

2 Enterprise Transformation – Ensuring the Benefits of IT are Achieved

Identifying value-enhancing IT projects in IT strategy is an important step towards promoting the innovative power of the company and increasing its market share and competitive chances. Whether or not the benefits of future-oriented IT projects are achieved, however, depends on whether the users actually take advantage of the possibilities of IT in their daily business.

In the 1970s, when the first accounting systems were introduced to automate accounts payable departments, which up to that point had been paper-based, the structures and processes of only one unit had to be changed to realize the benefit of IT. With today's IT systems, however, this adjustment is no longer restricted to one closed unit within the company. The IT technologies mentioned in Part 1, Chapter 1, e.g. Customer Relationship Management (CRM) and Product Lifecycle Management (PLM), are holistic concepts that necessitate a complete modification of views pertaining to the handling of customers (in the case of CRM) or in the orientation of engineering, production and after-sales services (in the case of PLM).

The greater the significance of IT for the performance output of enterprises (regardless of the industrial sector or size) and of public institutions, the more these changes in the company also call for modifications to the IT system, and vice versa: if the IT system is modified, the company must also adjust accordingly. A company can only realize the benefit of IT for its business operations if the mindset of the employees and their working methods, its operations, structures and often even its interface to customers suppliers are all oriented to the new IT applications and infrastructure. We refer to these changes as IT-driven enterprise transformation.

Such enterprise transformation addresses strategic and operative aspects, as opposed to business process reengineering, which deals primarily with the processes. Contrary to restructuring, which in practice often only takes place as a reactive alignment in the event of a crisis situation, but which is intended to represent a proactive alignment of the changing external framework conditions of the company, enterprise transformation is an extensive, fundamental modification of the company, which is generally initiated by strategic decisions made by the proprietor/CEO. A classic example of enterprise transformation is the transformation of an in-house service provider, which to date served only one customer, the parent company, into an independent company that is to successfully acquire and develop business in an outside market. In such a case, it is necessary not only to create operative conditions (e.g. client-enabled systems), but also to ensure a fundamental transformation: Away from an in-house service provider focused on one customer, who is also the owner, and towards a company with distribution competence,

service orientation and competitive cost structures (*cf.* Part 3, Chapter 2, ‘In-House IT Service Providers’).

It has been our experience that not all enterprises combine IT modification with enterprise transformation. There are still IT projects being carried out without planning the necessary changes to the business. This can only lead to conflict: On the one hand, the time and expense for coordinating IT and the business as well as the extent of such adjustments are often underestimated. On the other hand, the potential of IT is not taken into consideration in the planning – and therefore cannot be delivered. IT then earns the reputation as a cost driver and becomes a hindrance for meeting company goals, because at a certain point in the IT project the question inevitably arises of whether the planning should be changed so that the IT potential can be developed, or whether a sub-optimal implementation should continue – with too few IT benefits, but too high IT costs.

In a concrete example, at the end of the 1990s a capital goods manufacturer decided to switch from SAP R/2 to SAP R/3. The reason given by the IT department was a technical one that SAP R/2 was going out of service, and so the migration from SAP R/2 to SAP R/3 began. As IT capacities were tight, they decided to leave operations and structures essentially unaltered, except for some minor improvements, i.e. integrate them into the new SAP R/3 system status quo. Three years and a good 40 million euros spent on IT/SAP projects later, senior management was wondering about the sense of this exercise and what had actually been achieved. Although the SAP conversion resulted in many small and also some larger improvements, the company had thrown away decisive potential benefit by not using the migration as a chance for a systematic improvement and for streamlining their business processes and business structures, as well as altering thinking and behavior patterns (for example for faster processes in production and the consequential possible reduction of inventories). As a result, the enterprise anticipates a repeat performance: the business processes and business structures will be systematically modernized and then integrated into SAP R/3 and based on that, the thinking and behavior patterns of the employees will be altered – which should amount to the same expenditure as introducing SAP R/3 the first time around.

The better, more modern procedure consists of installing IT as a trigger mechanism, driver and designer of the transformation process. Naturally, IT is in this case not an end in itself: The goal of enterprise transformation is always the impact on the business operations of the company. Nevertheless, the trigger for transformation does not necessarily have to lie in the business operations – on the contrary: Often it is already too late for successful changes if the business is forcing them. Therefore, changes in IT technology that will open up new markets or customer potential for the company should be used as a reason for enterprise transformation.

