

# Value World

Volume 30 ▪ Issue 3 ▪ Fall 2007  
Published by SAVE International

## HOW TO DESIGN AND IMPLEMENT A GLOBAL VALUE MANAGEMENT PROGRAM TO DRIVE ORGANIC GROWTH

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### Abstract

ITT Industries is a \$7.4 billion diversified manufacturer with approximately 40,000 employees globally. The company's Management System is built around several value-based tools, all designed to help the company make decisions, improvements and products that directly support its business goals. One of these value-based tools is Value-Based Product Development (VBPD). The goal of VBPD is to drive organic growth through new product offerings with unrivalled customer value. VBPD was launched in 2000 and has helped ITT move up the list of premier multi-industry companies in terms of new product sales measured as a percentage of overall sales. VBPD is a true Value Management Programme owned by a specially appointed deployment team reporting directly to top management. The deployment team comprises of VBPD champions from the different business areas within ITT. The VBPD programme also has established procedures for the training, practice and implementation of new Value Management tools on a global basis.

The two main components of VBPD are the Stage-Gate process and the Nimba Value Model. The Stage-Gate process focuses on selecting the right portfolio of business projects and then effectively executing those opportunities to drive organic growth. The Nimba Value Model guides the development work to a clear customer value focus, based on functional thinking. A cornerstone in the implementation of the VBPD programme has been that people are invited to bring their own products and projects to the training. For example, people are trained in formulating user-related functions for their products and making functional models to describe how value is delivered to the customer before diving into details of technical solutions. Parallel to training on strategic product development, employees also receive support and coaching to enhance positive human dynamics in their cross-functional product development work teams.

At the VBPD symposium in October 2004, attended by more than 500 ITT Industries employees, Steven Loranger, newly appointed CEO, made the following comment:

“Time and time again, I heard our people at the VBPD Symposium say that ‘It really works.’”

## Why VBPD?

When ITT compared itself with other multi-industry companies in 2000 we realised that we were excellent in running our business in an effective way but were not growing the business sufficiently. We needed to improve our ability to grow the company, both organically and by acquisitions. We believed that the best way to improve our organic growth was to launch more new and excellent products – excellent in the eyes of the customer.

## Main Components of VBPD

To develop the right products the Stage Gate model was chosen. To develop the product right the Nimba Value model was chosen. An ITT task force was put together to design the roll out into the organisation. From an earlier Six Sigma implementation we had learned that going for the big bang wasn't always that effective. The task force decided therefore to aim for a lower pace with increased coaching. The Value Centres would get on-site coaching in real projects developing real products. They would get support both in how to run projects and how to develop a product that fulfils the most important customer needs. If everybody within R&D in the whole company worked in the same way we would all be familiar with the same methods, tools and work processes. This would increase the opportunity of learning from each other, sharing best practices and improving the tools and methods used. We would also be much more flexible when it comes to resources. The different value centres could help each other out. An individual would always recognise the process, methods and tools where ever he/she went within the company.

To learn about the customer the engineers have to actually meet the customer. By choosing a process such as the Nimba Value Model that supports customer-driven development we got the tools and methods into the hands of the engineers so they felt comfortable meeting the customer.

## Stage - Gate

Attach a clear decision model to your development process. The objective is to optimise business opportunities by ensuring that the right projects are being executed and that bad projects are terminated in time. The decision model is also a tool to ensure that there are not too many ongoing projects running parallel to one another, thereby creating queues and bottlenecks.

The most common form of decision model is a Stage-Gate Model (Cooper 2001) that divides a project into a number of predefined stages separated by explicit tollgates (decision points). The project is analysed at every tollgate and formal decisions are made on whether or not the project will be changed, continued, or terminated.

For the process to work the tollgate decision has to be one made at two levels. The first level is to decide if the project, based on its own merits and results, should be allowed to continue or if it should be modified or terminated. The project's effect on the project portfolio must also be analysed. It may happen that a project with excellent results is put on hold or even terminated

because the competition from other projects in the portfolio is just too strong or because resources are lacking.

A Stage-Gate Model often has five gates, as illustrated in figure 1.

