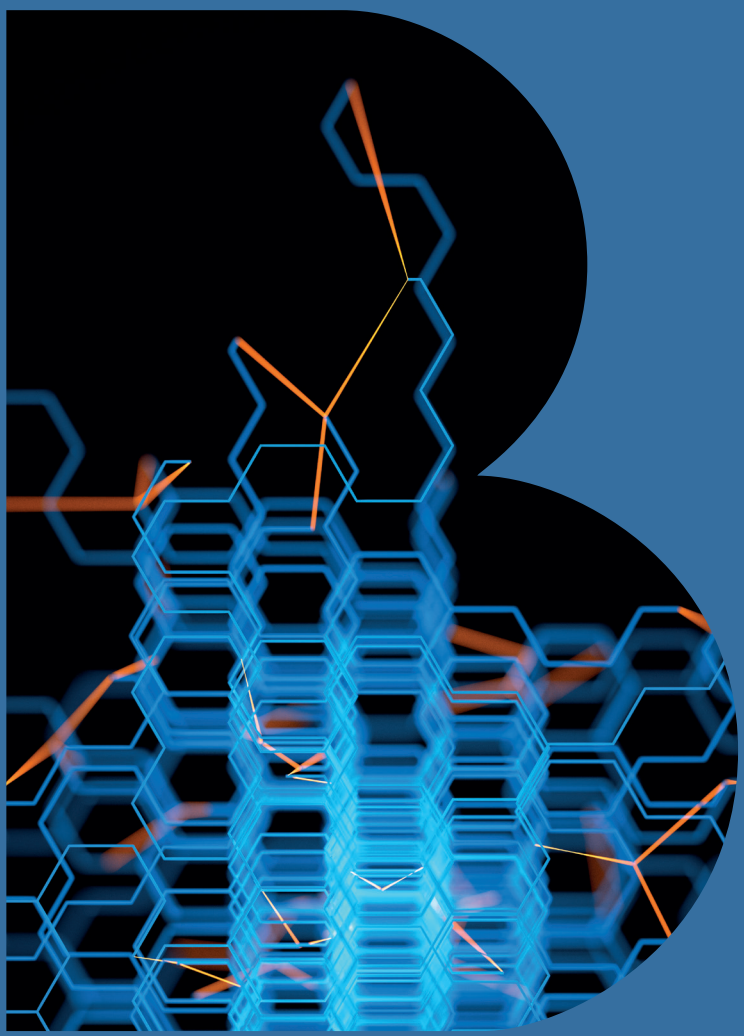
Digital readiness in chemicals

Ready or not?
Revealing
the digital readiness of
the chemical industry



Roland Berger

50 YEARS navigating complexity

How digital is the chemical industry?

of chemical industry professionals believe that digitization will clearly transform their current markets within the next five years. In particular, the go-to-market model will be significantly impacted. Page 3

is the average digital readiness score of the chemical industry, which lies between the categories of Developing Transformer and Digital Laggard. Page 6

of participants use novel techniques such as Scrum, rapid prototyping or crowd innovation – New techniques for business model innovation in go-to-market approaches are not well represented in the chemical industry. Page 9

Reasons for change – What will the chemical industry look like in 2022?

The chemical industry is gearing up for change. In a recent survey, we found that more than 90% of chemical industry professionals believe that their current markets will experience a digital transformation within the next five years.

We have already witnessed a variety of digitization trends along different portions of the chemicals value chain, in particular Operations and Service. However, this paper will focus on the Marketing & Sales aspects of digitization where significant disruption is currently occurring as evidenced by the plethora of developments and activities that are changing go-to-market approaches for both mature and emerging markets.[1] → A

We observe three main trends transforming the go-to-market models in chemicals. These are disrupting traditional structures and all three are clearly driven by the phenomenon of digitization: (1) new multi-channel management (MCM) concepts; (2) new market entrants; and (3) enhanced customer insights. → B

1. New multi-channel management concepts pose a threat to traditional sales:
In mature markets, established chemicals suppliers are focusing to an increasing extent on new MCM concepts by testing novel approaches in selected segments and pilot countries. The rise of supplier-driven web shops and non-order related customer interfaces as an integral part of developing multi-channel strategies poses a threat to traditional indirect sales channels and also challenges established structures in the chemical industry. At the same time, the reach and quality of customer interaction, as well as the potential for upselling, can be considerably increased through these new channels.

