

# **New Urban management: SAP and the role of financial management**

**Case study performed by Itafit**

Researcher: Arre Zuurmond

## **Contents**

<b>1</b>	<b>INTRODUCTION .....</b>	<b>3</b>
1.1	ITAFIT.....	3
1.2	SHORT INTRODUCTION OF SAP IN PHOENIX .....	3
1.3	THE OBJECTIVES OF SAP.....	4
1.4	FULL DESCRIPTION OF SAP.....	4
<b>2</b>	<b>PERSPECTIVES ON SAP IN PHOENIX.....</b>	<b>9</b>
2.1	INTRODUCTION .....	9
2.2	THE ORGANISATION BEHIND SAP: THE FINANCE DEPARTMENT .....	9
2.3	THE VALUE-CHAIN .....	9
2.4	THE CHANGE PROCESS.....	10
2.5	COSTS & BENEFITS .....	11
2.6	ALIGNMENT.....	12
2.7	THE DEMOCRATIC TRIANGLE.....	13
2.8	STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS .....	13
<b>3</b>	<b>THE CONTEXT: PHOENIX'S IT-STRATEGY .....</b>	<b>14</b>
3.1	SOME CHARACTERISTICS OF PHOENIX.....	14
3.2	SOME CHARACTERISTICS OF THE MUNICIPALITY OF PHOENIX.....	14
3.3	SOME CHARACTERISTICS OF THE IT STRATEGY OF PHOENIX.....	14
<b>4</b>	<b>ANALYSIS OF EACH PERSPECTIVE .....</b>	<b>16</b>
4.1	ANALYSIS OF EACH PERSPECTIVE .....	16
<b>5</b>	<b>CONCLUSION .....</b>	<b>19</b>

# 1 Introduction

*...Rigorous is the word for every aspect of Phoenix's financial management, from contingency planning to the monitoring of contracts. When the city council makes a decision, it has in front of it information on all financial ramifications<sup>1</sup>...*

## 1.1 Itafit

Itafit is a network, which performs international research on administrative innovations in relation to ICT to develop and disseminate the knowledge with regard to this research among academics, politicians, public servants, and consultancy firms. Itafit is sponsored by the Ministry of the Interior and Kingdom Relations, PinkRocade (ICT-firm), IME-consultancy, the University of Leiden, and Samsom (publisher) and Zuurmond & Co (ICT-consultancy).

A sponsor supports a specific case study performed by Itafit: this is an organisation with special interests in the subject matter. In this case study Pink Rocade is the sponsor. Pink Rocade has a partnership with SAP, which delivers Enterprise Resource Planning (ERP) software. Although ERP traditionally stems from a business enterprise environment, more and more public sector organizations start to use ERP.

This casestudy will not concentrate on the technical aspects (e.g. performance questions) of ERP, but focuses on the functional innovations ERP delivers to a city, the organisational and political issues that come with the introduction of ERP and the implementation experience.

A very short survey showed us that Phoenix, Arizona, was the city that had to be studied: it was the first city in the United States to implement SAP's ERP solution, and now has a reasonable amount of experience with actual use of SAP in the municipality.

## 1.2 Short Introduction of SAP in Phoenix

The city of Phoenix was a Municipality with a very decentralized organizational structure. Financial Management practice was poor, with multiple systems in use, each of which had many unsupported modifications. These financial systems were outdated, with an inflexible technical design. There was limited availability of detailed financial information, with limited on-line capabilities.

Already in 1994 the city started a process of strategic planning, leading to the selection of SAP in 1996. A two year implementation phase was needed for the new financial system to go live in 1998. Today the system has around 1350 users, in all 26 departments of the Municipality.

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<sup>1</sup> Citation from Governing Magazine, February 2000.

A wide range of functionality is implemented:

- Materials management
- Sales and Distribution
- Financial Accounting and Treasury
- Controlling & Project System
- Electronic Workflow

A large implementation project, with many sub-project-groups (functional team, technical team, transition team), managed this large-scale innovation in financial management.

Major benefits of SAP are the on-line, real-time integration of all financial transactions, into the different financial management domains (budgetary accounting, GAAP accounting, Cost Accounting and CIP accounting). There now are fewer systems to be managed, with enhanced employee productivity. SAP offers powerful data management and reporting tools, and accomodates multiple accounting methods.

