12. A DID boot camp

12.1 A DID boot camp session in four phases

Gathering the necessary people and collaborate together to improve business information management in your enterprise is a great way to work. The DID framework is a good model to use in a boot camp. How can you ensure 'the best' DID boot camp session and organisation in each phase? It depends on you and your environment. Issues like time available, complexity of the services, experience, culture of the enterprise, practitioners involved, etc. all count in the final result. Here we provide some thoughts on whether you should apply the framework yourself, use a DID practitioner or not, and offer you some experiences that we had in organising and working through boot camps similar to DID sessions. And most importantly, the great thing is that after reading this, you can throw it out of the window and decide to do it your own way. DID is a tool and a communications medium; it is not the 'Ten Commandments for BIM'.

In general, a DID boot camp approach dictates that you go through three phases. The phases comprise:
1. Preparation: choose and understand the goals, output and outcome
2. Analysis and result
3. Report results of the boot camp

In going through the three phases, you can use whatever poster or paper material you like to gather all the information you need to analyze specific issues and themes. We recommend you to use the DID canvas and use it as templates to paste your text or pictures on.

> We have drawn a simple canvas to support the collective analysis. The idea is that everybody can put 'notes' on it, write on it, draw on it. In figure 11.3 the canvas is shown. The DID canvas is also presented in appendix B. You can download the DID canvas at the DID community site (www.didfoundation.com/) or at the authors' site (www.fmresource.nl).

12.2 Preparation (step 1)

Using the DID model requires people to ask questions, formulate ideas, promote and challenge pre-existing concepts and often, to knock together the collective heads of people so that a fully coherent model is available to all involved in building out the detail of a design, and so that all the actors and stakeholders can understand their roles. This approach is not a framework where we elaborate (and provide) often useless 'process models' for people incapable of drawing up a set of instructions or a simple service level agreement. An architecture requires thought and consideration, and if you have people who simply wish to copy another person's process, or work instructions, or model, well, you probably need to hire better people.

Before you start the discussion at least you should prepare for three issues (see figure 12.2). First you have to make sure who will own (or has a responsibility) the issue at hand (whom we call senior responsible owner, SRO) and the output of the discussions and analysis in relation to the desired business outcome is known. Identify the key issues and problems in your organization that you wish to address and mark them on the canvas in the domain, perspective or driver you feel is the correct one, and identify the appropriate people to attend.

Depending on the size and type of the enterprise, who (manager or team) or what (department or several organizational units), the responsibility will be defined differently. The SRO should have a position at a management level and must be responsible for the commission of a Gateway review of a major project, a survey or a feasibility study, or a complete LOB.

