

A shift in mindset can keep you from discarding digital innovation projects too soon

*If your organisation has – like so many others – a history of shelved digital innovation projects, you might want to ask yourself if you have looked close enough at the true value of these projects. **Verena Stingl** and **Michele Colli** suggest a shift in perspective, to explore the extended and innovative potential of your technology pilots, before binning them prematurely.*

For almost a decade, the term Industry 4.0 has been serving as a vision of a digital, highly efficient future in manufacturing. Yet, when we speak with Danish manufacturers, we often hear that they doubt they have even mastered Industry 3.0. Sure, they have investigated some digital technologies, even adopted a few – but are far from really transforming their business digitally. And this is not a Danish phenomenon. In 2020, [Boston Consulting Group](#) showed how only 30% of global companies are succeeding in translating the promise of Industry 4.0 into something more tangible.

Why? Because digital projects do not fly. One of the main reasons that hold digitalization back, is that companies often find it hard to see “fat enough” business opportunities behind the application of these digital technologies. Looking back at the many years that our research team had spent investigating applications of digital technologies and quantifying business opportunities, we started looking for the elephant in the room.

Instead of an elephant, we found flies. **Many manufacturers only find small potentials in digital technologies, because they are using them to address small problems.**

Manufacturers tend to look into digital technologies to solve their everyday issues. They focus on one problem – either due to its relevance or because it is easy enough to be fixed using something new” – and they find the “new” technology to solve it. Or, vice versa, they find a new technology they may be interested in, and they find a problem that can be solved with it.

While such a problem-solving orientation is a great strategy to achieve operational excellence, it has its drawbacks when it comes to radical technical innovations. Here, the value of the business opportunity is more than the mere return on investment from problem solving.

The value of learnings across time and space

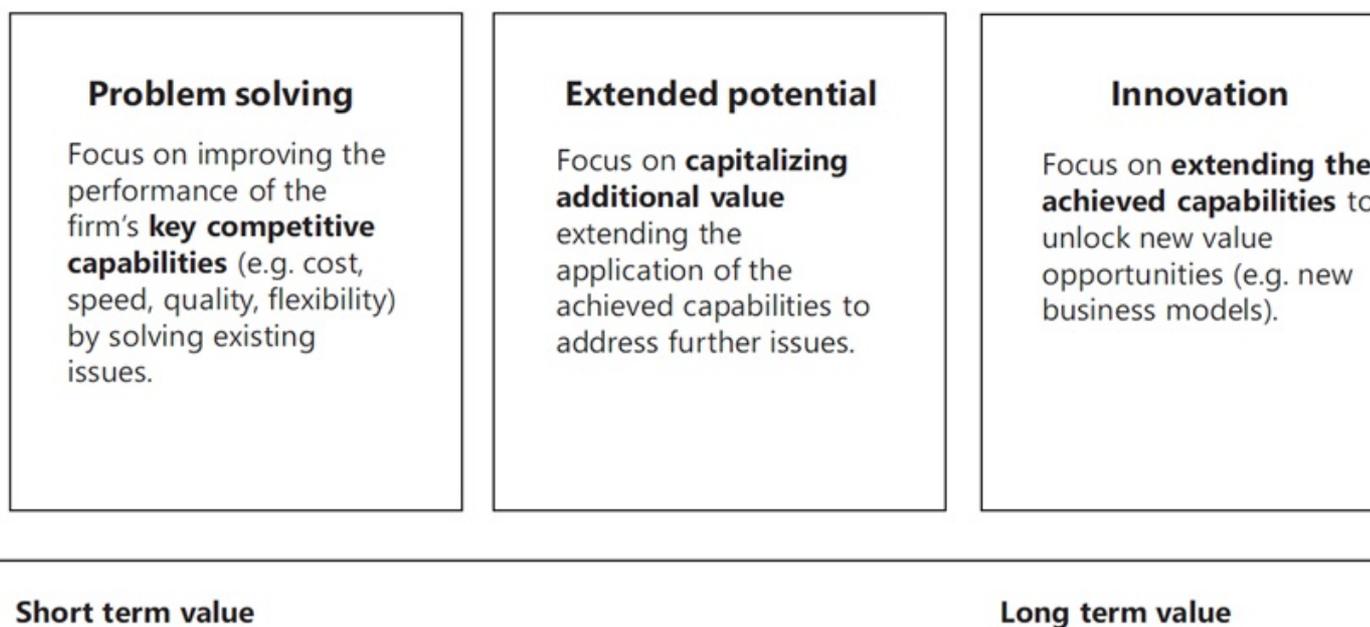
When we deal with digital innovation, the real value often lies in the learnings we generate through the innovation project: new technology capabilities, new competences, and maybe an entirely new view on our operations and business. While we may all agree that these are respectable outcomes, how do they translate to actual (business) value?