### **1.3 The objectives of SAP**

The city of Phoenix followed a strategic planning approach to set the goals of the new financial management system. Phoenix wanted to eliminate redundant systems and data and utilize state-of-the-art, client/server technology for flexibility and long-term viability. It also wanted to empower users with information and reporting tools and stream-line its financial business processes. Finally it wanted to improve quality, timeliness and customer service.

### **1.4 Full description of SAP**

#### **1.4.1 The original situation**

Phoenix used to have many 'islands of financial information'. There were multiple systems, each with its own data entry. Much information was keyed in more than once. Departments and users within these departments made their own changes to the financial systems they used, creating a jungle of unmanageable systems and financial information. Furthermore, the systems had outdated, inflexible designs leading to limited availability of detail information. Drilling down from aggregate information to the individual transactions meant labour-intensive work, in most cases searching for the paper forms in archives to find the actual information needed. Most systems had limited on-line capabilities and produced voluminous paper output, leading to inaccessible paper archives.

Finally the financial systems were batch-oriented, which meant that end-users of the financial systems were never sure whether the information in the computer reflected the real-time situation.

### **1.4.2 Who / how originated it**

The Finance Department initiated the strategic planning project, leading to the selection of SAP as the new financial management system for Phoenix. After setting the functional requirements, three competitive solutions were studied (SAP, Oracle and Peoplesoft), while during the selection phase a fourth solution was studied (Baan). After a 19 month period of selection a contract with SAP was signed for 2 million dollars initial contract, and 500.000 per year for the licence and updates. Up to 1500 users now have the right to use SAP's functionalities.

### **1.4.3 The project organisation**

A large project-organisation was put in place. The city manager acted as executive sponsor, giving the project its mission and direction. A project management team was set up, guiding a functional team, a technical team and a transition team. Although there was a heavy dependence on the IT-infrastructure, the Finance Department had complete ownership of the project, where the overall project management was performed by a high level Finance manager. The IT-aspects were handled by a high level information technology manager to ensure strong and proactive commitment of the IT-department. Integration of the different financial domains was realized through the integration leadership of a Finance business and technology manager. Finally participation by additional managers from Finance, Information Technology, Budget & Research and Personnel were included in the project-team. The project management team consisted of four permanent members.

First, a functional project team operated under their direction, to:

- develop the newly designed business processes;
- perform system configuration and testing;
- convert data;
- develop and test interfaces;
- develop and test reports;
- create and test security profiles;
- develop detailed training materials;
- provide functional trouble shooting support;
- document configuration and processes.

This functional project team consisted of about 30 persons, working on the design of the business processes and the configuration. To develop the interfaces an ABAP team leader, with two internal ABAP-team members and four ABAP consultants were put to work. Data conversion was a major task, with a team leader and five data conversion consultants working on that. For security a team leader and two consultants formed a working group.

Second, an technical implementation team was designed to develop the technical solutions needed for SAP. This technical project team had to:

- Establish and test the technical environment;
- Take care of the movement of configuration and programs between the systems;
- Synchronize and refresh the systems;
- To assist departments with SAP desktop GUI installation and configuration;
- To provide technical trouble shooting support;
- Document technical configuration and processes.

One team leader was assisted by three internal team members and six consultants.

Finally an transition team was formed, to:

- Communicate with assigned departments;
- Coordinate and assist assigned departments with all SAP-related issues;
- Develop and present SAP overview sessions;
- Review detailed training materials;
- Conduct user training classes;
- Develop and maintain on-line documentation;
- Coordinate the functional help desk.

To ensure commitment from all departments, the transition team-leader had 17 members in his team that were linked to the different departments. Additionally 5 trainers/help desk support members were on the team, with 9 other Finance team members and 5 training consultants.

#### **1.4.4 The implementation strategy**

Renewing the financial systems is an infrastructural innovation that doesn't allow for too many surprises. Thus a carefully developed implementation strategy was followed, with a strategic, tactical and operational level. The large scale project organisation followed a strategy of openness, creating a project team with strong interpersonal communication. The members of the team worked in a project room without any internal walls (in US all offices are semi-open, to allow for some 'private space' for every individual. In this case internal communication was seen as so important that this semi-open office space was not used).

