'EA Best Practice' Workshop

Developing an assessment and improvement framework for managing an EA Program

The Open Group Conference

Washington DC, 18 July 2012

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Aims

- explore and identify more fully the content of a program to develop a best practice, benchmarking based assessment of Enterprise Architecture management maturity
- that enables organizations to identify and execute improvements that deliver critical business value

Agenda

- Welcome and intro
- EA improvement - the story so far
- Session 1: Current improvement approaches
- Strawman
- *Coffee Break*
- Session 2: 10 Top Practices
- Session 3: Building on the Strawman
- Next Steps
- *Lunch*

Why EA Improvement?

Organisations?

- Why not?

People & Tools

- **TOGAF®**
- Open Certified Architect
- ArchiMate®
- EA Tools
- EA Training

How useful might it be if The Open Group members had access to an ‘open’ activity, programme, model or ‘something’ to help organisations ‘do enterprise architecture’ better:

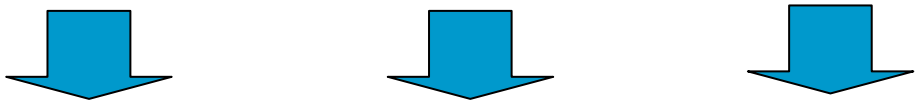
- Understand where we are, what are the gaps
- Share best practice to help close the gaps
- Increase ‘EA impact’ in areas of business priority

Vision

- Open, freely available Framework
- Assessment tool
- Information store: view, compare, track
- Good practice knowledge store
  - Key practices
  - Guidance, case studies
- Recognition: ‘Certification’, ‘Accreditation’
- Ecosystem (learning by doing and sharing)
  - Leadership, Consumers, Services, Experts

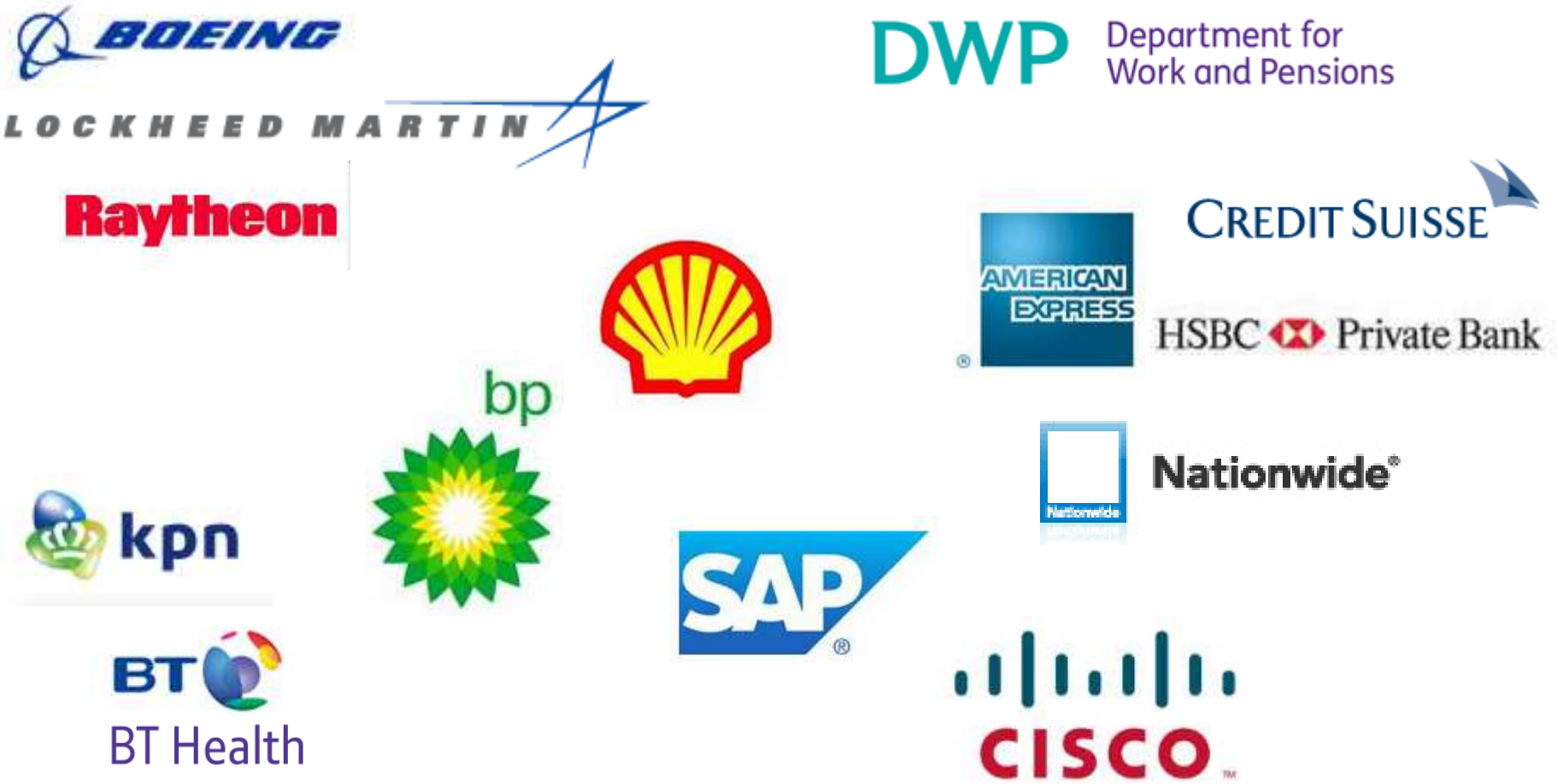
The Road to value: milestones

- Aug 11: ‘TOGAF Org Cert’
- Dec11– Jan12: Customer Survey
- April: Test the proposition
- Jul: Start building the framework