First, any of these learnings can become helpful tackling an entire pool of problems – known or yet to be discovered. Once you build up the technological platform and the competence, it becomes easier and easier to develop new applications. This is the “*extended potential*” of any digital innovation project.

Second, digital transformation is a maturity progression: we start our path by just dipping our toes into the pool, to feel the water. Yet as we explore and apply more technologies we metaphorically learn to swim. Then, technologies are no longer tools to solve immediate problems, but instead let us see and seize new opportunities we could not conceive before. Hence, those learnings we obtain through a digital innovation project may act as a foundation for further innovating and moving us towards our more long-term strategic goals. This is the “*innovation potential*” of any digital innovation project.

However, both the *extended potential*, and the *innovation potential* often are overlooked when assessing the business case of a digital innovation project, as they are more ambiguous and uncertain. We therefore asked, how can we get these potentials into the conversation for a more holistic appraisal of new digital projects?

Figure 1. Three value categories for digital transformation projects



How to shift perspective in real life

Through a collaboration project with a Danish food manufacturer, we developed and tested an academically grounded approach to change discussions around new digital technologies. We have since successfully used the developed “Digital Transformation Focus Shift”-model as a conversational guide in many other manufacturing organisations. The idea is simple: by shifting the focus away from the mere problem-solving value to the indirect and long-term value of the technology, we change the mindset of the people in the room. Instead of handling yet another cost/benefit evaluation, the conversation becomes strategic and creative.

So how does this work in practice?

In the **first step**, we acknowledge that the trigger for a digital innovation (or any innovation) project will most likely remain the need for solving a specific problem. Quick wins are important to get any change started, and they are the first element to consider when gauging the value of an innovation project. Ask: **What is a significant problem that, if solved, would provide us with low-hanging fruits?**

The company we have been working with had its initial focus on reducing the systematic loss of transportation carts, both in their warehouses and across their supply chain. Thus, they wanted to track the carts' location to understand the cause of the loss and to recover lost units. After the development and successful testing of GPS and Bluetooth 5.1-based technology solutions, the company knew where the carts went. Yet, fitting all carts with trackers turned out to be much more expensive than the losses through carts gone AWOL.

They could have stopped the project here – but quick wins are not everything.

Instead, they looked into what they have learned. As a **second** step to shift focus, we helped them formalise these learnings. We asked: **What are the new capabilities and competences that we gained through this project?**

Our case company could pinpoint to several new capabilities they gained through the innovation project we performed together, such as the ability to continuously track the location of their carts with a high degree of precision. Just talking about the newly gained capabilities sparked discussions about where these capabilities can become of use next.

The **third** step formalised this brainstorming. We now initiated an internal investigation to identifying additional (existing) problems that they could tackle with the newly gained capabilities and competences. We asked: **What additional issues might be solved using the learnings we obtained from the innovation project?** Thus, they could formulate specific new opportunities for improving efficiency, generating business value by taking advantage of the explored technology.

