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RESEARCH REPORT

FROM CATERPILLAR TO BUTTERFLY

HOW TO TRANSFORM YOUR BUSINESS MODEL TO TURN INTO A SOLUTION PROVIDER

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1. INTRODUCTION

1.1. BACKGROUND

In today's business environment, the concept of solutions is more present than ever on many company agendas. Not only do solutions offer greater profit margins, they also offer a company the opportunity to create a sustainable competitive advantage. By flawlessly integrating products and services, hence offering added value to its customers, a solution provider is able to beat the commoditisation that increasingly threatens both product and service providers.

Consequently, **an increasing number of firms strive to deliver solutions.** Companies that have successfully made the transition towards becoming a solution provider have aligned every aspect of the business model with this strategy. In other words, for a solution provider to reap the benefits of solutions, a company needs to adopt an adequate solution selling business model. Moving towards solutions to create a sustainable competitive advantage thus implies business model innovation.

Interfacing business model innovation and the solution selling business model presents important challenges. The ultimate textbook examples of firms that successfully made the transition towards a solution selling business model include IBM, General Electric and Rolls-Royce. Many authors have tackled the changes IBM and consorts went through in order to become a successful solution provider, including developing a new consultative selling imperative, adopting specific revenue models and setting up specific project-based organisational structures (Kumar, 2004, Davies et al, 2006, Miller et al, 2002). However, developing a valuable all-round perspective on being a solution provider by tackling each and every component of the new solution selling business model, would offer the sought-after holistic approach needed to adequately illustrate the very divers aspects related to selling solutions.

Moreover, **many companies deeply struggle with the move towards solutions.** Facing changes in the company culture, adaptations in the value chain and transformations in cost structures; for a multitude of firms the roadmap towards solutions is all but clear.

The past 10 years, both practitioners and academics have increasingly begun to realize the importance of providing solutions to customers. As a result, a large number of studies emphasise what the concept of integrated solutions entails and what benefits a solution provider can obtain. Moreover, companies and researchers also acknowledge the complexity of profitably offering solutions. Amongst other aspects, academic and practitioner-oriented literature focuses on how a solution selling company functions, its organisational structure and the imperative capabilities of such a solution provider (Foote et al, 2001, Miller et al, 2002, Galbraith, 2002, Cornet et al, 2000).

However, it is one thing to recognize the importance and complexity of providing solutions, but it is another thing to adequately make the transition towards successfully providing solutions. A number of authors have touched upon this transition. Davies for example, one of the pioneers in both academic and practitioner writing on solutions, developed a three-step approach in order to create a solution selling organisation (Davies et al, 2006). Others have tackled specific elements that a firm needs to change when moving towards solutions, such as the culture (Galbraith, 2002), the sales management (Sharma et al, 2008) or even the pricing models (Bonnemeier et al, 2010) involved. Nevertheless, the process of transforming one's business in order to become a solution provider still offers room for further exploration.

This study addresses the transition towards proving solutions from a business model perspective, adopting a longitudinal viewpoint in order to adequately capture the numerous changes that occur during the different phases of the business model transformation. **Ultimately, the developed insights cumulate into a blueprint illustrating how to move towards the solution selling business model, as presented in *Chapter 5* of this report**. By offering such **a concrete 10 step program**, this report hopes to offer a clear roadmap to future solution providers.

1.2. RESEARCH OBJECTIVES

As offering solutions requires every aspect of the business to be aligned with this strategy, a holistic approach is needed to analyse a company's transition towards solutions. Consequently, this research project tackles **the move towards solutions from a business model innovation perspective**.

Ultimately, the goal of this research is to show how a company can fruitfully innovate and transform its current model into a solution selling business model, hence successfully creating a sustainable competitive advantage. Based on a range of key success factors related to changing organisational and business model elements, one of the objectives of this study is to establish **a phased roadmap** to successfully transform a company's current model into a solution selling business model (see *Chapter 5*).

In addition, this research project tackles the issue of providing solutions in the Flemish business environment. This complementary objective entails identifying to what extent business leaders and companies in Flanders are preoccupied with or involved in making the move towards solutions.

1.3. RESEARCH QUESTIONS

To adequately develop the previously mentioned roadmap, this study focuses on three main research questions.

- ❖ What does the solution selling business model look like?
- ❖ What are the key success factors for a company to fruitfully support and manage the transition towards a solution selling business model? In other words, what are the different options to counter the challenges associated with making the transition towards solutions?
- ❖ To what extent are companies in Flanders making this move towards solutions?

1.4. RESEARCH METHOD

Following an extensive literature review on the concept of solutions, including both practitioner-oriented and academic literature, an exploratory multiple case study approach was developed to gain in-depth insights in the process of moving towards solutions. In total, 11 solution

providers were selected for this cross-case analysis, including Atlas Copco, Betafence, Barco, Cisco, DeLaval, Egemin Automation, Magic[*], Newtec, Securitas, VerizonBusiness and Xerox.

The selected group of firms consists of both product- and service-based companies, operating in very different industries ranging from industrial equipment manufacturing over dairy farming to ICT. Some of the selected firms have already reached a significant level of experience in providing solutions and transforming their business, while others have just started making the move towards solutions. Including such variation made it possible to search for relevant business model elements and key success factors shared across industries. In addition, approaching companies with different levels of experience in solutions contributed to a more complete insight into which challenges pop up during which phases in the transition.

Table 1 Case study of companies

	Activity	Employees 2010	Turnover 2010	HQ
Atlas Copco	Industrial productivity solutions	33.000	€ 7.3 billion	Sweden
Betafence	Total perimeter solutions	2.000	€ 400 million	Belgium
Barco	Visualization solutions	3.500	€ 897 million	Belgium
CiscoSystems Inc.	Network solutions	70.000	$ 40 billion / € 27.84 billion	USA
DeLaval	Smart farming solutions	4.077	€ 805 million	Sweden
Egemin Automation	Automation solutions	550	€ 107 million (2009)	Belgium
Newtec	Satellite communications solutions	264	€ 54 million	Belgium
Magic*	Efficiency solutions	-	-	-
Securitas	Security solutions	280.000	€ 6.8 billion	Sweden
Verizon Communications	IT, communications, network and security solutions	196.200	$ 106.6 billion/ € 74.2 billion	USA
Xerox	Enterprise marketing services	136.000	$ 22 billion / € 15.3 billion	USA

* The true name of this company cannot be disclosed because of confidentiality reasons.
Source: Amadeus database & company websites
Currency conversion: 1,0000 USD = 0,6960 EUR (19/08/2011)

For each of the case studies, semi-structured in-depth interviews were performed with 2 to 4 key individuals involved in the solutions business of the specific company. Interviewees were identified by means of snowball sampling and had different profiles, including the roles of service manager, marketing manager, project manager, business developer, market director, sales director and VP. In sum, 26 in-depth interviews were recorded and transcribed. For all cases, additional secondary data was gathered or interviewees provided internal company documents to support the information obtained through the interviews.

Based on the results of this exploratory research phase, a quantitative research phase was set up. The main goal of this survey was to find out to what extent the topic of solutions is on the agenda of companies in Flanders. In other words, the quantitative research illustrates to what degree Flanders is moving towards solutions, what the main challenges are Flemish companies face and what they consider to be the benefits of moving towards solutions.

1.5. STRUCTURE OF THE REPORT

Regarding the structure of this report, we start by defining the concept of integrated solutions in *Chapter 2*. Next, in *Chapter 3* the solution selling business model is examined in all its aspects, including the creation of competitive advantage. In *Chapter 4*, the actual transition towards solutions is tackled in a two-folded manner: the report treats the concept of business model innovation and discusses the organisational pillars that support a solution selling model. In *Chapter 5* we establish a roadmap incorporating 10 steps towards solutions. Finally, in *Chapter 6* this study addresses the importance of solutions in the Flemish business environment. Each chapter contains a summary including the most important findings.

2. WHAT IS AN INTEGRATED SOLUTION?

The past 10 years, both practitioners and academics have increasingly begun to realize the importance of providing solutions to customers. As a result, a large number of studies emphasise what the concept of integrated solutions entails and what benefits a solution provider can obtain.

In accordance to the growing importance of solutions selling, an increasing interest in the concept of solutions triggered a number of authors of business and academic articles to establish comprehensive descriptions of integrated solutions. Different definitions have surfaced, of which a few are selected below.

Suppliers of products as diverse as information technology systems, trains, aircraft engines and telecom systems have achieved success with this approach by providing innovative combinations of technology, products and services as high-valued unified responses to their business customer's needs.

Davies et al (2006, p.39)

Although there are many kinds of solutions, they are all, in essence, integrated combinations of products and/or services that are unusually tailored to create outcomes desired by specific clients or types of clients. Whereas products are mostly about functionality, solutions are about outcomes that make life easier or better for the client. Miller et al (2002, p.3)

In the solutions mindset, customer offerings are integrated combinations of products and services designed to provide customized experiences for specific customer segments. Sawhney (2006, p. 366)

Suppliers [...] view a solution as a customized and integrated combination of goods and services for meeting a customer's business needs. In contrast, customers view a solution as a set of customer-supplier relational processes comprising (1) customer requirements definition, (2) customization and integration of goods and/or services and (3) their deployment, and (4) post deployment customer support, all of which are aimed at meeting customers' business needs. Tuli et al (2007, p.1)

In all sorts of industries, companies that traditionally have made and sold stand-alone products are changing their strategies. They are creating high-value solutions by integrating various products and services. Foote et al (2001, p.84)

[...] a solution is a combination of products and services that creates value beyond the sum of its parts [...] it is the level of customization and integration that sets solutions above products or services or bundles of products and services. Johansson et al (2005, p.118)

The companies following a solutions strategy bundle their products together and add software and services. These packages create more value than the customers can create for themselves by buying only the stand-alone products. For the customer, solutions constitute a limited form of outsourcing, which allows them to focus on their core business. For the suppliers, solutions constitute an alternative to products that commoditize rapidly. Galbraith (2002, p. 194)

[...] a solution is defined as a customized and integrated combination of goods and services designed to meet customer's specific business needs (for example, Stremersch et al, 2001; Miller et al, 2002; Sawhney, 2006). Such customized and integrated bundles usually comprise physical products and specific services. [...] two new dimensions of customer value: one that relates to the customer's internal efficiency and cost structure (reducing customer's costs) and another that relates to the customer's external effectiveness and output: enabling the customer to create new and more competitive offerings (Normann, 2001). […] becoming a customer-centric organization to provide integrated combinations of products and services focusing on the customer's business (Hax and Wilde, 1999; Foote et al, 2001; Galbraith, 2002; Tuli et al, 2007). Bonnemeier et al (2010, p.229)

An overview of the growing amount of literature on selling solutions reveals the key aspects that consistently define the concept of integrated solutions. As confirmed by the information collected from our interviewees, the elements selected below characterize each and every integrated solution, no matter who the solution provider is and in what industry the company is operating.

❖ **Customer needs -** A solution is designed to meet the customer's specific needs.

❖ **Integration and customization -** Integrated solution providers integrate internal and/or external products, technologies and services into customized offerings that meet a customer's specific need (Bonnemeier et al, 2010, Tuli et al, 2007, Foote et al, 2001, Davies et al, 2006). The aspects of integration and customization play a central role as the different degrees of both integration and customization ultimately characterize a solution.

❖ **A solution adds value to the customer's activities -** Literature underlines how the value of a solution is greater than the mere sum of its bundled components (Johansson et al, 2005). The customer obtains a fully operational solution from a solution provider who positions himself as a one-stop-shop for an integrated combination of product and service components. Ultimately, by enhancing customer revenues, by reducing customer costs and assuming (part of) the risks and responsibilities customers face, solution providers offer high-valued solutions that adequately solve customers' needs (Kumar, 2004, Davies et al, 2006).
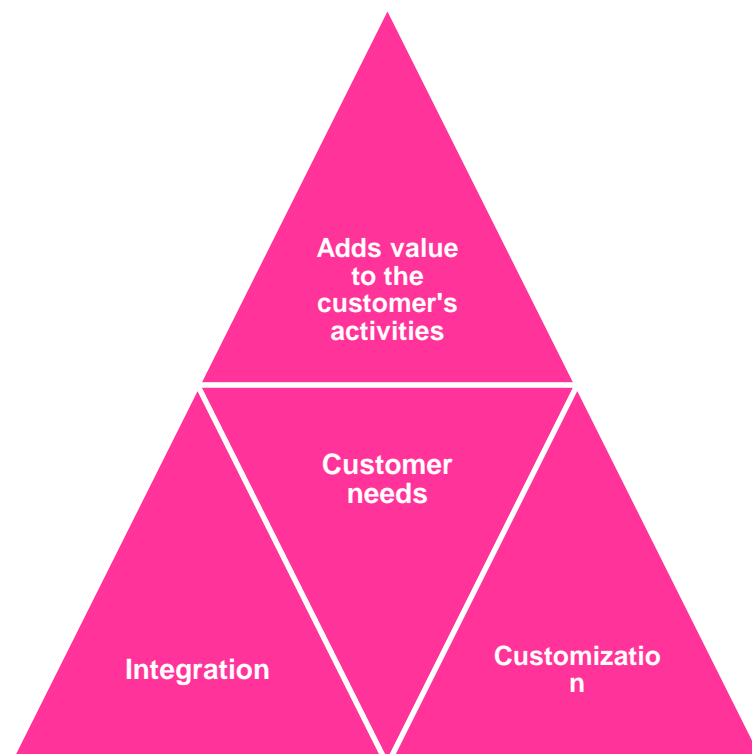
3. THE SOLUTION SELLING BUSINESS MODEL

The shift has been underway since the early 1990s. Looking just at the manufacturing side, a growing number of manufacturers have begun providing services to finance, operate, maintain and upgrade an installed base of products – their own and, increasingly, those of other manufacturers. [...] By the late 1990s, revenues obtained by servicing an installed base represented from 10 to 30 times the value of new product sales. [...] customers are not paying just for an integrated package of products and services. They are buying guaranteed solutions for trouble-free organisations.
<div align="right">Davies et al (2006, p.39)</div>

In order to fully grasp the implications related to becoming a successful solution provider, a thorough understanding of the new business model for selling solutions is vital. What does the business model of a solution provider look like? And how does the solution provider create sustainable competitive advantage, which is one of the main benefits of providing solutions. Moreover, examining the antecedents and the impact of contextual elements sheds a complementary light on the subject.
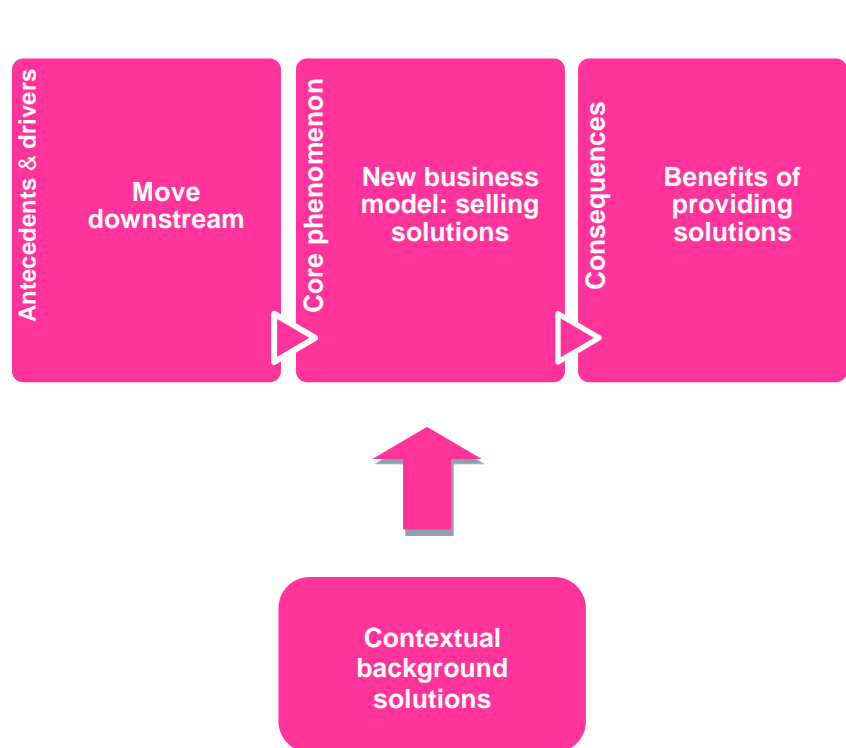
3.1. MOVING DOWNSTREAM TOWARDS SOLUTIONS
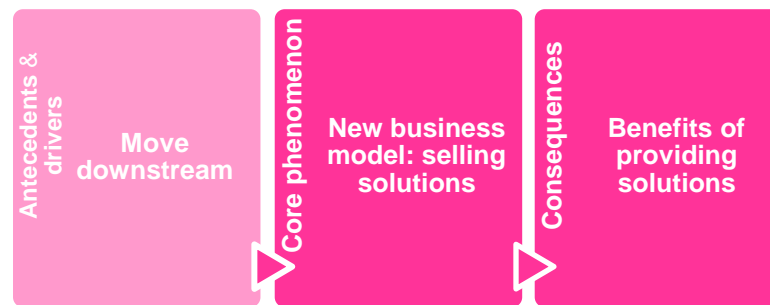
A growing trend emerges towards **integrating value-added services** into product offerings (Davies et al, 2006). Companies that were originally product-based manufacturers are adding and integrating all kinds of services into their offerings: financing services, maintenance, spare part management, upgrading and updating services, consulting services, marketing support, training, operations services, etc. Moreover, not only product-based firms are adding such services to their offer since service-based companies as well are entering the field of solutions, creating ties and partnering up with product suppliers or other service providers in order to amply meet the needs of their customers (Davies et al, 2006).

Integrating such value-added services offers companies the possibility to access the economic value related to **servitization**, i.e. providing services and, eventually, solutions (Wise & Baumgartner, 1999). Important to note is that offering solutions goes one step further than merely adding services to an offer, as the four elements of solutions, including integration and customization, adequately illustrate.

Providing value-added services is thought to entail greater profit margins and more continuous revenue streams since the customer can be serviced for the entire product lifecycle of the offering (Wise & Baumgartner, 1999). Servicing an installed base of customers offers the company an opportunity to create a more stable source of revenue (Oliva & Kallenberg, 2003).

This trend towards servitization is for example adequately illustrated by Atlas Copco. Atlas Copco positions itself as a provider of industrial productivity solutions, developing industrial equipment such as assembly lines or power tools that guarantee an unmatched level of efficiency to its customers. Atlas Copco, founded in 1873, has a reputation of being an innovative company. Its strong technical background provided the company a competitive advantage during a long period. Up until 5 to 10 years ago, their Industrial Technique business division for example, had a substantial technical advantage over its competitors. Recently however, competition has been catching up and for some products today's technical differences are less significant than before. As a response, Atlas Copco vigorously pursued the deployment of its service offering and today more and more of the added value Atlas Copco creates comes from services.

For many companies, the integration of value-added services into their offering entails moving downstream in the value chain. By developing value added services a company moves closer to the (end)customer, thus changing its base in the value stream (Davies, 2004). As Davies explicates, moving down the value stream, that is *the entire stream of activities required to deliver a finished product or service to the final consumer*, implies a *forwards integration towards the final end product or service provision* (Davies, 2004, p.728)*.*

Both the integration of services into the company offer and the possible subsequent move down the value chain are consequences of several aspects that have severely impacted companies, as shown next.

❖ **Commoditization & mature core product markets** - Many companies face a situation in which their core product markets are maturing. Commoditization is an unavoidable issue that requires strategic action (Kasturi Rangan & Bowman).

Moving away from the commodity trap often necessitates an adequate repositioning, as Barco illustrates. Barco is a Belgian company providing visualization solutions and imaging products worldwide to specific professional markets. The company has very strong technological competences within its field of expertise, but nevertheless decided to position (part of) its offering from a systems provider point of view. This transition was largely induced by the need to move away from the commodity trap.

❖ **Outsourcing & demand for services** - From the side of the customer, a rising demand for services surfaced. This trend is linked to an increasing interest in outsourcing activities that are not part of the core competences and activities of firms, making it possible for a customer to become more flexible and more focused (Oliva & Kallenberg, 2003). The ever accelerating rate at which technologies grow more and more complex is a complementary driver that influences the demand for outsourcing and, consequently, services and solutions (Ceci, 2009). Moreover, customer power is increasing, which results in higher expectations and demands of customers vis-à-vis their suppliers.

❖ **Vertical disintegration & disintermediation** - In relation with the upcoming outsourcing tendency, a trend towards vertical disintegration plays a role in the development of service and solution offerings, both from the customer and the solution provider perspective (Davies, 2004). Vertical disintegration implies that a company only focuses on one part of the value stream, on its core activities, as opposed to an integrated firm that tries to control the entire value stream, for example from raw materials to the final product. Linked to this, disintermediation implies relying less on intermediate parties and is one of the driving aspects for a solution provider to move down the value stream.

❖ **Complex technologies & multivendor offerings** - The need for multivendor offerings, in part induced by the complexity of technologies, represents an opportunity for solution providers to position themselves more downstream and create value by managing the combination of the products and services required (Davies, 2006). As customers are in favour of reducing the amount of parties they need to do business with, the solution provider positions itself as a preferred partner and one-stop-shop.

