



## Processes in Practice

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### Putting the "E" back into Enterprise Architecture

There is an old joke that there are two types of people in The World; those that like dividing people up into two groups and those that don't. Things seem very much the same in the business modelling world - there are process modellers and IT Architects. Traditionally the IT Architects called what they did "Enterprise Architecture", but in practice they only considered IT and data. However the demands of the business today require people who can understand, not just the IT landscape, but all the key elements of the business and how they interact. We need a new breed of modellers and architects (true Enterprise Architects) who can put the "E" back into Enterprise Architecture to fully support Enterprise BPM (EBPM).

#### The Worlds of Process and IT Collide

Process modellers tend to concentrate on modelling the flow of complex processes; the decision points, the branches and alternative paths. They will usually model the roles or departments that carry out the process and occasionally they will also consider the IT systems that support the processes, but rarely in any detail. On the other hand, IT Architects have tended to focus on IT systems landscape planning. That is on categorizing and transforming IT systems, the underlying technology (e.g. databases, operating systems, protocols, etc) and data. Their interest in data is mostly in terms of where it is hosted and its quality. In large organizations the main preoccupation of IT Architecture has been with system interfaces - how information flows between one system and another to support the operation of the business.

However, the world is changing fast and we can no longer work in these silo camps. The IT Architecture world has woken up to this. To a large extent this is because of the interest in Service Oriented Architecture (SOA). Componentizing the IT landscape into services is the current strategy for standardizing and optimizing the systems landscape and removing the large amount of redundancy that in many large organizations soak up so much of the IT budget. The drive towards SOA made the IT Architects ask the obvious questions: "what do all these systems do?" which led on to "how do these new services we have created string together to deliver the business processes?". Suddenly the IT world, which had always thought of process people as poor relations, became interested in process. The development of Enterprise Architecture Frameworks such as TOGAF[1] have encouraged the latest breed of "Enterprise Architects" to think much more widely than just IT systems, but nevertheless, IT is still their focus and they are only interested in processes to the extent that they determine the IT Landscape and the Service Architecture.

On the other hand process modellers are being dragged kicking and screaming closer and closer to the world of IT. Those of us with a background in process used to proclaim that "it is process that runs the business and IT should just support the processes - IT should not drive process design". This is no longer realistic (if it ever was) because the huge importance of IT (and the huge expenditure on it) means process designs have to take into account what IT can support and more importantly how to realize business requirements using the reusable services that IT

provides.

So the move to integrate process and IT has been driven by the first steps in SOA and by the development of BPMS systems that allow processes to be delivered and automated in the same design suite. However, there were (and still are) limitations in both these approaches, but as we move to the second generation of SOA thinking, particularly when we think about business services rather than IT services, we are starting to see a real convergence of the process and IT world.

### **Why do we Need an Enterprise Architecture?**

SOA and BPMS strategies will fail if process and IT continue to remain in their own isolated camps; creating their own architectures and roadmaps and only coming together to discuss low level services. Why is this? Well consider the following questions:

1. How can we ensure corporate goals are being delivered by the processes?
2. How can the company handle the range of variation in processes?
3. How can we be sure our IT systems are implementing the processes we designed?
4. How can we measure our processes so we can be sure they are optimized?
5. How can we make IT flexible to support rapid change of the business processes?
6. How can we know how many IT systems we have and what they do?
7. How can we rationalize IT without having a negative effect on the business?
8. How can we know what process are affected by withdrawing an IT system?
9. How do we know who needs training when we introduce new IT?
10. Where are the risks in the business and what systems and resources are affected?
11. How can we prove adherence to regulation and be ready for audit?
12. Do we have sufficient staff to maintain service levels?

Of course you can instigate many local projects and initiatives to address these, but one thing is certain - you won't be able to systematically and repeatedly answer these questions unless you are maintaining a true Enterprise (with a big "E") Architecture.

For instance, one of the most common questions people want answered is "Tell me which processes are supported by this specific release of an IT system and who uses it". On the face of it a pretty straightforward question, but notoriously difficult to answer in any systematic or repeatable way. Typically the IT community will know which domain the system is in (e.g. CRM, Supply Chain, etc), where it is physically located, the data it hosts and can probably give you a list of users. They are unlikely to know which processes are supported, exactly what the system does, the roles the users undertake and probably what products are supported. On the other hand the process community may know what processes are supported by a generic system, but not what actual instance or release is used, what it does and where it is located. So neither teams can readily answer this question.