Second, you have to translate the BIM generic subjects we use in DID framework are translated to your own enterprise. And finally, you should be aware that the numbers on the DID framework are references to the DID generic themes from the table (which also is presented in the beginning of this book).
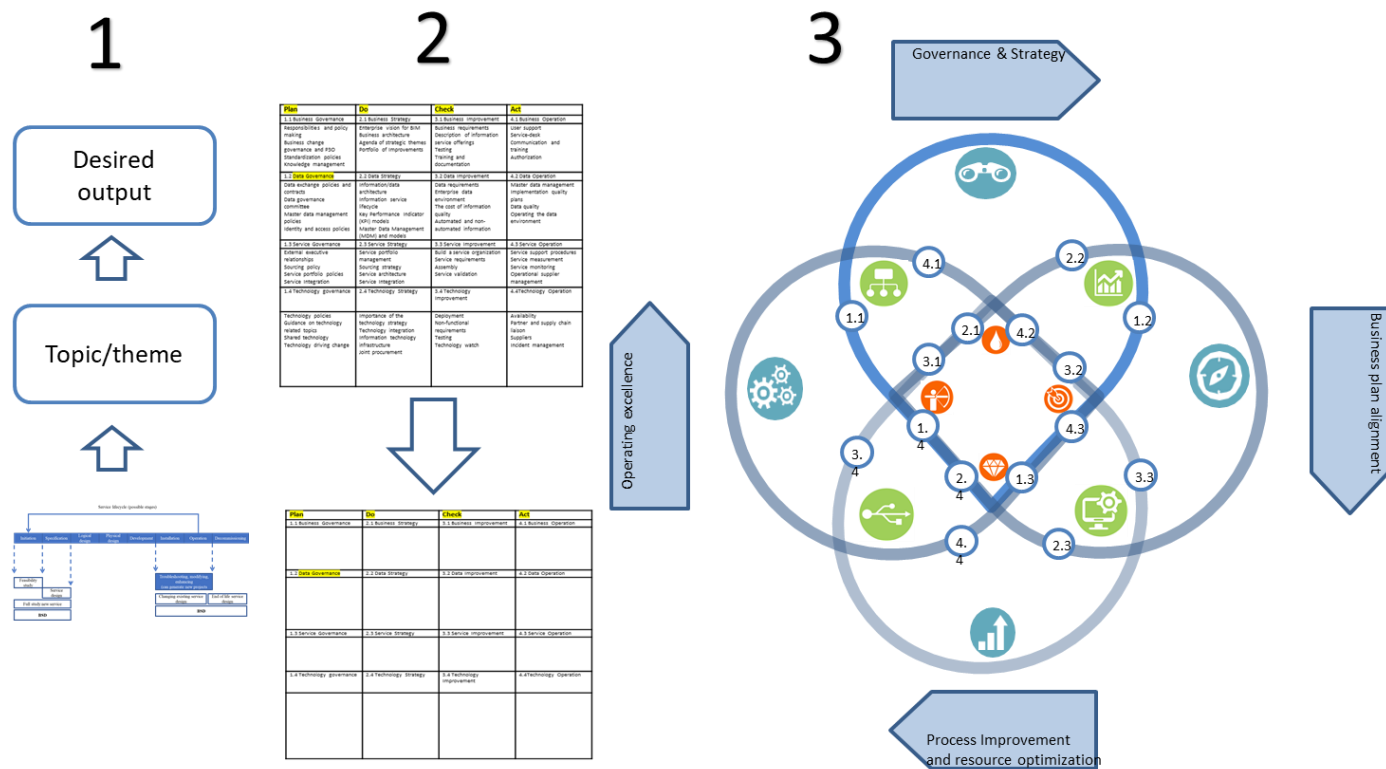

Figure 12.1; Prepare the canvas

Focus is important. Although we think the DID canvas is a great help, using it will not help you to answer important questions about the meaning of life of why coffee at the office is so bad.
The first task is to define the focus of your DID canvas. It depends whether you focus on a digital transformation of the enterprise of you prefer to look specifically at business information management problems in a LOB or business unit, or even smaller, partially at a process for example within the sales department. If you look at services be sure you understand where in the life cycle

you are! Then you can better understand what information you are looking for. In figure 12.2 you will find an abstract schematic of the life cycle of a generic service.
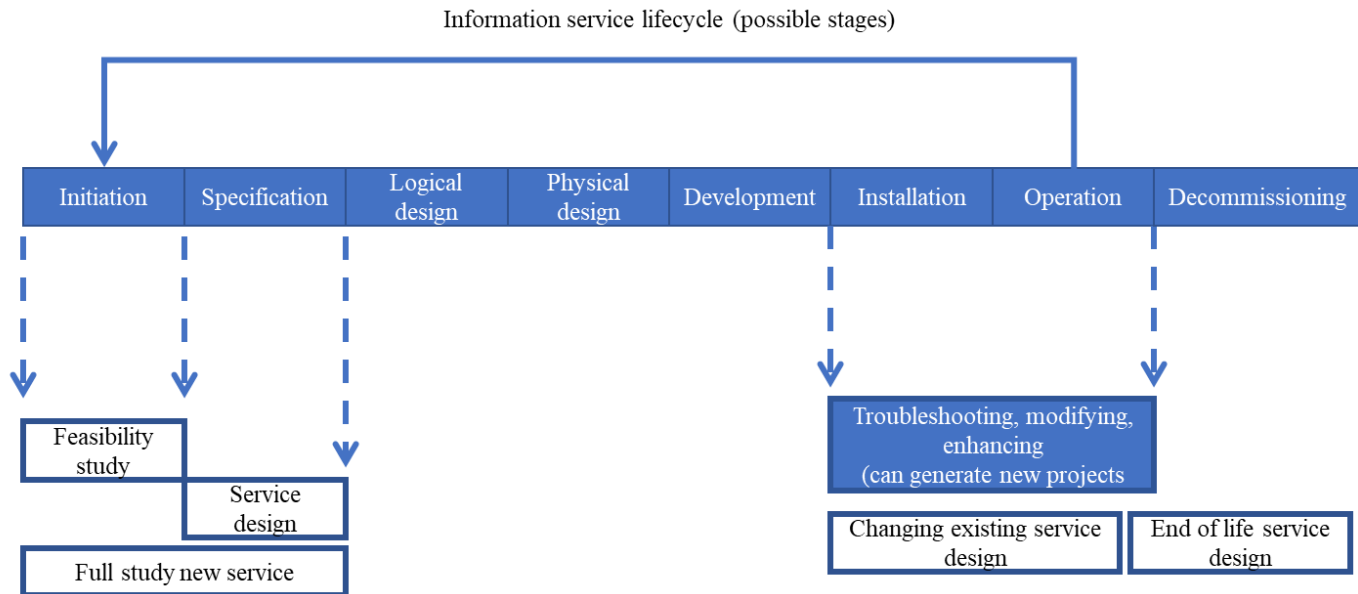
Information service lifecycle (possible stages)

