A collaborative ecosystem in the AEC sector: the key to sustainable success

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The AEC industry, which includes Architecture, Engineering and Construction, plays a key role in shaping our environment. At the same time, it is an economic sector in which a vast number of players from many different disciplines are involved in the process of creating a building or piece of infrastructure.

At every stage of the project, from planning through design, implementation and operation, a significant number of people must communicate on a daily basis and be kept informed of the progress of the work. This allows them to make the necessary adjustments and approve individual elements of the implementation.

Modern AEC projects require more collaboration and communication between all participants than was the case a decade ago for a number of reasons. Firstly, the industry is constantly evolving and the tools it uses, such as BIM processes, are modernizing. Secondly, the industry is facing a number of challenges posed by the modern world, such as the rapid growth of urbanisation, the need to act in accordance with the idea of sustainable development, the volatility of the building materials market and inflation.

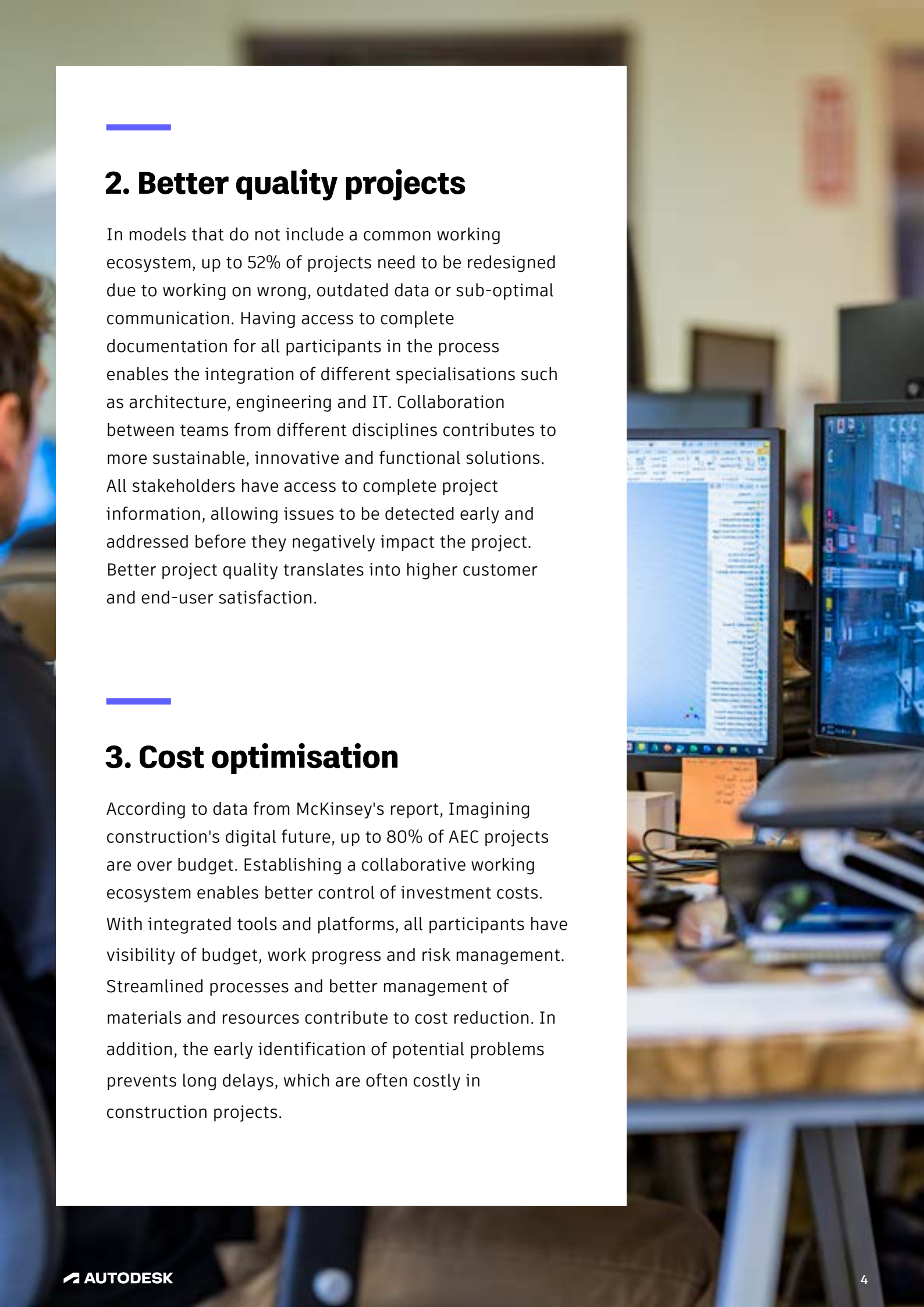
In such a complex working environment, the creation of ecosystem for all stakeholders, such as investors and property owners, architectural firms, key contractors and investors is not only a necessity, but also a key element for sustainable project success in the AEC sector.