Again, Barco adequately illustrates this point. Barco's move towards systems was partly induced by the need to move away from the commodity trap, but also because of the complexity of their technologies. Customers were requesting services and expertise from Barco when deploying such complex technologies. Another Belgian company facing a similar challenge is Newtec. Newtec is a Belgian company specialized in developing and selling satellite communications equipment and active around the globe. The company deployed a couple of turnkey solutions for top customers. A main reason why Newtec ventured into such complex offerings, was the fact that they were convinced that selling individual products would become more difficult due to commoditisation and increased market competition. Moreover, neither Newtec nor their partners were able to rely on a network of system integrators, service suppliers or technology partners to implement the complex solutions for them.

These antecedents of moving downstream are complemented, stimulated and reinforced by three crucial shifts in today's businesses: the change from a **product-oriented to a service-oriented** company, the shift from **transaction-based to relationship-based** marketing and a move from **product-based thinking towards customer-centric thinking** (Oliva & Kallenberg, 2003, Galbraith, 2005).

In sum, these multiple drivers inspire, motivate and often pressure product-based and service-based companies into moving towards integrated solutions.

3.2. UNRAVELLING THE SOLUTIONS BUSINESS MODEL

The purpose of a business model is to **translate a business concept and strategy into an actionable model**, i.e. a construct that can be put into practice (Osterwalder, 2005). Osterwalder clarifies the business model as *the blueprint of how a company does business. It is the translation of strategic issues, such as strategic positioning and strategic goals into a conceptual model that explicitly states how the business functions. The business model serves as a building plan that allows designing and realizing the business structure and systems that constitute the company's operational and physical form* (Osterwalder, 2005, p.2*).

Several authors have focused their attention on the concept of the business model. The origin of the business model construct as well as the different components that make up such a model, have been up for debate amongst scholars and practitioners (Zott, 2010).

A most insightful framework on the business model construct is the one developed by Hamel (2000), which is made up of four major components: core strategy, strategic resources, customer interface and value network. As each of these components can be divided into subelements, Hamel's business model framework adequately points out the elements that characterise a business concept. The core strategy, which is composed of the business mission (which includes the value proposition), a product/market scope (which includes segmenting customers) and a basis for differentiation, illustrates a firm's competitive strategy. The strategic resources encompass core competencies (skills and capabilities), strategic assets (such as brands, customer data and patents) and core processes or the activities a firm is engaged in. The customer interface component comprises relationship dynamics with customers as well as pricing methods, while the value network component points out the suppliers, partners and coalitions that define a specific business concept (Hamel, 2000).

Customer interface	Core strategy	Strategic resources	Value Network
• Fulfillment & support • Information & insight • Relationship dynamics • Pricing structure	• Business mission • Product/market scope • Basis for differentiation	• Core competencies • Strategic assets • Core processes	• Suppliers • Partners • Coalitions

Source: Adapted from Hamel, G. (2000), *Leading the revolution,* Boston, Harvard Business School Press, p.88

Many authors have developed similar models encompassing elements that are to be found in Hamel's framework. To unravel the solutions business model, the detailed framework of Chesbrough, author of multiple academic writings related to designing organisations, provides an excellent operational template to adequately capture the different business model components perceived in a solutions-focused company. In accordance to Hamel's framework, Chesbrough states that *the functions of a business model are to articulate the value proposition […], identify a market segment […], define the structure of the value chain […], estimate the cost structure and profit potential […], describe the position of the firm within the value network […] and formulate the competitive strategy by which the innovating firm will gain and hold advantage over rivals* (Chesbrough & Rosenbloom, 2002, p.533-534). Each of these elements will be presented below, with the exception of the competitive strategy formulation which will be discussed later on in this report.
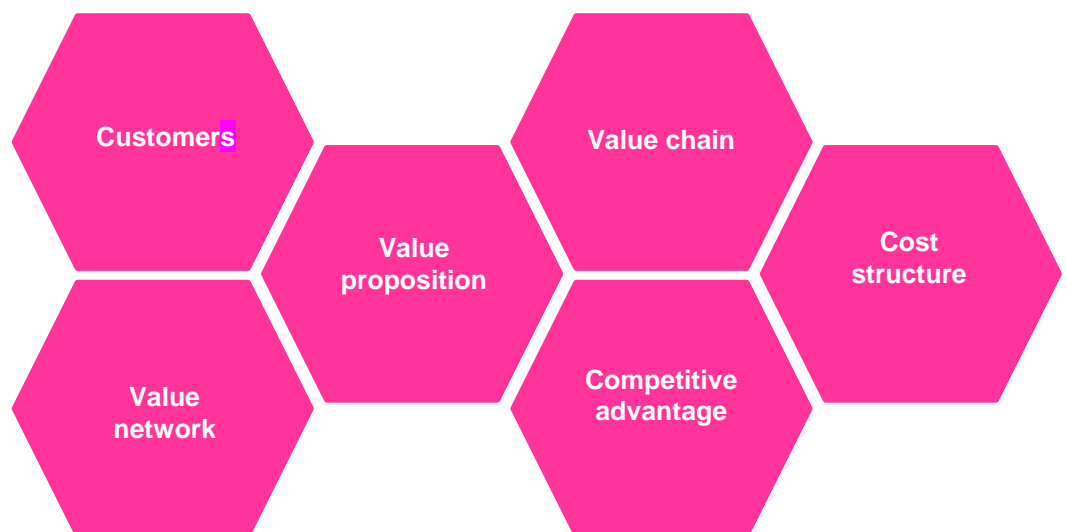
3.2.1. Value proposition

The value created by the solution is greater than the sum of its different components that make up the offering (Johansson, 2005). Within a B2B context, **a solution adds value to a customer's business activities** by contributing to the improvement of the customer's performance, the increase of revenues, the decrease of costs, the increase of asset effectiveness, possible market expansion, etc. Basically, the value created for the customer can be grouped in three main categories: reducing customer costs, improving customer profit, assuming or taking over (part of) the customer's risks and responsibilities (Kumar, 2004).

Increasingly, solutions are also provided to B2C customers. P&G for example experiments with offering clients a drive-in dry cleaning solution instead of solely selling washing powder. Another example consists of a shop selling sugared almonds given when a baby is born, that expands its offering with baby shower catering services, recovery room decoration services, etc. In such B2C cases, the added value created by the solution similarly consists of reducing customer cost, for example by increasing a customer's spare time, taking over customer risks or responsibilities, by promising that task at hand will be performed perfectly, etc.

The key element when creating an integrated solution, is designing a fully operational solution that will meet a customer's specific demand. Therefore, a solution consists of a **flawlessly integrated combination of those internal and/or external products, services and/or technologies required to create the adequate solution for a customer** and thus fulfil the customer's specific needs. Consequently, each solution is characterised by a degree of integration and customization (Davies et al, 2006). The degree of integration consists of the extent to which products and services of a single solution are interrelated to deliver value beyond the sum of the different components of the solution. The degree of customization consists of the extent to which a solution offering is customized in order to meet a specific client's needs.

The customer obtains a fully operational solution that the **solution supplier will design, build, integrate, maintain, update and/or even operate** in order to meet a customer's needs. **Four major service capabilities** often typify a solution provider (Davies et al, 2006).

❖ **Systems integration –** The core element that categorizes an offering as a solution, is the systems integration aspect a solution provider must excel at (Davies et al, 2006). In order to be a one-stop-shop and to provide fully operational solutions that satisfy customers' needs, the seamless integration of the different product, service, knowledge and/or technology components is an absolute qualifier. In most cases, this entails the integration of both internal and external components.

❖ **Operational services** – Solution providers offer a very wide range of after-sales services covering the entire lifecycle of the solution (Davies et al, 2006). Amongst others, these services can include maintenance, upgrades, customer support services, training activities, spare part management, operating services, etc (Ceci, 2010, Davies et al, 2006).

❖ **Consultancy services –** As an integrated solution addresses a specific customer need, solution providers support their customers with consultative services at different stages of the solution lifecycle: from the initial conceptual phase up to the maintenance and operating phase, the solution provider acts as a trusted advisor (Ceci, 2010). The degree to which a solution provider has developed these consultative services, can strongly differ from company to company.

❖ **Vendor financing** – Vendor financing consists of providing financial support to the customer (Davies et al, 2006). This type of financial services can for example include value-sharing contracts which offer financial support during the initial stages of the solution lifecycle in exchange for a share of the value generated at the customer's later on (Davies et al, 2006). As this financial service capability is often not at all part of their core business, only a minority of solution providers fully develop this service (Ceci, 2010).

However, it is important to note that not every solution consists of all four of those elements. Moreover, as our case studies show and with the exception of the systems integration element, it does not seem imperative to master all four of these services to the same extent in order to become a solution provider.

In practice

Securitas, a leading security service company active in many segments, offers total solutions that take over the entire security risks and responsibilities a customer faces. Apart from sending security guards to the customer's premises, Securitas started developing customized security offerings which include advice regarding security optimization, performing a security scan and the set-up of a security plan (consultative services), the flawless integration of security technology and manpower (systems integration) and the coordination and follow-up of the safety and security measures implemented by Securitas (operational services).

DeLaval, a full-service supplier to dairy farmers, develops equipment and complete systems for milk production and animal husbandry. More than 125 years ago, the company started out by patenting an innovative cream separator. Today, DeLaval and their network of distributors profile themselves as a one-stop-shop offering Smart Farming Solutions, which consists of components ranging from milking systems over feeding additives to software tracing animal health (systems integration), combined with preventive maintenance, spare part management, 24/7 emergence support (operational services) and professional services when clients enrol in large farming projects (consulting services). *Smart Farming by DeLaval is shaping the future of dairy farming by accelerating the transition from milking management to total farm profitability management, by harnessing emerging decision tools and automation technologies for better quality milk and profits.*

Egemin Automation is a Belgian company that offers advanced automation solutions in different business areas. Assisting their customers to achieve competitive advantage, their solutions focus on improving operational excellence. In the Handling Automation division for example, Egemin offers advanced warehousing and distribution solutions for automatic storage and order-picking of goods. In first instance, Egemin supports its clients with high-end consulting services including capacity calculations, simulations, energy management, etc (consulting services). Implementing such automation solutions then requires advanced technological integration skills, as these systems need to be implemented and interfaced with the existing ERP systems at a customer's (systems integration). Finally, Egemin presents its clients a wide range of lifecycle services, stretching from training over basic maintenance to fully outsourced maintenance services (operational services).

Approximately 2 years ago, the Belgian division of **Xerox**, a world leading company with a background in printing products and technologies, introduced its Enterprise Marketing Services. This service is part of the Document Outsourcing Services Xerox presents, that help customers *reduce costs, achieve operational excellence and grow revenue*. With its Enterprise Marketing Services, Xerox offers its customers a solution *to make every customer touch point count by increasing their marketing efficiency and effectiveness.* How does Xerox help its customers to capitalize on every exchange with their clients?

Xerox for example created a personalized message campaign for car manufacturer d'Ieteren. First, a large database containing relevant customer data of potential clients was set up. Having profiled each d'Ieteren customer, Xerox selected a group of target clients planning to actually buy a car in the near future. After engaging in a one-on-one conversation with these clients, either by using digital or printed channels, Xerox approached every individual client with a personalized message, both concerning content and lay-out. As conversion rates were tracked, the value created was adequately measured and indeed optimized customer communication processes, which resulted in reduced costs and increased revenues.

In sum, by identifying the adequate targets and developing a suitable communication strategy based on the business needs of their customer (consulting services), by integrating database information, IT systems, printing and digital technologies (systems integration) and by creating and deploying a direct marketing campaign (operational services), Xerox managed to offer a successful solution.

Over the years **Cisco Systems Inc.,** a world leading company providing routers, switches and other hardware, moved into more advanced technologies, offering IP, voice, video and other applications, and developed its service offering. Networks are key, according to Cisco, and the company therefore created network solutions, moving from a product-base to a strongly solutions-focused offering. Cisco, originally an absolute product leader, is going to market more frequently with integrated solutions *that allow individuals, companies, and countries to increase productivity, improve customer satisfaction and strengthen competitive advantage.*

Cisco offers customers advise, a vision of what the future of technology will look like and what that technology can do to grow a customer's business (consultative services). Moreover, the company offers the products, the technologies and the necessary services in order to do so (systems integration). Cisco is for example investing in so-called Smart Grids, networks that enable customers to manage their energy, send and store highly confidential data or optimize cyber security, which are solutions that comprise hardware, software and industry knowledge, complemented by the necessary services to keep such networks running (operational services). Moreover, Cisco offers financing to its customers: Cisco Capital was set up as a switch from CAPEX to OPEX was increasingly identified as a market trend when offering large projects (financial services). CAPEX refers to the capital expenditure of a company, i.e. the cost related to the development of future benefits by acquiring or upgrading physical assets. In contrast, OPEX or the operational expenditure of a company refers to the ongoing cost for running a business. Lowering a firm's OPEX may provide important competitive advantages.

3.2.2. Customers

Not all customers in a solution provider's customer base are open to solutions (Cornet et al, 2000). In some cases, solution providers even need to step outside of their existing customer networks (Foote et al, 2001). Therefore, it is very important to understand the needs and requirements customers or prospects have and segment accordingly. The ideal solution customer is **open to co-creating an integrated solution and developing a long-term relationship** with the solution provider in which open communication and knowledge sharing are key (Kalwani & Narayandas, 1995). Customer relationship management thus plays an important role in identifying the adequate customers and market opportunities, as Magic's way of segmenting customers shows.

Magic offers efficiency solutions to its customers. Based on the existing penetration of the company at a customer's and the opportunity the customer represents, Magic segments it customers as key accounts, target accounts, managed accounts and maintained accounts. Solution selling efforts are only focused on key and target accounts. In addition, one of the criteria they use for tracking down customers who are open for solutions, is customer intimacy

requirements: those customers that have high intimacy cultures are more likely to be open to solution selling. Other elements that are taken into account include whether the customer experienced a compelling event, whether a competitor that is serving the customer has failed at a certain point, whether the customer has grown substantially, etc.

That the ideal customer is open to co-creating a solution, is shown by system provider Barco. Barco has built very strong relationships with some of its key customers. Building on specific customer needs that cannot be tackled with existing offerings, Barco regularly engages in developing and deploying new key offerings in close collaboration with these customers, as was the case for their rear-projected dome technology that can be incorporated in 360° training domes used by flight pilots.

Furthermore, a solution providing company should target its offering to a customer segment characterised by **similar core (business) needs** (Krishnamurthy et al, 2003). Regarding its Enterprise Marketing Services, Xerox for example segments its customers based on the similar business challenges they face: campaigns are set up around different needs such as customer loyalty, customer acquisition, etc. Of course, as customer alignment is based on similar core (business) needs and in order to design an optimal solution, a solution providing company needs to fully understand the needs of the customers it targets (Kumar, 2004).

A solution provider targets **customers who are willing to pay for the value created by the solution** (Miller et al, 2002, Kumar, 2004). Customers who are looking for a one-stop-shop, customers who are pressured to improve market performance and generate more revenues, customers who pursue efficiencies or partnerships to improve margins, customers who are open to innovative collaborations in order to move into new markets, etc (Cornet et al, 2000).

Moreover, a solution provider targets those **customers likely to generate reusable modules** that can be leveraged or recombined in order to create future integrated solutions, whether this concerns a selection of customers from the same segment or a single, important customer (Cornet et al, 2000).

Finally, within a B2B context it is important to note that once an adequate customer segment has been identified, the solution provider needs to consider who the decision maker is for the solution (Cornet et al, 2000). As a solution often creates value across budgetary silo's within a customer's organisation, the solution provider needs to address cross-budget decision-makers. This often means dealing with **more senior level decision makers**, as adequately illustrated by a general manager from Atlas Copco, a world leading provider of industrial productivity solutions offering a wide range of industrial tools and assembly systems to, amongst others, the car industry.

If I talk to the person responsible for service about life cycle cost, he does not really care because this person does not have the budget for energy consumption, does not have the budget for purchasing, he does not have the budget for tools, he only has the service budget. […] So what we see, to be successful in this approach, we need to go higher up then what we are normally selling, we need to go up to where the budget comes together. […] You have to go quite high up to find someone who is linking life cycle cost to quality cost to energy costs to start-up costs.   Senior manager at Atlas Copco

3.2.3. Value Chain

With integrated solutions, a **solution provider takes up an increased share of the value stream at industry level** (Davies, 2004, Hobday et al, 2005). By integrating internal and external service and product components into an operational solution, a solution provider is able to develop new, more complex offerings targeted to both existing and potential customers, coordinate supply networks and constantly optimize its position within the value stream (Davies, 2004). **As a provider moves downstream into services, the value added for the customer increases, which consequently boosts the value of the solution**. An integrated customized solution is designed based on understanding the needs of the customer. The value chain must be looked at from a customer's point of view, examining all the activities a customer undertakes when operating and maintaining a product or system during its lifecycle, in order for the solution providing company to define where to position itself in the value chain (Wise & Baumgartner, 1999, Davies, 2004). Consequently, to move downstream, controlling the channels to the customer is vital (Davies et al, 2006).

At company level, when looking at the value chain of an integrated solutions provider, different options exist.

❖ **Single vendor vs. multivendor -** A solution provider can choose to be a single vendor, supplying a solution based exclusively on in-house components and technologies, or a multivendor, incorporating and integrating both external and internal components into the solution provided. Within the single vendor approach, a solution provider is limited to an in-house offer which implies the solution provider must be confident that in-house physical components can compete with the broad range of product and system components a multivendor can choose from. Adopting the multivendor approach, a solution provider, whether service- or product-based, is not restricted to in-house production, which implies the provider has the option to select the most suited solution components from a broad range of products and systems in order to meet a customer's needs and focus on systems integration (Davies, 2004).

❖ **Vertical integration vs. horizontal integration -** A single vendor can opt to integrate vertically: upstream but mainly downstream into providing services, producing and developing all the product and service components in-house (Davies, Brady & Hobday, 2006). Acquiring firms downstream then plays an important role. In contrast, a multivendor solution provider combines internal products, services or technologies with external supplier components to create an integrated solution (Davies, Brady & Hobday, 2006). This multivendor focus then results in building strong relationships with external partners, a repositioning in the value chain and even vertical disintegration as in some cases solution providers let go of (part of) their current activities (Davies, Brady & Hobday, 2006).

In certain cases, as illustrated by the Xerox case study, a solution provider might purely focus on assembling and integrating different products, capabilities, technologies or services that are not part of its current core business, thus acting almost purely as a horizontal integrator regrouping a number of mainly external activities. Regarding Xerox's integrated Enterprise Marketing Services, practically every solution component is obtained via partners or suppliers. To create and roll out its direct marketing campaigns, Xerox partners up with advertising agencies for content creation, CRM businesses and data brokers for customer data, the Belgian postal services, etc. Moreover, certain tools are acquired through other Xerox divisions, Enterprise Marketing Services then acts as an internal client. In sum, almost every Enterprise Marketing Services solution is supported by at least 6 to 7 partners supplying ICT tools, databases, content tools and other elements, which are not part of the core

technologies of Xerox. As Xerox is a company specialized in managing and optimizing processes, its main contribution consists of managing the project, integrating the different components, creating a valuable strategy and assuming responsibility for the final result.

A fundamental aspect when offering solutions is the long-term commitment a solution provider must build not only with its customer, but also or even especially with its suppliers and partners. **Close and long-term relationships with both the supply and the demand side** characterise every stage of the value chain (Dugué et al, 2006).

As managing and creating relationships with partners is crucial for a solution provider, Egemin Automation for instance incorporates this in its three values: its 3 P's, Passion, Partnership and Performance. Building up strong relations with both the supply and the demand side is essential: both suppliers and customers are partners with whom Egemin cooperates to create the most optimal solution. Egemin choses which partner or supplier to work with based on existing relationships, exclusivity contracts or client demands. In every case, Egemin acts as the lead contractor, bringing all parties together, and possesses the necessary knowledge and intelligence to develop the integrated offering. Partnering up with others offers Egemin the opportunity to tap into the competences of its partners. Moreover, leads are passed on in case the project scope is too large for the individual partners or, in contrast, too limited for Egemin. In sum, in all its aspects, Egemin strives to *be a solid, trustworthy partner, who keeps his promises towards partners and customers, enabling the creation of a leverage effect through the exchange of knowledge.*

Companies that are used to going to the market **through a network of dealers or resellers,** such as Cisco or Betafence, face additional **challenges**. Traditionally, Cisco goes to market via a network of certified dealers, resellers and/or system integrators. However, when offering integrated solutions, Cisco is increasingly facing a demand from customers to put 'more skin in the game'. Cisco solutions become more and more critical to a customer's business and that customer requires one-throat-to-choke. This of course entails engaging in a different relationship with dealers and resellers in some instances. By clearly stating which piece of the pie a partner can expect, Cisco aims to avoid any conflicts resulting from this tendency.

Likewise, outdoor perimeter solution provider Betafence also traditionally goes to market through dealers. However, for their solutions, Betafence Projects steps up and takes the lead in large projects. Communication towards partners has been key when it comes to maintaining strong and valuable relationships with them: by clearly stating which projects are targeted by Betafence itself and which type of projects are left to the dealers, Betafence outlined its ambitions. For example, Betafence delivered an entire perimeter security solution to a large political and military institution, a project too large to handle for most of the dealers Betafence usually uses. The company thus took charge of the project, subcontracting dealers and partnering up with a diverse number of security companies.