Initiation	Specification	Logical design	Physical design	Development	Installation	Operation	Decommissioning

Feasibility study

Service design

Full study new service

Troubleshooting, modifying, enhancing (can generate new projects

Changing existing service design

End of life service design

Figure 12.2; Information life cycle

In your preparation of defining the issues/problems that may be suitable for analyzing, think first of the business information services in your organization. To make sure all the aspects are part of our analysis it helps us to think about information within a work system. A term that was coined by Steven Alter[24] to define a natural unit of analysis for thinking about information systems in enterprises. In organizational settings, work is the application of human, informational, physical, and other resources to produce products/services. A work system is a system in which human participants and/or machines perform work (processes and activities) using information, technology, and other resources to produce specific products/services for specific internal and/or external customers. Information systems, are work systems whose processes and activities are totally devoted to processing information through activities that include capturing, transmitting, storing, retrieving, deleting, manipulating, and displaying information. The unit of analysis than contains the different aspects like:

- Processes and activities
- Participants: Participants are people who perform work within the work system, including both users and non-users
- Information: All information (automated and non-automated) created, used, captured, transmitted, necessary *et cetera* in the context of the work system analysis. Typical informational entities include orders, invoices, warranties, schedules, income statements, reservations, medical histories, resumes, job descriptions, and job offers.
- Technology: Technologies include both tools that are used by work system participants and automated agents; that is, hardware/software configurations that perform totally automated

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[24] Alter, S., (2013), Work System Theory: overview of core concepts, extensions and challenges for the future, Business analytics and Information Systems, Paper 35., Journal of the Association for Information Systems (J ASSOC INF SYST), online: http://repository.usfca.edu/at/35.

activities. This distinction is crucial as work systems are decomposed into successively smaller subsystems, some of which are totally automated.

- Products and/ or services: the information system should support and are used to deliver Products/services for users or customers

We have mentioned numerous examples in this book:
- Identifying Requirements
- Creating a digital strategy
- Renewing legacy IT within the information systems
- Understanding business information management coordination, and the role of the central office
- Performing social security processes
- Article 17 GDPR 'The Right to Erasure (to be Forgotten) ' User request
- Securing the information chain partnership
- using standard software
- Re-implementation of a strategic application to support lease- processing
- Operating user support and knowledge management
- Understanding the service development life cycle

Understanding the topic and the logic of the topic in context will help you to formulate the delivery process. And the delivery process can be mapped and analyzed using the DID canvas.

The principles with which BIM within the enterprise must comply, i.e. governance, must be considered. Within these principles, strategies are drawn up that are translated into the appropriate actions. These actions are in line with what needs to be requested or improved, with optimal use of resources, and then implemented so that possible new or adapted working methods can be used in the operational environment based on adapted information needs. It must be regularly demonstrated whether the information is adequate and remains current.

Remember the difference between output and outcome. The result (output) of your analysis should help to improve the needs of users in a way that fulfils customer outcomes and therefore enterprise outcomes. Outcome is key to guide decisions on investment and transformations. So, remember the focus of the DID boot camp output should add value to business outcome.

