

Interoperability Maturity Model - IMM Workshop

Steve Widergren, PNNL
Ron Cunningham, AEP
Austin Montgomery, SEI-CM
Mark Knight, CGI
James Mater, Quality Logic

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Grid-Interop 2012

Introduction

- What's an IMM?
 - Why have a workshop?
 - What will we accomplish?
 - How will we get there?
 - Who will participate?
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- SG IMM beta document available at
 - <http://www.gridwiseac.org/about/publications.aspx>



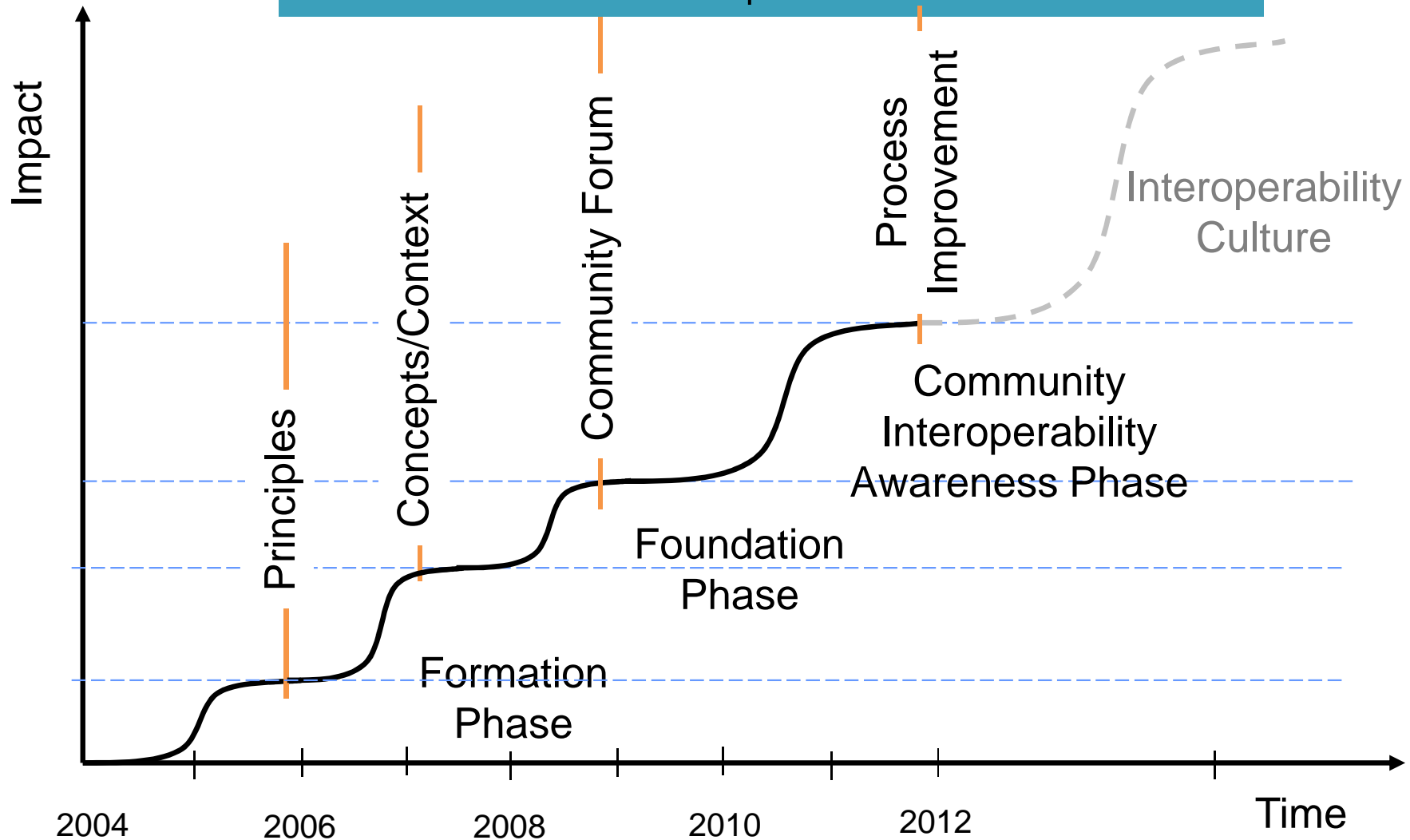
Objectives

- Engage audience to articulate the need for methods and tools to improve interoperability
- IMM is an example of such methods and tools
- Capture ideas in workshop results
- Have fun – no right or wrong – brainstorm