- Oct: Proof of Concept results (doing, not thinking)
  - Does it work, will it make a difference?
- Jan 13: Beta trial results
  - How was it for you? How valuable is this? Early knowledge
  - Development roadmap

Survey Contributors



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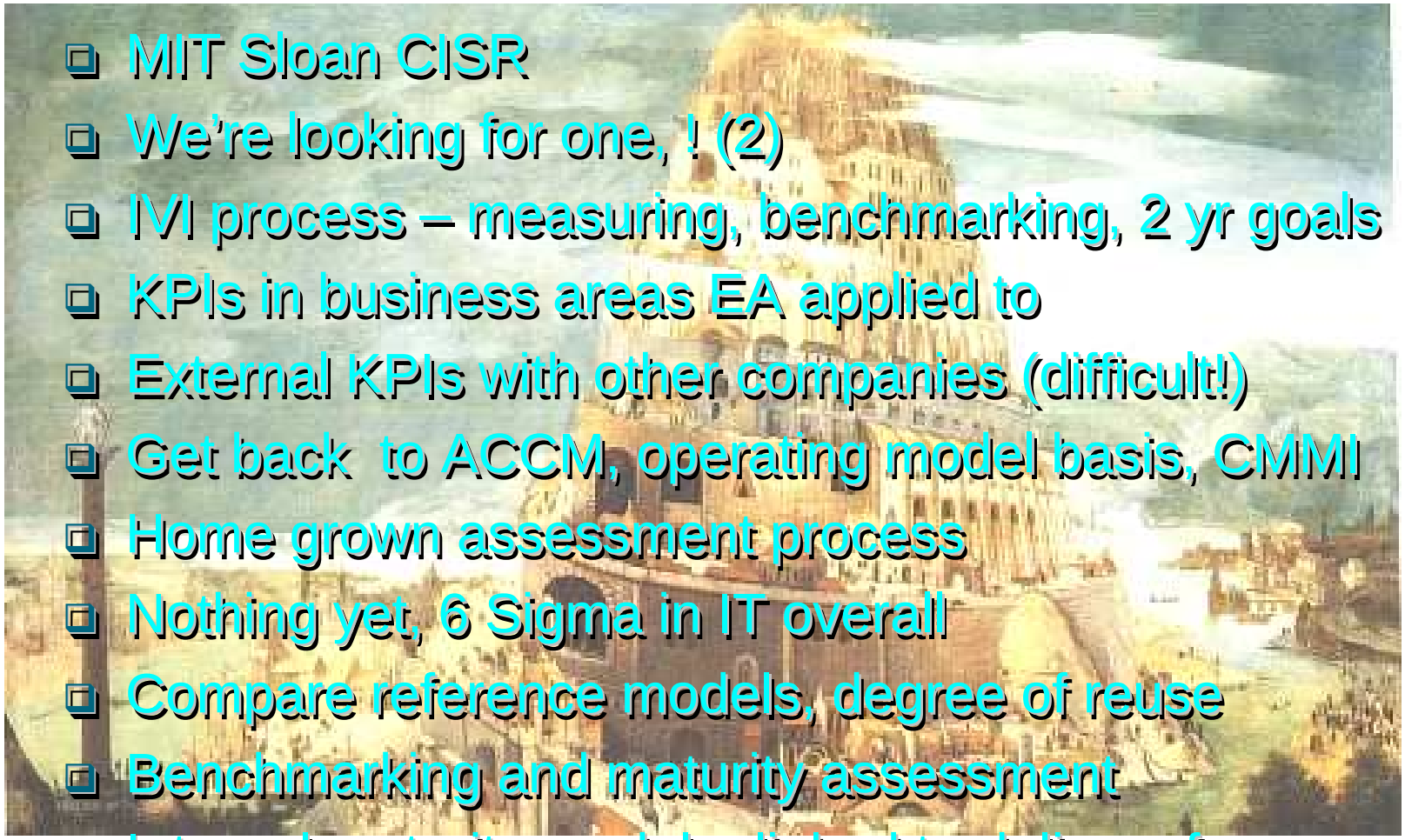
Summary of Results

- All (12/12) are interested or very interested in a programme around EA process improvement and would be interested in taking part,
- The driver is improving the business impact and value of EA.
- Interest centres on EA – not just doing TOGAF though TOGAF is seen as a key element.
- Several examples of home grown or proprietary benchmarking or maturity assessment methodologies, used internally or with consultancy
- There is a significant interest in making TOGAF more useable, less complex and more related to different types of work and organisation, but not in benchmarking or assessing only TOGAF maturity.

What should it look like?

- Most favoured some kind of best/good practice benchmarking and maturity assessment approach – *linked to business impact*
- Strong interest in a common, simpler, non proprietary approach that could be self-administered or with some independent facilitation to provide guidance, validate results, and devise improvement programs
- Certification of maturity status is seen by the majority as a secondary benefit, if at all.
  - Value lies in doing the assessment and taking improvement action as a result.

