



CATALYST FOR CHANGE

HOW DO YOU HOUSE AN INDUSTRIAL REVOLUTION?

Digitalization, globalization and explosive advancements in technology are evolving industrial manufacturing and propelling the fourth industrial revolution (Industry 4.0) forwards at an accelerated pace. This is putting fresh pressures on how the supply chain interacts and the way production and other facilities are planned and constructed.

There is a new perspective on the way built assets and other key resources are viewed as part of an integrated value chain, getting product to market at the right time, quality, price and with a responsible level of environmental impact. Some companies are working with this new perspective; for others, this is work in progress.

DRIVERS OF CHANGE

What is behind changes in the way production and manufacturing facilities are planned and managed? The first is technology. Production and distribution facilities have to be agile and flexible enough to accommodate customization of product and adaptable manufacturing processes, while aligned with 'The Internet of Things' - connecting the physical building to the digital world, both internally and externally. Whether manufacturing the cars we drive, the medicines that keep us healthy or the heavy machinery that farms our food, 'facilities of the future' need to adjust to the rapidly changing technology they house, and integrate with increasingly digitalized processes.

All the while, to stay competitive, companies are further globalizing and moving operations to new, more cost effective markets, or re-shoring to more stable environments and closer to market. Building in new geographies brings its own challenges; whether research and development (R&D) laboratories, offices or production plants, facilities need to meet global standards with optimized use of resources, even though they are delivered locally and must be ready swiftly to be first to market.

Thirdly, industrial sectors have witnessed a period of consolidation, with companies regularly acquiring new product lines and moving into new markets. This often creates a need to merge production of various products into one facility and an ability to adapt the facility if product lines are sold, relocated or discontinued. This adds additional pressure on built assets to be readily transactionable to keep up with the changing business.

Finally, work places need to attract and retain increasingly scarce talent and outclass the competition.

So, although delivering effective facilities that respond to production demand has always been a challenge, the landscape has changed and the need to have responsive built assets and resources is at new levels.

WHAT DOES THIS MEAN FOR PLANNING BUILT ASSETS?

A new paradigm emerges that demands asset portfolios and resources are integrated into a seamless value chain, de-risking timing and quality of product-to-market.



“Having truly global standards of delivery is incredibly challenging, yet crucial in industries heavily controlled by regulation and design standards.”

The main focus for planning, constructing, and maintaining built assets used to be cost efficiency. This often resulted in challenging relationships with supply chains and more importantly a disconnect between the built asset and the output it was required to generate. A traditional approach often involved local, de-centralized planning of capital expenditure projects. Visibility of performance was limited and so standardization and decision-making to plan for the future was also limited. Today, global companies are focusing on business outcomes and the value generated from a fully optimized portfolio of facilities.

Operations, Finance, Real Estate, and Procurement Leaders are under intense pressure to demonstrate the value of capital expenditure projects to internal stakeholders. Where building portfolios previously took a back seat, they are increasingly recognized as integral to the value chain. Capital investments into built assets must therefore support the wider business need, not just achieve the output of the individual project.

Through greater integration of capital expenditure projects into a company’s core business value chains, a better future-proofed, long term view can be taken. For example, by considering the long term production plans of the business when investing in a new distribution center, the asset will be future-proofed, resulting in longer term efficiencies.

ALIGNING CAPITAL EXPENDITURE PROJECTS AND BUSINESS NEEDS

To deliver the best outcomes from their built asset capital expenditure projects, companies are seeing the benefits of greater knowledge, visibility and control of their built assets and their supply chains.

Having truly global standards of delivery is incredibly challenging, yet crucial in industries heavily controlled by regulation and design standards. In addition to that, the supply chain needs to be resilient to natural or geopolitical influences.

It is evident that many companies are already responding to these challenges. Yet there are few sources of insight into how industrial sectors as a

whole are responding, and how individual companies are performing in context of their peers.

Seeing the various best practices that are being implemented across industries, Arcadis is seeking to address this by conducting industry research on these issues. We will be speaking to companies across industrial sectors to identify how they manage their capital expenditure projects and how they are responding to the issues outlined in this paper. The findings will provide insight into how each industrial sector is responding and make some overarching comparisons between sectors.

If you work in the private industrial sectors outlined below and would like to be involved in this research, please contact [Matthew Chatterton](mailto:matthew.chatterton@ipsos.com) or [Rebecca Maguire](mailto:rebecca.maguire@ipsos.com) at Ipsos MORI (matthew.chatterton@ipsos.com) / (rebecca.maguire@ipsos.com). All participation will be treated confidentially and results will be anonymized. Highlights of the findings will be published in an Arcadis report, which we will share with you and will be available on www.arcadis.com

Private industrial sectors we are researching:

- Automotive
- Fast Moving Consumer Goods (FMCG)
- Food & Beverage
- Chemicals
- Pharmaceuticals
- Heavy Industrials
- Tech Manufacturing
- Aerospace.

CONTACT



Tjerk van der Meer
Global Sector Leader
- Conglomerates
E tjerk.vandermeer@arcadis.com
T +31 6 51 456 402



Martijn Karrenbeld
Global Sector Leader
- Chemical & Pharmaceutical
E martijn.karrenbeld@arcadis.com
T +31 6 27 060 599



John Atkins
Global Sector Leader
- Automotive
E john.atkins@arcadis.com
T +49 1 732 675 505

www.arcadis.com