- Non-objective: not an IMM introduction session (see other Grid-Interop session)

Phases of Progress

Goal: Develop a culture for implementation-ready electric automation products & services



The Path Is a Spiral

Advancing interoperability is a process improvement problem

Act



Plan



Do

As our electric world evolves, sustaining progress requires a culture change



Check



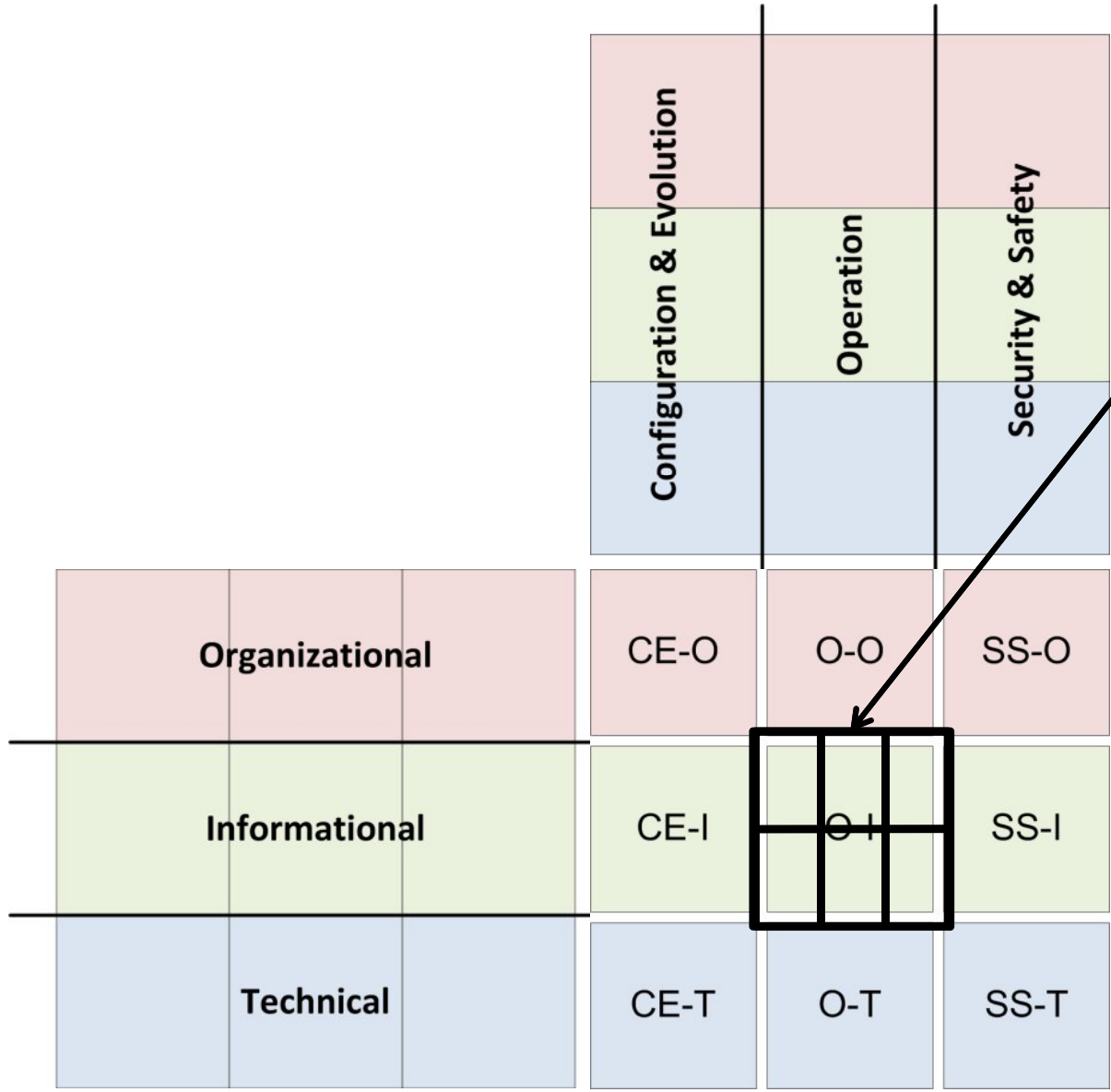
Maturity Levels

Maturity Characteristics

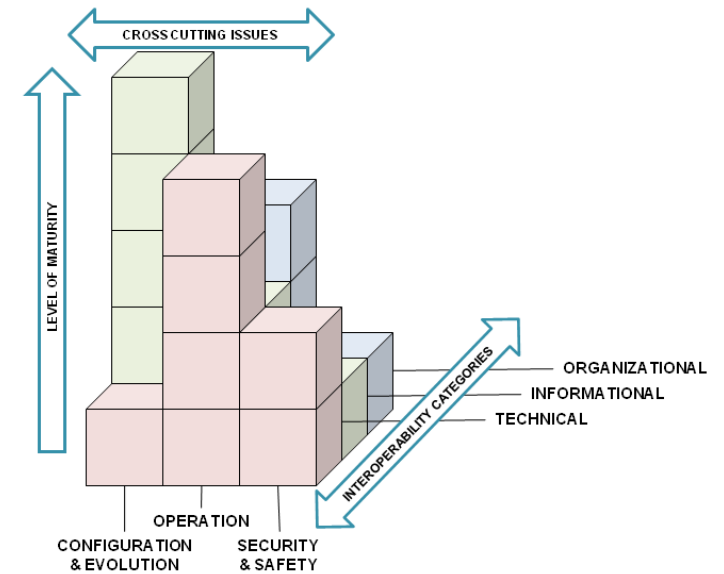
	Community/ Governance	Documentation	Integration	Test/ Certification
Level 1: Initial	Management is ad hoc	Documentation is ad hoc	Integration is a unique experience	Testing is ad hoc
Level 2: Managed	Managed by project agreement	Documented in a project specification	Integration is repeatable, w/ customization expected	Tested to plan w/ results captured
