

Agile Enterprise Architecture – Phases, Iterations & Disciplines

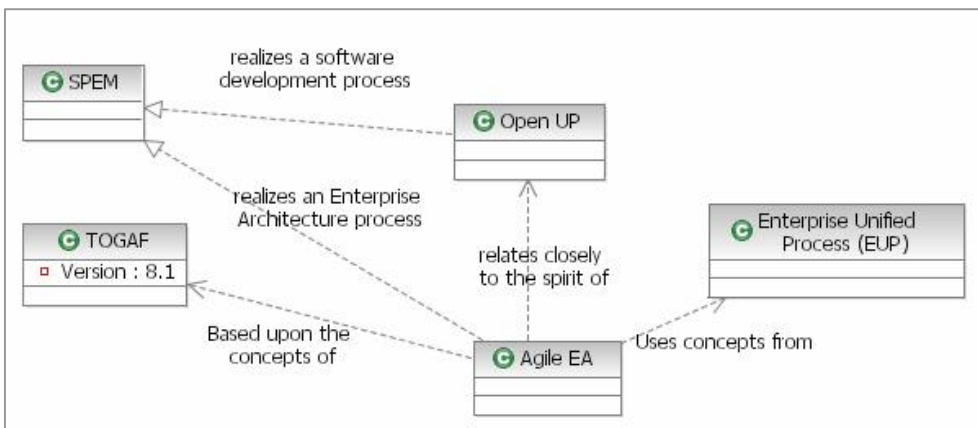
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Abstract

TOGAF 8.1 defines a set of what it calls “Phases” which show how to interact with Projects in order to establish an Enterprise Architecture. The TOGAF approach can be confusing, because the Phases are not the same as the Software Process Engineering Meta-model (SPEM) definition of the term Phase. This paper puts forward a suggestion for making Enterprise Architecture more Agile and Adaptive by using the same concepts as Open UP, also based upon SPEM, to describe Phases, Iterations and Disciplines.

Definitions ecosystem

As can be seen in the class diagram below the Agile EA loosely uses the base definitions of the Software Process Engineering Meta-model (SPEM) [1] for its terminology as this is also changing. Project Processes are defined based upon the Open Unified Process (Open UP) that is also based upon SPEM.



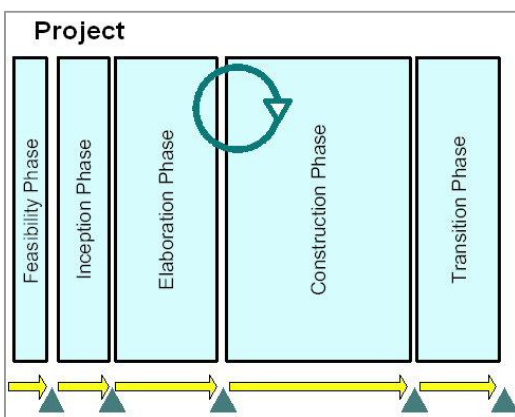
The Agile Enterprise Architecture uses SPEM as a basis for defining an Enterprise Architecture Process, done so that it closely aligns to the spirit of Open UP projects and based upon the concepts of TOGAF 8.1 and Enterprise Unified Process [5].

Figure 1 – Class diagram of the Agile EA Eco-system

Problem: Describing dynamic behaviour using static diagrams

People and projects are very dynamic and behavioural and so describing them using simple static diagrams makes it very easy to draw but does not necessarily convey the meaning particularly well. For that reason diagrams that have implicit meanings will need to be described to make them more explicit and meaningful.

Project Phases



Project Phases as described in the Open UP are the same as this diagram shows, but without the Feasibility Phase which we have added. The feasibility phase is optional, and was added to determine whether there is the financial appetite to motivate for funding the Project so as to begin the Inception Phase.

The Project Phases comprises of five blocks, with the size of the block showing relative duration compared to each other Phase. These Phases are configurable to suit the specific project and could vary in duration, according to the Project variables, such as complexity, size, volume, etc.

The Inception, Elaboration, Construction and Transition

Phases each represent a lifecycle Phase, through Time (the yellow arrow) and end with a lifecycle goal being attained. (Teal triangle) Think of a Phase as something like a season in the year.