From Many to One



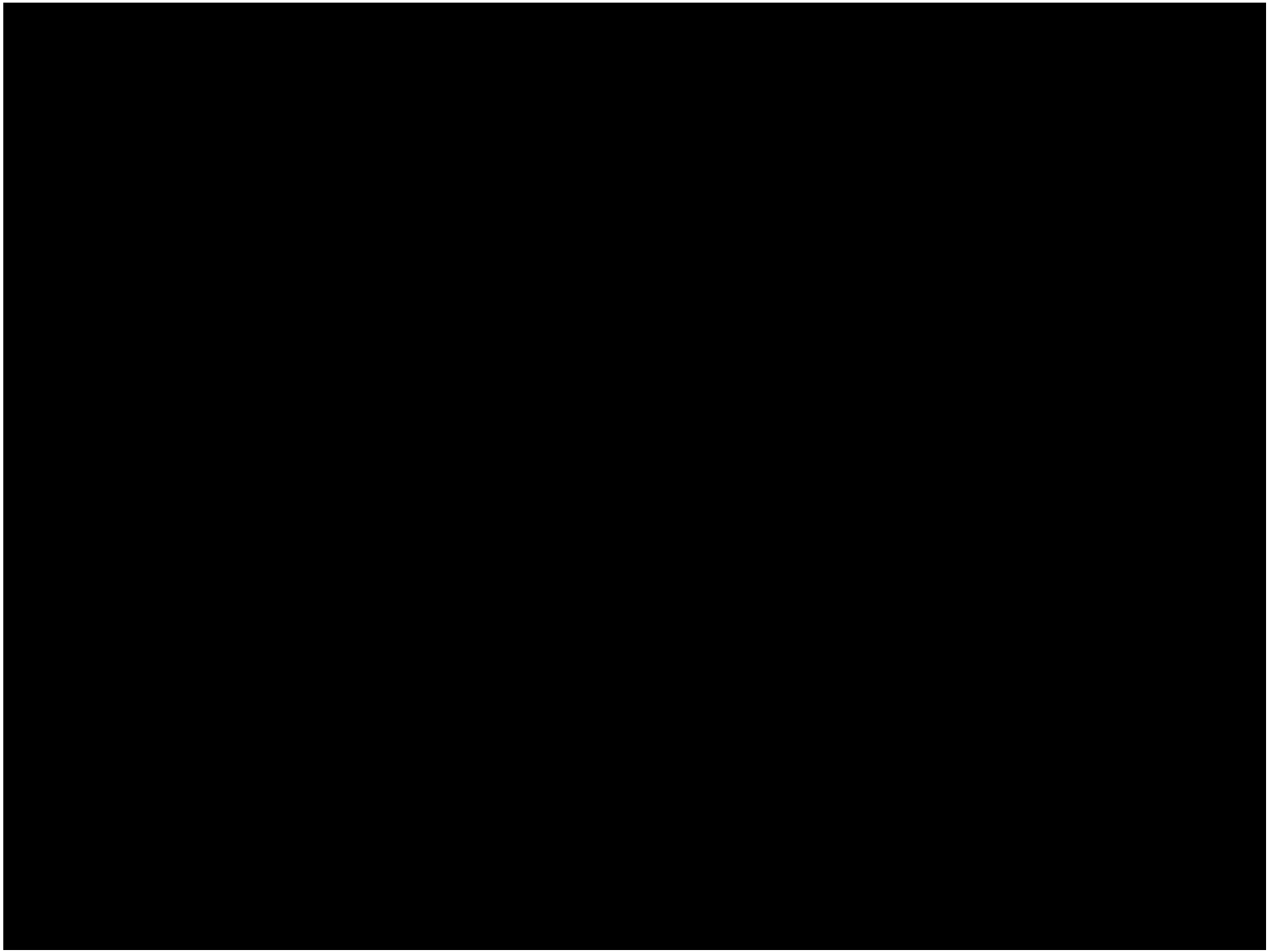
- MIT Sloan CISR
- We're looking for one, ! (2)
- IVI process – measuring, benchmarking, 2 yr goals
- KPIs in business areas EA applied to
- External KPIs with other companies (difficult!)
- Get back to ACCM, operating model basis, CMMI
- Home grown assessment process
- Nothing yet, 6 Sigma in IT overall
- Compare reference models, degree of reuse
- Benchmarking and maturity assessment
- Internal maturity model – linked to delivery framework

April Workshop

- A widely accepted approach to EA improvement would be extremely valuable
- Look at what organisations do *with* EA, not just how they do EA

and what should The Open Group do next?

- A feasibility study looking at existing frameworks and identifying common characteristics and criteria for EA capability
- A draft proposition for a programme to develop a framework and related activities, including consideration of certification
- Charter for Architecture Forum Working Group to drive development



Discussion 1

- What improvement methods are you using currently, and what are their strengths and weaknesses?

('None' is a valid answer!)

Open Enterprise Architecture Program Improvement Framework

A Strawman for Discussion

18 July 2012

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Agenda

- Overview
- References
- Strawman
  - Characteristics and Criteria
  - Capability Categories: High Level and Mid-Level
  - Capability Elements
  - Capability Maturity Stages
  - Process
- Q & A

Overview - 1

- Open Group Architecture standards and programs
  - TOGAF®
  - Open Certified Architect Program
  - This framework complements and supplements
    - Emphasis on the management improvement cycle
    - Emphasis on value and performance
    - An environment in which architects can exercise their knowledge, skills, and experience

Overview - 2

- Existing Frameworks
  - From commercial, academic, government, and local in-house sources
  - Opportunity for The Open Group community
- Motivation
  - An accepted, non-commercial, open framework
  - Strong emphasis on measuring value delivered to the organization with sufficient guidance

