White Paper
The Top 8 Deliverables You Need to Make Your EA Project Succeed

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The success rate of Enterprise Architecture projects are contentious due to the difficulty in defining success criteria that can be measured by the Enterprise Architecture (EA) team and their key stakeholders. A contributing factor is that the value of a good architecture is realized only after a series of successful implementation projects that prove the quality of the architecture. What is the solution then? Depending on the organizational culture, experience of the team and type of project, I would recommend one of the following strategies.

If the organization is process or workflow driven with an organizational culture that understands process maturity, then a cumtomized version of the Architecture Development Method, with detailed activity steps that are enforced, will enable the architecture management team to collect measures that can be used to measure the efficiency of the team.

Alternatively, in an organization with less formal practices the implementation of standardised processes for architecture development is more difficult. In that case the focus should not be on process compliance, but rather on enforcing the creation of standardised deliverables at critical points during the architecture project.

I have found that in any architecture initiative there are three core phases that an architecture project must pass-through, each containing critical transition points that must be monitored. During the **architecture project initiation phase**, alignment between the business objectives and the architecture initiative must be confirmed and the scope of the project agreed. Throughout the **architecture development phase** the stakeholders must be able to track the quality of the architecture. Finally,

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the translation of the architecture into requirements and blueprints for solutions development or procurement will occur during the **transition planning phase.**
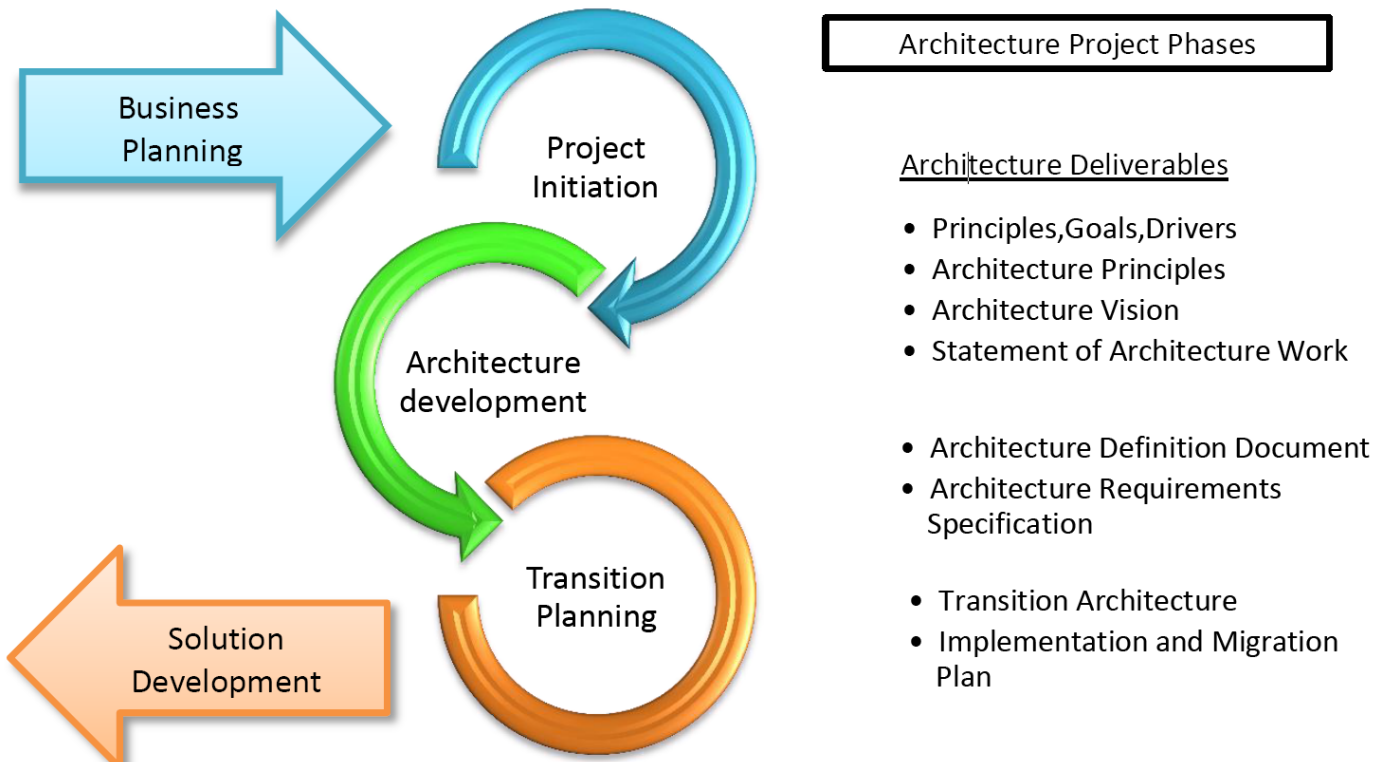

