



Blueprint for 1Government Enterprise Architecture (1GovEA)

A Quick Guide to

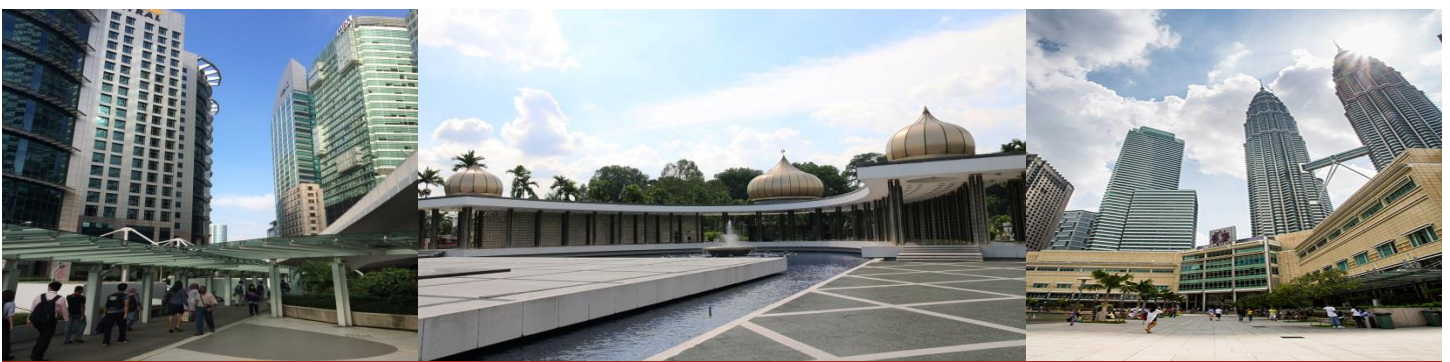


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Introduction



“In providing excellent services, civil servants must adopt a culture of productivity, creativity and innovation... that will trigger a new paradigm and improve the rakyat’s confidence in a more effective, efficient and responsive public service”

**YAB DATO’ SRI MOHD. NAJIB BIN TUN ABDUL RAZAK
PERDANA MENTERI MALAYSIA**

Efficient public service delivery has always been the Government’s focus. This effort has taken place since 1966 with the establishment of the Development Administrative Unit (DAU), the precursor of the current Malaysian Administrative Modernisation and Management Planning Unit or MAMPU. Since then, countless initiatives have been successfully implemented in an effort to cope with the increasing demands from both the public and private sector in the country. The agenda towards establishing a world class public service delivery has continued in the Malaysian Economic Transformation Programme (ETP) initiated in 2010.

Under the Entry Point Project (EPP) for E-Government (EPP8) of the National Key Economic Area (NKEA) in the Malaysian ETP, building Enterprise Architecture (EA) practices in the public sector agencies has been identified as one of the prime initiative to drive the establishment of connected government in the country.

The agenda to institute EA practices in the public sector has also been established as one of the terms of reference for the formation of the Chief Information Officer (CIO) in the public sector. EA elements were further embedded in the Public Sector ICT Strategic Plan 2011-2015 as one of the 7 ICT *strategies* for the public sector.



The ICT Vision

Pervasive use of ICT towards a Citizen Centric and “Whole of Government” Public Service



Key Drivers of Public Sector Transformation Agenda

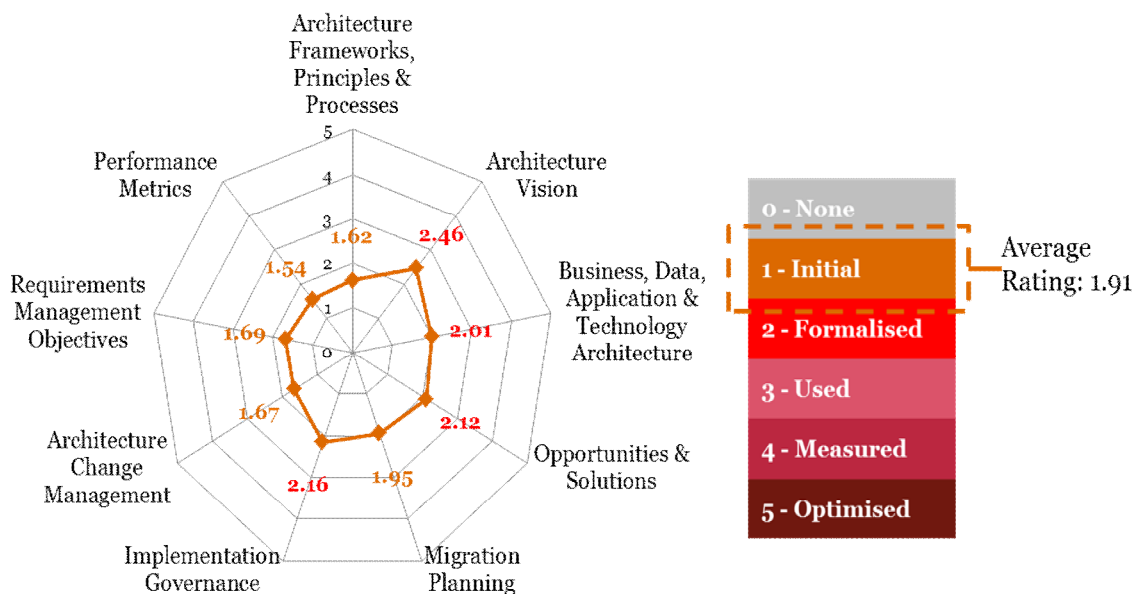
EA Maturity in the Public Sector

The EA Capability Maturity Assessment conducted on selected public sector agencies reveals that in general the Malaysian public sector is moving towards Level 2 (Formalised Stage) with regards to the adoption of EA practices.

The public sector agencies scored respectfully (above 2.0 point) in four (4) areas of EA practices, namely Architecture Vision, Architecture Domains (Business, Data, Application and Technology architecture), Opportunities and Solution as well as Implementation Governance. This was partly due to the fact that most public sector agencies have embarked on developing an IT Strategic Plan in their organisation where the above elements were formally documented.

There have also been efforts by several public sector agencies in Malaysia embarking on developing EA capabilities and practices as an initiative identified in their present ISP.

Realising the growing trends within the public sector agencies in embarking on building EA practices, MAMPU has initiated a study to develop a common blueprint to guide public sector agencies on EA practices. Branded as 1Government Enterprise Architecture or 1GovEA, it is envisioned to deliver a common framework and methodology to be adopted by public sector agencies in Malaysia.



Findings of EA Capability Maturity Assessment

What is Enterprise Architecture?

EA is essentially an approach to define an organisation or enterprise across different domains using a structured method. The structured method defined by EA will allow an organisation to describe the following aspects of the organisation:

- The organisation's mission, objectives and strategies.
- The business processes that achieve the mission and strategies.
- The associates or people that perform the business processes.
- The technologies that enable and support the processes.
- The interconnections between the systems.

Defining an Enterprise Architecture

EA is primarily driven by a continuously increasing adoption of technology in the organisation; resulting in greater integration and collaboration amongst business entities. EA is adopted as a practice to strategically define and align organisation's business and IT capabilities through understanding, reconciling and planning activities. By understanding the strategies and alignment, an organisation can focus on architecting detailed solution to describe specific application and technology implementation to support specific business needs. By developing EA practices, an organisation will be able to take stock the strengths and limitations of their existing business and technology landscape.

Enterprise Architecture is about **understanding** all of the **different elements** that go to make up the enterprise and how those **elements interrelate.**
. *Institute for EA Development*

Enterprise Architecture is the capture of all behaviour that goes on in an organisation; the data that is processed, who does what, where everything is, and why everything is done. In a sentence, the **who, what, why, when, where, and how of the business at every level from high-level corporate goals to the code of low-level programs** that implement business processes used to achieve those goals."
. *The Open Group*

What is Enterprise Architecture?

Importance of EA for the Public Sector

In building EA practices in the public sector, the common objectives for embarking on this initiative are as follows:

- Reduce the fragmentation of ICT development in the public sector agencies.
- Improve the ability of government agencies to share information.
- Improve the ability of external users (e.g. public) to access information held by government agencies.
- Identify opportunities for future end-to-end service integration to achieve connected government.
- Attain better technology planning and policy development by having a consolidated view of technology adoption in the public sector agencies.



Values of EA in the Public Sector

1GovEA is a framework and methodology for guiding the public sector agencies in Malaysia in building EA practices. The primary aim of 1GovEA is to provide a common approach, steps and templates to ensure consistent method of EA development in the public sector. By establishing EA capabilities and adopting the common EA practices, 1GovEA will help agencies to deliver the following key business values:

- Providing consistent and timely delivery of services in the most cost-effective manner while meeting the public expectations.
- Enhancing the business capabilities in the public sector through strategic and holistic consolidation of ICT capabilities.
- Delivering citizen-centric services that promote public participations.
- Establishing greater cross agencies collaboration on data sharing; and
- Consolidating duplicate services and enabling re-usable and shared services across the agencies.