References - 1

- Amit Bhaqwat, EA Maturity Assessment, 2007 COBIT
- IFEAD v2.2 2006
- Greta James, EA Program Maturity, 2007
- MIT CISR
- NASA Business Driven EA Assessment Methodology, 2011
- Open Group
  - TOGAF® 9.1
  - Open Certified Architect Program
  - World Class EA White Papers
- SEI, CMMi for Development, v1.2, 2006

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References - 2

- Roger Sessions, A Comparison of the Top Four EA Methodologies, MSDN, 2007
- Paul Sullivan, EA Maturity Models, 2007
- Serge Thorn, Architecting-the-Enterprise, When Was Your Last EA Maturity Assessment, Open Group Blog, 2012
- US DoC ACMM v1.2 2007
- US GAO v2.0 2010
- US OMB EAAF v3.1 2009
- A number of references from and about commercial service provider offerings

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Strawman

- Characteristics and Criteria
- Capability Categories: High Level and Mid-Level
- Capability Elements
- Capability Maturity Stages
- Process
- Provision for Good / Best Practice
  - Recommendations, guidelines, illustrations, references

Characteristics and Criteria - 1

- Openly available
- Organization oriented
- Enterprise Architecture focused
  - As related to producing reference architectures for use in decision-making and as guidance for solution architecture, development and deployment
  - Also applicable to producing solution architectures leading to design, development, and deployment of solutions
- Definition, Measurement, Assessment, Improvement Planning, Improvement Execution Cycle oriented

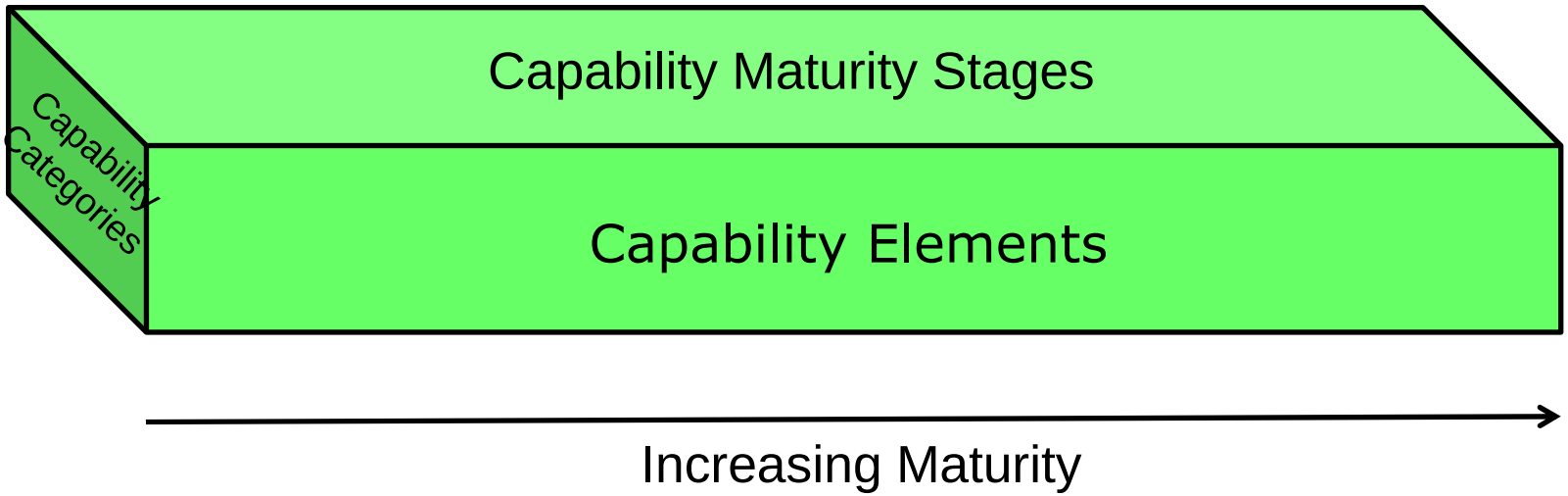
Characteristics and Criteria - 2

- Development Process, Method and Tool independent
  - Notwithstanding linkage with Open Group standards and programs
- Suitable for adaptation and integration
- Directed towards producing Enterprise Architectures that are
  - Used to guide an influence investment decisions by the organization to achieve strategic and operational objectives

Characteristics and Criteria - 3

- Key Focus Areas
  - Enable strategic vision clarity to drive architecture development
  - Enable good architectures to be developed
  - Enable architectures to be used as references
    - to support and enhance investment decision making to help reach the vision and deliver the intended value (impact) or
    - to lead into the design, development, and deployment of solutions
  - And then enable continuous improvements throughout

Strawman Components



Strawman Components

	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Cat.X							
Elt a	Elt a.0	Elt a.1	Elt a.2	Elt a.3	Elt a.4	Elt a.5	Elt a.6
Elt b	Elt b.0	Elt b.1	Elt b.2	Elt b.3	Elt b.4	Elt b.5	Elt b.6
Cat Y							
Elt c	Elt c.0	Elt c.1	Elt c.2	Elt c.3	Elt c.4	Elt c.5	Elt c.6
Elt d	Elt d.0	Elt d.1	Elt d.2	Elt d.3	Elt d.4	Elt d.5	Elt d.6

Strawman Content - 1

- Capability Elements
  - Practices, structures, activities, conditions to be measured
- Capability Categories
  - Representing sets of related measurable capability elements
  - Two levels: High-level (3-5) and Mid-level (10-20)
- Capability Maturity Stages
  - A progressive series of stages of increasing competence, performance, and effectiveness.