A good example of this is a beverage bottling company making IT-driven changes in the area of route planning for its maintenance and deliveries. In the past, the employees did

maintenance work on beverage vending machines, following routes that were mapped out first thing in the morning; they delivered beverages to restaurants, hotels etc. and other businesses and restocked the vending machines. If a customer required a delivery on short-term notice, several telephone calls had to be made between the office and the drivers of the various locations to inquire about the available quantities, in order to then decide who should make the delivery. Delivered quantities were jotted down on paper and in some cases paid for on the spot in cash. These transactions frequently contained calculation errors or manipulations in the invoices and the information about the quantities actually delivered was rarely available immediately.

In the meantime, however, IT offers a solution that has widespread effects on business processes: The maintenance staff and drivers of the delivery trucks now have handheld computers, which automatically transmit the location of the driver to an IT application in the main office. Possible changes to the planned route are transmitted back to the handheld, which immediately connects to the beverage vending machines to check on their quantities. In addition, the handhelds enable cashless payments to be made with debit or credit cards, they prepare and print delivery notes and invoices and transmit the data on delivered quantities to the inventory and distribution systems in the main office. This eliminates the time-consuming follow-up checking of routes at the end of the day, including correcting errors, the drivers are able to use their time for deliveries and not for paper work, and information about the delivered quantities is available immediately. Intelligent vending machines, which automatically send out refill orders as soon as they drop below a pre-defined quantity level, enable even greater optimization of the route planning, and lost sales due to empty vending machines can be prevented.

Extensive, IT-driven enterprise transformation achieves not only increased efficiency on the level of the business processes, business structures and improved thinking and behavior patterns, but also creates value enhancement potential for the company through increased sales. On the level of business processes (and of the business structures as well as thinking and behavior patterns) enterprise transformation enables a more efficient execution of the daily business, for example by increasing the degree of automation. This in turn makes it easier for employees to carry out routine tasks and at the same time decreases error rates. Additionally, the transformed business processes enable better cooperation with customers and suppliers. For example, the time-to-market for new products can be shortened for manufacturing companies or the decision time and quality for approving credit applications at financial service providers can be cut down, so that new customers can be more easily acquired and existing customers bonded more closely to the company.

Additional sales and profits are made possible by the fact that previous back-office areas are independent and can offer their services to third parties – on the basis of a suitable IT platform for this. This is done, for example, by installing an IT service provider in such a

way that, for example, the IT of a machine/plant engineering can also do work for other manufacturing firms, or by opening up the IT transaction platform of a financial service provider in order to work together with other financial service providers with similar or identical transaction types, in order to realize economies of scale.

However, achieving improvements in business operations with IT requires a new understanding of the function of IT in the company, and places far-reaching demands on those in charge, not only in the IT department but also in the business units: IT managers must be in a position to actively introduce innovative IT solutions with suggestions for organizing business processes and business structures, and consequently to instruct management personnel. Naturally this creates conflict potential with the business units, as they must come to believe that the IT department is not merely a 'support feature such as the system in finance and accounting, but rather that IT as an enabler for business has an active right to have a say or even an obligation to reorganize the processes and structures, as well as the thinking and behavior patterns of the staff in the business units.

But honoring this position also requires additional skills on the part of management personnel and the staff of the IT department. They must consider themselves to be the creators of the business. Therefore, to a growing extent not only specialist knowledge about IT technology, but also fundamental strategic and operative know-how about the long- and short-term organization of the business is key. Only then can the IT department play this role competently – and also implement it in a credible way. If the capability profile and training program for IT managers and IT employees are redesigned, then the technically competent 'IT fiddler' will be superseded by someone with a degree in information management, who is well-versed in business and social skills. The professional development of such a person would consist, for example, courses in the logistics module of standard business administration software provided by the software manufacturer, visiting strategic logistics conferences and relevant sector conferences. This would facilitate an evaluation of the potential benefit of the logistics module for current and future competitive requirements (also in terms of today's possibilities) and a best practices comparison with other logistics users, so that it can be implemented for the success of the company.

Planning and controlling IT-driven enterprise transformation

In today's world, introducing a future-oriented, innovative IT system is no longer just a question of the right project management. Planning an enterprise transformation must be part of strategic corporate strategy. Transformation alters the entire enterprise including the interfaces to external market partners, and often entails changes for customers or suppliers too. The planned changes are not to be oriented to the existing environment, but rather must include creative new solutions. Due to the long time needed for enter-

prise transformations and their scope, it should also be expected that the external framework conditions will change during enterprise transformation implementation, and it must be ensured that the IT benefit can also be realized on unplanned developments. It is also absolutely necessary to actively control enterprise transformation and ensure its sustained success through risk and benefit management.

