2023	Safic-Alcan SAS / PNP Srl	2022	Barentz International BV / Unipex Group S.A.S.
2023	IMCD UK Limited / Orange Chemicals Limited	2022	IMCD UK Investments Ltd / Evenlode Foods Limited
2023	Safic-Alcan SAS / 4Plas Ltd.	2022	Brenntag SE / Y.S. Ashkenazi Agencies
2023	OQEMA GmbH / STERA Chemicals SRL	2022	Stockmeier Holding GmbH / New Química S.L.
2022	Caldic B.V. / Concentrated Active I&F	2022	OpenGate Capital, LLC / Chemsolv, Inc.
2022	Caldic B.V. / Connell Bros. Co. LLC	2022	OQEMA AG / TECNUFAR IBÉRICA S.L.

Figure 7: Selected transactions in the chemical distribution sector - Announced + Closed (Source: Capital IQ, Mergermarket)

Here, one can observe the trend not only among large corporations but also increasingly within medium-sized enterprises, where distributors are seeking companies that either offer special-ized services or are involved in applications (downstream integration).

M&A plays another and increasingly vital role in this context.

The next major trend that has instigated change is the necessity for greater sustainability in the products and production processes of the chemical industry. As described earlier, albeit 40 years later, new environmental and thus product-related issues are leading to fresh innovations and transformation.

What has led to significant emission reductions since 1990, particularly in the energy sector, has become increasingly challenging and has stagnated for years, accompanied by the simultaneous tightening of emission targets. The Paris

Agreement of 2015, the European Green Deal of 2019 aiming for Net Zero Carbon Dioxide Emissions by 2050, the Carbon Border Adjustment Mechanism (CBAM) with significant changes to import barriers for non-European chemicals starting from 2026, as well as numerous bans on chemical products commonly found in many formulations (e.g., per- and polyfluoroalkyl substances, PFAS, as outlined in the German Chemicals Prohibition Ordinance), are driving action and necessitating a new type of innovation. One could succinctly describe this as “Decommoditization through change in chemical compositions and origins.”

These regulatory measures, combined with increasing levies on carbon dioxide alongside rising energy efficiency, demand a changed innovation profile from companies, which they find difficult to achieve organically, i.e., with their own resources.

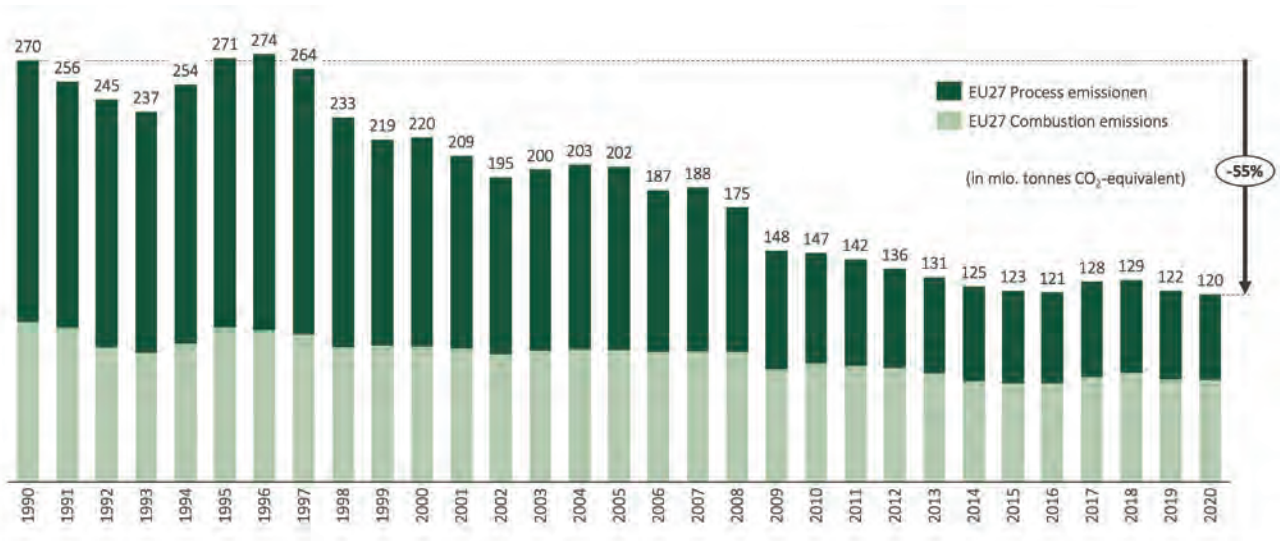


Figure 8: Greenhouse gas emissions from the chemical industry (Source: CEFIC)

