The Role of Value-Oriented IT Demand Management on Business/IT Alignment: The Case of ZON Multimedia

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Abstract. More than ever, enterprises aim at assuring their structure and initiative portfolio are aligned and support value-creation. However, essential, explicit and cross-cutting models that allow keeping bottom-line in sight over the whole initiative lifecycle are generally absent.

The role of IT Demand Management is instrumental in addressing this issue due to its unique positioning between business and IT. We advocate that the classical Business/IT alignment should primarily be reformulated as a more general Business/Business alignment. Furthermore, we analyze its contribution to making a new organizational capability emerge - the instruments through which interactions and alignments are made using a common value referential.

In this paper, we present the case of the IT Demand Management of ZON Multimedia and report on its transformation in the last 3 years - a journey of increasing maturity and transformation towards value-orientation.

Keywords: IT Demand Management, Benefits Management, Value Management, Business/IT alignment, Enterprise Engineering.

1 Introduction

More than ever, enterprises aim at assuring their structure and initiative portfolio are aligned and support value-creation. Cost reduction through effective reuse, reengineering and innovation being heavily demanded features from enterprises and their supporting systems.

Laudon notes that *enterprise performance is optimized when both technology and the organization mutually adjust to one another until a satisfactory fit is obtained* [1]. However, studies indicate as much as 90 percent of organizations fail in applying their strategies [2]. However, essential, explicit and cross-cutting models that allow keeping bottom-line in sight over the whole initiative lifecycle are generally absent.

Misalignment between the *business* and its *support systems* is frequently appointed as a reason of these failures [1, 3]. Aligning Business and IT is a widely known

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challenge in enterprises as the developer of a system is mostly concerned with its function and construction, while its sponsor is concerned about its purpose, i.e., the system's contribution.

The role of IT Demand Management is instrumental in addressing this issue due to its unique positioning between business and IT. We advocate that the classical Business/IT alignment should primarily be reformulated as a more general Business/Business alignment. The main implication is to abstract from the implementation and model the alignment problem as the relation between two systems, one supporting the other. This is mainly a relativity issue, as one organization's support processes are the core processes of the (sub)organization providing them [4]. Particularly, in the case of IT-enabled supporting systems, this implies modeling the business behind the IT organization as a pre-condition to co-developing those systems.

In this paper, we present the case of the IT Demand Management of ZON Multimedia and report on its transformation in the last 3 years - a journey of increasing maturity and transformation towards value-orientation. This approach is based on Enterprise Engineering (DEMO) [5], Value Modeling (e3Value) [6] and Enterprise Architecture (Archimate) [7]. Furthermore, we analyze their contribution to making a new organizational capability emerge - the instruments through which interactions and alignments are made using a common value referential.

The paper follows the STARR template, describing Situation, Task, Approach, Results and Reflection and closes with a contribution summary and conclusion.

2 Situation

2.1 ZON Multimedia Group

The ZON Multimedia business group leads the market in pay TV in Portugal and is the second largest internet provider. Nationally, it is also leader of the cinema market.

The origins and development of ZON are intertwined with the genesis and growth of the mass entertainment and telecommunications industries in Portugal.

From 1999 onwards, TV Cabo, became the leading distributor of television to the home and later the first internet operator to offer a broadband service. In 2008, after TV Cabo had split off from the incumbent operator, ZON Multimedia first appeared as an independent brand. With new business and engineering processes, ZON transformed itself into a provider of high quality integrated services, both inside and outside the home and for businesses.

Today, ZON Multimedia has around 1.6 million customers. ZON operates the largest New Generation Network in Portugal, reaching over three million homes. ZON is also the second largest provider of internet and fixed voice with 790 thousand customers and 976 thousand, respectively. Its digital satellite platform allows it to offer coverage to the whole country. Its 210 cinemas make up the largest network in the country and attract almost ten million cinema-goers a year. Today, ZON Multimedia and its affiliates have approximately 1,600 employees.

