MANAGING LOGISTICS INVESTMENTS BY USING EXPERIENCE FROM IT

Assistant professor dr. Borut Jereb,
Tina Cvahte,
Associate professor dr. Bojan Rosi
Faculty of Logistics, University of Maribor
Mariborska 7, SI-3000 Celje, Slovenia
borut.jereb@fl.uni-mb.si , tina.cvahte@fl.uni-mb.si, , bojan.rosi@fl.uni-mb.si

Abstract

Informatics and logistics have much in common in regard to other business processes in an organization, especially since they are mostly infrastructural processes. Informatics here takes the lead with its many developed approaches, frameworks, standards and other guidelines with its theoretical bases adapted to IT. Years ago, the Val IT framework was developed by the international non-profit organization ISACA for managing investments, and it complements the well-known and widespread COBIT framework.

In logistics there also exists an international non-profit organization, SCC, which developed the SCOR framework. It is a collection of best practices and recommendations for supply chain management, much like COBIT is for the field of IT. However, no framework is currently present on the field of logistics that would equal Val IT.

We believe that Val IT can be adapted in a manner where its structure is kept intact, but is adequately changed in appropriate parts that are specific for IT, so that it is adapted to the field of logistics. We believe that this will provide an appropriate framework for managing investments in logistics. Whether our proposition is valid or not will have to be confirmed or denied based on the use of this framework in practice.

In this paper we will present a general overview of the framework for managing investments in logistics based in best practices and recommendations of Val IT.

Keywords: logistics, investments, management, IT

1. INTRODUCTION

For investment, we can say that they render possible the maintenance of existing business operations, its increase or change in operations. In other words, organizations achieve their desired and expected business benefits mainly by selecting the right investments and by effectively managing them. Investment management begins in the conceptual stage of an investment and lasts until its implementation, and eventually is looked at through the consequent business benefits that are relative to the values expected from the investment. Effective management cannot operate without effective control. Without both effective management and control there is a great possibility that investments will not bring benefits. Poorly controlled investments may even lead to losses.

In most cases, the common denominator of business investments is that a great or even major part of a business investment is an investment in IT or logistics, because in most cases, IT or logistics are expressed as critical components of business. Therefore, the

importance of concretized business benefits with investments in an organization can be seen as very large. What's even more important is the management of investments throughout its life cycle within the investment management in an organization - so investments in IT or logistics should not be regarded as a single whole, but only as investments that are integrated into a network of other business investment. Any investment in IT or logistics must have a clear business benefit, should contribute to business objectives and must be assessed through the prism of contributing to the business objectives. It must have its eligibility an expected correlation between inputs and utility.

Both practice and empirical research suggest that the investments that are managed within an effective supervisory framework achieve significantly better results than when implemented without supervisory approaches and frameworks (ITGI, 2008c). In this paper we describe the use of the Val IT framework (ITGI, 2008b and 2008c), which provides approaches for successfully managing IT investments and will be administered to managing investments in logistics.

From this point on, the paper is based on the hypothesis that both IT and logistics are similar to the extent that - depending on the position and relationship to other business processes within the organization and in particular with regard to perception by management - it is possible to appropriately use frameworks, primarily developed for IT, in logistics. Thus, we suggest using the same approaches to address the challenges associated with investments in logistics that have been successfully used for investments in IT. In this awareness is needed that in adapting solutions from one field to another, specifics of a certain field should be accounted for. Therefore it is not enough to simply replace phrases including IT with phrases that contain the word logistics. The approach in where investments in logistics use guidance from the related field of IT can be particularly meaningful because of the fact that there is currently no framework available on the field of investments in logistics, even though it is needed in practice.

At this moment we only have subjective confirmation that with our approach we can obtain a meaningful and useful document, which could guide the management of investments in logistics. The development of the logistics framework is currently in the proposal stage, and ultimately we are hopeful the framework will be found useful, which we can presume according to the taken assumptions and experience, but it will be finally recognized as commonly useful only after it is thoroughly verified by practical use.

The paper is twofold. On one hand, we present the use of Val IT in logistics, which is the proposed solution for managing investment in logistics and is also critically analyzed. On the other hand, the paper presents the essential parts of the amended Val IT which are themselves a single whole and have their importance for the management of investments. To ensure better understanding of the paper and its contribution, we have organized the content so that we do not separate chapters from the results (the result in our case is adapted text) and the discussion, but because the set of results is large in scope, after each presentation of partial results, a short review of the results/text is given as well as potential evaluation. Thus, we present the document and assess its contents, while the content of the paper presents the field of investment in logistics.