Finally, solution providers strive to develop modules, so-called **building blocks**, that offer them the opportunity to create **repeatable solutions** (Davies & Brady, 2000). The value chain of an integrated solution incorporates internal and, if required, external products, services, technologies and/or capabilities. Instead of creating an integrated solution from a to z for each project, a solution provider can somehow standardize certain modules of its solutions that can then be recombined and reconfigured for every final solution offering.

3.2.4. Cost architecture

When examining the cost structure, i.e. the manner in which a solution provider actually captures the value of the integrated offerings profitably, the principal element in pricing a solution is to **look at the created value from a customer's point of view**, not from the solution provider's point of view (Bonnemeier et al, 2010). Taking into account the **reduced costs, the increased revenues or the decrease in customer risks** and responsibilities, is imperative (Kumar, 2004). A shift from pricing based on the solution provider's cost to pricing the customer value of a solution, is needed in order for the supplier to capture the true value created (Bonnemeier et al, 2010). Customer business metrics and customer economics play a decisive role in pricing a solution.

For instance, the value of the direct marketing campaigns created by Xerox's Enterprise Marketing Services can be adequately communicated to the customer. Based on certain advanced tracking mechanisms Xerox is able to measure how many messages actually result in conversion, i.e. store visits, customer acquisition, sales, etc. Comparing the return-on-investment of the Xerox campaigns versus the returns of traditional campaigns, customers can more easily be convinced of the added value created by Xerox**.**

Furthermore, a constant balancing exercise is required concerning customization and, in contrast, standardization (Miller et al, 2002). Customization is a vital element when it comes to creating integrated solutions. However, a solution provider should also develop a degree of **standardization** by generating certain **standard platforms or modular building blocks** that can be recombined or integrated into future customized offerings for different customers.

In addition to creating platforms and modules, learning from previous solution projects contributes to charting the path towards so-called **repeatable solutions**, which implies the solution provider is able to create certain efficiencies, so-called **economies of repetition** (Miller et al, 2002, Davies & Brady, 2000). By leveraging and developing solution-related knowledge and capabilities, costs are reduced whenever a new solution needs to be designed, thus creating **economies of skill**. Offering similar solutions to different customers with similar needs, generates **economies of scope.** Consequently, a solution provider is able to offer a solution in a profitable way to its customers.

These economies of repetition can for example surface when dealing with partners. Having developed several solutions together with a partner, a firm gains more knowledge of a partner's technology and capabilities, or develops cooperation routines or competences with that particular partner. For the development of subsequent solutions, the solution provider then does not need to start from scratch when looking for an adequate technology or dealing with the partner's technology. The solution provider can tap into the knowledge and capabilities gained during previous projects to assimilate new solutions, thus creating economies of skill. Moreover, if the solution provider is able to efficiently integrate that partner's technology into solutions for customers who are very different yet have similar business needs, economies of scope can be realised. When serving different customers in regular cooperation with the same (number of) partner(s), these partners might then for example be more willing to lower their margins in return for more orders, subsequently contributing to the development of economies of repetition.

The idea of creating modular building blocks and developing repeatable solutions can be observed in Egemin Automation's offerings. As every customer operates in a different environment and faces its own specific business challenges**,** Egemin Automation offers its customers customized integrated solutions composed of modular building blocks. Moreover, to adequately meet every need of the customer, yet stay profitable, Egemin strives to develop what the company calls concept solutions, i.e. specific solutions which can be 'repeated' for

other customers with similar business needs. These concept solutions are then intelligently positioned by marketing services, targeting specific customers. By creating similar, yet not identic, integrated solutions several times in a row, Egemin gains experience at developing such concept solution. This offers Egemin the opportunity to finetune the solution based on the knowledge gained, as well as to optimize and smoothen the implementation process. One of those concept solutions for example consists of an Automated Guided Vehicle System for the cheese industry. Not only technical and automation aspects are then taken into account, but other industry-specific knowledge as well, such as cheese recipes, processes related to making excellent cheese, etc. Based on this knowledge and experience, Egemin is able to offer a very competitive solution.

The attempt to somehow standardize solutions can be spotted in other companies as well. Verizon is a worldwide provider of IT, communications, security and network solutions, of which Verizon Business is the B2B part. Verizon has one of the most connected IP networks and offers its customers strategic solutions, services and expertise. Similar to Egemin's concept solutions, Verizon develops what the company calls verticals, i.e. industry-specific solutions tailored to the specific needs companies in a certain industry face. For the healthcare industry for example, Verizon offers solutions based on different service components that can be integrated in order to adequately respond to a healthcare facility's needs: securing healthcare data management, offering flexible data exchange possibilities, streamlining patient data storage, etc.

The cost and revenue architecture of a solution provider is not only focussed on the initial spend, but more importantly also on the **product life cycle profits** linked to an integrated solution (Wise & Baumgartner, 1999). This implies solution providers thus need to deal with the **long-term aspect of pricing a solution**. Additionally, since solutions are complex and customized, **solutions should be less comparable in pricing** than the individual product or service components that make up the solution (Cornet et al, 2000).

In order to tackle these aspects of pricing solutions, solution providers can implement specific revenue models to adequately capture the value created for the customer. Apart from the traditional models such as fixed-fee models, Bonnemeier (2010) for example suggests that solution providers can also apply more **innovative revenue models** such as a usage-based model, a performance-based model or a value-based revenue model. The usage-based model is linked to the degree of utilization of the solution, the performance-based formula relates to the output or the performance promised to the client and the value-based model focuses on the cost savings the solution generates regarding the internal customer processes (Bonnemeier et al, 2010).

Egemin Automation for instance adopts different revenue models for its solutions. One option consists of pricing a solution as a total amount to pay once the integrated solution is delivered. Additional life cycle services are paid separately afterwards. However, Egemin has also implemented a different revenue model for certain specific, often larger projects , namely a usage-based model. This model is a type of leasing model which offers the customer a possibility to only pay a certain amount per transport performed by the Automated Guided Vehicles Egemin incorporated in the Egemin solutions. Reducing the total cost of ownership is then a key advantage for the customer.

One of the revenue models industrial solution provider Atlas Copco deploys for its top level solutions, consists of a combination of monthly service fees and a performance-based production rate agreement. Per car produced per one hour shift for example, the customer pays a fixed amount. If production increases or diminishes, this cost accordingly goes up or down, as tools are then increasingly or less often used.

3.2.5. Value Network

Solution providers are part of an ecosystem and have an extended value network which includes all parties that need to be taken into account when developing an integrated solution offering. These parties influence or contribute to the solution offerings in a direct or indirect manner.

❖ **Existing and potential customers –** Existing and potential customers form the solution provider's customer network.

❖ **External suppliers and partners –** External suppliers and/or external partners play decisive roles regarding solution providing, especially when a solution provider is a multivendor.

❖ **Channels -** If a solution provider does not approach its customer in a direct manner, is it is crucial to identify and build sustainable relationships with the appropriate channels in order to adequately access the customer.

❖ **Competitors –** The value network of a solution provider comprises the competitors offering integrated solutions or components of a solution.

❖ **Industry standards –** The value network of a solution provider comprises the dominant players in the field that set the standard in the industry (technological standards, quality standards, etc).

❖ **Industry experts**

3.2.6. Business model overview

As a business model serves as a kind of blueprint that defines how a business functions, the presented solution selling business model illustrates the aspects that make up the business of a solution provider. In sum, each and every aspect of the business model of a solution selling company is moulded in a very specific manner in order to be able to provide these solutions in an efficient, successful way.

Value proposition	❖ Value of solution is greater than sum of different components Solutions add value to a customer's business above what the individual components or the client himself can realize.
	❖ Solution adds value to customer's activities The solution adds value to the customer's activities by contributing to the improvement of the customer's performance, the increase of revenues, the decrease of costs, the increase of asset effectiveness, possible market expansion, etc.
	❖ A solution is characterised by a degree of integration A solution is characterised by a degree of customization
	❖ Solutions provider offers fully operational solution A solution is designed to meet the customer's needs and composed with internal and, if required, external components. In addition to system integration and operational services, business consulting and vendor financing can also be integral parts of the solution in order to optimize value for the customer.

FLANDERS
DC

Customers	❖ Customer alignment based on similar core (business) needs
	❖ Selection of customers willing to pay for created value Customers who are looking for a one-stop-shop, customers who are pressured to improve market performance and generate more revenues, customers who pursue efficiencies or partnerships to improve margins, customers who are open to innovative collaborations in order to move into new markets, etc.
	❖ Customers open to co-creating an integrated solution and developing a long-term relationship
	❖ Selection of customers likely to generate reusable modules
	❖ Need to rethink the Decision Making Unit to address
Value chain	❖ Increase in share of value stream As a provider moves downstream into services, the value added for the customer increases, which consequently boosts the value of the solution.
	❖ Look at value chain from customer's point of view
	❖ Need to control channels to customer
	❖ Single vendor vs. multivendor/Vertical integration vs. horizontal integration
	❖ Long-term commitment towards both the customer and the supply side
	❖ Need to develop repeatable solutions with modular components
Cost architecture	❖ Need to price the customer value of solution
	❖ Standardization vs. customization: developing repeatable solutions with modular components
	❖ Economies of repetition: economies of skill and scope
	❖ Product life cycle profits
	❖ Innovative revenue models
Value network	❖ Existing and potential customers
	❖ External suppliers and partners
	❖ Competitors
	❖ Institutions setting industry standards
	❖ Industry experts

3.3. CREATING SUSTAINABLE COMPETITIVE ADVANTAGE WITH SOLUTIONS

As we gave shown in the previous section, moving towards solutions requires from a company to fundamentally rethink all aspects of its business model. Why would a company consider this challenging move into solutions? Developing a solution selling business model to go to market is challenging, yet if deployed adequately, this model offers a company numerous advantages. Ultimately, solutions make it possible for a company to create a sustainable competitive advantage.

3.3.1. Differentiation as competitive strategy

The basis of a solution provider's competitive strategy is **differentiation**. By adopting a customer-centric mindset and creating added value that truly matters to the customer, the solution provider is able to distinguish and differentiate from competitors. Developing the adequate value proposition, the solution provider is thus able to **beat the commodity magnet** in the solution provider's traditional market by clear differentiation (Cornet et al, 2002, Kasturi Rangan & Bowman, 1992).

An integrated solution should be characterised by a comparative advantage, as it should be better or more cost-efficient than any solution the customer might create himself. It should at the same time create a competitive advantage, i.e. it should be better or more cost-efficient than competitors' offerings (Miller et al, 2002). Being better implies reducing customer costs, decreasing customer risks and/or increasing customer revenues (Kumar, 2004). In short, to be better is to **create more added value** for the customer.

3.3.2. Added value based on integration and repeatability

Two elements play a decisive role in creating this added value: integration and repeatability. **Systems integration** is an absolute core capability. A solution provider must be able to define and combine the necessary internal and, if required, external components of a solution, whether products, consultancy, financing, maintenance, etc. **Technological integration** is an essential part of systems integration, but other aspects play a role as well. For instance, the **absorptive capacity,** the capacity to spot the value of new or external products, technologies or expertise and then assimilate and apply this value to meet customers' needs, is an essential capability (Davies & Brady, 2000). According to Hobday, systems integration offers a solution provider the opportunity to accurately position itself at industry level, and consequently define

which competitive strategy to use and who to collaborate with (Hobday et al, 2005). Acting as a one-stop-shop providing added value to a customer, offers a solution provider a definite advantage.

This advantage is complemented by the fact that a solution provider develops **repeatable solutions**. As solution providers create solutions on a more regular basis, as they develop modular building blocks, as they excel at project management, they are able to attain **economies of repetition**. Creating different solutions for different customers results in knowledge and valuable project management skills, i.e. in **economies of skills.** Deploying similar solutions based on similar customer needs in different industries, thus accessing customers in different markets, results in **economies of scope**. Solution providers should therefore be able to develop solutions in a much more efficient manner. Continuously increasing this efficiency, this creation of repeatable solutions, is what distinguishes a successful solution provider from its competitors.

In sum, by developing repeatable solutions and excelling at integration, a solution provider is able to offer its customers solutions that offer superior added value. The **combination of outstanding integration capabilities and repeatability makes it possible for the solution provider to reduce a customer's costs, increase a customer's revenues and take over a part of their risks or responsibilities in such a way that a customer or a competitor could never do as well or as efficiently**.

3.3.3. Additional advantages of providing solutions

❖ **Higher profit margins -** Thanks to this competitive strategy, providing customer solutions results in higher profit margins for the solution provider. The added value created for the customer allows the solution provider to reap greater profits (Wise & Baumgartner, 1999, Krishnamurthy et al, 2003). Moreover, solutions are complex offerings that can be priced in a more non-transparent manner and that are hard to copy by customers or competitors. However, the Cisco case study shows that higher margins are not always a guaranteed given when providing solutions. As Cisco products and services have particularly high percentage margins, it becomes hard for Cisco to attain those same percentage margins when providing solutions, due to third party components on which Cisco cannot raise such high margins as it does for its own products and services.

❖ **Continuous revenue streams** - As solution providers increasingly develop and integrate service components into their solutions, thus moving downstream, the solution provider taps into a different source of revenues**.** Service, whether operational, financial or maintenance service, often spans the entire life cycle of a solution, thus generating continuous revenue streams (Wise & Baumgartner, 1999).

❖ **Customer loyalty, retention and lock-in** - As customer needs are satisfied with customized solutions, as a supplier is more embedded in a customer's operations, as switching costs are high, as solutions selling is relationship-based, solution providers are likely to build strong, long-lasting ties with customers. Serving customers in a broad, integrated manner makes it possible for a solution provider to increase the share of wallet or deal size with specific customers (Krishnamurthy et al, 2003).

- ❖ **Access to customers previously outside the supplier's market** - The solution provider can focus on different market opportunities than with the core product (Cornet et al, 2002, Krishnamurthy et al, 2003). New business opportunities arise.

- ❖ **Market adoption -** Solutions can act as a catalyst for rapid market adoption in situations in which establishing early market share is crucial (Bennett et al, 2001). For example, in case of very complex technologies, the fact that a solution provider acts as an integrator and one-stop-shop can trigger adoption. By offering services to help customers implement a new technology within current business processes, a solution provider stimulates the adoption of this technology and can even obtain customer lock-in, thus establishing crucial market share.

3.4. BACKGROUND AND CULTURE OF FIRMS
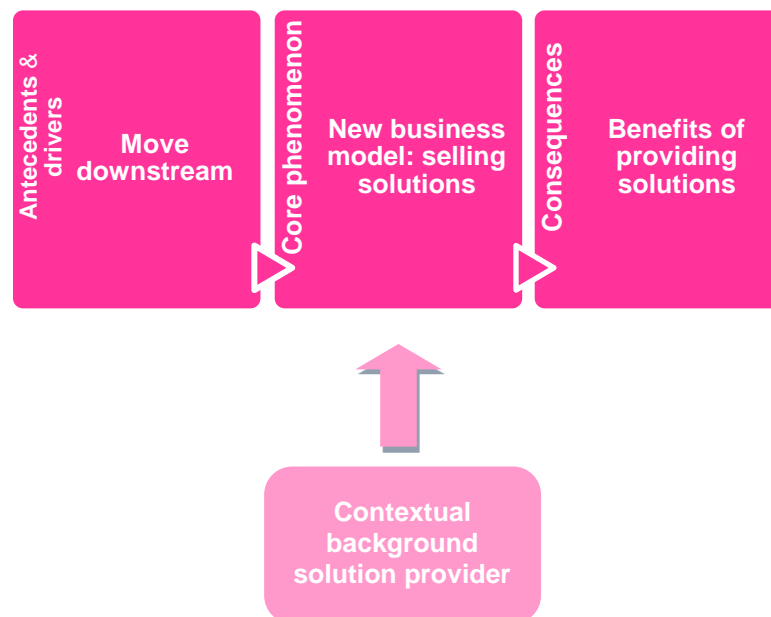
Companies that adopt a solution selling business model face certain common pressures, the antecedents discussed previously, and reap certain common benefits, as discussed before. The business model of a solution provider that we lay out in this report offers a general insight in the characteristic elements shared by each and every solution provider. However, firms moving into solutions are no blank slates. In accordance to contingency theory, every company carries baggage: its history, its installed processes, its company culture, etc. Consequently, a company needs to be aware of the implications associated with its legacy. In what follows, we enumerate a number of barriers that incumbents face when moving into the solutions business.

3.4.1. Product-based versus service-based

Product-based – A product-based company moving into solutions differs from a service-based company offering solutions in several ways. First, a product-based company has the possibility to include its products into the solutions and to **build on the strengths of its product offer** (Davies et al, 2006). Second, it faces a need to **move downstream** as it needs to include service components in the solution offering. Third, such a company is often **vertically integrated** in the value chain and mainly focused upstream, which offers the possibility to vertically integrate downstream or to outsource part of production and focus on systems integration. Finally, a product-based solution provider must sometimes **include product components from other suppliers or even competitors** in order to meet customer's needs (Foote et al, 2001).

Service-based – In contrast, a service-based company moving into solutions faces different challenges compared to a product-based solution provider. First of all, a service-based solution provider has the possibility to include services into the solutions and to **build on the strengths of the service offer** (Davies et al, 2006). Moreover, it has no in-house product capabilities, which offers a great deal of **flexibility** in the search for solution components as the company is not bound to any product loyalty and thus has the opportunity to select and develop the best multivendor offering (Davies et al, 2006). And in parallel with a product-based company, a service-based solution provider must sometimes **include service components from other suppliers or even competitors** in order to meet customers' needs (Foote et al, 2001).

3.4.2. Established relationships

The installed customer base a solution provider, whether product- or service-based, has built up plays a role regarding cross- and up-selling strategies, customer acquisition costs, knowledge acquisition costs, customer relationships and loyalty, etc. Moreover, established partnerships and supplier relationships are crucial, as well as relationships with industry experts, in order to be able to provide integrated solutions composed of the best internal and external components.

3.4.3. Move into solutions: driven by ambition or anxiety

Certain firms that move into solutions and adopt the solutions selling business model, are driven by ambition. These companies strive to increase margins, gain a larger share of the value stream, access new markets, create more customer loyalty and retention, etc. Others move into solutions on the basis of anxiety or necessity. These firms fear commoditization, competitive disintermediation, declining margins due to price squeezes, etc (Krishnamurthy et al, 2003). Depending on whether the transition towards solutions is seen as the result of an opportunity or threat, companies enter into this new market space more or less aggressively.

3.4.4. Market and industry context: first or late mover?

In certain industries, especially with high-tech products, providing solutions is already a recognized business model that has been adopted by different players in the field. This is for instance the case in the communication technology industry, the industrial construction and mining equipment industry, the industrial power and energy industry and the software and IT

services industry. In other industries such as the cultural industry, the retail industry and the textiles and apparel industry, the solution selling business model is less widespread. Aspects to take into account when analysing the market and industry context of a solutions provider include:

- ❖ Competitors
- ❖ Industry standards
- ❖ Pace of technological change
- ❖ Degree of technological complexity
- ❖ Influence of information and communication technologies
- ❖ Degree of disruptive competition within an industry
- ❖ Complexity of buying decisions
- ❖ Degree of competitive disintermediation
- ❖ Degree of vertical integration or disintegration
- ❖ Increasing power of buyers
- ❖ Degree of outsourcing
- ❖ Degree of market maturity
- ❖ Degree of commoditization
- ❖ Movement into services

3.5. THE SOLUTION SELLING BUSINESS MODEL – SUMMARY

When dissecting the solution selling business model, one needs to take into account the different aspects that make up the business model: the value proposition, the customers, the value chain, the cost structure and the value network. The specific configuration of these elements constitutes a business model which adequately offers a solution provider the opportunity to create a sustainable competitive advantage, i.e. differentiation as competitive strategy.

Moreover, when examining the solution selling business model, it is crucial to also take into account what drives a company to provide solutions, as well as the specific background and context that characterises a solution providing company.

Drivers of solution selling

A growing trend emerges towards integrating value-added services into product offerings. Moving downstream in the value chain offers companies the possibility to access the economic value related to servitization, i.e. providing services and, eventually, solutions (Wise & Baumgartner, 1999). The move down the value chain is a consequence of several aspects that have severely impacted companies.

- ❖ Commoditization & mature core product markets
- ❖ Outsourcing & demand for services
- ❖ Vertical disintegration & disintermediation
- ❖ Complex technologies & multivendor offerings

These antecedents of moving downstream are complemented, stimulated and reinforced by three crucial shifts in today's businesses: the change from a product-oriented to a service-oriented company, the shift from transaction-based to relationship-based marketing and a move from product-based thinking towards customer-centric thinking (Oliva & Kallenberg, 2003, Galbraith, 2005).

The solution selling business model

Each element of the solution selling business model is specifically moulded in order to reap the benefits of providing solutions. This business model presents a blueprint that each and every solution provider shares, no matter what the firm offers or what industry the company operates in.

- ❖ Value proposition: A solution adds value to a customer's activities by reducing customer costs, increasing customer revenues and/or taking over customer responsibilities or risks. Four major service capabilities typify a solution provider: systems integration, operational services, consultancy services and vendor financing (Davies et al, 2006).

