White Paper
What Business Analysts should know about the TOGAF® ADM

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Business Analysts have a big impact on how organizations plan and design business-appropriate Information Technology solutions. Although both Business Analysts and Enterprise Architects interact with the same business and IT stakeholders, they do not seem to share best practices and methodologies as much as I think they are able to share.

One of the key differences between the two disciplines is the fact that Business Analysts are focused on solutions or departmental level architectures, while architects are working towards common standards and best practice across the organization. Most Business Analysts subscribe to the Business Analysis Body of Knowledge (BABOK).

BABOK 2.0

The business analysis community adopted a standard set of best practices that were compiled to produce BABOK. BABOK version 2 was published in 2009, almost the same time that TOGAF version 9 was published. The body of knowledge does not prescribe any methodology or sequence on how Business Analysis professionals must use the Knowledge Areas (KAs) defined in the BABOK guide, but the KAs do have relationships defined between them.

In this white paper I want to discuss the different Knowledge Areas (KAs) listed in BABOK version 2 (Figure 1) and relate those KAs to specific TOGAF 9 phases within the TOGAF 9 Framework. This will enable Business Analysts (and Architects) to better leverage BABOK version 2 KAs by aligning it with a tested Architecture Development Method, the TOGAF 9 ADM.
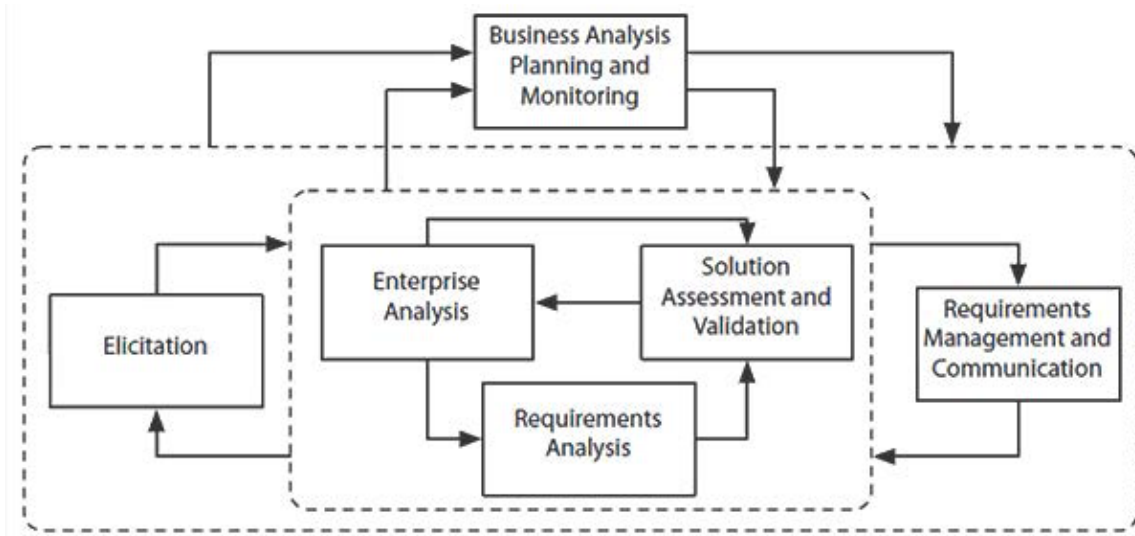

Figure 1: BABOK 2 Knowledge Areas

TOGAF 9

The reason that I chose to align BABOK with The Open Group Architecture Framework 1(TOGAF) is due to the fact that it is the most widely referenced architecture framework currently in use by architecture teams*.