When such information is required for an IT transformation program, typically a team is setup to capture the necessary data and the end result is usually a set of Excel spreadsheets and PowerPoint slides. These may well provide the required information, but the problem is that it does not get systematized as a corporate asset, so the next time the question is asked, the investigation work has to be done all over again.

### **The Way Forward**

We need to encourage and develop an approach to enterprise modelling and design that strategizes, designs, models, plans, implements and monitors the business infrastructure considering all the important aspects that are crucial to ensure the business operates and is effective. We need to elevate Enterprise Architecture to support an Enterprise BPM, for instance

using a Business Process Excellence lifecycle such as the one developed by Software AG (see Figure 1.).

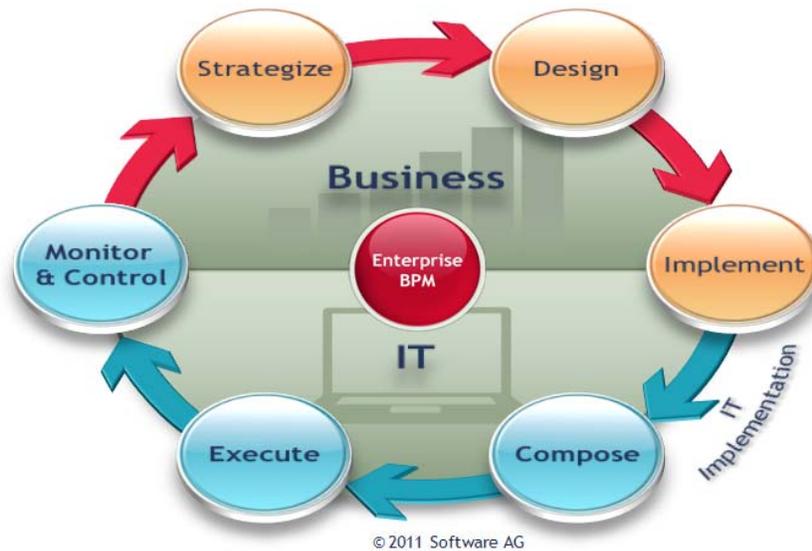


Figure 1. Business Process Excellence Lifecycle

Process should still be at the heart of the approach because:

*"Processes are not just something your business does - Processes are the Business"*

However, in addition to just considering process flow, we also need to consider the business infrastructure that supports the process (people, systems, equipment, etc.) and the environment in which it operates (objectives, products, risks, regulation, etc.) (see my article "A Process is Not Just a Flowchart (or a BPMN model) [2]"). To do this we need to ensure that Enterprise Architects are not just IT Architects, but are interested in all of the business and its entities - we need to put the big "E" into Enterprise Architecture.

### What Does an Enterprise Architecture Look Like?

There are a number of different definitions of Enterprise Architecture (i.e. see the Institute for Enterprise Architecture Developments [3]). but essentially it is about capturing and understanding all of the different elements that go to make up the Enterprise and how those elements inter-relate. In the past EA has tended to focus mostly on IT and its relationship to the business, but increasingly EA is becoming a more holistic enterprise-focused approach.

Prof. Dr. Dr. h.c. mult. August-Wilhelm Scheer, the founder of IDS Scheer AG (now part of Software AG) developed the ARIS, "Architecture of Integrated Information Systems", concept (Figure 2a) to describe organizations and the application software that supported them. It comprise five keys views: Function, Data, Organization, Control, Product/Service and also three layers: Requirements Definition, Design Specification and Implementation. It was in fact an Enterprise Architecture framework, and using the ARIS software, it is possible to model all aspects of an enterprise (see Figure 2b).