You can define the focus of you boot camp on the canvas (figure 12.3).
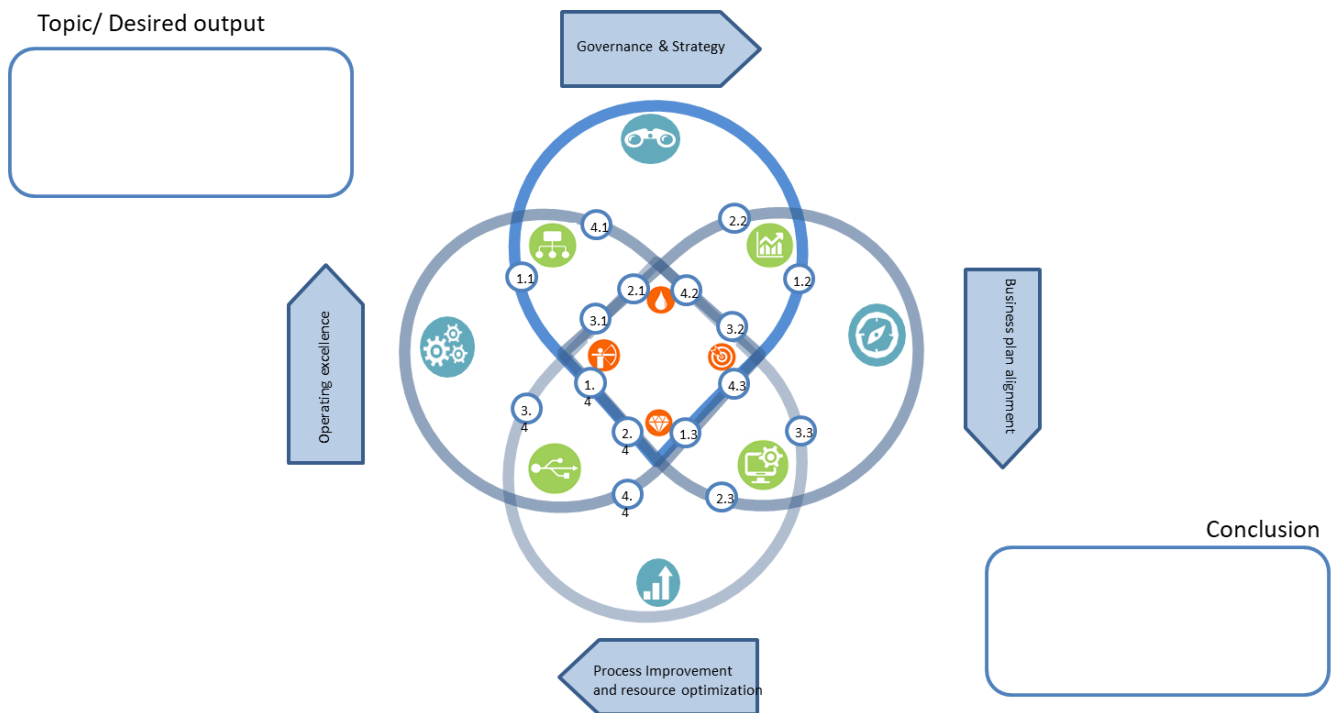
Figure 12.3 The DID canvas

DID helps to interpret, categorize, demonstrate coherence in context, show the needs and involvement of stakeholders, and ask the right questions in relation to the way the enterprise is structured. Thus, we take the topic and ask ourselves in which management domain it can be found (Governance, Strategic, Improvement or Operation). Then we need to understand in what value chain the topic or theme is an issue. Or perhaps it is the value chain itself. This becomes the focus of our DID analysis and synthesis.

12.3 Analysis and result (step 2)

To use DID effectively, numerous roles come into play. Where the SRO has not got the free time to focus on the program, the responsibility must be allocated to a person with the time, the availability and the power to act on their behalf. Here are our ten commandments that should help you to make the best out of it (actually there are 11, but we think ten sounds better and has a biblical weight).

1. What do you want to achieve using DID?
2. Get the right stakeholders (or their representatives) involved.
3. 'Do it yourself' or use DID practitioners?
4. Make sure your own people are participants.
5. Use tools to explore information and possibilities.
6. Be sure everyone involved understands outputs and outcomes.
7. Use some format for meetings/techniques.
8. Remember the special role of BIMC.
9. Be sure to write everything down!
10. Getaway days/off-site meetings or virtual?
11. Who is in charge (or who leads the boot camp)?