Several critical success factors were identified. Executive sponsorship and support was necessary. Frank Fairbanks, the city manager, made it quite clear that SAP was the direction that Phoenix was going to follow. Resistance of departments was not rewarded: no exception was made and no department was allowed to stick to its own solution. The project team consisted of knowledgeable dedicated members, investing all their time and know-how in this operation. Vendor participation and support was looked for in the implementation process, which was specifically necessary since Phoenix was the first to adapt SAP. A properly sized and managed technical environment was set up, where the IT team

leader calculated the necessary capacity carefully. After the careful calculation the figures were, as a rule of thumb, tripled to be on the safe side.

The final critical success factor was integration, both internal and external. SAP is a modular package. Phoenix has implemented several modules, which have strong interdependent relations. E.g. a transaction input in account payable will lead to changes in e.g. cost accounting and accounts payable, or in customer billing. External integration was necessary with e.g. the personnel information system (from Peoplesoft). All interdependencies were heavily tested.

#### **1.4.5 Levels of usage**

When the system went live on July 6, 1998, it had 900 users. During the next months another 400 users were added. Recently the total number of users has grown to 1350.

#### **1.4.6 The functional design**

SAP R/3 is an on-line, real-time, integrated software package, that can be customised to meet the requirements of each purchasing organisation. Theoretically an individual purchasing organisation can modify the package, but this means that the organisation can not benefit from updates. Phoenix has chosen for a standardised software package. Customisation is allowed, modification is not allowed.

A wide range of functionality is implemented:

Materials management

- Purchasing
- Inventory Control

Sales and Distribution

- Customer Billing

Financial Accounting and Treasury

- General Ledger
- Account Payable
- Fixed Assets
- Cash Accounting
- Special Ledger
- Accounts Receivable
- Budgetary Accounting
- Financial Accounting

Controlling & Project System

- Activity Charges
- Cost Accounting

- Cost Allocations
- Project Costing

#### Electronic Workflow

- Purchase Requisitions
- Vendor Invoices
- Journal entries

### **1.4.7 Technology**

SAP runs on a Hewlett Packard (HP UX 10.20), with V2200 database server, 7 processors, 3 GB main memory, 430 GB of EMC Mirrored Disk. Additionally, 5 HP K460 application servers are set up, with 3 gigabyte main memory and 4 processors each. The database management systems used, is Informix7.24.UC4X1.

It is a client server application with 1300 pc's connected to the 5 application servers, using SAPGUI as interface. The WAN is a mixture of ATM. Frame relay / T1, 56 KB lines, connecting all city departments. The LAN's are working on a switched ATM backbone, connecting all SAP Unix Servers. Connection to user base is via 10/100Mbps Ethernet LAN.

### **1.4.8 Customer Feedback**

During development and implementation all departments were proactively connected to the innovation, through the transition team. This meant that these departments were actively asked to comment implementation plans. After implementation a user group has been put into place, which can bring up new items to be discussed.

The finance department has always been seen as a staff department with a touch of bureaucracy and inflexibility. Now its position has been changed to a facilitator, assisting the departments in making their own financial reports. In a recurring service survey the services of the Finance Department nowadays are valued higher.

### **1.4.9 Further plans and directions**

Now the system is up and running new plans can be made. In the near future at least two new directions have to be explored. Very important is the trend towards E-business: how wil SAP be integrated into the value chain towards the citizen. Can the citizen perform e-transactions, and how will these be processed in the system? Secondly, Activity Based Costing is a future direction for the city of Phoenix. Thirdly, Phoenix is planning to create a financial information warehouse, enabling end users to perform specific queries without deteriorating response time.

## **2 Perspectives on SAP in Phoenix**

### **2.1 Introduction**

In this chapter we describe the SAP-implementation from different perspectives. First we describe the organisation behind SAP, to give the reader some background information. Second, we describe the value chain: most innovations are part of a larger value chain, and it is very important to see how the innovation influences or is dependent on other parts of the value chain. Third, we describe the change process: how is the innovation introduced, and what strategy was followed? Fourth, we describe the innovation in terms of costs and benefits. Fifth, we look at alignment. The realisation of value from IT investments does not depend simply on the harmonisation of business strategy and information systems. The links between business and technology are mutual and simultaneous, both affecting one another. Technology offers new ways of doing business, and business decides priorities in technology. Sixth, we use the 'democratic triangle' model, that is developed to determine on which linkage, or within which organization the innovation is situated and to determine which organizations or individuals benefit (most) of the innovation. Finally, we describe the strenghts, weaknesses, opportunities and threats of the innovation.