TOGAF, and specifically the TOGAF Architecture Development Method (ADM), provide very good guidelines and best practices to architects who need to develop or implement architectures within organizations.
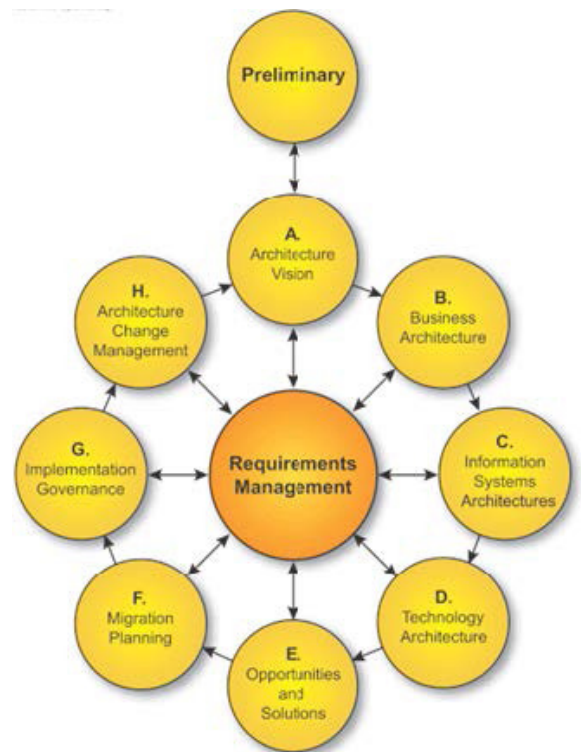

Figure 2: TOGAF 9 ADM

Although the framework is more widely used within the Enterprise Architecture community, the fact is that the Open Group framework is designed to be used by any architecture or business analysis community, including Solution Architects, Security Architects, SOA Architects, and Business Architects or Business Analysts.

## Building Blocks: Aligning Architectures with Solutions

The TOGAF 9 ADM can be applied on different levels in the organization, but as with Solution Architects, the focus of Business Analysts is solutions –focused, and the TOGAF ADM cycle must assist with the translation of business requirements into architecture building blocks and business relevant solutions (in the form of reusable solutions building blocks).

[According to the definition defined in TOGAF 9, an architecture is "a set of building blocks depicted in an architectural model, and a specification of how those building blocks are connected to meet the overall requirements of the business".]

The value of using the Architecture Development Method (ADM) to define the architecture building blocks is that the architecture will only contain the building blocks that are relevant to the business problem. The ADM is also used to select and define the solution building blocks, based on the architecture building blocks during Phases E & F of the ADM.

The full life cycle of building blocks from initial business definition to implementation is depicted in Figure 3 below.

In figure 3, the green phases in the TOGAF ADM represent Architecture Building Block definition and elaboration phases, while the orange phases represent the Solution Building Block selection and construction phases.
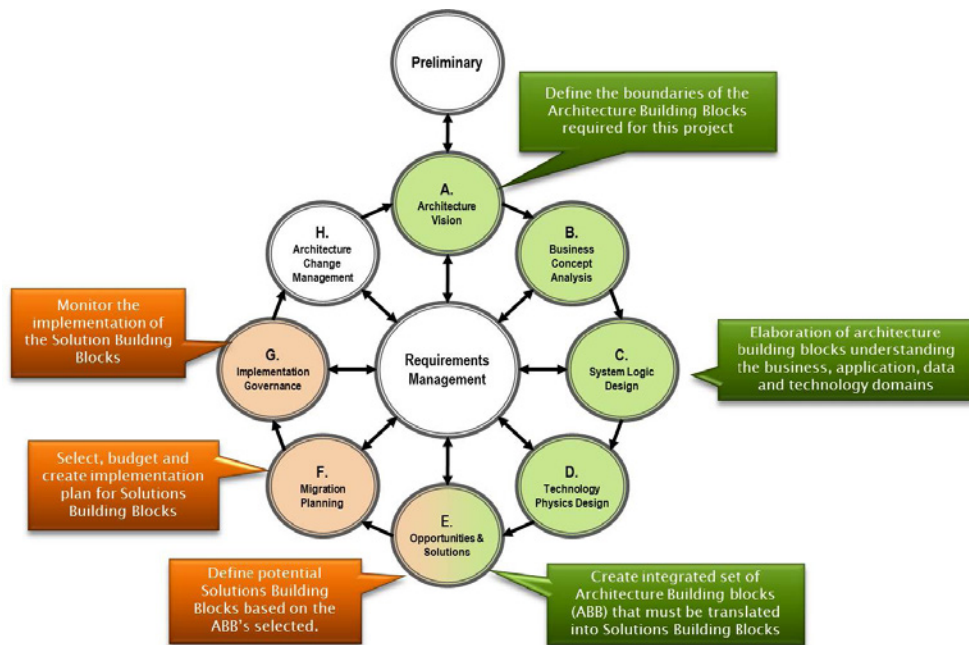
Figure 3: Using Building Blocks to define an Architecture Solution

The white phases relate to the architecture or business analysis Centre of Excellence or Capability. It is usually defined in the organization during the initial implementation of the TOGAF ADM and is a pre-requisite for a sustainable analysis or architecture approach.