Strategic planning of enterprise transformation

The changes necessary for implementing IT benefit must be systematically planned across the entire value added chain, including all interfaces to customers and suppliers as well as, if necessary, supervisory authorities and other interest groups. Of course both the value added chains itself and the vertical scope of the company should be checked as part of transformation planning.

Besides the necessary external orientation, enterprise transformation means that fundamental changes are necessary throughout the entire company, and also beyond the borders of business units and subsidiaries (at least if the company has a close solidarity with mutual suppliers and service relationships and is not merely a collection of financial interests). As a rule, related business units develop their own information technology solutions and specific business processes. The standardization of such partial solutions eliminates the processing of redundant data so that the business processes, and often also the business structures, can be harmonized.

In the case of an aircraft manufacturer, the engineering department had the goal of introducing new software to make product development more efficient. Although important and practical, the goal of better customer orientation could not be reached with this measure alone. The information about the contractually agreed design options as well as any modifications to the design desired by the customer after the product launch were held up in marketing and usually reached the engineering department after a delay, by which time new plans for the design had already been drawn up.

By linking the engineering data with the data of the marketing department, the engineering department was immediately informed about the wishes of the customer, unnecessary reengineering and design modifications were avoided and the product development process was accelerated.

Similar successes can be realized in many other sectors. IT also supports optimizing the vertical scope in enterprises. Improved data storage and data transmission enable the outsourcing of (partial) processes particularly in cross-section functions (called 'business process outsourcing'), but also in the operative area, as the information is available independent of company limits. For example, the outsourcing of administrative human resources processes is gaining increasing significance, as many firms do not see their core competence in this area of work and therefore pass their human resources issues on to

specialized service providers. The relevant human resources data, of course, are available to the enterprise at all times. Financial service providers also frequently use the possibility in the operative area, to focus on certain segments of the value added chain (for example product development and marketing) and pass on other segments (for example transactions) to third parties. This concentration on selected parts of the value added chain would not be possible without efficient IT systems, as a close connection between transactions and marketing is essential. Thanks to IT, such a connection can even be successfully realized outside the boundaries of the enterprise.

Considering the IT requirements of customers and suppliers is an important step in successful enterprise transformation. However, experience has shown that the creative involvement of customers and suppliers often delivers requirements that are oriented to the status quo. This limitation must be eliminated jointly – whereby changes made by the company to the interfaces of its customers and suppliers will lead to further transformation projects in their IT departments and business processes, and this ‘snowball effect’ then triggers an avalanche of IT-driven enterprise transformations – with potential benefit for all parties involved. This happens, for example, when a large automobile or logistics group transfers its purchasing to a marketplace in the Internet, forcing its suppliers to either go along with this step – or, worst-case scenario, to lose its turnover with this group.

As part of the transformation of a mechanical engineering company, its customers were specifically asked about their IT and process requirements. Most of the customers, when searching for improvements, were not able to mentally divorce themselves from existing IT solutions and essentially proposed smaller,

Tips for planning enterprise transformation:

- Effective involvement of external partners: Obviously, only the most important customers are integrated in the transformation project, so that their requirements can be taken into consideration as fully as possible. In this respect, the most important suppliers should also be involved in order to eliminate unnecessary, cost-incurring back-up inventories from the supply chain through better demand management.
- Courage for ‘creative destruction’: When looking for improvement potential in its structures and processes, a company should always be open to new, innovative concepts and not restrict its creativity to optimizing existing components. Developing the possibilities of IT requires the courage to analyze, and even remove existing structures and to try out new solutions, even if they appear unusual at first glance.
- Only those who have big plans will achieve big objectives. IT enables revolutionary improvements not only within the company but also externally. Small, marginal improvements cannot realize sustained IT benefits.

‘evolutionary’ changes. For example, one customer wanted information that had been circulated in paper form as one copy to be circulated in future in quadruplicate copies. The company, however, had already planned the elimination of paper through the close, inter-company linking of information. The customer could only be convinced of the advantages of such IT-assisted information transmission after he had evaluated the potential benefit that would result for him. In order to achieve benefit enhancing changes with IT, it is necessary to confront external market partners, such as customers and suppliers, with IT solutions that are perhaps completely new for them, and to give them time to come to terms with these ‘revolutionary’ changes.

