

5 Steps to Start Going Digital in Heavy Civil Construction

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Introduction

Traditionally, the heavy civil construction industry has relied on manual, time-consuming processes and workflows to manage and complete projects. But technology like 4D digital twins, cloud computing, artificial intelligence, and machine learning are making it easier to manage construction projects.

Therefore, many companies are investing in digitalizing entire projects from start to finish—and they are reaping the rewards of lower costs, shorter schedules, safer job sites, and higher productivity. But going digital is no easy task. **So, we have created this five-step guide to help you begin going digital.**



Step 1

Define What Going Digital Means to You and Commit to Your Vision

Going digital means different things to different people, which is why it is important for you to define what it means to you and then commit, as an entire organization, to make the changes necessary to accomplish your vision. For example, maybe you determine that you want to leverage heavy civil construction technology to better utilize data to accelerate project schedules, increase profitability, and reduce costs.

A few questions to ask yourself when creating your going digital definition are:

- ◆ What are we trying to accomplish by going digital and why?
- ◆ What are the latest construction technologies on the market?
- ◆ How is the competitive landscape changing? What are our competitors doing?
- ◆ How are our client's expectations evolving? How are we going to address these expectations?

No matter what your definition of going digital is, it will have a critical role in where you begin and how you implement it.





Step 2

Assess Your Current Digital Capabilities and Gaps

It is important that you understand your current digital technology stack and capabilities, as well as the gaps, so that you know how to best develop and implement your digital strategy. For instance, you may realize that the organization is lacking access to crucial technology required to accomplish your digital vision, such as a construction management platform.

Some good questions to ask yourself during this phase are:

- Do our employees have the skills necessary to achieve our vision?
- Which existing processes and workflows work well? Which do not?
- Is our current technology being utilized to its fullest capability?
- Can construction technology be utilized to improve processes and workflows?

Ultimately, documenting and prioritizing your answers to the above questions will enable you to develop where and how to start your digital strategy.

Step 3

Develop Your Digital Strategy

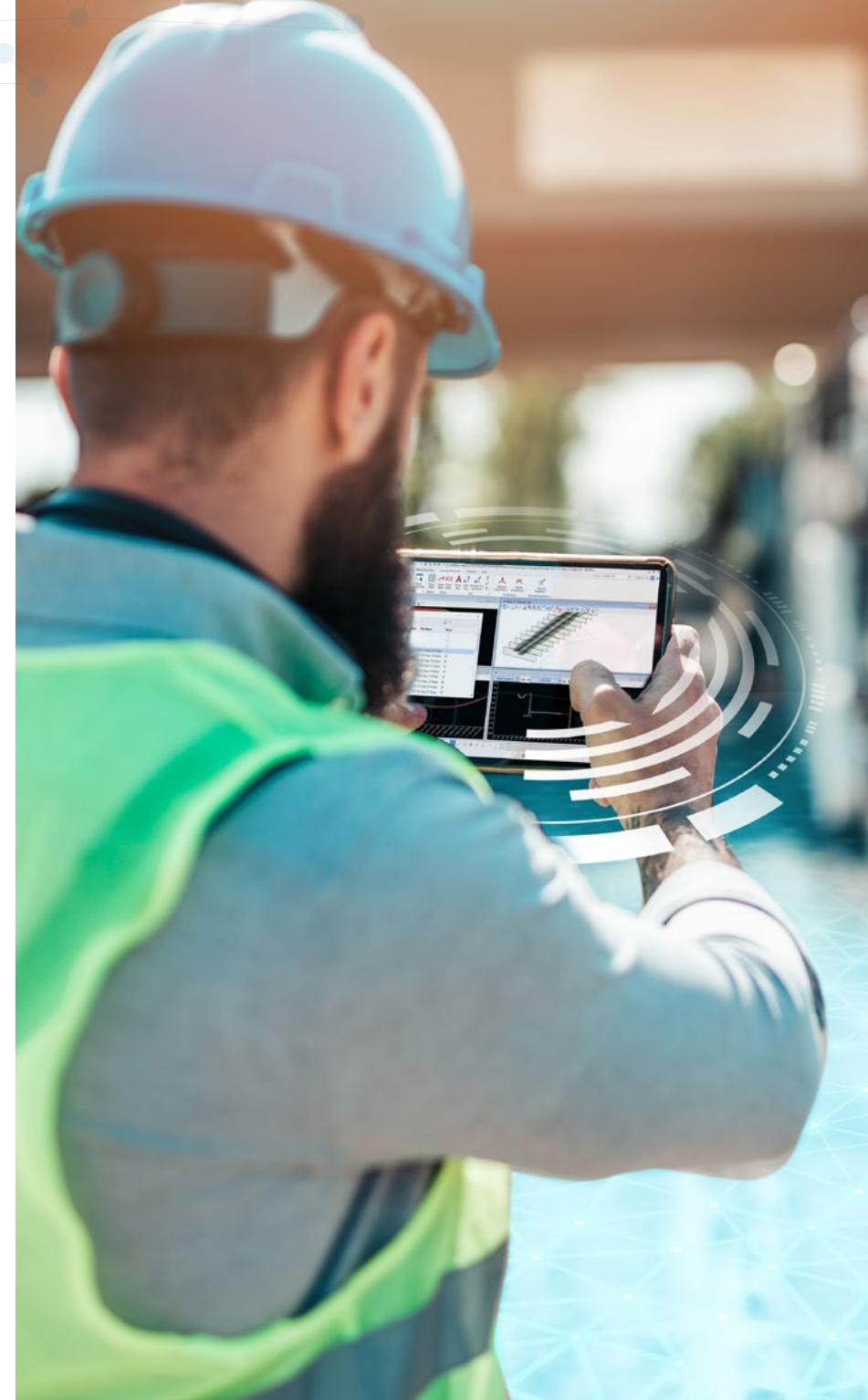
It is worth noting that when it comes to digitalization, you don't need to throw a lot of money into technology all at once. Instead, start with a single use case that aligns with your digital vision.