Strawman Content - 2

- Assignment of Capability Elements to Capability Maturity Stages
  - Reflecting how individual Capability Elements contribute towards achieving each maturity stage
- Process
  - The timing, steps, and governance of the measurement, assessment, improvement planning, and improvement execution cycle
- Good Practice Statements
  - Associated with and expanding on Capability Elements at various maturity stages with recommendations, guidelines, illustrations, etc.

High-Level Capability Categories

- The OMB reference defines 3 high-level categories that are relevant and provide a good foundation for the Strawman framework:
  - **Completion** of Architecture development
  - Enabling the **Use** of Architectures, i.e. chartering, resourcing, governing, managing, etc.
  - Value / impact **Results** from their use
- Many references do not define a set of high-level categories.
- This choice emphasizes the complete view of the EA lifecycle: development, use, and value realized.

Mid-Level Capability Categories

- Most references define between 10 and 20 Capability Categories at what will be called the Mid-Level.
  - Many stop at this point and make measurements of capability status at this level.
  - The Strawman adopts a lower level of capability elements that roll-up to the Mid-level categories.
- There is room for discussion and evolution of the Mid-Level categories.
  - Referenced material exhibits both commonalities and some differences.

Sources for Comparison of Mid-Level Categories

1. Amit Bhaqwat, EA Maturity Assessment
2. Serge Thorn's blog
3. US DoC ACMM v1.2
4. US GAO v2.0
   - Note: The published GAO framework does not define Mid-Level Categories. The 17 Mid-Level Categories used here were derived by grouping progressive, related Capability Elements.

Common Mid-Level Categories

- EA Process / Documentation & Standards
- EA Development / Delivered Products
- EA / Business Linkage / Enterprise Context
- EA Senior Management Involvement / Leadership
- EA Governance
- EA Acceptance by / Integration into Business Units*
- EA Communications*
- Investment and Acquisition Strategy*
- Transformation / Value to the Enterprise*

* Found in 3 of 4

Distinct Mid-Level Categories

- References 1 and 3
  - Security
- Reference 2
  - EA Competencies
  - EA Web Site
  - EA Stakeholder Management
  - Service Qualities
  - EA Change Management
  - Requirements Management
- Reference 2 and 4
  - EA Tools
- Reference 4
  - EA Segmentation
  - EA Content Framework
  - EA Policy
  - EA Program Establishment
  - EA Resources and Training
  - EA Charter
  - EA Program Management
  - EA Performance Management and Reporting

Mid-Level Categories

- There are opportunities for further consolidation or aggregation of specific categories into somewhat more general ones.
- Some candidate categories may serve better as criteria applied to individual EA activities.
- For the Snapshot, the derived GAO Mid-Level Categories are used primarily because of the richness of the management and improvement enabling elements.

Mid-level / High-level Categories Mapped

- Completion
  - EA Segmentation
  - EA Delivered Products
  - EA Enterprise Context
  - EA Content Framework
  - EA Methodology
  - EA Tools
- Results
  - EA Performance Management and Reporting

- Use [and Governance]
  - EA Policy
  - EA Program Establish.
  - EA Integration into the Organization
  - EA Resources and Training
  - EA Leadership
  - EA Charter
  - EA Process
  - EA Program Governance
  - EA Program Management
  - EA Value to Enterprise

Capability Elements

- There are 59 Capability Elements from the GAO framework that are set out within the 17 Mid-level and 3 High-level Capability Categories.
  - This can evolve.
  - This can be a source of possible profiles of the Framework for organizations of different sizes, industries, and/or natures (for-profit, not-for-profit).

Capability Maturity Stages

- The reference material is relatively consistent in terms of the number and descriptions of maturity stages.
- To illustrate, here is a more traditional list of stages with annotations from one reference and labels from the GAO reference.
- The Strawman will adopt the GAO labels while retaining the context of the traditional stage names.
  - GAO label focus on EA completion, use, and results
  - Traditional stage names focus on the EA program

Capability Maturity Stages Compared

- Traditional with annotations
  - 0 None – no EA program
  - 1 Initial – informal EA activities
  - 2 Under Development – EA fw under dev.
  - 3 Defined – EA fw has written procedures
  - 4 Managed – EA fw well managed
  - 5 Measured – EA fw managed and measured
  - 6 Optimizing – Continuous improvement of EA fw
- GAO Stage Names
  - 0 Create Awareness
  - 1 Establish Commitment
  - 2 Create Foundation
  - 3 Develop Initial EA
  - 4 Using Initial EA
  - 5 Expanding EA
  - 6 Improving EA

Putting The Categories and Elements Together

- The following tables illustrate the High and Mid-Level Categories mapped against the Maturity Levels.
  - The Strawman Capability Elements are illustrated in the table cells.