- ❖ Customers: The ideal solution customer is open to co-creating an integrated solution and developing a long-term relationship with the solution provider. A solution provider should target customers who are characterised by similar core business needs, who are likely to generate reusable modules and who are willing to pay for the value created by the solution.

- ❖ Value chain: By integrating internal and external service and product components into an operational solution, a solution provider takes up an increased share of the value

stream at industry level (Davies, 2004, Hobday et al, 2005). Partners and third party elements are crucial.

❖ Cost architecture: The principal element in pricing a solution is to look at the created value from a customer's point of view. Moreover, solution providers ultimately strive to develop modules, so-called building blocks, that offer them the opportunity to create repeatable solutions, thus benefiting from economies of repetition that are based on economies of skill and scope.

❖ Value network: The value network of a solution provider consists of existing and potential customers, external suppliers and partners, competitors, industry experts, etc.

Creating sustainable competitive advantage with solutions

Developing a solution selling business model to go to market is challenging, yet if deployed adequately, this model offers a company the possibility to create a sustainable competitive advantage. The basis of a solution provider's competitive strategy is differentiation. By adopting a customer-centric mindset and creating added value that truly matters to the customer, the solution provider is able to differentiate from competitors.

Two elements play a decisive role in creating this added value: integration and repeatability. By developing repeatable solutions and excelling at integration, a solution provider is able to offer its customers solutions that offer superior added value. The combination of outstanding integration capabilities and repeatability makes it possible for the solution provider to reduce a customer's costs, increase a customer's revenues and take over a part of their risks or responsibilities in such a way that a customer or a competitor could never do as well or as efficiently.

Thanks to this competitive strategy, providing customer solutions results in higher profit margins for the solution provider. Moreover, as a solution provider increasingly develops and integrates service components into its offerings, the solution provider taps into a different source of revenues, i.e. more continuous revenue streams. Further advantages of selling solutions include: customer loyalty, retention and lock-in, access to customers previously outside the solution provider's market scope, rapid market adoption of complex technologies, etc.

4. ORGANISING FOR SOLUTION SELLING

4.1. BUSINESS MODEL INNOVATION

Moving towards solutions implies adopting the solutions selling business model. In other words, a company needs to transform its business model into a solution selling business model. Changing and renewing its business model, a company thus ventures into business model innovation.

Apart from product, service, technology or other types of innovation, business model innovation can be a way to create a sustainable competitive advantage. A business model can be defined as a mediating construct, as a realization of a business concept and strategy (Chesbrough & Rosenbloom, 2002, Osterwalder, 2005). By questioning or altering the different components of an existing business model, competitive new business models can be created (Markides, 2008).

According to Markides, expert in business model innovation at the London Business School, the main characteristic of business model innovation is that such models **create new market spaces** (Markides, 2008). **Redefining the value proposition** is key in business model innovation (Markides, 2000). Redefining the value proposition implies redefining what your customers want and will value. **Understanding customer needs** is therefore crucial in order to develop a strong value proposition that is hard to imitate or substitute and thus provides competitive advantage.

New business models enter an existing market by underlining business model components that are different from those that characterise the traditional models. Moreover, compared to traditional business, new business models and their markets require a **different set of success factors** and a **different combination of activities** (Markides, 2000). Often, these new activities or competences conflict with the existing business model. Business model innovation implies making changes to the traditional business model, including changes to organizational processes and structures, the culture of a firm, the necessary competences, reward systems, business performance metrics, etc (Markides, 2000).

Needless to say, this transition requires a profound change that transcends across the entire organisation. Numerous challenges are related to becoming a provider of integrated solutions. Basically, each of the components of a firm's current business model needs to be evaluated and, if necessary, transformed and reconfigured to attain the business model linked to successfully providing solutions. When innovating its business model, a company moving towards solutions faces three main difficulties.

- ❖ A first challenge consists of the development and implementation of a new business model that adequately captures the value created for the customer and, subsequently, the solution provider.
- ❖ Second, a company needs to successfully align the new business model with the outlined strategy, making it an integral part and a driving force of the strategy.

❖ Finally, navigating the duality between the existing business model and the solutions business model creates tension and potential conflict within the organization.

The following part of this chapter focuses on the organisational structures a company must create in order to become a solution provider and support the solution selling business model. Four fundamental pillars of the organisational environment are discussed, along with the challenges and the best practices related to each of these pillars. Next, a managerial process approach is presented, consisting of 10 essential steps that define the move towards solutions. Finally, this chapter will also shed a light on the move towards solutions within Flanders, presenting more quantitative data.

4.2. ORGANIZING TO PROVIDE SOLUTIONS

A business model is a translation of a business concept and strategy into an actionable model (Osterwalder, 2005). To implement a new business model into a company, all elements of the organisation need to be aligned with the business model and its strategic business concept. To examine how to successfully implement the solutions selling business model, the following model presented by Markides offers an excellent template to look at the organisational environment of a solution provider (Markides, 2000). Four main pillars are to be examined when looking at the transition a company makes in order to successfully move towards solutions. Each pillar and each element within these pillars need to be aligned with the solution selling business model in order for the firm to become a successful solution provider.

The remainder of this Chapter 4 elaborates on these four organisational pillars, thereby providing in practice examples and checklists for each of them. Next, Chapter 5 presents a 10 step approach in order to move towards solutions, offering additional clarification regarding the implementation of the necessary organisational changes.
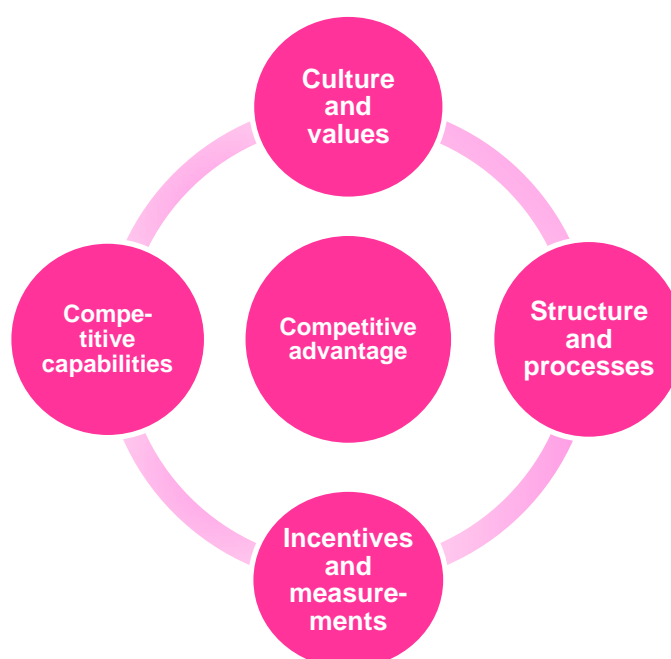
4.2.1. Culture and values

Product focus	Solutions focus
Product-centric thinking	Customer-centric thinking
Internal product or service development	Internal marketing: value of solutions
Product expertise inside each business unit	Learning organization: knowledge flows

Customer-centric thinking

Providing solutions requires making a switch from being a product-centred organization towards becoming a customer-centred enterprise (Homburg et al, 2000). The customer's needs and the possibility to add value to the customer's business must be at the centre of the development process when designing solutions. Solution providers need to think of what combination of products, technologies or services would best suit the customer. In order for a solution to meet a customer's expectations, a profound **understanding of the customer's needs** is key (Krishnamurthy et al, 2003).

Moreover, moving towards customer-centric thinking requires a different approach with regards to customers. Customer **relationship management** plays a crucial role in a customer-centred organization. Sales and marketing people need to become customer experts, instead of product experts (Sharma et al, 2008). A solution is the result of **fruitful cooperation** between customer and supplier, of a relationship based on mutual trust (Cornet et al, 2000). Offering solutions means designing and delivering what was promised. Customer and solution provider are engaged in long-term relationships and share risks, responsibilities and rewards. Customer relationships need not to be judged based on transaction profitability, but on the life time value a customer represents for a supplier: developing social capital with customers is key (Tuli, 2007).

The customer-focused way of thinking needs to be adopted at every level in the entire organisation in order to successfully provide solutions. A solution must always be looked at from the customer's point of view. As service is an integral part of a customer-centred solution, solution providers must let go of product-centric thinking and become **service-oriented**.

Atlas Copco's move towards solutions for example entailed a definite mindset change. Services, that used to consist of basic maintenance and repairs, needed to be developed more broadly and turned into absolute profit centres. Profit centres are considered as separate business sections within a company, characterised by their own revenue and cost responsibilities. Moreover, people needed to start thinking in terms of 'solutions' instead of 'industrial tools'. The fact that an innovative mindset characterizes the Atlas Copco company definitely contributed to this switch. Learning from failure and success, sharing success stories during informal meetings and other mechanisms also stimulated the move.

Internal marketing

When becoming a solutions provider or when a separate business unit providing solutions is established, the **need to convince the internal organisation of the possibilities solutions offer**, is crucial. Internally, all levels and units of an organization must be persuaded of the value of solutions for the entire business. Moreover, a solution providing organization and its

employees need to accept that in order to provide the best customized solutions, a company might need to partner up with other companies or implement product, technology or service components from others (Foote et al, 2001). Senior level managers play an important part in this internal marketing of solutions. Other elements can also contribute, including training programmes, sharing of best practices and successes, etc.

Within Betafence, the outdoor perimeter solutions provider, management first needed to be convinced of the value of solutions. When the initial idea was brought up to move towards solutions, the concept was dismissed, in part out of fear to go into conflict with their dealers. However, along the way Betafence appeared to be missing out on more and more important projects and thus the idea to move to solutions was reassessed. Next, the concept was put into a strategy, aiming at becoming the preferred partner for outdoor perimeter solutions. Once this strategy had been developed, it was integrated into the organization, making employees aware of the move that took place in part of the company. It took approximately 3 to 4 years before everybody really understood what Betafence, more specifically Betafence Projects, was trying to accomplish. The successful roll out in one pilot market, France, and the fruitful realization of a number of larger projects, for example an outdoor perimeter security solution for prisons, finally convinced other countries as well to move to selling solutions.

Likewise, moving towards solutions entailed several changes for industrial equipment vendor Atlas Copco, not in the least convincing the internal organization of the added value of providing value-adding services. As a senior manager from Atlas Copco states *it is an on-going process. And of course, a company is like everything else: you have to sell it. You have to show the people that if we do this much, the company makes that much money.*

Within DeLaval, the strategy to move towards Smart Farming solutions was, amongst other things, incorporated within the company by developing and rolling out a specific training programme, both for internal employees as for external dealers and partners.

Within Verizon Business, provider of network, IT, communications and security solutions, a similar global solution selling programme was developed and implemented, especially oriented towards sales people. Supported by senior executives who themselves had made the switch, such programmes aimed at changing the mindset of the people at Verizon. Moreover, to support the entire move, campaigns such as *Altogether Better* were deployed, visualising the *altogether better outcomes* offered by solutions.

When moving towards solutions, security knowledge specialist Securitas undertook a number of crucial steps in order to convince the organization. One important moment consisted of redrafting the organisational chart, making a switch from reflecting a geographical segmentation towards reflecting an industry-focused segmentation within the company. Second, the deployment of a security knowledge training was vital in order to stimulate managers to become true security experts and not just business managers. Securitas wants to position itself as the security knowledge leader, the ultimate security partner towards customers. Moreover, people from specific customer segments were brought into the company, which also triggered the internal organization to move towards security knowledge solutions and become more customer-centric.

Learning organization

In a solutions providing organization, knowledge must flow at all times: knowledge and expertise must be communicated and leveraged between different business units, between the customer and the supplier, between the different solution providing teams, between front and back end of an organization, between industry experts and the organization, between projects, etc. As a whole, the organization needs to constantly learn in order to keep on efficiently providing innovative solutions that meet the continuously evolving demands of customers (Davies & Brady, 2000).

Checklist Culture and Values **What does it take to be a successful solution provider?**
❖ Is there a clear definition within the company of what solutions are? ❖ Is the value of providing solutions and the strategy behind moving towards solutions clear within the entire company? ❖ Is top management supporting the move towards solutions? ❖ Are solution champions promoting the importance of solutions? ❖ Is learning stimulated, i.e. is becoming more solution-oriented stimulated within the firm? ❖ Is customer-centric thinking embedded throughout the company, at all levels and in all processes? ❖ Are all minds directed towards creating a customer offering which truly creates value for the customer? ❖ Is their sufficient knowledge within the firm regarding the customers, their business models and their needs? ❖ Does the firm build strong, long-term relationships with customers? ❖ Does the firm co-create its solutions together with key customers?

4.2.2. Structure and processes

Product focus	Solutions focus
One business model	Implement business model in existing business or in a separate pilot business unit
Product-based business unit structure	Back end, front end, strong strategic centre
Economies of scale	Economies of repetition
Focus on product portfolio	Focus on customer portfolio
Limited number of standardized products for large market	Integrated solutions comprised of numerous components for limited number of customers
New product or service development	Customer relationship management and solutions development
Transaction-based marketing	Relationship-based marketing
Asset intensive	People, knowledge and process intensive
Cross-functional interfaces	Ecosystem interfaces
Product development -> Manufacturing -> Marketing/Sales -> Customer	Customer -> Marketing/Sales -> Product Development -> Purchasing/Manufacturing -> Customer

Implement solution selling model in existing business or create separate pilot business

Regarding the implementation of a structure and processes to provide solutions, a company must choose between imposing the new business model on the entire company or creating a separate solutions business unit. To decide this, a company needs to evaluate three elements: **how large is the solutions opportunity compared to the existing business, how integrated does the firm need to be to create and deliver solutions, and how well is the company able to realize a complete transition and to deal with organizational disruption** (Krishnamurthy et al, 2003).

Both options offer opportunities and difficulties that have extensively been described in literature, primarily the literature on how to operate dual business models, for example by Markides (Markides, 2008). In the context of the case studies developed for this research project, both approaches surfaced.

Egemin Automation implemented the model and structure within the entire business organisation, creating a sort of matrix structure: per industry-focused division (Handling Automation, Infra Automation, Life Sciences and Process Automation), several services are deployed (consulting, lifecycle services, solutions).

Xerox started developing its Enterprise Marketing Services by partnering up with one of its large customers, Fortis, currently BNP Paribas Fortis. Starting a joint venture together with this partner, more specifically with Fortis Venturing, the solution was finetuned during 3 years in a separate business named CameleOne. Both companies invested approximately 1,5 million dollars to set up the venture. A group of 15 people from both Xerox and Fortis were convened, including all sorts of profiles such as sales people, engineers, IT specialists, etc. After 3 years, the venture was put to an end and the Enterprise Marketing Services were incorporated within the Xerox portfolio.

Structure: front end, back end and strong strategic centre

The larger the scale and scope of a solution, the larger the number of organizational units, and the larger the number of different kinds of organizational units that must coordinate their efforts to create the solution. [...] Structurally, the company will need strong customer-centric profit centres to pull together the product into effective solutions. (Galbraith, 2002, p. 199)

A three-folded structure is often proposed as ideal to provide solutions (Davies et al, 2006, Wise & Baumgartner, 2002, Foote et al, 2001, Kumar, 2004, Miller, 2002, Galbraith, 2002). This structure is presented by the following operational template.

Strong strategic centre

- Develop solution strategies
- Organizational transformation orientation
- Design and implement organizational structures and processes required to provide solutions
- Stimulate interaction between front and back end
- Focus on revenues and profits
- Top management and leaders from both front and back end able to drive a solution selling business model

Focused back end: focus on capabilities

- Internal and external development and delivery of modular components for integrated solutions
- Ensure functional and product excellence of integrated solution
- Focus on market share
- Profit-and-loss responsibility on product or service level
- Flexible and open to demands from front end: push and pull
- Focus on standardization
- Focus on economies of scale
- Focus on product or service innovation

Customer-facing front end: focus on the customer

- Identify opportunities and customers
- Build strong customer relationships
- Develop and deliver integrated solutions
- Act as a unified point of contact for customers
- Focus on customer service
- Focus on share-of-wallet
- Profit-and-loss responsibility on account or segment level
- Identify adequate partners/No product responsibilities
- Focus on customization
- Focus on economies of scope

Product customers

Solution customers

Source: Adapted from Foote, N.W., J. Galbraith, Q. Hope and D. Miller (2001), 'Making Solutions the answer', *The McKinsey Quarterly*, 3, 84-93 and Kumar, N. (2004), *Marketing as strategy: Understanding the CEO's agenda for driving growth and innovation,* Boston, Harvard Business School Press.

Within an ideal solution providing organization, the customer-facing front end consists of the units closest to the targeted customers, spotting opportunities to attract a customer or increase the share-of-wallet related to an account or segment (Kumar, 2004). The **responsibility of front end units is to grasp the scope of the required solution**. Ideally, these units are multi-skilled and cross-functional, incorporating account managers, commercial profiles, financial experts, legal analysts, technical design experts and project manager profiles (Davies, 2006). Based on the identified customer needs, the front end can then develop a customized solution concept (Davies et al, 2006). In order to deliver on their promises, they must address the **capabilities and/or modular building blocks provided by the back end** of the company, comprised of specialists in various areas. These back end units consist of internal units or external suppliers of modular components needed to configure the solution (Davies et al, 2006).

However, these front and back end units are no islands. A solution providing firm is a **collaborative network** where interaction is key. **Project teams** can be set up, consisting of members of both the front and the back end (Davies et al, 2006). These project teams can be established permanently or assembled temporarily, according to specific project needs, the stages of a solution project, the solution opportunities surfacing at a certain moment, etc. Flexibility and modularity are key: core teams or units can at any time be reinforced with internal or external experts.

And that is exactly where the key responsibility of the **strategic centre** lies: **balancing the back end tendency towards standardization and the front end drive towards customization**, and **reinforcing collaboration** and interaction between front and back end (Davies et al, 2006). The strategic centre needs to reinforce the balance between *the front-end pull of customization and the back-end push for standardization* (Davies et al, 2006, p. 44).

Moreover, the strategic centre also plays a crucial role in **developing solution strategies** and, in relation to this, managing the organisational transformation related to becoming a solution provider (Kumar, 2004). It is up to the strong centre to point out the importance of solutions as well as the type of solutions and the kind of customers the company focuses on with its solutions offering (Miller et al, 2002). The strategic centre is responsible for **designing and implementing organizational structures and processes** that define roles and relationships of different teams and units, provide process articulation when providing solutions, encourage interaction between back and front end, encourage and define collaboration between front end and internal and external product, service, technology and capability suppliers, create networks and promote cultivation of interpersonal networks, improve and promote knowledge sharing across units and functions, adequately allocate resources, manage and measure performance, etc (Kumar, 2004, Davies et al, 2006, Cornet et al, 2000).

In practice

Egemin Automation set up 4 industry-focused divisions. The front end units are composed of sales people with a sufficiently strong technical background. These sales people have access to engineers, solution architects and/or consultants that help them build a case. Once the deal is closed, the project is handed over to a project team. The project manager can count on an internal team of programmers, engineers, site engineers and others, and can involve the necessary partners if required. The project then goes through a number of phases, moving from engineering and first concept engineering, to execution, preliminary delivery, factory testing and final site acceptance. Once accepted, the sales person or account manager is again involved to conceptualize the servicing contract. Next, the customer and project are transferred to the service responsibles.

Egemin was already a project-based company before its move towards solutions. However, a number of functions were added in order to adequately organise as a solution provider. For instance, account management was implemented and reinforced, and a number of coordinating functions were added to the structure in order to optimize cooperation between units, between sales and projecting teams, etc.

Magic started deploying its efficiency solutions in the late 1990's. The business set up an account management structure around its customers. These accounts build strong relationships with their customer, so that the customer eventually adopts Magic as a trusted advisor. When sales opportunities come into scope, depending on the complexity of the project, an entire account team is deployed: what Magic tries to do, is align functions with the customer, i.e. putting a Magic finance person in front of the client's finance person, putting a Magic legal person in front of the customer's legal person. Finally, the account manager in charge will translate what the solution should look like towards the back end.

And so we developed different account management formulas and practices. We had a sort of corporate client account management, an account that engaged us across multiple geographies, multiple locations, or we had a sort of one-off account management type, one significant customer, one building, one location, a predefined set of decision makers. So we had a couple of different flavours of account management. Senior manager at Magic

The back end mirrors the image of the front end account team. However, these back end specialists have very different skills. The people in front of the customer are not necessarily absolute specialists in their specific subject matter. However, they are able to articulate what Magic can offer a customer, they are the people who know how to ask the right questions and how to get a customer to trust them. In contrast, back end specialists excel at creating the best possible solution based on the information the front end derived from the customer. Moreover, while the front end units are aligned by customer, the back end units are aligned by technical or functional expertise.

In order to effectively make the front and back end work together, incentive and performance metrics and tools were aligned. Everybody in the group, whether customer-facing or not, is on the same incentives plan that is based on a common set of metrics. Moreover, Magic uses scorecard mechanisms and goal setting worksheets which include objectives related to efficient collaboration.

Moving towards services and solutions, industrial equipment supplier **Atlas Copco,** a product-based business, needed to develop value-adding services and the necessary organisational services, processes and tools to support this. Service activities used to be limited more or less to spare part management, basic repairs and maintenance. In order to develop its services into value-added services, Atlas Copco separated its services into a separate business: service units needed to develop into profit centres, with their own P&L responsibility. In sum, service people used to run workshops, whereas today, Atlas Copco service people are running a profitable business that has its own processes, its own adapted reporting metrics, etc.