This solid operating base, internationally recognized for its know-how and ability to adapt across a range of markets, is the foundation stone for ZON's internationalization strategy. In 2010, its expansion plans were given a hefty boost with the setting up of its ZAP joint venture for providing subscription TV services via satellite to the Angolan market, recently extended to include Mozambique.

For confidentially reasons, only a selected set of information is available for the purpose of this paper. Particularly, the monetary rates were withheld and, whenever possible, relative values were provided.

2.2 ZON Multimedia's IT Demand Management

The IT Demand Management area is responsible for analyzing business needs and using the available resources to provide feasible solutions.

ZON's IT Demand Management unit includes the Service Strategy and Service Design processes of the ITIL v3 framework. The managed platforms included those typical of a Telco, e.g. CRM, Integration, Billing, Provisioning, ERP, public and internal Portals to name a few. A standard IT Demand Management process that mapped to a classical Software Development LifeCycle (SDLC) was in place, as pictured in Figure 1.

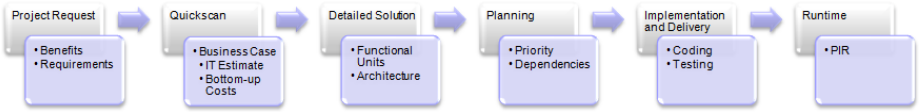

Fig. 1. IT Demand Management process

A set of Telco traditional IT client units (business and support) jointly created over a thousand project requests per year through this process, ranging from simple changes to full-scale product launches and IT transformations with development effort that amount to hundreds of staff-days. The Information Systems support services annual investment was 18,9 M€ in 2011 [8].

The demand component of this process had fundamental issues:

- Problems/opportunities were not clear and direct implementation of solutions was requested from IT;
- Prioritization of projects was casuistic and used criteria were opaque;
- A large number of projects went through detailed and time-consuming specification and only after an estimate by the development team was it possible to evaluate the merit of the project;
- A project backlog amounting to half the new project requests placed every year;
- The capacity issue led to ageing and dated solution specifications;
- Investment control and visibility: IT was mostly seen as a cost center;
- Solution design: ROI imbalances were found at solution component level, i.e., the contribution to the benefits was unknown or unjustifiable.

3 Task

This paper addresses a 3 year period of continuous changes to the IT organization and, particularly, to the IT Demand Management process. The main goal of the transformation is to provide improvement of IT Management maturity, particularly in the Value Management area and addressing the previously stated issues.

The idea of introducing a Benefits Management process is not new [9], with known promises of increasing portfolio control, particularly prioritization, and establish a clear rationale for allocating delivery capacity. However, as maturity increases, diminishing returns were experienced and deeper approaches were called for.

The stakeholders of such process are the Business Units, split into the sponsors – empowered to approve business changes and budget – and the users, which specify and operate the system. From the IT side, the process stakeholders are the IT Director, IT Demand Management (Business Account & Requirements Manager, Business Analyst and Architect), Delivery Management and Operations Management.

The task at hand was result-oriented and specific indicators for each of the phases of the process have been defined: project backlog reduction (includes demand shaping and project consolidation), value-driven project cancellations and scope reduction (€) based on cost/benefit of solution components.

4 Approach

A Design Science Research (DSR) based approach was followed in alignment with ongoing PhD work. The Environment component of the Relevance Cycle (cf. Figure 2) was presented in the previous sections. Regarding scientific Foundations used in the Rigor Cycle, a combination of Benefits Management [9], Enterprise Engineering [5, 10] and Value Modeling [6] was used, both presented in section 4.1.