1GovEA will define a new way for public sector agencies to approach business and technology challenges. With the adoption of EA practices, agencies will establish a single view of the current business and technical environment of the organisation. The single view will describe the inter-connectivity between businesses of the agency, processes to deliver the businesses, resources (people) responsible for performing the processes, information gathered and used/re-used, and the existing technology and infrastructure to support the delivery of the services. This view will assist agencies in various operational areas such as:

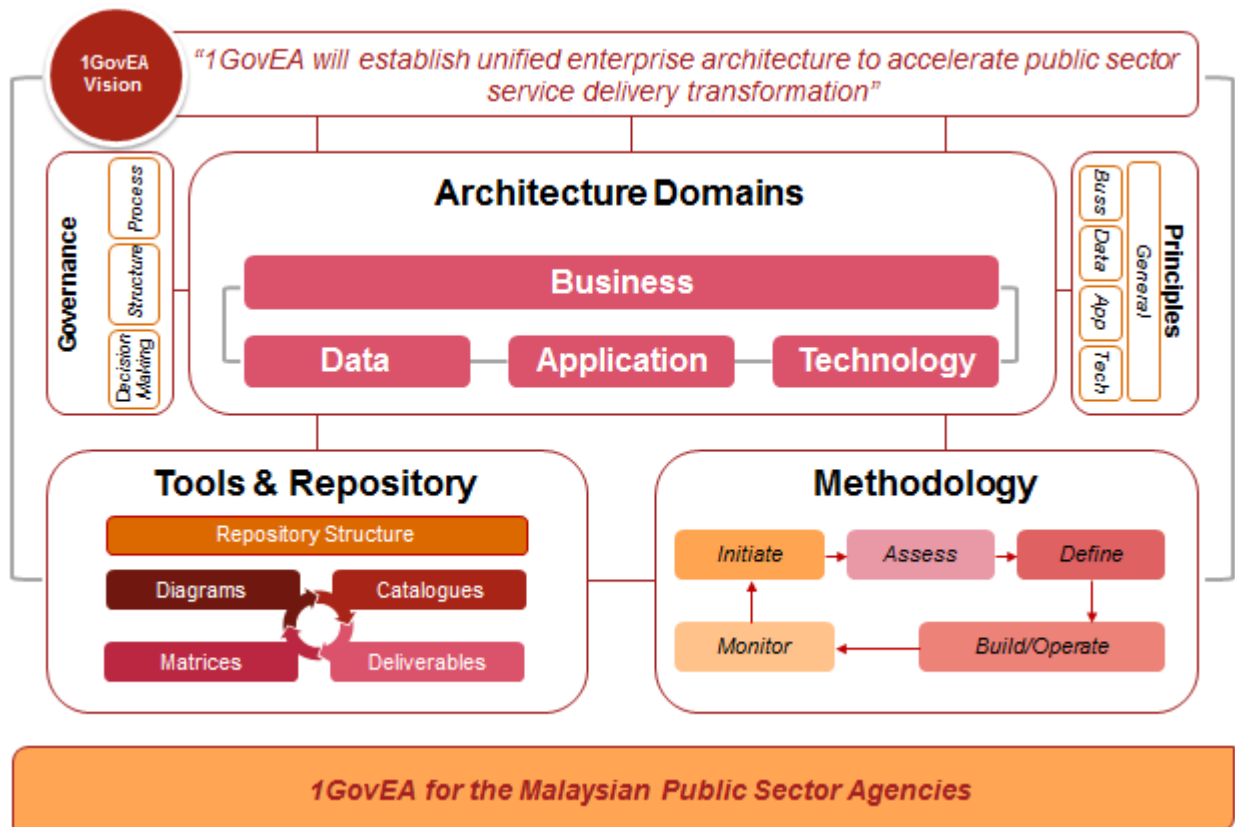
- Identifying and designing new business services.
- Consolidating or improving current services.
- Analysing and solving current operational and technical challenges/issues.
- Identifying new technology needs; and
- Analysing and designing how to embed the new technology.



1GovEA Logo

The 1GovEA Framework

1GovEA is guided by the architectural framework developed to define the core architecture elements in building and operating EA practices. The framework provides a set of functional guides describing key components of 1GovEA. An agency will need to develop these components as it embarks on building its EA practice.



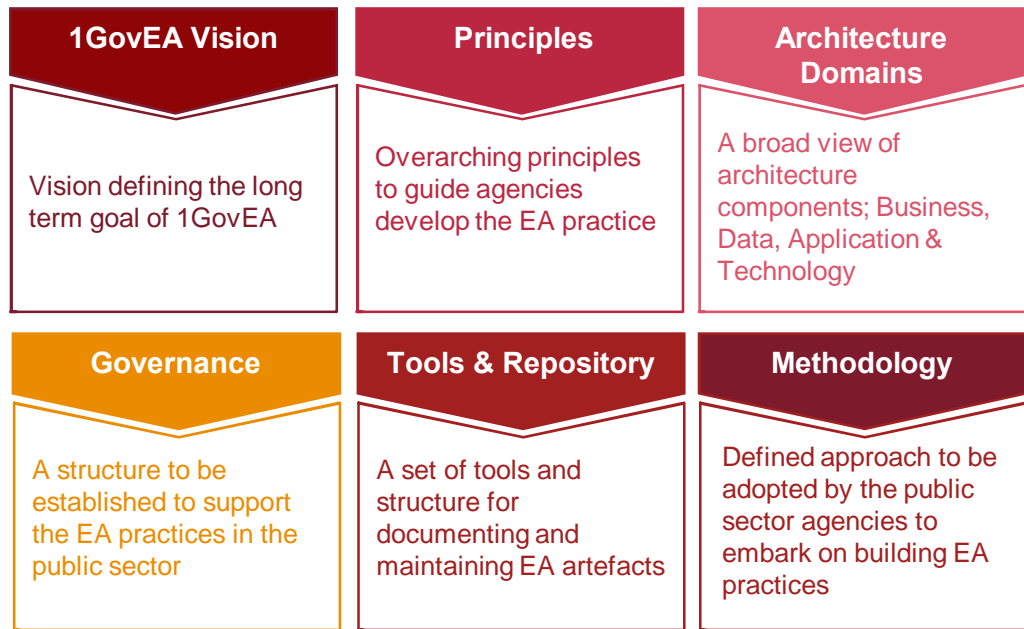
1GovEA Framework

The 1GovEA Framework as seen above comprises six (6) key components, namely:

- 1GovEA Vision.
- Principles.
- Architecture Domains.
- Governance.
- Methodology.
- Tools and Repository.

Each of these components are expanded in the following sub-sections.

1GovEA Framework Components



The Core Components

a. 1GovEA Vision -

The vision is a statement of intent that promotes the ultimate aim behind the establishment of 1GovEA initiative in the public sector.

d. Governance -

The Governance component describes the recommended structure and operating model that needs to be put in place to support the implementation and operationalisation of EA practices.

b. Architecture Principles -

Architecture Principles describes the overarching architecture standards to guide public sector agencies in the development of the business and technical architecture.

e. Methodology -

The Methodology outlines the structured approach (e.g. stages and steps) to be adopted by the public sector agencies when developing their EA practices.

c. Architecture Domains -

Architecture Domains define the four (4) areas of architecture namely business, data, application and technology that needs to be developed and maintained as the public sector agencies embark on building the EA practices.

f. Tools and Repository -

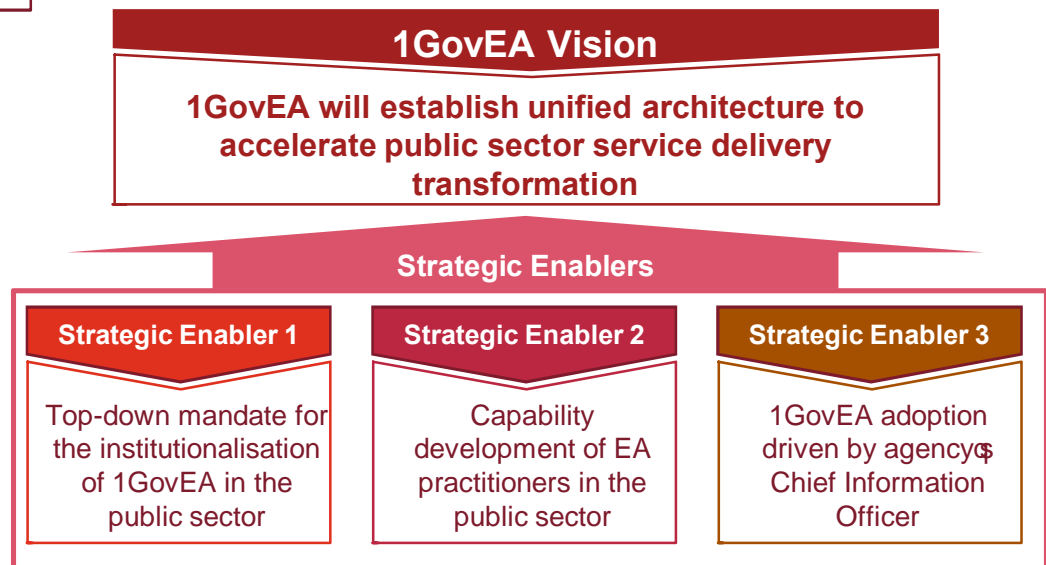
The Tools and Repository components describes the recommended tools and the common repository structure adopted by public sector agencies for documenting artefacts.

1GovEA Framework Components

1GovEA Vision

Vision defining the long term goal of 1GovEA

The Vision forms one of six components in the 1GovEA Framework and illustrates the ultimate aim of the Malaysian Government's intention of embarking on developing EA practices in the public sector.



1GovEA Vision and Strategic Enablers

Vision of 1GovEA

The 1GovEA Vision supports the EA development as it:

- Acts as a reference point for guidance on all architectural work
- Relays EA objectives to all stakeholders

The Vision is supported by three (3) strategic enablers that define the strategy for the roll-out of the 1GovEA initiative across the public sector.

MAMPU as the central agency tasked with overseeing the adoption of 1GovEA practices in the public sector will play an active role to drive the execution of the strategic enablers.

1GovEA Vision

Vision defining the long term goal of 1GovEA

Strategic Enablers Driving the 1GovEA Initiative

1

Top-down Mandate for the Institutionalisation of 1GovEA in the Public Sector

A mandate should be established and communicated to provide public sector agencies with a clear directive on the government's objectives and expected benefits for implementing 1GovEA in the public sector.

Having a mandate as such helps to expedite certain processes such as securing commitment from the management level and obtaining the necessary budget to support the implementation of 1GovEA initiative.

2

Capability Development of 1GovEA Practitioners

Public sector agencies embarking on 1GovEA will require skilled and competent 1GovEA practitioners who will drive the EA practices in their respective agency.

MAMPU has begun collaborating with Institut Tadbiran Awam Negara (INTAN) to develop a structured programme for training and developing competencies to drive the development of 1GovEA practices.