[1] Mature markets are, in our understanding, predominantly Europe and North America, whereas emerging markets are especially regions like Asia and Latin America

A: Digital readiness assessment.
Digitization has begun to transform every part of the chemical value chain.

Source: Roland Berger

2. New players are entering the market to sell chemicals:
This growing development is underscored by successful players from other industries attempting to enter the chemicals market, creating disruption and uncertainty for traditional players. Amazon, for instance, launched Amazon Business, its new B2B marketplace featuring hundreds of millions of products, bulk discounts, and free two-day shipping for qualifying products. Amazon Business's North American division is currently recruiting staff with chemical industry expertise to bolster management in order to offer chemical suppliers alternative sales channels through virtual malls and shops. Although Amazon Business currently focuses on the "long tail spend" – the part of the procurement volume that is typically unmanaged and characterized by a lot of different suppliers with lower volumes – it already claims to have slashed transactional costs in the purchasing process by offering an easy-to-use, highly convenient, and established e-procurement interface to business customers.

In emerging markets, such new and fast growing private equity players as Asia's ECHEMI and Molbase have entered the space. New online marketplaces appear on an almost quarterly basis, providing increased pricing transparency for customers and offering an alternative sales channel. We see the trend that established chemical distributors have already read the writing on the wall

New online marketplaces appear on a quarterly basis, providing increased pricing transparency and offering an alternate sales channel.

and have reacted by investing to become digital market leaders. Large chemical distributors will potentially drive industry consolidation through digital service offerings for smaller, local distributors. These smaller players lack the resources to develop digital formats and therefore enter into such collaborations to expand their visibility to potential customers. Product expertise, supplier relationships, and local proximity remain intact, while the large, established players are able to extend their own product portfolios.

3. Enhanced customer insights will become a prerequisite:

Gathering enhanced customer insights through data analytics will be at the core of new "digitized" go-to-market strategies in the global chemicals space. Big data analytics enables market players to accurately develop need profiles for their individual customers, factoring in respective purchasing histories, price sensitivities, and personal preferences, including, for example, the processing of unstructured data from social media. By way of illustration, Amazon collects valuable user insights – both on the supplier and the customer side – and with a growing user base combined with its highly sophisticated algorithms, Amazon can precisely forecast customer behavior, demand patterns, and give recommendations on promotional activities, churn reduction, and working capital optimization.

Digitization has already disrupted numerous industries and produced novel business models that have rapidly dismantled traditional and established structures. Even though the chemical industry has not yet been significantly disrupted, we can learn from the examples of other industries and already see the trends forming. Digital disruption will not take a gradual linear course but will follow an exponential trajectory. It is therefore all the more important for chemical players to start to gear up today in order to meet the inevitable challenges of digital transformation.

This led us to question how digitally ready the chemical industry is today.

B: Observed trends in chemicals sales & marketing. Digital transformation trends are disrupting traditional structures.

Source: Roland Berger

How digitally ready is the chemical industry today?

In our recent Digital Pathfinder for Chemicals survey, we measured the digital readiness score of chemical industry professionals across different organizations, functions, and hierarchy levels. The digital readiness score considers different digital dimensions such as strategic positioning, resources and capabilities, use of groundbreaking tools as well as innovative methods, and provides an indication of how prepared organizations are to face the emerging challenges generated by the digital transformation of their market environment.

The overall average digital readiness score recorded in our study was 35%. → C

The majority of organizations, here a combined 76%, have digital readiness scores of below 40%, at the lower end of the digital readiness scale. These organizations exhibit characteristics of what we call "Digital Laggards" and "Developing Transformers". Our survey did not record any "Digital Market Makers". However, there is a likelihood that this digital readiness range is especially prevalent among the new, non-traditional players entering the chemical industry.