Level 3: Defined	Managed by community agreement	References community standard w/ some customization	Integration repeatable w/ predictable effort	Tests exist for community w/ certification Members claim compliance to standard
Level 4: Quantitatively Managed	Processes ensure currency and interoperation	References a community standard w/o customization	Integration metrics are defined and measurements collected Reference implementations exist	Community test processes demonstrate interoperability Members claim interoperable conformance
Level 5: Optimizing	Managed by a community quality improvement process	Adopts an open, community standard	Integration metrics used for improvement of the standard	Test processes are regularly reviewed and improved

Maturity Level Statements

GWAC Stack and X-Cutting Issues



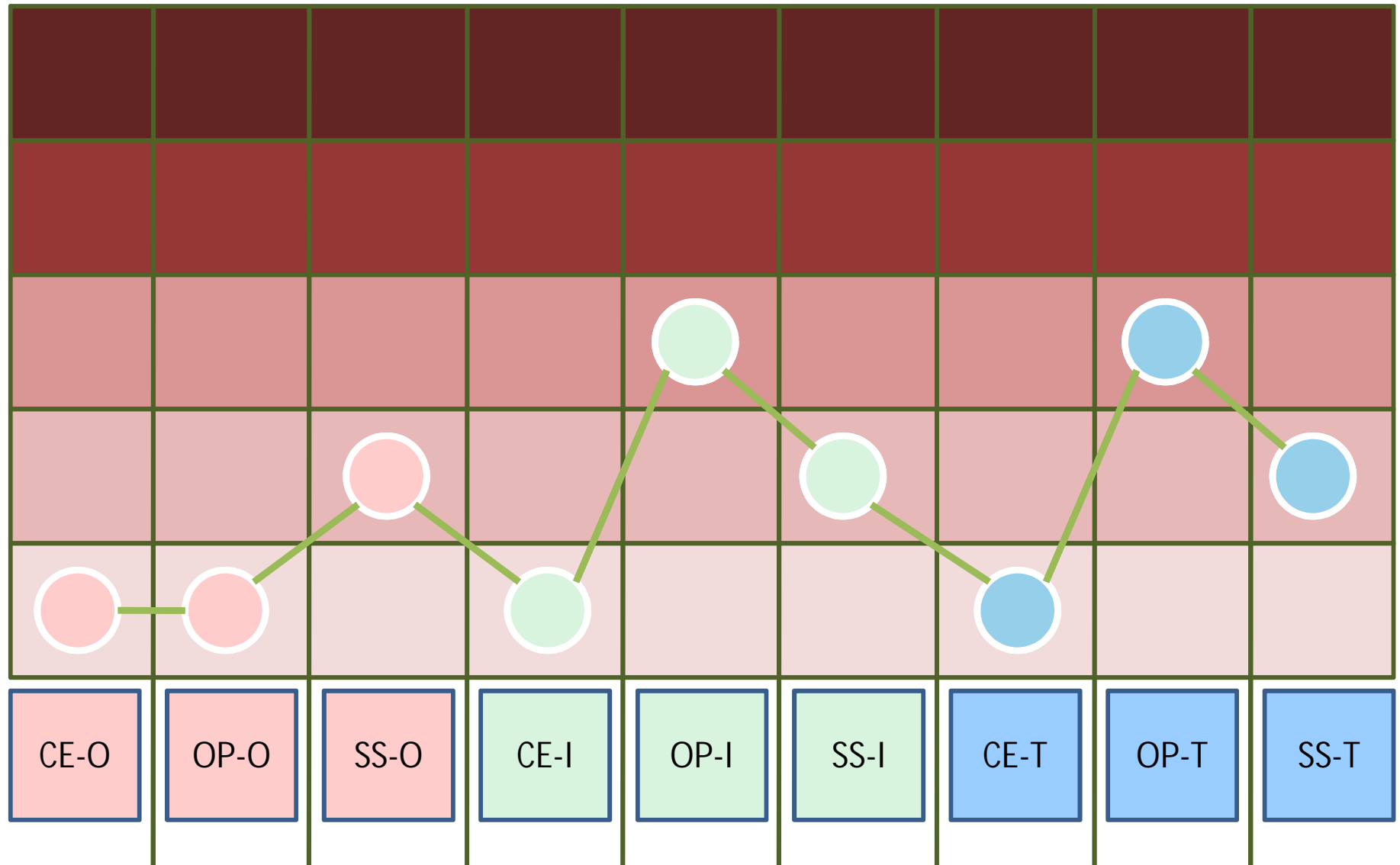
The intersection of a Context Setting Domain and a Cross Cutting Domain forms an Interoperability Area.