### **2.2 The organisation behind SAP: The Finance Department**

The Finance Department is an Phoenix enterprise staff department, working in a strongly decentralised city management structure. Because of its poor online, integrated information processing capacities, most departments deployed their own shadow systems, leading to duplication of data-entry. The Finance department had a larger group of lower skilled administrative employees. With the integration of the financial functions, the on-line transaction processing, mostly performed by the departments themselves, the nature of the work has changed at the Finance department. There are lesser jobs at the low administrative level and more jobs at the high, design level: more time can be reserved to redesign and fine-tune the business processes of the Finance management Functions throughout the Phoenix enterprise.

### **2.3 The value-chain**

The value-chain of department and organisations involved in the Financial Management is very difficult to describe.

Internally there is a link between Financial accounting, starting with funds management: A commitment item is introduced, formally allowing a department to spend a certain amount of money on a specified subject. This is registered in de Funds Management module of SAP. In the controlling module a cost element is identified, ensuring that each commitment (and payment) is put into the correct control-category. If payment is due, the actual transaction will take place in the general ledger module, using the same coding structures as are used in

controlling and funds management. After the transaction the commitment is changed into registered money spend, correcting the budgetary fund balance. This means that at any given moment in time, people can see how much money is already spend within their budget, how many commitments are on their way and how this relates to the total budget plan of the year.

The high level of integration leads to a mutual dependent value chains, where budgetary accounting, GAAP accounting, Cost accounting work together. Transactional changes in one module are automatically followed by changes in the other modules of SAP.

The SAP system has many interfaces to other systems, revealing other value chains. Not all value chains can be described. Some of the more important connections are with:

- BRASS, the system used for budget preparation of the city council. New budgets are voted for and then registered in BRASS, afterwards downloaded in SAP. Monthly an upload is send to BRASS to give insight in actual (progressive) use of the budgets.
- CHRIS, which is the personnel (HRM) system. Summary payroll data have to be received, and month end accruals are imported. A two weekly batch job ensures mutual integrity of the related data.

## **2.4 The Change Process**

Implementation of SAP was a large-scale change process. Not only had six different, outdated systems to be replaced, but also new business processes had to be designed, tested and implemented. Data conversion was needed, to extract information from the old systems and input this information into the new system. Furthermore, given the infrastructural character of SAP, many interfaces had to be build, leading to much IT-development work. During testing and implementation much effort of the IT-Department was needed, because of installation of the Database (Informix) on a central HP-computer, installation of 5 application servers, next to adaptation of around 1200 pc's (SAPGUI). A technical help-desk has been put in place, to support incoming questions now the system is up and running, with 1350 users (225 concurrent).

The high level of integration meant stricter and higher levels of security and much energy was spent on introducing adequate levels of authorisation. Finally a large scale training program had to be developed, tested and executed.

The management of the change process was performed by the transition team with delegated powers from the project team. From the first phase of strategic planning, when the contours of the new functionality were developed, commitment of the strategic apex as well as participation of all relevant departments was taken care of.

During the implementation phase a pro-active attitude of the transition team was crucial: the 17 members of this team ware actively going out to the different

departments, asking them to check and comment all the progress that was made. After implementation a less proactive attitude is needed. Now a user group has been put in place, convening monthly, to discuss new functionality, software problems, etc.

Critical success factors were identified and appropriate measures developed to keep the project on the right track. Executive sponsorship and support was necessary. Frank Fairbanks, the city manager, made it quite clear that SAP was the direction that Phoenix was going to follow. Resistance of departments was not rewarded: no exception was made and no department was allowed to stick to its own solution. The project team consisted of knowledgeable dedicated members, investing all their time and know-how in this operation. Vendor participation and support was looked for in the implementation process, which was specifically necessary since Phoenix was the first to adapt SAP. A properly sized and managed technical environment was set up, where the IT team leader calculated the necessary capacity carefully. After the careful calculation the figures were, as a rule of thumb, tripled to be on the safe side.