On the field of IT, a very important document is CobiT, which is complementary to Val IT. Both documents come from the same non-profit organization: IT Governance Institute. CobiT is generally a framework that provides guidelines for the management of IT. In the field of logistics, we have SCOR, which is a generally accepted framework for the management of supply chains. The document has rich history and is currently at its tenth revised version. With its rich design, it exceeds beyond the supply chain. It can be

seen as the best widely accepted framework for the overall field of logistics and supply chain management. Like CobiT and Val IT, it is managed by a not-for-profit organization Supply Chain Council.

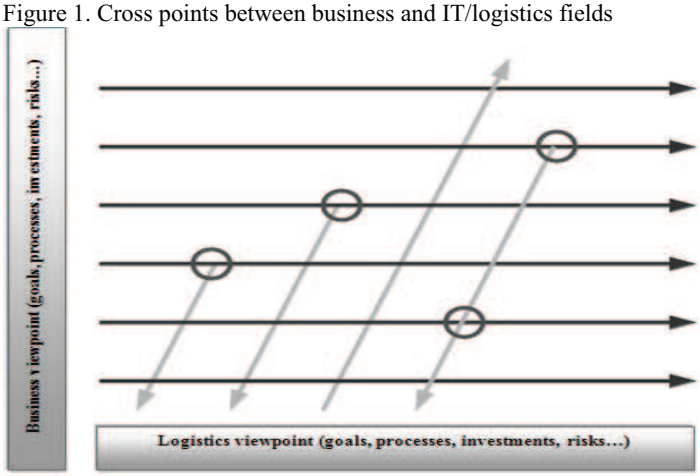
The paper is organized so that it describes the common point and similarities between the fields of IT and logistics in the second section. The third chapter outlines the general challenges associated with investments in logistics, which are necessary to detect in practice and take into account for successful search for answers to questions, such as what, how and how much to invest.

2. INFORMATION TECHNOLOGY AND LOGISTICS

Under the concept of information technology (IT) we imagine a wide array of technologies and activities in organizations related to managing and processing information. As we encounter information almost everywhere in daily life and deal with them more and more every day, IT is embedded in almost all aspects of our lives. Here, logistics is no exception. Even more: one of the definitions of logistics reads: "... logistics includes the physical flow of material and information flow from the supplier ... " (Logistika, 2012). In this definition, the concept of information is presented as one of the subject on which logistics focuses. Both fields, information technology and logistics, are dealing with information.

But the information field is far from representing the only common intersection of the two fields. Both logistics and IT sectors are necessary for the implementation of other business processes in organizations. As mainly infrastructural processes, they have much in common in relation to other business processes within the organization. They have similar challenges related to the required quality of service, to investments, risk, business ownership and their management. Their role is support, maintenance and development of business strategies and goals. In the individual business processes, investments, risks and other objectives we are dealing with IT or logistics processes, investments, and other risks, as well as with objectives that are own to each field, as is shown in Figure 1. In this, business processes usually define requirements for IT or logistics. Yet the difference is that with IT, in most cases a wider field is covered while it should also provide for smooth operation of logistics. So IT is a field which represents a part of logistics infrastructure. In lesser extent, vice versa can be applied, but generally speaking informatics is regarded as a foundation for logistics, especially since IT processes enable the implementation of logistics processes.

Figure 1. Cross points between business and IT/logistics fields



Source: Adapted from ITGI, 2008c.

In IT, the following resources are available to implement IT processes; they can be "seen", invested into and ultimately protected (ITGI, 2007):

- Information is the data, in all their forms, input, processed and output by the information systems in whatever form is used by the business.
- Applications are the automated user systems and manual procedures that process the information.
- Infrastructure is the technology and facilities (i.e., hardware, operating systems, database management systems, networking, multimedia, and the environment that houses and supports them) that enable the processing of the applications.
- People are the personnel required to plan, organize, acquire, implement, deliver, support, monitor and evaluate the information systems and services. They may be internal, outsourced or contracted as required.

Similarly, we also need to define the basic or primary resources which are specific to logistics and can be managed or invested into. Here we suggest the following logistical resources (Jereb et al., 2011):

- Flow of goods and services should be managed from the point of origin to the point of use in order to meet the requirements of customers.
- Information is the data, in all their forms, input, processed and output by the information systems in whatever form is used by the business.
- Logistics infrastructure and suprastructure as basic physical and organizational structures needed for the operation of logistics.
- People are the personnel required to plan, organize, acquire, implement, deliver, support, monitor and evaluate the logistics systems and services. They may be internal, outsourced or contracted as required.

Definition of logistics resources is a prerequisite for the use of Val IT in logistics.

3. THE IMPORTANCE OF INVESTMENTS IN LOGISTICS

The table below shows an amended introductory part of Val IT, adapted for use in logistics. The term "Val IT" was changed into "Val Log" wherever it refers to investments in logistics.