1. What do you want to achieve using DID?

First you have to think about what you want to achieve using the DID. Maybe there is some specific issue that needs to be explored such as an application that seems to be processing data incorrectly on a regular basis and reassess and establish the business requirements and roadmap. Or maybe you should plan a feasibility study that helps those responsible to grasp the concepts of BIM or digital transformation first and the possible beneficial outcomes (or consequences) before they mandate a more structural exploration. Or you go nuclear: setting up a digital data strategy is your ultimate goal and you use the DID canvas to explore topics and themes. This also means you need an idea of how much money and time you need to reach your goal. Maybe it is just not feasible to start out with an organisation-wide BIM program? Reread chapter 11 of the DID Foundation book that explores a 'Kick off' when no BIM infrastructure is in place. It is sometimes wise to time-box the total exploration in different phases so you can assess each component and get the right support and mandate.

2. Get the right stakeholders (or their representatives) involved

Everybody wants to be part of a boot camp exploring and discussing topics that make the new world. But you have a job to do. Discussions are good but they need to lead to practical results, at least in most organizations. First, decide who to invite and make sure everyone that has a stake is at the table. Secondly, be sure that all information is on the table. Thirdly, be sure that there are people available who have BIM and DID experience. Make sure representation from both demand and supply sides is at the table.

3. 'Do it yourself' or use practitioners?

Many roads lead to Rome. The way you are going to organise the exploration process depends on the organisation, the sort of questions you need to answer, the number of stakeholders involved and the strategy you should develop and deploy a new service, setting up the right requirements, understand the logical dependencies in your organization (remember, everybody wants better services supported by new improved and innovate IT solutions. But somebody must pay for it and there has to be a need. The DID model will help you and the guidance will provide indications about asking the right questions.

There are two types of people when it comes to using frameworks: those that need to understand the technology of the framework and those who are only interested in the result of applying the framework. Many people are not really interested in the instrument but just want the result. Compare it to the cabinetmaker who knows all about using the right tools and has a wide knowledge of materials. All you want to do is buy the table. In the end, customers and users alike (especially managers) like to sit at the table (the one you just bought) and prefer to tell the world what they think is important.

The actual BIM practices should be undertaken by specialists. Do not bother your stakeholders with the DID manual: involve two or three BIM and DID practitioners, depending on the complexity of your program and the number of people you need to involve in the design process.
The DID and BIM practitioners will lead the participants through the different cycles; some competences we believe to be essential, such as '*walking on water*' and '*turning water into wine*', have been omitted from the list though we are sure that these two would also be very useful.

4. Make sure your own people are participants
You might think that we are making a joke. But we are not. Often, we find that business owners send external consultants to these meetings. Most of the time because they are not thinking about the

impact of failing to take part. The business stakeholder is always busy, perhaps they have hired the consultant to do a specific job and a cursory knowledge of both architectural service design and the usual sketchy idea of what the consultant is *actually* doing, means that the business owner feels entirely justified in sending them in their stead.

Oh dear. That never works out well, as Kirk always discovers when the first crew members teleported to the planet are vaporised by aliens (by now you would think the first crew members picked would have learned to bribe Scotty to send them to a different planet).

5. *Tools to explore information and possibilities*

In each cycle in the DID boot camp, a lot of information about stakeholders, use, transactions, resources, etc. is requested. This information is not always available on the spot. Sometimes specific research must be conducted. A 'smart' DID boot camp program will take this into account, depending of course on what part of the lifecycle you are in, or what goal the DID canvas exercise needs to fulfil (feasibility study or full study). There are many different tools that can help you to explore the necessary information and evaluate the different possibilities. In Table 12.1 you find some tools that can help you. More information can be found in the references or on the Internet.