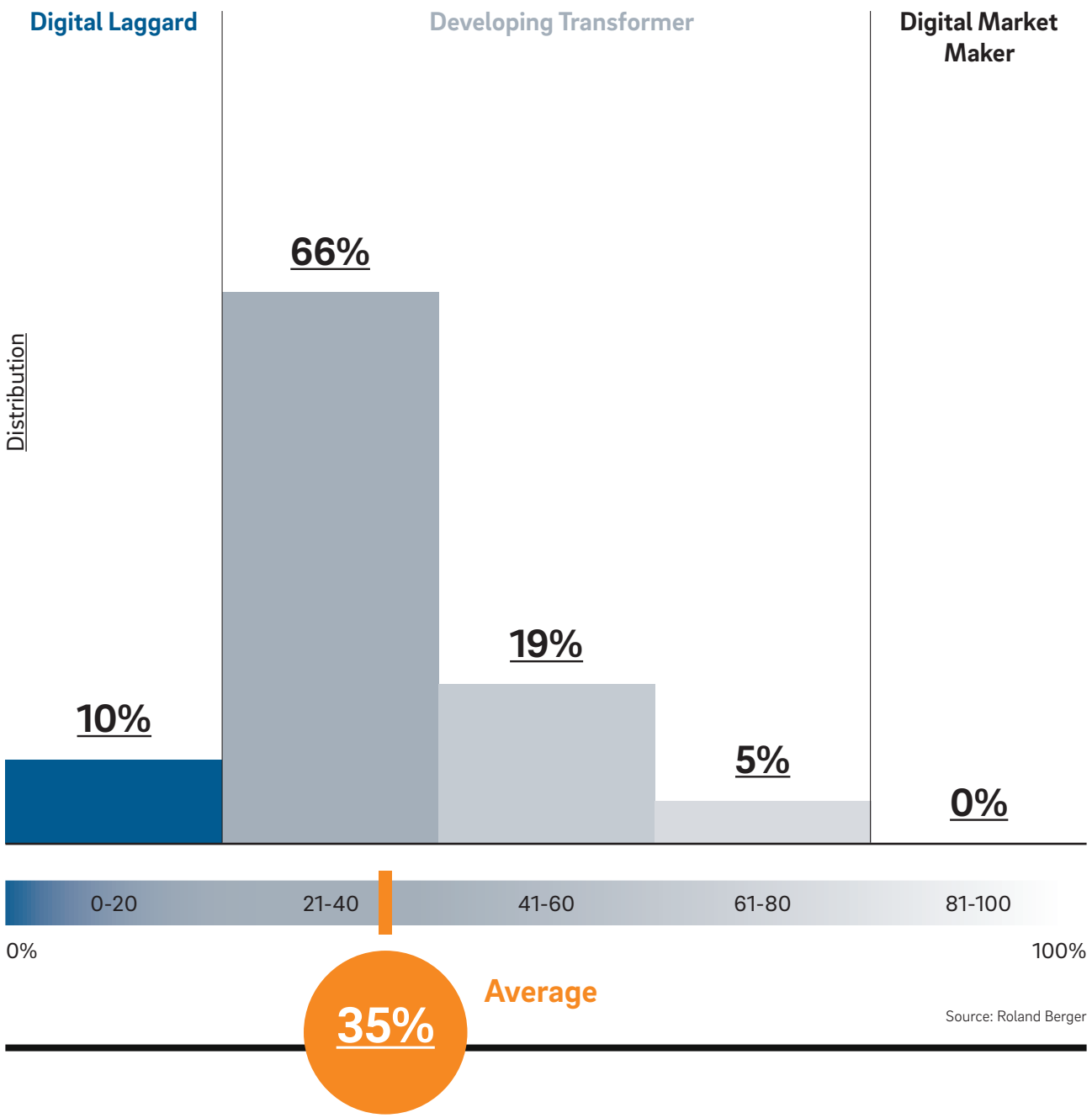
Digital Laggard

The organization is generally lagging behind on digital transformation, but holds a great deal of unexploited potential in terms of digital readiness. Currently, a clear digital vision or strategy for the future is lacking and the firm's organization seems to be struggling to bring ideas to life. As digital initiatives are most powerful when everyone has a shared mindset that is open to digital innovations, it is essential for management to define a digital agenda for the organization and to act as key promoters of the digital transformation.