In the next sections I will do a high-level mapping of BABOK 2 Tasks to TOGAF ADM Phase Steps to show how the knowledge areas within BABOK can be aligned and used to support the TOGAF ADM.

Capability Establishment

The Preliminary phase of the ADM is used to establish the architecture capability within an organization.

Although BABOK 2 is oriented towards solutions, the following section can be used to support and expand the TOGAF ADM Preliminary phase:

• Defining Business Analysis Planning and Monitoring (BABOK Chapter 2) in the ADM Preliminary Phase

Defining Business Analysis Planning and Monitoring in the ADM Preliminary Phase

The TOGAF 9 ADM Preliminary Phase is designed to establish a new capability within the organization, while the Business Analysis Planning and Monitoring Knowledge Area within BABOK is focused on the setup of the Business Analysis area within a Project Environment.

Despite this fact I still believe the task descriptions and deliverables defined within the BABOK Chapter 2 is very useful during the ADM Preliminary Phase.

The Business Analysis Planning and Monitoring Knowledge Area define the tasks associated with the planning and monitoring of business analysis activities, including:

- Identifying stakeholders

- Defining roles and responsibilities of stakeholders in the business analysis effort

- Developing estimates for business analysis tasks

- Planning how the business analyst will communicate with stakeholders

- Planning how requirements will be approached, traced, and prioritized

- Determining the deliverables that the business analyst will produce

- Defining and determining business analysis processes

- Determining the metrics that will be used for monitoring business analysis work

[Source: BABOK v 2.0 Chapter 2]

Business Analysis Planning and Monitoring Tasks

2.5 Plan Requirements Management Process

2.3 Plan BA Activities

2.6 Manage BA Performance

2.4 Plan BA Communication

2.2 Conduct Stakeholder Analysis

2.1 Plan Business Analysis Approach

ADM Prelim Phase Steps

6. Implement Architecture Tools

5. Select and Tailor Architecture Frameworks

4. Identify Architecture Principles

3. Define the Team

2. Confirm Governance and Support Frameworks

1.   Scope the Enterprise Organizations Impacted

Architecture Building Blocks

The following BABOK Knowledge Areas and TOGAF ADM Phases can be mapped when defining the Architecture Building Blocks:

• Performing Enterprise Analysis (BABOK Chapter 5) during ADM Phase A

• Elicitation (BABOK Chapter 3) and Analysis (BABOK Chapter 6) of Requirements during ADM Phase B,C,D

• Solution Assessment (BABOK Chapter 7) support in ADM Phase E

Performing Enterprise Analysis during ADM Phase A

During Phase A of the ADM the architect or project manager defines and agrees the scope of the engagement by executing the activities defined in the eleven steps. Phase A is a combination of Architecture and Project Management deliverables. When mapping the Enterprise Analysis KA to the appropriate phase, it is clear that only architecture or analysis elements are addressed by BABOK, but the level of detail is adding value to the phase and BABOK can be used to enhance the TOGAF steps.

Enterprise Analysis describes the business analysis activities that take place for organizations to:

• Analyse the business situation in order to fully understand business problems and opportunities.

• Assess the capabilities of the enterprise in order to understand the change needed to meet business needs and achieve strategic goals.

• Determine the most feasible business solution approach.

• Define the solution scope and develop the business case for a proposed solution.

• Define and document business requirements (including the business need, required capabilities, solution scope, and business case).