Stakeholder maps
A Service safari
Shadowing
Customer journey maps
Contextual interviews
The five whys
Cultural probes
Mobile ethnography
A day in the life
Expectation maps
Personas
Idea generation
What if, scenarios?
Collaborative Business Service Design
Storyboards
Desktop walkthrough
Service prototypes
Service staging
Agile development
Co-creation
Storytelling
Customer lifecycle maps
Service role play
Business model canvas

Table 12.1: Tools to research and explore

6. *Be sure everyone involved understands outputs and outcomes*

Be clear about need and responsibility. Even experts can be distracted; we sometimes were at sea during the process of exploring the DID canvas (too many cycles made us think we were already at the end of the day enjoying the final discussion in the pub) because we lost track of the required outcome. We have witnessed lots of discussions about functional requirements or design methods that had nothing to do with needed output. So, every design session must allot enough time to make all the participants understand (perhaps even be brainwashed) about the output and outcome!

7. *Format of meetings/techniques*

There are different techniques that you can apply within a DID program to elicit the right information needed. Again, depending on the situation (knowledge of people involved, culture, typical issues of the needed design, preferred style, etc.) you can choose between many methods, mind mapping, story-telling, drawings, data flow diagrams, beating with large sticks and so on. There are many techniques available and some may be more useful at different stages or in different cycles.

8. *Remember the special role of BIMC*

As discussed about the different stakeholders, most participants have a good idea where they belong in the scheme of things. But BIMC needs to play an important role and avoid it becomes an orphan. As we mentioned in chapter five within the enterprise, the BIMC (Business Information management Coordination) fulfils the role of the strategic and tactical professional representation of the business that coordinates the business information services to achieve desired business outcomes, compliance with any related contracts and the control thereof and controls costs where applicable. You are lucky if there is a business relationship management function, project manager, or a participant from the project office who happily jumps at the opportunity. But most times this is not as easy as you hope for. In which case, dedicate some participants specifically for this most important part. If you find nobody to volunteer, then make sure DID practitioners takes this part. Somebody needs to be the information owner!

9. *Be sure to write everything down!*
Agile development does not mean that requirements are not documented, despite numerous people that have perpetrated this myth; and this approach explicitly supports being Agile (it is almost a method for acrobats), though it also recognises traditional methods and supports what has come to be known as waterfall development (always spoken of in pejorative terms these days because it is 'not Agile', when despite the claims every step in the despised 'waterfall' is still carried out though most likely with more frequent iterations). This seems a *sine qua non*, and it would seem unnecessary to mention it. But you would be surprised. The Agile community has discovered that a long time ago. Hence they created DSDM Agile Project Framework to complement other Agile approaches to ensure a defined project approach is defined and will add value.[25]

Dynamic Systems Development Method (DSDM)[26]
The DSDMs philosophy is "that any project must be aligned to clearly defined strategic goals and focus upon early delivery of real benefits to the business." DSDM advocates that projects should do just 'enough design up front' in order to understand and   clarify the structure of the overall solution and to create an agile plan for delivery of the project. This puts in place the foundations for successful development and delivery. The Foundation phase   of a DSDM project is very

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[25] https://www.agilebusiness.org/
[26]

https://cdn.ymaws.com/www.agilebusiness.org/resource/resmgr/documents/whitepaper/the_dsdm_agile_project_frame.pdf /

> different to the Analysis and Design steps in a traditional 'waterfall' approach. In a DSDM project, analysis and design activity covers the full breadth of the project but   deliberately avoids going into detail. Substituting traditional 'big design up front' with DSDM's 'enough design up front' promotes agility in developing the required solution whilst avoiding the risk of 'no design up front'.

10. Getaway days/off-site meetings

Remember last time when you executed a program in a meeting room within the organisation? You suddenly found that some of the participants were missing. They had an opportunity 'to walk away for a few minutes' had an important meeting with a colleague, needed some particular work done, were asked some questions that they needed to answer immediately, and generally considered themselves to be indispensable from operational work. We would advise you to plan to get away to a different location, depending on the program. Our experience is that with larger programs you can differentiate between the different components: sometimes in-house, sometimes off-site, depending on whom you need, how important these people (think they) are and sadly, budget.

Some minor details about off-site working that are worth thinking about: make it *relatively* easy to get to the location. Make sure sleeping facilities are convenient (this means good but not necessarily expensive). You want to make staying away more attractive than travelling back home, not too easy but easy enough if there is a genuine need.

And yes, as we finish this book we look at (hopefully) the end of the covid 19 pandemic, that kept us busy, too.[27] And the world has been turned around as we found that video conference tools are a superb addition to our toolset.