Table 1. A portion of the introductory part of Val IT, tailored to logistics

A prerequisite for determining the business benefits of investment in logistics is to achieve understanding with those, responsible for business investments (i.e. management), how logistics contributes to achieving business objectives. At all levels of management and all consequent levels of management of each investment it must be made clear how and to what extent the investment in logistics can contribute to accomplishing specific business goals. What has been missing for many years has been ready access to a structured approach—a comprehensive, proven, practice-based structured governance framework—that can provide boards and executive management teams with practical guidance in making logistics investment decisions and using logistics to create enterprise value. With Val Log we produced a much needed framework for managing investments in logistics. The views on logistics have changed over time, and until just recently, we evaluated the quality of logistics in light of factors that point to its success in supporting the implementation of business processes - nothing more and nothing less. Because today, along with updated means of performance evaluation, we look at logistics performance through the prism of investment in logistics, the focus is no longer just on the implementation of logistics solutions. Increasingly, we are aware that the goal is to implement some business changes, which allow for investments in logistics. Investment in logistics becomes an activity that is needed to achieve business results. Through performance evaluation of business investments, we are starting to assess the effectiveness of investment in logistics. This is the focus of interest (in the world of logistics) that is being further expanded to monitor the performance of investments in logistics. The new value gained by investing in logistics becomes a central concept in logistics. We wonder about the benefits that such investments can bring towards a new business value. In doing so, let us not forget that with investment in logistics we aim for both maintenance as well as an increase or change in operations. Because of evaluation of investments in logistics, we are starting to realize that also risks in logistics are substantially more complex and more important as we have been accustomed to seeing and taking in the past. On one hand, an evolution is present through which we recognize and acknowledge the impact of new elements in logistics operations; on the other hand, it is a fact that logistics represents a growingly large and important part of business and thereby the increase of impact of logistics on business operations is clear. A further consequence is reflected in the request for revision of management practices - including management practices in logistics. Practices that were current not long ago, are becoming not enough complex and inadequate. In the past, less attention was given to investments in logistics as is required by the present time. It looks as though the study of the performance of investments in logistics is becoming a crucial topic, which engages or will engage leaders in the logistics business. This applies to both public and private organizations. In both, the only difference is that the performance evaluation of investment in logistics in the public sector proves to be more difficult, because here complexity and multilayered characteristics are more apparent, which contributes to increased complexity of evaluation.

Source: Adapted from ITGI, 2008c.

We believe that the text in the table is essential for understanding the importance of investments in logistics. It refers to the relationship between 'business' investments and

investments in 'logistics' and concludes that ultimately, they are still 'business' investments and as such are in the domain of management. It concludes by noting that investments are a complex matter, which requires new skills and changed attitude towards such investments. Although it was originally intended for investments in IT, the text is also current for logistics.

Below, another portion of the adapted Val Log framework is included, which speaks about the role of leadership in business as well as about the relevance and need for guidelines for management of investments in logistics.

Table 2. A portion of Val IT, which speaks of the need for guidelines for the management of investments in logistic

Investments in business solutions that are supported by logistics or mainly by logistics can be repaid many times over, but only while ensuring the implementation of appropriate control and management activities and the full support and involvement of business management at all levels. Leadership in the past has not had a good overview of the investment in logistics. The practice of reporting and evaluation of investments in logistics has been deficient. Such bad practice prevails even today, but with the evaluation of performance of investments in logistics practice itself is changing. Investments performance, which includes investments in logistics, is well understood by organization management, who also wish to have reports on their performance. Due to a lack of knowledge about what IT investment and the problems which arise when evaluating the performance of IT investments are, the IT Governance Institute investigated options for improving the situation. They cooperated with experts from business and IT community. The result was the so-called Val IT initiative. The aim was to make this initiative lead organizations through providing various guidelines, which are associated with IT investments. Policies are prepared so that more optimal IT investments can be provided as a part of business solutions with known and acceptable risk. (ITGI, 2007) We use the analogy of the guidelines for investment in logistics (this sentence is an addition to the original text). Val Log is a framework with complementary and mutually connected processes as well as with other guidelines for managing investments in logistics, which are adapted for top leadership of the management pyramid. Processes and instructions are written in the language of leadership in a way that a leader can understand and use. At the same time it distinguishes the respective roles of members of the management of such investments.

Source: Adapted from ITGI, 2008c.

In the above text, the claim that could be controversial in practice is: "leadership in the past have not had a good overview of the investment in logistics ". This is especially likely to be controversial for more specialized logistics organizations. But it is important to realize that logistics processes occur in every organization, not only in specialized logistics organizations, which together far surpass the number of specialized logistics organizations. From practice we can see that this in fact is true, although in this paper, we have no objective empirical evidence that this is the case. In future research, a thorough investigation of the situation and the position or the role of logistics in the hierarchy of different organizations will be needed.