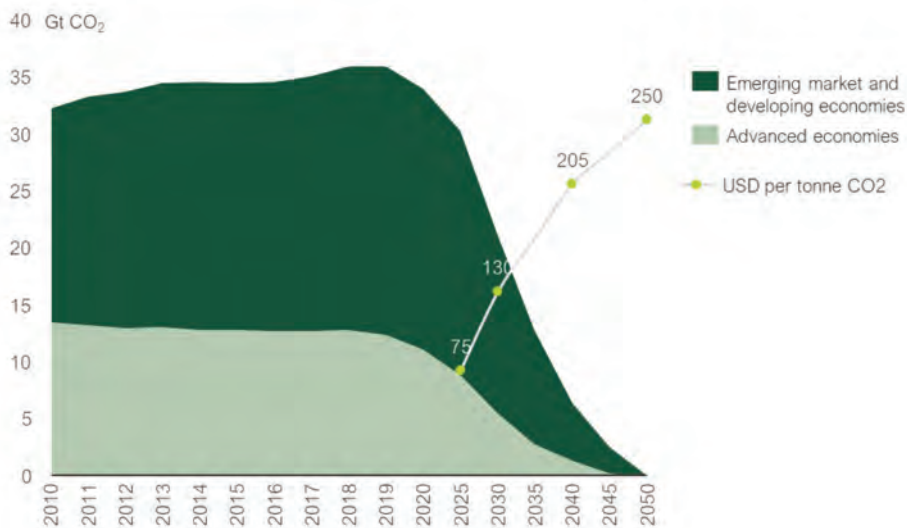


Figure 9: Development of CO2 prices in a net zero emissions (NZE) scenario by 2050 (Source: International Energy Agency)

"A new mission through lower emissions" have long been reality-based buzzwords, and a product's carbon dioxide footprint is gaining importance alongside its performance in applications. The ESG theme, focusing on the "Environment," has rapidly become a significant evaluation criterion for many transactions and companies. The proportion of the G250 (the 250 largest companies worldwide according to Forbes 500) regularly addressing the ESG issue has increased from 67% in 2017 to over 80% in 2022.

This trend has led to new collaborations and portfolio shifts among companies. In 2023 alone, there are several M&A activities that illustrate this shift. In July, Total Energies, Aramco, and Sabic announced the first oil-from-plastic-waste facility in the MENA region. A few days earlier, Lanza-Tech, a renewable sector company, together with Technip Energies,

announced a break-through in carbon dioxide to ethylene technology. In the same month, Exxon acquired the US-based company Denbury, specializing in carbon (CO₂) and oil recovery. Market capitalization: 4.9 billion USD. In early October, Total Energies again announced the acquisition of the French photovoltaic company Ombrea. Altana's move toward insulation technology for wind turbine batteries through share acquisitions from the Swiss industrial company Von Roll Group also aligns with this direction.

The number of transactions related to Circular Economy, CO₂ savings, or renewable resources to enhance sustainability has increased and will continue to rise. Simultaneously, companies are investing in startups in these areas, recognizing their potential to revolutionize industries and introduce innovative, sustainable solutions to the market.

Similar to 40 years ago when a threat turned into an opportunity for the chemical industry, we can already see opportunities emerging when comparing prices of traditional products with sustainable ones.

Since early 2019, the prices for clear rPET granules have consistently been higher than PET-Virgin. The price difference between clear, food-grade rPET granules and PET-Virgin reached a peak of 850 EUR/ton in September 2022 due to high demand and existing supply shortages. This difference has since decreased to 270 EUR/ton in September 2023.

The chemical-related sector of materials, such as batteries (systems, anode-cathode materials, compounds), and renewable energies, is currently experiencing a growing demand. Various strategic collaborations between airlines and companies like BP, Shell (in 2022), as well as mid-sized enterprises such as the HCS Group (in 2023) in the field of Sustainable Aviation Fuels (SAF), provide an idea of what could develop through new alliances in the M&A market in the coming

years. Moreover, the backward integration of companies and raw material traders into the realm of renewable resources from regional sources has not yet truly begun.

Conclusion: The chemical industry in Europe has been, is, and will continue to be in constant flux, reinventing itself for decades. Competitive edge for both medium-sized enterprises and large industries can only be sustained through innovation, altered products, and business models. "Innovation" is being redefined once again by the growing importance of ESG and sustainability. M&A has played a significant role for decades and will become even more crucial with more challenging goals and limited time for transformation. It provides companies with the opportunity to generate new values in a rapidly changing world.

Our experts Dr. U. Nickel, Dr. JP. Pfander, A. Maibach and C. Mutz are happy to discuss opportunities and M&A solutions in the Chemicals & Materials sector (www.proventis.com).



Dr. Uwe Nickel is a partner in the Zurich office of Proventis Partners and is responsible for the Chemicals & Materials sector. He has over 35 years of experience in the chemical industry and knows "both sides of the table" as an advisor and former CEO and board member.

Artur Maibach is an Associate in the Zurich office of Proventis Partners. As part of the Chemicals & Materials team, he supports leading companies in the industry in the context of M&A to develop strategic partnerships, optimize business models and create long-term value.