11. Who is in charge (or who leads the boot camp)?

Then the eleventh commandment. Identify a process supervisor, workshop leader, facilitator – choose your favourite term! We consider the IT needs of the enterprise in two different (though related) scenarios; IT is required to act as an innovator of radical change, IT needs to change radically because it is inadequate. In the case of the former, it is more likely that business information managers (if they exist in the enterprise) or application developers will lead design, as they assess the information needs of the enterprise; in the latter case, it is more likely that infrastructure management will be the driver.

12.4 Reporting and aftermath (step 3)

It ain't over till the fat lady sings. Perhaps preparation was brilliant, there was a wonderful and energizing gathering, but you only will be remembered of the what you presented. Although SROs are probably interested in what you did with DID they mostly are interested in results. So, important is that you are able to present the results and potential benefits in a manner that is appropriate to

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[27] www.cs.vu.nl/~x/corona.html

your own organization. Look back at the preparation where you chose and defined the goals and summarize the essential conclusions from your analysis including CSFs and KPIs. Make sure you are able to explain the potential benefits to the senior responsible owners, those who need the results. Make sure that presenting the report will be followed up depending on the original request or needs. A boot camp often is a preliminary step in a decision process that marks a new phase in the life cycle, a call for action or further discussion.

Example Finding common ground to define a common language

In a private software company, we will call it 'Midworks' that mainly works with government, municipalities and financial institutions, management was asked to investigate whether the Digital Information Design (DID) framework was applicable to discover whether a common language for the development of IT driven business information services within Midworks business and technical groups was viable. Midworks leaders had identified that the business and sales domains in the enterprise often struggle to understand developers and *vice versa*. DID was used to structure interviews relating in particular to Governance, Strategy, Improvement and Operation because Midworks development and design portfolio was already 'needs and value based'. Resulting from the interviews and document research it could be concluded that Midworks did not always have clear, documented, organization-wide policies in many components of the management domains and, that (where a Policy did exist), compliance was not monitored or enforced.

The most often raised point was that Midworks is managed in organizational silos. In some instances, there seemed to be acceptance that poor communication is expected, and it is considered impractical (or too difficult) to integrate activities in a manner that facilitates better understanding. In general, all interviewees agreed that many issues regarding development would be improved by enterprise-wide creation and understanding of a sensible, usable glossary of common business and IT definitions that would be universally endorsed and applied.

As examples of what was discovered, something that (on the surface) appeared widely understood *the business issue of having a budget for project development*, was either wholly misunderstood, ignored or defined in an entirely different way across each technical team from project management, to architect, to application development to infrastructure management.