The final critical success factor was integration, both internal and external. SAP is a modular package. Phoenix has implemented several modules, which have strong interdependent relations. E.g. a transaction input in account payable will lead to changes in e.g. cost accounting and accounts payable, or in customer billing. External integration was necessary with e.g. the personnel information system (from Peoplesoft). All interdependencies were heavily tested.

The complete change process involved a project team that worked on the project with more than 60 people for about 2 years. Even after implementation a project team is still in place. All along the change process work planning tools were used to assure that all the different action lines would converge into one operating system.

## **2.5 Costs & Benefits**

No actual Cost Benefit Analysis has been performed. The old systems had to be replaced anyway. The costs of the software package are only a small part of the total costs. More than 60 people (about half of them external consultants) have been working on the project for more than two years, were the total process took more than 5 years. SAP is a never ending story: new functionality will always be needed, e.g. due to changing government regulations. Also, exploitation of the system means a yearly license (500.000 dollars) plus help-desk and security activities, next to exploitation costs related to the hardware and network-infrastructure.

Still the city of Phoenix would not make another choice if it could do it all over again. The benefits outweigh the costs. First, there are some clear cost-reductions, with lesser administrative clerks inputting the data. Next to that, the following benefits are identified:

- On-line, real-time integration. The old systems didn't have much information on-line and mostly used batch processing, which meant that there was a time

lag between the 'real world' and its administrative representation in the information system.

- Now, there are fewer systems to manage, and management of these systems has been professionalised. In the old days many departments kept their shadow administration systems, sometimes developed by one of their own employees, leading to great dependence on this individual.
- Enhanced employee productivity: mainly the repeating entry of the same data in different systems has led to higher productivity, but also the broader set of data that are on-line (reducing costly searches in paper-archives) helps enhancing productivity. It is expected that reporting quality will further enhance productivity, but this will take some more time to be realized: SAP is a system with much more possibilities and users can not learn everything at once.
- Powerful data management and reporting. All sorts of information are now kept in a more controlled and orderly fashion. For instance all information on business that sell goods to Phoenix are kept in one database, making the management of this information easier. Also more standard reporting tools are being made available, with down-loading possibilities of financial information into spread-sheets.
- Accommodate multiple accounting. Phoenix needs different accounting practices for different parts of the work. With SAP the different modules are interconnected, which will lead to automatic updates in the different modules, once a transaction is inputted in one of the modules.

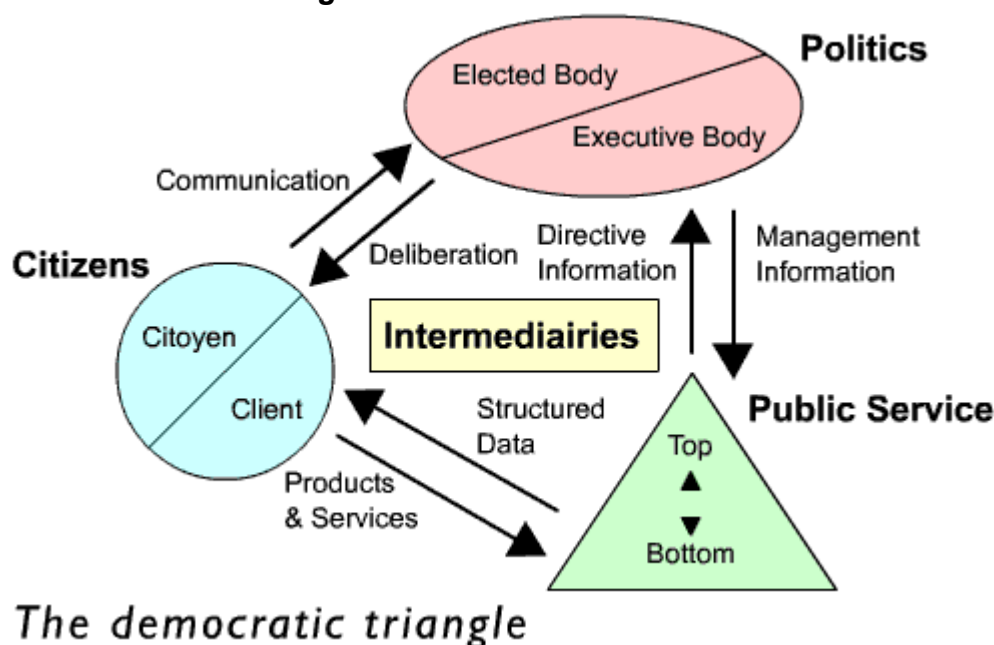
## **2.6 Alignment**

Phoenix follows a ten year information planning strategy, with the ten year plan being updated almost every second year. Starting in 1992 there was hardly any shared IT-infrastructure. All departments were more or less islands of automation. Implementing the IT-strategy has resulted in a networked infrastructure with expanding band-width capacities in the years that the plan is in execution.