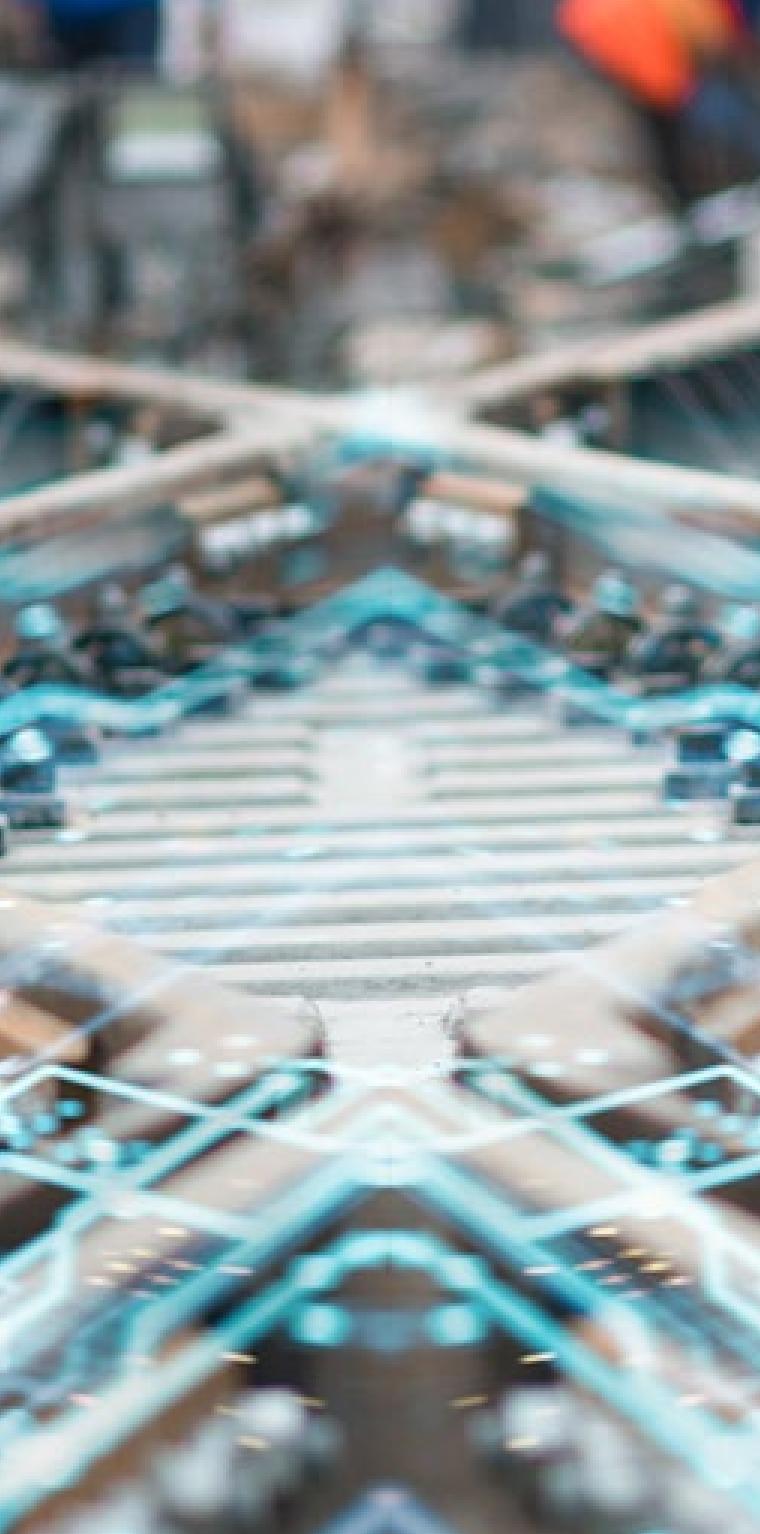
Ideally, the use case will also be one in which you can quickly see the return on your investment. For example, your use case could be implementing a construction management platform to reduce costs by 5% on your next project by increasing access to data and improving communication and collaboration between the office and the field.

