CONSOLIDATING CUSTOMER ANALYTICS AT MOBISTAR

PRAGMATIC PROJECT MANAGEMENT IN BUSINESS INTELLIGENCE

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Strategic business intelligence (BI) projects are high risk – yet potentially high reward – endeavours. They typically involve substantial, multi-year investments in people and technology. Successfully completing such projects requires strong levels of organisational buy-in, cross-boundary communication, and, above all, managerial persistence. In this article, we want to highlight and open the discussion on a somewhat underexposed managerial phenomenon in BI projects: 'bricolage' – after the French word for 'do-it-yourself' (Ciborra, 1992). See **Sidebox 1** for more about Claudio Ciborra.

We shall illustrate bricolage by means of the 'Leonardo' case study. Leonardo is the strategic customer analytics project at Mobistar, one of the major telecom players in Belgium and Luxemburg, and part of the France Telecom group.

Introduction

Adopting a structured approach or methodology to BI investment projects is rightly considered to be best practice. There are a number of pre-engineered generic frameworks and methodologies to help BI project managers cope with the job (e.g. Business Intelligence Roadmap by Moss and Atre (2003)). Additionally, most large organisations and professional services firms have developed their own flavours of methodologies to support BI projects.

Such models help BI project managers and major stakeholders keep track and make sense of the complexity of the initiative. Still, we concur with Magritte when he wrote the following on his painting of a pipe: 'Ceci n'est pas une pipe'. Similarly, a roadmap of a project is not the same as the project itself, nor is having a management methodology the same as actually managing the project. No matter how sound and structured a chosen framework may be, it can never replace a competent manager or leader.

That's why, in this article, we will refrain from presenting yet another pre-engineered, idealised roadmap for BI success. Instead, we'll focus on the importance of BI project managers and leaders having the appropriate mindset and competency to balance discipline and creativity.

The story of Mobistar's Leonardo project illustrates how a BI manager should be capable not only of thinking creatively and improvising when a BI initiative is going through stormy waters, but also of doing so without jeopardising the long-term sustainability of the platform. Finally, the Mobistar case shows the success of BI project management driven by a business department in a (pragmatic) partnership with the IT department, which provided the IT skills and part of the project financing.

Leonardo customer intelligence

June 2004 – Joeri De Pauw joined the central marketing intelligence group at Mobistar, one of the major telecom players in Belgium and Luxemburg[1]. In his previous position at a large insurance company, Joeri had worked many years as a BI analyst, and he was now asked to lead the **Leonardo** project.

Leonardo was strategic to Mobistar. The project involved the development and roll-out of a new, integrated customer and campaign management environment to replace the existing scattered pockets of data and analysis capabilities. Joeri's first task was to develop a Solution Definition and Impact Analysis (SDIA) document to start the communication with the IT department regarding the design and delivery of the solution.

15 October 2004 – As planned, Joeri met with the head of IT, Philippe Cambier, to discuss the SDIA. Joeri started the meeting by explaining the project context, the business purposes of the initiative and the business case. He then outlined how this translated into high-level requirements for project Leonardo.

The Leonardo solution would have to fulfil the following criteria:

a) Storage and processing capabilities for huge amounts of customer usage data (voice, SMS, MMS)
b) A sufficiently tight response time to execute the necessary extractions and analyses on marketing campaigns, usage evolutions (e.g. more text messages or more calls in off-peak periods), customer segmentation, etc.

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[1] www.mobistar.be

Philippe and Joeri had a fruitful discussion. They agreed that Philippe, from IT's side, would take the lead plotting out the technical solution underpinning Joeri's business aspirations; and Joeri, from marketing's side, would work on the necessary data specifications. Together they prepared the project's roadmap and budget. Figure 1 summarises the high-level 'to-be' situation for Leonardo.

Insert Figure 1 here

Technical solution

Mobistar's company policy was to develop their information systems on a single standard database management system (DBMS). Philippe suggested keeping to this DBMS standard for the new Leonardo environment.

Data specifications

Philippe and Joeri decided that, to enable faster reaction times towards business users, Joeri would provide data specifications for the creation of a number of aggregates containing pre-processed customer traffic and revenue data[2]. The development would be done by a specialised BI consultancy.

Budget

The budget for IT development (which would come from IT's budget) was estimated to be a maximum of 100 person-days. The project would not generate any additional license costs, and Joeri's and Philippe's time would be covered by their respective departmental budgets.

