

Welcome to the Future

DigiChem SurVEY Shows:
Chemical Executives Say their
Digital Transformation Is Now
Two-thirds Complete

Many chemical executives say their companies have made significant progress in their digitalization efforts in the last two years — and they are even more excited about it now.



Ready for the future? In the chemical industry, it's getting very close. The average digital transformation is over two-thirds (68%) complete, according to respondents in the latest edition of the biennial DigiChem SurVEY 2022 of the global chemical industry—and a majority (56%) say that the speed of adoption at their company has accelerated in the past two years.

Experience often tempers excitement, but not this time around. If anything, industry executives are more optimistic about the value of digitalization than they were two years ago. Overall, the dial hasn't moved—in 2020, 66% expected to see a revolutionary or disruptive impact in the next three years, and in 2022, that number stayed nearly unchanged, at 65%. However, the share that envisions a disruption around the corner has grown. Fewer foresee a revolution ahead (35% vs. 46% in 2020), but more see disruption (30% vs. 20% in 2020), by which we mean an even more profound shift in the market.

In 2022, 637 executives from 35 countries participated in our survey, which was conducted by an independent market research institute.

More Gains Foreseen

As executives look back on their firm's digital progress in the past three years, they see a variety of

gains. In this same time period, executives said, innovation and development (64%), processes and efficiency in the operational supply chain (57%), customer interface (57%) and sustainability scopes 1 and 2 (47%) were the areas where digitalization made the most progress in their firm.

More specifically, they saw better e-networking between suppliers and service providers (53%) and improved market and customer access (52%) as the top two benefits digitali-

“Digital is driving the chemical industry with ground-breaking innovations and new challenges.”

zation has already had for their firm, followed by a split between cost reduction (51%) and increased customer centricity (51%). Regionally, Europeans cited cost reduction as their top realized benefit (54%), while Americans pointed to better e-networking (54%), as did Asian-Pacific executives (62%). In the Middle East and Africa, however, executives saw new products and services as their biggest boon (60%).

Looking ahead, a majority of executives polled expected their firms

to stay focused on applying digital technology to strengthen their R&D programs as well as their operational efficiency. Executives remain bullish on innovation and development (68%), supply chain technology (64%) and administrative functions (63%).

Roughly two-thirds of respondents believe their company's operational competitiveness will be enhanced over the next three years. In six of eight categories, digitalization will make a major difference, they predict. They see gains in supply chain planning (68%), sales and order management (67%), purchasing (67%), production and quality management (65%), customer service (65%) and logistics and distribution (65%). But even in the other two categories — sustainability scopes 1 and 2 and sustainability scope 3—the majority see gains (52% and 55% respectively).

Regionally, North American, Asian-Pacific, and Middle Eastern and African companies don't foresee much change in the degree to which digitalization will affect their operational competitiveness—two years ago, the majority expected the transition to be challenging, and today, they still expect bumpy roads ahead.

In Europe, however, executives expect that operational competition will be heating up dramatically, with 10% and 20% jumps in the degree



Frank Jenner,
EY

of operational competitiveness they now anticipate. For instance, 57% believe that digitalization will have a strong or very strong impact on supply chain planning, up from 37% two years ago. Sales and order management will be affected by digitalization too, in the view of 55%, up from 35% two years ago. Nor will logistics and

