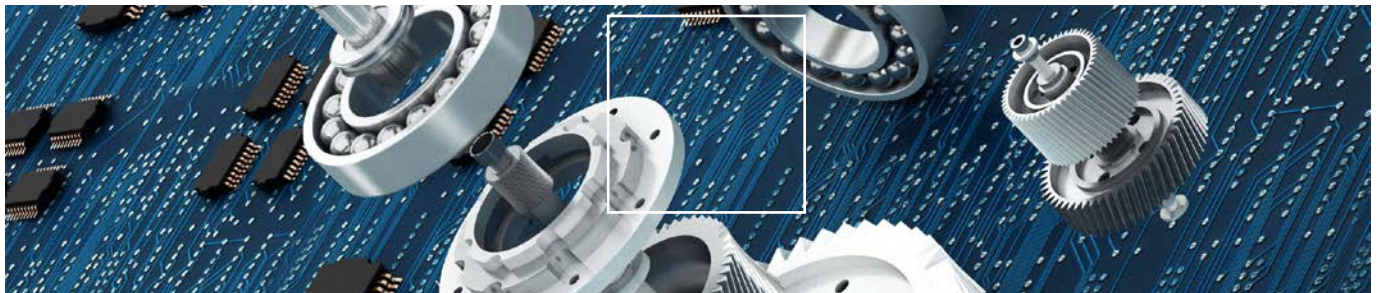


Executive Roundtable: Future of Operations

Exploiting the potential of new technology and Industry 4.0



The nature of operations has been changing constantly in past decades, and is still changing now, with more speed than ever. The evolution of Industry 4.0 and the high scale availability of new technologies such as augmented reality devices and blockchain payments is triggering the accelerated change in industrial value chains. For business leaders in the field of operations it is crucial to understand these trends and their impact of existing business models. Arthur D. Little brought a group of 40 cross-industry executives together in Vienna at the Future of Operations Roundtable to discuss these topics.

The Future of Operations

The Future of Operations will be defined by the interplay between Industry 4.0 solutions and evolving technologies. Changes are visible along the whole value chain, and executives with different backgrounds will view these changes from angles as diverse as technology opportunities, system performance and business targets. Nevertheless, an integrated approach is necessary to leverage all of the potential that lies in the Future of Operations. Arthur D. Little outlined the major cost savings, efficiency gains and performance improvements that can be reached throughout different functions and presented important case studies for guidance in this changing environment.

Bernd Schreiber introducing the Future of Operations expertise of Arthur D. Little



Bridging operational excellence and digitalization

Gebrüder Weiss pursues a very traditional business and has been keeping it successful for many years through constant adaptation to the changing environment. Nevertheless, more risk-taking is becoming necessary, as it is crucial for future success not to miss the new trends in logistics towards real-time information and transparency. Bridging the old economy and new technology towards a digital forwarding agency is the key challenge, as most of the megatrends – security, digitalization, urbanization, mobile world, climate change and ecommerce – are affecting the logistics business.

The traditional B2B business of Gebrüder Weiss is moving towards a model that is closer to a B2C oriented set-up. All support functions are under pressure from innovative new competitors such as start-ups or smaller boutique-model oriented solution companies, and there is a trend to separate the buying process and the logistics, with logistics assumed to be constantly available when transactions take place.

The new trends pose enormous challenges for logistics companies. Gebrüder Weiss is therefore placing an emphasis on customer orientation and satisfaction as well as widening its geographical and functional scope in order to utilize its assets as much as possible. Moreover, the company is working towards creating an integrated service platform for customers in order to become a digital forwarding agency.

Walter Konzett talking about operational excellence in logistics



(We would like to thank Gebrüder Weiss, on which this section is based.)

Industry 4.0 – requirements for employees – smart factory

Digitalization has varying effects on different groups within the workforce, with employment in retail and industry production suffering the largest losses, whereas telecommunication, media, health care and the public sector face increasing demand for labor. Within the production industry, the largest reductions in the workforce will take place in execution of repetitive tasks and controlling of machines. Additionally, administrative work will be reduced dramatically by advanced information-processing technologies. In contrast to these developments, there will be an increase in the demand for highly qualified workers in the fields of technology, data science and management.

Franz Schnabel introducing the smart factory and human resources concept of MAGNA



Employees' attitudes are also changing, with factors related to work-life balance gaining importance among younger employees. Furthermore, they are more prone to changing employers several times during their careers, and seeking

fulfillment and purpose in their work rather than only financial reward and safety.

MAGNA has initiated its smart-factory program as an answer to the changing technological and social environments, in which HR management is key to finding a balance between the two factors. It includes measures such as flexible working hours, home office, sabbaticals and on-site child-care facilities to stay attractive to highly qualified employees.

At the same time, the smart-factory program of MAGNA International Europe demands new skills from employees and HR management is especially facing the difficulty of having a shortage of the qualified employees needed. New skills are demanded, including collaborating with robots, extracting knowledge from big data and implementing the insight gained, and adapting to new technologies such as augmented-reality wearables. MAGNA is preparing for a future with constant change through this new program, and thrives with evolution rather than revolution.