3

1GovEA Adoption Driven by Public Sector CIOs

The CIO in a public sector agency will play a significant role in promoting the adoption of EA practices based on the 1GovEA Framework and Methodology at their respective agencies.

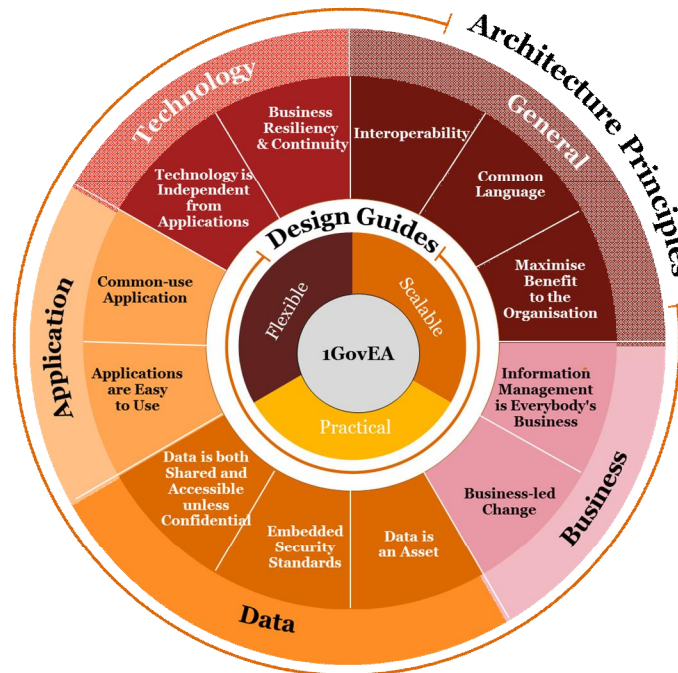
The Government Chief Information Officer (GCIO) in MAMPU will be responsible for spearheading the 1GovEA adoption in future CIO programmes and activities with the support of the Central Office of the Architect acting as the 1GovEA secretariat. The 1GovEA champion role will be further cascaded to the agency's CIO who will lead the 1GovEA implementation process throughout all phases.

1GovEA Framework Components

Principles

Overarching principles to guide agencies develop the EA practice

Architecture Principles are a fundamental set of overarching architectural standards that support the development of standardised and consistent architecture across the organisation. They are often used to guide an organisation to implement future initiatives in the public sector agencies and should be adopted when agencies begin to develop their business and technical architectures.



1GovEA Architecture Principles

The 1GovEA Architecture Principles comprises of two (2) primary components as follows:

1. Design Guides

Design guides are three (3) values adopted when formulating the 1GovEA Architecture Principles, namely:

a. Flexible

Agencies should have the option to adopt principles that suit their agency's overall mission and vision. They should also be able to expand on the set of principles within the confines of the Design Guides and Architecture Principles domains.

b. Scalable

Agencies should be able to

add new architecture principles or re-define existing ones as necessary to suit the needs of the government agency.

c. Practical

All 1GovEA architecture principles should contain practical values that can be adopted by any agencies embarking on EA practices based on the 1GovEA methodology.

1GovEA Framework Components

Principles

Overarching principles to guide agencies develop the EA practice

2. 1GovEA Architecture Principles

The 1GovEA Architecture Principles comprises of twelve (12) principles that can be divided into five (5) main categories, namely:

- a. General
- b. Business
- c. Data
- d. Application
- e. Technology

1GovEA Architecture Principles

No	Category	1GovEA Principle	
1	General Principles	1.1	Interoperability
		1.2	Common Language
		1.3	Maximise Benefits in Organisation
2	Business Principles	2.1	Information Management is Everybody's Responsibility
		2.2	Business-led Change
3	Data Principles	3.1	Data is an Asset
		3.2	Embedded Security Standards
		3.3	Data is both Shared and Accessible unless Confidential
4	Application Principles	4.1	Application are Easy to Use
		4.2	Common-use Application
5	Technology Principles	5.1	Technology is Independent from Application
		5.2	Business Resiliency & Continuity

1GovEA Framework Components

Architecture Domains

A broad view of architecture components; Business, Data, Application & Technology

Architecture Domains form the primary component within the 1GovEA Framework that allows organisation to define the conceptual, logical and physical elements of the organisation across four architecture domains. The Architecture Domains detail the structured breakdown of functional system capabilities within four domains.

The four (4) architecture domains in an EA are:

a. Business Architecture

Describes the overall business landscape of an organisation in terms of the structure of an organisation and the interaction between business strategy, goals, functions, processes and information needs.

c. Application Architecture

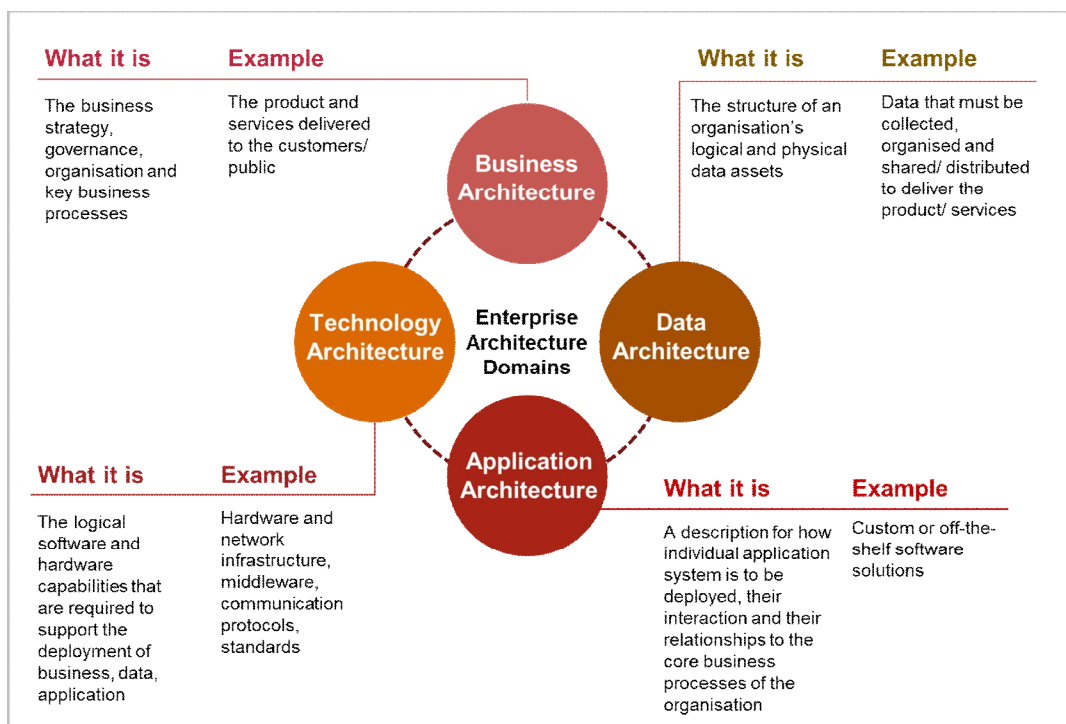
Describes the set of systems and applications used by an organisation to support its business operations.

b. Data Architecture

Illustrates how data is stored, arranged, integrated, retrieved and used by applications to support an organisation's business operations.

d. Technology Architecture

Specifies the technical infrastructure used to host applications and data in support of the business processes of the organisation.



EA Domain Overview

Architecture Domains

A broad view of architecture components; Business, Data, Application & Technology

Objectives of the Architecture Domains

Understanding and documenting the Business, Data, Application and Technology Architecture Domains is important for the following reasons:

- a. Provides the enterprise with a consolidated view of the current and target EA across the Business, Data, Application and Technology Domains.
- b. Allows the relationship between business and technology to be communicated to stakeholders.
- c. Illustrates the link and interdependencies between the Business, Data, Application and Technology Architecture Domains.
- d. Allows for the definition of the future Business, Data, Application and Technology Architecture required to support the enterprise's business strategy.
- e. Allows for the identification of dependencies and gaps between the current and target state Architectures, and how the Business, Data, Application and Technology Architectures need to evolve over time to align to the organisation's business strategy.

Artefacts in the Context of EA

Architecture content produced when implementing the 1GovEA Methodology are known as artefacts. These describe a particular aspect of the architecture.

Architectural artefacts can be categorised into three (3) categories;

a. Catalogues

These are generally the lists of items and are documented in the form of tables or spreadsheets.

Examples of catalogues that may be produced include the Role Catalogue, Application Portfolio Catalogue and Technology Portfolio Catalogue.

b. Matrices

A form of visualisation method to depict the relationship between items and are

normally documented in the form of tables. Examples of matrices that may be produced include the Role/ Actor Matrix and Application/ Technology Matrix.

c. Diagrams

Pictorial representation of items and their inter-relationships

Examples of diagrams that may be produced include the Event Diagram, Business Use-Case Diagram and Organisation Decomposition Diagram.

1GovEA Framework Components

Architecture Domains

A broad view of architecture components; Business, Data, Application & Technology

These artefacts produced can be further classified into three (3) major dimensions. These dimensions are:

a. Conceptual Dimension

This is the highest, most abstract level of architectural details which include the agency's high-level business or technology strategy business case or ideas.

b. Logical Dimension

This is the mid-range level of architectural details providing more comprehensive description of a subject. An example of a logical dimension is business process information.

c. Physical Dimension

This is the lowest, most detailed level of architectural details and generally includes real-world or physical components of an artefact.

1GovEA Framework Components

Governance

A structure to be established to support the EA practices in the public sector

The establishment of 1GovEA governance will take place in two (2) stages; the interim and the envisioned 1GovEA Governance Structure.