When planning IT-driven enterprise transformation, IT managers are aware that evaluating future framework conditions (which planning is based on) will cause uncertainty. Therefore, as a rule, several planning scenarios are drawn up that take into consideration the various possible developments of the framework conditions and which mostly have a similarly high probability of occurring. All the more surprising it is to see that, in practice, of the planning-based scenarios of future framework conditions, often only one scenario is chosen to be used as the basis for the IT solution. All too often, a different scenario of corporate development occurs during IT realization, for which the IT has not been programmed. This ruins the IT benefit if the IT department is not in a position to deal with the new scenario – which in the meantime has already become a reality.

Choosing a robust IT solution to cover several future scenarios can counteract this danger. At the planning stage, the elements that represent the goals of enterprise transformation must be carefully chosen to allow for easy modification if the framework conditions are changed. IT solutions that can be parameterized leave many options open. For example, in planning the transformation of a distribution company it was not possible to determine in advance in which countries of Eastern Europe the company operated. The IT department opted for a multi-language solution, to enable later use in other countries. Flexible IT therefore means planning security for the company.

During implementation pay attention to results, rather than aiming for perfection in every aspect

In view of the abundance of requirements that are to be converted as part of a transformation process taking place over a considerable period of time, there is great danger of the managers in charge not being able to ‘see the wood for the trees’, and in their efforts to convert all the requirements simultaneously, they lose sight of the target.

This applies particularly when external market partners are involved in the planning. All the IT requirements of important customers are classified as ‘absolutely necessary’. In striving for perfection, the development and introduction of a new organizational and technical IT solution keep slipping further away. In view of the enormous work involved

and the time needed to do it – particularly in the case of large individual software projects – the result can easily be resignation. Experience has shown that IT-driven enterprise transformations with a timeframe of more than two years often become endless projects, without the goal ever being reached.

In order to achieve the targeted benefit quickly, while also allowing for feedback loops, a good solution is to start with ‘Version 1.0’, which obviously does not cover all requirements, but which can be implemented in a manageable timeframe. Shortening the project timeframe with a focus on the most important requirements also has the advantage that in real use ‘Version 1.0’ delivers positive and negative empirical values at an early stage, which can then be successively integrated into later IT transformations – for example in a roll-out via several business units. In many cases, the communication of initial successes gives employees and management staff the courage and energy to persevere along the long and often rocky road to complete IT implementation and enterprise transformation. Additionally, the IT benefit that is realized in ‘Version 1.0’ (for example cost-cutting) contributes to financing later versions for further IT-driven enterprise transformation.

Using risk management

Even when the IT transformation process is prepared as carefully as possible, there are still some implementation risks. These can either have their origins in the company and therefore can be influenced – or they can be caused by external factors, upon which the company has no or limited influence. In the latter case, it is important to remain capable of reacting strategically. To better recognize the risk factors, setting up a *Program Management Office (PMO)*, especially for larger IT-driven enterprise transformations, has proven to be worthwhile.

The *PMO* supports project management in the operative control of the transformation project. Depending on the complexity of the project, it comprises several employees from the IT department and from the business units, who evaluate how important interim goals are reached and the individual project status objectives achieved. Additionally, the *PMO* enables extensive project communication – especially important for managing changes in enterprise transformation – and, together with those in charge, draws up measures for dealing with project interference factors.

One of the most important duties of the *PMO* is systematic risk controlling. Risk controlling is responsible for proactively evaluating and prioritizing project risks, and when risks occur, of actively initiating counter-measures and then monitoring the effectiveness of these measures (figure 1.13). The foresighted assessment of risks increases the time available for implementing counter-measures.