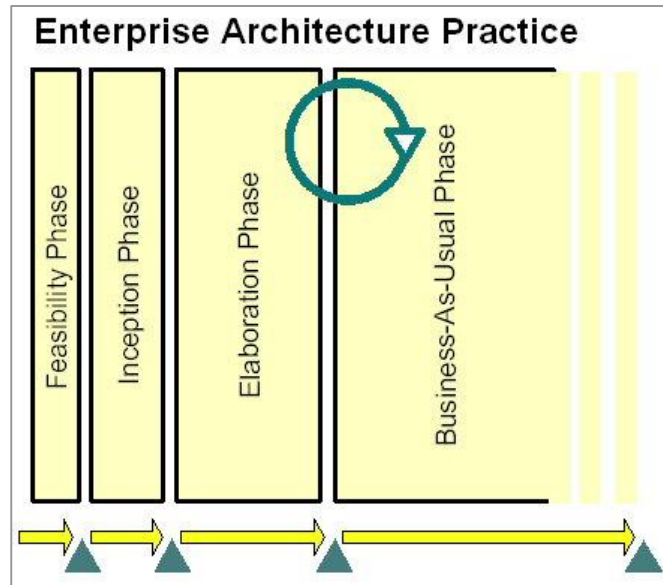
Enterprise Architecture Phases

The Agile Enterprise Architecture Phases comprises of four large blocks. Each one of these blocks represents a lifecycle Phase; duration in time to achieve a specific lifecycle goal or milestone.

As with the Project Phases, the yellow arrow indicates time duration moving from left to right. The teal coloured tri-angle also indicates the lifecycle goal that is attained in order to move from one Phase into the next Phase.

First a short Feasibility Phase, then an Inception Phase, then an Elaboration Phase and finally into a Business-as-usual Phase. This is completely serial.

Because Enterprise Architecture is typically not a Project, but established as a department, it's Business-as-usual phase tends to be on going. It would only end if funding is stopped or the department is closed down for some reason. The last Business-as-usual Phase is therefore shown as an open-ended block that continues indefinitely.

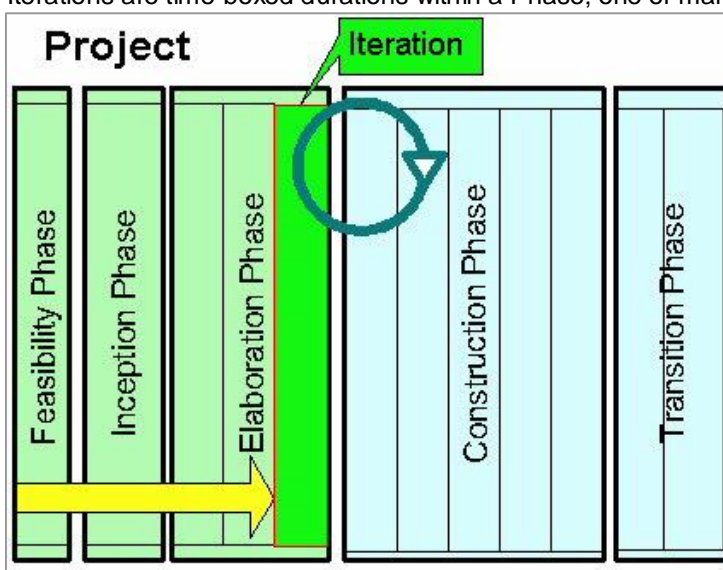


More detail on the Lifecycle Goals and specific Phases can be found in the Agile EA process. [3]

Iterations

Like Phases, Iterations are time based. In the diagram on the left, the light green shows iterations that have completed. The bright green block shows the current iteration.

Iterations are time-boxed durations within a Phase; one or many of iterations in a Phase. The grey lines in the light blue show probable planned iterations in the future. Probable because they may be changed as the project gets nearer to that point, and based upon progress and iteration reviews at the time.



There are rules that govern iterations: Time is individually specified and fixed before each iteration starts. The Iteration has goals and objectives in alignment with the Phase, and ends on a particular date as pre-specified. Iterations do not cross Phase boundaries. Once a Phase is complete at the end of one iteration, a new Phase starts on a new iteration start date.