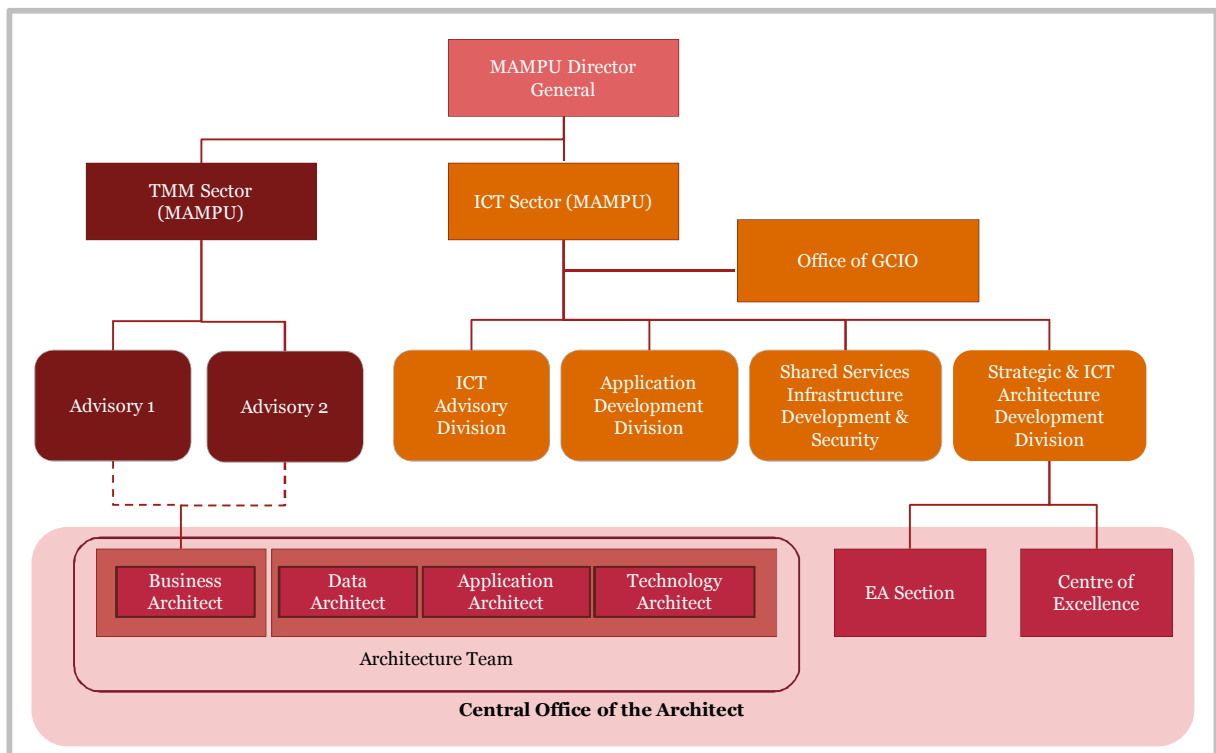
a. Interim 1GovEA Governance Structure

The 1GovEA governance structure will be established in MAMPU leveraging on its current organisation structure as shown in the figure below to champion the development of EA practices in the public sector.

The 1GovEA Governance Structure responsible for overseeing the adoption of EA practices in the public sector will

be known as the **Central Office of the Architect** which will primarily be under the responsibility of the **Strategic and ICT Architecture Development Division**.

The Central Office of the Architect will consist of three (3) distinct units, namely the EA Section, the Centre of Excellence and the Architecture Team.



1GovEA Interim Central Governance Structure

1GovEA Framework Components

Governance (MAMPU)

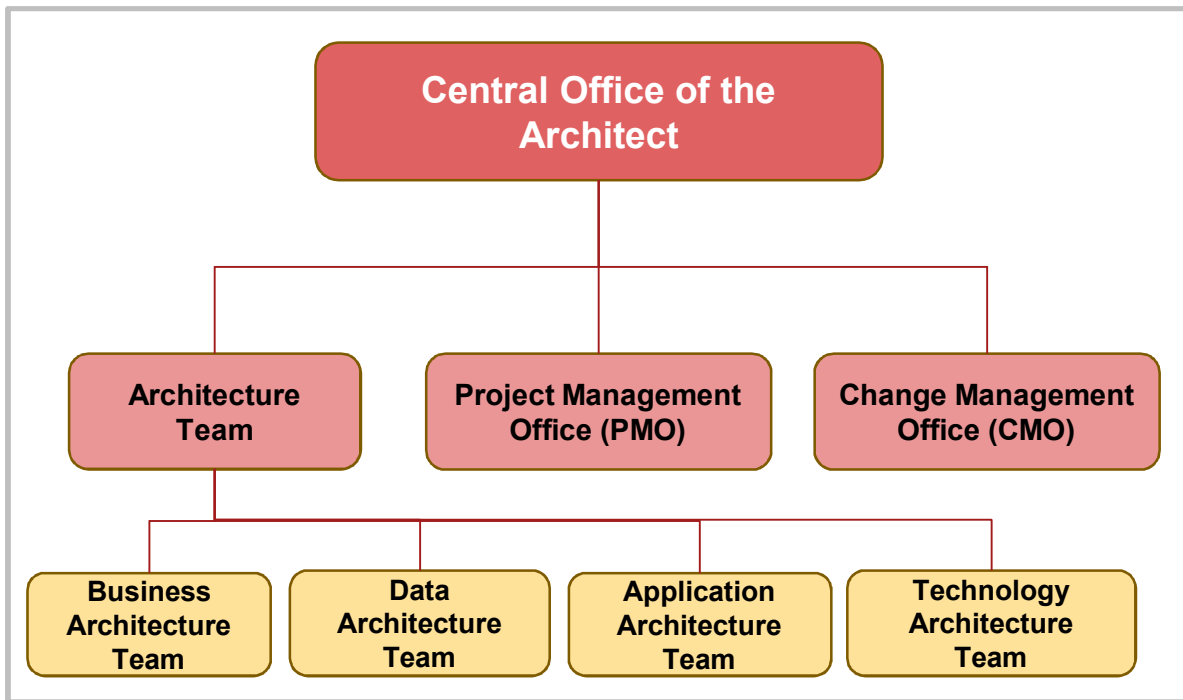
A structure to be established to support the EA practices in the public sector

b. Envisioned 1GovEA Governance Structure

The envisioned 1GovEA governance structure (as depicted) will see the elevation of the Central Office of the Architect in MAMPU to a division within the ICT Sector in MAMPU.

The envisioned 1GovEA governance structure will emphasize the importance of 1GovEA initiative for MAMPU in

driving EA as an important initiative and the enabler for improving the public sector service delivery. Positioning the Central Office of the Architect as a dedicated division in MAMPU will allow the division to establish dedicated pool of resources to oversee this initiative.



The Envisioned 1GovEA Governance Structure in MAMPU

1GovEA Framework Components

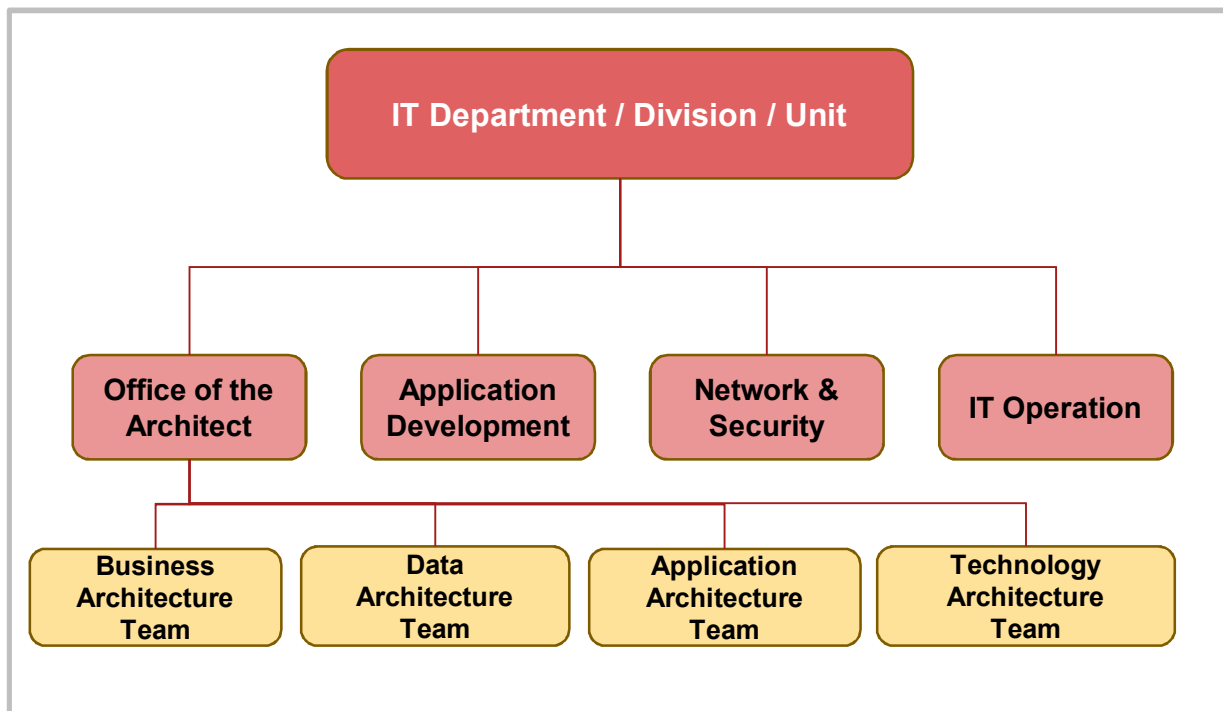
Governance (Agencies)

A structure to be established to support the EA practices in the public sector

While the Central Office of the Architect and the Public Sector Architecture Team in MAMPU provides the overarching governance of 1GovEA practices of the public sector as whole, there is a need for any agency embarking on building EA practices to establish its own governance structure.

Agencies embarking on building EA practices are recommended to

establish its Office of the Architect or Architect Team as the custodian of EA practices in the agency. The composition of the agency's Office of the Architect will include experienced personnel within the agency who have deep knowledge on the business and technology domains of the agency.