Furthermore the IT-planning process is professionalised. All departments have to develop IT-plans and ask for approval for the larger IT-projects (just like any larger capital investment) at the Budgetary and Control Department. The central IT-department is then asked to review the plan, checking whether the central IT-policies are in place. Each proposed project is given a ranking number, and dependent on the available budget, the budget-department approves of certain IT-projects. This professionalised IT-planning process has made the management of the introduction of SAP easier. Finally the systems management function of the IT-department has also professionalised (with ITIL-like processes like change management, help desk management, etc.).

The Phoenix IT-strategy will be presented in chapter 3 in more detail, since it is our conviction that professionalising the financial management and professionalising the IT-management are both avenues to be followed in enhancing the level of urban management in such a way that we can speak of 'new urban management'.

## 2.7 The democratic triangle



Introducing a new financial infrastructure is in the first place an internal, organisational question. This means that in terms of the democratic triangle the public service organisation has gained, whereas it is not clear whether the citizen nor the political body profit from this innovation.

There are however two indications that it is not only the apparatus that profits from this modernization. First, large scale investments have to seek for separate funding, sometimes even with a vote from the citizenry. The upgrading of the IT-infrastructure could only be realized after a citizen approved creation of an Office Automation, Information Systems fund.

A second indication is that the SAP financial management infrastructure makes financial information much more transparant. The interfaces between SAP, BRASS and CHRIS ensure that any change in financial plans are approved by the city council.

## 2.8 Strengths, weaknesses, opportunities, threats

No systematic SWOT-analysis has been made of the finance department. Their weak financial management infrastructure before SAP, with many shadow systems at the departmental level was a threat to their position. Now the financial processes have been streamlined and better integrated, they hold a different position, coming from a bureaucratic background towards a more service oriented organisation. The city of Phoenix however does not want to centralise. Within the SAP-infrastructure, this is translated into an empowerment strategy for the different departments. Many departments can input their own financial information. All training material, as well as the knowledge base surrounding SAP is put on the intranet, for everybody to consult without calling the central finance department. Finally, many report tools are being created, enabling end users to create their own reports, where-ever, when-ever they want.

### **3 The Context: Phoenix's IT-strategy**

#### **3.1 Some characteristics of Phoenix**

Phoenix is one of the largest cities in the United States (in the group of 35 largest American cities), with 1.2891.000 inhabitants. Phoenix has 12.541 employees, with an operating budget of 1.57 billion dollars, and a capital budget of 1.3 billion.

#### **3.2 Some characteristics of the Municipality of Phoenix**

Phoenix has a strong city management. Together with Australia it won the Bertelsmann prize of 1993, being the best run city in the world. It has a clear service oriented mission:

- We are dedicated to serving our customers;
- We work as a team;
- We each do all we can;
- We learn, change and improve;
- We focus on results;
- We work with integrity;
- We make Phoenix better!

These are not only words, we found many concrete indication that the Municipality is seriously working on realising its mission. Phoenix at your fingertips and Seamless Service Delivery are two city projects that illustrate how concrete this mission is.

With Phoenix at your fingertips Phoenix already in 1994 started to open up the city through the internet. Phoenix created one portal for the complete city and developed a strategy to put most of the information it creates open to the general public. Because the internet was not easily accessible, Phoenix introduced more than 50 kiosks in public places for people to be able to access the information. Recently, with internet being more available, the portal site is busily visited (... hits per day). The seamless service delivery approach has lead to a database with all names of all employees accesible for all employees. Every citizen call coming in, can be routed to the employee directly.

#### **3.3 Some characteristics of the IT strategy of Phoenix**

In 1994, the city of Phoenix adopted the city of Phoenix information superhighway policy, which recognises the importance of an advanced telecommunications framework to benefit the community, businesses and government. Under the umbrella of this policy Phoenix net is created, which is a communication network connecting all departments. Internet access is realised, and citizen can reach Phoenix through the net, using Phoenix at your fingertips.