In Table 3, a fragment of the work is given, which more accurately describes what can be expected from Val Log and what not.

Table 3. Detailed description of the Val Log mission and differences with SCOR

Val Log is useful when focusing on investments, where we ask ourselves: 1. Are we doing things right? Are the chosen investments right? These are strategic questions, among which the next questions are linked to investments: 1. Do the chosen investment still contribute to the set business and logistics vision? 2. Are we still consistent in our business principles? 3. Are we contributing to the strategic goals of the organization? 4. Are we ensuring an optimal and/or expected increase in business benefits, taking into account the acceptable input at the acceptable levels of risk? 2. What and how extensive are the real benefits of the investment? What and how extensive are the in comparison to the expected? This is a question of business benefits, where we ask ourselves: 1. Is it understandable to all to whom it should be, what we expect from the investment? Is it completely clear what we wish to gain with the investment? 2. Is it understandable to all to whom it should be, what should be done, what and how much will be invested in the realization of investments in logistics in order to obtain the intended benefits? 3. Is the metric of performance evaluation of investments in logistics relevant? 4. Is the process of achieving the business benefits implemented well? On the other hand, SCOR (originally CobiT) focuses on the implementation of logistics processes, where we ask ourselves: 1. Are we working properly? 2. Are we performing logistic processes well enough? With the above issues, the focus of the two frameworks is shown: Val Log and SCOR. It is clear that Val Log presents an upgrade of SCOR in terms of business and financial perspectives. Thus, both Val Log and SCOR can be combined into the most comprehensive system of knowledge and best practices in logistics we currently have available.

Source: Adapted from ITGI, 2008c.

.

In the text in Table 3, we dared to replace the word CobiT with SCOR. Perhaps this move at the moment seems too brave and unfavorable reactions can be expected. It has been called into question of what, if anything can be mentioned as the second, complimentary, framework, standard or any other form of guidelines that compliments the adapted Val IT framework on the field of logistics. We decided that it is better to choose an actual framework, which is SCOR, than to talk about an imaginary document. Studies of the generally adopted documents for the management of logistics, which are complementary to Val Log, remain the subject of future research.

Table 4 provides a brief overview of the contents of Val Log.

Table 4. Contents of Val Log

In using Log Val, we are dealing with / by: 1. Basic concepts, such as: business benefits, project, program, and portfolio. 2. Principles, which are characteristic both for investments, focused on logistics resources, as well as for achieving (expected) business benefits. 3. Fields within which we manage the business benefits of individual processes of Val Log, logistics portfolio and investments in logistics. 4. Processes that are defined by Val Log. 5. Guidelines for management (who, what, when, where, how, why, etc.) for each process separately as defined by Val Log.

Source: Adapted from ITGI, 2008c.

3.1. Basic concepts

Table 5 presents the basic concepts used by Val Log. This is the basic dictionary of meanings of key terms used by Val Log.

Table 5. Definitions of basic terms

Value or business benefit is the central term in Val Log. It is defined as the total life-cycle benefits net of related costs, adjusted for risk and (in the case of financial value) for the time value of money. In many cases, however, value defies quantitative measurement. Value is complex, context-specific and dynamic. Value is indeed 'in the eye of the beholder'. The nature of value differs for different types of enterprises. While commercial enterprises are focusing much more than they have in the past on value of a non-financial nature, executives still tend to view value primarily in financial terms—often simply as the increase in profit to the enterprise that arises from the investment. For the public sector, or not-for-profit enterprises, value is more complex, and often, though not always, non-financial in nature. The concept of value relies on the relationship between meeting the expectations of stakeholders and the resources used to do so. Taking all this into account, a specific metric has to be defined to measure singular business benefits. Such metrics of course have to be constantly monitored and improved in accordance with changes in goals and values of specific organizations. Val Log does not define a single metric; therefore it has to be compiled in each specific environment individually. Such an approach is common to people in the business sphere, and less common to people in logistics.
Project—A structured set of activities concerned with delivering a defined capability (that is necessary but not sufficient to achieve a required business outcome) to the enterprise based on an agreed-upon schedule and budget
Program—A structured grouping of inter-dependent projects that are both necessary and sufficient to achieve a desired business outcome and create value. These projects could involve, but are not limited to, changes in the nature of the business, business processes, the work performed by people, as well as the competencies required to carry out the work, enabling technology and organizational structure. The investment program is the primary unit of investment within Val Log.
Portfolio—Groupings of 'objects of interest' (investment programs, IT services, IT projects, other IT assets or resources) managed and monitored to optimize business value. The investment portfolio is of primary interest to Val Log. Logistics service, project, asset or other resource portfolios are of primary interest to Val Log.