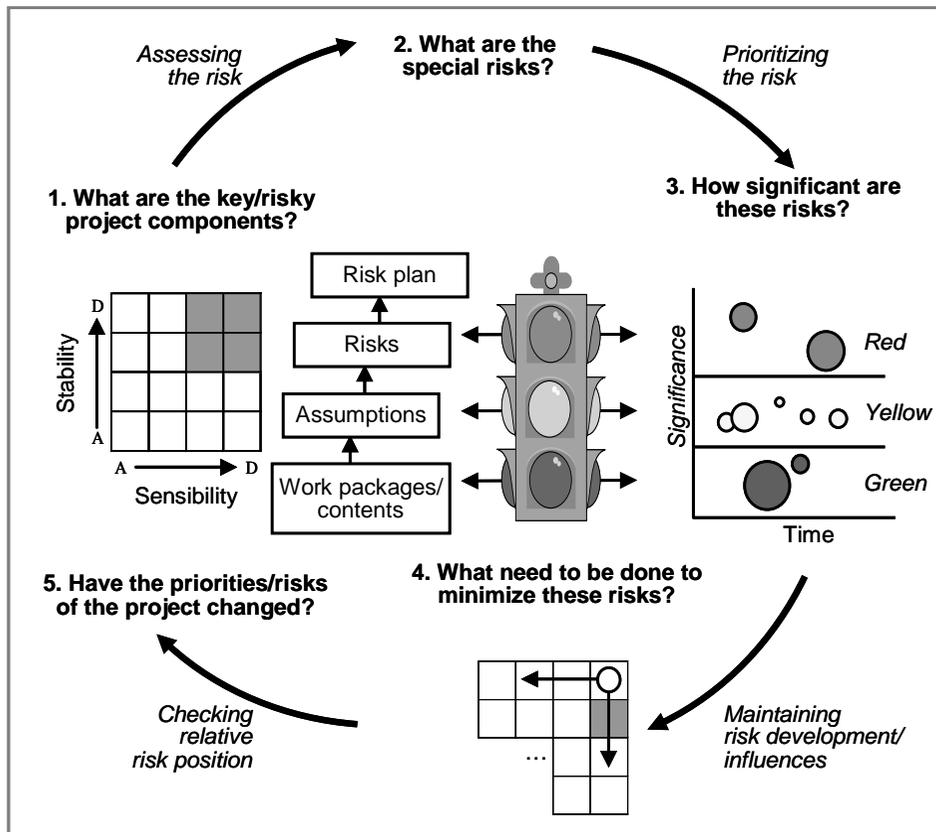


Figure 1.13: Cycle of proactive risk controlling

The significance of proactive risk management is illustrated perfectly by the Y2K example: at that time there was a very real danger of important IT and process control systems carrying out incorrect comparisons as the date changed from '1999' to '2000', triggering failures or simply causing the system to break down. Proactive risk management meant systematically evaluating the essential components of the IT system and the process control technology of the company, in the weeks or months before changing over to the new year on 1 January 2000, to determine just what a breakdown would mean for the company and its customers, and how high the probability of event was. Then, assuming the highest damage potential with the highest probability of event, precautions were taken, i.e. the probability of event was verified or falsified with IT-assisted tests, and in the event of a verification precautions were taken, for example by buying new PCs, adjusting programs or modifying process control technology.

At a major airline, for example, all central programs for booking flights and for the 'flight ops' were systematically tested and corrected. The mainframe was made 'Y2K safe' with the necessary hardware upgrades and software patches from the manufacturer, the PCs, fax machines and printers were replaced, in case they were too old and therefore more susceptible to damage. Even more important was that the aircraft manufacturers published very precise statements in their maintenance manuals stating from which version the flight computer and other safety-critical IT components in the aircraft were 'Y2K safe' and to which version a replacement was necessary. Even the process control technology of the airports were checked and modernized. Through this it emerged that, for example, the fueling equipment of a major European airport was not 'Y2K safe': Triggered by the change to the year 2000, the controls would have assumed a failure and for security reasons closed all valves, so that aircraft that had landed could not have been refueled. Systematic preparations for the 'year 2000' and risk controlling at airlines, in the power and telecommunications industries and other sectors prevented major problems from occurring at the millennium. This example shows how successful risk controlling proves that nothing happens – although the 'year 2000' risk caused national damages of billions of euros.

Carrying out benefit management

The opposite of risk management is benefit management. Its goal is to maximize the benefit, not to minimize or eliminate risks. To this end, the total targeted benefit of IT transformation is broken down into partial benefits. From a technical perspective, the criteria for this stem from the modules of the IT solution and from an organizational perspective from the business processes involved and/or their individual stages or from the affected organizational units. The partial benefits are evaluated according to their size and according to the necessary expenditure for transformation (= the sum of the expenditure for IT realization plus the expenditure for aligning the business processes and structures plus the expenditure for modifying the thinking and behavior patterns of the senior executives and employees involved). They are sorted according to highest partial benefits and lowest transformation expenditure. The reflection of this classification on the technical and organizational IT dependencies results in the fastest possible – and therefore optimum – transformation sequence.

Thus benefit management draws up a benefit realization schedule and controls the transformation process to ensure that the targeted benefits are actually delivered. To this end, a controlling cycle is also run through, consisting of 'defining the objective for partial benefits', 'defining measures for realizing partial benefits and necessary transformation steps', 'initiating transformation steps', 'evaluating transformation steps in terms of achieving partial benefits' and finally in turn 'defining a renewed objective'.