Architecture Project Phases

Architecture Deliverables

- Principles,Goals,Drivers
- Architecture Principles
- Architecture Vision
- Statement of Architecture Work

- Architecture Definition Document
- Architecture Requirements Specification

- Transition Architecture
- Implementation and Migration Plan

Figure 1: Functional Decomposition Example

Architecture Project Initiation

Any architecture initiative normally starts with the identification of a need by someone in business (or IT), which is send to the architecture team as a request for assistance. The architecture team will then have to perform a few tasks to translate this "need" into a business case that is defined well enough to convince a manager in the organization to act as project sponsor.

Even if an organization has not adopted a formal architecture framework (although I think it would be wise to do so), the TOGAF content framework is still a useful resource. Chapter 36 of TOGAF 9 (http://pubs. opengroup.org/architecture/togaf9-doc/arch/chap36.html#tag_36_01) defines a set of architecture deliverables that are very useful for an architecture project. The Open Group has created a set of architecture deliverable templates, and these can be downloaded from: https:// www2.opengroup.org/ogsys/jsp/publications/PublicationDetails. jsp?catalogno=i093

I have found that documentation that clearly communicates the intent and understanding of the project to the key senior stakeholders is very important during the initial stages of a project. Using the Business Principles, Goals and Drivers template and the Architecture Vision template from TOGAF 9 is a great starting point towards this goal

It is also important to define the scope of the project for the architecture team, including the creation of a Statement of Architecture Work. The architecture team also benefit from the definition of architecture principles that are used as guidance for decision making. In an environment where there is a lack of process or governance the use of principles is even more important to provide guidance.

1. Business Principles, Business Goals, and Business Drivers Deliverable

Over the years I found that it is essential for the architecture team to document their understanding of the business strategies and objectives to ensure that any architectural decision or direction can be linked to a business initiative. The business principles, business goals, and business drivers' template provides the right context, by describing the organization and industry drivers that are constraining or influencing the organizational strategy.

2. Architecture Vision Deliverable

The Architecture Vision is an executive summary of the aspirational view of the architecture end-state and is used as a communication document for executive sponsors of the project and senior management. The Architecture Vision content is also added to the Statement of Architecture Work as an executive summary to facilitate, at the outset, what the desired outcome should be for the architecture.

Figure 2: Architecture Vision Template

Typical contents of an Architecture Vision (based on the TOGAF 9 template) are:

- Problem description:
    o Stakeholders and their concerns
    o List of issues/scenarios to be addressed

- Detailed objectives

- Environment and process models:
    o Process description

o Process steps mapped to environment

        o Process steps mapped to people

        o Information flow

    • Actors and their roles and responsibilities:

        o Human actors and roles

        o Computer actors and roles

        o Requirements

    • Resulting architecture model;

        o Constraints

        o IT principles

        o Architecture supporting the process

        o Requirements mapped to architecture

TIP: *I normally use the Operating Model diagrams as described in Enterprise Architecture as Strategy (http://www.imd.org/book/eas/) as the basis of the Architecture Vision. The TOGAF 9 templates tend to go to a level of detail that I think is not always required, so please use common-sense when applying these templates.*

3. Architecture Principles Deliverable

Using principles (general rules and guidelines) in an architecture project is good practice. Defining or amending a set of principles during the project initiation phase provides the team and key sponsors with a mechanism to make decisions and design choices, but it will only have an impact if the principles are widely distributed and used.