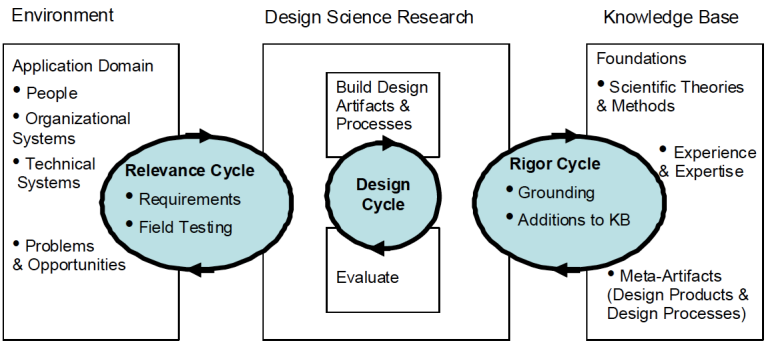

Fig. 2. Design Science Research reference model [11]

The resulting artifacts belong to three distinct types:

- **Concepts** – used for business analysis and creating relevant questions for project qualification and requirements elicitation.
- **Deliverables** – tangible changes to project request forms, quickscan (as presented in section 4) and project prioritization and planning;
- **Method** – mostly resulting of adding value structuring and engineering capabilities to a general SDLC process with Benefits Management;

As stated, the improvement process of the IT Demand area has been a continuous effort during last three years. Nevertheless, we can break down the overall approach taken in this time period in three distinct, but connected, phases presented in the following sections:

- Phase I. Benefits oriented Lifecycle
- Phase II. Quickscan and Investment Appraisal
- Phase III. Value-oriented Solution Development

Before presenting each of these phases, we will briefly review the foundations of the Rigor cycle.

4.1 Scientific Foundations

Enterprise Engineering - DEMO. Formally integrating the notion of purpose into system development activities requires addressing both the teleological and ontological perspectives in an integrated, bidirectional way [12]. However, Engineering approaches are generally focused solely on the ontological perspective [13]. By Enterprise Engineering is meant the whole body of knowledge regarding the development, implementation, and operation of enterprises [5]. DEMO has a particularly relevant role in this area both as ontology and as a method. Enterprise ontology [5] includes a sound theory and a method for supporting enterprise engineering. It goes beyond traditional function (black-box) perspective aiming at changing organizations based on the construction (white-box) perspective. Organizations are considered as systems composed of social actors and their interactions in terms of social commitments regarding the production of business facts.

From the Transaction Axiom of Enterprise Ontology, we find that actors perform two kinds of acts. By performing production acts (P-acts), the actors contribute to bringing about and delivering services to the environment. By performing coordination acts (C-acts), actors enter into and comply with commitments. P-acts and C-acts occur in generic recurrent patterns, called transactions. Every transaction process is some path through this complete pattern, and every business process in every organization is a connected collection of such transaction processes [5].

The Distinction Axiom of Enterprise Ontology's PSI-theory, states we can divide all acts of an organization in 3 categories - ontological, infological and datalogical, respectively related with the 3 human abilities: performa (deciding, judging, etc.), informa (deducing, reasoning, computing, etc.) and forma (storing, transmitting, etc.). By applying both axioms, DEMO is able to produce concise, coherent and complete

models with dramatic reduction of complexity. This feature is particularly relevant for quickscan efforts as it assists in creating and checking essential transactional models.

Additionally, unlike other approaches, DEMO makes a very strict distinction between teleology, concerning system function and behaviour – the black-box perspective – and ontology, about its construction and operation – the white-box perspective [14]. These perspectives are embodied in the Generic System Development Process (GSDP), which is specified in DEMO's TAO-theory as the process by which a system is designed and implemented from the specifications of its using systems. The GSDP is systematically defined, clarifying normally ambiguous concepts like architecture, design, engineering and implementation. The GSDP is directly relatable to a software development process and is an abstraction that clearly positions the construction and function perspectives. In order to systematically address the teleological part, a new perspective – contribution – was introduced in [12]. This perspective directly addresses the origin of the functional requirements as means of obtaining certain results and the valuation of their contribution by some stakeholder.