Source: Adapted from ITGI, 2008c.

Among the above definitions, it may be seen as an interesting fact that the definition of a project does not mention the quality of products and services, while it does contain the time and financial dimension. It might be sensible to add the dimension of "expected quality".

Val Log provides general guidelines and processes to be carried out in accordance with the given guidelines, which hereinafter are defined as key management practices. Relationships between the concepts, processes and management practices are listed in Table 6.

Table 6. Relationships between the concepts, processes and management practices in Val Log

Val Log supports the enterprise goal of creating optimal value from logistics-enabled investments at an affordable cost, with an acceptable level of risk **and is guided by** a set of principles applied in value management processes **that are enabled by** key management practices **and are measured by** performance against goals and metrics.

Source: Adapted from ITGI, 2008c.

3.2. Principles

The fundamental principles on which Val Log is based on are listed in Table 7.

Table 7. Basic principles of Val Log

- Logistics enabled investments will be managed as a portfolio of investments.
- Logistics enabled investments will include the full scope of activities required to achieve business value. Realizing value from logistics enabled investments requires more than delivering logistics solutions and services—it also requires changes to some or all of the following: the nature of the business itself; business processes, skills and competencies; and organization, all of which must be included in the business case for the investment.
- Logistics enabled investments will be managed through their full economic life cycle (in accordance with other business investments).
- Value delivery practices will recognize there are different categories of investments that will be evaluated and managed differently. Such categories might be based on management discretion, magnitude of costs, types of risks, importance of benefits (e.g., achievement of regulatory compliance), types and extent of business change.
- Value delivery practices will define and monitor key metrics and respond quickly to any changes or deviations, to ensure that value is created and continues to be created throughout the investment life cycle.
- Value delivery practices will engage all stakeholders and assign appropriate accountability for the delivery of capabilities and the realization of business benefits.
- Value delivery practices will be continually monitored, evaluated and improved.

Source: Adapted from ITGI, 2008c.

3.3. Fields and processes

Val Log defines the processes carried out by all participants in the process of investing. These processes are grouped into three fields, as shown in Table 8. Detailed descriptions of individual fields are shown in Table 9, 10 and 11.

Table 8. Three fields of processes in Val Log

Value Governance (VG)
Portfolio Management (PM)
Investment Management (IM)

Source: Adapted from ITGI, 2008c .

Table 9: Value management

The goal of value governance (VG) is to ensure that value management practices are embedded in the enterprise, enabling it to secure optimal value from its IT-enabled investments throughout their full economic life cycle. When management wishes to act towards controlling business benefits, they must implement processes: VG1 Establish informed and committed leadership. VG2 Define and implement processes. VG3 Define portfolio characteristics. VG4 Align and integrate value management with enterprise financial planning. VG5 Establish effective governance monitoring. VG6 Continuously improve value management practices.

Source: Adapted from ITGI, 2008c.

Table 10: Portfolio management

The goal of portfolio management (PM) - within the context of the Val Log framework - is to ensure that an enterprise secures optimal value across its portfolio of logistics enabled investments. PM1 Establish strategic direction and target investment mix. PM2 Determine the availability and sources of funds. PM3 Manage the availability of human resources. PM4 Evaluate and select programs to fund. PM5 Monitor and report on investment portfolio performance. PM6 Optimize investment portfolio performance. Logistics enabled business investment programs need to be managed as part of the overall portfolio of investments so that all of the enterprise's investments can be selected and managed on a common basis. The programs in the portfolio must be clearly defined, evaluated, prioritized, selected, and managed actively throughout their full economic life cycles to optimize value for individual programs and the overall portfolio. This includes optimizing the allocation of the finite investment resources available to the enterprise, the management of risk, the early identification and correction of problems (including program cancellation, if appropriate), and board-level investment portfolio oversight. Portfolio management recognizes the requirement for a balanced portfolio. It also recognizes that there are different categories of investment with differing levels of complexity and degrees of freedom in allocating funds.

Source: Adapted from ITGI, 2008c.

Table 11. Management of investments

The goal of investment management (IM) is to ensure that the enterprise's individual logistics enabled investments contribute to optimal value. IM1 Develop and evaluate the initial program concept business case. IM2 Understand the candidate program and implementation options. IM3 Develop the program plan. IM4 Develop full life-cycle costs and benefits. IM5 Develop the detailed candidate program business case. IM6 Launch and manage the program. IM7 Update operational logistics portfolios. IM8 Update the business case. IM9 Monitor and report on the program. IM10 Retire the program.