Building repeatable solutions

A solutions provider needs to focus on building repeatable solutions, thus gaining from **economies of repetition** (Davies & Brady, 2000). Since customization is an integral part of a solution, economies of scale are hard to achieve. Instead, a solution provider can benefit from economies of repetition: **leveraging knowledge** from one project to another and building modular components and platforms that can be combined into different solutions, thus learning from former projects and providing future solutions in a more economic and effective way (Miller et al, 2002). Creating economies by leveraging the necessary knowledge are also

referred to as **economies of skills**. To start with, a solutions provider can for instance focus on developing solutions for lead customers that can be adapted and replicated at far lower costs for different solution offerings (Davies et al, 2006). Offering similar solutions to different customers can then be referred to as creating **economies of scope.** Processes need to be implemented to realize these economies of repetition: processes need to encourage knowledge flows across functions and teams in a company, collaboration between the front (pull) and back (push) end of the organization, etc (Davies et al, 2006, Cornet et al, 2000).

Operating processes and organizational tools

In order to effectively and efficiently provide solutions, a solutions supplying company should implement and systematically apply specific processes and tools that enable a firm to create and strengthen organisational capabilities. Amongst others, these operating processes and organisation tools include:

- ❖ quality and productivity enhancing tools
- ❖ knowledge gathering and sharing processes
- ❖ solutions opportunity identification processes
- ❖ performance management processes
- ❖ partner and supplier management processes
- ❖ pricing tools

In practice

Quality and productivity enhancing tools

- Product portfolio planning: to boost its solution development capacity, a solution provider can structure the development of product or service components that can easily be integrated into a larger system or solution

- Tools to ensure operational excellence of solutions: constant monitoring, feedback loops, global key performance indicators, etc

An example of a service quality enhancing process can be found within the **Atlas Copco** organisation. Growing services means hiring new people and training these service technicians. Moreover, as Atlas Copco customers are active worldwide, the solution provider needs to develop global support with the same service quality, no matter where customer plants are located. In other words, a service technician in China needs to be able to offer the same type of service as a technician in Sweden. In order to develop this service quality, Atlas Copco certifies each technician, offers them the same training and evaluates service by clear and common key performance indicators.

Next, system provider **Barco** developed a number of advanced tools and processes that support the collaboration of different units when offering visual solutions. What it comes down to, is that sales cannot sell any project without the buy-in of the more back end-focused units. A sales person needs to validate each project based on a number of criteria, the most important one being the fact that margins will be sufficient. Next, such a person needs to get a sign-off from the different units that are involved, such as technical, legal, financial, operational units. Only when approved, a solution can be offered to a customer.

Knowledge gathering and sharing processes

- Absorptive capacity: the ability to recognize the value of new or external knowledge and assimilate it (Davies & Brady, 2000)

- Documentation emphasis: the creation of an organizational memory of past solution implementation experiences (Tuli et al, 2007), for example by means of a database in which project specifications are registered, an intranet, e-learning tools presenting previous cases, etc

When moving towards solutions, outdoor perimeter specialist **Betafence** realized the enormous value of teaming up with important security service providers. Betafence Projects succeeded in incorporating security competences into its integrated outdoor perimeter security solution by partnering up with other firms. Moreover, in the near future **Betafence** would like to develop an extended database containing all information on previous solution projects which project managers or coordinators could then tap into when needed. Apart from technical data, such a database would include certificates or testimonies regarding past projects, ready to be used in order to convince new customers.

Solutions opportunity identification

- CRM tools, customer segmentation tools and customer value measurement tools

- Customer activity cycle mapping: by mapping all activities that are part of a customer's value stream, a solution provider is able to accurately detect where the company can still add value to the customer's business activities

Barco uses an advanced front office tool by which they can monitor project progress, sales progress, financial metrics, etc. Based on the data incorporated in the tool, an assessment can be made of customer's needs and attitude towards Barco, which results in an adequate detection of customer and market opportunities for visual solutions. Moreover, this also allows Barco to adequately evaluate their sales people based on delivered, on-going or future projects with current customers or prospects.

As mentioned previously, **Magic** developed a customer segmentation tool based on the existing penetration of the company at a customer's and the opportunity the customer represents. Apart from specific metrics to analyze a customer's value, at the beginning of each possible collaboration the solution provider also sets up some sort of long-term business plan for the account. When presenting this case, Magic can then easily grasp to what extend the account is willing to commit to the solution provider.

Performance management processes

- Key performance indices: segment revenues, share of customer spending, account profitability, long-term sales team productivity, amount of rework per solution, customer ROI, etc.

- Reward systems: team-based compensations that reward cross-unit collaboration, incentives linked to the satisfaction of a customer (Krishnamurthy et al, 2003, Homburg et al, 2000), rewards systems that take into consideration the long-term aspect of solutions, etc

Partner and supplier management processes

- Exclusivity contracts

- Knowledge sharing processes and tools: (limited) access to company databases or internal networks, processes to pass on relevant leads, etc…

Pricing tools

- Innovative revenue models: revenue models based on usage, performance or added value of the solution, in contrast to more traditional models such as fixed-fee or cost-plus pricing models (Bonnemeier, 2010)

- Internal price enforcement processes: processes that enforce set prices within the organisation, for example by developing an adapted incentive system that supports all sales efforts related to obtaining higher margins, as opposed to offering discounts in order to gain market share, or by operating databases with fixed pricing lists when selling services or products to a solution unit within the organisation (Bonnemeier, 2010)

- External price enforcement processes: processes that enforce set prices externally, for example by systematically developing business cases that present the added value created by the solution to uphold the predefined margins when developing bid proposals for larger projects (Bonnemeier, 2010)

- Price and cost controlling tools: pre- and post-calculations, business case development, life cycle-oriented financial indicators, price formulas, contingency costs, etc (Bonnemeier, 2010)

One of the revenue models industrial solution provider **Atlas Copco** deploys for its top level solutions, consists of a combination of monthly service fees and a performance-based production rate agreement. Per car produced per one hour shift for example, the customer pays a fixed amount. If production increases or diminishes, this cost accordingly goes up or down, as tools are then increasingly or less often used.

Internally, one of the firms in our case study research uses detailed calculation sheets to estimate the price of a solution. Such sheets for example include fixed prices, that is predetermined licensing costs, for all possible pieces of software that might make up a solution. In combination with other pricing tools, these sheets contribute to the sales person's effort to adequately price a solution, thus enforcing the company's pricing strategy when it comes to solutions.

Also, for many solution providers dealing with the long-term aspect of pricing solutions is a challenge. For fencing specialist **Betafence** for example, coping with fluctuating steel prices plays an important role when pricing a solution. They tackle this issue by putting in a price formula when defining a solution's price and taking into account possible contingency costs.

- ❖ Is a strong strategic centre present within the company, incorporating persons from both the back and front end, from both the product and the service side?
- ❖ Does this centre develop, implement and communicate solution strategies?
- ❖ Does this centre coordinate and stimulate the interaction between the back and front end?
- ❖ Can project management teams be assembled quickly and flexibly?
- ❖ Is the company a strongly networked company?
- ❖ Are front end units cross-functional and multi-skilled?
- ❖ Can the front end adequately grasp and translate the customer needs?
- ❖ Are offerings developed based on customers' needs (pull approach)?
- ❖ Does the back end create product and/or service components that can be integrated in solutions?
- ❖ Is the back end open for requests and demands from the customer-facing end?
- ❖ Is P&L responsibility in the front end linked to specific customer accounts or segments?
- ❖ Is accountability clearly defined within the entire organisation, for each project, for every unit?
- ❖ Are there dedicated or account management teams in place to service key clients?
- ❖ Are the necessary organizational processes implemented and well-adopted, i.e. tools to measure the created customer value, to identify the right customer segments, to go through bid/no bid processes, to correctly price solutions, to manage supplier or partner relations, etc?
- ❖ Is the company able to create economies of repetition?

4.2.3. Competitive capabilities

Product focus	Solutions focus
Build on product development	Learning and leveraging knowledge
Product excellence	Systems integration and project management
Build on existing capabilities	Need for strategic management of capabilities Need to establish new functions, new capabilities
No need for in-depth changes regarding people, skills or competences	Train and retrain personnel, encourage cross-functionality, encourage knowledge sharing, etc.

Core capabilities for solutions

Davies & Brady distinguish three types of capabilities when it comes to a solution providing firm: functional capabilities, project capabilities and strategic capabilities (Davies & Brady, 2000). **Functional capabilities** refer to capabilities that support and improve functional effectiveness concerning R&D, product innovation, production, finance, purchase, channel management, etc (Davies & Brady, 2000). A key functional capability for a solution provider is **systems integration**, the ability to design and deliver a customized solution based on internal and external components. **Project capabilities** relate to project management capabilities, bid preparation skills, partner management, etc (Davies & Brady, 2000). **Project management** is especially crucial for solution providers as it entails the capacity to effectively design and

implement a solution, work on team basis, use solutions related tools, guarantee milestones realisations, manage a solution throughout the different stages of its lifecycle, etc (Davies & Brady, 2000). Finally, **strategic capabilities** relate to the strategic management of capabilities, including capability portfolio evaluation and renewal, resource allocation and management, etc (Davies & Brady, 2000).

When considering Xerox's Enterprise Marketing Services, it is clear Xerox almost purely acts as an integrator. Systems integration and project management are key capabilities when developing solutions that combine customer databases, content tools, ICT tools, postal services, etc. How did Xerox develop these capabilities? Xerox has a background in printing technologies, which entails setting up production chains in a logical and efficient manner. Moreover, the company started developing its Xerox Global Services during the 1970's, thus gaining even more experience and knowledge regarding processes and process implementation. For capabilities Xerox does not master, for instance creating direct marketing content, the company then strategically relies on partners such as advertising agencies in order to bring the Enterprise Marketing Services solutions to market.

Need for strategic management of capabilities

Any organisation providing solutions, should be aware of the fact that in order to be a successful solution provider, there is a need for strategic management of capabilities within the company. It is crucial to **identify the critical activities that drive a company's current solution providing strategy and business model**.

Companies providing integrated solutions can preserve a traditional base of strength in products or services. A supplier can build on brands, reputation or existing technical expertise and leverage these across solution components (Miller et al, 2002). However, while existing capabilities are strategically vital assets for solution providers, the ability to renew or transform these capabilities according to a dynamic situation, a changing environment or the needs of targeted customers, is equally essential (Davies & Brady, 2000, Danneels, 2002). Leveraging existing and new knowledge and capabilities is key, investing in the development and strengthening of capabilities is crucial.

Consequently, on regular bases an organisation should **evaluate** whether its **capability portfolio** consists of the essential capabilities to realize such a strategy. If necessary, an organisation is ought to eliminate or outsource activities that do not contribute to the creation of a superior offer. If certain **gaps** appear within the capability portfolio of the firm, these capabilities need to be acquired, either by **developing them internally, accessing them through partners or making acquisitions**.

Opting to develop the needed capabilities internally, a solution provider can build them up from scratch or renew existing capabilities in order to align these with the new business model and strategy. Securitas for example wants to position itself as the knowledge leader in security. Securitas wishes to gain a competitive advantage by combining its absolute focus on security with a very profound knowledge of the security industry and customers' specific security concerns or needs. To stimulate the development of this knowledge leadership position, training programmes concerning security intelligence are deployed, employees are motivated to participate in seminars and forums, etc. The ultimate goal is then to build the necessary knowledge of security processes and technologies internally, and become a security expert.

However, when Barco Defence, a Barco division focussing on visualisation systems for military customers, moved from being a product-based division to providing integrated systems, it was able to acquire a great deal of the necessary competences by means of an acquisition of part of a specialised company. While the first integrated projects of Barco Defence were developed internally with the help of partners, the division soon decided to acquire the needed capabilities

instead of growing them organically. Customer service capabilities, knowledge and industry intelligence, solutions selling and other skills were all obtained via acquisition.

In sum, a company should make sure these capabilities are **hard to copy and truly add value** to the solution business (Davies & Brady, 2000). As said, a solution provider faces a dynamic and ever changing environment, which should trigger the company to **review its capability portfolio regularly in order to maintain the competitive advantage** the capabilities offer.

People and skills

Providing solutions requires a set of very specific skills. These skills include consultative selling, account management skills, project management skills, collaborative competences, networking competences, partner management skills, etc. A selection of essential skills is highlighted below.

❖ **Sales** – The selling approach needed for solutions is radically **customer-centric**. A sales person selling solutions has different skills compared to a sales person selling products or basic services. **Consultative selling** skills are vital in order to gain the trust of a customer when it comes to solutions. Selling solutions requires **industry knowledge**, relationship management skills, the **ability to translate the customer value of a solution** to a client, account management skills, etc (Krishnamurthy et al, 2003). As many of our case studies show for example, solution providers often hire people from within the industry targeted by the solutions, in order to meet customers' needs and cultures even better.

One of the things we learned was that those people who were absolutely brilliant at doing transactional selling, typically did not transition well into solution selling. For a variety of different reasons. In solution selling, your sales cycles tend to be a little longer. The very good transaction sellers needed those hits very frequently, so they got very frustrated in a solution selling environment, kept trying to get an order every time they visited the customer while the customer was saying 'hang on, we are trying to get to know each other'. They were less consultative in their approach and more commercial. Every time they went into a meeting, the wanted to sell. And that typically in a solution environment tends to frustrate the customer, because the solution sellers that do that work really well, at least the ones I met, that are highly, highly successful, do not appear to be selling at all. It is a beautiful thing to watch them in action, because the customer really views them as a trusted advisor, their consultant.   Senior manager at Magic

❖ **Cross-functional front end teams & project teams** – Due to the complexity of an integrated solution, employees within the organisation need to team up with members of different units, form alliances with external suppliers and partners, work together with certain customer units, etc. **Networking skills** and **collaboration efforts** are vital in such settings.

❖ In some instances, the **role of solution architect or engineer** is crucial when developing solutions, as the cases of Barco and Verizon Business illustrate. Solution architects or engineers cooperate intensely with sales persons or account managers in order to fully grasp the customer's needs and assess whether the company can offer an adequate integrated solution. Solution architects thus effectively **link customer needs to back end offerings, developing a blueprint of the solution**: a solution architect knows exactly what back end components to pick, what back end services to direct and manage when developing a solution. Very often this is a person who knows the company and its offerings very well, and who also knows the industry targeted by the solution. Often these solution architects are either former sales people who care to move to a more technical role, or former back-end specialists or consultants who would

like to transition to a more commercial function. In sum, this newly created role floats between back and front end, yet belonging more to the front end.

❖ **Back end product or service units –** Back end units also need to adopt **the solution mind-set when developing services and products**, even if they face less or no customers. Art for art's sake, developing products or services that do not contribute to the total value created by a solution, is irrelevant. Moreover, back end specialists and experts are increasingly involved on in the solution selling process, for example to determine specifications of highly customized solutions (Krishnamurthy et al, 2003).

❖ **Senior management** – At crucial moments in the process of selling and delivering a solution, the **customer is addressed at senior management level**. This requires the solution provider to put a top management member of its own in front of the customer's senior executive. Moreover, senior executives need to drive the solution strategy within the entire firm and consequently develop **champion behaviour**, i.e. sharing successes, promoting results, etc.

**Checklist Competitive Capabilities
What does it take to be a successful solution provider?**

❖ Has the capability portfolio been evaluated?
❖ Are actions undertaken to fill in the gaps within the portfolio?
❖ Are actions undertaken to strengthen the necessary capabilities?
❖ Does the company possess excellent system integration competences?
❖ Does the company excel at project management?
❖ Does the company excel at partner management?
❖ Are new roles clearly defined?
❖ Are sales people skilled in consultative selling, translating the created customer value and gaining customer and industry knowledge?
❖ Do senior executives adequately promote solutions by champion behaviour?
❖ Is interaction, networking and knowledge sharing within and outside of firm boundaries stimulated, i.e. by tools, by meetings, etc?
❖ Are there clear accountability and reporting relationships?
❖ Are product or service back end units designing their offer in congruence with the solution strategy?

4.2.4. Incentives, measurements and pricing

Product focus	Solutions focus
Product-based business performance metrics: number of new products, market share, etc.	Rethink business performance metrics: customer satisfaction, lifetime value of customers, customer retention, etc.
Incentives based on number of sales, new products, etc.	Rethink incentives systems
Supplier's costs	Added customer value

New business performance metrics

When measuring business performance, a solution provider must include **customer-centric variables** into the evaluation: customer satisfaction, lifetime value of a solution, customer profits based on the solution, segment or account revenues, share of customer spending, etc (Sawhney, 2006, Cornet et al, 2000). This means that companies need to convert product-centric KPI's to customer-based KPI's. When selling solutions, customer profitability and the depth and breadth of a relationship become just as important as traditional performance metrics such as sales revenues (Cornet et all, 2000). A key question Atlas Copco for example reflects on when offering a solutions, is whether they will make money over the lifetime of the contract.

Solution selling is characterised by a long-term aspect. During the process, different units or teams are involved in developing and delivering a solution project. Moreover, providing solutions entails selling larger, more complex projects to a more limited number of customers (Galbraith, 2002). Consequently, these elements additionally complicate how the performance of the different units should be evaluated and rewarded, how revenue should be allocated, etc (Galbraith, 2002). Selling solutions thus calls for the implementation of **complementary business performance metrics** at a different level than at, for example, business unit level.

In order to asses solutions related business performance, Magic developed a number of key metrics to evaluate the commercial size of its service business. Several aspects are tracked, including year-on-year productivity of the sales team, both on individual and on team level, on time renewal of customers, namely proactively retaining customers, customer acquisition, average duration of sales cycles, amount of pull through, that is how much additional offerings are pulled through on top of the basic services, etc. Moreover, the number of sold and alleged projects is strictly monitored month to month.

In addition, the complexity of providing solutions requires **clear performance benchmarks** that must be defined beforehand since it is important to offer customers, but also investors, elements to hold on to when evaluating the solution (Cornet et al, 2000). Agreeing on a number of milestones during a solutions project can for example serve as an effective communication tool.

Reward systems

In parallel with the business performance metrics, incentives and reward systems need to be **aligned with the solution selling business model and the organizational structure** related to it. Providing solutions is a complex and long-term process, which involves a large number of units or teams, so creating incentive and reward structures based on solutions' performance becomes just as complicated (Galbraith, 2002).

Reward systems can no longer be strictly focused on product or service business unit level and sales compensations also need revision (Galbraith, 2002). Incentives must complement each other across units and functions, thus creating **incentive externality** within the company (Tuli et al, 2007). Incentive externality refers to the extent to which employee reward systems effectively reinforce each other not only within one unit or department, but across the entire organisation, since it is important to *align incentives across subgroups in order to attain overall organisational objectives* (Tuli et al, 2007, p. 10). A solutions provider can for instance opt for team-based compensations based on the sales to a certain account or link incentives to the satisfaction of a customer (Krishnamurthy et al, 2003, Homburg et al, 2000). Solution providers need to question how they can recompense a fruitful interaction between front and back end, how they can reward knowledge sharing, how they can adequately reward sales people involved in long salescycles, etc .

Pricing solutions

The **price of a solution must be based on the value it creates for the customer's business** instead of on supplier costs (Kumar, 2004). As Kumar states, *even if the solution is identical, its value to different customers may differ considerably* (Kumar, 2004, p.70). If an adequate pricing method is developed, based on the added value created for the customer, this usually results in higher margins for the supplier.

When industrial tools provider Atlas Copco puts a price on a solution, the value added to the customer's business is amply measured. In order to calculate this value Atlas Copco uses an operating cost analysis model. This model for example takes into account how much it would cost if there would be a tool or assembly line failure, how much would be saved by performing preventive maintenance, what the quality costs would be if the company were not to invest in a new tool, etc. At the end, when presenting the offer to the customer, Atlas Copco clearly indicates to what extent the solution provider could reduce customer costs.

Apart from communicating the added value created by a solution, **clearly defining the scope of a solution** is also key, as Atlas Copco and others have experienced. As said, defining **solution performance benchmarks** plays an important role in this. If the customer and the solution provider are not on the same page regarding the solution scope, the customer will not be satisfied and the solution provider will hardly be profitable since the customer will push the provider to live up to those unforeseen expectations.

In order for a solution provider to price his solution correctly, the company needs to take into account two additional elements. In order to stimulate the customer to buy a solution instead of developing it internally, a solution cannot be priced too high (Kumar, 2004). However, pricing a solution too low will result in a loss of compensation for the solution provider as customizing offerings is cost-intensive (Kumar, 2004, Bonnemeier et al, 2010). Moreover, the long-term nature of solutions, the integration of services and the fact that a solution provider takes over risks, responsibilities and asset ownership from a customer, requires adjusting price practices to the duration and intensity of the solution (Cornet et al, 2000). As our case studies show, **rethinking pricing measures** is a hard-to-tackle issue when moving towards solutions. Pricing solutions requires **to rethink existing revenue models**, implementing innovative revenue models, **long-term price planning**, effective bid proposal management, price controlling, the establishment of feedback loops regarding pricing goals, pricing lifecycle services, etc (Davies et al, 2006, Bonnemeier et al, 2010).