Potential Office of the Architect Establishment in Public Sector Agencies

1GovEA Framework Components

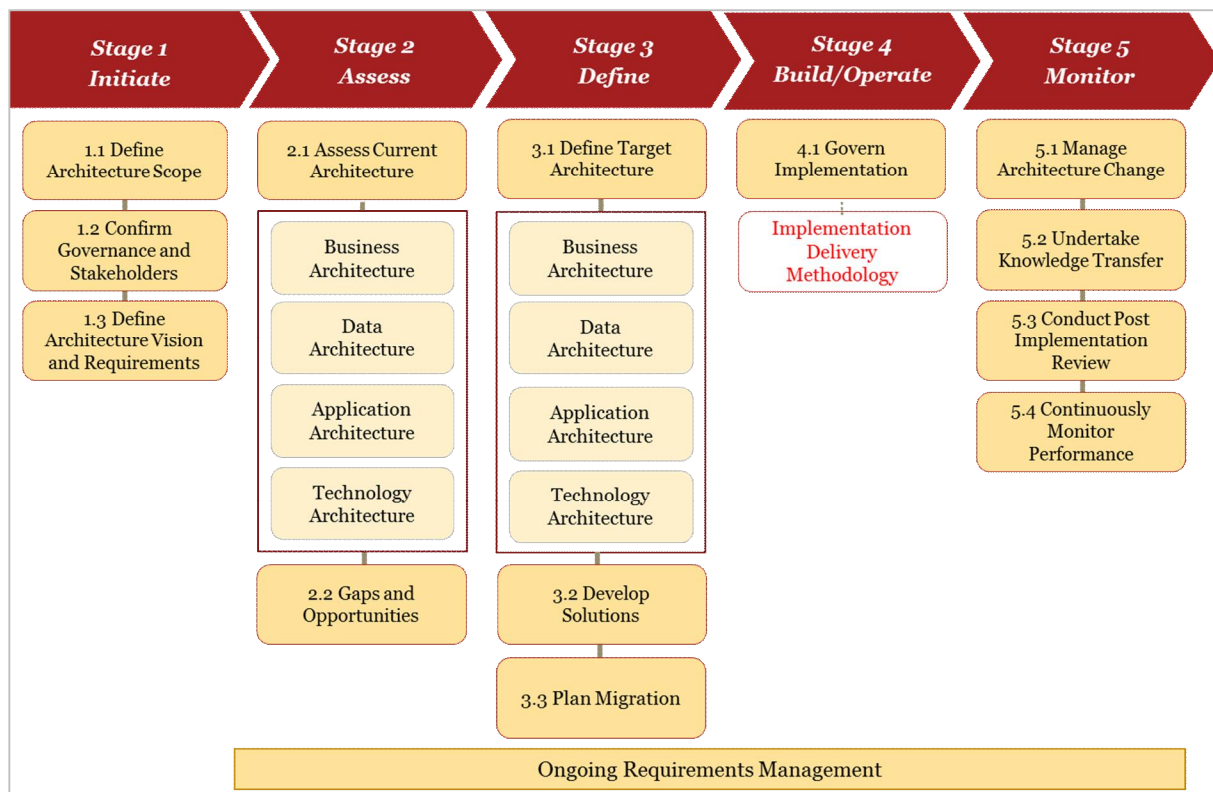
Methodology

Defined approach to be adopted by the public sector agencies to embark on building EA practices

1GovEA Methodology describes an important component of the framework focussing on providing a comprehensive step-by-step guide to be followed by agencies embarking on building EA practices.

The methodology comprises of five (5) development stages; each stage consists of defined objectives and outcome and supported by templates and tools to assist the agency to accomplish the stage.

The following sub-sections will describe each stage in further detail.



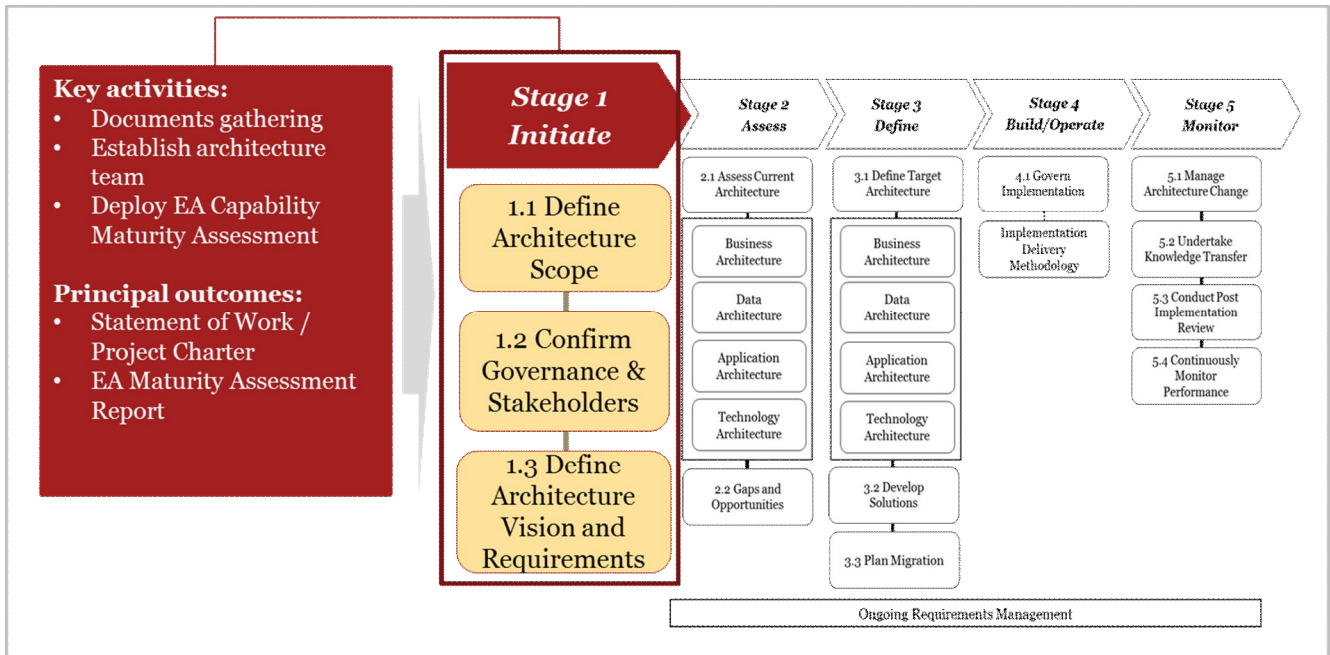
1GovEA Methodology

1GovEA Framework Components

Stage 1: Initiate

The first stage of this methodology focusses on guiding agencies to kick off the exercise. Among the key activities include defining a clear scope of work, establishing the governance structure (the agency's Office of the Architect), confirming the project stakeholders and agreeing on the high level architecture requirements.

The significance of this stage is to ensure the agency has a definitive scope in terms of the entities (department/units) to be covered as well as the level of details that need to be covered when the agency starts embarking on the initiative.



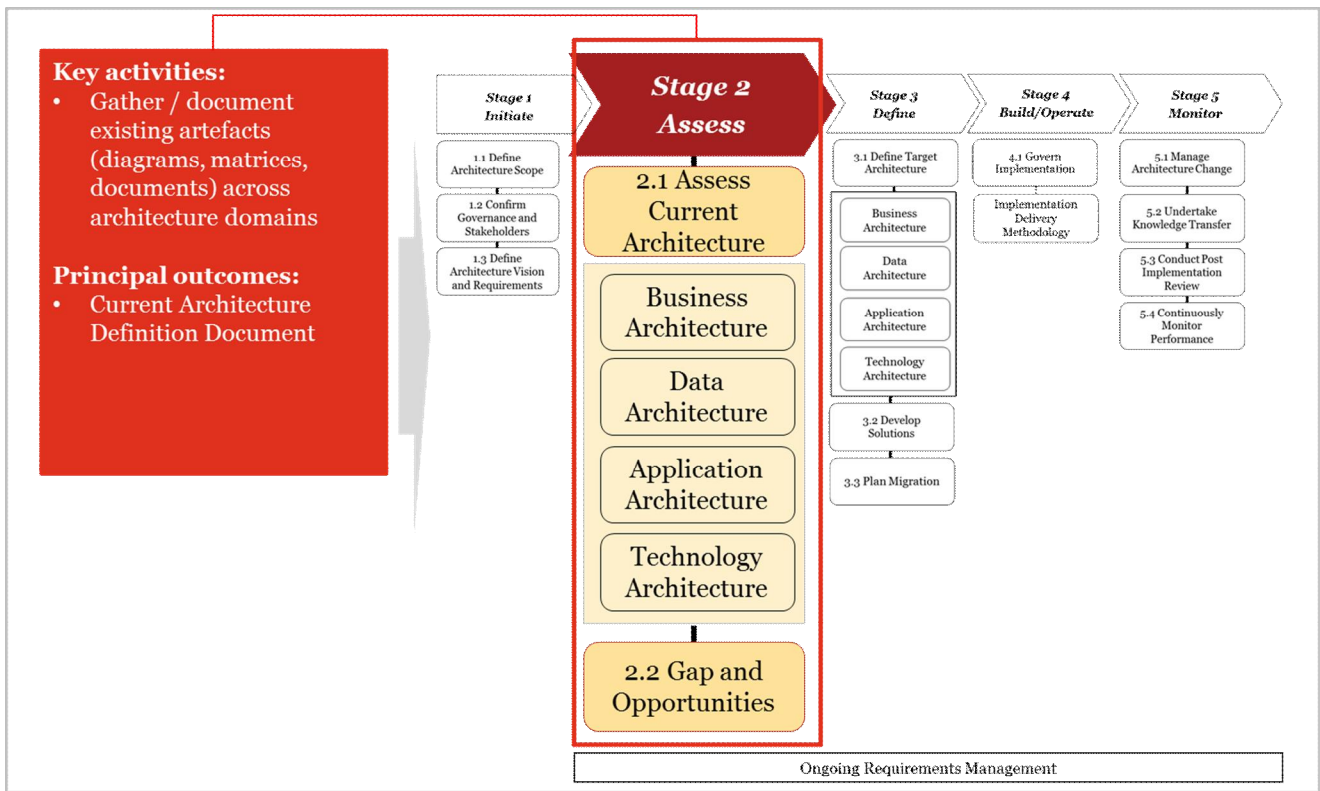
Stage 1: Initiate

1GovEA Framework Components

Stage 2: Assess

The second stage of the 1GovEA Methodology guides the agency on the tasks to be undertaken to develop the agency's baseline architecture across the four (4) architecture domains; business, data, application and technology.

