

Executive Summary

How to Make an Elephant Go Through a Needle's Eye

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For nearly two decades, we've known that the traditional waterfall approach to software development is going to die. And for almost 15 years, we've known that Agile is the most suitable approach that could save the day — an approach that can be applied to the development of various systems.

Data warehousing (DW) and business intelligence (BI) struggle to keep up with growing business demands concerning data, analysis, and insights. But DW/BI is still traditionally perceived as heavy and hungry for time and effort, while waterfall-like software development processes hold their place. For over seven years, methods of dealing with DW/BI projects in an Agile manner have emerged, but can such projects really benefit from applying Agile methods and its practices? Yes, and I have no doubts about it. The question is not: "Is it possible to run BI project as Agile?" (It is.) The real question is: "How fast can the organization switch its collective mindset in order to become adept at Agile and provide those benefits to the company and shareholders?" The accompanying *Executive Report* shares what my team and I have managed to achieve in the field of Agile BI and how we did it.

IS IT TYPICAL?

I joined a project when it was already one-year-old. I call it an "elephant" because of its size — both in

scope and expectations. Despite some declarations of applying Agile practices, it was being executed as a waterfall project. A week after joining the project, I took part in a meeting called by a member of the company's management board. "Our BI is not a success story!" he shouted to the team, while leaning over the table in a meeting room.

I believe the BI world is crowded with such elephant projects. Their scope is huge, expectations are set sky-high, and they suffer from misunderstood measures of the business value they are supposed to deliver. And this is the clue: wrong judgment regarding the ability to provide business value results with all-or-nothing decisions on the scope of delivery. We know where this takes the project: more time, more money, and no business value.

APPLYING AGILE TO BI

The report is a kind of revised diary of what we managed to achieve in that elephant project. I call our actions "paradigm shifts," which may be a little of an exaggeration. But I really do think about it that way because we altered the fundamental aspects of BI project execution.

We designed a test automation framework (TAF), which allowed us to evolve to cover other areas of its application. We started with exactly what a TAF is supposed to do: perform automated tests, which gave us the details of the BI system and its data quality expressed in terms that were understandable to business people. Then we applied it to help us build a deeper understanding of the data semantics. Finally, it became a means for operational, production data quality measurements. We could calculate the quality of data and how reliable it was when making business decisions based on it.

We developed a method for the decomposition of the project scope into pieces applicable for delivery in an Agile manner: in a single sprint, in which we could determine its time span at the outset. We could determine and measure business value to be delivered within the sprint and judge whether such scope was



still worth pursuing. Thus, we were able to tell if certain parts of our BI system were already *good enough*. We even managed to include a refactoring effort in the mechanism of sprint scope planning.

The team and I also changed the way user documentation was created. We applied Web 2.0 principles to the task of user documentation creation, making it truly meaningful and useful to users. We also managed to expedite the BI system learning curve, so we shortened the time needed to get to know the data. We made the documentation a dynamic, living entity and assured “mechanisms” for keeping it up to date.

We built feedback loops into each of these practices — scoping, development, tests, and business value delivery — so we could quickly know if we were going in the right direction. We were happy with our ability to pivot and redirect — an adaptation capability we built into the practices. We even determined the way in which requirements from various projects could be seamlessly incorporated into the methodology that we developed.

The report offers details on each of the Agile practices applied to certain areas of BI system development and how we managed to deliver on Agile promises when executing a BI project.

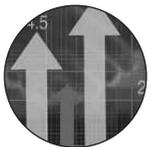
WHAT MAKES IT POSSIBLE?

There is a hierarchy of Agile needs that somewhat resembles psychologist Abraham Maslow’s needs hierarchy.¹ For sure, to be Agile, a BI project needs Agile practices applied and made operational. However, it is hardly possible to implement Agile practices without understanding “how Agile works” with tasks equally spread among the team members. And this, in turn, is virtually impossible without team spirit, empowerment, and cooperation. Those are the basics, and no project becomes Agile without meeting them. This is the most important issue and, at the same time, the most neglected part of most company cultures I’ve observed. To run Agile projects means working with people, communicating, fighting for the value delivered, committing and delivering on the commitment, trusting, and being accountable for, but not managing, human resources.

If your BI organization is ready to face the challenges of having really Agile teams, it is ready to benefit from Agile practices applied to BI projects. So, please, kindly meet the elephant and discover how it got through the needle’s eye.

ENDNOTE

¹“Maslow’s hierarchy of needs” (Wikipedia).



Agile Product & Project Management Practice

FOR MORE INFORMATION

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