[Source: BABOK v 2.0 Chapter 5]

Enterprise Analysis Tasks   **ADM Phase A Steps**

5.5 Define Business Case ────────────▶ **11.** Develop EA plans & Statement of Architecture Work; secure approval

10. Identify the business transformation risks and mitigation activities

9. Define the Target Architecture value propositions and KPIs
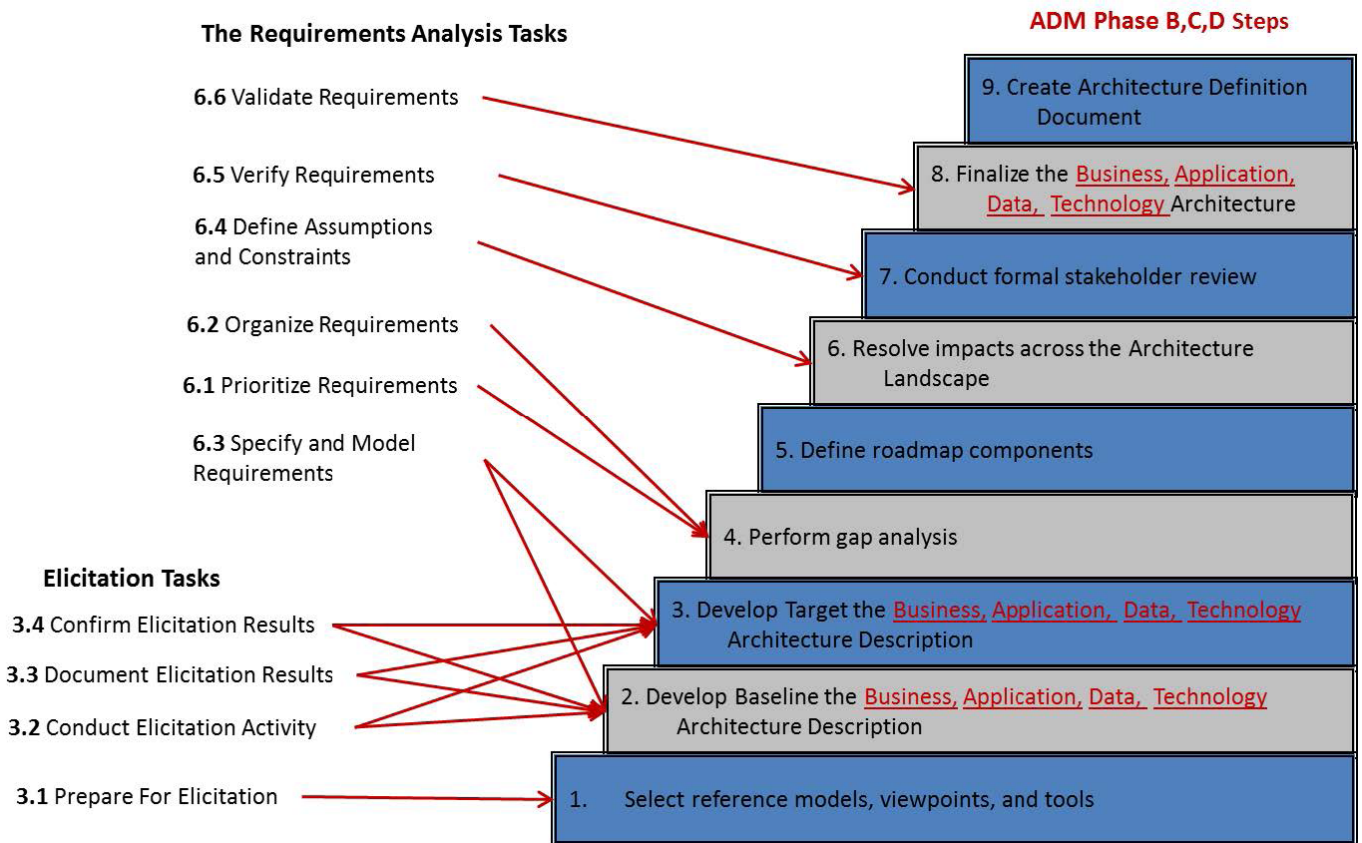
5.3 Determine Solution Approach ────────▶ **8.** Develop Architecture Vision

7. Confirm and elaborate architecture principles, including business principles

5.4 Define Solution Scope ────────────▶ **6.** Define Scope

5. Assess readiness for business transformation

5.2 Assess Capability Gaps ───────────▶ **4.** Evaluate business capabilities

5.1 Define Business Need ─────────────▶ **3.** Confirm business goals, drivers, and constraints

2.2 Conduct Stakeholder Analysis ──────▶ **2.** Identify stakeholders, concerns, and business requirements

1. Establish the architecture project

Elicitation and Analysis of Requirements during ADM Phase B, C, D

Phase B, C and D of the TOGAF ADM refer to the detail domain analysis and modeling of the baseline and target environments of the organization. The steps in the TOGAF ADM for all the domains are the same and can be treated as a single process (for comparison purposes) to BABOK. I found the most value from BABOK in this section and the depth of task descriptions, techniques and deliverables defined significantly improves the standards steps defined in the TOGAF ADM.