At this stage the focus will be on capturing and understanding the current business landscape of the organisation (such as the services offered, the information gathered and shared by the agency and the processes defined to deliver the services) as well as the underlying application and technology infrastructure to support the agency in delivering its services.

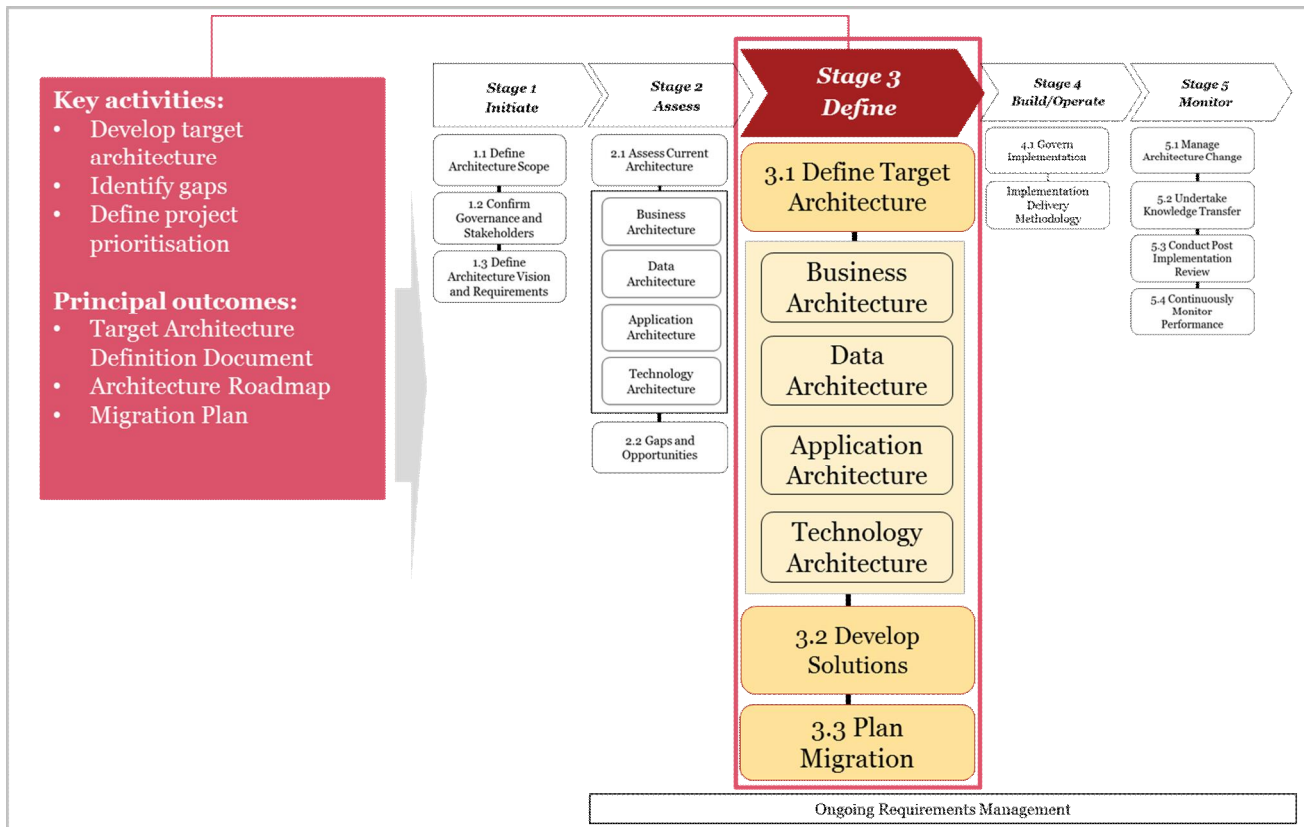


Stage 2: Assess

1GovEA Framework Components

Stage 3: Define

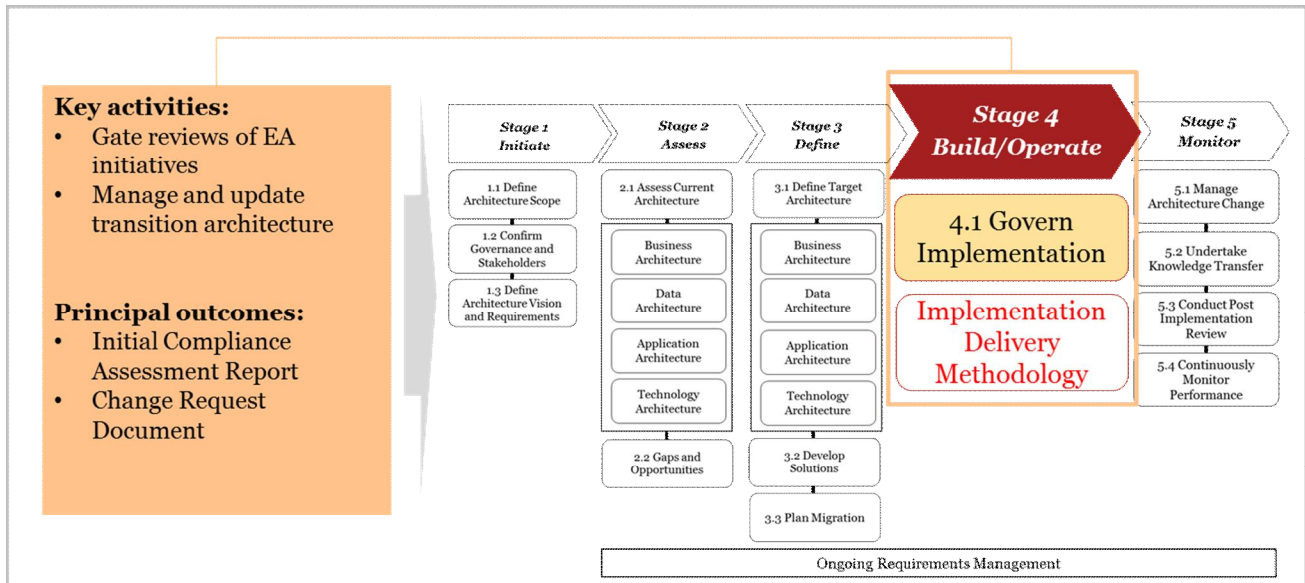
The third stage of the 1GovEA Methodology focusses on guiding the agency to define the target architecture (future business landscape of the agency and the identification of new applications and technology required) to support the agency's vision and mission. At this stage, the agency will also develop the migration plan to outline the timeline required for the agency to implement and achieve its target architecture.



Stage 3: Define

1GovEA Framework Components

Stage 4: Build/Operate The fourth stage of the 1GovEA Methodology guides the agency to adopt the good practices of EA in managing the implementation of identified initiatives in the target architecture.

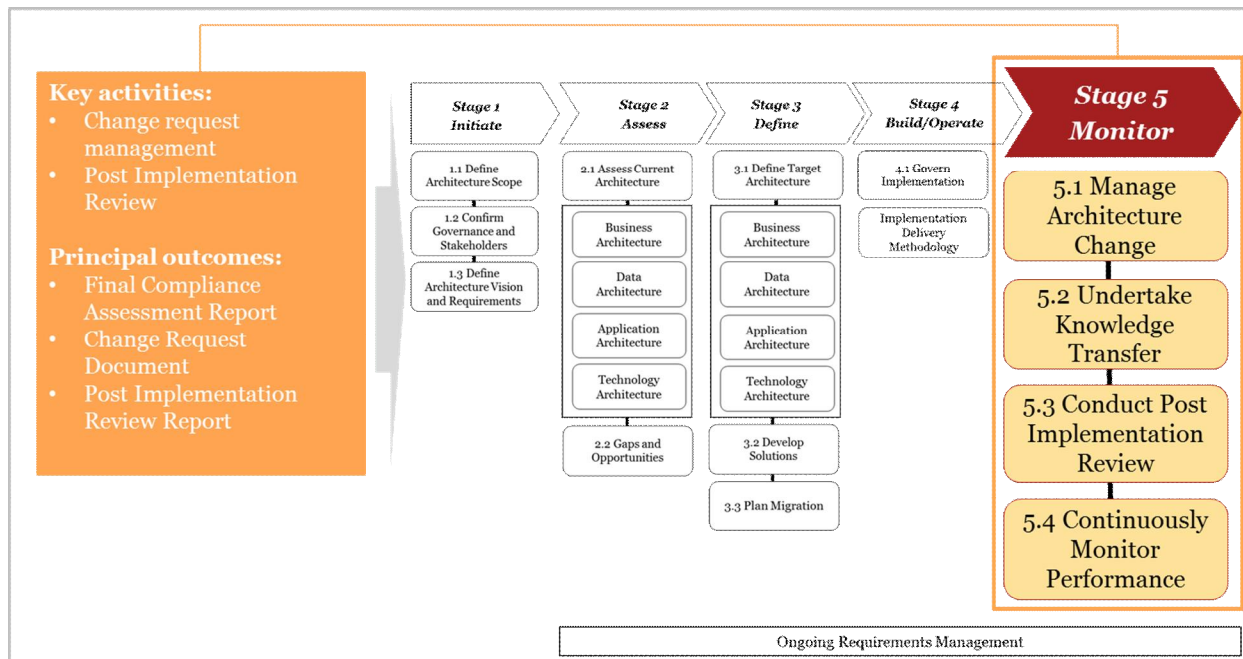


Stage 4: Build/ Operate

1GovEA Framework Components

Stage 5: Monitor

The fifth stage of the 1GovEA Methodology is a continuous process of managing any architecture changes in the agency until the agency achieves its desired target architecture. This stage is a continuous process to be undertaken by the agency as it operates the business based on the agreed architecture.