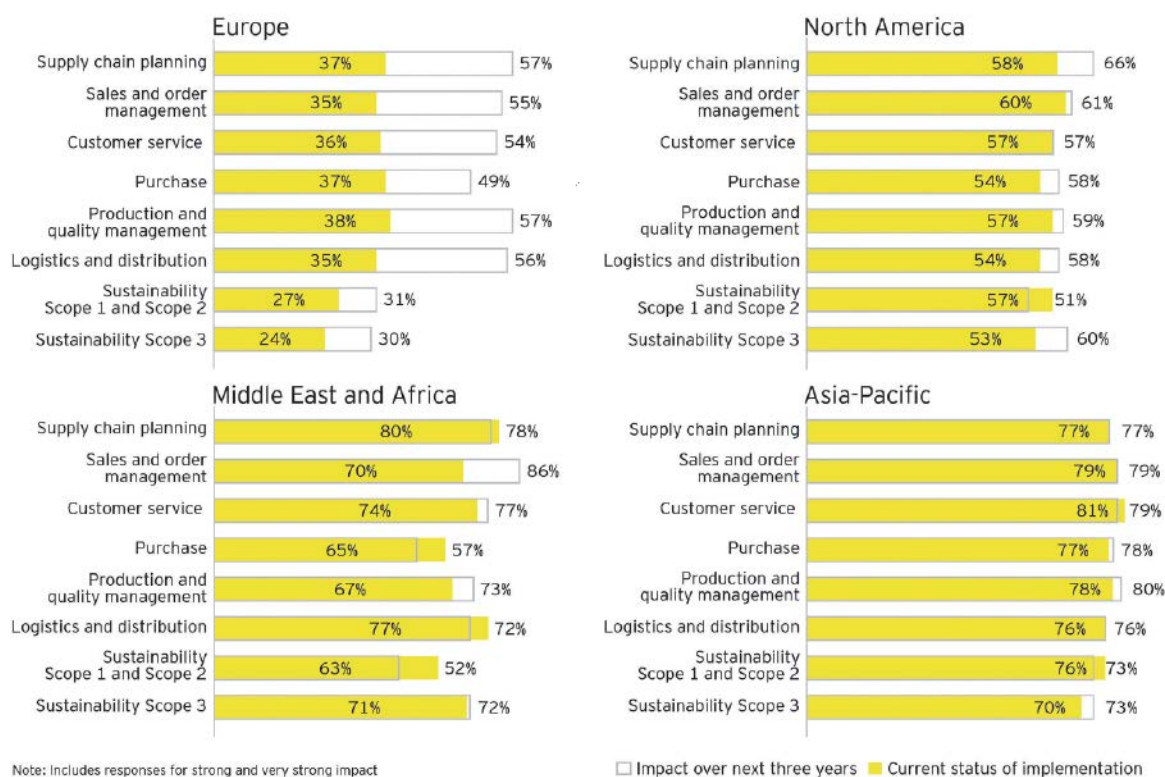
“The average digital transformation for chemicals companies is over two-thirds complete.”

distribution be left out, in the view of 56% of executives, up from 35% two years ago.

Most executives are confident that these operational improvements will translate into substantial cost savings. In fact, they are even more confident now than when we asked them



To what extent will operational competitiveness be affected by digitalization in the next three years?



A snapshot from EY's DigiChem SurVEY 2022.

two years ago: on average, respondents foresee 27% in cost savings, up from 22% in 2020, with the biggest companies seeing a 30% reduction (\$2 billion–\$10 billion companies) or even a 33% reduction (\$10 billion+ companies).

A closer look, however, suggests that the news is not equally good for the entire industry.

Overall, executives of smaller companies are less optimistic about cost savings than they were two years ago. Firms of less than \$100 million predict they can save 19%, down from 24% two years ago, while firms of \$100 million–\$2 billion predict 24% savings, compared with 25% in 2020.

Challenges Remain

Looking ahead, executives are concerned primarily with the nuts and bolts of the transformation. The biggest barriers? Technical infrastructure (40%), security concerns (38%), high investment requirements (38%), lack of qualified personnel (37%) and dearth of IT know-how (36%), with the top three concerns slightly higher than they were two years ago. Complaints about the lack of qualified personnel have fallen

slightly (from 40% to 37%) but IT ignorance is as much a problem now as ever.

Executives also seem uncertain about which technologies they should invest in next. Asked to choose the three digitalization areas with the highest potential, they were relatively divided. Thirty-five percent picked data analytics, followed by 30% for data security, 29% for better data management and 29% for smart factory apps. Lowest on their list was the metaverse (13%), 3D printing and additive manufactur-

and systems, and automation generally.

Interestingly, however, there is a great deal of regional variation in those priorities, with Europe seeing the most opportunity in data security (37%), North America in data analytics (39%), and the Middle East and Africa and Asia-Pacific executives focusing on digital ecosystems (37% and 33%, respectively).

“The speed of adoption has accelerated in the past two years as cited by 56% of survey respondents.”

ing (18%), digital market platforms (20%) and blockchain applications (20%).

Somewhere in the middle of our checklist, and earning a resounding mediocre, came digital ecosystems, smart products and services, integration and optimization of processes

What will it take to succeed? Executives say the top three factors are stable and secure digital solutions (41%), support from the entire leadership team (40%) and good interaction between the digitalization teams and the internal IT unit (39%).

Of course, success will depend as well on the firm's leadership, particularly with respect to meeting sustainability goals. Who's in charge here? 39% of respondents say their CEO is responsible for driving digitalization for better and faster implementation of sustainability goals, nearly double or triple the percentage who named another C-suite executive as their digitalization champion.

Conclusion: Believe the Hype

There is an old Wall Street saying that investors should buy on the rumor but sell on the fact. But the hype cycle doesn't seem to be functioning normally when it comes to digitalization in the chemical industry. Instead, something unusual seems to be going on: even as experience with digitalization grows, expectations are still rising, which is a good message in my view.

Frank Jenner, Managing Partner, Global Chemicals & Advanced Materials Industry Leader, EY, Mannheim, Germany

frank.jenner@de.ey.com
www.ey.com/de