Asking yourself these questions can help you create your digital strategy:

- ◆ What use case(s) can we leverage as a proof of concept for our digital vision?
- ◆ What is the return on investment (ROI) that we can achieve with this strategy?
- ◆ What, if any, roadblocks might stop us from achieving our digital strategy?
- ◆ Will our team need to be trained on any new technology?

Now that you have a clear strategy, you can begin to create a roadmap for how you are going to accomplish your strategy.





Step 4

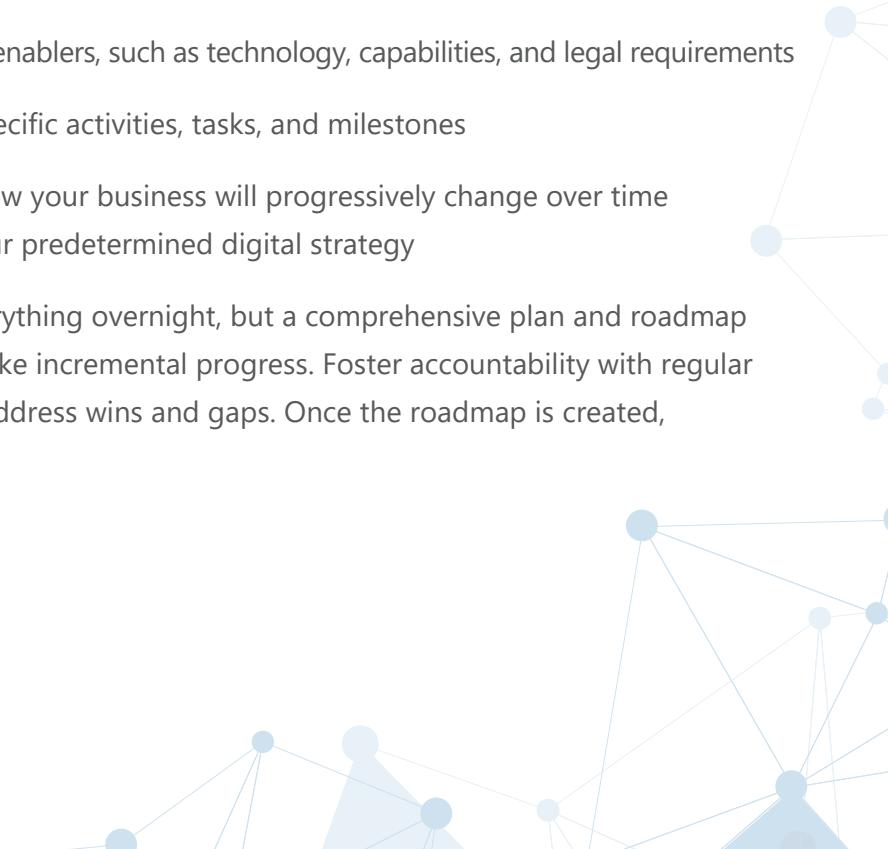
Create Your Going Digital Roadmap

Now that you have a strategy, it is time to create your digital roadmap. Continuing with the construction management platform example, a roadmap would include timelines and action items for selecting a vendor, implementing the technology, and training the team.