E.g., Discovery of New Participants Goals

	Initial	Managed	Defined	Quant. Managed	Optimizing
Configuration & Evolution - Organizational					
CE6-O4, O5: Governance policy for discovery access of participating parties is specified.					
CE6-O6: Business processes for discovering participating parties are specified.					
CE7-O6: The business processes for negotiating and configuring interface options or modes of operation are specified.					
CE8-O6: The business processes for entering or leaving an interaction are specified along with the expected behavior.					

What Does SGIMM Maturity look like?



- Technology evolution
 - Deal with legacy systems
 - Rapid technology change needs to be supported
- Urgency, speed of development
 - Need it yesterday
 - Can't stop projects in flight
- Complicated ecosystem
 - Many standards, hard to get perspective
- Business incentive, value proposition
 - Value of SG IMM and moving between levels
 - Getting vendors to participate and adopt
 - Should be mandated, how to get regulatory acceptance
 - Users shouldn't be penalized
 - Low barriers to entry
- Points of interoperability for information exchange
 - Allow diversity of business and technical solutions
 - Diverse needs: economic, environmental, regional
 - Minimize information flow, resist desire to "know" everything
- Effective communication of SG IMM concepts and value
 - Need practical, concrete examples
 - Market, sell the value of the model – the benefits of maturity process

Approach and Format

- 90 minutes
- Short introduction for level setting
- Pose 2 questions
 - Facilitator provides background
 - Manages discussion to maximize input from different audience members
- Scribe takes notes and develops talking points
- Wrap-up
 - Review talking points from each discussion

Questions

- How do you justify your interoperability activity in your organization?
 - Testimonial
 - How do you express the value proposition to decision-makers?
 - How do you measure interoperability now?
 - Level of formality in articulating gaps and benefits
 - Can tools like the IMM be helpful to assess situation and justify interoperability investments
- Where could you apply an IMM tool now?
 - Trial candidate ice-breakers: existing trials, synchrophasor interfaces, etc.
 - Audience examples
 - Interest in joining IMM team to explore a trial application

Agenda

Times	Topic	Lead	Scribe
15 min	Introduction & level setting	Steve Widergren	n/a
30 min	Question 1	Ron Cunningham	Austin Montgomery
30 min	Question 2	Mark Knight	James Mater
5 min	Question 1 take-away points	Ron Cunningham	Austin Montgomery
5 min	Question 2 take-away points	Mark Knight	James Mater
5 min	Wrap-up - plans	Steve Widergren	n/a

Flexible with time. If Question 1 takes more than 30 minutes, that's OK.

Audience

- Background
 - IT and smart grid savvy
 - Appreciation of IT standards
 - Appreciation of quality assurance and maturity models – heard of IMM
 - Varied stakeholder areas and responsibilities