Value Modelling – e3Value. A formal business model [15] is necessary to create a founded integration with constructional models. Value Modelling is increasingly recognized that the concept of value assists in improving stakeholder communication, particularly Business and IT [16]. All organizations have in common bringing about *value* to their *environment*, either directly or indirectly, so *value* is an unifying concept to consider in business modeling. For our case, we elected e3Value [6] because of its formal ontology, practical application, coverage financial evaluation coverage and tool support.

e3Value is part of e3family, a set of ontological approaches for modelling networked value constellations. It is directed towards e-commerce and analyses the creation, exchange and consumption of economically valuable objects in a multi-actor network [15]. In e3Value, an Actor is perceived by his or her environment as an economically independent entity, exchanging Value Objects. An enterprise is modelled as an actor in a value network, where the demand and offer market concepts are a natural consequence of the economic context of Value Objects. This is a natural way of capturing, structuring and expressing the components of a business case. Our approach implies specifying the value system of the opportunity at hand for each project request. Only upon stakeholder agreement about the model of the value system does the supporting system design process begin. The fact that these are two formal systems allows checking them for coherence and alignment Further, we applied e3Value to improve system and subsystem value modelling: inside the boundaries of organizations, as opposed to applying it solely to e-commerce relations between formal organizations.

4.2 A 3-Phase Approach

Phase I – Benefits Specification. The project portfolio benefits management essentially aligned with the Benefits Management approach [9]. In our approach, it began by introducing a mandatory qualification step for each and every project that is

requested from IT. The Qualification step consists in validating the Project Request form. Particularly, it includes checking the presented investment rationale.

For this purpose, a new version of the project request form was produced, with the following added/revised sections:

- The proposed benefits, by type, value, owner, timing and evidences;
- Impact of "doing nothing" and deferring the project in specific amounts of time.

Positioning each system in a GSDP referential allowed clarifying their relations. Moreover, specifying the production facts and their contribution, differentiating this perspective from functional and constructional perspectives, as defined in [12, 13], enabled increased assertion capabilities during project request qualification.

Collecting benefits and working on their specification allowed for increased insight into motivation, which is especially relevant for solution building and case-by-case decisions. However, it fell short of expectations as the whole IT development process did not formally consider this information, and the project qualification that follows, as a main driver for the whole process.

Phase II – Quickscan and Investment Appraisal. In mid-2011, a new step – the *quickscan* – was introduced in the process. The outcomes from project qualification, particularly benefits specification, were leveraged as inputs for formal appraisal.

The main reason for introducing the quickscan was that significant time was consumed by doing detailed solution design for all projects before they were formally evaluated against the potential benefits. Many projects were canceled after detailed development estimates or, at least, lost priority and many never saw the light of day. In these cases, significant effort had already been consumed and relevant capacity was used for detailed estimation. The quickscan involves business accounting, architecture and business analysis functions and aims to provide a high-level solution, identified impacted platforms and estimate of the project cost. The quickscan happens, by definition, very early in the process. This makes it challenging as several solution scenarios may be designed, and solution scope is not yet closed in depth, only in breadth. For this reason, complexity reduction techniques are sought-after, which is a relevant entry point for techniques and methodologies that aim at making Enterprise Engineering intellectually manageable, such as DEMO.

The introduction of a quickscan phase, that includes the production of a High-level Estimate as deliverable, was decisive to boost efficiency and effectiveness of the process. On one hand, less work was done to reach a decision on whether to continue with the project, i.e., deciding on its funding. On the other hand, the work anticipates detailed solution design effort, so it does not involve inefficient allocation of effort.

Building on Phase I, validation of benefits since the early stages of the project became a norm and was made a mandatory component of the project request.

The budget remained under the IT department but now the business units had to compete and justify its allocation to projects before a wider audience. According to the project cost range, different approval levels (and forums) are required for project appraisal. Further, prioritization of projects for portfolio composition became driven by the stated benefits. The result is a project portfolio with increased visibility and buy-in by the business units and board.

Additionally, some incursions into detailed benefits analysis were carried through. For instance, a seemingly simple mechanism for aligning requirements with benefits is to build a two-dimensional matrix with the benefits proposed for the project and the Functional Units (FU) that contribute to achieving those benefits. This matrix supports the following coherency checks:

- Ensure functional units contribute to at least one benefit
- Ensure the production of each benefit is grounded on at least a functional unit

Moreover, it became possible to identify and analyze imbalances in expected return at the FU level. Combined with cost information from the quickscan, it allows applying an analogy of the Pareto rule, i.e., aiming at 80% of the benefit with 20% of the effort. For instance, automation of very specific and seldom occurring exception scenarios is likely to be complex to build *versus* the benefit is provides.

