



Global Congress 2010  
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# Maturity Frameworks for Enterprise Agility in the 21<sup>st</sup> Century

## Session # TRN10

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# Agenda of Session

- Evolution of management in the 21<sup>st</sup> century
- Quest for agility
- Maturity models as an approach
- OPM3
- N2C2M2
- Application methods
- Underlying concepts
- Adoption of these models
- OPM3/N2C2M2 synergy

# Evolution of Management in the 21<sup>st</sup> Century

- **Globalization**
- **Ubiquitous connectivity**
- **Exponential increases in access to data, information and knowledge**
- **Evolving mix of partners and competitors**
- **Complexity, uncertainty, dynamic and high risk**
- **Organizational need for continual transformation and agility**

# The Quest for Agility

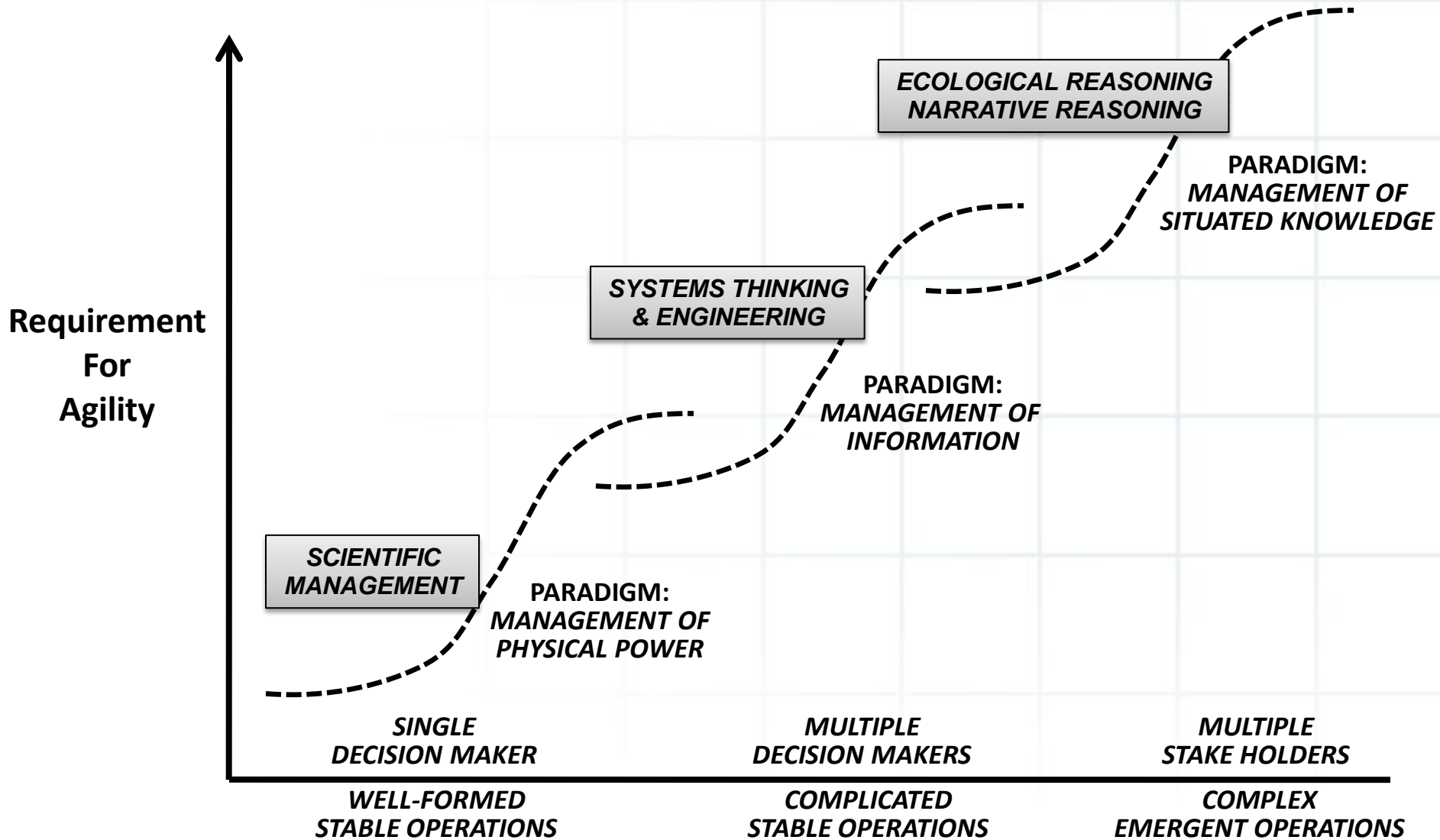
- The capability to change across the physical, information, cognitive, and social domains
- To achieve success in the face of deep uncertainty and highly dynamic conditions
- The ability to maintain effectiveness proactively in the face of changing circumstances and stresses
- Including the ability to conceptualize, design, create, and deploy a successful endeavor
- Reorganizing heterogeneous resources [people] as needed into teams assembled to do new or unique things [projects]

