

CHEMICAL PAPER

Digital Platforms in the Chemical Industry

Annika Kroning

WHAT WILL BE THE NEXT CHAPTER IN THE DIGITAL REVOLUTION OF THE CHEMICAL INDUSTRY?

The chemical industry is a strongly fragmented market. This becomes obvious when we think about where chemical ingredients play a role: In pharmaceuticals, foods, agriculture, cosmetics, paints, plastics, metals, batteries, electronic devices, ... the list could go on forever. Nearly everything in our lives contains chemicals. And all these markets have their specific requirements and regulations, resulting in business processes often being difficult and complex. Introduction of automation into the processes has become quite popular, especially at large companies. ISG has already worked with a number of clients for automation projects in the chemical industry. Companies also start to use digital platforms to transform their business processes and become more efficient. Two of the Top 20 chemical companies worldwide – Evonik and Covestro – have already launched their own B2B platforms. They stand next to many other platform businesses in this field. It seems to become the next big thing in the chemical industry. Can they all succeed?



The chemical industry is making progress in digitalization and platforms are the next step on this journey.

Is it worthwhile to create an own chemicals platform? What about taking part in B2B platforms by becoming a seller or buyer? What other services are available on such platforms in addition to typical marketplace offerings? Can this improve the efficiency of your business processes? What kind of products are already available on online marketplaces in the chemical industry (commodities, specialized products, data analytics services)?

In this article, we will take a look at what has happened in the chemicals industry online and where the trend is going.

Timeline of B2B Platforms for Chemicals Since the 90s

Platform business models in general have become increasingly popular over the past 20 years. In the beginning this was mainly true for B2C (business-to-consumer) platforms, like ebay or Amazon, but the B2B (business-to-business) market has started to rise, too. The chemical industry, however, has been fairly slow on the uptake of digitalization, with a lot of B2B-processes still being handled offline or through a company's own webshop.

Let us take a closer look on how B2B platforms in this business evolved during the past decades:



B2B platforms for chemicals are rising fast since 2013.

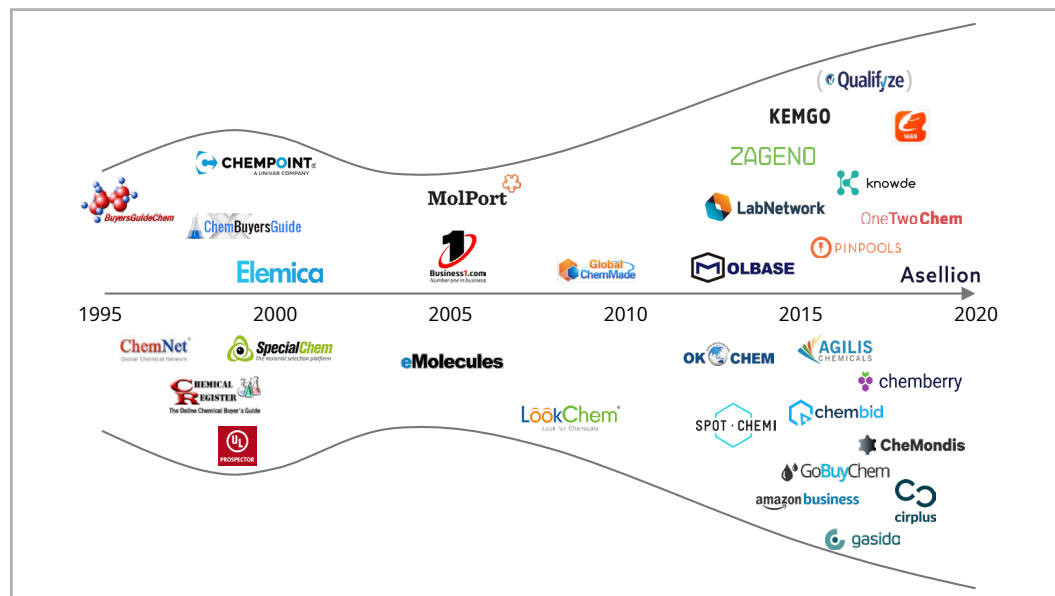


Figure 1: Founding years of B2B platforms in the chemicals industry that are still online.

In the 90s dotcom era there was a short rise of chemical B2B platforms, but only some of the players of that time remained. Their focus mainly lies in classical matchmaking by providing a search engine for chemical ingredients and their suppliers. Some of them also offer detailed product information, such as data sheets (e.g., UL Prospector, SpecialChem), without the need to contact the supplier for this information. Others survived by changing their business model: EleMica, for example, soon focused on providing a digital supply chain network for manufacturers.