Keep these things in mind when developing your roadmap:

- ◆ Required digital enablers, such as technology, capabilities, and legal requirements
- ◆ Timelines for specific activities, tasks, and milestones
- ◆ Details about how your business will progressively change over time to complete your predetermined digital strategy

You cannot change everything overnight, but a comprehensive plan and roadmap will help ensure you make incremental progress. Foster accountability with regular roadmap reviews and address wins and gaps. Once the roadmap is created, there is one last step...



Step 5

Start Going Digital... and Don't Stop!

With a strategy and roadmap in place, it is time to start your journey. It is equally important that once you start going digital, you don't stop. That means understanding what is happening in the market and learning about new technology, as well as constantly refining your own processes based on what is working and not working.

According to the 2021 Going Digital Dodge Data report, "The full benefit of digital advances in civil design and construction are only available to companies that make a serious, organization-wide commitment to overall digital capabilities." Stay committed and focused on your future growth and success and the rewards of doing so are sure to follow!

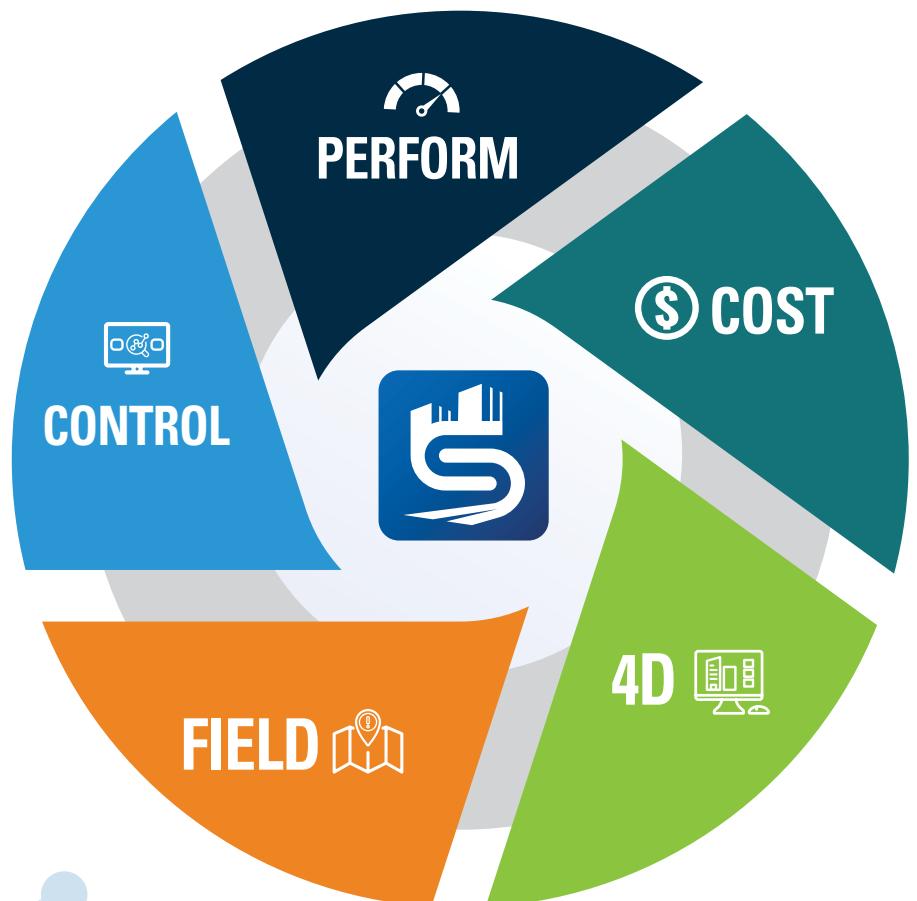


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Going digital is unavoidable. Doing nothing is the biggest risk of all.
Leveraging construction technology enables you to stay innovative
and remain competitive.

Contact our SYNCHRO team for more information about how you
can get started with our integrated digital construction management
solution designed specifically for your heavy civil construction
projects. Start going digital today!

Visit www.bentley.com/SYNCHRO
or call **1.800.BENTLEY**.



Sources:

<https://www.thirdrepublic.com/blog/8-steps-digital-transformation-journey>
https://www.marshmclennan.com/content/dam/mmc-web/Files/OliverWyman_Digitalization_in_the_construction_industry_web_final.pdf

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