Furthermore, an e3Value model was produced for selected projects. This value model was instrumental in checking completeness of the scenario and its structure contributed to identifying gaps in stakeholders (economic actors), value exchanges (transactions) and the value objects themselves. Using the value model for formal and structured teleological representation is part of a more elaborated roadmap which is presented in section 4.4. These constructs, the benefits matrix and value model, have not been explicitly included in the deliverable. They are used as instruments to identify the relevant questions and only in selected projects.

Phase III – Value-oriented Solution Development. Phase III of the transformation began in mid-2012 and is currently ongoing for research validation completion. It entails using value specification to guide solution development on a project-by-project basis, i.e., it consists in ensuring alignment between the value and construction models of the project. It is a more detailed approach, working inside the construction of the system, and has been performed selectively for research validation purposes. It consists in creating the e3Value models, the DEMO models, and aligning them [17]. This approach, named Value-oriented Solution Development Process (cf. Figure 3), is further detailed and analyzed in [18].

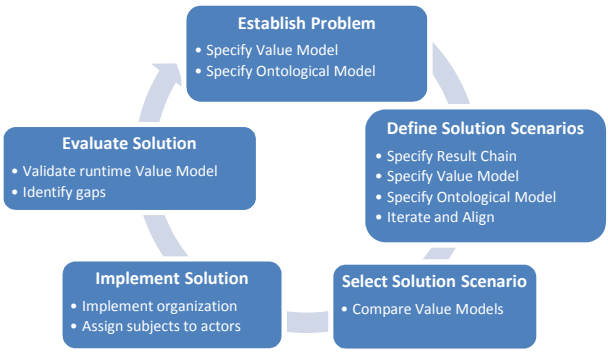

Fig. 3. VoSDP - Method for practical application

The existence of an overall value model to commit project-specific value model changes incrementally in deltas is comparable to architecture deltas on a project-by-project basis being committed to an overall architecture model. This assists in having a more systematic and complete analysis capability over the business model part of the overall solution, while keeping alignment with the construction. A single, simple, value model would give a high-level, but accurate idea of the context of the value proposal. For instance, a simplified generic value model of a private, for-profit enterprise is presented in Figure 4.

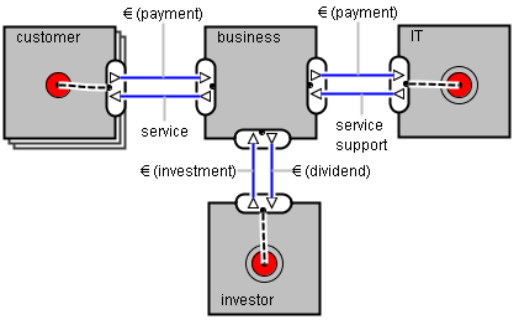

Fig. 4. Generic value model of IT-enabled for-profit enterprise

Considering the value model in Figure 4, the equation for considering the development of business support initiatives for an annual period would be:

$$dividend = customer\ revenue - business\ OPEX - IT\ OPEX - investment$$

It is noteworthy that the result can be attained by reducing the expenditure or by finding alternative ways of generating value, such as increasing revenue (relating with the customer actor) or decreasing support costs (relating with the IT actor). For instance, a business requirement such as allowing the customer to configure the features of his phone service (such as confidentiality, 3-way conferencing, voicemail, etc.) via selfcare channels can have many concurring initiatives through different stakeholders and at different timings. This was the case with different project requests: one for configuring features via set-top box interface and another for the same request over automated dial-in IVR (Interactive Voice Response). Technologically, they consist in simple service reuse but, from a business perspective, there are overlapping benefits that should be aligned by the business areas in an overall value model in order to accurately specify the worthiness of the initiatives.