High-Level Capability Category: Completion

Mid-Lev	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Segmentation			(17) **Segments** Identified & prioritized	(28) 1+ segment EAs being developed	(37a) Corp EA exists wi/ **sequencing plan**	(48) Ent wide seq plan (49) aligned w/ subs	
Delivered Products				(26) Init ver of **corp EA** w/ seq plan being dev	(37b) exist (39) 1+ seg EA exist & used	(50) All seg EAs exist & integrated	(57) Products continuously improved
Enterprise Context				(27) Init corp EA being dev in **context**	(38) Corp EA captures context	(51) Corp & sub EAs extended to **external** EAs	
Content FW				(29) Products follow **content fw**			
Methodology				(30) Products follow defined **Meth**.			
Tools			(14) Automated EA **tools** exist	(31) Using tools			

High-Level Capability Category: Use - 1

Mid-Lev	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
EA Policy		(1) Written & approved					
EA Program Establishment		(2) **Exec Comm** exists & responsible	(9) EA budget justified & funded (15) EA **mgt plan** exists **aligned** with **disciplines**				
EA Intg into Organization		(3) Exec Comm pro-active addressing EA barriers	(10) EA **Pgm Ofc** exists	(19) CXO reps active in EA dev	(34) Stakeholders approved sub EAs		
EA Resources & Training		(4) Exec Comm trained in EA concepts	(12) Pgm Ofc **Human Capital** plan exists	(20) HC Plans being implemented (21) Pgm Ofc contract needs met (22) Pgm Ofc staff trained.	(36) Pgm Ofc HC needs met		(54) HC capabilities continuously improved
EA Leadership		(5) **Chief Architect** exists	(11) Key Pgm Ofc leaders exist			(47) All Pgm Ofc's are as one	

High-Level Capability Category: Use - 2

Mid-Lev	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
EA Charter		(6) EA **purpose** clearly stated					
EA Process		(7) EA **dev FW** adopted	(13) EA dev Methodology exists (14) EA automated tools exist. (24) EA Meth and tools exist for sub EAs / corp alignment			(46) EA **repository**, dev FW, meth used by all	(55) EA meth and tools continuously improved (56) EA mgt processes continuously improved
EA program governance				(33) Exec Comm approved init Corp EA	(44) Org leader approved corp EA (45) Org component leaders approved Sub EAs		
EA program management		(16) Work breakdown structure and schedule to develop EAs exists	(25) EA risks proactively identified, reported & mitigated.				

High-Level Capability Category: Use - 3

Mid-Lev	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
EA Delivers Value to the Enterprise				(23) EA Meth and tools exist to check compliance with corp & sub EAs	(35) EA is integral to execution of other mgt disciplines.		(53) EA used by CXO leaders to inform strategic planning

High-Level Capability Category: Results

Mid-Lev	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
EA Performance Measurement and Reporting		(8) EA performance FW exists	(18) Pgm Ofc readiness is measures & reported	(32) EA dev progress measured & reported	(40) EA product quality measured & reported	(40) EA products & mgt process have independent assessment	(58) EA quality and results measuring methods continuously improved.
					(41) EA results and outcomes measured & reported		(59) EA continuous improvement external assessment
					(42) Investment compliance with corp & sub EAs measured & reported		
					(43) Sub EA alignment with corp EA measured & reported		

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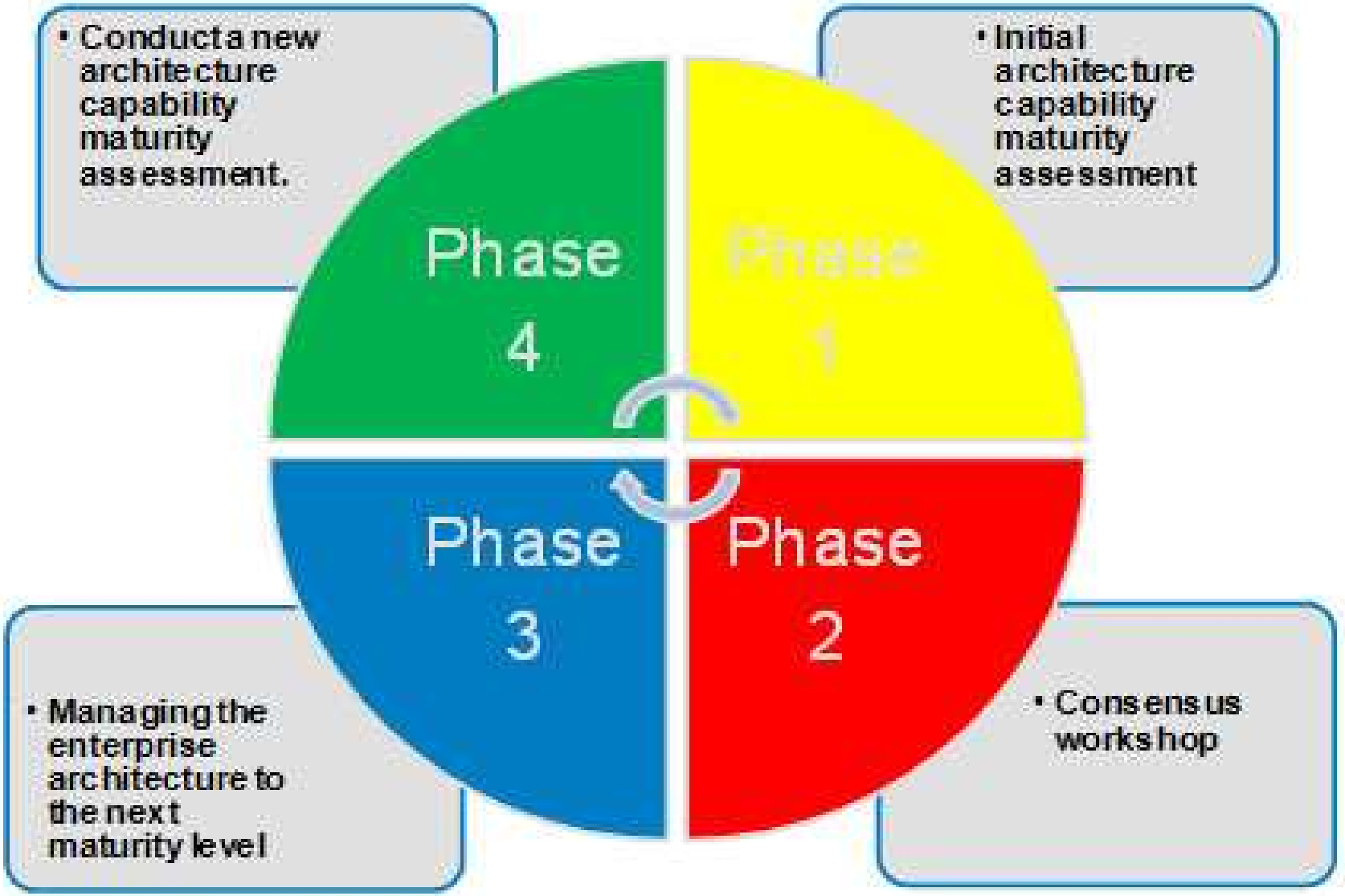
Process