The superhighway policy has three goals:

- Economic viability: the availability of technology is an important factor in the community's ability to remain competitive and attract investment and new business
- Efficiency of City government: telecommunications will provide faster and more cost effective delivery of services to the community;
- Sense of community: the creation of an 'Electronic Village' will allow citizens to electronically participate in government, business and community activities.

The IT strategy follows the classical route of information management, starting with a derivation of the IT-strategy from the business strategy, being community (well informed and involved community), services (cost effective, high quality), fiscal strength (dependable revenue flows and sound financing arrangements).

The IT-vision entails the following:

1997: City personnel will enhance productivity through higher information sharing, leading to deployment of City wide client/server architecture, upgraded citywide communications backbone, implementation of internet and intranet, GIS/ business system integration.

1999: Citizens and business will have increased public interaction, with better and more transparent services, leading to IT that exists of all departments connected to office automation servers, data repositories, expanded information on Phoenix at your fingertips, all desktops connected to city-network,

2001: Citizens and businesses will have interactive participation on major services becoming linked with IT;

2003: Citizens and businesses will have interactive participation on all needed services using IT as a common practice.

From this strategy a central information policy is derived, which is being implemented by the IT department.

One could say that just like the transition of the financial management approach (ending the island-situation, creating a service oriented financial staff creating a consistent financial infrastructure) the IT-strategy has lead to a high capacity IT-network, with shared data, access, authority levels, etc., that enable the city of Phoenix to high level performance. Both staff functions (finance and IT) are now run at a professional level, creating an infrastructure for 'new urban management': the city can be run like a business, with fast responses to new needs and new policy programs.

## **4 Analysis of each perspective**

### **4.1 Analysis of each perspective**

#### **4.1.1 The organisation**

The organisation behind the implementation of SAP is elaborative, complex and effective. A long term vision was developed with regard to financial management in Phoenix and from this vision a program was developed with a planning horizon of more than six years. A project-organisation was put in place to accompany the organisation through the transition stages. Dependent on the stage, initiatives came from the program management and its project leaders, or from the user organisation.

The city manager played a crucial role in this program: giving commitment to this project and leading it when necessary. E.g.: the city manager made it clear that no exceptions would be allowed with regard to financial systems in Phoenix, when the first of the many department wanted to follow a separate route. Sticking to the vision the long term perspective was implemented step by step, using detailed planning, sufficient funding and enough time. E.g.: starting the project in 1994, anticipating the Y2K problems of financial information systems creates enough time to allow a fundamental debate in the first 18 months (using strategic-planning). Closing the debate a fundamental choice was made, and from then nobody was allowed to make other choices.

Apart from the program and project organisation a more broader organisational perspective allows for extra insights: Although this was not the focus of the Itafit-case-study, the SAP-implementation appeared to be part of a larger plan. One could say that SAP was part of an administrative modernization where the financial, personnel and information function of the municipality were consistently modernized, creating an infrastructure of staff functions that helps the organization in its urban management. Analogous to the idea of new public management one could say that Phoenix is preparing the municipality for an important role in 'New urban Management'. The organisational infrastructure of Phoenix makes it possible to run the local administration 'like a business', keeping in mind its public role. To further elaborate this point, a separate study should have been made of the total vision, strategy and management of the city of Phoenix.

#### **4.1.2 The value chain**

Looking to the value chain we find different chains, which have been improved. First of all, the internal value chain between the different parts of the financial management functions have been improved, using SAP. Budgetting, cost accounting and general ledger are now connected into a single work method, creating efficiency and effectiveness for the financial function.

But also externally the value chain has grown: e.g. the new financial infrastructure creates the possibility to calculate actual costs of projects or activities of the city of Phoenix. The actual costs of e.g. a new swimming pool can easily be calculated and presented. Costs of personnel can be allocated to activities and tasks of the city, creating financial transparency.

#### **4.1.3 The change process**

The change process has followed a fundamental approach. Phoenix did not only follow a structured change approach (from strategic planning to implementation), using program management. But also all necessary secondary activities were deployed: organizing commitment, courses and training, changes in IT-infrastructure, negotiations with the SAP-suppliers, etc.