The Requirements Analysis Knowledge Area describes the tasks and techniques used by a business analyst to analyse stated requirements in order to define the required capabilities of a potential solution that will fulfil stakeholder needs. It covers the definition of stakeholder requirements, which describe what a solution must be capable of doing to meet the needs of one or more stakeholder groups, and solution requirements, which describe the behaviour of solution components in enough detail to allow them to be constructed.

[Source: BABOK v 2.0 Chapter 6]

The Requirements Analysis Tasks

6.6 Validate Requirements

6.5 Verify Requirements

6.4 Define Assumptions and Constraints

6.2 Organize Requirements

6.1 Prioritize Requirements

6.3 Specify and Model Requirements

Elicitation Tasks

3.4 Confirm Elicitation Results

3.3 Document Elicitation Results

3.2 Conduct Elicitation Activity

3.1 Prepare For Elicitation

9. Create Architecture Definition Document

8. Finalize the Business, Application, Data, Technology Architecture

7. Conduct formal stakeholder review

6. Resolve impacts across the Architecture Landscape

5. Define roadmap components

4. Perform gap analysis

3. Develop Target the Business, Application, Data, Technology Architecture Description

2. Develop Baseline the Business, Application, Data, Technology Architecture Description

1. Select reference models, viewpoints, and tools

Eliciting requirements is a key task in business analysis. Because the requirements serve as the foundation for the solution to the business needs it is essential that the requirements be complete, clear, correct, and consistent. Leveraging proven means to elicit requirements will help meet these quality goals.

Chapter 3 (Elicitation) includes details for eliciting business, stakeholder, solution, or transition requirements. The business analyst should understand the commonly used techniques to elicit requirements, should be able to select appropriate technique(s) for a given situation, and be knowledgeable of the tasks needed to prepare, execute and complete each technique.
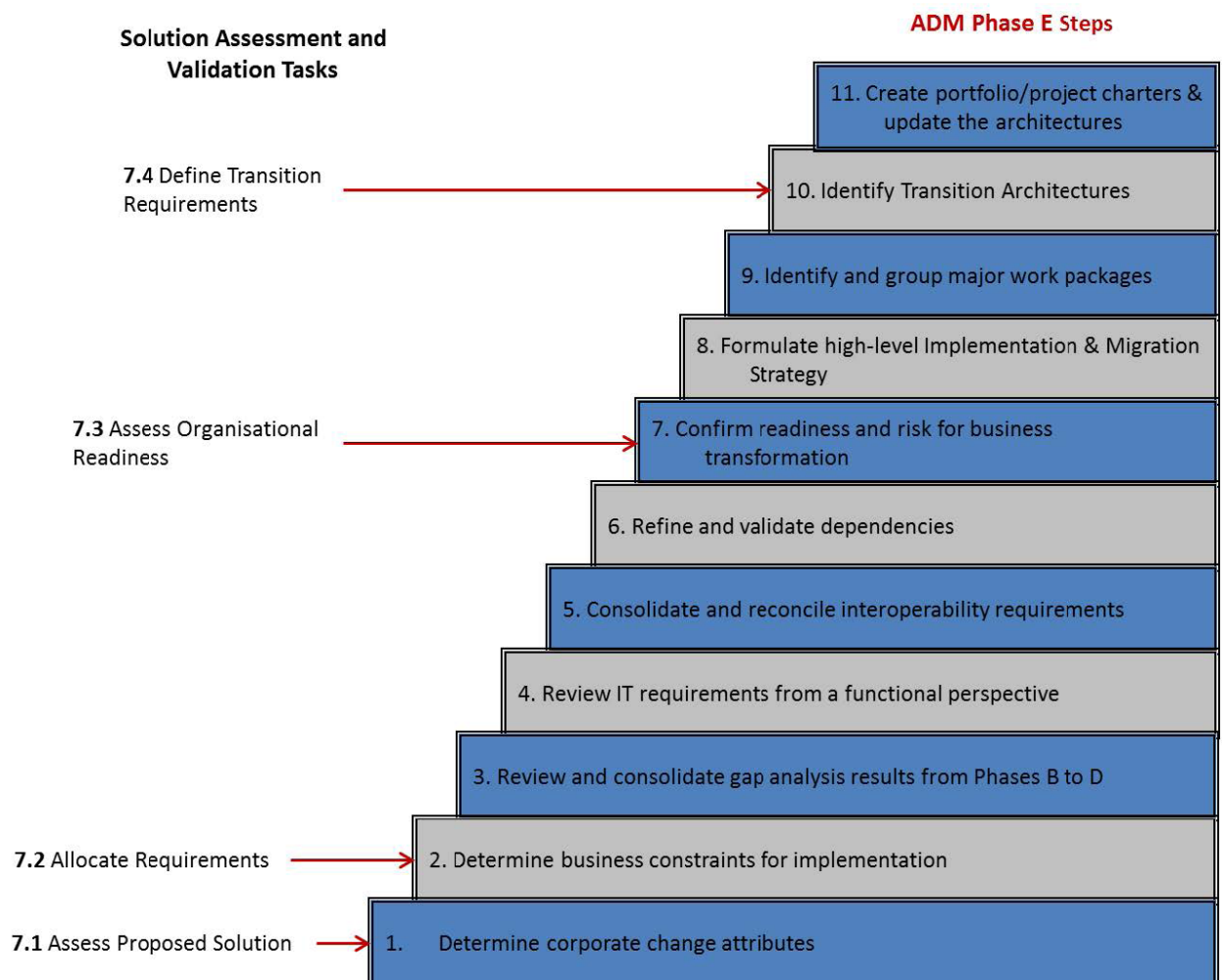
[Source: BABOK v 2.0 Chapter 3]