The solution that best meets the growing needs of the industry is the Common Data Environment (CDE) developed by Autodesk. It is a central project management space where all project information is stored. The content of the CDE is not limited to files created by design tools, but also includes complete documentation, graphical models and non-graphical resources. The cloud storage can be accessed by everyone involved in the project in real time.

What are the areas in which we can expect CDE to optimise operations?

1. Operational efficiency

As data from McKinsey's report, Imagining the Digital Future of Construction, shows, approximately 20% of projects failed to deliver on time and 35% of projects were delayed and wasted resources due to conflicts and the need for rework. Establishing a common working ecosystem for all parties involved in the process reduces the risk of such situations and brings significant benefits in terms of operational efficiency. A common platform enables better synchronisation and integration of the activities of all parties involved, leading to a smoother flow of information, minimising delays and reducing project delivery times. Automated processes, shared databases and collaborative support tools are invaluable assets to the AEC industry, enabling more efficient use of resources.

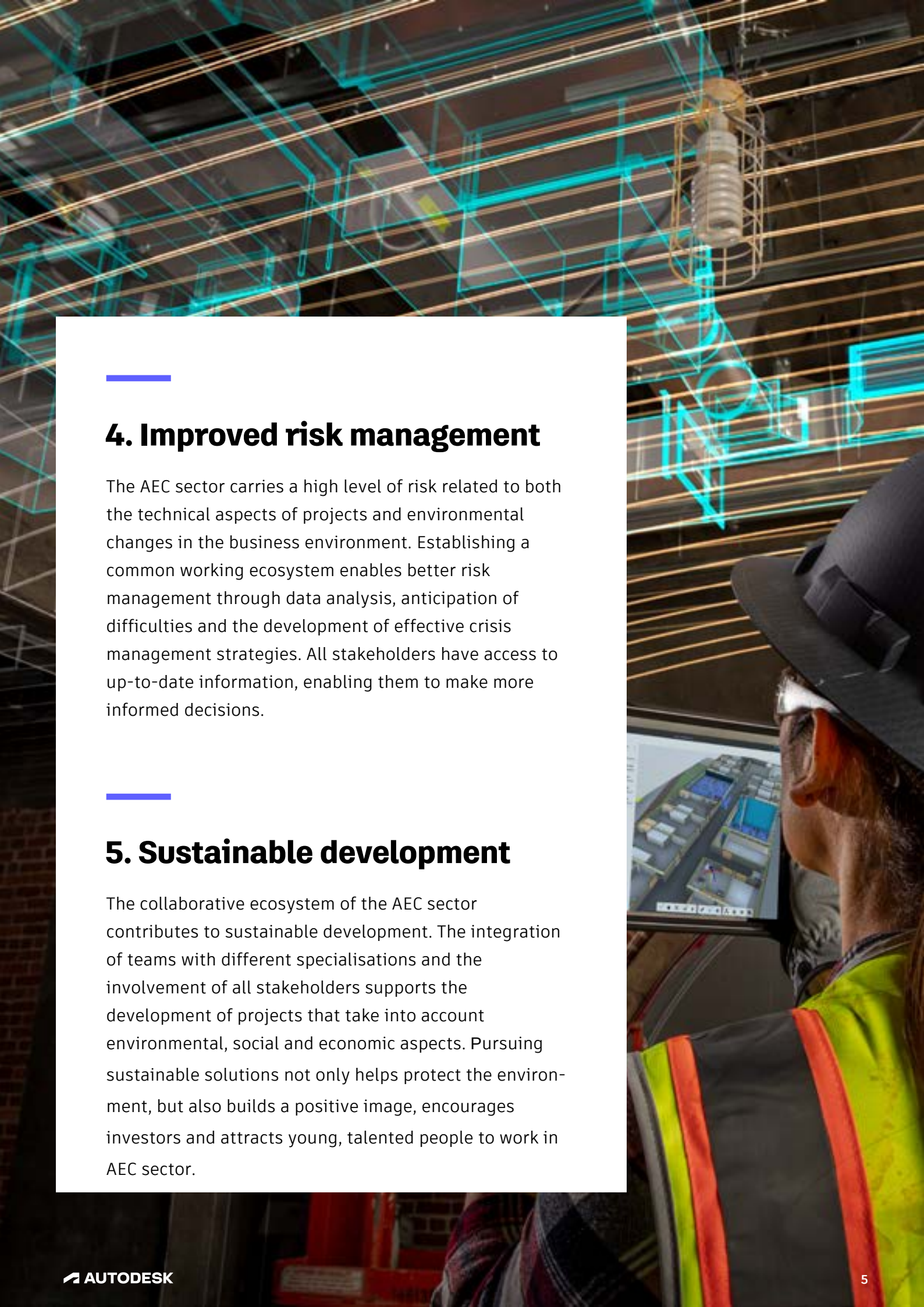


2. Better quality projects

In models that do not include a common working ecosystem, up to 52% of projects need to be redesigned due to working on wrong, outdated data or sub-optimal communication. Having access to complete documentation for all participants in the process enables the integration of different specialisations such as architecture, engineering and IT. Collaboration between teams from different disciplines contributes to more sustainable, innovative and functional solutions. All stakeholders have access to complete project information, allowing issues to be detected early and addressed before they negatively impact the project. Better project quality translates into higher customer and end-user satisfaction.

3. Cost optimisation