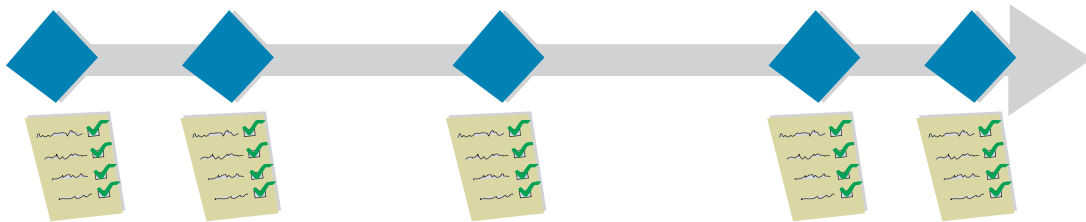


Figure 1

## Value Model

The Value Model (Lindstedt and Burenium 2003) focuses on the value-creation perspective. It is a working model that provides structure and guidance in defining and implementing a development project. The Value Model (figure 2) is built on the hypothesis that the purpose of a development project is to create value for the project's stakeholders. These stakeholders can be roughly divided into three groups. The customer is, of course, the first and most important of all the interested parties. Don't forget that there are both external customers outside your organisation as well as internal customers inside it. The people who actually do the job are the second of the interested parties. The outcome of the development project should be a feeling of success and personal development for all involved. The project team is the core or hub around which all work is organised. The third interested party is the sponsor, who represents the owner's viewpoint in the development project. The sponsor is satisfied if the development project has resulted in a good business venture without having taken major risks. The management perspective of the development project is represented by the project manager. The professional project manager is a person who can successfully complete a development project where all the important stakeholders are satisfied, without having to go through a lot of fuss and bother. The project has created value for the customer, team and sponsor. Consequently, the aim of all development projects from the project manager's perspective is to satisfy the needs and expectations of stakeholders. Three processes can be identified from the different needs of the three groups of stakeholders listed above:

- A main process aimed at creating satisfied customers. We call this process Customer Value Creation. This is a process that starts with the customers by mapping out their future needs and finishes with them when the new product is delivered. The process is successive in nature in that information is gradually captured, concentrated and translated by moving between four descriptive stages or domains. These are needs, functions, solutions and processes. The key to turning customer value into a concrete and practical tool is applying methodical, function- and cost-based thinking throughout the process.
- A support process aimed at creating a successful team and satisfied colleagues. We call

this process Team Management. This is a process by which a group of people is shaped into a team. It is an organic process in that a good environment fosters the development of a productive and creative team.

- A support process aimed at creating profitability and growth, satisfying both sponsors and owners. We call this process Project Management. This is a process by which a project is defined, divided into phases and implemented phase by phase. It is a repetitive process in which planning, implementation and reviews are repeated several times.

Although the three processes have completely different characteristics, they all go through three similar conceptual phases. We have used an analogy with traffic lights to describe these phases.

- The first phase, symbolised by a red light, is called Where are we going? Its aim is to create and define the product, the team and the project, based on the needs of the stakeholders. No point in zooming off until you know where you're going.
- The second phase, symbolised by an amber light, is called How do we get there? In this phase, a strategy is formulated regarding product design and how the project should be organised and the work allocated. Now you can move off, slowly and carefully.
- The third phase, symbolised by a green light, is called Make the journey a safe one! Use good management to carry the project through to a well-defined and successful conclusion. The journey can be completed safely.