A good source for a starting set of principles is available as part of the TOGAF 9 standard; see Chapter 23 (http://pubs.opengroup.org/architecture/togaf9-doc/arch/chap23.html#tag_23) for a set of generic architecture principles.
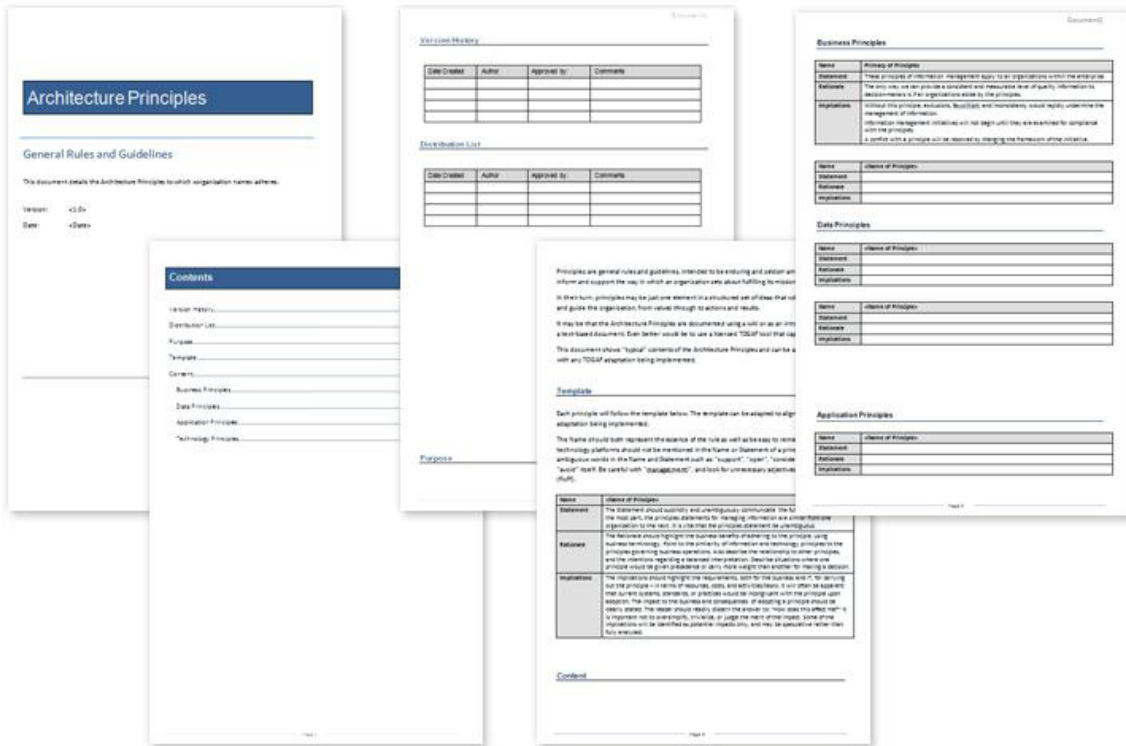
Figure 3: Architecture Principles Template

4. Statement of Architecture Work Deliverable

The Statement of Architecture Work is a contract between the business planning / project sponsors and the architecture team. The scope of the project is also defined in this deliverable, as well as the change management procedures that must be used to amend the scope of work.

Creating this deliverable allows the Enterprise Architecture professional leading the initiative to plan and manage resources properly. I believe this is the most important deliverable in the whole of this first phase. In organizations with formal project offices that require the team to submit project charters this document can be replaced by the organizational project documentation.