Moreover, a solution provider can **opt for different pricing strategies** when offering solutions to specific customers, as these pricing options are part of the total solution offering (Kumar, 2004). *The options vary from a one-time, upfront payment (turnkey solutions), a series of payments as the value is delivered (pay per use or milestone payments), a recurring monthly or yearly charge (periodic payments) or even revenue sharing and equity participation. In addition, there may be all types of fees for service, maintenance, operating, license and consulting* (Kumar, 2004, p.70).

**Checklist Incentives, Measurements and Pricing
What does it take to be a successful solution provider?**

- ❖ Have criteria for business performance evaluation been established?
- ❖ Are at least part of these criteria in line with the customer-centric and service-oriented mindset?
- ❖ Is business performance measured at distinct levels, i.e. project level, customer level, etc?

- ❖ Are incentives complementary and reinforcing across units and functions?
- ❖ Do the reward systems stimulate sales people to sell solutions?
- ❖ Do the reward systems stimulate knowledge sharing, interaction and collaboration?
- ❖ Do the reward systems stimulate the back end to generate service and product components that can be repeatedly integrated?
- ❖ Is the company able to reap the profits of the value created for the customer?
- ❖ Is there a clear pricing process established for solutions within the solution providing company?
- ❖ Are pricing options an integral part of the integrated solution offering?

4.2.5. Overview organisational pillars

As the business model represents the conceptual explication of the way the business functions, it needs to be supported by the adequate organisation, processes, culture and tools. The four pillars presented by Markides (Markides, 2000) consist of a number of components that can be moulded in a specific way in order to support a solution selling business model, allowing thus to provide solutions in a successful manner. In sum, to implement a new business model into a company, all elements of the organisation need to be aligned with the business model and its strategic business concept.

Culture and values
- Customer-centric thinking
- Internal marketing
- Learning organization

Structure and processes
- Implement model in existing business or create separate unit
- Front end, back end, strategic centre
- Operating processes and organizational tools
- Building repeatable solutions

Products →

Competitive capabilities
- Advantages created by solution providing capabilities: systems integration & project management
- Strategic management of capabilities
- People & skills

→ **Integrated solutions**

Incentives and measurements
- Customer-centric business performance metrics
- Reward systems
- Customer value-based pricing

4.3. ORGANIZING TO PROVIDE SOLUTIONS – SUMMARY

Business model innovation

A company moving towards solutions needs to innovate its current business model and transform it into a solution selling business model. Changing and renewing its business model, a company thus ventures into business model innovation.

The main characteristic of business model innovation is that such models create new market space (Markides, 2008). Redefining the value proposition implies redefining what your customers want and will value. In order to adequately respond to these needs, the value chain of a solution seller needs to be reconsidered. Furthermore, to stay profitable, a solution provider should redefine its cost structure in relation to selling solutions. Moreover, compared to traditional business, new business models and their markets require a different set of success factors and a different combination of activities (Markides, 2000). In sum, each and every business model element needs to be moulded and/or transformed in order to develop a strong value proposition that is hard to imitate or substitute and thus provides competitive advantage.

Organising to provide solutions

Moving towards solutions implies aligning the entire organisation with the envisioned solution selling business model. As the elements of the business model need to be transformed, so do the different organisational and structural pillars that support the solution providing business model. These organisational pillars include the culture and values, the structure and processes, the incentives and measurements, and the competitive capabilities of a company (Markides, 2000).

- ❖ **Culture and values** - Two main aspects that are required when moving towards solutions, include making a switch from being a product-centred organization towards becoming a customer-centred enterprise (Homburg et al, 2000) and convincing the internal organisation as well as partners of the value of providing solutions.

- ❖ **Structures and processes** - Regarding the implementation of a structure and processes to provide solutions, a company must choose between imposing the new business model on the entire company or creating a separate solutions business unit. Moreover, the ideal solution providing company is characterised by a three-folded structure: a customer-facing front end, a capabilities-focused back end and a strategic centre. The front end units grasp the scope of the required solution. To deliver on their promises, they then address the capabilities and/or modular building blocks of the back end specialists. Finally, the responsibility of the strategic centre consists in balancing the back end tendency towards standardization and the front end drive towards customization, reinforcing interaction, and implementing the necessary processes to efficiently deliver repeatable solutions, i.e. developing economies of repetition (Davies et al, 2006).

- ❖ **Competitive capabilities** - A solution provider should excel at project management and (systems) integration. Apart from these two capabilities, the capabilities and activities that drive the company's solution business model should be equally strong, whether customer service capabilities, bid management skills, industry intelligence, consultative selling, networking competences, etc. Ideally, these capabilities are hard to copy and truly add value to the solution business. Furthermore, the skills of people involved in the solutions business reflect and mirror these competitive capabilities.

❖ **Incentives, measurements and pricing** - A solution provider should include customer-centric variables into the evaluation of its business performance, including customer satisfaction, lifetime value of a solution, etc. Regarding rewards systems, adequate incentive structures should support the complex and long-term process of providing solutions. Finally, the price of a solution must be based on the value it creates for the customer's business: amongst other elements, implementing specific revenue models, long-term price planning and clearly defined solution performance benchmarks are thus key.

5. MOVING TOWARDS SOLUTIONS IN 10 STEPS

5.1. INTRODUCTION

Developing a solutions business is not a step that should be taken lightly or overnight, but it should be taken. Global competition and advances in information technology have rendered the rise of solutions-based business models inevitable.
Cornet et al (2000, p.13)

The move towards solutions differs for every company. Developing the adequate solutions selling business model and implementing the necessary organisational elements required, is an **iterative process**, characterised by **trial-and-error learning**. Moving towards solutions entails more than just bundling a number of products and services, and adding solutions to the company portfolio. This move asks for the incorporation of fundamental changes in the DNA of a firm.

As the companies included in our case study research show, such a move requires a **phased approach** (Cornet et al, 2000). Not every business model element or organisational aspect within the firm can be transformed overnight. The transition towards solution selling consists of a transformational process, in which moves and changes are characterised by different speed levels and different rates of success. An important element to keep in mind while transitioning to solution selling is that the transformational process is almost never linear. Certain changes necessitate more time than others, certain processes are implemented more easily than others, certain transformations are more costly than others. Moreover, certain moves need to be made simultaneously, others cannot be realised without the implementation of previous steps. Ultimately, every change and every transformation should reinforce one another in order to build and strengthen the solution selling business.

Step 0	**To move or not to move?**
Step 1	**Convincing the internal organisation**
Step 2	**Developing and reinforcing a customer-centric mindset**
Step 3	**Segmentation of customers**
Step 4	**Engaging in first projects with lead customers**
Step 5	**Closer involvement of marketing**
Step 6	**Systematic development of front end and project teams**
Step 7	**Aligning the back end to support solution offering**
Step 8	**Pulling it all together**
Step 9	**Performance management**
Step 10	**Moving the entire company towards solutions**

Step Zero – To move or not to move?

Providing solutions is often seen as a mere selling approach rather than a profound change in the way the company creates, delivers and captures customer value. The reality is that, if executed well, it impacts the entire business model of the company. Executives need to understand the importance of providing solutions and the potential benefit of doing so.

Solution selling is really not applicable in all cases and in some instances, if you are not careful, it could be the equivalent of applying rocket science where rocket science is not necessary. So it is okay to go to market in a very transactional way if you have a product or service that is highly differentiated, where you can sell it quickly in a short sales cycle, where you do not really need… Because together with solution selling comes generally a support infrastructure by way of tools and processes that can be quite cumbersome. So the model in itself can be quite complex. It should not be all things to all people, it should be specifically applied to what it is you bring to market. Senior manager at Magic

Once an organization has agreed on the criticality of providing customized solutions, a crucial decision has to be made regarding the positioning of these new offerings within the existing structure of the organization. A company might have to choose between imposing new changes to the business model across the entire organization to integrate both product and solutions business units or creating a separate business unit aimed at providing customized, value added services. Both options offer opportunities and difficulties. Creating a separate business unit could lead to costs related to the lack of synergies, while integrating both product and solution businesses can amount to alienation of existing customers, internal conflict management costs, dilution of the existing brand value (Markides, 2000). Looking at positive aspects of both options, the creation of a separate unit can prevent suffocation of the new unit by the product business, especially while economies of skill and scale are not yet fully developed and the solutions business may pale profitability-wise compared to the product business. Integration however offers advantages in terms of sharing customer knowledge or aligning sales processes. To decide on the right organizational structure, a company needs to evaluate a number of elements: how large the solutions opportunity is compared to the existing business, how integrated the firm needs to be to create and deliver solutions, and how well the company is able to realize a complete transition and to deal with organizational disruption (Krishnamurthy et al., 2003).

Step One – Convincing the internal organisation

A move towards solutions requires full dedication and support from top management, even if the solutions selling business is first set up as a separate division or business unit. No matter who took the initiative to integrate solutions selling into a company, whether an account manager, a business developer or the CEO, there needs to be **buy-in at all senior levels** of a company, including from shareholders and/or board members if they are closely involved. Top down, this conviction needs to be spread across the entire firm using all possible means of communication, ranging from internal newsletters to inspiring speeches, training and best case presentations. At all levels, in all functions, **employees need to be convinced of the value of providing solutions** and the strategy behind the move. Moreover, it can be necessary to also convince partners or suppliers with whom the company regularly works together.

- ❖ Instigate champion behaviour at executive level
- ❖ Illustrate the need for and the benefits of making such a move
- ❖ Communicate this strategy across all levels within the company
- ❖ Educate employees on the value of solutions by all possible means of communication
- ❖ Educate partners and suppliers on the value of solutions by all possible means of communication

Step Two – Developing and reinforcing a customer-centric mindset

When developing a solutions selling business, the customers and their business needs should be at the centre of attention. Product-driven companies develop product offerings that either satisfy a customer's need or not: the company develops new product features or applications, tries to find customers willing to buy the standardized offer and customers can simply choose to take or leave the offering (Kumar, 2004). Within a customer-driven company, a provider grounds its developments on the business need of its customers, trying to provide an answer. Consequently, whether a company has a background in services or products, to sell solutions the organisation needs to adopt customer-centricity within all of its processes, structures, customer touchpoints, messaging, etc. This customer-centric mindset should not only be developed by sales and marketing units or customer-facing functions, but should be **established throughout the entire organisation**.

A key requirement when providing solutions is **knowing who your customers are and what they want**. Gathering information on existing and potential customers is crucial in order to figure out how their business model functions and where specific solutions could fit in. Implementing or improving state-of-the-art CRM tools plays a vital role in assembling this customer data.

However, acquiring knowledge about customers is not enough. To truly become a customer-centric organisation, a solution provider needs to **build strong, long-term relations** with its customers. Because based on these strong relations, a solutions provider can anticipate: knowing what the customer needs or will need in the future, sometimes even before the customer knows it himself. Anticipation will create opportunities for the solution provider to engage in valuable conversations with its customers.

- ❖ Assign key roles to solution champions or bring in outsiders to create a shift in mindset
- ❖ Stimulate employees not to think in terms of products, features and push strategies, but in terms of solving a customer need, by offering training, by developing customer knowledge tools, by organizing customer knowledge sharing events, etc.
- ❖ Build state-of-the-art CRM tools that offer the possibility to codify customer knowledge that can easily be accessed
- ❖ Engage in conversations with customers and establish strong relations

Step Three – Segmentation of customers

Based on the gathered customer data, a company moving towards solutions should engage in thorough customer segmentation exercises in order to define which customers would be open to solutions, which customers to target, keeping in mind to target customers who have similar business needs, are open to cooperation, are likely to generate reusable modules, etc.

We realised that we did a heck of a lot of business with stadiums, stadia, sport stadia, all over the world. When we started doing a deeper dive, it appeared that we had some very unique capabilities that customers that operated stadia really liked. Senior manager at Magic

- ❖ Engage in segmentation exercises, starting from a clean slate, in order to find relevant customers for possible solution offerings
- ❖ Listen to customers, as they can facilitate the search for relevant customer business needs
- ❖ Determine and connect possible solution value propositions to specific customer(s) (segments)

Step Four – Engaging in first projects with lead customers

A company moving towards solutions is bound to take the big jump at some point. Often a company smoothly tumbles into providing an integrated solution based on the relationship with and the needs of a key customer. In other cases, management motivates this move based on a vision of what the future will be, founded on strategic insights. In these cases, FDC's *GPS Brainstorm-kit* might prove valuable when searching for solution concepts to implement. Either way, teaming up with key customers, with whom a solution provider should have a very open communication, offers many opportunities (Cornet et al, 2000, Davies et al, 2006)).

Moreover, a company moving towards solutions should engage in this adventure with an open mind. In other words, it should not restrict itself to the current capabilities it has in-house or its current suppliers. While focusing on its own core capabilities including functional capabilities (e.g. systems integration, technical expertise, outstanding human skills) and project capabilities (e.g. project management) is important, searching for **new partners and suppliers offering different but relevant capabilities** is also a vital aspect of offering solutions (Davies et al, 2006). Future solution providers should explore which type(s) of collaboration suits them best.

Next to that, an absolutely crucial point is **gathering all knowledge generated** from implementing and delivering previous solutions, in order to smoothen the process when other project opportunities arise. Developing or acquiring proficient IT systems to support these efforts, plays an increasingly central role when realizing first projects.

When the first solution projects are being developed, it is often a good idea to give leading sales people, system engineers, account managers or other **key people involved, a higher degree of freedom** when managing such projects, as shown by for example the Barco and Xerox case studies. This freedom offers them the possibility to explore the opportunities, such as teaming up with certain partners or targeting certain specific pilot markets, without having to comply very strictly to standard procedures or requirements. Evaluating and rewarding these 'pioneers' according to different standards than generally applied, can also act as a reinforcing stimulant.

- ❖ Provide the necessary resources to realize first projects
- ❖ Partner up with a key customer in order to realize the first integrated solution projects
- ❖ Give leading managers the freedom to explore and gain from experience
- ❖ Rely on partners and third parties to fill the gaps in the company's capability portfolio
- ❖ Systematically gather and share all knowledge related to the implemented solution projects
- ❖ Look for a signature project that will put the company on the map as a solution provider
- ❖ Share initial successes within the organization

Step Five – Closer involvement of marketing

Having explored what possible solution value propositions can be developed for what type of customer or customer segment, and having gained experience in creating and delivering integrated solution offerings, is it crucial for an aspiring solution provider to **position the company as a true, reliable solution provider.** When communicating to the market, a solution provider needs to make sure to **send a clear and consistent message**, that conveys customer understanding of what exactly it is that the solution provider can do for them. As in some cases the solution provider is also still offering pure products or services, it is vital not to confuse the customer. A possibility to do so consists of creating a separate logo for the solution providing business unit: fencing specialist Betafence, for example, created a separate Betafence Projects logo to adequately position its total perimeter solutions in the market. Other options consist of presenting signature projects, engaging in conversations with customers, passing on correct information to industry analysts, etc.

- ❖ Clearly position the solution providing company as a reliable company that is apt to develop and deliver substantial integrated solution projects
- ❖ Clearly position the value the integrated solution offerings bring to a customer's business
- ❖ Clearly position towards internal parties, partners and suppliers which customers are targeted and which type of projects come into scope for the integrated solutions approach

Step Six – Systematic development of front end and project teams

At a certain point, the increasing demand for solutions requires a solution provider to **create a more efficient and structured front end**. Assembling modular and **cross-functional project teams** that reflect a customer's structure, complemented with external or internal experts, needs to become a **well-oiled process.** Account teams and sales people need to develop and finetune skills that allow them to effectively grasp customer business needs and successfully sell solutions, such as consultative selling skills. Selling solutions implies being able to bring a different message to the client, based on the value created for a client instead of focused on the product or service features. Front end units comprised of project engineers or solution engineers who actually translate the customer need into an actual solutions project, need to be set up or reinforced. If working with partners, partner management becomes increasingly important.

At this stage, the solution provider needs to **evaluate its capability portfolio**. Capabilities that are lacking in the front end need to be acquired: either by transforming existing people and units, by hiring external forces, by bringing in new people, often from the customer's industry or from consulting firms. Very important at this stage is the finetuning of the necessary **project capabilities**: project managers or teams should excel at project management.

The **implementation of clear processes and useful tools** plays a vital role, whether the solutions unit is integrated in the entire company or in a separate business unit. Tools and processes are needed to adequately convey the value created by a solution, to correctly price solutions, to outline the project scope, to obtain buy-in from back end units, to evaluate sales people, etc. As a number of our case studies show, including Newtec, Betafence and Atlas Copco, the implementation of **ISO standards** offers support when defining project delivery processes. In addition, the use of **apt IT systems and programmes** offers tremendous

advantages for front end units that need to gather information, make price calculations, order partner elements, look up previous collaborations, etc.

A final element that needs to be taken into account, is the learning process from project to project, from solution to solution. In order to create repeatable solutions and economies of repetition, systematically **gathered information needs to support the development of subsequent solutions**, as *[…] offering expensive customized solutions for each new customer is not enough to guarantee long-term growth and profitability. The knowledge and experience gained from initial integrated solutions projects must be shared, codified into project manuals and business processes and reused in subsequent projects* (Davies et al, 2006, p.44).

- ❖ Clearly define roles and functions within the front end (See FDC's *Teamscan Tool*)
- ❖ Train the sales people and sharpen their solution selling skills (See FDC's *HR Toolbox*)
- ❖ Clearly define who front end people can address when back end expertise is required
- ❖ Clearly define who is accountable for what aspects of a project
- ❖ Develop P&L responsibility on customer segment or account level
- ❖ Clearly define the additional capabilities needed to strengthen the front end of the business
- ❖ Promote the development of networking skills and collaboration efforts
- ❖ If needed, set up and effectively manage partnerships
- ❖ Develop and integrate the necessary processes and tools to smoothen front end activities
- ❖ Start to implement new business performance criteria and rewards systems for the front end

Step Seven – Aligning the back end to support solution offering

Moving forward in its transition, a solution provider needs to develop a strong and smooth-running back bone that can adequately support the front end when offering solutions. Back end units as well need to transform into customer-focused groups who develop offerings based on customer needs. Still focusing on their core competences, product-based back end units should start developing a portfolio of solution components that can service as building blocks for an integration solution (Cornet et al, 2000). Back end units should create standardized service offerings, a challenging task, especially for product-based companies that need to start from scratch. In sum, both product- and service-based back end units are required to create and/or extend their offering from an integrated solutions point of view, that is building an offering that can serve as components for solutions. However, for back end units, **not engaging in service and product innovation just for the sake of it, but for the sake of creating solutions components,** is often a task which requires a **radical change of mindset**.

Moreover, back end experts, whether in service units or product-based units, will be required to become more **flexible** as the back end will be called on by the front end for expertise or to join cross-functional project-based teams.

Finally, also for the back end the solution provider needs to **evaluate its capability portfolio** (Davies et al, 2006). Capabilities that are lacking in the back end need to be acquired: either by transforming existing people and units, by hiring external forces, by bringing in new people, by making acquisitions of external parties, etc. At this stage, especially **functional capabilities** related to functional effectiveness in product innovation, R&D, finance and other back end domains need to be strengthened and developed, yet always seeking to support the creation of solutions.

- ❖ Clearly define roles and functions within the back end (See FDC's *Teamscan Tool*)
- ❖ Stimulate back end people in becoming customer-centric and flexible (See FDC's *HR Toolbox*)
- ❖ Align the back end portfolio and developments with the front end offerings
- ❖ Stimulate the creation of modular building blocks or platforms
- ❖ Clearly define which additional capabilities are needed to strengthen the back end of the business
- ❖ Clearly define what capabilities are needed in-house and what can be supplied from outside the firm
- ❖ If needed, set up and effectively manage partnerships
- ❖ Start to implement new business performance criteria and rewards systems for the back end

Step Eight – Pulling it all together

Once the back and front end responsibilities and structures are outlined and/or implemented, the next step in the transition consists of aligning these units and the different structures and processes involved. **Aligning the back end and front end IT systems, rewards and incentives structures, and business performance criteria** should be at the centre of attention at this stage.

The strategic centre plays a very crucial part in strengthening the existing structures, as its task is to **balance the back end's drive for standardisation and the front end's preference for customization** (Davies et al, 2006). Moreover, developing **repeatability** in the solutions offer also becomes key. By stimulating the development of building blocks, the learning process from project to project, the creation of for example industry-specific or business challenge-specific solutions that can be redeployed, a solution provider should be able to create competitive advantages since *success in integrated solutions depends on how quickly and easily a company can move from unique to repeatable solutions delivery (*Davies et al, 2006, p.45).

Furthermore, the **services** that constitute the integrated solutions should become **absolute profit centres**. This entails that business sections providing services have their own revenue and cost responsibilities, and should focus on profitability in contrast to cost management. As such, strengthening these services offers competitive advantage: offering training to service units, certifying service providers, developing paying consulting services that can be offered separately, etc.

Finally, to move forward with solutions, **partnerships with customers and suppliers** need to be reinforced. Customer relations are vital, as are relations with suppliers. Sharing knowledge with both customers and suppliers is an integral element of these relations. In particular, as a solution provider broadens its scope and needs to incorporate elements that are not part of its core business, supplier and partner management starts playing a decisive role. Emphasis should then be placed on certifying partners, including and offering partners 'a piece of the pie', offering partners training, establishing exclusive agreements, etc.