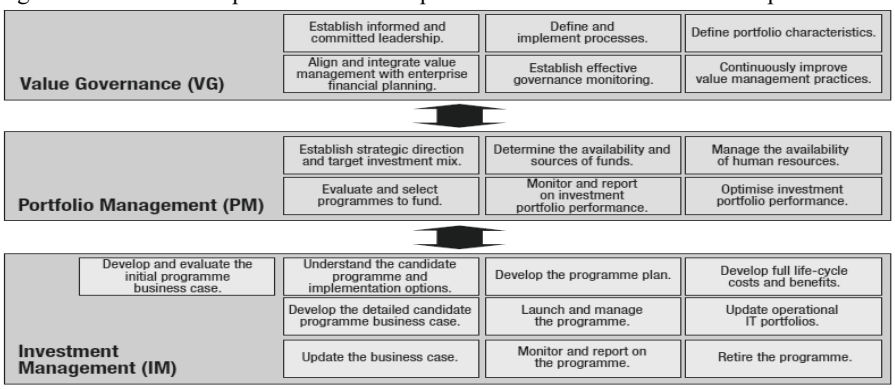
Source: Adapted from ITGI, 2008c.

Although a more detailed description of the processes and fields is beyond the scope of this paper, it can at least be said that the processes, which are listed in Tables 9, 10 and 11 of Val Log, describe key management practices. For each process, inputs and outputs

from the process are provided. Inputs and outputs can represent some of the information (documents), which circulate among processes of Val Log as well as between Val Log processes and processes of complementary frameworks, such as SCOR. For each process, envisaged objectives and metrics for performance assessment of goal achievement is also available. In addition, a table is given which defines the responsibility for performance of specific processes. At the end of describing processes from each of the three fields, there is an additional maturity model to assess individual fields. Examples of inputs and outputs of the processes, defined responsibilities and goals and metrics are presented in the following section "Guidelines for management."

We believe, again intuitively, that the processes are set in a manner to fully meet challenges in managing investments in logistics. This is essentially a "universal" business view on the issues of investments, which is enriched with facts, derived from investments in logistics (or business) processes that support other business processes within the organization. Given that Val IT aims to adjust the overall business approach to specifics of IT, and because IT and logistics share much in common, Val Log can be a successful approach used in logistics and based on experience from IT. Figure 2 shows fields with groups of processes and relationships between them. Groups that are horizontally on top of others are in principle carried out before those who are below them. Groups that are on the same horizontal axis are in principle carried out parallel to each other.

Figure 2. General description of the sets of processes and their inter-relationships



Source: ITGI, 2008c.

3.4. Guidelines for management

Guidelines for the management staff of organizations, which are given in Val Log, aim to aid in the processes of investment management. Instructions provide answers to typical questions of executives and are part of Table 12.

Table 12. Typical questions of executives, which Val Log responds to

• How do all the value management processes and activities interrelate? • What are the key activities that need to be undertaken or improved? • What roles and responsibilities are to be defined for successful value management processes? • How do we measure and compare value management processes? • What are the indicators of good performance?

Source: Adapted from ITGI, 2008c.

Val Log provides guidance on the field level (higher and more general level) and at the level of processes (lower and more detailed level). Figure 3 shows the guidelines for all three fields. Figure 4 shows a table of general, non-itemized responsibilities at the level of fields. Both original pieces talk about IT and can be reasonably adapted to the field of logistics.

Figure 3. Guidelines for management of investments on the field level (higher levels)

Domain	Domain Goal	Inputs	Outputs	Process Metrics	Domain Metric
Value Governance (VG)	To ensure that value management practices are embedded in the enterprise, enabling it to secure optimal value from its IT-enabled investments throughout their full economic life cycle	• Business strategy • Enterprise governance and control framework • Enterprise investment approach	• Leadership commitment • Value governance requirements with roles, responsibilities and accountabilities • Portfolio characteristics and investment categories	• Level of leadership agreement on value governance principles • Level of leadership engagement • Degree of implementation and compliance with value management processes	• Maturity of value management processes
Portfolio Management (PM)	To ensure that an enterprise secures optimal value across its portfolio of IT-enabled investments	• Business strategy • Portfolio characteristics and investment categories • Available budget and resources • Detailed business cases	• Approved investment programmes • Overall investment portfolio view • Portfolio performance reports	• Level of satisfaction with IT's contribution to business value • Percentage of IT expenditures that have direct traceability to business strategy • Percentage increase in portfolio value over time	• Percentage of forecast optimal value, that is secured across the enterprise's portfolio of IT-enabled investments
Investment Management (IM)	To ensure that the enterprise's IT-enabled investments contribute to optimal value	• Business strategy • Detailed business requirements • Portfolio characteristics and mix • Available resources	• Detailed business case, including full life-cycle costs and benefits • Programme plan including budget and resources • Programme performance reports • Updated IT operational portfolios	• Number of new ideas per investment category, and percentage that are developed into detailed business cases • Completeness and compliance of business cases (initial and updated) • Percentage of expected value realised	• Contribution of individual IT-enabled investments to optimal value

Source: ITGI, 2008c.