Stage 5: Monitor

Ongoing Requirements Management

The Ongoing Requirements Management is another integral part of the 1GovEA Methodology. The component guides architecture team to manage the process of capturing and changing of requirements. The Ongoing Requirements Management starts in the 2nd stage of the methodology where architecture team will establish a baseline requirement of the architecture work.

1GovEA Framework Components

Tools & Repository

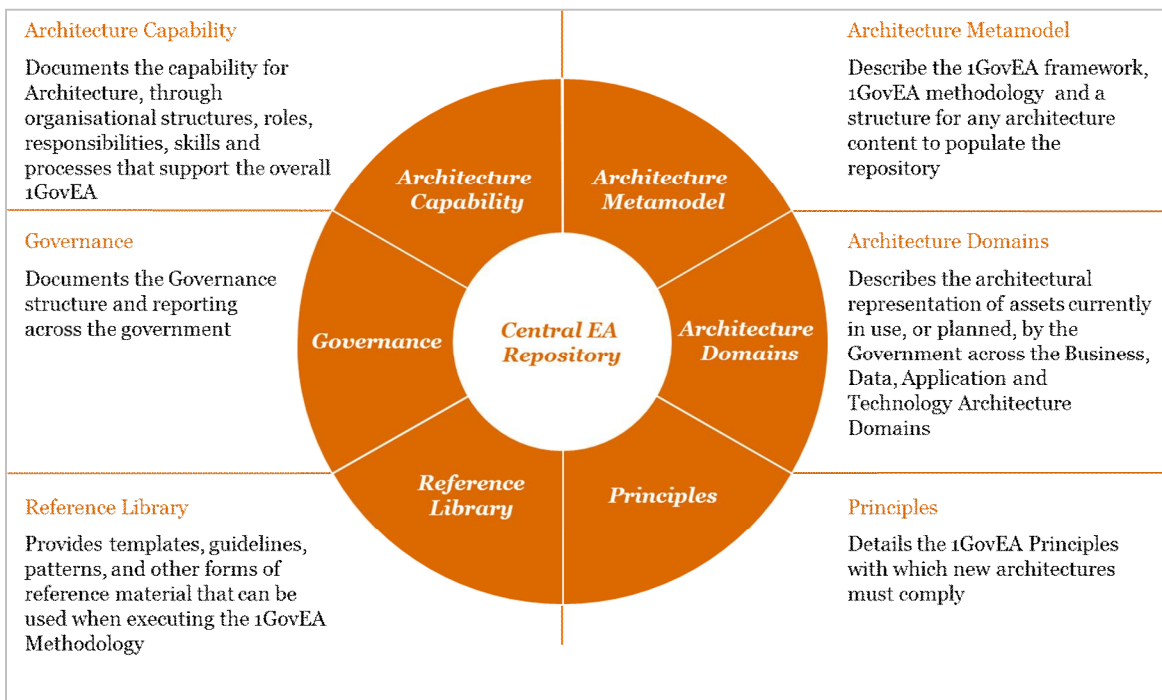
A set of tools and structure for documenting and maintaining EA artefacts

The third operational component of the 1GovEA framework describes recommend EA tools to support the agencies when embarking on building EA practices. The EA tools comprises of three key elements, namely:

- a. Repository
- b. Modelling tools
- c. Templates

1GovEA Repository

The purpose of the 1GovEA EA Repository is to provide a centralised storage for all architecture contents developed based on the 1GovEA Methodology.



Central EA Repository

1GovEA Repository

a. 1GovEA Architecture Metamodel

Describes the 1GovEA Framework, 1GovEA Methodology and a structure for any architectural content to populate the repository.

c. 1GovEA Principles

Details the 1GovEA Principles that new architectures must comply. Any new principles should be reflected in any new architecture work modelled in the 1GovEA Architecture Domains. Adherence to the 1GovEA Principles should be monitored by the Central Office of the Architect/ Office of the Architect.

b. 1GovEA Architecture Domains

Describes the four (4) areas of architecture namely business, data, application and technology that needs to be developed and maintained as the public sector agencies embark on building the EA practices.

The 1GovEA Architecture Domains are updated through the execution of the 1GovEA Methodology. Any best practices create standards and principles which govern the 1GovEA Architecture Domains and in turn create Reference Architectures to be stored in the 1GovEA Reference Library for re-use elsewhere. The 1GovEA Architecture Domains are also closely governed by the 1GovEA Governance Model which is documented within the 1GovEA Repository.

d. 1GovEA Reference Library

Provides templates, guidelines, and other forms of reference material that can be used when executing the 1GovEA Methodology. Any new Reference Models created either internally or externally should be stored within the 1GovEA Reference Library for re-use and sharing within the agency. The 1GovEA Reference Library should also be closely governed by the Central Office of the Architect/ Office of the Architect which is documented within the 1GovEA Repository to ensure all material is compliant with the relevant principles.

1GovEA Repository

e. 1GovEA Governance

Documents the Governance structure and operating model across the Government. The Central Office of the Architect/ Office of the Architect should also review and approve any architecture principles or reference models and ensure that any architectural modelling work performed is compliant with such principles and reference models.

f. 1GovEA Architecture Capability

Documents the capability for Architecture, through organisational structures, roles, responsibilities, skills, and processes that support the overall 1GovEA. The Central Office of the Architect/ Office of the Architect should drive and manage new architecture capability and skills within the public sector / agencies.

Architecture Modelling Tools

EA tools are the tools used by an organisation to visually model the various components of their EA framework generally in terms of the following architecture domains:

- a. Business Architecture
- b. Data Architecture
- c. Application Architecture
- d. Technology Architecture

The EA modelling tools will assist the public sector agencies with the documentation and visualisation of the artefacts (an architectural work product that describes aspects of the architecture).

1GovEA Framework Components

1GovEA Templates

The 1GovEA methodology provides the agencies embarking on developing EA practices with templates to assist the agencies. There are two categories of templates; the **Artefact Templates** and the **Deliverable Templates**, each designed to capture and document different types of information and outcome.

a. Artefact templates

The artefact templates assist the agencies to capture and record the business and technical information (artefacts) that describe the agency's operational environment. The artefact templates provide a consistent format and layout for the documentation of various Matrices, Catalogues or Diagrams.

Service – Function Catalogue

Function (Core)									
Ministry/Agency	Organization Unit	ID	Name	Description	Category	Source	Owner	Owner of the architecture object.	
Business Service (Core)									
Ministry/Agency	Organization Unit	ID	Name	Description	Business Function Mapping	Category	Source	Owner	Standards Class
Ministry/Agency	Divisional/ Organization Unit	Unique identifier for the architecture object.	Brief name of the architecture object.	Textual description of the architecture object.	Mapping of the business service to its business function.	User-definable categorization taxonomy for each metamodel object.	Location from where the information was collected.	Owner of the architecture object.	Norm Standard, Proposed Standard, Provisional Standard, Standard, Phasing-Out Standard, Retired Standard.
MAHPU	1MOCC	BA_SVC_01	Capacity Management	This business service provides visibility and overview of the 1MOCC capacity in terms of human resource, technical capabilities, and financial capabilities in its daily operations.	BA_FCT_01	Internal	1MOCC Management	WFM	Standard
MAHPU	1MOCC	BA_SVC_02	Schedule Management	This business service provides visibility on planning and scheduling of the call centre agents.	BA_FCT_01	Internal	1MOCC Management	WFM	Standard
MAHPU	1MOCC	BA_SVC_03	Manpower Monitoring	This business service provides in-depth management and monitoring of the 1MOCC manpower utilization.	BA_FCT_01	Internal	1MOCC Management	RTFM	Standard

Stakeholder Map Matrix

Stakeholder Map									
Stakeholder	Involvement	Class	Power	Level of Interest	Concerns	Communication Plan	Views	Viewpoints/Relevant Artifacts	
1MOCC Pengarah	Overall interest and stake in the progress of the goals and objectives identified.	Keep Satisfied	High	High	Understanding, Buy-in	Key milestone meetings, PSC	Business	Business Footprint, Goal/Objective/Service Model, Organization - Actor	
Seksyen Pembangunan	This stakeholder group will provide overall management for the development and coordination aspects of 1MOCC	Keep Involved	Medium	High	Usability	Regular meeting, Email	Business, Data and Application	Business Service-Functions, Actors - Roles, Data Entry - Business Function	
Seksyen Operasi	This stakeholder group will be crucial in ensuring the integration and streamlining of the operation processes and business services.	Keep Involved	Medium	High	Understanding, Buy-in, Preparation	Regular meeting, Email, Workshop and Focus Group	Data, Application and Technology	Business Footprint, Business Interaction Matrix, Organization - Actor	
Stakeholder Analysis									
Stakeholder Group	Stakeholder Name	Ability to Disrupt Change	Current Understanding	Required Understanding	Current Commitment	Required Commitment	Relevant Artifacts		
Type of stakeholder categories	Name of the stakeholder	Level of influence to interrupt change	Understanding level for current programme	Expected level of understanding for current programme	Commitment level for current programme	Required Commitment	Functional Decomposition Diagram, Service - Function Catalogue, Role Catalogue, Process - Event - Control Catalogue, Application and User Location Diagram, Application Communication Diagram, Application Interaction Matrix, Application Portfolio Catalogue, Business Services and Information Diagram		
Management	1MOCC Pengarah	High	Medium	Low	Medium	Medium	Medium		
Business function	Seksyen Pembangunan	Medium	High	Low	Medium	Medium	Medium		
Business function	Seksyen Operasi	Medium	High	Low	High	High	High		
Business function	Seksyen Teknikal	Medium	High	Low	High	High	High		
Business function	Unit Penyelidikan dan Pembangunan	Medium	High	Low	High	High	High		

Examples of 1GovEA Artefact Templates

1GovEA Templates **b. Deliverable templates**

The deliverable templates are pre-defined document format that assist the public sector agencies to document the outcome of key activities in the 1GovEA Methodology. Agencies will use the deliverable templates to document the final outcome of each stage in the methodology as a formal report to signify the completion of the stage.