All iterations are roughly planned at the start of a Project or EA Phase, but are not cast in stone and future (not the current) iterations can be changed and refined as time

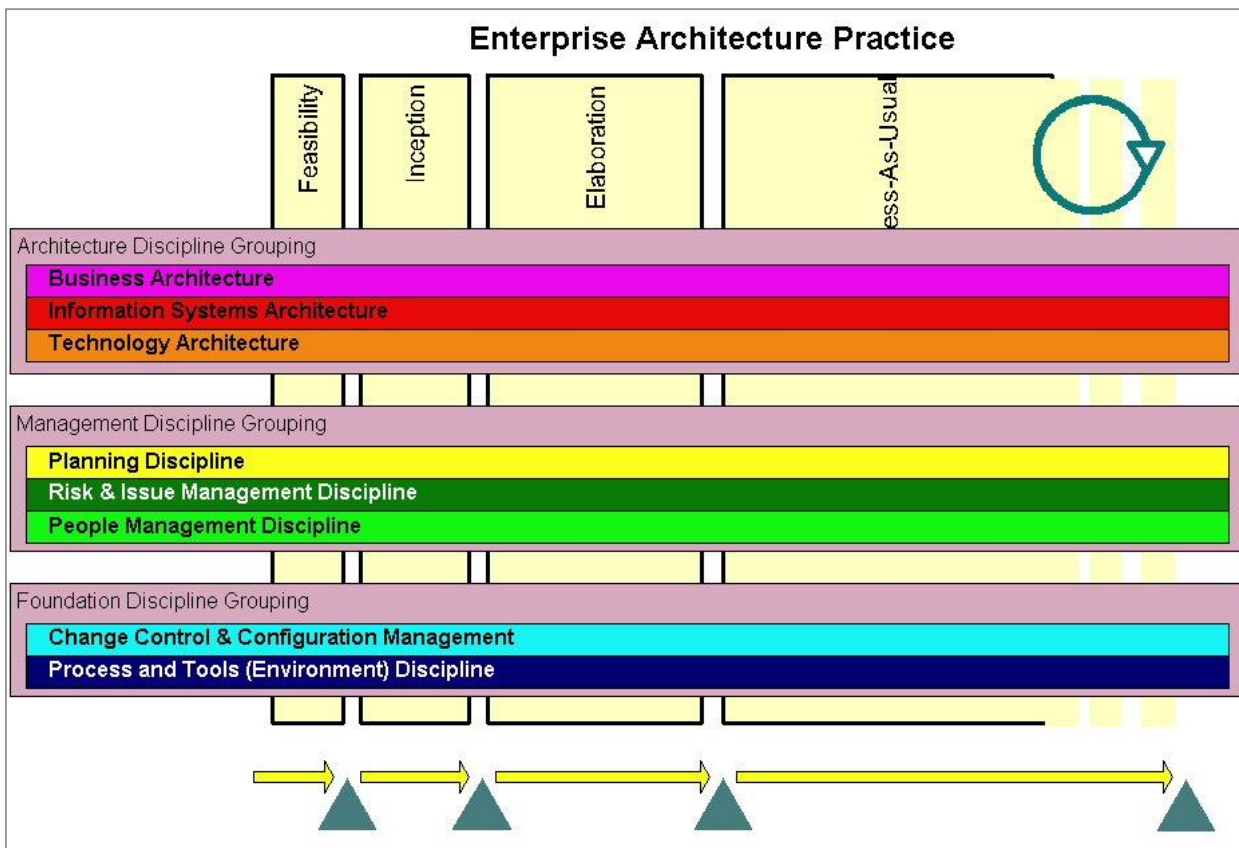
progresses. The progress review feedback at the end of each iteration will also give input into the length and content of each iteration.

The iteration definition is identical for Project iterations and for Enterprise Architecture iterations. They typically follow the Scrum [6] methodology for how they are run. Scrum however terms "iteration" as "Sprint".

Disciplines

Discipline Groupings are logical collections of similar disciplines. All they contain are Disciplines; there is no detailed content or information about the groupings.