After starting the conversation, more and more issues emerged naturally by following the processes in which these carts were involved: for instance, tracking carts with digital IDs remotely would eliminate the need for time-consuming manual labelling and speed up processes.

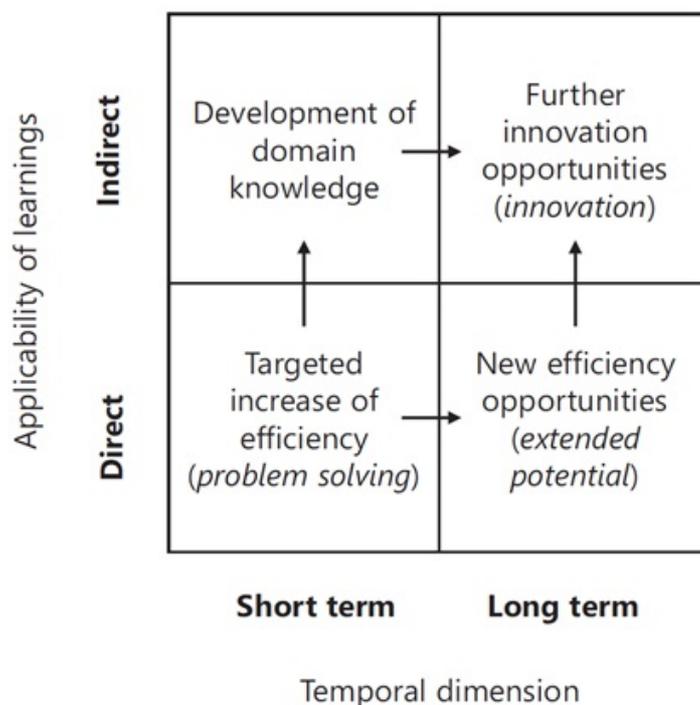
At last, as a **fourth** step, we moved away from direct or short-term (monetarily) quantifiable opportunities and tried to connect the new competences and capabilities with the company strategy. We asked: **How can we use the learnings to achieve long-term strategic goals? And how does the technical innovation enable business innovation?**

A major goal for our case company's technology strategy was the introduction of automated guided vehicles (AGVs) in their production and logistics. Through the discussion of their strategic goals, they realised that the new technology capabilities (e.g., the ability to track the location of equipment with high precision) were a key building block to support the introduction of AGVs.

Through this shift in focus, the management can unfold not one, but several business opportunities enabled by an innovation project, providing additional support to its business case.

After identifying the additional value potentials for addressing existing problem and for boosting the company's long-term strategy, the company's management changed its perception of the business case. They saw the technology pilot no longer as a waste of money but instead as a necessary investment to create valuable future opportunities.