According to data from McKinsey's report, Imagining construction's digital future, up to 80% of AEC projects are over budget. Establishing a collaborative working ecosystem enables better control of investment costs. With integrated tools and platforms, all participants have visibility of budget, work progress and risk management. Streamlined processes and better management of materials and resources contribute to cost reduction. In addition, the early identification of potential problems prevents long delays, which are often costly in construction projects.



4. Improved risk management

The AEC sector carries a high level of risk related to both the technical aspects of projects and environmental changes in the business environment. Establishing a common working ecosystem enables better risk management through data analysis, anticipation of difficulties and the development of effective crisis management strategies. All stakeholders have access to up-to-date information, enabling them to make more informed decisions.

5. Sustainable development

The collaborative ecosystem of the AEC sector contributes to sustainable development. The integration of teams with different specialisations and the involvement of all stakeholders supports the development of projects that take into account environmental, social and economic aspects. Pursuing sustainable solutions not only helps protect the environment, but also builds a positive image, encourages investors and attracts young, talented people to work in AEC sector.

Summary

Establishing a shared working ecosystem for all stakeholders in the AEC sector is a key step towards sustainable success. Operational efficiency, higher project quality, cost optimization, better risk management and sustainability are key benefits that contribute to the industry's competitiveness. Collaboration between architects, main contractors, investors, project owners and other participants in the construction process is becoming a key element in creating innovative and sustainable solutions for our future.

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