

Process Informatics Inc.
Innovations in Process Excellence!

$\pi = 3.14159265$
3589793238
4626433832

$$\frac{1}{\sqrt{2\pi}} \ln(\sigma\sqrt{2\pi}e)$$

GAO's Enterprise Architecture Management Maturity Framework

Version 2.0

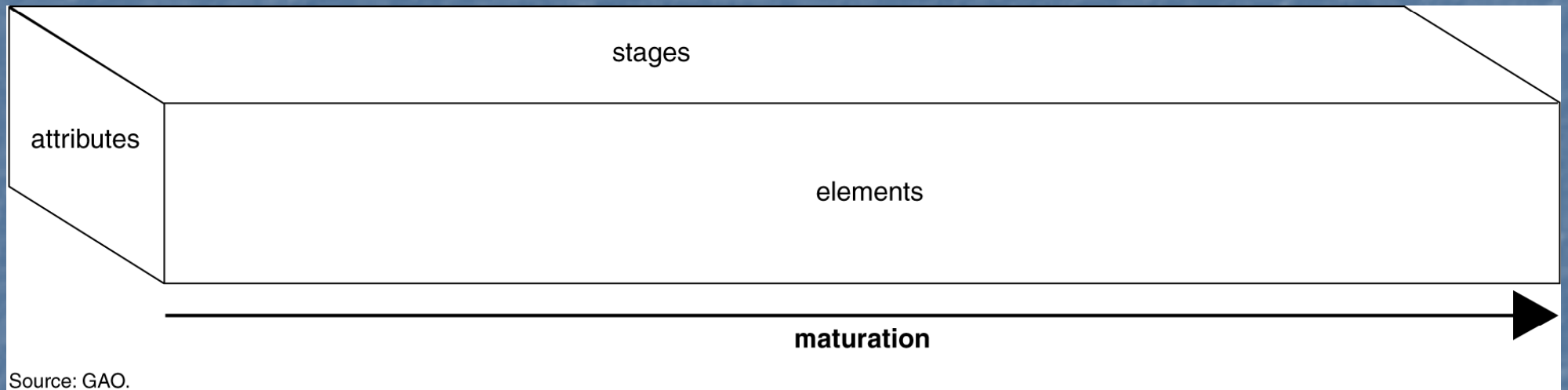
What is the EAMMF?

- Framework developed by the GAO to assist organizations in successfully developing, maintaining, and using Enterprise Architecture
- Version 1.0 in 2002
- Version 1.1 in 2003
- Version 2.0 in 2010

How the EAMMF Measures EA

- Hierarchical *stages* of management maturity;
- Categories of *attributes* that are critical to success in managing any endeavor; and,
- *Elements* of EA management

Simplified Three-Dimensional View of EAMMF



Source: GAO.

Version 2.0 Highlights

- Expanded from 5 to 7 Stages
- Expanded from 31 to 59 Core Elements
 - 33 are new Core Elements
 - 19 Modified from original Core Elements
 - Only 7 are the same
- Provides flexibility to measure EA against varying sets of attributes based on organizational need

EAMMF Version 1.1 Overview

	Stage 1: Creating EA awareness	Stage 2: Building the EA management foundation	Stage 3: Developing EA products	Stage 4: Completing EA products	Stage 5: Leveraging the EA to manage change
Attribute 1: Demonstrates commitment		<ul style="list-style-type: none"> •Adequate resources exist •Committee responsible for directing, approving EA 	<ul style="list-style-type: none"> •Written and approve policy for development 	<ul style="list-style-type: none"> •Written and approved policy for maintenance 	Written and approved policy for IT investment compliance with EA
Attribute 2: Provides capability to meet commitment		<ul style="list-style-type: none"> •Program office responsible for EA exists •Chief architect exists •EA developed using a framework methodology and automated tool 	<ul style="list-style-type: none"> •Configuration management 	<ul style="list-style-type: none"> •IV&V 	<ul style="list-style-type: none"> •Process exists to formally manage change •EA is integral component of investment management process
Attribute 3: Demonstrates satisfaction of commitment		<ul style="list-style-type: none"> •Develop both As-is & To-be and transition plan •Described in terms of business, performance, data, service, technology •Addresses security 	<ul style="list-style-type: none"> •EA describes both As-is & To-be and transition plan •Described in terms of business, performance, data, service, technology •Addresses security 	<ul style="list-style-type: none"> •As-is & To-Be described •Security •CIO approval •Committee or investment review board has approved EA 	<ul style="list-style-type: none"> •EA is updated •IT investments comply with EA •Organization head has approved current EA
Attribute 4: Verifies satisfaction of commitment		<ul style="list-style-type: none"> •Plan to develop metrics for measuring progress, quality, compliance, ROI 	<ul style="list-style-type: none"> •Progress measured and reported 	<ul style="list-style-type: none"> •Quality is measured and reported 	<ul style="list-style-type: none"> •ROI is measured and reported •Compliance is measured and reported



Seven Stages of Maturity

- Stage 0: Creating EA Awareness
- Stage 1: Establishing Institutional Commitment & Direction
- Stage 2: Creating the Management Foundation for Development & Use
- Stage 3: Developing Initial EA Versions
- Stage 4: Completing and Using Initial EA for Targeted Results
- Stage 5: Expanding and Evolving EA and its Use for Institutional Transformation
- Stage 6: Continuously Improving the EA and Its Use to Achieve Corporate Optimization