The creation of a project-specific value model, exemplified in Figure 5, is a step forward by itself, fostering consensus among stakeholders and improving objectivity. Further, in order to rationally select solution scenarios, objective criteria must be defined. To this end, using e3Value it is possible to assign valuation formulas and specifying value model components using specific attributes that make the profitability sheets directly derivable from the model.

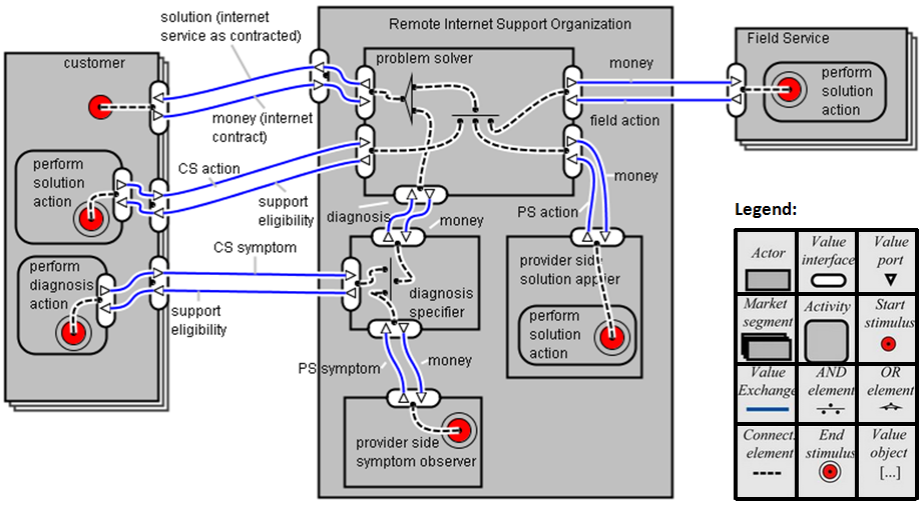

Fig. 5. Internet Support Example - Value Model

The process of alignment with the construction model is described in [17]. While it exceeds the scope of this paper, it must be mentioned as it is a cornerstone of the approach and allows checking coherency between ontological and teleological models. The advantage of having a business case integrated with the ontological and implementation models is that it makes possible to estimate the critical values that put economic viability at stake and monitor them in anticipation via trend analysis.

5 Results

The main quantitative improvements to the IT Demand process found over the three year period are summarized in Table 1. The IN column establishes the number of projects of whichever category that entered the process each year. The terminal states of the process, Cancelled and Implemented, come next and its sum equals the projects leaving the process, represented in the OUT column. Finally, δ backlog refers to the backlog variation, or project flux through the IT DM process.

Table 1. IT Demand Management process volumes 2010-2012

Year	IN	Cancelled	Implemented	OUT (C+I)	δ backlog
2010	100%	33%	65%	98%	2%
2011	55%	29%	30%	59%	-4%
2012	45%	28%	29%	58%	-13%
Total	**200%**	**90%**	**124%**	**215%**	**-15%**

The values presented are a percentage of the total of projects that were input to the process in the first of the 3 years. In Figure 6, a yearly referential is taken to portrait process improvements: the outputs are considered as a percentage of the inputs of the corresponding year. As it can be seen, 9% and 29% backlog reduction were achieved in the second and third years, respectively.

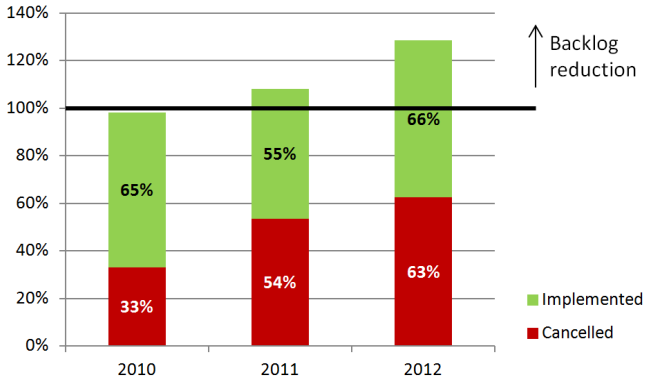

Fig. 6. Process outputs (implementations and cancellations) *versus* yearly inputs

As it can be seen, the project backlog has faced a significant and increasing reduction, led by a major cut in project creation and implementation. We should point out that the decrease in the number of implemented projects does not imply a strict proportional IT investment reduction. In this case, consolidation of initiatives played a major role in this indicator. Furthermore, some decrease in IT Demand may be partially explained by the overall economical context and the pressing need for more rigor and justification in its allocation – the approach we have presented serves as a means for doing just so.