Developing Transformer

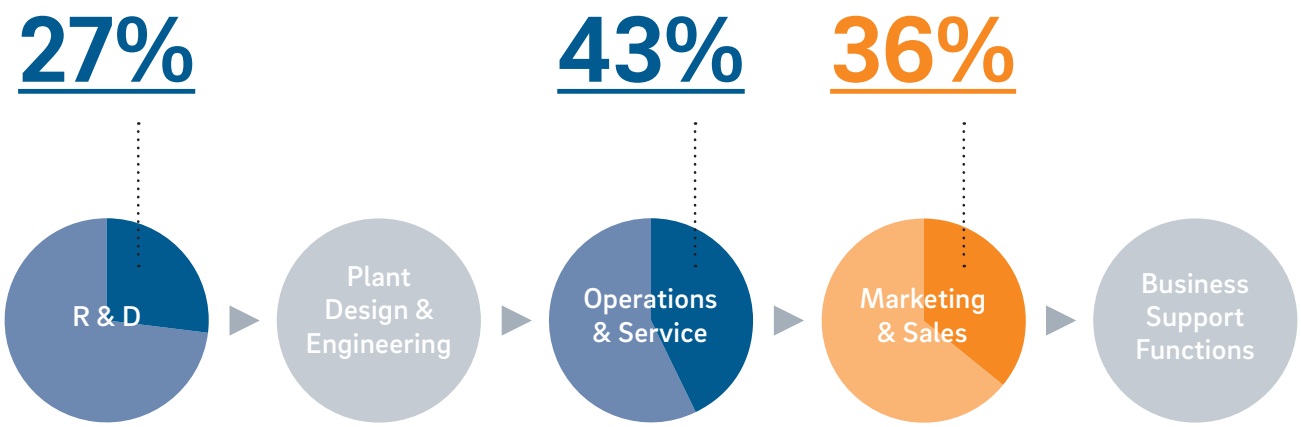
The organization appears to be determined to progress with the digital transformation but there is still unexploited potential. The management has started to develop a digital strategy but it has not yet been clearly defined as its central vision. There seems to be an open culture towards digital transformation and management should build on that to foster a shared mindset across the entire organization. Ways that allow for a fast-track implementation of digital initiatives should be the focus.

C: The majority of organizations have digital readiness scores below 40%.
Digital readiness score distribution.



Source: Roland Berger

D: Average digital readiness scores by selected functions.
Comparing Marketing & Sales with highest and lowest performers.



Source: Roland Berger

Digital Market Maker

The organization appears to be ahead of the average and well positioned to compete in the digital transformation. However, some unexploited potential remains. The important first step in defining a digital agenda has been taken and the organizational culture appears to support the digital transformation, but it is important to ensure that management continues to lead by acting as digital promoters.

When looking at the digital readiness scores on a function-by-function basis, it is surprising to note that the score of Marketing & Sales representatives is only broadly in line with the overall average score at 36%, while Operations recorded the highest average digital readiness at 43%. → D

An analysis of the individual digital readiness dimensions revealed that the leading positioning of Operations is predominantly driven by their use of digital tools and techniques for business model innovation.

Chemical suppliers tend to center their digital initiatives around operational topics by focusing on efficiency improvement and further enhancing existing competencies from the core of their DNA rather than on marketing and sales, and business model innovation related topics.

For instance, we asked participants which digital tools are utilized regularly and on a daily basis within their working environment today. The most common responses highlighted tools used for the purpose of information exchange, like Skype or Webex, or enterprise social networks such as Slack, a cloud-based team collaboration tool. By contrast, tools for shared learning, like online collaboration platforms such as Innosabi, seem to be significantly less well represented in the

chemical industry. With respect to speed and agility, only representatives from Operations answered that they also use such mockup and rapid prototyping applications as Balsamiq or Marvel. Asked about which techniques for business model innovation are applied in their working environment today, representatives from all three functions mentioned agile project and product management, Scrum, and rapid prototyping. The results, summarized in Figure → E, also reveal that Operations is more open to a wider range of techniques, being the only ones in the peer group to employ crowd innovation and hackathons, which also drives the difference in readiness score.