When using standard project documentation, it would be prudent to review the templates and ensure that the following content is reflected or captured on those documents:

- Statement of Architecture Work title

- Project request and background

- Project description and scope

- Overview or outline of Architecture Vision

- Managerial approach

- Change of scope procedures

- Roles, responsibilities, and deliverables

- Acceptance criteria and procedures

- Project plan and schedule

- Support of the Enterprise Continuum
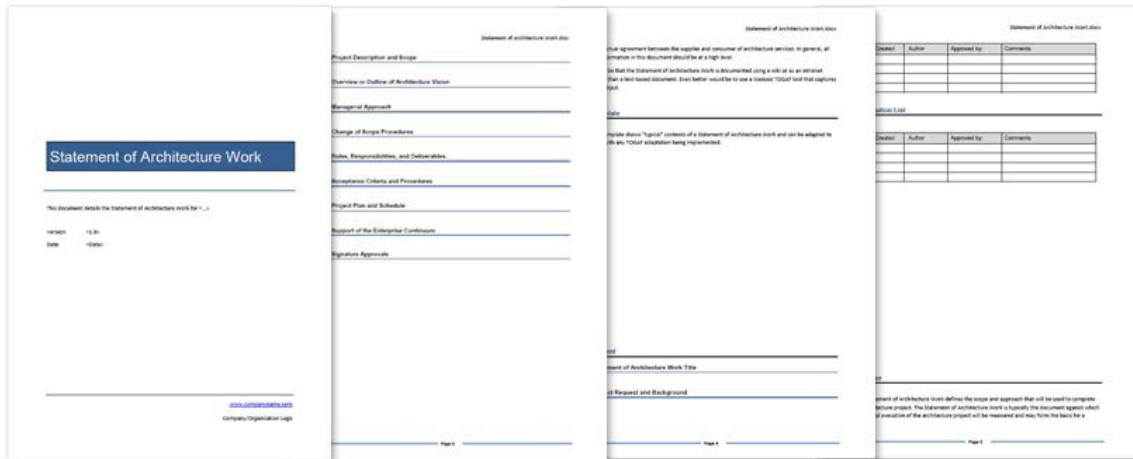
- Signature approvals

Figure 4: Statement of Architecture Work Template

TIP: *The Statement of Architecture Work deliverable is available as part of the download: https://www2.opengroup.org/ogsys/jsp/publications/PublicationDetails.jsp?catalogno=i093*

Consider using a good project management methodology as a first step to grow the architecture capability. I suggest investigating Prince2 (http://www.prince-officialsite.com/) as preferred option.

Architecture Development

Once the architecture initiation phase is complete and the architecture development work starts, the architecture team turn their focus on performing analysis and design work based on the scope defined in the Statement of Architecture Work.

The architecture team elicit requirements from stakeholders defined in the previous phase using architecture techniques (TOGAF 9 contains a set of architecture techniques that can be used). The results of the Baseline and Target architecture analysis and design process are compiled and captured into an Architecture Definition Document, which is then shared with the stakeholders.

Gap analysis is performed between the approved current and future architectures as defined on the project. The results are collected into an

Architecture Requirements Document and augmented with other non-functional requirements. The results are used by stakeholders involved with procurement or the development of systems.

Depending on the experience of the architecture team, different types of methods might be employed to develop the architectures, but the results are all saved in the Architecture Definition Document.

5. Architecture Definition Document

The Architecture Definition Document provides a qualitative view of the Baseline and Target architecture description and aims to communicate the intent of the architects. It is the deliverable container for the core architectural views created during the architecture project.