Solution Assessment support in ADM Phase E

The Opportunities and Solutions Phase in the TOGAF ADM (Phase E) is enhanced by BABOK in 2 strategic areas. The first is the Assessment of Organizational Readiness, which is addressed in TOGAF, but not to the level that I feel BABOK is adding value.

The second component is the definition of transition requirements that is also complimenting the TOGAF ADM, by making it more usable on a solutions definition level and not only on an enterprise level, where transition architectures are normally defined

The Solution Assessment and Validation Knowledge Area describes the tasks that are performed in order to ensure that solutions meet the business need and to facilitate their successful implementation. These activities may be performed to assess and validate business processes, organizational structures, outsourcing agreements, software applications, and any other component of the solution.

[Source: BABOK v 2.0 Chapter 7]

Solution Assessment and Validation Tasks

ADM Phase E Steps

7.4 Define Transition Requirements ⟶ 10. Identify Transition Architectures

11. Create portfolio/project charters & update the architectures

9. Identify and group major work packages

8. Formulate high-level Implementation & Migration Strategy

7.3 Assess Organisational Readiness ⟶ 7. Confirm readiness and risk for business transformation

6. Refine and validate dependencies

5. Consolidate and reconcile interoperability requirements

4. Review IT requirements from a functional perspective

3. Review and consolidate gap analysis results from Phases B to D

7.2 Allocate Requirements ⟶ 2. Determine business constraints for implementation

7.1 Assess Proposed Solution ⟶ 1.   Determine corporate change attributes

Solution Building Blocks

The TOGAF ADM is mainly focused on the definition of the Architecture Building Blocks and the governance of the Solution Building Blocks. The BABOK enhances the TOGAF ADM through:
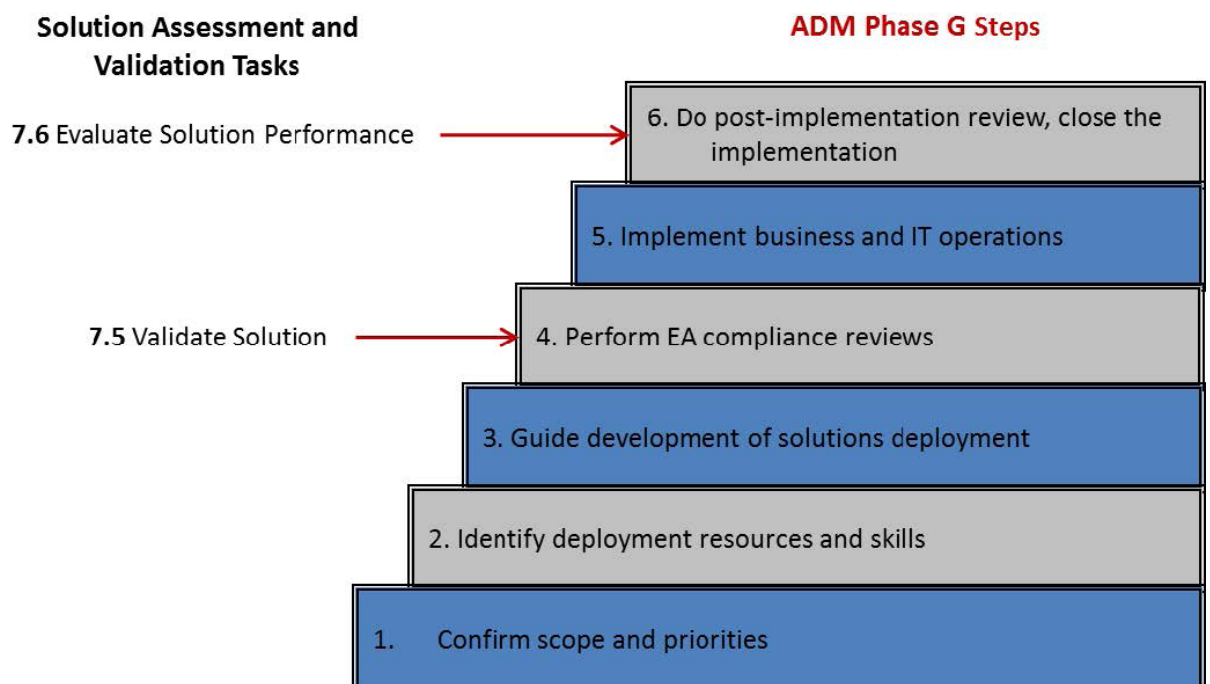
• Solution Validation (BABOK Chapter 7) during ADM Phase G

• Manage Requirements and Communication (BABOK Chapter 4) during the ADM Requirements Management Phase

Solution Validation during ADM Phase G

The TOGAF ADM only focuses on the governance aspects of the solutions being developed or procured and then deployed in the organization. BABOK Solution Assessment and Validation Knowledge Area enhances the TOGAF ADM with task steps that can be incorporated into a customized ADM, to allow better control and oversight in solutions implementation.

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>
> *[Source: BABOK v 2.0 Chapter 7]*