At a technical level, despite Governance and Policy apparently being in place, three 'ITIL incident management databases' existed on three different software tool platforms, none of which communicated with one another---made more of an issue by the DEVOPS team having their own, ring-fenced incident management software!
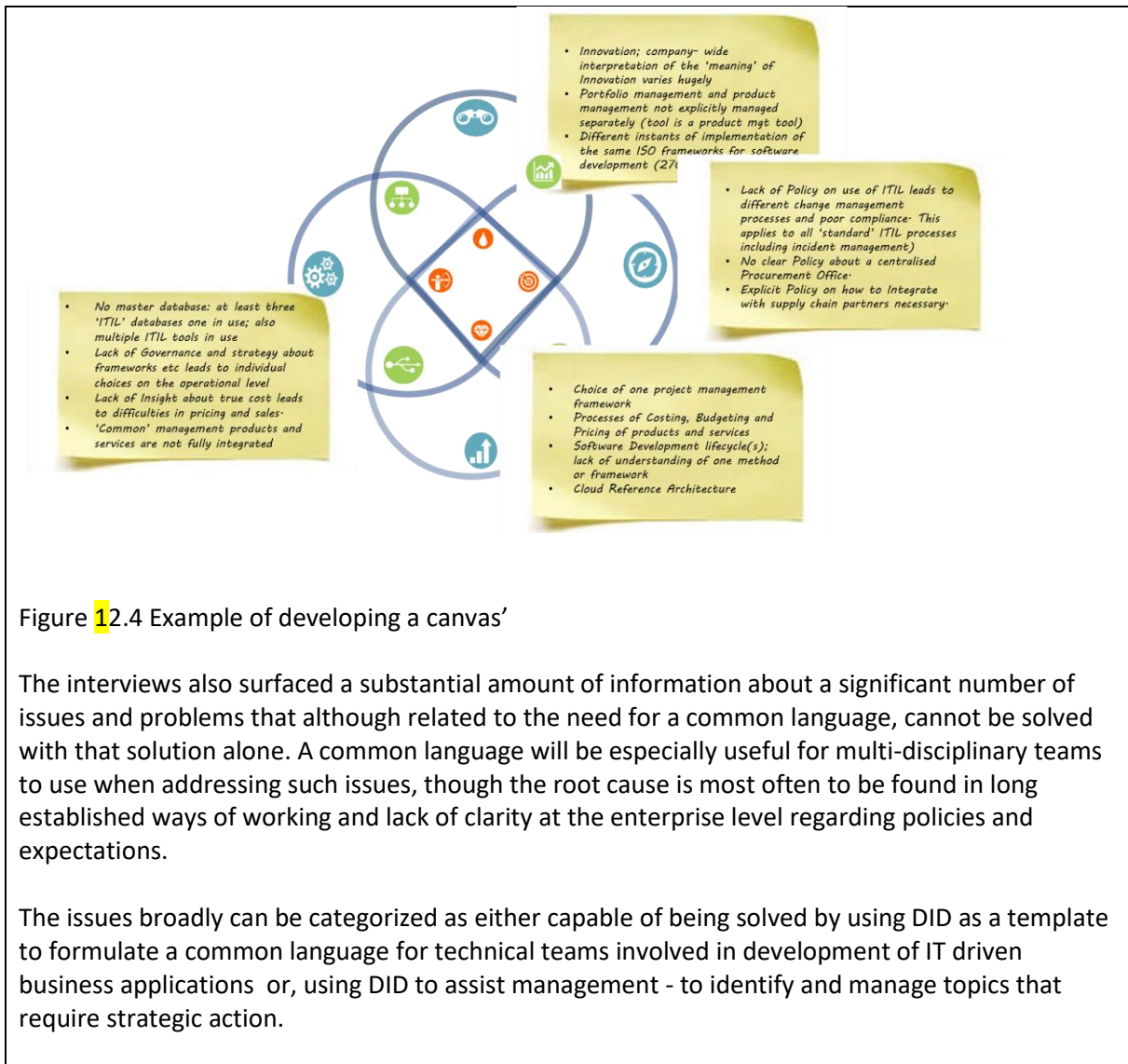

Figure 12.4 Example of developing a canvas'

The interviews also surfaced a substantial amount of information about a significant number of issues and problems that although related to the need for a common language, cannot be solved with that solution alone. A common language will be especially useful for multi-disciplinary teams to use when addressing such issues, though the root cause is most often to be found in long established ways of working and lack of clarity at the enterprise level regarding policies and expectations.

The issues broadly can be categorized as either capable of being solved by using DID as a template to formulate a common language for technical teams involved in development of IT driven business applications or, using DID to assist management - to identify and manage topics that require strategic action.

12.5 Conclusion

We can summarize the three phases of a DID boot camp in table 12.2

Phases in the programme	Step 1 Preparation	Step 2 Analysis and result	Step 3 Reporting and aftermath
Objective	Intake Determination whether DID can assist Initial meetings Logistics Communication	Using DID and the DID canvas to identify the BIM issues and its related topics within the organization	Accept or amend report and obtain clearance for next step

Activities	Setting outcome Intake and request Selecting and inviting stakeholders Budget plan Understand the topic and the delivery process or value chain. Timetable Programme Location Budget available	Insight into output and outcome in relation to business strategy Insight into BIM topics and issues, Insight into requirements Insight into roadmap Insight into risks and compliancy	Make sure it can be reported Making the delivery Evaluation Lessons to be learned
Action SRO	Explaining needed outcome in relation to business strategy Agreeing on budget to bootcamp Bringing all stakeholders together	Being available for additional information or communication New relevant information	Acceptance and sign off

Table 12.2: summarizing the three steps of a DID bootcamp

We hope we were able to you engage in a modern way of thinking about business information management using the DID framework as a guidance. We are very interested in your own experiences and examples. If you have some time please leave us a note at the community site (www.didfoundation.com/) or at the authors' site (www.fmresource.nl).