In many transformation projects the reality is a different one. Frequently, the technical regulations of the installed software package dominate in which order the steps of the transformation project are executed. Not seldom, companies begin with relatively unimportant transformation phases, for example in financial accounting, with the argument that all further configuration of the software package is based on the settings for the financial accounting department. The result is that, in the first weeks and months of the transformation project many senior executives and employees invest all their time and energy in working on the IT transformation of a business unit that in most cases is not relevant for competition, with the result that high project costs with no relevant potential benefit are incurred – instead of working on the logistical core processes or on the interface to the customers. Systematic benefit management helps to find the right method for optimizing the benefits of IT-driven enterprise transformation, while at the same time efficiently using tight resources for the most important key functions in competition.

E-government: Transforming a government body (pensions agency)

In many government offices, the administrative processes have not really changed much in the past few decades. Handcarts full of files and circulation folders characterize the landscape, data is not available as the files are stuck somewhere between archives and the office, and of the few existing PCs some were brought in by the employees themselves so that they would no longer have to type in data on a typewriter. The employees spend a large part of their time searching for data and cannot get all of their own work done. There is enormous improvement potential with IT here for optimizing the business processes. However, the pure installation of IT systems without changing the decade-old, historically-grown work processes and the thinking and behavior patterns of the staff would not make sense. The necessity here for IT-driven enterprise transformation is obvious.

The organization and processes of the pension's office of a neighboring European country were no longer able to cope with demand. Complaints about poor service, unfavorable office hours, complicated procedures, long waiting times and frequent errors were on the rise. At the same time, the cost pressure on the government agency was steadily increasing, and particularly the central location of the pension's office was under considerable pressure to rationalize. The state government had also clearly recognized the challenges of the coming decades: the shifting of the age pyramid results in fewer employees (due to budget restrictions because of long-term declining tax revenues) having to take care of an increasing number of pensioners. This development will peak when the high birth-rate generations of the 1960s (baby boomers) reach retirement age, at which time there will be about two pensioners for every contributor to the pension plan.

An extensive reorientation of the entire agency with modern IT technology was needed, particularly under the aspects of 'customer centering and 'focus'. The IT

backend systems of the pensions office ('legacy systems') were over 30 years old and the programmers also soon reaching retirement. Even the IT frontend systems were fairly ancient: screen masks on special input terminals with complex data input and insufficient transparency. If adjustments or changes to the existing systems were possible at all, then only under high cost and time expenditure, combined with high risk, as all data structures and system parameters were no longer completely documented and the extent of their effectiveness was no longer known. Replacing the IT systems was urgently necessary, not least of all because these IT systems not only calculated the pensions but also controlled most of the weekly payments of pensions and social security benefits via post offices and therefore a considerable money flow.

As a solution, the IT-driven transformation of the government agency to 'e-government' was planned. Based on the new processes and organization possibilities that were opened up by the use of IT, the tasks and goals of the pensions office were analyzed, a vision was drawn up for e-business-centered processes and structures, and for the future relationship of the government agency to its customers and for the type and quality of the services, and a strategy was defined. Its core claim being that thanks to 'e' the citizen is placed on center stage like a customer, and processes and organization structures are oriented to their needs and requirements. The use of modern IT components should enable all employees to be able to answer more than 80 percent of all inquiries promptly. In addition, the caseworkers were specially trained to guarantee fast, error-free processing of inquiries and applications.

Based on these goals, the future IT systems with their processes and organization were redefined and re-planned. A completely new 'frontend' – a customer contact center with 500 employees – was developed on a green meadow very far from the old location of the pension's office, with the idea of also enabling a new psychological beginning. The planned IT systems, processes and organization were implemented step by step, gradually 'loaded up' through the step-by-step transfer of more and more customers, and continually tested and streamlined. Finally, the finished concept was expanded through the establishment of up to 26 country-wide customer contact centers, situated close to the people, replacing some 620 local offices that had been used before.

The local employees at the various locations were given the option of transferring to a customer contact center, which, thanks to a newly-introduced incentive program, also met with a positive response. A newly-developed training concept quickly put the employees in a position to serve the customers of the pension's office with a full range of services. The pleasant working environment made it easy to motivate the staff for their new duties.