Solution Assessment and Validation Tasks   **ADM Phase G Steps**

7.6 Evaluate Solution Performance → 6. Do post-implementation review, close the implementation

5. Implement business and IT operations

7.5 Validate Solution → 4. Perform EA compliance reviews

3. Guide development of solutions deployment

2. Identify deployment resources and skills
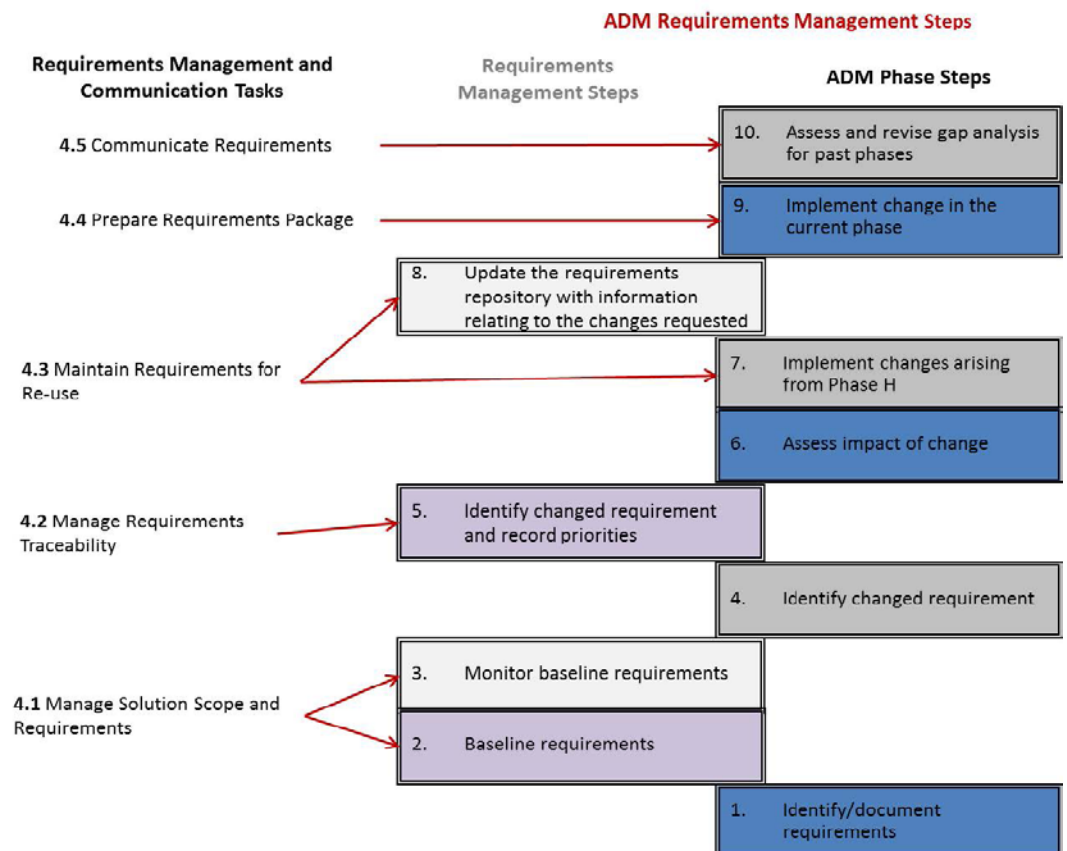
1. Confirm scope and priorities

Manage Requirements and Communication (BABOK Chapter 4) during the ADM Requirements Management Phase

Requirements management is central to both the TOGAF ADM (where the ADM Phases are linked with the Requirements management) and BABOK Requirements management and Communication KA. The steps defined to perform Requirements management in the TOGAF ADM can significantly be improved by adopting the tasks defined within BABOK.

> **The Requirements Management and Communication** task involves securing the approval of requirements from those stakeholders who have the appropriate authority, and managing issues that emerge during elicitation and analysis. Approval of requirements may be sought at the end of a project phase or at a number of intermediate points in the business analysis process.
>
> Requirements may be baselined following approval. Any changes to requirements after baselining, if changes are permitted, involve the use of a change control process and subsequent approval. As requirements are refined or changed as the result of new information, changes will be tracked as well.
>
> *[Source: BABOK v 2.0 Chapter 4]*

ADM Requirements Management Steps

