

E-BOOK

Construction Industry Trends in 2024

Five trends not to be missed



INTRODUCTION

Our world is constantly changing, and rightly so, because we all know that stagnation equals regression. As we embrace a new year, now is an excellent time to look ahead to the next twelve months. What changes will affect the construction industry in 2024? Which trends and developments should not be overlooked in the new year? We want to help you get started. This e-book lists five trends that will radically change the construction industry in the coming years. Have fun reading!

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TREND 1

THE AI-REVOLUTION

If 2020 is the year when the transition to the cloud really gained momentum, then we may see 2023 as the year when AI jumped out of the starting blocks. Yet the deployment of artificial intelligence is not new; tech giants have been developing AI and machine learning for years. It was back in 1997 that the IBM supercomputer Deep Blue beat chess grandmaster Garry Kasparov in a chess match.

The future starts here

But where in recent years the development of artificial intelligence was not world news and applications such as Midjourney and ChatGPT were virtually unknown to the general public, in 2023, you suddenly could not avoid it. Everyone suddenly started generating images with Dall-E and writing Christmas poems with ChatGPT. LinkedIn was also full of tips and tricks to get started with AI. Yet, it is wrong to think this trend is just a temporary hype. What we see now is just the beginning of what is possible and what will become possible in the coming years.

Working smarter, not harder

If we look at the construction industry, we see many opportunities to use artificial intelligence to work more efficiently. And that is necessary because the construction industry is under tremendous pressure in terms of resources and budget. However, with the help of artificial intelligence, it becomes possible to partially or fully automate specific processes. Examples include allocating resources to construction projects or optimising HVAC systems to maximise energy efficiency. #worksmarternot-harder

But even on the construction site, there are countless examples of processes where AI can do its bit. For example, artificial intelligence can be used to analyse drone footage to spot possible safety issues. Or combine artificial intelligence with augmented reality to guide service engineers step by step when repairing an industrial filter installation or boiler.



Microsoft and Copilot

At 4PS, we are very much looking forward to the introduction of Microsoft Copilot in Microsoft 365. Because then you will see how artificial intelligence can help and support us in our daily operations.

Microsoft 365 Copilot is an AI assistant within the Microsoft 365 suite. Microsoft integrates Copilot into all Microsoft 365 applications, making the AI assistant

ready for you in all work activities. For example, Copilot helps in Word to write a project plan based on available data from a PowerPoint presentation and OneNote minutes.

But Copilot can also create a PowerPoint presentation for you based on input from a Word document. Or summarise an endless e-mail conversation into a few bullet points for you. The possibilities are truly endless.



The future?

No way! Scan the QR-code to see exactly how!



TREND 2

REPORT ON SUSTAINABILITY

Sustainability is and remains a hot topic in the construction industry. Not only do companies have to deal with the changing expectations and wishes of residents, but evolving laws and new regulations also add to the pressure.

Contributing to a better world

An important fact is the European Commission's upcoming obligation to report on sustainability, the Corporate Sustainability Reporting Directive (CSRD).

In this report, companies must show the impact of their activities on people and the environment. In the CSRD, companies describe their goals around sustainability, social rights, and governance and how they go about them.

As a company, you not only have a responsibility to achieve your economic goals, but you also have to contribute to making our world a better place. In the report, you show, for instance, what you do concretely to save energy. What do you do to promote inclusiveness and

diversity in the workplace, and how do you contribute to the welfare of the local community?

Approximately 50,000 companies will eventually be required to report on sustainability, including larger companies and listed small and medium-sized enterprises (SMEs). Approximately 1,000 businesses meet the reporting criteria and have ultimate parent ownership based in the UK.

Bringing together data from different systems

For most companies in the construction industry, there is still time to think about setting up the CSRD. Yet it is essential not to wait too long, as a lot is involved.

The biggest challenge is bringing together all the information and data you need for this reporting. Therefore, already capture as much information as possible digitally and take stock of where you capture this information. Think, for instance, of data from a CRM, ERP, HR package, KAM system and risk management software. But do not forget loose Excel files or PowerPoints with KPIs. In any case, remember that data for reporting always comes from multiple data sources. Exporting data via APIs to one central data platform can be a solution.

An end-to-end solution

A fully integrated construction ERP system significantly enhances a construction company's operations by centralising data management, thereby eliminating information silos and ensuring up-to-date information accessibility across departments. This integration facilitates informed decision-making by providing a comprehensive, real-time view of the company's financial health, project status, and resource allocation.