Project roadmap
- November 2004: transfer of the data specifications to the consultants, and verification of the technical design by the IT department.
- December 2004 – January 2005: development by the consultants, including bi-weekly status meetings and sneak previews into the aggregates, which Joeri could test in a SAS analytical environment.
- February 2005: user acceptance tests, and rework (if necessary).
- March 2005: go-live

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[2] Data aggregation is any process in which information is gathered and expressed in a summary form, for purposes such as statistical analysis.

Leonardo's summer of bricolage

According to the plan, the data warehouse should have gone live in March 2005. However, the project missed that deadline – and in July 2005, there were still performance problems with the creation of the aggregates in the standard DBMS environment. Why was it so hard to build these aggregates without incurring performance issues?

Having reviewed previews of the data aggregates provided by the consultants, Joeri had become well-versed in handling them in his personal SAS analytical environment on his laptop. By July, he felt that building an aggregate himself was worth a try. Moreover, he was able to lay his hands on a more powerful SAS server already residing in the marketing department. He had the data tables pumped into the system overnight and worked on developing a solution himself.

Within two days, Joeri had managed to build a first rudimentary aggregate. He had developed a concept that worked in terms of development time, flexibility and computing load. However, Joeri understood that this 'Leonardo Brico', as he liked to call it, would need major up-scaling if it were to become the backbone of the full-blown Leonardo solution.

The straightforward course of action would have been for Joeri to hand over his bricolage solution to the IT department and the team of consultants. But doing this might very well lead to a delay of yet another three or four months. He deemed this completely unacceptable from his business stakeholders' point of view, as it might make them sceptical about the value and feasibility of the unified Leonardo platform.

The alternative option would be for marketing to take full control of solution development. Infrastructural aspects, such as installation and configuration, would still be done by IT, but that would be about it. Philippe and Joeri had been relatively successful in maintaining a good relationship, and as he pondered this option, Joeri knew he would have to be careful not to alienate his partners in the IT department by flying under the radar with his solution. Leonardo was still going to need a lot of technical support. The project required technical competencies that marketing simply did not have at that time. Wasn't the IT department still the best partner to sort this out?

Joeri talked to Philippe about his predicament. Philippe agreed that it might be unrealistic to expect the IT department or the consultants to guarantee the levels of business knowledge required to make certain judgement calls when building the aggregates. He had also wondered whether the consultants actually had sufficient technical expertise to deliver as expected.

Joeri and Philippe then worked out a modus operandi. They tried to garner support for their alternative option from the various stakeholders, including the Chief Marketing Director. Their joint effort paid off. Marketing would take charge, and an envelope from the IT budget for Leonardo was shifted to that department.

This choice turned out to be a very smart one. Together, they were able to turn the project around without further jeopardising Leonardo's strategic roadmap. The Leonardo project kept its credibility and could count on the continued buy-in from both business and IT stakeholders. Now, five years down the line, business people throughout Mobistar regard Joeri's team of information brokers as the single point of contact for customer information and data management.

Mindset over methodology

To describe episodes like the summer of 2005 in the Leonardo project, eminent information systems (IS) scholar, Claudio Ciborra (1992), introduced the term **bricolage** as a less obvious source of strategic value creation from information systems:

Bricolage allows, and even encourages, tinkering – i.e. combining and applying known tools and routines at hand to solve new problems – by people close to the operational level. ... (Bricolage) is based on looking within the organization to discover those unique attributes that can be leveraged by IT (Ciborra, 1995:16).

Bricolage can be seen as the constant re-ordering of people and resources, the constant 'trying out' and experimentation, that is the true hallmark of organisational change. Still, bricolage should not be considered as random, trivial or merely operational experimentation. Ciborra argued that bricolage allows strategic IS, like Leonardo, to emerge from experimenting with the knowledge and resources present in the current situation. Thus, bricolage can go beyond publicly available generalised management schemes or lofty theory. As a result, with bricolage, an organisation has a better chance of ending up with a system that is much more deeply

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Sidebox 2: Valuing bricolage strategically

The more volatile its markets and technology are, the less desirable it is for an enterprise to count solely on fully pre-determined, designed and deployed information systems. All too often, such top-down planned changes will not be developed and implemented in time to generate value at the required clock-speed dictated by the market. In such cases, it is important to invest in a culture, people and information systems that allow for – and encourage – local learning and tinkering, i.e. bricolage.