Figure 4. General responsibilities on the field level (higher levels)

Activity	Accountability	Responsibility
Value Governance		
Establish informed and committed leadership.	Board	CEO
Define and implement processes.	CEO	CFO and CIO
Define portfolio characteristics.	Board	CEO, CFO and CIO
Align and integrate value management with enterprise financial planning.	Board	CFO
Establish effective governance monitoring and implement lessons learned.	Board	Executive and business management
Portfolio Management		
Establish strategic direction and target investment mix.	Board and CIO	CEO, CFO and CIO
Determine availability and sources of funds.	CFO	CFO, CIO and business management
Manage the availability of human resources.	Business management	Programme manager and CIO
Evaluate and select programmes to fund.	Executive management	Investment and services board (ISB) and value management office (VMO)
Monitor and report on investment portfolio performance.	VMO	VMO
Optimise investment portfolio performance.	Executive management	ISB and business management
Investment Management		
Develop and evaluate initial programme concept business case.	Business sponsor	Business management
Understand the candidate programme and develop a programme plan.	Business sponsor	Programme manager
Develop full life-cycle costs and benefits.	Business sponsor	Programme manager
Develop the detailed candidate programme business case.	Business sponsor	Programme manager, CFO and CIO
Launch and manage the programme (through to programme retirement).	Programme manager	Business management and CIO
Update operational IT portfolios.	CIO	Programme manager and programme management office
Update the business case.	Business sponsor	Programme manager, CFO and CIO
Monitor and report on the programme.	Business sponsor	Programme manager

Source: ITGI, 2008.c .

Val Log provides detailed instructions for the field of IT at the process level. Figure 5 shows inputs and outputs of the process VG3 - Defining characteristics of different portfolios.

Figure 5. Inputs and outputs of the process VG3

From	Inputs
*	Business strategy
*	Business investment approach
CobiT PO1	IT strategic plan
	IT project portfolio
	IT services portfolio

Outputs	To
Lessons learned	VG6
Investment evaluation criteria	PM4
Portfolio types and investment categories	PM4, CobiT PO1, PO5

* Input from/output to outside Val IT and CobiT

Source: ITGI, 2008.c.

Detailed table of responsibility for the same process - VG3, is shown in Figure 6.

Figure 6. Detailed table of VG3 accountability process

RACI Chart

Activities	Board	CEO	CARS	Investment and Services Board	Value Management Office	CFO	CIO	Business Sponsor	Programme Manager	Programme Management Office	Business Management	Project Management Office
Define the types of portfolios for the enterprise.	A	R		R		C	C					
Define categories within the portfolios.	A	R		R	C	C	C				C	
Develop and communicate evaluation criteria by categories.	A	R		R	C	C	C				C	
Assign weightings to the criteria by category to enable evaluation.	A	R		R	R	C	C				C	
Define requirements and establish stage-gates for investment portfolio categories.	A	R		R	C	C	C				C	
Define requirements for and establish regular reviews of contribution to value of other portfolios.	A	R		R	C	C	C				C	

A **RACI** chart identifies who is **R**esponsible, **A**ccountable, **C**onsulted and/or **I**nformed.

Source: ITGI, 2008.c.

Goals and metrics for each process and activity also need to be defined, which is shown in Figures 7 and 8. Due to transparency and ease of use, Val Log also repeats goals and metrics in the fields, which serves in order to not lose the broadness of the overview. Also in this case the text has to be properly adjusted to Val Log.

Figure 7. The objectives pursued in the process VG3

Activity Goals	Process Goals	VG Goal
• Types of portfolios, with their characteristics, have been defined. • Criteria exist for evaluating the investment portfolio and other portfolios based on categories within portfolios. • The basis for evaluating investments and contributions to value is consistent and well understood. • There is informed and efficient decision making about investments and the contents of other portfolios. • Requirements have been defined for stage-gate reviews for investments and the contribution to value of other portfolios.	• Portfolios are used for supporting management decisions about contributions to value. • There is an appropriate and consistent level of analysis for the investment portfolio and all other portfolios. • The relative value of investments and contribution to value of other portfolios can be determined. • A mechanism is in place for undertaking stage-gate reviews for investments and reviews of the contribution to the value of other portfolios.	• Ensure that value management practices are embedded in the enterprise, enabling it to secure optimal value from its IT-enabled investments throughout their full economic life cycle.