- ❖ Align back and front end IT systems
- ❖ Align back and front end rewards and incentives (See FDC's *HR Toolbox*)
- ❖ Align back and front end business performance criteria
- ❖ Stimulate the move towards modules, building blocks or platforms
- ❖ Stimulate the development of industry-specific or business challenge-specific solutions
- ❖ Stimulate knowledge sharing between projects, between units
- ❖ Strengthen the service components of the integrated solutions
- ❖ Strengthen the development of partnerships

Step Nine – Performance management

Having set up a smoothly operating solution providing organisation or business unit, one of the final stages consists on maintaining a **high-level focus on investing efforts** in the further deployment of the solutions organisation. Additionally, the **resulting performance** of a solution needs to be measured and monitored at several levels: project level, customer level, service revenues level, etc. Finetuning tools and processes to do so, is often challenging.

In order to successfully manage a transition towards solutions, it is important also during these final stages to set **realistic goals and long-term milestones** for what is still to come (Cornet et al, 2000). Communicating such milestones or business performance criteria towards partners, customers and/or internal units is crucial. Such milestones or goals can for example include reaching x% of total revenues from service, providing solutions to 7 of the company's top 10 customers, etc.

- ❖ Keep investing in people (See FDC's *HR Toolbox* and *Teamscan Tool*)
- ❖ Keep investing in marketing
- ❖ Keep investing in the development of necessary tools for pricing, cost controlling, sales tools, etc.
- ❖ Keep investing in the reinforcement of necessary processes for customer knowledge creation, partnership management, etc.
- ❖ Set up long-term milestones and celebrate successes

Step Ten – Moving the entire company towards solutions

The previous nine steps can be applied to the entire organisation, integrating the solutions business model in the whole company at once, or to a separate business unit set up to provide solutions. Both options are represented in our research, although most case studies show that a separate unit is first established. Creating a separate solutions business unit offers such a unit the opportunity to grow and develop without having to carry the 'burden' an entire organisation entails, such as for example overhead costs, while still being able to rely on a large part of the back end of an organisation. Going one step further then implies **leaving behind the traditional business model throughout the entire company**. However, as some of our case studies illustrate, some companies are not willing to completely let go of their traditional business model and choose to only implement the solutions selling model in a part of their company. Looking at the extent to which units need to be integrated, the creation of separate service units for solutions can prove crucial to develop ownership for the solutions business. Other firms decide to move the entire company to solutions, supported by the fact that the whole organisation is apt to deal with and complete such a move.
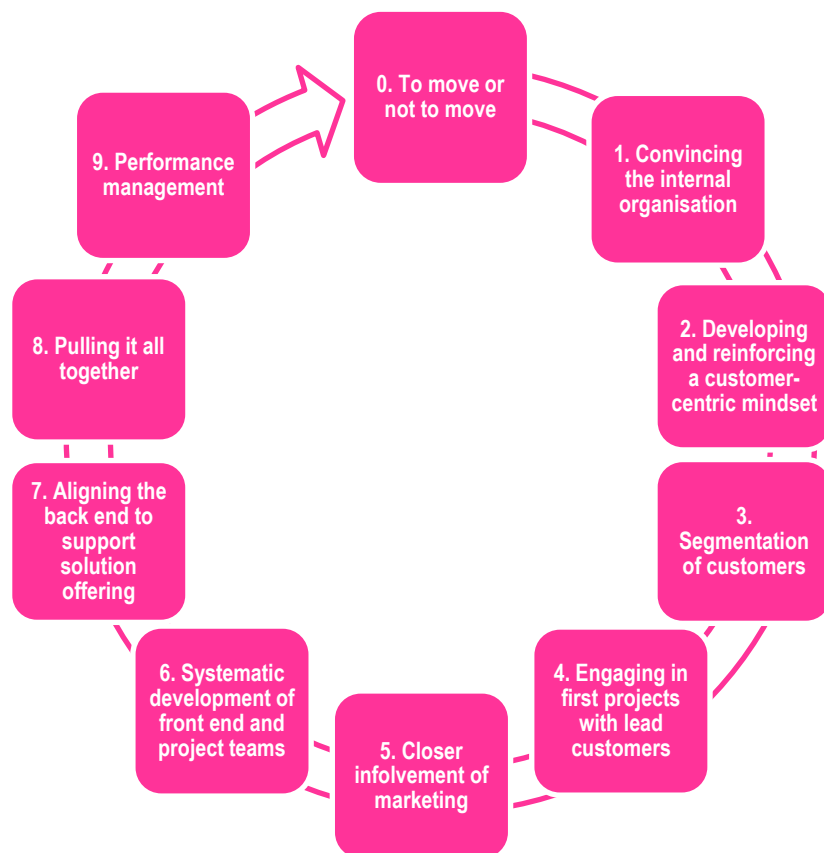
Regardless of whether a company moves its entire business model towards solutions, or whether selling solutions remains a separate business entity within the firm, a final element which requires attention is the dynamic dimension a solution selling business model. As mentioned, the transformational process a firm goes through in order to become a solution provider, is almost never a linear process. It is an iterative process, characterised by successes and setbacks, different speed levels, backward and forward movements, and trial-and-error learning. Moreover, the move towards solutions can also be framed as a cyclical and repeatable move: focussing on solutions requires constant innovation and the business model will continuously need adjustment and optimization. As such, a solution provider must remain flexible to capture and integrate continuously progressing knowledge and acquired insights into its business model.

5.2. MOVING TOWARDS SOLUTIONS IN 10 STEPS – CONCLUSION

Developing the adequate solutions business model and implementing the necessary organisational elements is an iterative process, characterised by trial-and-error learning. The move asks for fundamental changes in the DNA of a firm, and has consequences for the entire business model. As mentioned earlier, this fundamental change does not happen overnight, but is more likely to progress in stages or steps. These steps range from initial strategic choices that need to be addressed, followed by the effective and efficient implementation of the choices made. Step by step, an aspiring solution provider tackles a strategy or implementation related question that defines how the company thinks about solutions and its solution selling business model.

A very important thing to keep in mind while transitioning to solution selling is that the transformational process is almost never linear. It is characterised by different speed levels of implementation and different rates of success. Certain changes necessitate more time than others, certain processes are implemented more easily than others, certain transformations are more costly than others. Moreover, some transformations can be made simultaneously while others cannot be realised without the implementation of previous steps. Ultimately, every change and every transformation should reinforce one another in order to build and strengthen the solution selling business.

Moreover, the move towards solutions can also be framed as a dynamic and repeatable move: focussing on solutions requires constant innovation and the business model will continuously need adjustment and optimization. As such, a solution provider must remain flexible to capture and integrate continuously progressing knowledge and acquired insights into its business model.

Step 0	To move or not to move?
Step 1	Convincing the internal organisation
Step 2	Developing and reinforcing a customer-centric mindset
Step 3	Segmentation of customers
Step 4	Engaging in first projects with lead customers
Step 5	Closer involvement of marketing
Step 6	Systematic development of front end and project teams
Step 7	Aligning the back end to support solution offering
Step 8	Pulling it all together
Step 9	Performance management
Step 10	Moving the entire company towards solutions

6. HOW SOLUTION-MINDED IS FLANDERS?

To assess to what extent companies in Flanders are developing solutions, a quantitative research part was set up. This part focuses on the quantification of the issues, challenges and benefits companies face when innovating their business model, thereby developing a solution selling business model.

6.1. QUANTITATIVE RESEARCH: SAMPLE AND ANALYSIS

To quantify to what extent companies in Flanders are moving towards solutions, an online survey was developed. This survey was targeted towards c-level executives within companies in Flanders who have a good overview of the strategic direction their company is moving into and the related benefits, issues and challenges. The survey questions were developed based on the previously mentioned literature review and case study developments, and focused on the extent to which companies are involved in the development of solutions, the characteristics of these solutions, the benefits companies expect from solutions and the challenges related to becoming a successful solution provider.

The online survey was spread via mailings to a selection of the Vlerick Leuven Ghent Management School database, the Flanders DC newsletter and social media contacts. As an incentive, the research results of the study were promised to the respondents. More specifically, the survey targeting c-level executives in companies in Flanders was answered by general managers, COO's, CMO's, CEO's, business development managers, managing directors, board members, sales directors, etc. In total, 99 respondents filled in the survey. Ultimately, 72 cases were selected for the final data analysis, based on for example survey completion and job title. The research sample includes firms from very different industries and as shown by the graphs below, it includes firms with different firm sizes, business-to-business and business-to-consumer focuses, and product and service backgrounds. Data analysis mainly consisted of descriptive statistics and the development of frequency tables.

Fig 1 Sample description

Legend:
- 0-50
- 50-500
- > 500

38,90% / 37,50% / 23,60%

Pie chart: B2B 61%, B2C 10%, B2B & B2C 29%

Pie chart: Products 49%, Services 51%
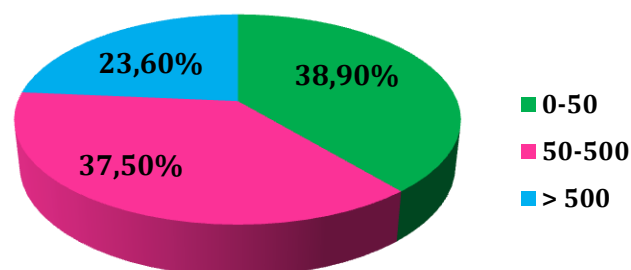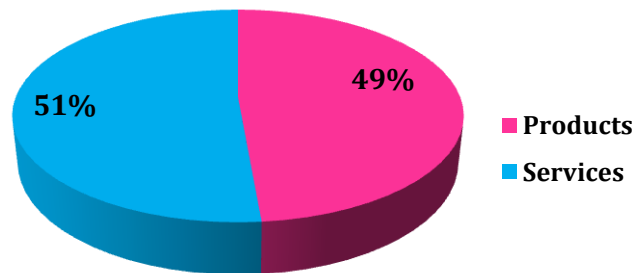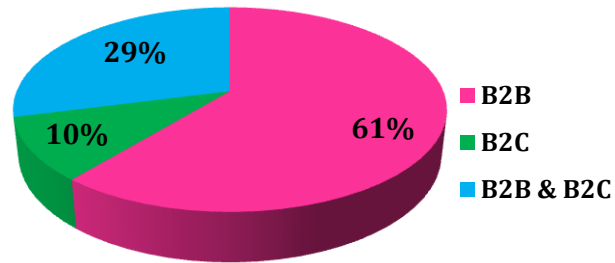
6.2. FINDINGS

6.2.1. Importance of solutions

In first instance, respondents were asked to what extent the topic of solutions is on their company agenda. On average, respondents scored the importance of solutions at 7.4 on a scale of 1 to 10. More than 60% of the 72 cases acknowledged that solutions are a (top) priority on their companies agenda, clearly **indicating the importance of the topic within companies in Flanders**.

Table 2 Importance of solutions (1)

To what extent is offering solutions an item on the agenda of your company?

Stacked bar: 1%, 1%, 7%, 7%, 3%, 6%, 13%, 31%, 11%, 21%

Legend: ■ Not at all ■ 2 ■ 3 ■ 4 ■ 5 ■ 6 ■ 7 ■ 8 ■ 9 ■ Top priority
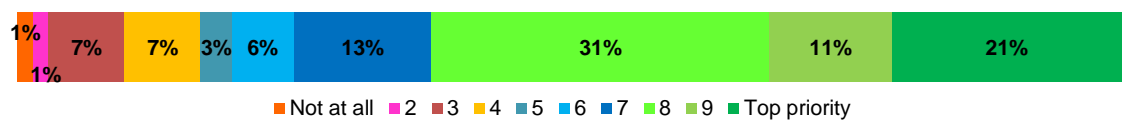
Second, the survey shows that approximately 23% of the cases has reached an advanced stage regarding the actual development of solutions within their organisation. A majority of respondents indicate that their companies are well on its way in the move towards solutions. On average, companies score a 6 on a scale from 1 to 10 regarding their position in the development of solutions.

Table 3 Importance of solutions (2)

In what phase would you position your company in the development of solutions?

| 1% | 3% | 11% | 11% | 8% | 14% | 29% | 15% | 3% | 4% |

■ Not developed at all ■ 2 ■ 3 ■ 4 ■ 5 ■ 6 ■ 7 ■ 8 ■ 9 ■ Reached maturity
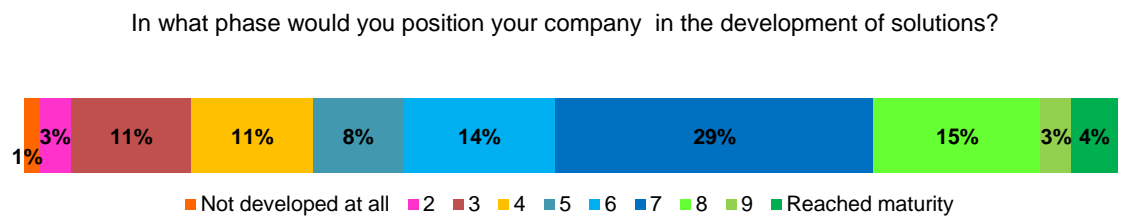
6.2.2. Characteristics of solutions

Based on the first explorations in the data, 53 from the 72 cases where judged to have advanced far enough in the development of solutions to answer more complex questions regarding the development and offering of solutions.

Based on the previously performed case studies and literature review, respondents were asked to evaluate 10 statements on a scale from 1 to 5, 1 pointing to the fact that the statement was absolutely not characteristic for their solutions and 5 showing that the statement was absolutely characteristic for their solutions. All statements reached an average score of 4 or higher on the scale, except for the statement referring to the end responsibility of the company in the development of solutions. These results indicate that **the definition and characteristics of solutions and solution providers proposed in the previous chapters are validated by the quantitative research part**.

The statement *Our company focuses on customers' needs* reached the highest average score (4.58). The second highest mean relates to *Developing a solution requires close collaboration with the customer* (4.47). In third place, *A solution offers value or adds value to the customer's activities* reached a mean of 4.42. The lowest average score (3.81) relates to the statement *Our company assumes end responsibility from beginning to end.*

Table 4 Characteristics of solutions (1)

Characteristic	Absolutely not characteristic	Rather not characteristic	Neutral	Rather characteristic	Absolutely characteristic
Our company develops customized solutions, possibly using modules		4%	8%	55%	34%
The value of a solution is greater than merely the sum of its company		4%	9%	40%	47%
A solution offers added value or adds value to customers' activities			2%	55%	43%
Developing a solution requires close collaboration with the customer		2%	9%	28%	60%
Developing a solution requires close collaboration with third parties		6%	17%	43%	34%
Our company focuses on customers' needs			2%	38%	60%
Our company offers support as the customer defines his needs		4%	13%	42%	42%
Our company takes end responsibility from beginning to end	2%	4%	25%	51%	19%
Even after implementation, our company offers the necessary support		6%	11%	57%	26%
Our company integrates and combines different product, service and system components	2%	2%	11%	49%	36%

- ■ Absolutely not characteristic
- ■ Rather not characteristic
- ■ Neutral
- ■ Rather characteristic
- ■ Absolutely characteristic

Moreover, regarding which services are offered, the survey shows that 60% of the firms in the research sample typically offer operational services such as maintenance, upgrades, technical support, spare part management, operational responsibility, etc. Even more important are the consultancy services, which include consultancy activities ranging from advice during the development of the solution until intelligence regarding the final maintenance phases. With a mean score of 4.02 on a scale of 1 to 5, more than 70% of our cases state that such consultancy is a characteristic of their solutions. Less characteristic are the financial services, such as special payment conditions and financial support during the development of a solution. 32% of our respondents find these services rather or absolutely characteristic for their solutions (mean = 2.68).

Interestingly, approximately 60% of the respondents indicate that paying for the added value of services that are part of a solution, is rather or absolutely characteristic. 15% of the sample rather or absolutely do not agree with this statement.

Furthermore, the survey shows that 25% of the 53 cases indicate that having a separate unit for solutions is rather or absolutely characteristic. 60% of the firms find a separate unit rather or absolutely not characteristic. The mean for this statement attains 2.36 on a scale from 1 to 5.

Table 5 Characteristics of solutions (2)

	Absolutely not characteristic	Rather not characteristic	Neutral		
Our company offers operational services	13%	15%	9%	34%	28%
Our company offers consultancy services	0%	9%	19%	32%	40%
Our company offers financial services	28%	25%	15%	15%	17%
The customer pays for the added value services that are part of solutions	6%	9%	25%	38%	23%
Within our company, a separate unit is responsible for solutions	34%	26%	15%	19%	6%

6.2.3. Share of solutions in total company turnover

The analysis shows how more than 50% of the respondents indicate that today, the share of solutions in their company's total turnover is between 0 to 40%. Approximately 26% states that solutions are responsible for 60% to 100% of their company's turnover. However, when asked how this should evolve and what the share of solutions should be within 1 to 3 years, the graph below shows a clear evolution towards a larger share of solutions in companies' turnover. Around 48% of the respondents claim solutions should have a share of 60% to 100% in the company turnover within the next 1 to 3 years. Based on means, the survey results show that on average solutions account for 40% to 50% of today's turnover, while respondents state that within 1 to 3 years, they should account for 60% to 70% of company turnover on average. These results are in line with the previous question regarding the priority of solutions on company agenda's, thereby indicating the **growing importance giving to solutions**.

Fig 2 Share of solutions in company turnover

Today's share of solutions in company turnover

28%
26%
19%
11%
15%

■ 0-20%　■ 20%-40%　■ 40%-60%　■ 60%-80%　■ 80%-100%

Share of solutions in company turnover within 1 to 3 years

8%
19%
26%
25%
23%

■ 0-20%　■ 20%-40%　■ 40%-60%　■ 60%-80%　■ 80%-100%
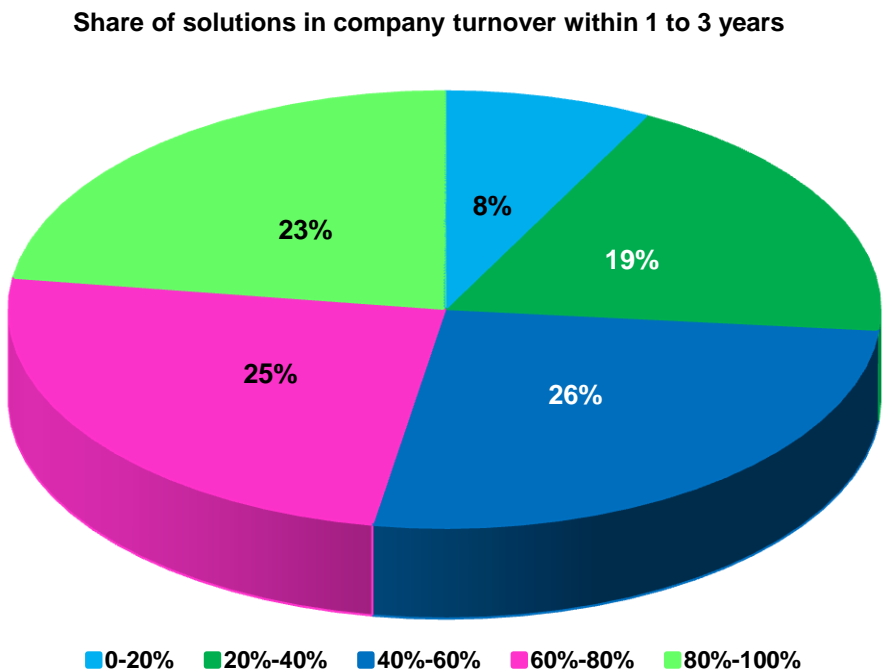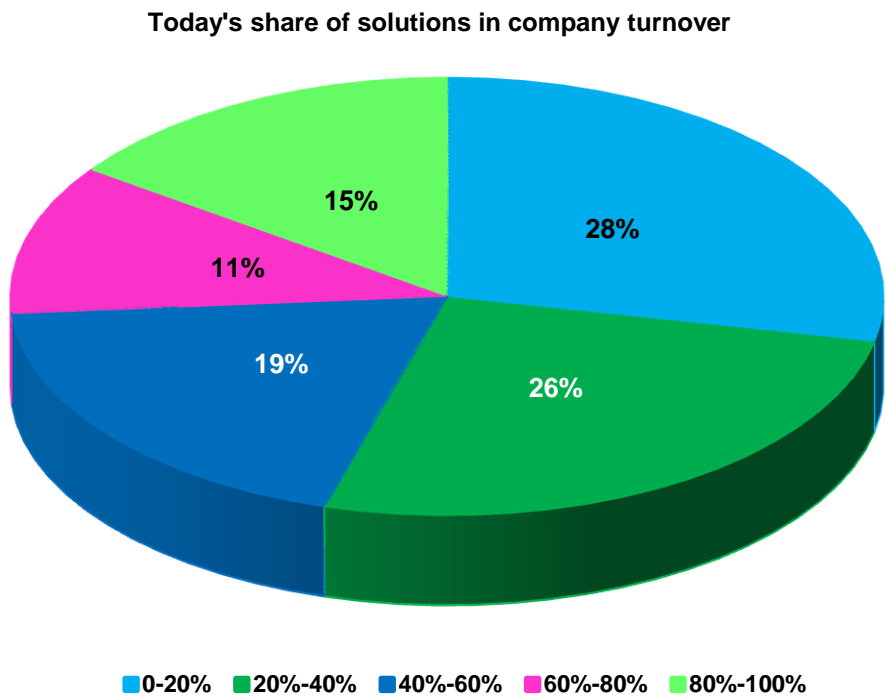
6.2.4. Drivers behind solutions

What are the drivers that instigate companies in Flanders to provide solutions? The table below shows the importance of the drivers behind solutions in a descending manner. On a scale from 1 to 5, 1 implying that the respondent totally did not agree and 5 pointing to a respondent totally agreeing, the 53 selected cases pointed out the following three statements as the **main drivers** behind solutions: *Our company wishes to strengthen its **ties with customer*** (mean = 4.45), ***Customers increasingly demand and expect more services*** (mean = 4.36) and *Our company is looking for **new market opportunities*** (mean = 4.34). On the other hand, the respondents indicated that *Services require less investments* represents a less influential driver of solutions (mean = 2.79).