- There is general alignment among the references in the area of the measurement, assessment, improvement planning, and improvement execution cycle process.
- Some refinement and elaboration is anticipated as the Framework evolves and gains the benefit of feedback from actual use.
- The overall process is illustrated in Serge Thorn's reference:

Process


• Conduct a new architecture capability maturity assessment.
• Initial architecture capability maturity assessment
Phase 4
Phase 1
Phase 3
Phase 2
• Managing the enterprise architecture to the next maturity level
• Consensus workshop

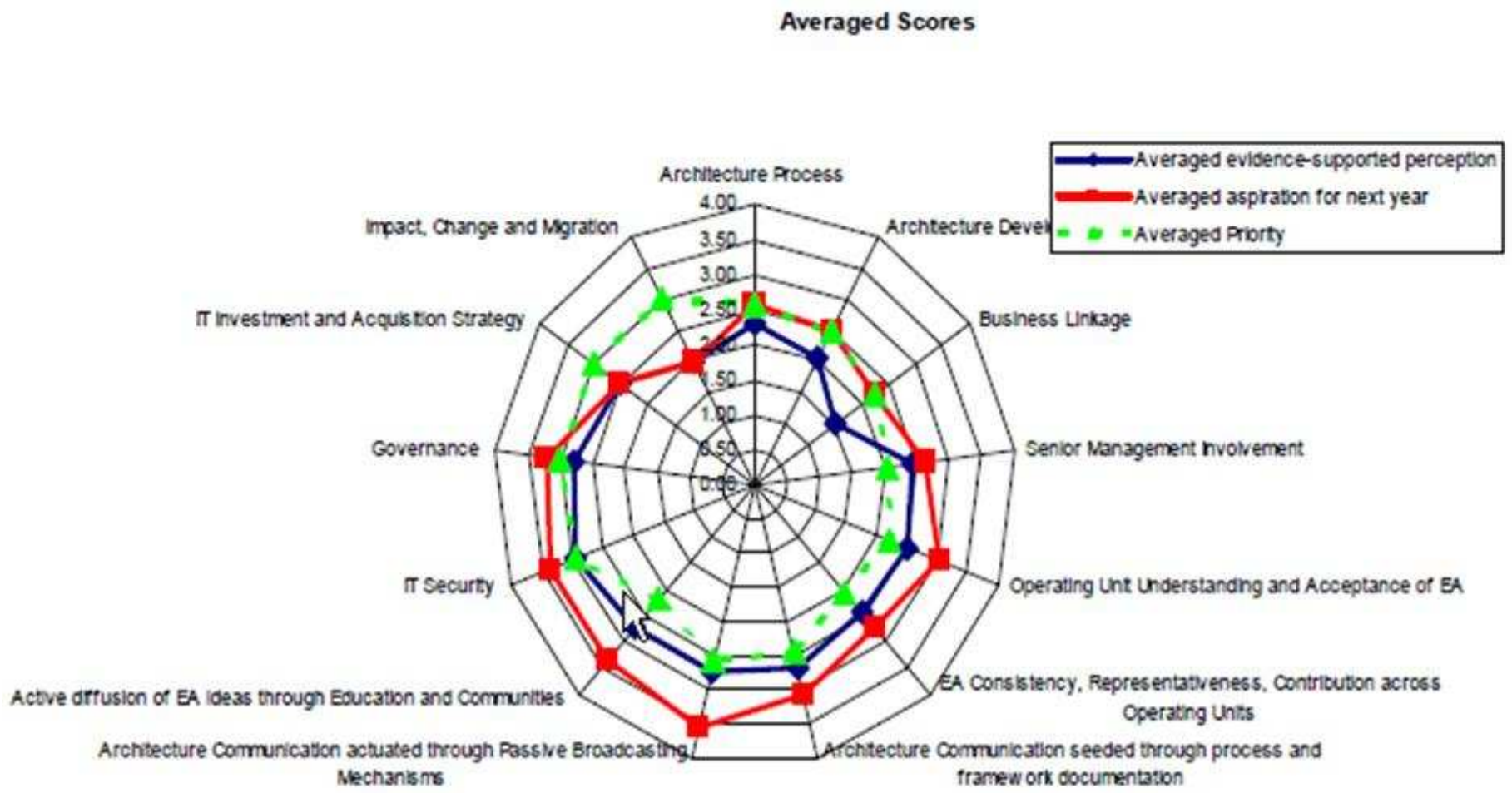
Process: Scoring

- There are slight variations in the number of possible scores for a measurement, typically ranging from 3 to 5.
  - The more specific the elements being measured, the more feasible it is to use binary scoring.
- The Strawman initially uses a 4 part scoring described in the Bhaqwat reference as:
  - Fully achieved
  - Largely achieved
  - Partially achieved
  - Not achieved

Process: Reporting

- There are many ways to report the results of measurement and assessment, including improvement plans and comparisons with relevant norms.
- A spider diagram is useful to portray results at the level of the Mid-level Capability Categories.
  - The illustration is from the Bhaqwat reference.