The yearly contribution of the Demand Management process due to 1) project cancellation and 2) scope reduction based on value balancing, represented 6% of the yearly Information Systems service spending. In the remainder of the section, we detail the origin of these quantifiable improvements.

Phase I led to a massive cancellation due to missing benefits specification and ageing. In spite of this, the project backlog grew as there was a very large number of new projects, more than half of which found the way through production.

The application of Phase II mounted a large obstacle to project creation, which dropped by almost 50% in 2011 and kept the tendency for 2012. Additionally, as main result, the input to solution development process had a quality increase, resulting from better problem elicitation. For instance, applying the presented method allowed improving the definition of the set of stakeholders, scoping and value proposal. Additionally, business case clarity yielded important gains, particularly enhancing GO/NOGO decisions, prioritization criteria and scrutiny between peers. As a positive side effect, the relation with the IT Delivery also improved as planning and priority volatility has been greatly reduced.

As for the outcome of Phase III, there are still no results that allow for complete validation as not enough projects have completed the new process. Interesting metrics will be, for instance, stakeholder identification gaps, the number of times the construction model is not compliant with the value model (differentiate incompleteness and violation), average number of alignment iterations, etc. It is noteworthy, though, that applying the transactional pattern to value exchanges supports the identification of relevant scenarios. Also, by building the value models of functional units that had no explicit contribution, it became possible to integrate them in the overall business case and to decide if they should be a part of the recommended scenario or not. The now structured business case enables tracing benefits to implementation components. In turn, validation is improved by using a structured and traceable value proposal as reference during Post-Implementation Review.

6 Reflection

Looking back at the last three years, it is possible to identify clear advances in the maturity of the IT Demand Management organization and process from the Value Management perspective, including:

- **Increase of justified and mature project requests**
- **Improved specification of benefits and value generation mechanisms**
- **Project Appraisal based on IT DM inputs**
- **Stakeholder visibility and buy-in**
- **Prioritization based on known and systematic criteria**
- **Value models that can be checked at runtime**
- **Reduction of planning volatility**

The simple fact that the expected benefits are made explicit has a two-fold contribution: 1) there is a justification for the project that rests on the benefits to the company, which are now open to scrutiny; 2) the solution provider is now aware of the intended benefits and must question or commit, never ignore them.

It is worth noting that there were no specially created IT artifacts or tools. Current portfolio management tools, spreadsheets and process control mechanisms were used with minimum adjustments.

As a main challenge, we have to point out the early commitment to a high-level estimate during quickscan, as it is a demanding exercise in terms of working with a high-level solution and predicting scope, impact and costs. In addition, an adaptation period was needed for the business areas to engage in the new process as an opportunity rather than a threat – and adjusting their way of working, namely benefit forecasting and matching with their own yearly objectives and plans.

Leveraging the new deliverables produced we can now map the artifacts regarding value-orientation through the process, as represented in Figure 7. Particularly, each Project Request (1) entails a value model (2) that must be made explicit. This value model specifies the exchanges of value objects between stakeholders, representing expected benefits. The quickscan produces a high-level solution that honors the value model. The fact that the components of the value model are matched to ontological components, e.g. from a DEMO model (3), allows constructive estimates that

complement the value model with the cost dimension. The result is a formal, integrated, problem/solution value model that provides structure to the business case (4). After investment appraisal, the detailed implementation models are produced (5). Following, implementation planning (6) can now be performed based on the project value proposals across the portfolio.

