

[Digital construction forms](#) change everything in the construction industry which stands as a pivotal sector for Quebec's socio-economic development. Presently, we grapple with a severe housing shortage, senior homes exceeding budgets and deadlines, and 61% of schools in poor condition. Additionally, Hydro-Quebec identifies the lack of construction workforce as the primary challenge of the energy transition. Moreover, the government faces the task of implementing numerous infrastructure projects in transportation.

By 2033, Quebec's government infrastructure projects are projected to surpass \$150 billion, exacerbating the undeniable shortage of workers needed to execute them. While Minister Boulet's proposed regulatory framework reform promises some benefits, it falls short of addressing the magnitude of our challenges. As highlighted by the Desjardins Movement in a January 2024 publication, easing labor constraints alone will not resolve the pressing need for new housing. Any solution must be accompanied by productivity gains.

In an industry where 79% of businesses have fewer than five employees, it's imperative to support digitization alongside regulatory reform. Companies must swiftly identify and implement promising digital projects while ensuring accessibility to awareness and training programs. The magnitude of the challenge requires collective action; leaders need support to navigate this transformation effectively.

It's essential to recognize that the construction sector, along with its related services, ranks as Quebec's fourth most important economic sector. It plays a vital role in supporting other sectors like health, education, and manufacturing. Thus, any productivity gain in construction reverberates throughout Quebec's economy.

Moreover, extrapolating a study by Atkins and KPMG in the UK to Quebec suggests that every dollar invested in digitization yields an average return of \$5.50. A \$47 million investment by the Quebec government in digital transformation could result in a 1% increase in productivity and an additional \$260 million to Quebec's GDP. Furthermore, full digitization could potentially boost productivity by up to 15%.

The Government Roadmap for Infrastructure Data Modeling promises more efficient and sustainable construction practices while optimizing the management of Quebec's real estate assets.

However, it's predominantly the larger players who have embraced digital transformation, widening the gap between them and smaller companies. Without support for smaller businesses, the productivity gains we seek will remain elusive. Therefore, the government must enhance its support for digitization initiatives immediately.

This strategic choice holds significant implications for Quebec's future economic prosperity.

1. ****What are the main challenges facing the construction industry in Quebec?***

- The main challenges facing the construction industry in Quebec include workforce shortages, regulatory barriers, and the need for modernization to meet the growing demands for housing, infrastructure, and other projects.

2. ****How are workforce shortages impacting infrastructure projects in the region?***

- Workforce shortages are significantly impacting infrastructure projects in Quebec, with more than 12,200 vacant construction industry jobs counted in the second quarter of 2023 by Statistics Canada. This shortage slows down project timelines, increases costs, and may lead to delays in completing critical infrastructure projects.

3. ****What is the role of digital transformation in addressing these challenges?***

- Digital transformation plays a crucial role in addressing the challenges faced by the construction industry in Quebec. By embracing technology and automation, construction companies can streamline processes, improve efficiency, and mitigate the impact of workforce shortages on project timelines and costs.

4. ****How much are Quebec's government infrastructure projects expected to cost by 2033?***

- Quebec's government infrastructure projects are expected to cost \$150 billion by 2033, as announced in March. This significant investment highlights the importance of addressing challenges such as workforce shortages and modernizing construction practices to meet the province's infrastructure needs.

5. ****What are the potential returns on investment for digitization initiatives in construction?***

- Digitization initiatives in construction have the potential to yield significant returns on investment. For example, extrapolating a study conducted in the UK to Quebec suggests that every dollar invested in digitization could result in average gains of \$5.50. Additionally, a \$47 million investment by the Quebec government in digital transformation could lead to productivity gains of 1% and an additional \$260 million added to Quebec's GDP.

6. ****How can smaller construction companies benefit from digital transformation?***

- Smaller construction companies can benefit from digital transformation by improving efficiency, reducing costs, and staying competitive in the industry. With the right technology and training, smaller companies can streamline processes, enhance project management capabilities, and deliver projects more effectively.

7. ****What is the Government Roadmap for Infrastructure Data Modeling, and how does it aim to improve construction practices?***

- The Government Roadmap for Infrastructure Data Modeling aims to improve construction practices by promoting more efficient and sustainable construction methods while optimizing the management of Quebec's real estate portfolio. By leveraging data modeling technologies, the government seeks to enhance project planning, coordination, and execution, ultimately leading to better outcomes for construction projects.

8. ****What are some examples of successful digitization projects in the Quebec construction industry?***

- Some examples of successful digitization projects in the Quebec construction industry include the implementation of Building Information Modeling (BIM) systems, construction project management software, and drones for site surveying and monitoring. These technologies have helped improve collaboration, accuracy, and efficiency in construction projects across the province.

9. ****How can increased support for digitization initiatives benefit Quebec's economy?***

- Increased support for digitization initiatives in construction can benefit Quebec's economy by driving productivity gains, reducing project costs, and stimulating economic growth. By embracing technology and innovation, the construction industry can become more competitive globally, attract investment, and create high-quality jobs.

10. ****What are some key recommendations for companies looking to implement digital transformation in construction?***

- Some key recommendations for companies looking to implement digital transformation in construction include investing in training and upskilling employees, adopting user-friendly technology solutions tailored to the industry's specific needs, fostering a culture of innovation and collaboration, and partnering with experienced digital transformation consultants or service providers to navigate the transition effectively.