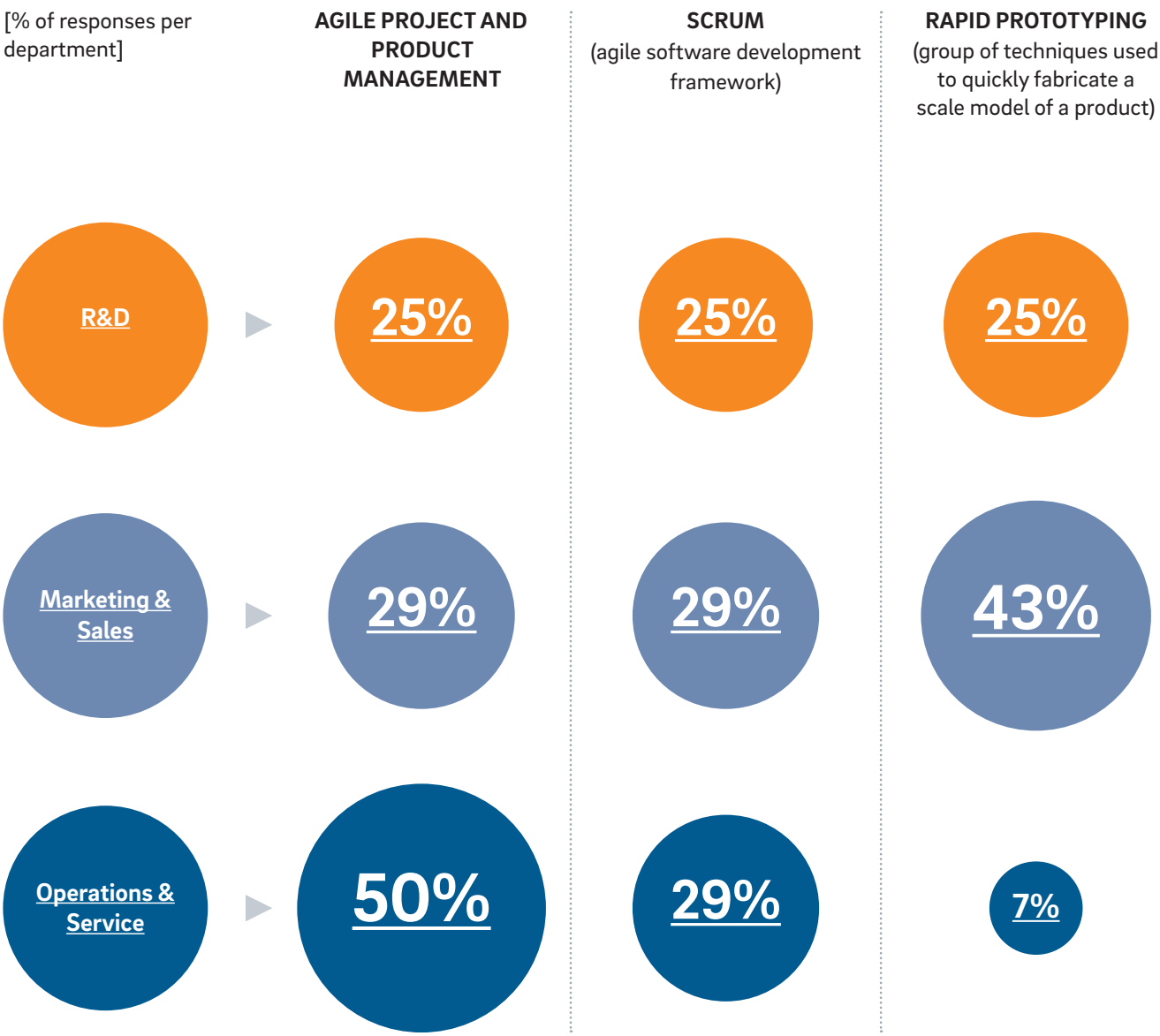
However, even in Operations, in most cases the utilization rate of techniques for business model innovation is lower than 50%. In the context of the overall survey, taking into account all participants from all functions, less than 20% presently use innovative techniques such as Scrum, rapid prototyping, or crowd innovation.

Based on digital readiness scores, the chemical industry is still lagging behind such other industries as financial services and automotive, which have already been heavily affected by digital transformation. New players have entered these markets and challenged incumbents and their established business models. They, in turn, were forced to defend their positions by reinventing their own ways of doing business – including digital. → F

As other industries have demonstrated before, the tide of digital transformation cannot be turned – you either ride the wave or you get washed away. Naturally, "surfing" is not a skill to be mastered within a day, but companies in the chemical industry need to at least gear up now in order to be on top of the digital tsunami when it hits. Greater digital readiness will help companies in the chemical industry to better prepare for and better handle the challenges brought on by digitization – this applies to the ongoing trends in terms of the go-to-market approaches and ultimately to every step of the chemicals value chain.

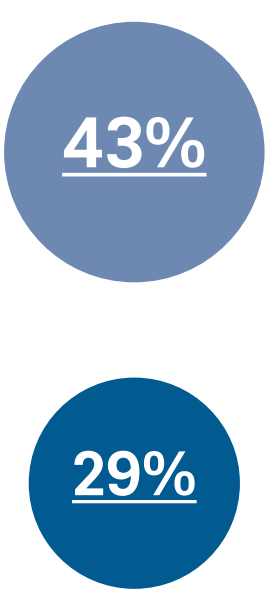
The chemical industry is lagging behind – other industries like financial services and automotive have already been heavily affected by digital transformation.