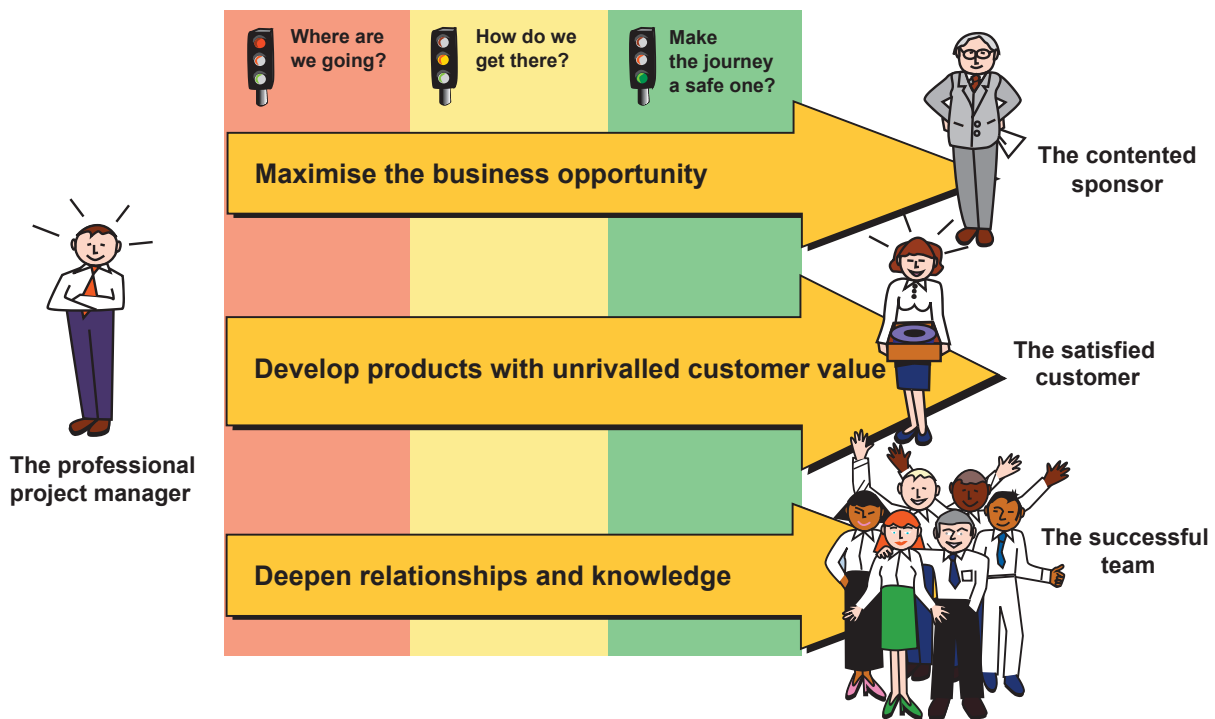


Figure 2

## **Linking State-Gate to the Value Model**

Development work is such a comprehensive and difficult task that it cannot fully be described in one single model. In order to achieve success, we believe that an organisation must learn to work with multiple models, each highlighting and focusing on one important aspect. These different models form a complex pattern because they are parallel and independent but are also simultaneously interrelated. Using different perspectives creates a type of filter that highlights specific features whilst others fade into the background. There is no contradiction between the Value Model and the Stage-Gate. On the contrary they support each other and together form a framework that upholds the project portfolio perspective as well as the single project perspective simultaneously.

## **Functional and cost-based thinking**

The key to turning customer value into a concrete and practical tool is applying methodical, function- and cost-based thinking. Instead of getting bogged down in concrete details, focus must be placed on defining what the product has to do, from a customer perspective. This demands a new way of thinking. Functions are the key to opening up these new methods. They are a cornerstone in turning the concept of value into a practical tool. The work involved with this is simplified and elucidated if the functions are divided into the following groups (see figure 3):

### ***Main Functions***

Functions the product must deliver, from a customer perspective. However there is always a limit to what the customer is willing to pay for increased performance of the main functions. One of the main functions of a car is to transport people.

### ***Additional Functions***

Functions that contribute to increasing the value in a product if the benefits are valued more highly by the customer than the cost of supplying them. The car's air conditioning provides a comfortable climate.

### ***Support Functions***

Functions that must be performed in order to compensate for shortcomings in the chosen technology, and that are not associated with any benefits. They are not a source of annoyance, and do not create any disadvantages. The car's radiator reduces engine temperature. Support functions affect customer value only indirectly, as they lead to more complicated products and usually increase cost.

### ***Unwanted Functions***

Functions that are damaging to the product, the customer, or the surrounding environment. They are therefore a source of annoyance and create disadvantages. The car emits exhaust fumes.

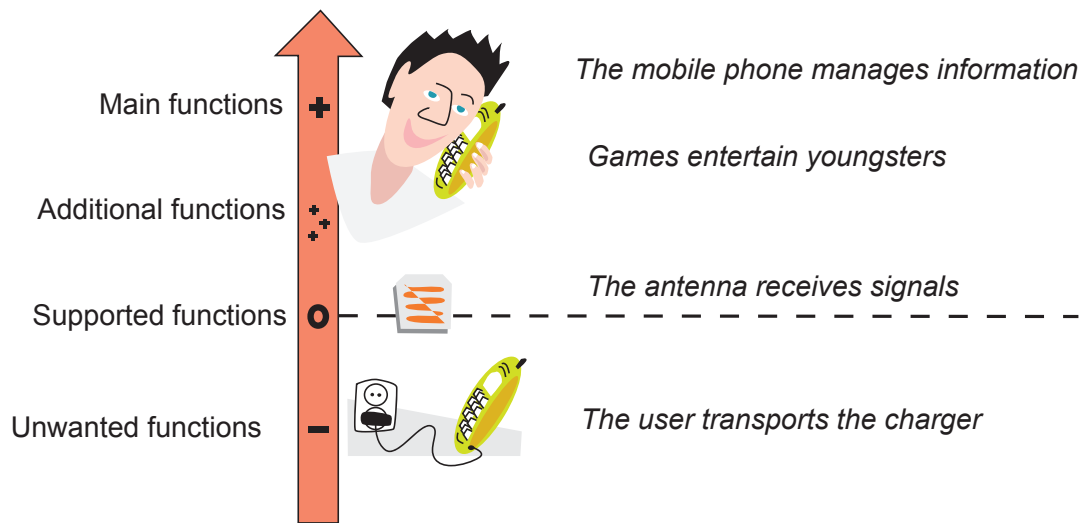


Figure 3

## Results achieved

The success of the VBPD program can be described in many ways. There are soft issues as well as hard metrics that support the picture:

- Improved financial growth compared with peers
- Ratio of sales from new products (introduction year plus three years) have increased from 15% to 27%
- Project delays reduced by 95% (figure 4)

When we looked at project cycle time and delays we realised that the first step was to deliver on schedule and then the second step was to aim for cycle time reduction. We realised that getting the product when expected was the main customer need from our internal customers (marketing department). If we had done it the other way around, we would never have got credit for the improvements we made. If we were late according to what we had promised, our customers would have thought that we worked too slowly.

With the Stage-Gate model you get a process with good segmentation. This is very suitable for planning since the further you plan in the future, the greater the uncertainty and risk increases. By segmenting your project in stages you can plan the next stage with precision and make rough plans for segments in the future. You also get clear activities and deliverables for each segment.

## Take aways

At ITT Flygt we have really seen the benefits of working from the customer value point of view. Historically we often saw projects motivated by a narrow product cost perspective, but for the last couple of years projects have been motivated by superior performance in the eye of the customer. The result of this is two new project programmes with new, unique features that enable the product to sustain its functions over time. Both programmes have set a new functional

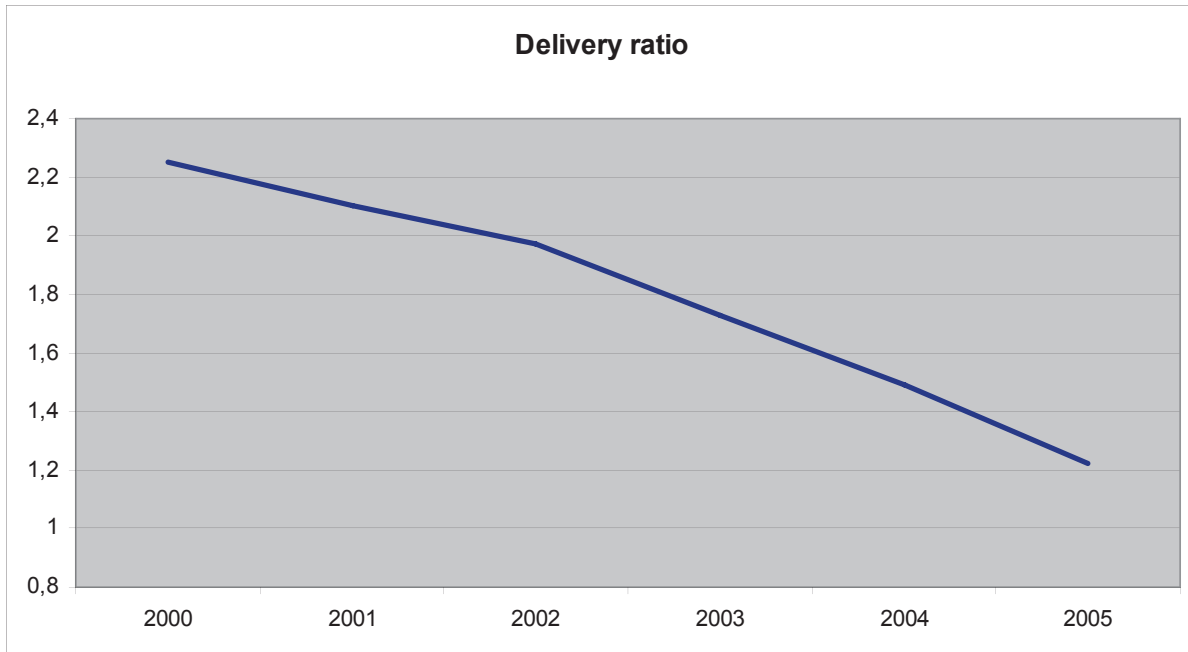


Figure 4

standard on the market. What we've learned during the development of these programmes is that value in the eyes of the customer is not that easy to find. It's not enough to ask customers – you have to visit them, watch them and measure and analyse their applications. With in-depth knowledge of the customer and the customer's application comes the ability to detect the real customer values and through that the opportunity of creating products that fulfil them. There's no short cut to in-depth knowledge, it's hard work that counts. We have also learned that good tools and methods support change and speed up the transformation process. We decided to use the Stage-Gate and Nimba Value Model and they have contributed significantly to our increased growth rate and the increase of the customer value in our new products launched worldwide.

## References

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