# Enablers of Agility: How to be Agile

- **Agility is the ability to perform successfully when faced with important, unexpected circumstances**
  - **Stresses and opportunities**
- **Key enablers**
  - **Robustness: Effective across situations**
  - **Resilience: Ability to recover**
  - **Responsiveness: Capacity to act within a window of opportunity or threat**
  - **Flexibility: Able to succeed in multiple ways**
  - **Innovation: Doing new things or old things in new ways**
  - **Adaptation: Changes in structures or processes**

**Include tradeoffs and mutual reinforcement**

# Dealing with Increasing Complexity



# Evolution of Organizations

- **As the external environment has become more complex, both organizations and their projects have become more complex**
- **Assuming new forms through outsourcing, virtual teams, alliances, and ad hoc coalitions**
- **Evolving into orchestrations of adaptive networks of projects**
- **May include team members from many organizations both inside and outside traditional corporate boundaries**

# Operational Imperatives

- **Grow the capability of one's organizations to translate strategic intent into project outcomes successfully, consistently, and predictably.**
- **Identify and cause the requisite maturity for different organizations to collaborate in complex endeavors with sufficient agility.**

# Maturity Models as an Approach

- The concept of “maturity” was popularized by the SEI CMM.
- Maturity models are standards that shape institutional designs and management practices as well as social norms and expectations about behavior.
- A maturity model defines excellence in a particular domain and the steps to achieve it.

# OPM3 – Organizational Project Management Maturity Model

- OPM3 was developed by hundreds of volunteers to help organizations to execute their strategies through projects.
- OPM3 is PMI's Organizational Project Management Maturity Model.
- Provides methods for assessing and developing the capabilities
  - That enhance an organization's ability to deliver projects successfully, consistently, and predictably
  - In order to accomplish the strategies of the organization and improve organizational effectiveness.

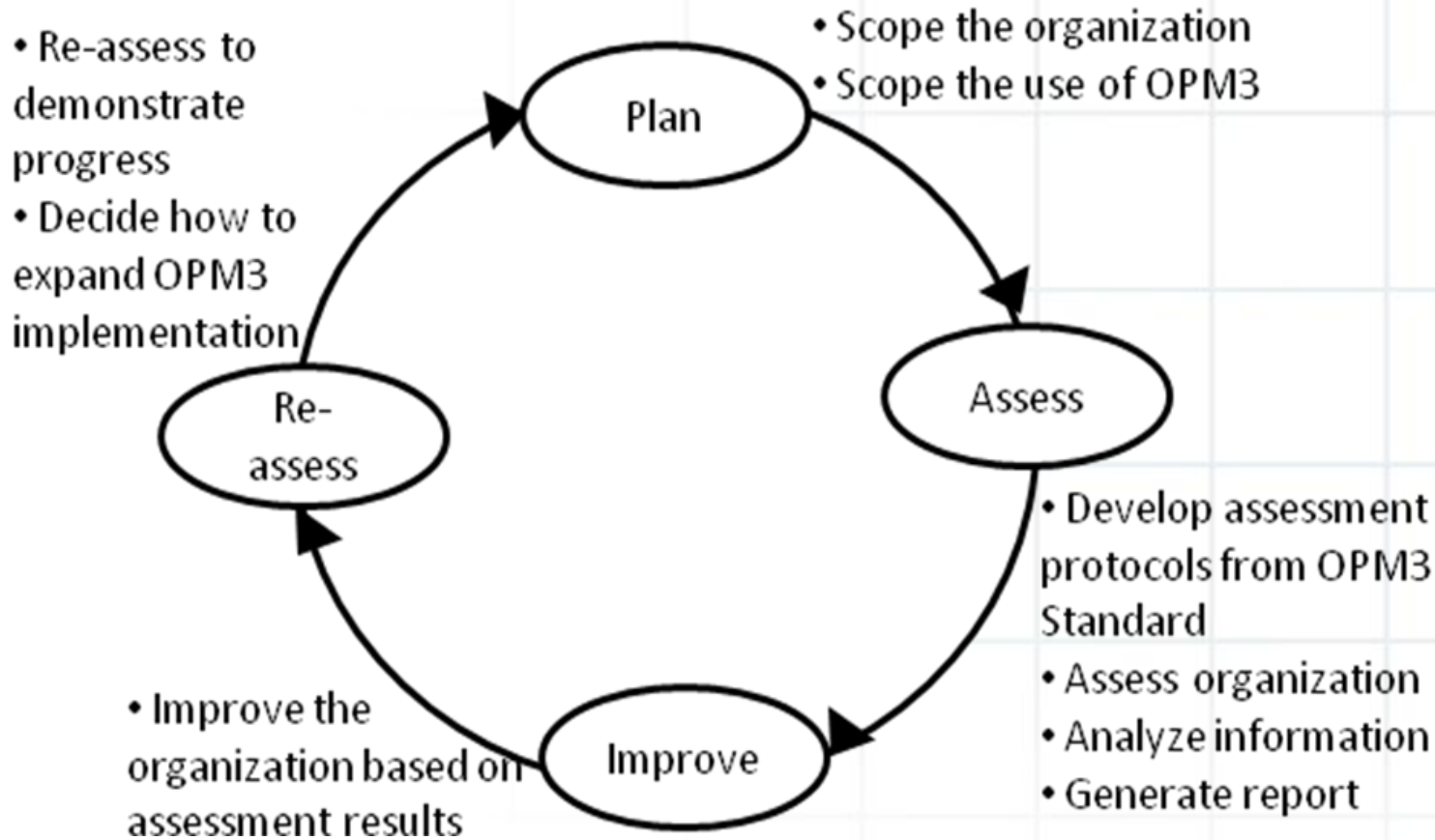
# N2C2M2 – NATO Network Enabled Capability C2 Maturity Model