The automation of data entry and the reduction of manual data transfer streamline workflows, increasing efficiency and reducing error risk. It also improves project management, financial management, and supply chain optimisation by providing an overarching view of project timelines, budgets, and resources, ensuring effective resource availability.

TIP:

A good agenda item for 2024 is, therefore, to start talking to your software suppliers and IT partners. Discuss the various integration options with them so that you can get all the data together for the CSRD without too much manual work.



TREND 3

NEXT LEVEL DIGITALISATION AND AUTOMATION

We have already discussed the AI revolution that will radically change our working day in 2024. Yet artificial intelligence is only one aspect within the bigger picture of digitising and automating construction processes.

Further deployment of technology such as cloud software, BIM, 3D printing, big data and customised apps will also help companies work more efficiently and sustainably.

Integrating systems and working with standards

With the smart use of technology, you can also address one of the biggest challenges within the construction industry: working well together in the chain.

Poor communication between chain partners leads, among other things, to ambiguities and assumptions. This increases the risk of failure costs, putting even more pressure on profit margins.

By focusing more on integrating different technologies and using digital standards, you ensure a streamlined digital process. Thanks to real-time data exchange, everyone always has access to the same information, regardless of the software companies they work with. All parties work from a single source of truth.

This is very important because the more data companies own, the better they can monitor projects, spot problems faster, and keep costs down.

Great examples of these integration possibilities are special project websites where all chain partners involved collaborate on documents, share important information and keep stakeholders informed of progress. Or think of automatic procurement of materials from wholesalers or bringing together data from different systems in a single data platform such as Microsoft Power BI.



Digital collaboration in the Built Environment

The government, major clients and the various industry associations in the construction industry also recognise the importance of digital collaboration in the chain.

In the UK, the construction industry is experiencing a significant transformation, fuelled by the heightened incorporation of data, digital solutions, and the expanding role of off-site manufacturing in diverse projects.

This evolution presents potential productivity improvements, but the industry must adopt a suitable skills strategy to capitalise on these advancements fully.

As a digitisation partner for the industry, 4PS is also involved in this initiative because, with our total solution, 4PS Construct, we play an important role in digitising the entire construction process.

Commitment to industrialisation

Besides focusing on further integration of systems and data, automation and robotisation also play an increasing role in construction.

For instance, more and more companies in the construction industry are opting for factory-built construction.

Well-known companies such as TBI, Van Wijnen and VolkerWessels are doing this by setting up housing factories where houses are built in the factory hall.

The shift to robotisation and factory-built construction not only conveniently plays into the labour shortage in construction, but it is also necessary to build faster and cheaper. Because to meet the acute housing shortage, modernising and scaling up the construction process is a key piece in this social puzzle.

TREND 4

THE BATTLE FOR QUALIFIED STAFF

The construction industry is grappling with a persistent shortage of skilled labour, facing a shortfall in various qualified personnel. The Construction Industry Training Board has projected that the sector may require nearly 225,000 additional construction workers by 2027.

This scarcity of workers is frequently cited as a primary cause of project delays. Additionally, since the 2016 referendum, the cost of labour in the UK's construction sector has surged by 30%, a rate of increase twice as high as that observed in certain EU nations. This escalation in labour costs, driven by intense competition for workers, suggests that this trend may persist.

Technology is becoming increasingly important

Approximately 20% of professionals in the construction sector anticipate that in the next 5 to 10 years, the industry will face talent shortages due primarily to a lack of digital and technological expertise.



The construction industry is undergoing a period of transformation, dealing with existing challenges and reevaluating the use of technology to achieve new benchmarks. This shift signals an increasing demand for specialists proficient in digital skills, including virtual/augmented reality, AI, and digital twins. Beyond bringing new talents into the fold, it's vital to continually enhance the skills of current employees.

Talent retention and loyalty

It is, therefore, important not to lag behind the competition when it comes to digitalisation. Not only to deliver projects more efficiently and better but also to make the company attractive to young professionals. Show that you are an employer that invests in the future and embraces innovative technology.

Modern technology plays a pivotal role in enhancing the job satisfaction of current employees in the construction sector. It's significantly more enjoyable and efficient for workers to have the ability to use applications on tablets or mobile phones directly from the construction site. Integrating technology in the workplace improves communication among colleagues, automates mundane tasks, and frees up time for more complex and engaging aspects of the job. And we all know that happy employees are worth their weight in gold!