As a counterweight to the de-worlded models of strategy and strategic information systems planning, Ciborra suggests bricolage as a source of the imperfect imitability needed for information systems to create sustainable strategic advantage. Because bricolage is embedded in everyday experience and local knowledge, the results will be much more unlikely to be imitated by competitors.

By valuing bricolage, creative applications can be invented, engineered and tried locally: i.e. close to the market, close to the change, close to the relevant knowledge. It is then, of course, up to the leadership of the organisation to sense and promote these innovations as they occur.

rooted in its organisational culture and, therefore, much less easily imitated (Ciborra, 1992; 1995). See **Sidebox 2** for more on bricolage and strategic advantage.

Effective bricolage requires a specific managerial mindset and project culture. Mobistar's success with Leonardo can be attributed to an effective form of bricolage, built on the foundation of six basic tenets outlined in Table 1.

Insert Table 1 here

Don't panic

Experienced project managers know that panic is the worst advisor in times of project trouble. Although Leonardo had sustained an important setback, Joeri did not panic. He did not start to lash out at IT or the consultants and hide from responsibility. Rather, he believed in the strength of his own ideas, looked for a way to execute them, and then carefully used his experience to start discussing with his partners about moving ahead.

Think beyond the standards

Up to the summer of 2005, Philippe and Joeri had done everything by the book. They had an SDIA document, a roadmap, a budget, etc. And still, they got into trouble. Joeri realised that strict adherence to a certain BI or project methodology and framework would not be enough to save Leonardo from losing its momentum. The turnaround was made possible by a combination of Joeri's inclination to look beyond the boundaries of the original project set-up and Philippe's welcoming stance towards questioning the status-quo.

Let the world help you

Sometimes people in the middle of a crisis forget about resources in their immediate surroundings that could actually help fill many of their needs. In contrast, bricolage leverages potentially undervalued (and tacit) business knowledge already present in the organisation. Through bricolage, Joeri was able to *fill a gap in expertise* by combining both experience with the SAS analytical environment and Mobistar's customer data needs. Although he hadn't been with the company very long, he was able to do this because he realised that he had accumulated substantial experience when handling the beta-version aggregates produced by the consultants. Over the longer term,

bricolage also means investing in IS environments that allow for tinkering by the people in your organisation.

Nurture cross-boundary relations

In turbulent environments like strategic BI projects, it's crucial that the project be able to tap into knowledge and experience across functional borders. If Joeri and Philippe had not been careful to maintain a constructive business-IT relationship prior to the summer of 2005, the Leonardo Brico experience may not have set off this series of substantial changes to the governance set-up needed to save the initiative. Under different conditions, it would have been difficult for Joeri and Philippe to deal with the uncertainty and ambiguity that was caused by Leonardo's troubles and Joeri's bold, out-of-the-box bricolage efforts.

Remain open to scrutiny and challenge

Resorting to bricolage meant working outside Mobistar's established project and IT governance. If Joeri had hidden his solution from his partners in IT, Brico might have met with a lot of resistance once it had to be fully rolled out and supported. Therefore, Joeri decided to share the Brico solution with Philippe immediately and to refrain from starting a blame game. That way, Philippe and Joeri could quickly enter into discussions about redesigning the modus operandi between marketing and IT and integrating Brico into the project.

Keep your eye on the prize

While the idea of bricolage implies leaving some degree of freedom for muddling through, improvisation, and incremental progress, it must not be used as an excuse for embarking on a strategic IS initiative without a strategic vision or a clear understanding of its scope. Leonardo could count on a shared commitment from business and IT to focus on the benefits expected from the platform. Not wanting to give up on the strategic objectives of the project or to lose this momentum, Joeri and Philippe decided that, in such a case, the ends justified the means to getting there.

Conclusion

In this article, we've brought Claudio Ciborra's concept of 'bricolage' to the forefront of BI practice. Mobistar's Leonardo case illustrates how bricolage does not have to be a dirty word in strategic BI investment projects. In fact, at Mobistar, it turned out to add significant value.

Through bricolage and continued interaction between business and IT, it became clear to the main stakeholders that a strategic BI project such as Leonardo required a set-up that maximally leveraged the available core business knowledge. This led them to challenge and change their standard project governance set-up for IT-intensive projects. Leonardo was put under a form of envelope financing from the IT budget towards the marketing department. Marketing thus became the heart of Leonardo's financing, staffing and implementation efforts and responsibilities.