All time the long term goal was kept in mind, taking time to organize, implement and consolidate the different steps. Different risks have been identified and necessary counter-activities have been prepared. E.g. the extra capacity of the IT-network was analysed, and then it was decided to realize three times as much network-capacity as was anticipated, so performance would never be a problem. Thus the project had 'slack' to survive downfalls.

In essence the change process had three levels of change. On the first sight the financial administrative procedures have been changed. More fundamental, changes in the ways departments work together have been introduced. Financial planning and budgeting has improved and a more coherent, consistent and transparent financial management has been created. This has finally resulted in an even more fundamental change: the role and position of the finance department has changed, from a traditional bureaucratic staff department to a facilitating, service oriented organisation, that creates a high level financial infrastructure, empowering the different departments to do their own financial activities, but now within the financial policies of the city of Phoenix.

#### **4.1.4 The costs & benefits**

The costs of the change program have been high, and a level of slack was allowed in the project, to avoid certain project risks. A cost benefit analysis has not been made, except for a price comparison during the software selection. It is clear that improvements have been realized, but it is not clear whether these outweigh the costs. Looking back, the city of Phoenix would not make another choice.

#### **4.1.5 Alignment**

Alignment has been realized, in the sense that the IT-infrastructure was developed from the perspective of the business strategy. Through the participation of a high level IT-manager, the SAP-project ensured a pro-active role of the IT-department. The IT-department understood the challenges that SAP would bring and responded proactively to future IT-needs.

#### **4.1.6 The democratic triangle**

Enhancing the financial function of a Municipality is a project that enhances the internal quality of the organisation. Financial management has won a great deal with this innovation. The degree to which the general public has won with this innovation is not altogether clear, except for the fact that the modernization of the organization creates possibilities for better urban management.

#### **4.1.7 SWOT**

No formal SWOT-analysis has been performed. Informally certain interesting points could be made. The fact that the financial function is professionalised, creates the danger that all policy questions will have a predominantly financial perspective, whereas less financial transparency creates more room for social, cultural or political perspectives. Politics is only possible with a certain degree of ambiguity. SAP reduces the level of ambiguity.

## 5 Conclusion

### 5.1.1 General conclusions

The first conclusion is that the ERP solution of the city of Phoenix has created a high level financial management function. The financial procedures are stricter, more transparent and less costly (higher productivity). The financial information is more up to date, more consistent, on-line available (also when 'drilling down' to individual transactions is needed). Also the interdependence between the different financial functions and between finance, budgeting and personnel is better managed (using ABAP-interfaces).

Secondly, the management of the financial functions is improved (less systems to maintain, less dependence on individuals that maintain shadow administrations, etc.).

Thirdly the productivity of the central finance department, but also of the financial staffs of the other departments of Phoenix, has grown (lesser double inputting of data, less labour intensive searching in physical records).

The management of the change process has been effective: a large change program, with different project teams (up to 60 persons working on the project in a year) prepared and implemented this infrastructural change. A goal-oriented approach, with commitment and strong leadership guided the process, leaving room for discussion in the strategic planning phase, but creating unifocal attention during the building and implementation phase.

The financial innovation was not only seen as a finance problem. Different interdependencies were managed as well: SAP required a higher level of IT-networking, which was delivered by the IT department.

### 5.1.2 The SAP financial management: a real innovation?

Three levels of innovation can be seen. At the first level one could say that the financial system was updated, leading to better figures, etc. At the second level the role of the finance department has changed. It has a new function and position, in the sense that it used to 'fight' the islands of decentral financial information, where it now coordinates and stimulates a shared financial infrastructure. It is service oriented, empowering the different departments in their financial activities. In doing so it has created a shared financial management culture: all departments are now in a more transparent position, using the same protocols and procedures, which means that they have less possibilities to create their 'own stories'.

At the third level one could see the transformation of the financial function as a part of a larger transformation, where all resources departments (personnel, finance and IT) are finding a new role and position: ending the island approach, acting as a service oriented facilitator that empowers the different departments,

but also creating a 'new urban management' culture and structure that enables the city to be run like a business. On the one hand, this can be seen as attractive, because the city is now in a position to quickly respond to new policy problems. It might also be a threat, because the enhanced transparency and the formalisation of the organisation has the inclination to drive out creativity and ambiguity, that might prove to be necessary elements of public administration.

Ita est.