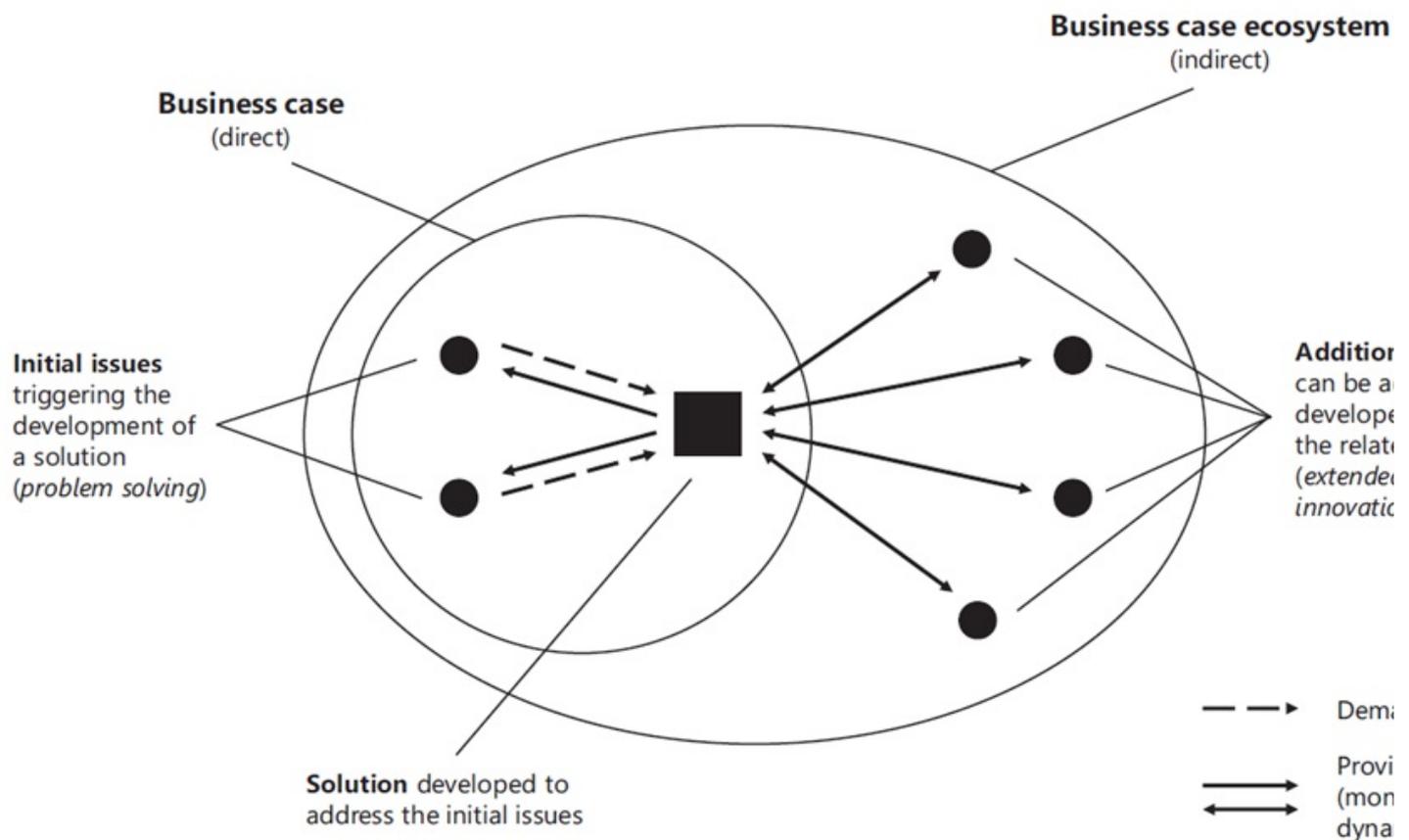
Figure 2. Digital transformation focus-shift matrix



A business case ecosystem

Instead of shelving the technology pilot for lack of a watertight business case, the management team became more engaged than ever in the new technologies. They no longer assessed the outcome of the innovation project against the specific problem that had originally triggered it (the “problem solving” value category). Instead, they considered a whole ecosystem of business opportunities that may benefit from the learnings (the “extended potential” and “innovation” value categories). Thus, they shifted from considering technology innovations through narrowly scoped business cases to a whole **“business case ecosystem”**.

Figure 3. The business case ecosystem concept



As every change in mindset, the adoption of the business case ecosystem view is not automatic. However, you can speed up the process by looking back. Ask yourself: **How did your past innovation projects generate value? Was the value they generated only related to a specific issue, or did they have a wider impact – solving other issues, enabling other innovations, or giving you a competitive edge?** These experiences and success stories from the past are essential to help your team embrace this new mindset. Then, you can explore new technologies with the confidence that eventually you will spot the opportunities to cash in.



Notes:

- This blog post is based on [Making or breaking the business case of digital transformation initiatives: the key role of learnings](#), with *Brian V. Waehrens*, *Journal of Manufacturing Technology*
- The post expresses the views of its author(s), not the position of LSE Business Review or the London School of Economics.
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