Process: Reporting Illustrated



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Summary

- The Strawman improvement framework responds to the guidance provided by the interview and previous workshop input.
- The Strawman is closely tied to the reference material from which components was incorporated or adapted.
- This should provide a reasonable starting point for evolution as we move forward together to realize the vision for this initiative.
  - Driven by the experiences and needs of the active participants
  - With growing linkage with other Open Group efforts.

Agenda Review

- Overview
- References
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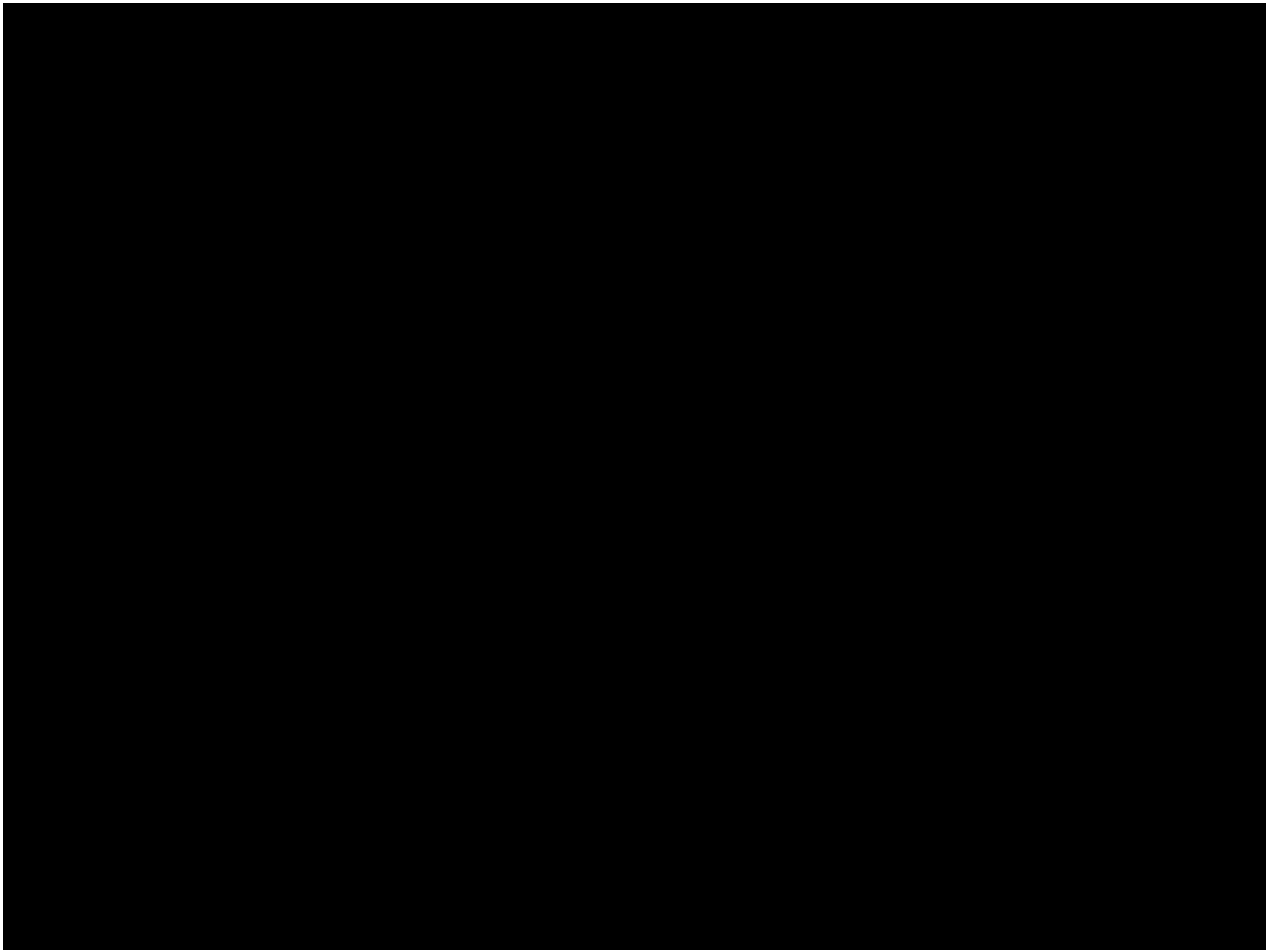

Discussion 2

- What do you consider are the 10 most important good practices in managing and delivering an EA Program that should be in an EA improvement framework?
- ***3 mins report back from each table please!***
- ***@11:15***

Discussion 3

- Thinking of the strawman we have presented, what do you see as strong points that we can build on, and what weaknesses need to be addressed?
- What other thoughts and suggestions do you have about the framework?
- ***3 mins report back from each table please!***
- ***@ 11:55***

Next steps

- Aug 11: ‘TOGAF Org Cert’
- Dec11– Jan12: Customer Survey
- April: Test the proposition
- Jul: Start building the framework

- July: Architecture Forum Charter
- Oct: Proof of Concept results (doing, not thinking)
  - Does it work, will it make a difference?
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