More importantly, the mentioned artifacts are aligned and represent a value proposal along the three perspectives – contribution, function and construction – and have significance during operation (7). This marks a significant difference from traditional business case approaches, which are used solely for decision making during early design stages. The value proposal can effectively be used during operation of the solution for justification of each component in the runtime environment and for change analysis.

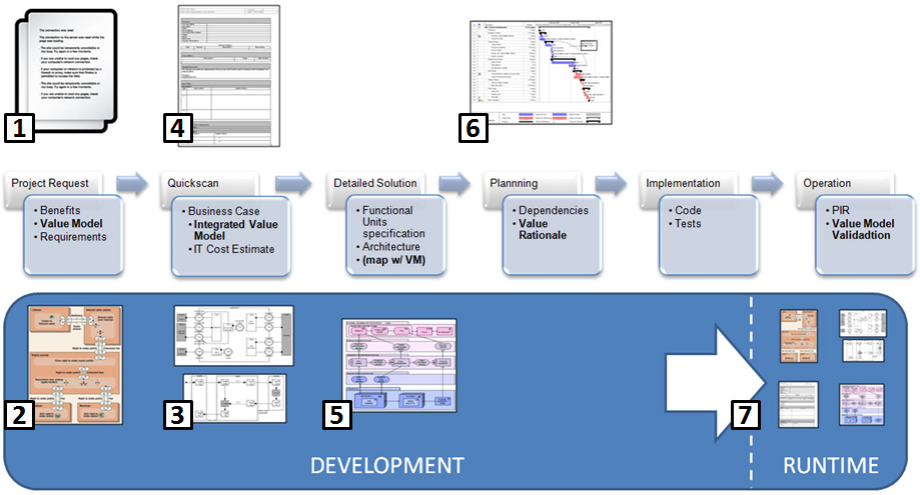

Fig. 7. IT Demand Management Process - Value-oriented

From this reflection, we have devised a value management maturity matrix that summarizes our experience. The matrix is presented in Table 2.

Table 2. IT Demand Maturity Matrix regarding Value-orientation

#	Level	Description
0	No Value Awareness	No portfolio management based on explicit value
1	Value Awareness	Common language and casuistic value decisions
2	Benefits Specification	High-level rationale is captured systematically
3	Value-oriented Portfolio Management	Process steps (i.e., qualification, quickscan, detailed solution design, estimates and planning) is systematically value-driven (*black-box*)
4	Value-oriented Solution Design	Value of solution components is defined in detail and traceable through the whole process (*white-box*)
5	Continuous Improvement	Patterns are captured, trends are anticipated and proactive Demand is created

The maturity of the process has increased as a result from the transformation. Coupled with enabling political and management changes (particularly the formal appraisal step introduced in Phase II), the maturity has increased from level 0 to 3 and is now entering level 4 at the time of writing.

IT Demand Management is now adequately positioned to promoting business-business alignment while maintaining neutrality, which includes rationally handling OPEX increases *et al* by promoting IT and making itself explicit as a business.

7 Conclusion and Future Work

In this paper we report on the transformation of an IT Demand Management organization of a Telco. Such transformation was grounded on: 1) Benefits Management, 2) Integration of theoretical models, in this case an ontology for matching e3Value and DEMO, and 3) a value-oriented solution development method.

The ability to establish relevant perspectives by stakeholder group and present an integration ontology to act as a Rosetta Stone for the Business and IT parties. By employing a separation of concerns enabled by differentiating Construction, Function, Value and Purpose perspectives, problem elicitation improved. Jointly, the inclusion of mandatory benefits statement and their validation during project request phase was instrumental in controlling demand volume and quality.

The main contributions from Value Modeling to integrating Teleological and Ontological perspectives were: value structure and coherence, economic reciprocity and value object explicitation; from the Enterprise Engineering side, the provision of complexity reduction mechanisms, a transactional context and construction support.

We found Enterprise Engineering and Value Modeling to be compatible and complementary and that their combination results in an essential capability to increase the maturity level and business IT alignment. As future work we hope to fully implement and evaluate Phase 3 for more detailed and grounded Business/IT alignment and Value Management maturity.

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