(We would like to thank MAGNA Europe, on which this section is based.)

Transport Agency 4.0: future trends and issues affecting transportation

ASFINAG is of the opinion that the future of a transport agency is driven by four main factors: demography and society, economy, ecology and technology. Regarding the first factor, customer needs are shifting due to changing demographics and social structures. Mobility demand and expectations have increased, society and lifestyles have become more diverse and an aging society creates a new type of demand for transport agencies. In the economy, we see new financing mechanisms and an emphasis on sustainability over a short-term financial view. Ecological considerations are an additional factor that transport agencies have to take into account. Technology is moving at a tremendous speed and alters the nature of mobility with the use of big data, automation and digitalization.

Andreas Fromm outlining the way ahead for transport agencies



ASFINAG is planning to react to these new challenges with its Vision 2020. Within this program, the plan is to become one of Europe's leading motorway-network operators, focusing on availability, traffic management, traffic information, road safety and technological innovation. ASFINAG further views the future as "multimodal" and plans to provide multimodal information, cooperating with other transport operators through multimodal hubs.

In the field of technology, ASFINAG is focusing on autonomous driving with an increased R&D effort, as well as facilitating test routes. Moreover, it is planning to improve the conditions for e-mobility in Austria and add 10 new charging stations for electric vehicles to the existing 12 by 2018, with each offering several different plug types and 150 kw charging capacity.

(We would like to thank ASFINAG, on which this section is based.)

VERBUND – from digitalization to blockchain

Energy markets are in upheaval, and the old model of centralized energy generation and one-way distribution to consumers will not continue in the future. VERBUND has composed a future strategy to react to trends such as smart homes and buildings, decentralized energy creation and storage, and management of fluctuating supply from renewable energy sources and to combine them with existing infrastructure such as large power plants and the transmission grid.

To implement that strategy, VERBUND relies on two core measures: a group-wide digitalization strategy and an open innovation project to determine future innovation formats. The digitalization strategy of VERBUND comprises the evaluation of innovative ideas, identification of white spots regarding digitalization in the enterprise, development of a digitalization strategy, prioritization of use cases, and determination of a governance and implementation structure. First results yielded from the strategy are more than 200 identified use cases and five central strategic directions. Moreover, a digital unit was formed to professionalize the handling of data and develop interdisciplinary skills such as data engineering, system competence and data science. New products created and maintained by a modern digital unit include open innovation tools, new workshop formats, data maps, external data interfaces, modern visualization tools and state-of-the-art statistics tools for handling big data.

Gerhard Gamperl on the new technologies in energy



With the project "Open Innovation" VERBUND has the goal of increasing innovation intensity within the company and focus on intrapreneurship, innovation management and start-up cooperation. A special focus is put on the impact of blockchain and robotics in the energy industry. The project "Blockchain," in partnership with Salzburg AG, aims to explore the disruptive potential of blockchain technology in the energy sector and understand the new business models enabled by this technology. Concrete recommendations for pilots are derived from the projects. As a next step, VERBUND also plans to explore the impact of new developments in robotics, such as 3D printing, drones and security robots, on the energy industry.

(We would like to thank Verbund, on which this section is based.)

Concluding questions

Visibly, Industry 4.0 affects all functions of businesses, and early adopters can gain significant advantages over their competitors. Nevertheless, the complexity of Industry 4.0 requires a structured approach, selection of promising pilots and professional implementation.

Arthur D. Little has deep knowledge and experience in helping the leading players in the field to find and implement strategies for the above mentioned trends. During the event, numerous questions were raised, and the most important ones will be addressed at the next event.

- How are digital cross-company value chains composed?
- How do interfaces between different players across the value chain work?
- What are technologies that help creating a common platform for companies along the value chain?
- Will the new trends lead to larger companies that cover larger parts of the value chain, or to a competitive advantage of small, fast and flexible players focusing on their strengths?

Contacts

Dr. Karim Taga

Central Europe
taga.karim@adlittle.com



Bernd Schreiber

Central Europe
schreiber.bernd@adlittle.com



Martin Thomas

Central Europe
thomas.martin@adlittle.com



Dr. Engin Beken

Central Europe
beken.engin@adlittle.com



Arthur D. Little

Arthur D. Little has been at the forefront of innovation since 1886. We are an acknowledged thought leader in linking strategy, innovation and transformation in technology-intensive and converging industries. We navigate our clients through changing business ecosystems to uncover new growth opportunities. We enable our clients to build innovation capabilities and transform their organizations.

Our consultants have strong practical industry experience combined with excellent knowledge of key trends and dynamics. Arthur D. Little is present in the most important business centers around the world. We are proud to serve most of the Fortune 1000 companies, in addition to other leading firms and public sector organizations.

For further information, please visit www.adlittle.com

Copyright © Arthur D. Little 2017. All rights reserved.