IT characterizes the three core processes of the pensions office – for one, the one-off processing of the pension application form, secondly, the application for social security benefits in old age, and thirdly, adjusting to new living conditions (admittance to hospital, move to a senior citizens' home, change of partner etc.) – as well as parallel internal processes for controlling customer satisfaction and ongoing improvements, and for researching changes in the market and in requirements. For the processing of these core processes a comprehensive CRM system was developed, which set down new working methods and organization structures. For example the CRM system led to a dialog between employees and customers based on predefined dialog procedures, which gave the employee the questions in advance, recorded the answers in predefined fields and branched off the interview, depending on the answers of the customer, into specialized sub-dialogs. This guaranteed that the employee received all information necessary for the processing of the application form. An agency-wide Intranet including an information infrastructure, knowledge management, search tools and other features further supported the staff.

The results were clearly positive: the echo from the political and public sides – particularly from the customer – also increased the level of employee satisfaction. The project is today considered to be the best reference project for the transformation of complex organizations with IT.

Using external partners for accelerating transformation: Build – Operate – Transfer (BOT)

IT strategy, IT benefit, enterprise transformation are all very well, but how do we implement it all? How do we ensure that – as in many enterprises in the past – the planning does not prove to be unrealistic by the next project that deadlines are met, costs do not explode and the users are not annoyed by the IT system? Principally speaking, there are two possible procedures here: traditionally the company takes charge of providing (in the case of standard software, purchasing) and installing the IT system, as well as the transformation of the enterprise. IT consultants and other externals (for example change agents) are often called in to contribute the necessary know-how, make up for lack of experience and insufficient resources and to cope with the burden peaks that are part of every project. This means that the company is also responsible for the success of the introduction – with all of the project risks.

There is, however another way to do it: for example in the construction industry it is customary for the client to hire a general contractor for the complete construction of a building ('Build'), while in plant construction the manufacturer of the system also takes charge of putting the machine into service until regular operations have begun ('Oper-

ate') and the machine can be handed over to the owner ('Transfer') – this model is also referred to as the BOT concept.

Payment is made in installments after the completion and inspection of clearly-defined construction phases and/or after operations commence and responsibility has been transferred to the client.

Such a BOT concept can also be used for enterprise transformation through the introduction of comprehensive IT systems in major projects. An external IT partner is chosen (often a consortium). This partner ensures the success of the enterprise transformation, by first identifying the technical and organizational modifications necessary for enterprise transformation ('Build' phase), then introduces the IT systems and adjusts the organization (change management) and carries out the IT operations until stabilization of the new processes has been achieved ('Operate' phase), after which the responsibility for the new IT solutions and processes is transferred to the company after a stabilization phase ('Transfer' phase). BOT projects take into consideration the necessary IT and organizational transformation measures right from the planning phase and ensure holistic goal-achieving implementation.

With BOT models, the IT partner not only installs streamlined software, but also assumes all of the risks of enterprise transformation. He carries the responsibility for the realistic planning and implementation of the cost and potential benefit of the business case and avoids unrealistic expectations.

Tips for implementing the BOT concept:

- *Pay attention to the partner management capabilities:* Only consider large IT companies or consortium leaders for assuming risks. Smaller IT specialists are contracted and controlled by the consortium leader. Therefore, if the contractor is a consortium, the consortium leader must be capable of managing and controlling his consortium partner. When the job is being contracted out, it must be clearly regulated to what extent the consortium leader is responsible for any reduced output or even failure of his consortium partner to deliver.
- *Integrate the employees in the transformation project:* When selecting the contractor it is advisable to involve the staff and representatives of the workers' council, in order to eliminate unfounded fears of the staff members and to integrate any ideas they may have in the BOT concept. Integrating the employees in the 'Build' phase ensures the transfer of know-how and paves the way for the enterprise to manage the system after the IT solution has been completed. In the 'Operate' phase the employees are successively integrated in the operation and the maintenance. An immediate structured shift from the 'Operate' to the 'Transfer' phase takes place, so there is no abrupt transition that could prove too much for the employees.

The enterprise is not obligated to pay the IT partner as soon as the first operative milestones of the project have been reached (for example: ‘the server is installed’), but only when the services have been transferred over to the IT user. This can, if necessary, include the customers and suppliers of the company.

Before the transfer is complete, functionality tests are carried out and the solution must perform perfectly in the ‘Operate’ phase. Therefore, this is not only a simple shifting of liquidity flow, but rather the actual transfer of risks by the IT partner, because in the theoretically worst-case scenario, it will only come to light later on in the project that the goals on the business level are not being met, and therefore the initial work done by the IT partner may not be recompensed.