The views that are displayed in the Architecture Definition Document are defined in the previous phase, constructed during this phase and then captured in an architecture repository.
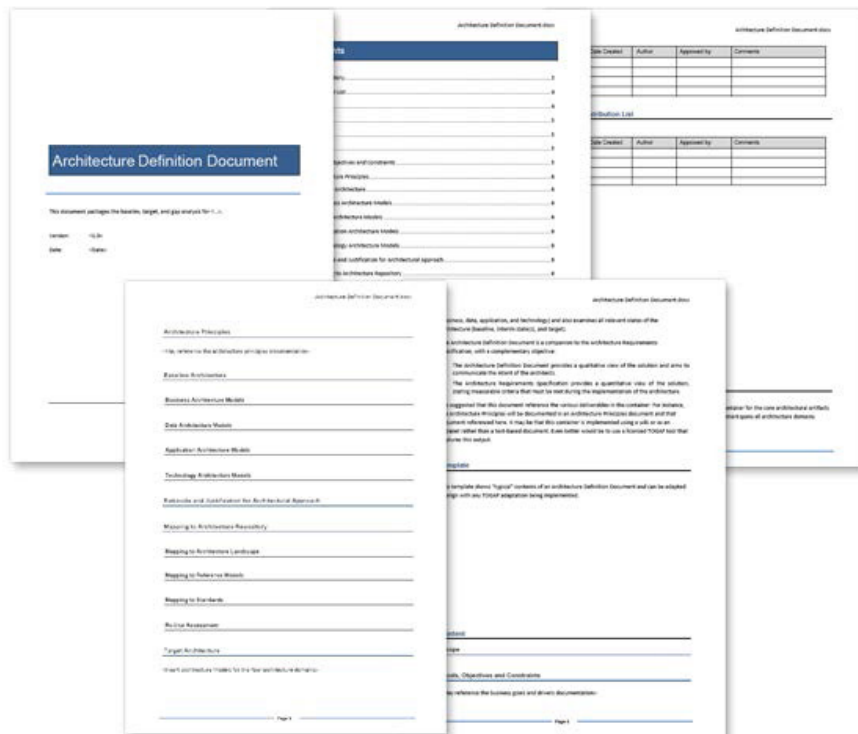

Figure 5: Architecture Definition Document

TIP: *I find it easier to work with a viewpoint library and use it to create views in the repository. TOGAF 9 or ArchiMate (http://www.opengroup.org/archimate/doc/ts_archimate/)*

6. Architecture Requirements Specification

The Architecture Requirements Specification provides a set of measurable criteria that must be met during the implementation of the architecture. This deliverable is designed to enable the stakeholders to design and construct solutions that are better aligned with the business requirements specified by senior management. I normally expect to export this specification from my repository, or to create the list of requirements in an Excel spreadsheet.

Typical contents of an Architecture Requirements Specification include:

Success measures

Architecture requirements

Business service contracts

Application service contracts

Implementation guidelines

Implementation specifications

Implementation standards

Interoperability requirements

Constraints

Assumptions

Figure 6: Architecture Requirements Specification Template

TIP: *TOGAF do provide a word template for the requirements specification, but I don't use it. I suggest that you focus on extracting the information from the repository in excel format, this is much easier to work with than a word document. Unless you buy the Volere template: (http://www.volere.co.uk/template.htm). It used to be free, but there is a small fee payable now.*

Transition Planning

The final phase of the project is focused on consolidating the architecture content and packaging it into a proposed Transition Architecture. TOGAF 9 provides a set of architecture techniques that can be used for transition planning without following the TOGAF 9 Architecture Development Method.

The creation of implementation work packages that will move the organization from the baseline to transition architecture and finally target architecture is a collaborative effort that requires the participation of key stakeholders from business and IT. A key focus is the creation of a viable Implementation and Migration Plan, in co-operation with the portfolio and project managers.

An important point to remember is that the Solution Development team must first implement the architecture before the organization will receive the benefit of the architecture work. Therefore it is important to have a basic governance structure in place.