E: Which of the following techniques for business model innovation are applied in your working environment today? Excerpt: Digital readiness survey – Techniques used for business model innovation.

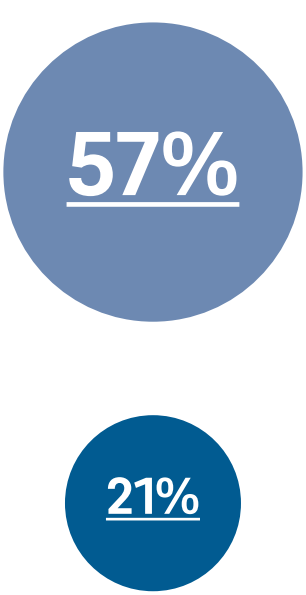


Source: Roland Berger

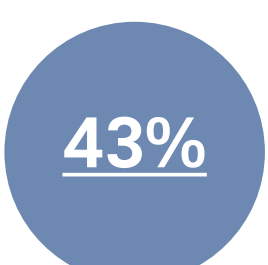
DESIGN THINKING WORKSHOPS
(workshop delves into principles and processes to solve complex problems and to develop new ideas)



LEAN START-UP
(approach creating and managing start-ups to get a product into customers' hands faster by keeping processes as lean as possible)



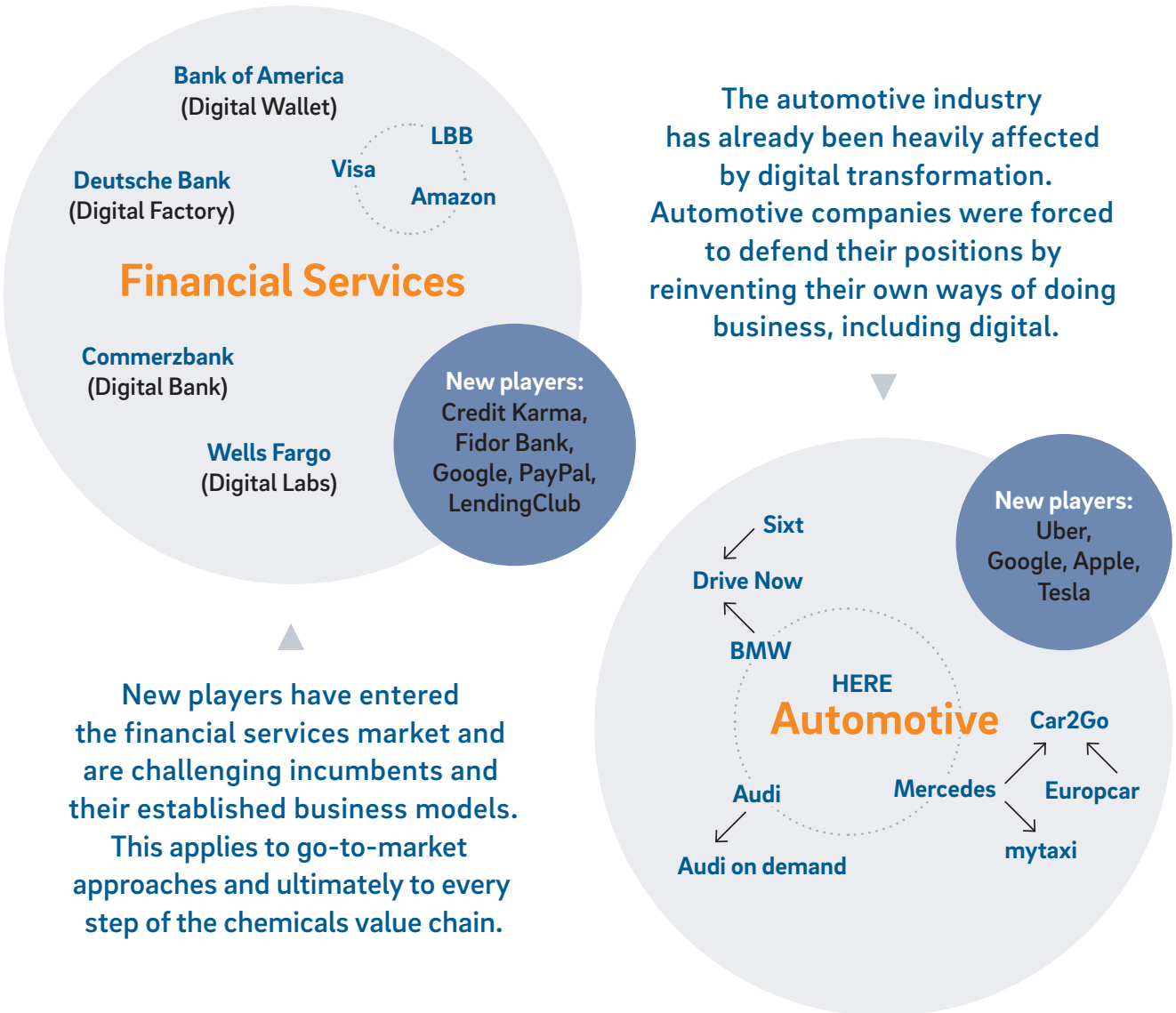
CROWD INNOVATION
(using the crowd as an innovation partner to enhance products/ processes)