- **Developed by NATO Study Group SAS-065 as a framework to facilitate the exploration of alternative approaches to the command and control of coalitions in complex endeavors**
- **Focused on identifying alternative approaches to C2 and the level of maturity they reflect**
- **Specified variables needed to understand/differentiate five C2 maturity levels and their relation to associated C2 approaches: Conflicted C2, De-conflicted C2, Coordinated C2, Collaborative C2, and Edge C2**

# Understanding and Applying the Frameworks

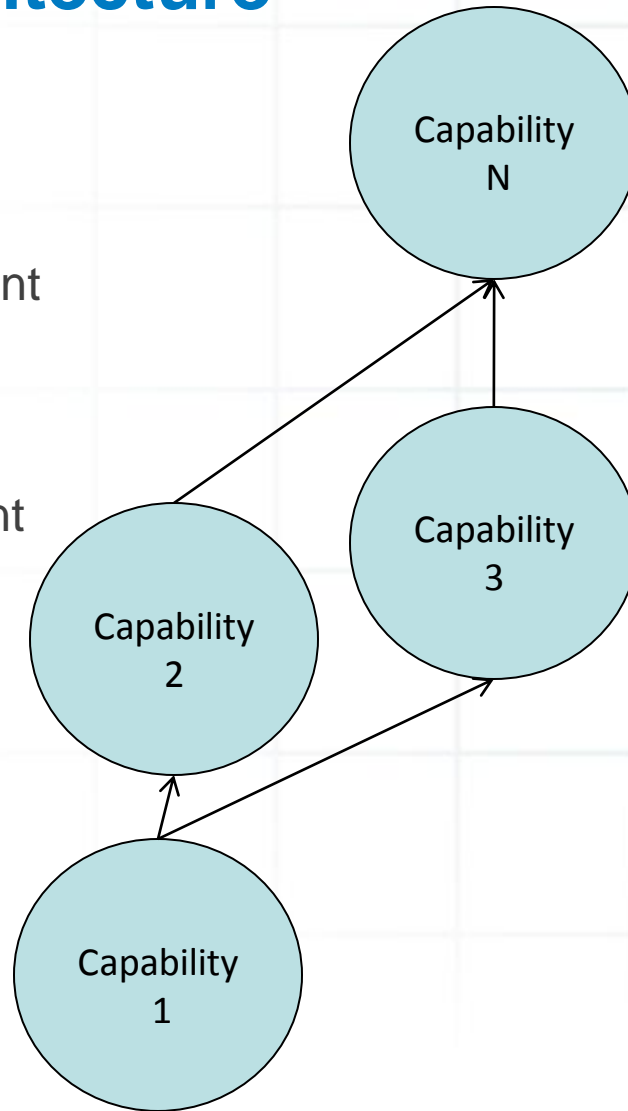
- The following slides review aspects of the OPM3 and N2C2M2 frameworks
- Snapshots to facilitate understanding of the application, foundations, and utility of the two models