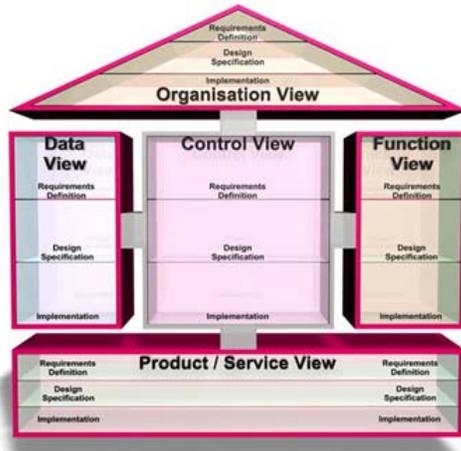


Figure 2a. ARIS

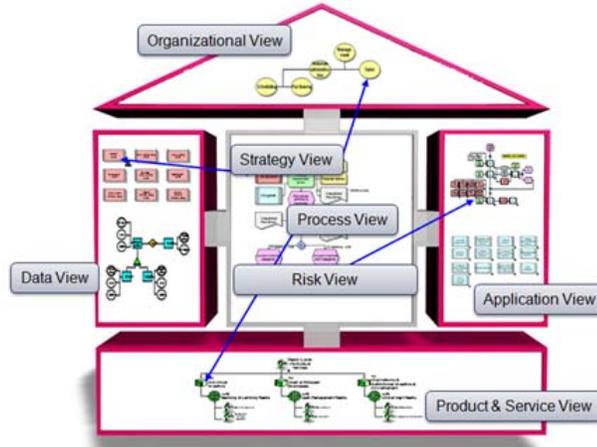


Figure 2b Modelling the Enterprise with ARIS

More recently the Open Group have produced the TOGAF Architecture Framework which provides a detailed method and a set of supporting tools for developing an enterprise architecture (Figure 3). The original development of TOGAF in 1995 was based on the Technical Architecture Framework for Information Management (TAFIM), developed by the US Department of Defense (DoD).

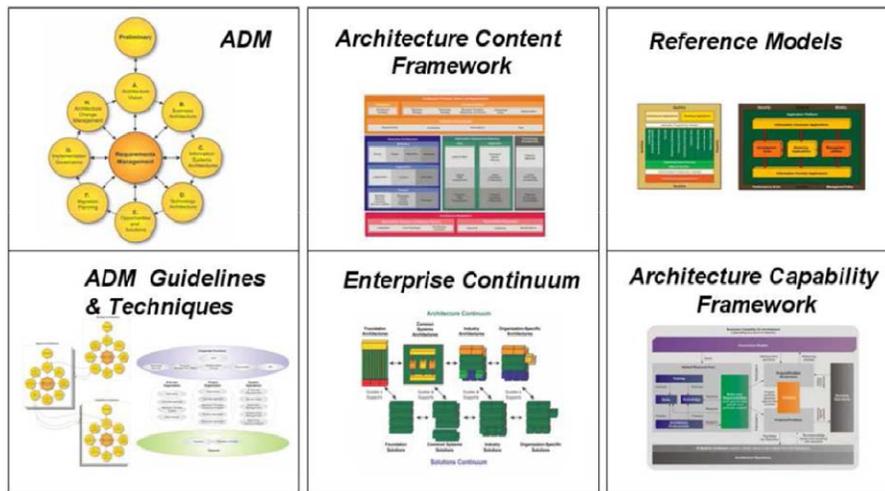


Figure 3. TOGAF Enterprise Architecture Framework

In a similar way to ARIS, the TOGAF framework describes Business, Application, Technology and Information Domains (see Figure 4).

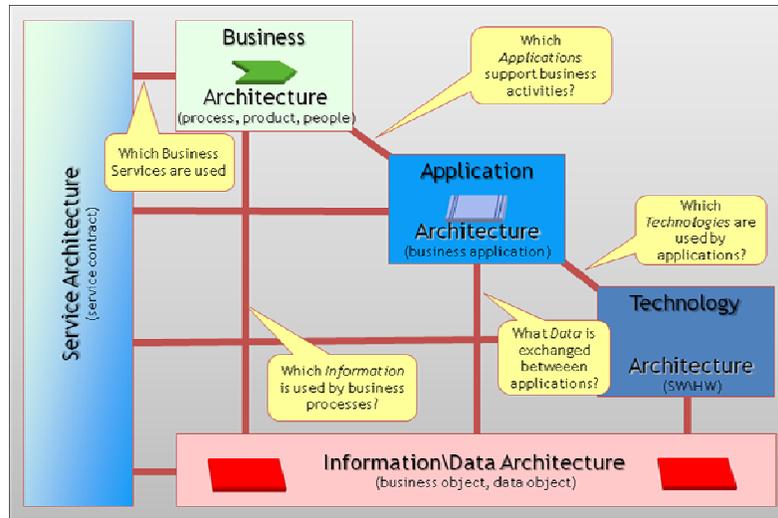


Figure 4. Enterprise Architecture Domains

The focus of Enterprise Architectures is increasingly around Business Services which build on the SOA concept but seeks to define bigger, higher value services. Business services often encompass process logic as well as manipulating data and calling atomic IT services. The TM Forum [4] is enhancing their original Telecom related Process, Application and Information frameworks into an integrated "Frameworkx" based on TOGAF principles and aimed at creating a Service-Oriented Enterprise based on Business Services (see Figure 5).