However, the real boom of B2B platforms started around 2013. Within a few years, many competitors hit the market, some of them targeting a certain sub-market (e.g., Gasido for gases, Cirplus for circular economy in plastics) or switching to a niche (e.g., Qualifyze for GxP audits). They stand next to Startups, e.g., Knowde or Pinpools, who focus on commodities or specialty chemicals. The big players for marketplace platforms have also arrived in the chemicals business: Amazon business launched in 2015 and has a category for lab and scientific products. Alibaba sells chemicals to the Chinese market on its B2B platform 1688.com since 2018. Both are expected to rise fast, similar to their B2C counterparts. But they are facing a number of competitors with strong market experience.

Digital Platforms in the Chemical Industry

Several chemical producers and distributors have spun-off their own platforms: Asellion (Covestro), Chemberry (Clariant), Chembid (BÜFA Group), CheMondis (Lanxess), ChemPoint (Univar), GoBuyChem (Noahs Ark Chemicals) and OneTwoChem (Evonik).

There are still some companies – mainly distributors – who are reluctant to start with online business on platforms or marketplaces. They rely on the opaqueness of the offline market when it comes to pricing, thus they fear the impact on their margins when prices are becoming transparent online. Additionally, they do not want to give their valued customer and product data into the hands of an external platform's server.



Value creation via additional services on the platform is key to stand out from the competition.

Offer Additional Business Value to be Set Apart in the Pool of Platforms

A common additional feature among the studied platforms is the ability for sellers to set up their own branded store on the platform. The offers range from simple branded storefronts to own branded portals on the platform (e.g., Agilis).

One thing is familiar amongst many of the existing platforms, especially those that started in the 2010's: They build trust among buyers by only allowing certified sellers on their platform, e.g., via REACH in Europe. Gaining trust of the platform's users is a much more important issue in B2B than in B2C, because of higher order volumes. Oftentimes interactions on a B2B platform result in buyer-seller relationships via long-term contracts. These ensure the buyers to receive the same quality over a long period of time and the sellers to have a stable base of customers. Such existing long-term contracts also exist offline and are probably one of the reasons why the success of platforms in the chemical industry has taken so long.

COVID-19 certainly serves as a catalyst for an increased use of B2B platforms. Shortages in delivery from their usual seller due to the lockdown may force buyers to look for other sellers. Producers intermediately changed their product portfolio due to a shift in demand, especially in the medicals and pharmaceuticals industries. Sellers might lose their trusted customers and vice versa when companies struggle with the economic impact of the pandemic.

Another added value is to offer services in addition to the marketplace, such as logistics services (e.g., Molbase, GoBuyChem). These platforms are competing with chemical distributors as well as other platforms by offering to consolidate orders from different sellers into one shipment. Platforms can also partner with SaaS- or IaaS-providing platforms to create a digital supply network. It enables a fully digital order processing, both for sellers and buyers, via integration of ERP systems or other backend solutions. For example, CheMondis and OneTwoChem have partnered with Elemica. Additionally, SaaS tools can offer data analytics that create valuable insights about market trends, sales statistics, customer behavior and more. And finally, intelligent AI tools have also found their way into the lab: Evonik's Coatino tool is a voice assistant for coatings producers to support them in quickly and easily finding the data they need.



Profit, efficiency and KYC are the top reasons to start using digital channels.

Reasons to Move to Digital Business Models

A study¹ performed by CheMondis and Statista revealed that more than half of the chemical companies (56%) see B2B platforms or marketplaces as a channel they use today or plan to use in the near future. There are three main reasons for them to use digital channels (Figure 2).