Source: ITGI, 2008.c.

Figure 8. Metrics, which are used in the process VG3

Activity Metrics	Process Metrics	VG Metric
• Level of satisfaction the executive has with the usefulness of the types of portfolios and their categories established for decision making • Level of satisfaction the executive has with the evaluation framework • Time since the last update of stage-gate review criteria • Time since the last update of requirements for reviewing the contribution to the value of other portfolios	• Number of distinct portfolios, with their categories, defined • Number of investment decisions that are made not using the portfolio framework • Number of executive overrides of decisions based on results of portfolio framework analysis • Trends in time required to make investment decisions • Number of investments that are wrongly categorised • Number of investment stage-gate reviews and reviews of the content of other portfolios that do not meet their review criteria	• The maturity level of the value management processes in the enterprise

Source: ITGI, 2008.c.

Guidelines for management are the most important tool that allows for help with investments in real cases. They are a recipe to be used again and again, but every time a little bit differently. Like any recipe, it is used as a checklist, which is based on given principles and use in accordance to experience and with the account of specificity of the environment. Particularly it is important to emphasize the importance of responsibility tables, which are invaluable in practice and are generally not given in different frameworks, guidelines or standards.

4. DISCUSSION

In mid-2008, the second version of Val IT was published, which through additional explanations added to the idea of the importance of managing IT investments through responsible staff for IT investments in the organization - including heads of departments. Assuming that in the field of logistics investments can use the same general guidelines and approaches as are used in IT, we produced a good management framework with Val Log. Similar frameworks do not exist in logistics, therefore it is very welcome. It also contains a maturity model, which can be used at a higher or lower level. Portfolio of investments is the considered field, which includes logistics services, logistics assets and resources – therefore it is based on a holistic approach to managing investments.

In general, Val Log is a fairly short document, which contains relatively few processes - only 22. Maybe its compact and concise form can be seen as its strong point. Either way it

brings a new view into the logistics business and gives managers and other business leaders a new starting point to see the investments in logistics from a different perspective.

Investments in logistics have so far used general guidelines, approaches, methodologies and frameworks for managing them. It is true that all investments can be subject to general principles, but they also have specific fields of features that are worth considering. Logistics is also one of those fields which have their own specificity that has to be detected, recognized and understood so that it can be controlled. Since in general we cannot expect a sufficiently detailed knowledge of logistics from the organization's management, we are dealing with the problems associated with understanding and proper positioning of logistics among the rest of the business processes. Val Log provides a means of bridging the misunderstanding between management and logisticians in an organization regarding investments in logistics, which we unfortunately all too often witness.

Proposal for Val Log is a new concept and a case, where it would be applied in practice, is to this day unknown. In logistics as a service activity in an organization, we firstly ask ourselves whether we are doing things correctly, but soon overcome this situation and we begin to wonder about the benefits brought about by our actions. This means a shift where the business management of organizations begins to manage logistics and therefore the state where logisticians manage logistics is surpassed. Thus a direct connection between what is happening in the field of logistics and between what is happening in the business field is provided. By this we can overcome the myth that logistics projects cost money while business projects bring money. We believe that Val Log is a promising methodology compared to other general methodologies while talking about investments in the logistics field. Its advantage is the fact that it is complementary to SCOR and consequently understandable to people in the field of logistics. On the other hand, it introduces the language of business into investments in logistics and achieves a new perspective of view at logistics performance. This shows the effectiveness of a business investment, where there are also investments in logistics. Such a view is not new, it has often been tested in practice, but in the field of logistics it is used in a systematic way and as such is new on the specific field.

5. REFERENCES

1. IT Governance Institute. Enterprise Value: Governance of IT Investments, The ING Case Study, ZDA, 2006.
2. IT Governance Institute. Enterprise Value: Governance of IT Investments, CobIT, ZDA, 2007.
3. IT Governance Institute. Enterprise Value: Governance of IT Investments, Getting Started With Value Management, ZDA, 2008.a.
4. IT Governance Institute. Enterprise Value: Governance of IT Investments, The Val IT Framework 2.0 Extract, ZDA, 2008b.
5. IT Governance Institute. Enterprise Value: Governance of IT Investments, The Val IT Framework 2.0, ZDA, 2008c.
6. Jereb, Borut; Cvahte, Tina; Rosi, Bojan: Prepoznavanje in analiza tveganj v oskrbovalnih verigah, Projektna mreža Slovenije, letn. 14, št. 3, str. 4-12, dec. 2011.
7. Logistika, [accessible at http://sl.wikipedia.org/wiki/Logistika, accessed in June 2012.].