HACKATHONS
(event in which computer programmers and others involved in software development collaborate intensively on software projects)

(percentage values reflect the number of answers per function relative to the total number of participants from the respective function)

F: Digitization across industries.
New business model developments in financial services and automotive in light of new players challenging the markets.



Source: Roland Berger

Try it out now – Become part of the Digital Pathfinder community

Are you curious to find out what it would be like to become a part of the Digital Pathfinder community? Try out Roland Berger's Digital Pathfinder for Chemicals and discover how digitally ready your company is. By investing only eight minutes of your time, you will get detailed insights into what drives your organization's digital readiness score, both holistically and on a function-by-function level. We will compare your results with the results of other chemical companies in order to provide you with transparency on where you stand among your peers and where you could differentiate yourselves.

Additionally, the Digital Pathfinder analyzes your core competencies along the chemicals value chain as well as your prioritized leverage points for value and the digital use cases you are pursuing. With a database containing more than 100 digital use cases and leverage points for value, the analysis paints a comprehensive picture of your organization's digital status quo as the basis for driving an optimal digital agenda. Join the community now: digitalpathfinder.org. Try our Digital Pathfinder to understand where your strengths lie and highlight which capabilities you may need to develop further. → G

G: Excerpt of Digital Pathfinder survey.
Digital readiness assessment.

Imprint

WE WELCOME YOUR QUESTIONS, COMMENTS AND SUGGESTIONS

CONTACTS

Frank Steffen
Partner
+49 160 744-8665
Frank.Steffen@rolandberger.com

Dirk Weiss
Principal
+49 160 744-4129
Dirk.Weiss@rolandberger.com

Gillian Morris
Partner
+1 312 646-9626
Gillian.Morris@rolandberger.com

About us

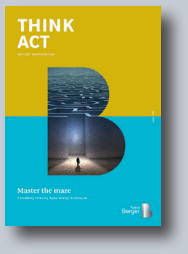
Roland Berger, founded in 1967, is the only leading global consultancy of German heritage and European origin. With 2,400 employees working from 34 countries, we have successful operations in all major international markets. Our 50 offices are located in the key global business hubs. The consultancy is an independent partnership owned exclusively by 220 Partners.

Navigating Complexity

For the past 50 years, Roland Berger has helped its clients manage change. Looking ahead, we are committed to supporting our clients conquer the next frontier. To us, this means facilitating navigating the complexities that define our times by providing clients with the responsive strategies essential to success that lasts.

FURTHER READING

Think:Act Booklet
Master the maze:
Formulating a winning strategy in chemicals



Digitization is disrupting the value chain. Most players think bilaterally: evolution vs. revolution. In other words, adopting proven technologies vs. disrupting the conventional industry structure with innovations or procedures. Evolutionary is the more obvious strategy in chemicals. It allows you to identify value pockets and find a path through the digital maze.

Think:Act Booklet
Digital and disrupted: All change for healthcare How can pharma companies flourish in a digitized healthcare world?

Roland Berger estimates that the value of digital healthcare products and services will exceed USD 200 bn by 2020, growing by more than 20% per year. Within the various segments, mobile health applications are the growth leaders.

Publisher

ROLAND BERGER GMBH
Sederanger 1
80538 Munich
Germany
+49 89 9230-0