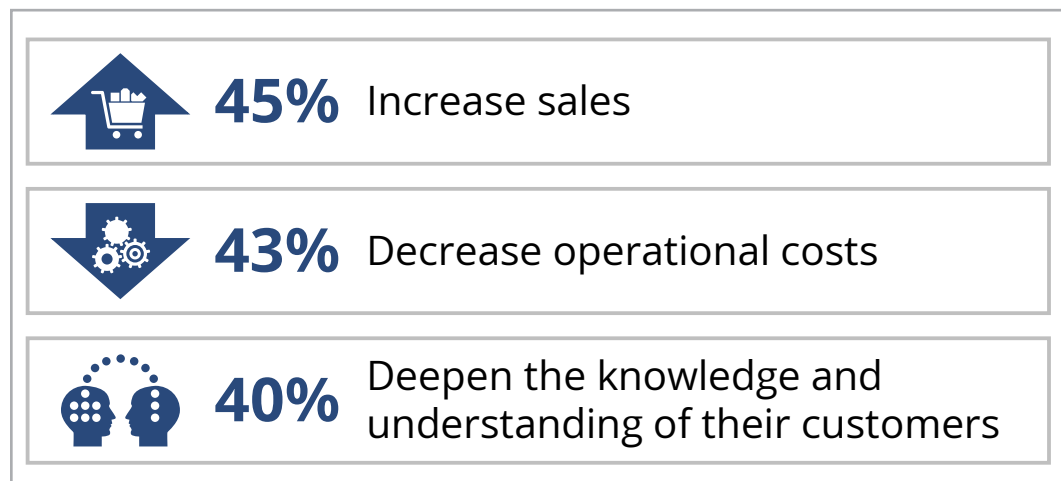


Figure 2: Three reasons for companies to go digital according to a study by CheMondis and Statista.



Identify the role of your company in the platform economy and start acting.

The first point is obvious, considering that more and more customers search for products and suppliers online. Adding potential online customers to the existing offline customer base ensures that a company does not turn a blind eye to the increasing digital business on the chemical market. The key is to properly integrate it into your company's overall business strategy and enable it to grow.

The second point could lessen the doubts some distributors have regarding their margins in the digital business, where prices are much more transparent. But digital business in chemistry is not only about selling chemical products. Platforms also offer valuable additional services, such as data analytics, supporting the transformation to lean business processes, and the portfolio will keep growing. This opens a wide range of possibilities in the future, for example to accelerate R&D cycles in the chemical industry. Big data analytics tools, maybe even AI-based, can speed up research for new formulas or new compounds with desired characteristics.

Finally, the third point is a value that only online business can deliver in real-time, provided that some form of data analytics tool is available on the platform. Think of market trend reports resulting from permanent analysis of the user activities on a platform, or how predictions from the analysis of customer behavior can enable your company to improve customer experience.

Recommendations

The chemical industry is about to be hit by the wave of digital B2B platforms. Competition starts to rise, and the inflection point might be reached very soon, especially now that

- Big players like Amazon Business and Alibaba's B2B platform have entered the chemicals market;
- COVID-19 will accelerate digitalization, especially in areas that have been trailing behind in going digital: During the pandemic, there are hardly any physical conferences or meetings taking place where offline sales can be done. Currently, if networking does not happen online, it will hardly happen at all.



Based on our observations, we want to give these recommendations to the different players in the chemical industry:

1. Corporates without an own platform business

Chances are that you have not yet given a thought about how platforms in the chemicals industry are going to change your business realities. Take a look outside your existing ecosystem at what others are doing and define your own online strategy regarding platforms. Not everyone has the assets and resources to build the next big chemicals platform, but you should deliberately take a decision about the role you want to play in the game. Maybe you want to take part as a seller on chemical platforms, e.g., by offering your products on an existing platform. Maybe you have valuable in-house developed analytics, compliance or logistics tools that you can transform into services and offer them on a suitable existing platform. We can support you to evaluate the readiness of your company for digital business models and how to become more mature in them.

2. Corporates with a platform business

You are one of the early adaptors of digital business models in the chemical industry. Your platform has the potential to become a very important part of your company's digital transformation journey. Enable your seedling to scale and nurture it by moving more business processes to it. In order to choose the right processes for this, keep an eye on the network of your customers and what value they expect from your platform. Identify digital innovators inside your company and put them together with platform experts to evaluate which steps your platform should take next. We can support you in finding suitable partners outside your company to build an ecosystem and scale your platform. This way it will be ready to surf when the wave hits and may become a pioneer for the chemical industry.



3. Platform businesses

The inflection point for the chemical industry is close. Keep focus on growth over profitability to gain critical mass in your selected market or niche. You can take advantage of the fact that platform ecosystems create several times higher market multipliers than pipeline businesses. Focus on value creation for your customers to stand out next to competitors and get into a leading and secure position in the chemicals market. And think about sourcing for cooperation. ISG can provide extensive sourcing experience for this. Do not hesitate to partner with other platforms or service providers to integrate their services for a seamless customer experience or to receive better predictions about your customer's behavior and needs. This will allow exceptional monetization opportunities further down the road.