# OPM3 Application Methods



# OPM3 Architecture

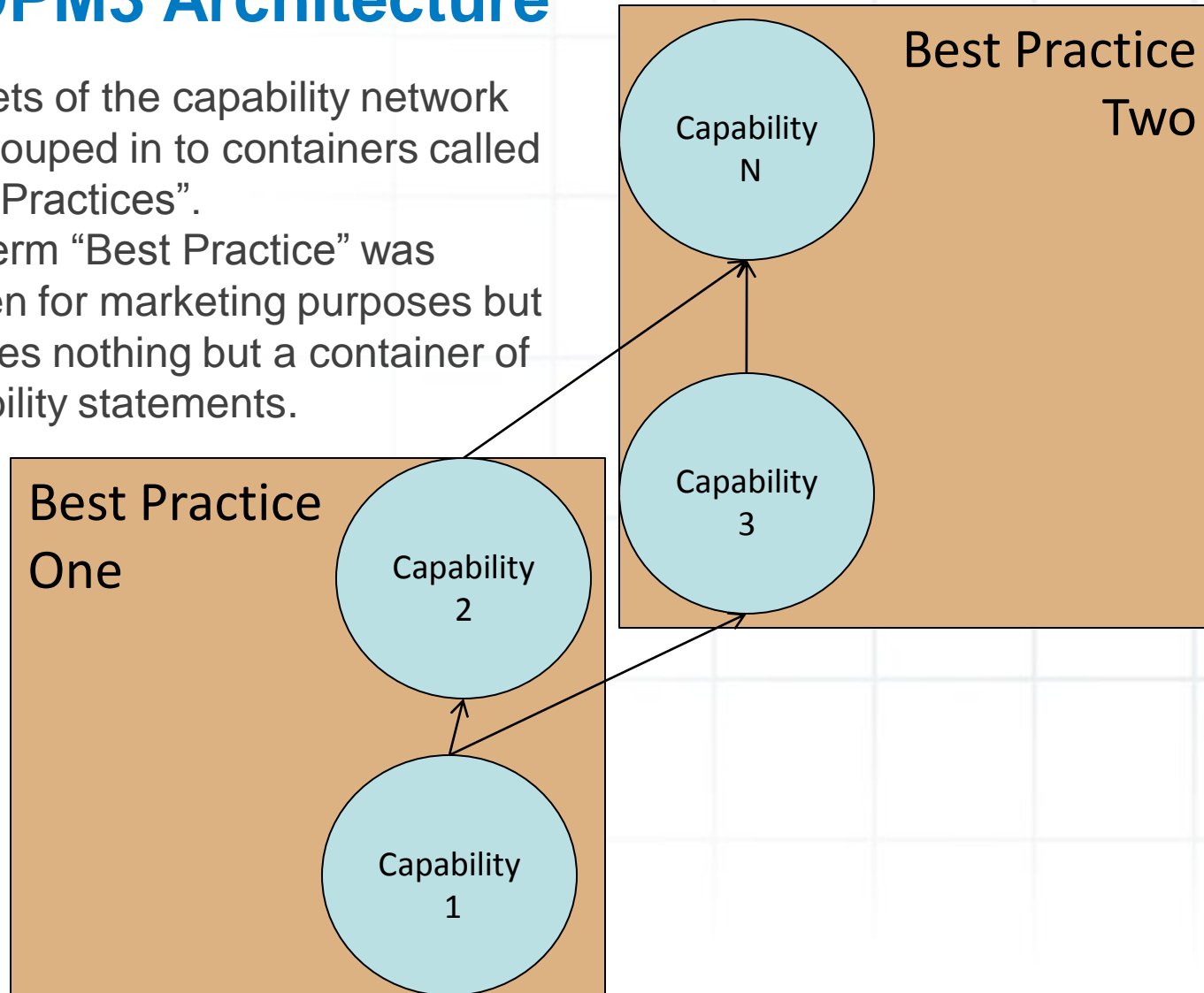
- Network of capability statements.
- Each capability statement is elaborated by an outcome statement.
- Each outcome statement is assigned a KPI.