Disciplines are collections of Tasks and Activities that all contribute towards a particular set of similar goals. These vary depending upon which Phase the team is in at the time. Tasks have Work Products as inputs and outputs and are contributed to by Roles. More detail on the Disciplines and specific Phases can be found in the Agile EA process. [3]



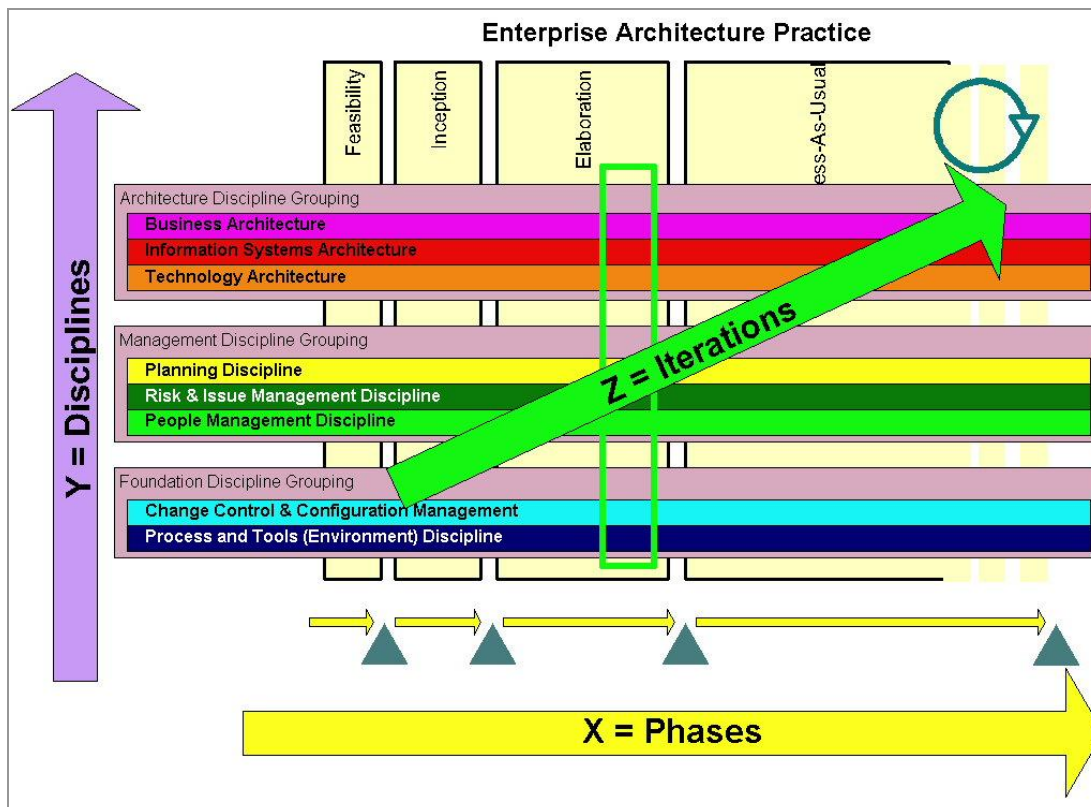
The three main groupings are currently Architecture, Management and Foundation. These are open for discussion and may well change in the near future.

- The *Architecture Discipline Grouping* is responsible for all things to do with the Architecture of the Enterprise (as opposed to the Solution Architecture on particular Projects). Currently this contains the Business Architecture, Information Systems Architecture and Technology Architecture disciplines.
- The *Management Discipline Grouping* controls all management type activities such as planning, Risk and Issue management, People management, etc.
- The *Foundation Discipline Grouping* contains all the base elements that facilitate good practice, such as Change control, Configuration management, Process and Tools, etc.

Conclusion

One we put the above three building blocks together we get:

- **X=Phases** Motion through time moving towards a common lifecycle milestone or goal for each Phase.
- **Y=Disciplines** Across various different groups of common activities that happen together in parallel at any point in time.
- **Z=Iterations** In chunks of duration where all roles work together towards an iteration goal for the duration.



References

- [1] SPEM – Software process meta-model, <http://www.omg.org/spem/>
- [2] Open Unified Process (Open UP) as part of the Eclipse Process Framework; <http://www.eclipse.org/epf>
- [3] Agile EA; www.agileEA.com
- [5] Ambler, Scott; Enterprise Unified Process. www.enterpriseunifiedprocess.com
- [6] Scrum. http://en.wikipedia.org/wiki/Scrum_%28management%29