

Letter from the Editors

Digitalization in the chemicals: How to succeed the digital transformation

Hardly any other topic dominates the current discourse in the chemical industry like digitalization. The digital transformation is in full swing. Production facilities are becoming more intelligent, processes are shifting from analog to digital, algorithms creating valuable insights and new, digitally enabled business models are evolving. However, the goal is not a digital transformation per se but rather a business transformation: harnessing digital capabilities to transform traditional products and services into reimagined value propositions in the digital era. In order to achieve future success, all companies in the chemical industry and related sectors need to embark on a digital transformation journey. The present issue of the Journal of Business Chemistry sheds light on the topics mentioned with a commentary and three contributions in the practitioner's section.

What's the role of chemical distributors in the course of digitalization? In his commentary "Digitalization, chemical distribution and the chemical value chain" Till Knorr shares his thoughts on what chemical distribution could look like in the future. Although digitalization could make some tasks from chemical distributors obsolete, there is no digital substitute for the physical delivery in sight. Marketplaces will prove to be central orchestrators and consequently play a dominant role in value creation processes.

In the digital economy marketplaces and online shops are key channels to market products and services. Chemical companies already set up their own digital platforms. However, commercial buyers of chemicals were still missing a website or a tool in order to compare the offer from different suppliers at one central place. In the article "The digitalization of marketing and sales in the chemical B2B sector" Rune Koehn presents a case study of a startup that developed the first metasearch engine for chemicals.

Companies face intense pressure to keep themselves at the leading edge of how to utilize data for long-term financial and digital success by applying advanced and complex technologies such as artificial intelligence. Effective technological solutions require a well-structured approach. Robert Jenke describes in his article "Successful data applications: a cross-industry approach for conceptual planning" the CRISP-DM model as an established framework to guide projects regarding data usage in the process industry.

The biologization of traditional industries such as chemicals, pharmaceuticals and life sciences has become an ongoing trend. The article "Quantitative biology - a perspective for the life sciences' way into the future" by Holger Wallmeier gives a broad overview about quantitative biology and its implications for scientific and industrial research. Quantitative biology is best described as the combination of biology, statistics and mathematics, and it relies on special expertise. Data scientists will have a key function in future research but require further understanding in the fields of the origin of the data.

Please enjoy reading the second issue of the fifteenth volume of the Journal of Business Chemistry. We are grateful for the support of all authors and reviewers for this new issue. If you have any comments or suggestions, please do not hesitate to contact us at contact@businesschemistry.org.

Thomas Kopel
(Executive Editor)

Bernd Winters
(Executive Editor)