**1Government
Enterprise
Architecture
[1GovEA]
Architecture
Requirements**

September 2014

Project
Agency

**Architecture
Requirements
Report**

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**1Government
Enterprise
Architecture
[1GovEA]
Current
Architecture
Definition**

September 2014

Project
Agency

**Current
Architecture
Definition
Report**

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Examples of 1GovEA Deliverable Templates

Expected Values of 1GovEA in the Malaysian Public Sector

1GovEA is a significant agenda initiated by MAMPU as the catalyst to drive the current government's transformation agenda and the way government agencies will approach the development of business and ICT strategies in the future.

1. Convergence of Business and Technology Strategy

1GovEA is positioned as the framework the public sector agencies could adopt to ensure the alignment between the business and technology strategy of the organisation. As EA provides the tools for agencies to define both their business and ICT segments of the organisation, it is the perfect method for agencies to outline the business and ICT strategies of the organisation. This is to correspond with their roles in contributing towards achieving the agency's business vision and mission.

Agencies adopting 1GovEA framework and methodology shall be able to leverage on the EA practices to shape and drive not

just future business and ICT planning initiatives but be able to leverage on EA practices to approach and solve business challenges as well.

Through the adoption of 1GovEA, agencies will be able to embark on developing the business and technical strategy as a single initiative. A joint business and technical strategy will allow agencies to develop a consolidated future business and technical direction by understanding the current architecture and defining the future or envisioned architecture of the organisation.

2. Strengthening Cross-agency Collaborations

Cross-agency collaboration initiatives are meant to further improve the government service delivery. Cross-agency collaboration allows agencies to streamline processes across the agency boundaries and explore opportunities for information sharing to support decision making processes. 1GovEA is the perfect tool for agencies to further the cross-agency collaboration agenda. For instance, as agencies begin developing the EA practices, each agency will gain an overarching view of its businesses capabilities.

MAMPU as the central agency coordinating and maintaining 1GovEA shall be able to leverage on this information to form a more holistic view of the present business and ICT landscape in terms of supporting the business capabilities of the public sector agencies. This holistic view will allow MAMPU to identify potential opportunities for future cross-agency collaboration initiatives in areas such as information sharing, data mining and analysis, application and infrastructure consolidation, and shared services.

Expected Values of 1GovEA in the Malaysian Public Sector

3. Re-enforcing Capability Development in the Public Sector

The adoption of EA practices will further drive the knowledge and capability development of both the business and ICT communities in the public sector. 1GovEA will require agencies to have a pool of resources (the enterprise architects) who are able to appreciate the complexity of both the business and technical environment of their organisation and in turn be able to approach any architecture-related initiatives.

Hence, among the first step in the journey towards establishing EA practices in the public sector is to develop programmes for enriching identified resources in the public sector agencies with knowledge and skills on enterprise architecture, 1GovEA and project management. In this respect, the establishment of the Central Office of the

Architect in MAMPU is the first step to formalize the role of enterprise architects in the public sector. The Central Office of the Architect is formed to act as the public sector enterprise architect team where one of its roles is to assist other public sector agencies to develop enterprise architects in their organisation.

The plan to develop EA capabilities in the public sector will be a collaborative initiative. For a start, MAMPU is working together with INTAN to identify and develop courses and programmes to build skills and capabilities for public sector agencies to embark on building their EA practices based on 1GovEA.

4. Realigning 1GovEA in the Public Sector with ISP

ICT Strategic Planning (ISP) is an initiative undertaken by the public sector agencies to chart the strategic direction of the agency in terms of its ICT development. The initiative covers four (4) main elements namely:

- a. Assess current business environment (Business As-Is study).
- b. Assess current ICT environment (ICT As-Is study).
- c. Develop ICT strategy (To-Be ICT environment).
- d. Develop implementation plan.

With the introduction of 1GovEA, there is a need for MAMPU to re-align both initiatives. Both EA and ISP are similar in the way organisation approach its implementation.

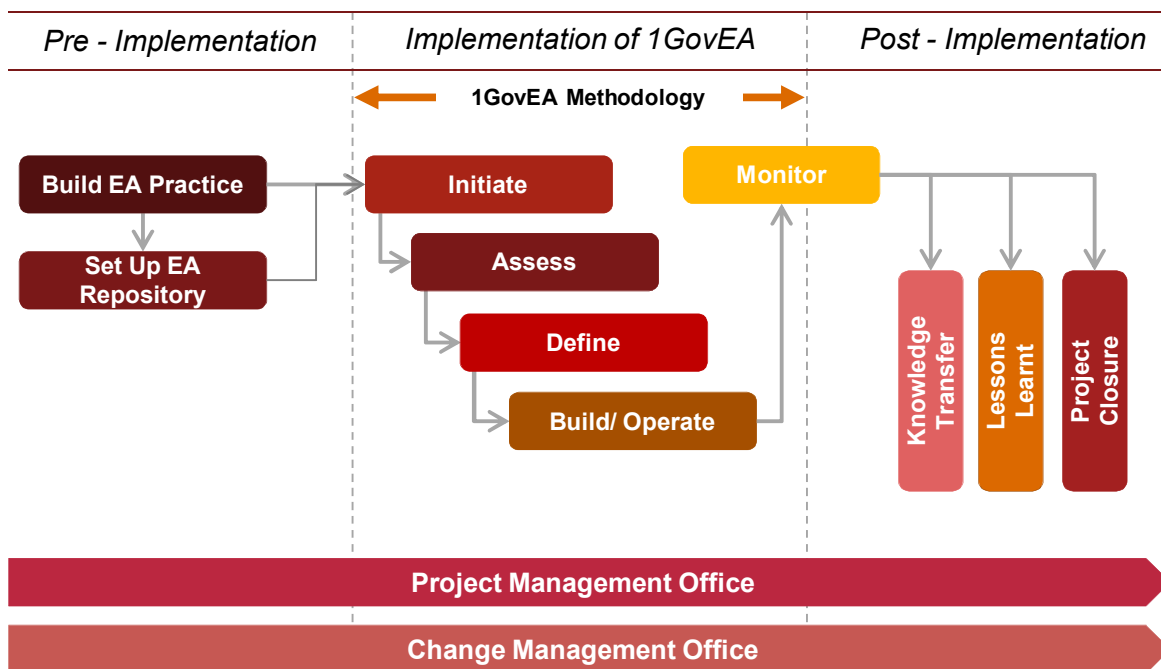
For instance, in both initiatives, agencies will conduct current state assessment, define its target state and develop the implementation roadmap.

Nevertheless both EA and the present ISP methodology in the public sector also differ from the perspective of the scope and the level of details captured when agencies embark on either of the initiative. ISP will typically deal with developing a strategy and operating model of an ICT Department while EA is about defining the holistic landscape of the organisation (business, data, application and technology environment). Hence the level of details gathered when developing an ISP will be less compared to when agency builds an EA practice

Implementation Plan

1GovEA will be implemented in several phases across all agencies, beginning with MAMPU in Phase 1, followed by selected agencies in Phase 2 and after that, other public sector agencies in subsequent phases.

The implementation approach is divided into 3 different stages and is supported by Project Management Office and Change Management Office work streams that run across the implementation plan.



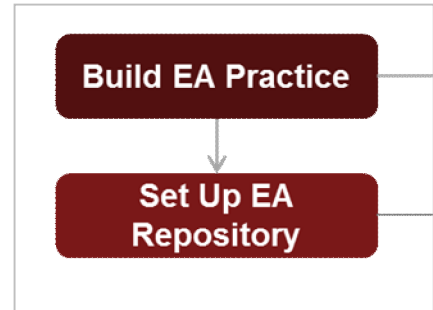
The Implementation Roadmap

Implementation Plan

Pre-Implementation

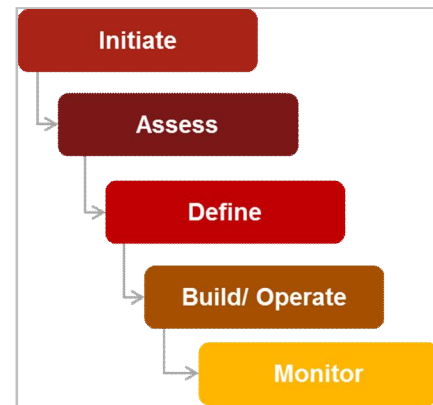
Prior to embarking on an EA implementation, public sector agencies should establish a sustainable EA practice within the agency.

Agencies should also set up a dedicated EA repository to enable the storing of information in a structured manner.



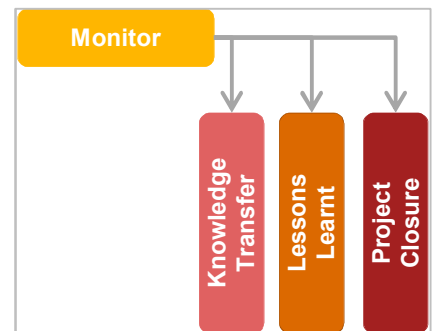
Implementation Of 1GovEA

To implement the EA practice, public sector agencies should use the 1GovEA Methodology which provides a comprehensive step-by-step guide for implementing EA.



Post Implementation

Once EA is implemented, agencies should ensure that all aspects of the project is addressed and managed prior to formally closing the initiative.



Project Delivery Office

Project Delivery Office is responsible to oversee the EA initiative implementation, assist and collaborate in cross agency collaboration efforts.



Change Management Office

Change Management Office will execute the change management plan that serves as a guide to the change management process throughout the planning to the implementation stage for 1GovEA model.





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