	Stage 0: Creating EA Awareness	Stage 1: Establishing Institutional Commitment & Direction	Stage 2: Creating the Management Foundation for Development	Stage 3: Developing Initial EA Versions	Stage 4: Completing and Using Initial EA for Targeted Results	Stage 5: Expanding and Evolving the EA for Transformation	Stage 6: Continuous Improvement and Its to Achieve Optimization
Attribute 1: Demonstrates Commitment		(1) Written and approved policy exists (2) Exec committee exists for oversight (3) Proactive steps to reduce barriers to EA	(9) EA budgetary needs are justified and funded	(19) Org business owner and CXO reps are actively engaged in development	(33) Exec committee has approved initial version of EA (34) Key stakeholders have approved subordinate EA (35) EA is integral to execution of other institutional mgmt disciplines	(44) Org head has approved current version of EA (45) Org component heads or segment owners have approved subordinate EA's	(53) EA is used by executive leadership to inform strategic planning and policy formulation

	Stage 0: Creating EA Awareness	Stage 1: Establishing Institutional Commitment & Direction	Stage 2: Creating the Management Foundation for Development	Stage 3: Developing Initial EA Versions	Stage 4: Completing and Using Initial EA for Targeted Results	Stage 5: Expanding and Evolving the EA for Transformation	Stage 6: Continuous Improvement and Its to Achieve Optimization
Attribute 2: Provides capability to meet commitment		(4) Exec committee members are trained in EA principles and concepts (5) Chief architect exists (6) EA framework adopted	(10) EA program office exists (11) Key program office leadership positions are filled (12) Program office human capital plans exists (13) EA development & maintenance methodology exists (14) Automated EA tools exist	(20) Human capital plans implemented (21) Program contractor support needs met (22) Program staff trained (23) (24) Methodologies & tools exist to determine compliance to subord and corporate EA (25) EA risks identified, reported	(36) Program office human capital needs met	(46) Integrated repository tools and common EA framework and methodology used across enterprise (47) Corporate and subordinate EA offices operated as a single virtual office that shares resources	(54) EA human capital improved (55) EA methodologies and tools improved (56) EA management processes are improved and reflect results of external assessments

	Stage 0: Creating EA Awareness	Stage 1: Establishing Institutional Commitment & Direction	Stage 2: Creating the Management Foundation for Development	Stage 3: Developing Initial EA Versions	Stage 4: Completing and Using Initial EA for Targeted Results	Stage 5: Expanding and Evolving the EA for Transformation	Stage 6: Continuous Improvement and Its to Achieve Optimization
Attribute 3: Demonstrates satisfaction of commitment		(6) EA purpose is clearly stated.	(15) EA mgmt plan exists (16) Work schedule to develop EA exists (17) EA segments, federation members, and extended members have been identified and prioritized	(26) Initial As-s & To-Be & transition exists (27) EA Described in terms of business, performance, data, service, technology (28) Segment or federated EA being developed (29) Developed according to framework (30) Developed per defined methodology (31) Developed using EA tools	(37) Initial As-is and To-be EA sequencing plan exists (38) Initial EA captures business, performance, data, service, technology (39) One or more segment and/or federation member architectures exist and is being implemented	(48) Corporate EA and sequencing plan are enterprise wide in scope (49) Aligned with subordinate architectures (50) All segment or federated EA's exist and are horizontally and vertically integrated (51) Corporate and subordinate EA's extend to align with external partner EA	(57) EA products are continuously improved and updated



	Stage 0: Creating EA Awareness	Stage 1: Establishing Institutional Commitment & Direction	Stage 2: Creating the Management Foundation for Development	Stage 3: Developing Initial EA Versions	Stage 4: Completing and Using Initial EA for Targeted Results	Stage 5: Expanding and Evolving the EA for Transformation	Stage 6: Continuous Improvement and Its to Achieve Optimization
Attribute 4: Verifies Satisfaction of Commitment		(8) EA performance and accountability framework is established	(18) Program office readiness is measured and reported	(32) Architecture development progress is measured and reported	(40) EA quality is measured and reported (41) EA results and outcomes are measured and reported (42) Investment compliance with corporate and subordinate EA's is measured and reported (43) Subordinate EA alignment with corporate EA is measured and reported	(52) EA products and management processes are subject to independent assessment	(58) EA quality and results and measurement methods are continuously improved (59) EA continuous improvement efforts reflect the result of external assessments

Different Approaches to Structuring Architectures

- Federated
- Segmented
- Service-Oriented
- Extended

Other Ways of Measuring EA

- Version 2.0 allows for a “modular” representation: fit the EAMMF core elements to best fit your organization based on different slices of attributes
- Critical Success Attributes (Carried over from Version 1.1):
 - Demonstrates Commitment
 - Provides capability to meet commitment
 - Demonstrates satisfaction of commitment
 - Verifies satisfaction of commitment

Version 2.0 Attributes

- **Functional Area Representation of Core Elements:**
 - Governance
 - Content
 - Use
 - Measurement

Version 2.0 Attributes

- **OMB Capability Area Representation of Core Elements:**
 - Completion
 - Use
 - Results

Version 2.0 Attributes

- **EA Enabler Representation of Core Elements:**
 - Leadership
 - People
 - Processes
 - Tools

Takeaways

- Version 2.0 provides a more comprehensive approach to measuring EA, and as such provides direction for more successful implementation
- More involvement with senior executives and engaging stakeholders
- More emphasis on use of EA
- Emphasis on flexibility
- Importance of Strategy!

More Information

- Full EAMMF Version 2.0 available from the GAO's website:
- <http://www.gao.gov/new.items/d10846g.pdf>
- Source: All quoted materials and graphics are copied from or derived from GAO report on EAMMF.