TREND 5

DEALING WITH SHRINKAGE

The latest Construction Industry Forecasts indicate that construction output is expected to decrease by 6.8% in 2023. This projection is closely aligned with the previously estimated contraction of 7.0% three months earlier. Additionally, a slight decline of 0.3% is anticipated in 2024, revising down from the 0.7% growth predicted in the Summer.

The sectors expected to be most affected by the current economic climate, marked by stagnant growth, enduring inflation, and high interest rates through 2024, are private housing and private housing repair, maintenance & improvement.

Various challenges hamper growth

Currently, the construction sector is struggling with several challenges that are hampering growth. A rise in interest rates led to less investment in 2023. Governments, businesses and individuals alike went out of business. Result? Fewer projects are getting a GO. This is at odds with the central government's demand to build more affordable housing in the coming years to address the housing shortage.

This puts builders in a strange position. On the one hand, there should be more affordable houses, but on the other hand, the prices of new-build houses remain too high for the average consumer. The project freeze is also very noticeable in the civil engineering sector, where large, new infrastructure projects are on hold for now.

All this translates into less construction activity in the coming years. However, delays in licensing and high construction costs also contribute to the expected contraction.



Continue to invest in staff and technology.

Fortunately, experts do not expect a long-term contraction in the construction industry, like after the financial crisis in 2008. It is therefore essential to keep investing in filling all vacancies and binding qualified staff to your company. This will ensure that you are well prepared in terms of workforce once the market recovers.

Also, keep investing in modern technology. By digitising all business processes with an ERP (Enterprise Resource Planning), for example, you keep a better grip on projects, resources and service locations.

Bring together data from all construction processes, capture all information digitally and create insight into the entire business.

This real-time insight into projects enables you to monitor projects closely and make quick adjustments when necessary. Quickly anticipating and making adjustments is the way to prevent projects (and budgets) from derailing.

Focus on the future

Let us see 2024 as a quieter interim year where the construction industry can focus on creating a future-proof strategy that best prepares them for future success. In this, sustainability, automation and new technologies, such as AI, will play an increasingly important role. By preparing for this, construction companies increase their resilience and become more attractive as both partners and employers within the industry.



CONCLUSION

1



The rise of AI

In 2023, we saw the rise of artificial intelligence (AI) as an indispensable factor in our daily lives. At 4PS, we are very much looking forward to the availability of Microsoft's Copilot in Microsoft 365. In this, Microsoft integrates AI assistance into all Microsoft 365 applications, allowing you to continuously rely on the support of a personal AI assistant during all work activities.

2



Sustainability challenges

The construction industry is also facing changing regulations from the EU around sustainability, such as the CSRD. The biggest challenge here is bringing together all the information and data needed for this reporting. Companies in the construction industry can anticipate this by thinking now about the design of the CSRD, identifying available data sources and exploring integration possibilities.

3

Technology as a driving force

Further digitisation and automation remain essential, with technologies such as cloud software, factory building, BIM, 3D printing, and big data being used to increase efficiency. Integrating systems and working with digital standards is vital for seamless collaboration in the construction supply chain.



Limit financial contraction

With contraction expected in 2024, especially in the new construction sector, construction companies face challenges. Continued investment in human resources and modern technology, such as Enterprise Resource Planning (ERP), is crucial to remain resilient. Focusing on sustainability, circularity, and new technologies is key to preparing the construction industry for a successful future.

So keep working on a future-proof strategy in 2024 so that your company is assured of success beyond 2024!

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Addressing staff shortages

The challenge of staff shortages in the construction industry remains a constant concern. While the industry's stagnation in growth eases some of the pressure on the labour market, the shift towards professionals with knowledge of new technologies is inevitable. Investing in technology is important not only for efficiency but also to remain attractive to young talent. Happy employees, supported by modern technology, contribute to a productive work environment.




ABOUT 4PS

An industry leader, 4PS has been developing, implementing and maintaining standardised cloud software solutions for the construction, civil engineering and installation sectors for over 20 years. Over 350 team members work daily on applications that improve efficiency for more than 450 customers worldwide. 4PS is headquartered in Ede (NL) and has offices in Birmingham (UK), Ghent and Hasselt (Belgium) and Ulm (Germany). Since 2023, 4PS has been part of the Hilti Group. Hilti provides technology-leading products, systems, software and services to the construction and energy sectors worldwide.

Want to know more?

Wondering how we support companies in construction, civil engineering and installation with digitalisation? Contact us and learn more about our solutions.



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