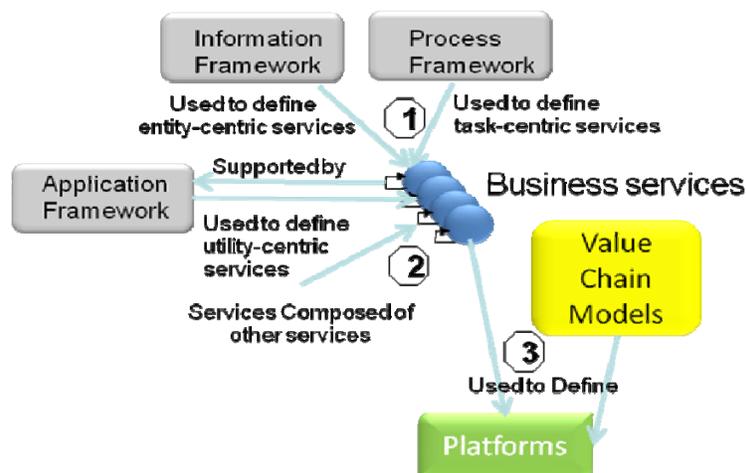


Figure 5. TM Forum Frameworkx

### How do we create an Enterprise Architecture?

We can see from the previous section that we have the conceptual frameworks to create a true Enterprise Architecture. There is a desire in many organizations to take a more holistic approach to enterprise modelling; however, to make this work what we need is to move EA out of the grip of the IT Architects and establish an EA function that is truly concerned with describing and understanding all of the enterprise.

Moreover we need to start using true Enterprise Architecture tools. Many of the current "EA" tools started life as IT Inventory and IT Architecture and Landscape Planning tools. They are very good at what they do, but they often focus too much on the IT aspects. Also many of the IT architecture and design tools are heavily based only on the UML notation which, again, is good for describing the detailed design of IT systems, but is poor at representing all of the artefacts that are important to the business.

Unfortunately one of the main barriers to EA is that it is perceived as overly technical, abstract and academic and having little connection with current business issues. While TOGAF provides many benefits, the sheer size of the documentation and the work required to implement it is a "turn-off" for many organizations. At the same time, business people are still asking the sort of questions that I listed above that can only be answered by Enterprise Architecture. The second barrier is that people perceive (quite rightly) that it is a lot of effort to capture and model the information needed and are not prepared to fund it. However, they are prepared (because they have to) to instigate numerous transformation projects that repeatedly capture the same project-specific information which they fail to store for future reuse. We need to convince them that it is more effective to spend the money on developing and maintaining an Enterprise Architecture that can answer their questions and support business strategy and transformation.

So there is work to do to get acceptance for spending time and effort on EA. We need to:

- Move Enterprise Architecture out of the IT Organization
- Create a multi-disciplinary team of Enterprise Architects
- Adopt a common framework, but use it in a simple pragmatic way
- Implement a professional EA tool based on a single repository
- Identify what information is vital for current business issues and initiatives
- Ensure that all business modelling activities use the same tools so that corporate knowledge is built up.
- Capture a list of questions that the business frequently asks (or would like to ask), show how EA could answer them and the benefit it would bring
- Quickly publish captured information in a way that can be easily used by many parts of the organization
- Ensure all business initiatives are involved in using or creating Enterprise Architecture data

By taking this approach we can start to put a big "E" into Enterprise Architecture and ensure that it becomes a corporate asset that will answer the questions of the future and ensure the ongoing integration of process and IT.

## References

- [1] [www.opengroup.org/togaf](http://www.opengroup.org/togaf).
- [2] [Rob Davis. BPTrends, April 2011](#)
- [3] [www.enterprise-architecture.info](http://www.enterprise-architecture.info).
- [4] [www.tmforum.org](http://www.tmforum.org).

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## Author

Rob is a Senior BPM consultant with Software AG which merged with IDS Scheer in 2011. He is an internationally recognized expert in Business Process Management (BPM) and the practical use of the ARIS Design Platform. Previously, Rob worked for British Telecom (BT) where he was responsible for selecting and implementing ARIS in a large scale implementation. Rob has built extensive experience of all aspects of BPM and specializes in providing consultancy on BPM, process modelling and design, architecture and frameworks, process governance, and integrating process and IT design. Rob has written three definitive books on the practical use of ARIS Design Platform for BPM. For more information see <http://www.rob-davis.co.uk>.

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