In conclusion, bricolage does not dismiss best practice in project management. Bricolage complements it by promoting a mindful, creative and improvisational mindset in project managers and leaders. Seeding a bricolage mindset in your organisation might require a considerable amount of introspection into your current project management standards. Are you aware of how they might influence project culture and behaviour, especially in times of project troubles?

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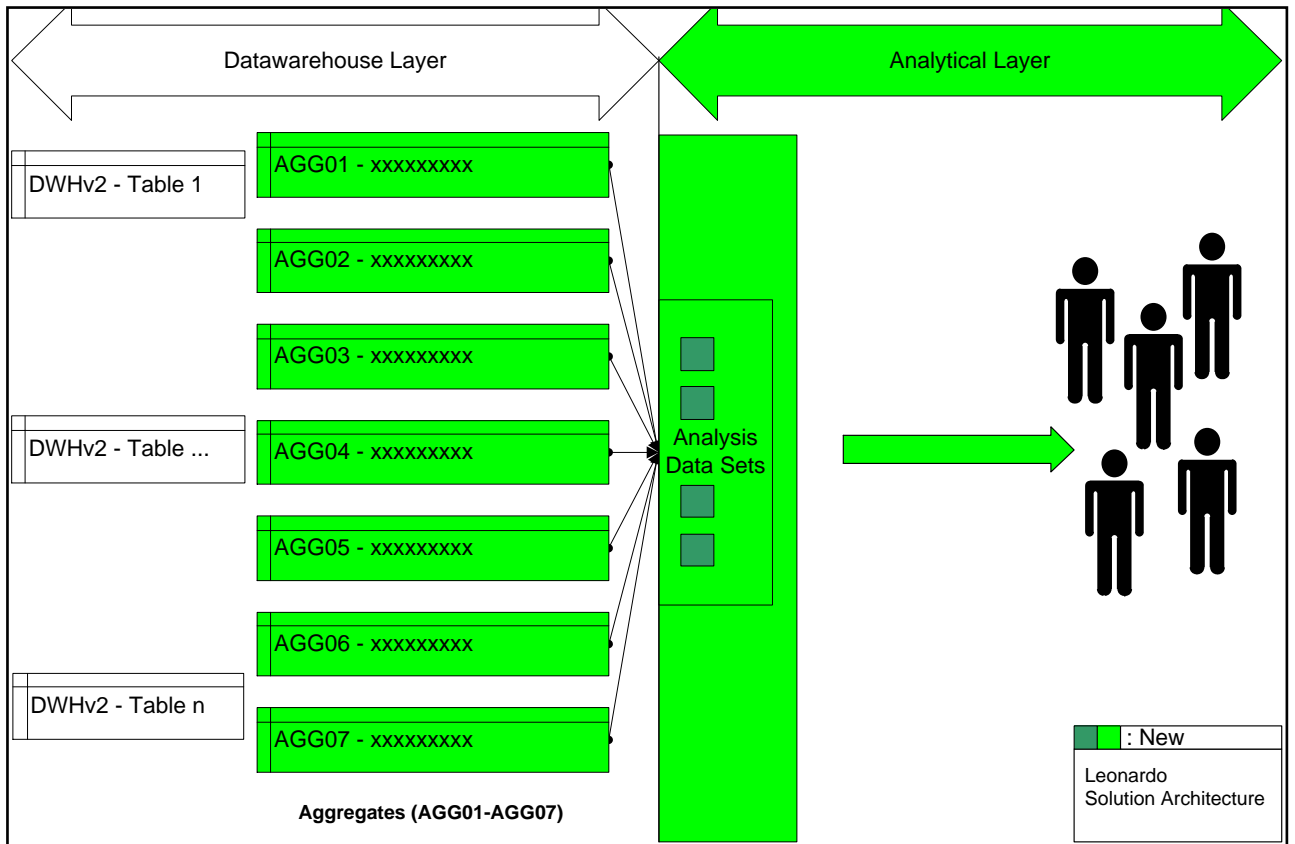
Figure 1 - Leonardo 'to-be'

Figure 1 - Leonardo 'to-be'

Table 1 – Six basic tenets of bricolage

Bricolage
Don't panic
Think beyond the standards
Let the world help you
Nurture cross-boundary relations
Remain open to scrutiny and challenge
Keep your eye on the prize