Surprisingly, the statement *Our products/services have become commodities: the differentiation with competitors' offerings is fading* also ended up at the botto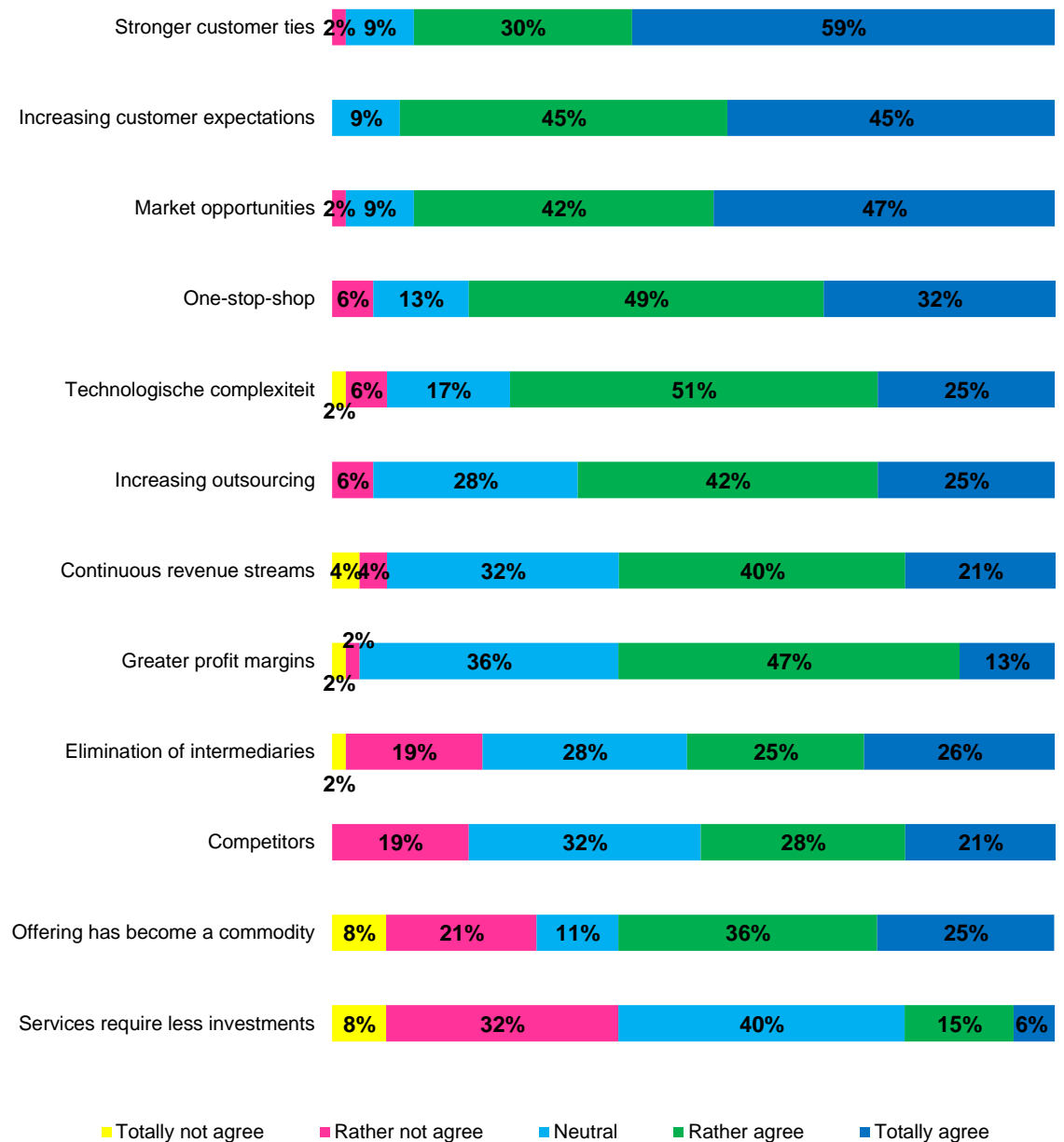m of the list (mean = 3.49) . However, the standard deviation is the highest for this item (1.280), indicating that the opinions regarding this statement vary strongly. Indeed, the frequency charts for these drivers show that although 61% of the cases rather or totally agree with the statement regarding commodity, an important 8% totally do not agree and 21% rather not agree. This could imply that certain firms moving into solutions do not think of their core products or services as commodities and for these firms other drivers thus play a more important role.

Table 6 Drivers of solutions (1)

What are the drivers that (have) instigate(d) your company to move towards solutions?	Mean	Std. Deviation
Our company wishes to strengthen its ties with customers	4.45	.748
Customers increasingly demand and expect more services	4.36	.653
Our company is looking for new market opportunities	4.34	.732
Customers are increasingly looking for a one-stop-shop: they wish to decrease the number of parties they are involved with	4.08	.829
Customers increasingly demand solutions because of the technological complexity of our offering	3.91	.904
Customers increasingly outsource (part of) their activities	3.85	.864
Services offer more continuous revenue streams	3.70	.972
Services offer greater profit margins	3.68	.803
Our company wishes to eliminate a number of intermediaries	3.55	1.136
Our competitors offer solutions	3.51	1.031
Our products/services have become commodities: differentiation with competitors' offerings is fading	3.49	1.280
Services require less investments	2.79	.988

Table 7 Drivers of solutions (2)

	Totally not agree	Rather not agree	Neutral	Rather agree	Totally agree
Stronger customer ties		2%	9%	30%	59%
Increasing customer expectations			9%	45%	45%
Market opportunities		2%	9%	42%	47%
One-stop-shop		6%	13%	49%	32%
Technologische complexiteit	2%	6%	17%	51%	25%
Increasing outsourcing		6%	28%	42%	25%
Continuous revenue streams	4%	4%	32%	40%	21%
Greater profit margins	2%	2%	36%	47%	13%
Elimination of intermediaries	2%	19%	28%	25%	26%
Competitors		19%	32%	28%	21%
Offering has become a commodity	8%	21%	11%	36%	25%
Services require less investments	8%	32%	40%	15%	6%

6.2.5. Actual benefits of solutions

The table below shows the importance of the benefits of solutions in a descending manner. Observing the actual benefits of solutions for companies in Flanders, the survey shows that firm indeed obtain the much wanted stronger customer ties, in accordance to the results on the drivers for moving into solutions. With a mean of 4.40 and 87% of the respondents rather or totally agreeing with this statement, this benefit tops the list. The second and third main benefits are *The possibility to differentiate its offering* (mean = 4.26) and gaining *Competitive advantage over other market players* (mean = 4.25). Overall, the respondents agree that solutions lead to a number of benefits, as observed in the developed case studies, thereby supporting the qualitative research results presented in the previous chapters.

Table 8 Actual benefits of solutions (1)

What did your company actually gain from offering solutions?	Mean	Std. Deviation
Closer customer ties	4.40	.716
The possibility to differentiate its offering	4.26	.738
Competitive advantage as opposed to other market players	4.25	.731
Greater market opportunities in existing markets	4.19	.735
Access to new customers or new markets	3.92	.997
More continuous revenue streams	3.83	.935
Greater profit margins	3.57	.636
The opportunity to eliminate intermediary parties	3.47	1.103
Fast market adoption of new services, products or technologies	3.36	.982

Table 9 Actual benefits of solutions (2)
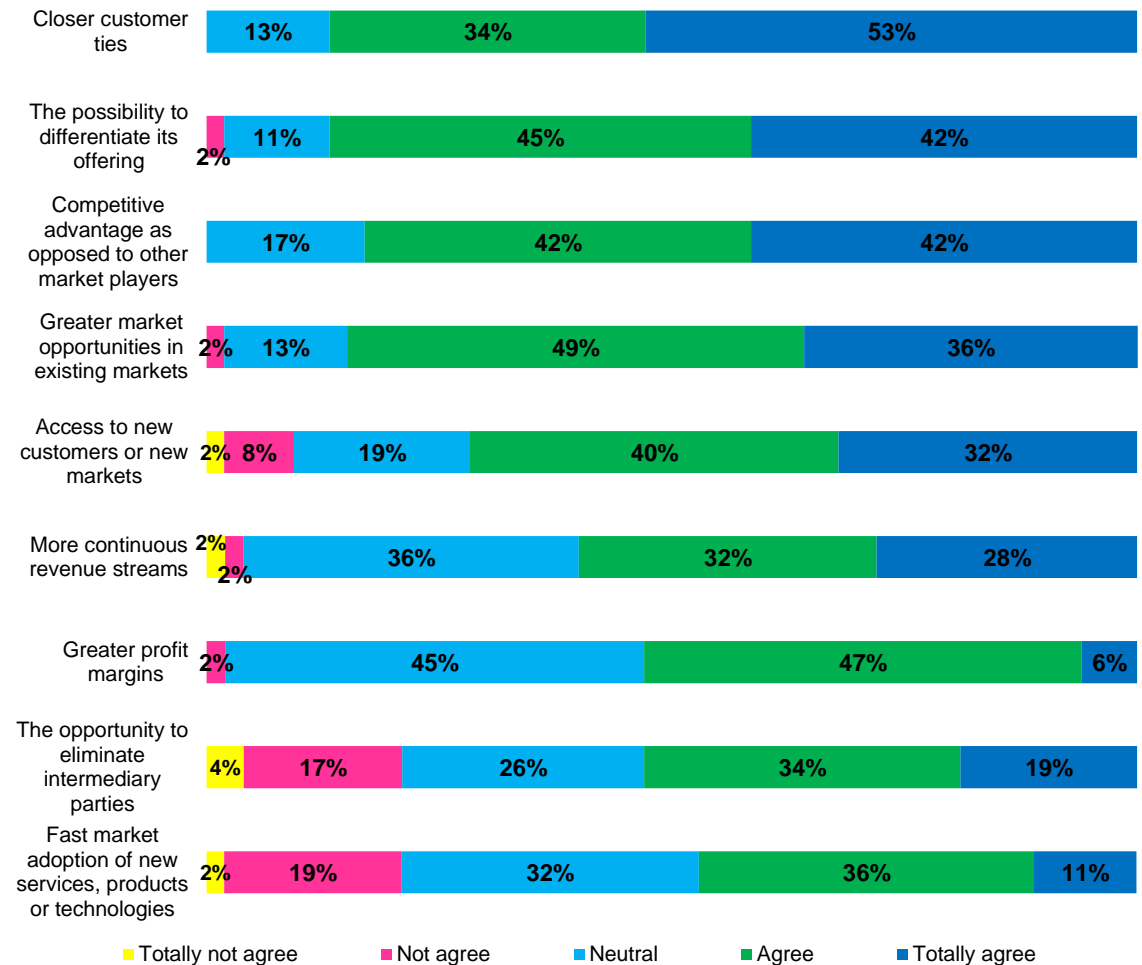
6.2.6. Challenges in the move towards solutions

Regarding possible challenges a company faces when moving into solutions, on a scale of 1 to 5 respondents evaluated to what extent the items in the table below were absolutely not a challenge, not really a challenge, rather a challenge, or absolutely a challenge. Respondents could also indicate if an issue appeared irrelevant to the respondent's context. Consequently, starting from the 53 cases in the sample, the analysis of each statement only includes those cases for which the statement appeared relevant to their context.

The table below shows the importance of the challenges of moving into solutions in a descending manner, based on means. The following elements represent the **biggest challenges**: *Find and keep the **right profiles** for solutions* (mean = 4.22), ***Prize a solution** the right way: profitable for the company, acceptable for the customer* (mean = 4.00), ***Standardize complex solutions for customers with the same needs*** (mean = 3.98). These three challenges also surfaced as crucial to tackle in the developed case studies presented in the previous chapters. Overall, **respondents agreed that the items presented below can indeed be considered as challenging when moving into solutions**.

Interestingly, the item with the lowest score is ***Obtaining the needed support from top management*** (mean = 2.32). This item also has the largest standard deviation score (1.218), which implies the opinions of the respondents vary more broadly on this item. While this element is a crucial aspect for becoming a successful solution provider, as the developed case studies showed, it **does not appear to be a primary issue** for over 75% of the companies in Flanders moving into solutions. In other words, top management seems to be convinced of this move for these firms. As shown in the frequency charts of table 10 below, 76% of the cases state that this is absolutely or rather not a challenge, while 20% indicates that obtaining the necessary support from top management is indeed rather or absolutely a challenge.

Table 10 Challenges when moving towards solutions (1)

When moving to solutions, to what extent is/ was it a challenge to…	Mean	Number of cases	Std. Deviation
Find and keep the right profiles for solutions	4.22	50	.840
Prize a solution the right way: profitable for the company, acceptable for the customer	4.00	50	.782
Standardize complex solutions for customers with the same needs	3.98	48	.812
Successfully integrate and combine products and services	3.94	52	.958
Transform salespeople into solution selling sales people	3.94	49	.944
Develop modules or building blocks that can be configured into solutions	3.90	48	.692
Position the company as a successful solution provider in the market	3.86	50	.969
Segment customers the adequate way and identify the right target group for solutions	3.83	52	1.004
Learn project by project and develop an advantage by doing so	3.82	51	.932
Develop services with added value	3.82	51	.865
Point out the added value of the solution to the customer	3.79	52	1.035
Understand what customers expect from a solution	3.78	51	.986
Develop a very customer-focused mentality within the organisation	3.76	51	1.176
Adequately evaluate and reward results and performance	3.71	49	.913
Develop the necessary customer knowledge	3.69	52	.940
Ensure a good collaboration with suppliers and partners	3.68	50	1.019
Ensure a good collaboration between the different units and teams in the organisation	3.67	52	1.043
Convince the internal organisation of the benefits of solutions	3.52	46	1.150
Obtain the needed support from top management	2.32	47	1.218

Table 11 Challenges when moving towards solutions (2)

Challenge	Absolutely not a challenge	Not really a challenge	Neutral	Rather a challenge	Absolutely a challenge
Find and keep the right profiles for solutions		4%	14%	38%	44%
Prize a solution the right way: profitable for the company, acceptable for the…		4%	18%	52%	26%
Standardize complex solutions for customers with the same needs		4%	21%	48%	27%
Successfully integrate and combine products and services	2%	6%	19%	42%	31%
Transform salespeople into solution selling sales people		8%	22%	37%	33%
Develop modules or building blocks that can be configured into solutions		4%	17%	65%	15%
Position the company as a successful solution provider in the market		14%	12%	48%	26%
Segment customers the adequate way and identify the right target group for…	2%	10%	19%	42%	27%
Learn project by project and develop an advantage by doing so		12%	18%	47%	24%
Develop services with added value	2%	6%	18%	57%	18%

■ Absolutely not a challenge ■ Not really a challenge ■ Neutral ■ Rather a challenge ■ Absolutely a challenge

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Table 11 Challenges when moving towards solutions (2) (continued)

	Absolutely not a challenge	Not really a challenge	Neutral	Rather a challenge	Absolutely a challenge
Point out the added value of the solution to the customer	2%	12%	19%	40%	27%
Understand what customers expect from a solutions	2%	12%	14%	51%	22%
Develop a very customer-focused mentality within the organisation	6%	14%	6%	47%	28%
Adequately evaluate and reward results and performance		10%	29%	41%	20%
Develop the necessary customer knowledge	2%	10%	23%	48%	17%
Ensure a good collaboration with suppliers and partners		18%	18%	42%	22%
Ensure a good collaboration between the different units and teams in…	2%	12%	29%	33%	25%
Convince the internal organisation of the benefits of solutions		30%	9%	39%	22%
Obtain the needed support from top management	21%	55%	4%	9%	11%

■ Absolutely not a challenge ■ Not really a challenge ■ Neutral ■ Rather a challenge ■ Absolutely a challenge

6.3. HOW SOLUTION-MINDED IS FLANDERS – SUMMARY

The exercise to quantify the importance of the topic of solutions in Flanders clearly reveals that **solutions are a priority for a large body of firms** (60%), thereby confirming the findings derived from literature and the previously developed case studies. Moreover, the survey shows that approximately 23% of the cases has reached an advanced stage regarding the actual development of solutions and a majority of companies is well on its way in the move towards solutions.

Based on the sample of firms actually moving towards solutions, the survey results show that on average solutions account for 40% to 50% of today's turnover. Approximately 26% states that solutions are responsible for 60% to 100% of their company's turnover. However, when asked how this should evolve and what the share of solutions should be within 1 to 3 years, the results shows a clear evolution towards a larger share of solutions in a company's turnover. On average, respondents state that within 1 to 3 years, solutions should account for 60% to 70% of company turnover. These results are in line with the previous question regarding the priority of solutions on company agenda's, thereby indicating the **growing importance giving to solutions**.

Regarding the characteristics of solutions, the definition and **characteristics of solutions and solution providers** presented in the previous chapters, are validated by the quantitative research part. The top three characteristics include the focus on **customer needs, the need for collaboration** with customers when developing a solution and the fact that a **solution adds value to customer activities**. Furthermore, regarding which services are offered, the survey shows that 60% of the firms in the research sample typically offer **operational services**. Even more important are the **consultancy services**, as more than 70% of firms state that such consultancy is a characteristic of their solutions. Less characteristic are the financial services (32%).

The **main drivers** behind solutions are the wish to **strengthen customer ties**, **the increasing demand for services** and the search for **new market opportunities**. Observing the **actual benefits** of solutions for companies in Flanders, the survey shows that firm indeed obtain the much wanted **stronger customer ties**. Other benefits are the possibility to **differentiate firm offerings** and gain **competitive advantage over other market players.** Overall, the respondents agree that solutions lead to a number of benefits, as observed in the developed case studies, thereby supporting these qualitative research results.

Regarding the **challenges** companies face when moving towards solutions, the capability to find and also retain **the right employees for solutions** appears to be the largest challenge. Moreover, **prizing** a solution the right way and **standardizing** complex solutions for customers with the same needs equally seem challenging. Interestingly, **obtaining the needed support from top management does not appear to be a primary issue** for over 75% of the companies in Flanders moving into solutions. In other words, top management seems to be convinced of this move for these firms.

In sum, this quantitative research part strongly confirms the observations and insights resulting from the case studies. While moving towards solutions becomes increasingly crucial for firms, tackling the challenges associated with this transformation becomes equally important.

7. CONCLUSION

Due to increasing customer expectations, commoditisation, technological complexity and the search for new market opportunities, today many firms venture into the development of total solutions. Such solutions are characterised by their focus on customer needs, integration, customization and the fact that they are worth more than the mere sum of their components. A solution adds value to a customer's activities by reducing customer costs, increasing customer revenues and/or taking over customer responsibilities or risks.

Integrating value-added services into their product/service offerings, thereby accessing the economic value related to servitization, solution providers pursue stronger customer ties, higher profit margins and a competitive advantage in relation to other market players. Further advantages of selling solutions include customer loyalty, retention and lock-in, access to customers previously outside the solution provider's market scope, and rapid market adoption of complex technologies.

As firms in Flanders increasingly move towards solutions, a growing number of them innovate their current business model, transforming it into a solution selling business model. The specific configuration of a solution selling business model adequately offers a solution provider the opportunity to create a sustainable competitive advantage, thereby opting for differentiation as competitive strategy.

Moreover, moving towards solutions implies aligning the entire organisation with the envisioned solution selling business model. As the elements of the business model need to be transformed, so do the different organisational and structural pillars that support the solution providing business model. These organisational pillars include the culture and values, the structure and processes, the incentives and measurements, and the competitive capabilities of a company.

Based on a range of key success factors related to changing organisational and business model elements, we present the following 10 step plan to move towards solutions.

Step 1	Convincing the internal organisation
Step 2	Developing and reinforcing a customer-centric mindset
Step 3	Segmentation of customers
Step 4	Engaging in first projects with lead customers
Step 5	Closer involvement of marketing
Step 6	Systematic development of front end and project teams
Step 7	Aligning the back end to support solution offering
Step 8	Pulling it all together
Step 9	Optimizing performance management
Step 10	Moving the entire company towards solutions

Developing the adequate solutions selling business model and implementing the necessary organisational elements required, is an iterative and phased process, characterised by trial-and-error learning. The transition consists of moves and changes that occur at different speed levels and entail different rates of success. Ultimately, every change and every transformation should reinforce one another in order to build and strengthen the solution selling business.

8. READING SUGGESTIONS

Would you like to learn more on…

… business model innovation?

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