Requirements Management and Communication Tasks	Requirements Management Steps	ADM Phase Steps
4.5 Communicate Requirements		10. Assess and revise gap analysis for past phases
4.4 Prepare Requirements Package		9. Implement change in the current phase
	8. Update the requirements repository with information relating to the changes requested	
4.3 Maintain Requirements for Re-use		7. Implement changes arising from Phase H
		6. Assess impact of change
4.2 Manage Requirements Traceability	5. Identify changed requirement and record priorities	
		4. Identify changed requirement
	3. Monitor baseline requirements	
4.1 Manage Solution Scope and Requirements	2. Baseline requirements	
		1. Identify/document requirements

Conclusion

In this whitepaper I created a high-level mapping between the TOGAF ADM Phases and BABOK Knowledge Areas and tasks to show how these industry frameworks can be used to enhance the work of both Architects and Business Analysts.

Business analysts can benefit from TOGAF as an approach to doing business analysis, and when adopted by an organization it should lead to more consistent and repeatable architecture and solution building blocks being created.

I am finding that I reference the BABOK version 2 more and more on my engagements, and I am still discovering new ways to leverage and integrate it into the TOGAF ADM.

Note: *The BABOK is a publication of the IIBA, (http://www.iiba.org/imis15/IIBA/Home/IIBA_Website/home.aspx) and version 2 of the BABOK can either be bought from their website in PDF format or in printed format from Amazon.com.*

It was the best US$30 that I ever spent on a PDF.

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