Appendix

Names and Web Addresses of the Platforms

Name	Founding year	Country	Mother	Target Area	Website URL
Buyers-guidechem	1996	DE	-	Global	www.buyersguidechem.com
Chemnet	1997	CN	-	China, Korea, Global	www.chemnet.com
E-Chemicals/ ChemBuyers-Guide	1998	USA	-	Global	www.chembuyersguide.com
ChemicalRegister	1998	USA	-	Global	www.chemicalregister.com
Alibaba	1999	CN	-	China	www.1688.com
ChemPoint	1999	USA	Univar	North America, EMEA	www.chempoint.com
UL Prospector	1999	USA	UL (Underwriters Laboratory)	Global	www.ulprospector.com/en/eu
Elemica	2000	FR	-	Global	www.elemica.com
SpecialChem/ Omnexus	2000	FR	-	Global	www.specialchem.com
Chemicals1	2005	NL	Business1	Global	www.chemicals1.com
eMolecules	2005	USA	-	North America, Europe (Global)	www.emolecules.com
Molport	2006	LV	-	Europe, North America	www.molport.com
LookChem	2008	CN	-	Global	www.lookchem.com
Global-chemmade	2009	CN	-	Global	www.globalchemmade.com
Molbase	2013	CN	-	China	www.molbase.com
OKChem	2013	CN	-	China and Global	www.okchem.com
SpotChemi	2013	CZ	-	Europe	www.spotchemi.net www.get.spotchemi.net
Wuxi LabNetwork	2014	CN	WuXi AppTec	Global	www.labnetwork.com

Names and Web Addresses of the Platforms (continued)

Name	Founding year	Country	Mother	Target Area	Website URL
Zageno	2015	USA	-	North America, Europe	www.zageno.com www.zageno.de
Amazon Business	2015	USA	Amazon	Global	www.business.amazon.com www.business.amazon.de
Kemgo	2015	USA	-	Global	www.kemgo.com
Chembid	2016	DE	BÜFA Group/ Stockmeier	Europe	www.chembid.com/en
Pinpools	2016	DE	-	Europe	www.pinpools.com
GoBuyChem	2016	UK	Noahs Ark Chemicals	Europe	www.gobuychem.com
Agilis Chemicals	2016	USA	-	Global	www.agilischemicals.com
Gasido	2017	DE	Flüssiggas1.de GmbH	Europe, Global	www.gasido.de
Qualifyze	2017	DE	-	Europe, Global	www.qualifyze.com
Knowde	2017	USA	-	North America, Europe	www.knowde.com
DigiB	2017	NL	Brenntag	Europe	www.digib.com
CheMondis	2018	DE	Lanxess	Europe	www.chemondis.com
OneTwoChem	2018	DE	Evonik (Evonik Digital GmbH)	Europe	www.onetwochem.com
Cirplus	2018	DE	-	Global	www.cirplus.com
Asellion	2018	NL	Covestro	Europe	www.asellion.com
Chemberry	2018	CH	Clariant	Global	www.chemberry.com

ABOUT THE AUTHOR

Chemical Paper **Digital Platforms in the Chemical Industry**



ANNIKA KRONING

Annika Kroning works as a Consultant in ISG Digital Platforms, where she advises and supports clients in the various steps involved on their journey to a successful platform business model. This includes aspects such as strategy, platform ecosystems, customer experience and scaling. She has a scientific background in chemistry and life sciences and consulting experience in the automotive industry.



CONTACTS

Digital Platform



STEPHAN WEISSER

Stephan Weisser is an experienced management consultant with focus on the Platform Economy and Platform Business Models. As a trusted partner for CEOs and CIOs he supports in understanding digital transformation and the platform economy, developing new and innovative platform businesses and building lean startups. He leverages more than 13 years of expertise in driving innovation for customers and managing digital and agile transformations.

Chemical Industry



SVEN GEISSLER

Sven Geissler brings more than twenty years experience in complex sourcing and transformation programs to ISG Clients. He has a focus on chemical, pharma and life science industries and supports his clients along their digitalization journey to achieve tangible business outcomes. Detailed knowledge about the impact of technology trends and the creation of commercial opportunities are a fundamental part of his skill set.



imagine your future®

ABOUT ISG

ISG (Information Services Group) (Nasdaq: **III**) is a leading global technology research and advisory firm. A trusted business partner to more than 700 clients, including more than 75 of the top 100 enterprises in the world, ISG is committed to helping corporations, public sector organizations, and service and technology providers achieve operational excellence and faster growth. The firm specializes in digital transformation services, including automation, cloud and data analytics; sourcing advisory; managed governance and risk services; network carrier services; strategy and operations design; change management; market intelligence and technology research and analysis. Founded in 2006, and based in Stamford, Conn., ISG employs more than 1,300 digital-ready professionals operating in more than 20 countries—a global team known for its innovative thinking, market influence, deep industry and technology expertise, and world-class research and analytical capabilities based on the industry's most comprehensive marketplace data.

www.isg-one.com

Let's connect **NOW...**