TIP: COBIT4.1 is a great governance structure that I can recommend in environments where governance is not fully established. I find the structural support for Architecture and the RACI model for the Chief Architect gives me insight into my initiatives: (http://www.isaca.org/Knowledge-Center/COBIT/Pages/Overview.aspx)

7. Transition Architecture Deliverable

A Transition Architecture shows the enterprise at incremental states, reflecting periods of transition that sit between the Baseline and Target Architectures. Transition Architectures are used to group individual work packages and projects into managed portfolios and programs, illustrating the business value at each stage.

This deliverable must be available in the architecture repository as a view that can be printed or distributed to all the key stakeholders.

The screenshot below demonstrates the transition from foundation to target application environments. By moving the slider left or right on the timeline you would be able to simulate the architecture at that point in time.
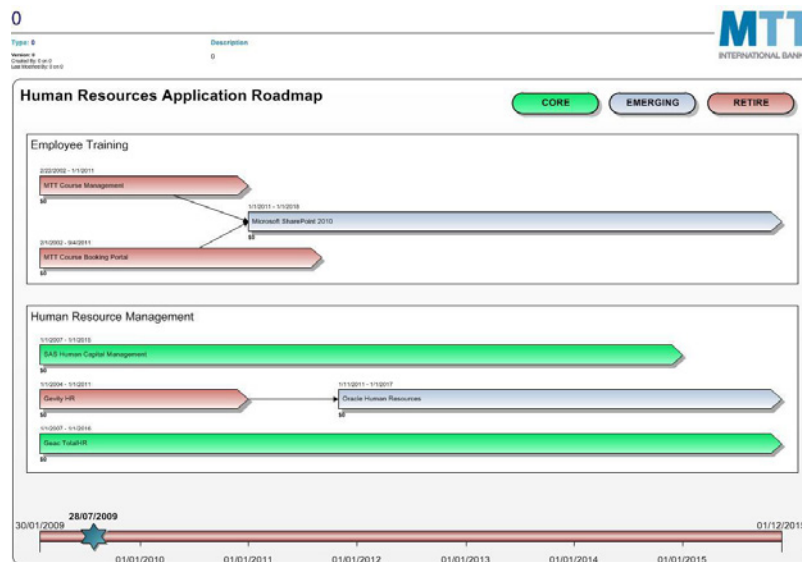

Figure 7: An Application Roadmap

TIP: Buy a good architecture repository that will give you the ability to analyse your environment and allow what-if-analysis.
(e.g. http://www.orbussoftware.com)

8. Implementation and Migration Plan

The Implementation and Migration Plan provides a schedule for implementing the solution described by a Transition Architecture. The Implementation and Migration Plan includes timing, cost, resources, benefits, and milestones for the implementation.

This deliverable must be created as a general communication tool between the original project sponsor, the architecture team and the implementation team. Although the first draft must be created by the architecture team, the on-going updates will move to the project office if they are responsible for managing the solution implementation.

Figure 8: Implementation and Migration Plan Template

TOGAF 9 provides a Microsoft Word template for this deliverable with a structure that contains the following headings (with a bit more guidance on the template):

- Implementation and Migration Strategy:

- Project charters:

    o Capabilities delivered by projects

    o Included work packages

    o Business value

    o Risk, issues, assumptions, dependencies

- Implementation Plan:

    o Phase and workstream breakdown of implementation effort

    o Allocation of work packages to phase and workstream

    o Milestones and timing

    o Work breakdown structure

    o Resource requirements and costs

> **TIP:** *I don't find it as useful as a project management software package. For those who don't have MS Office with Project, I have found the OpenProj project management software very useful and compatible with MS Project. (http://sourceforge.net/projects/openproj/)*

Conclusion

Not all organizations follow strictly enforced architecture framework processes. This should not stop them from gaining some benefit from architecture if they enforce a policy that requires the development of a set of standard deliverables.

Any architecture project has at least three phases, irrespective of methodology used (or not). If the team creates the minimum set of deliverables per phase they will by default keep all relevant stakeholders informed. Informed stakeholders will be then able to react if the project deviates from the plan, thus keeping the project on tract and leading to a more successful project implementation.

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