This assumes clearly-defined and measurable goals, to which the payment obligation is linked, for example operation over a six-month period with 99.9 percent availability, the reduction of IT system-related resources in operations to a defined number of staff members and the acceleration of business processes, for example the handling of a transaction within a certain length of time. The organization undergoing transformation thus avoids implementation risks, can be assured of a high level of commitment from its IT partner and guarantees that the expected results are actually achieved. This concept is also suitable for government offices and other public sector institutions when converting to ‘e-government’. They are about to undergo considerable changes in services, processes and structures.

Tips for implementing the BOT concept (cont.)

- *Select the right contractor* (often a consortium of IT suppliers and supporting companies): As the contractor plays a key role in BOT projects, in the contracting process the focus should not only be on information technology-related criteria, but rather the chosen BOT concept and the willingness and capability of the contractor to assume risks should be evaluated. The role as constructor and temporary operator poses high demands on the management of the client organization, because the responsibility for the transformation process that must be borne is much higher than on classical IT projects.
- *Safeguard transfer of risks to the contractor*: In order to ensure the commitment of the IT partner, payments should be made on reaching strategic milestones – as opposed to the way payment is handled in classical projects. This obligates the contractor to provide services over a longer period of time. This is not only a matter of postponing payments, but particularly a postponement of the payment obligation, as it may be necessary for an IT system to be rebuilt if the benefit promised by the IT partner is not delivered. Many IT partners are entering unknown territory here.

One must, however, keep in mind that in such a role the IT partner has the right to demand more influence on the decisions of his client than would be usual in a client-contractor relationship. The IT partner can, for example, demand that the company or government office make decisions vital to the progress of the project within a pre-defined time, or that he is temporarily integrated in his clearly-defined role into the top and middle management of the client organization, including a temporary transfer of management duties. Otherwise the IT partner will be able to control the project risks.

BOT is particularly suitable for major IT-driven projects and enterprise transformations. It is to be expected that in future a collaboration will exist between the organization and the IT partner similar to that which is the norm in plant construction, including the issues of financing and liability. There are great opportunities for both partners in this new kind of cooperation. The organization can assume a faster and higher-quality enterprise transformation; the IT partner receives a high order volume and has a more comprehensive and demanding role as well as the responsibility for the success of the transformation. A win-win concept with high potential.

Transformation of a payment service provider

A payment service provider founded a business unit as an independent subsidiary, in order to foster growth through the acquisition of new customers and to lower unit costs. However, this business unit possessed no marketing or distribution competence, no competitive IT (among others no client-enabled or ready for release IT systems), neither standard offerings nor customer-tailored solutions. If the newly-founded subsidiary was to have achieved all the necessary improvements on all fronts independently, it would have been in danger of running aground, due to the high level of complexity.

There are basically two possibilities for making the newly-founded subsidiary competitive. Either the enterprise tries to achieve transformation alone over a longer period of time, or it hires a partner to take care of implementing transformation according to the BOT concept. After having talked to various potential partners, five suppliers were invited to submit a Request of Intention (RoI). For the subsequent Request for Proposal (RfP) process, the suppliers were selected according to a scoring model, which in addition to information technological aspects, took into consideration its suitability as a BOT partner in particular, its capability and willingness to assume risks as well as proof of qualifications for successful enterprise transformation.

The ultimately selected BOT partner safeguarded the assumption of risks by streamlining the existing IT platform to the specific requirements of the newly-founded subsidiary, thus limiting the risk for himself and for the subsidiary. The subsidiary was given an IT system, which was an essential prerequisite for its outside

market capabilities, was able to concentrate on the market development while the platform was being introduced, and also won the trust of its target customers, as the name of the BOT partner in the relevant market stood for quality and performance. The parent company also reached its goals: the BOT partner carried the implementation risks, as its payment would not be made until after the parent company had taken over the system and after the subsidiary had won new customers. The BOT partner for its part profited from having its entire IT platform introduced, which would only have been possible in partial units in traditional project procedure and which would have meant a smaller order volume.

Checklist: Is the organization of your company ready for the necessary enterprise transformation?

Yes

- Has all the creative potential been taken into consideration in the planning of a change and are your customers and suppliers integrated in the organization of the new IT systems, business processes and business structures?
- Is attention being paid to strategic flexibility on major projects?
- Is IT a driver of enterprise transformation? Are the managers and employees of the IT department strategically and operatively competent enough for the business, as well as socially competent enough for change management?
- Is the success of enterprise transformation safeguarded through proactive risk management?
- Is the progress of enterprise transformation being controlled through systematic benefit management?
- Can the company concentrate on its core competencies during enterprise transformation by using BOT partners?