- OPM3 is a Capability Maturity Model (CMM) because of the capabilities.
- The capability statements are essential. Without them, the model does not work.

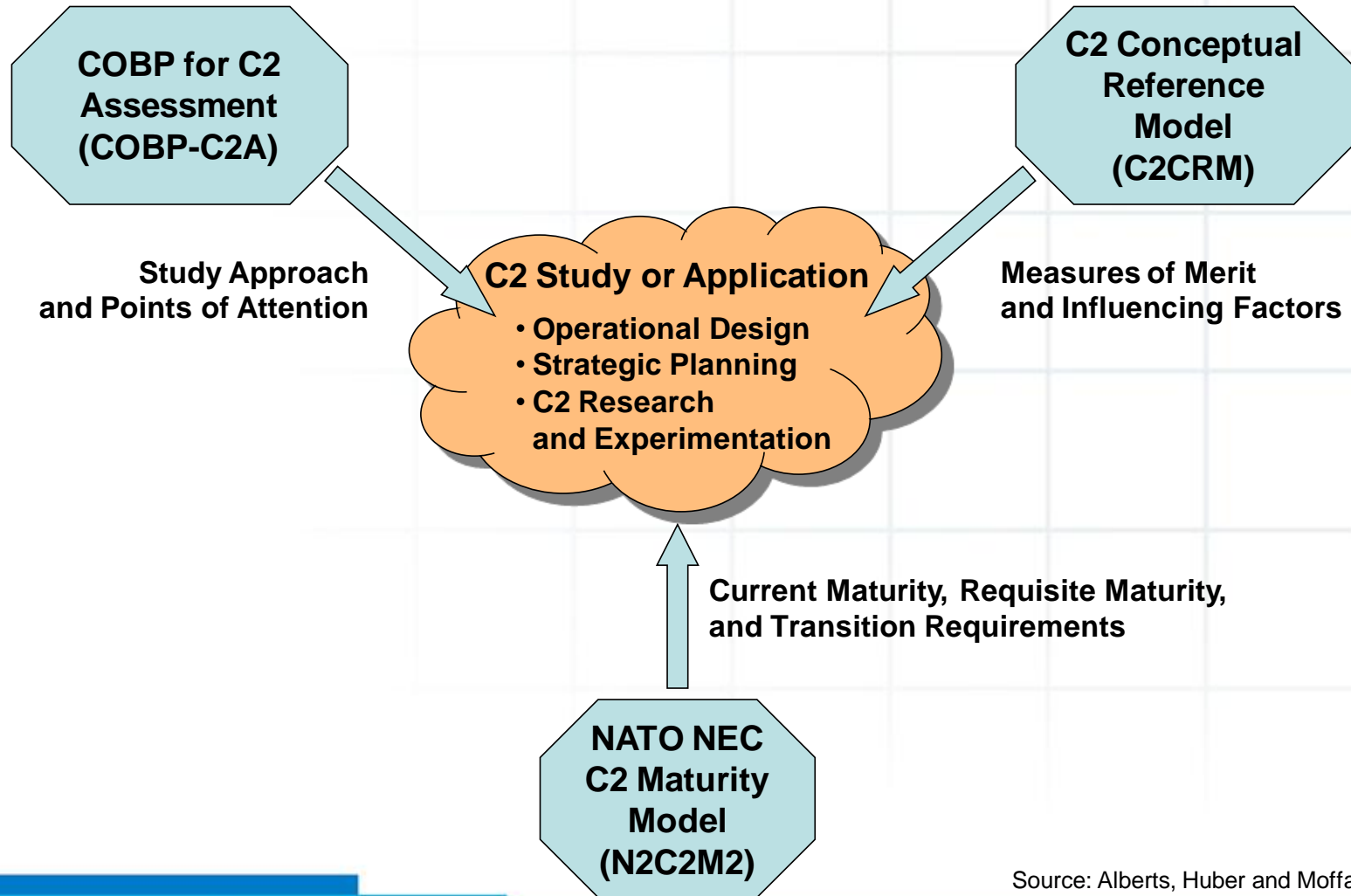
# OPM3 Architecture

- Subsets of the capability network are grouped in to containers called “Best Practices”.
- The term “Best Practice” was chosen for marketing purposes but denotes nothing but a container of capability statements.



# N2C2M2 Application Methods

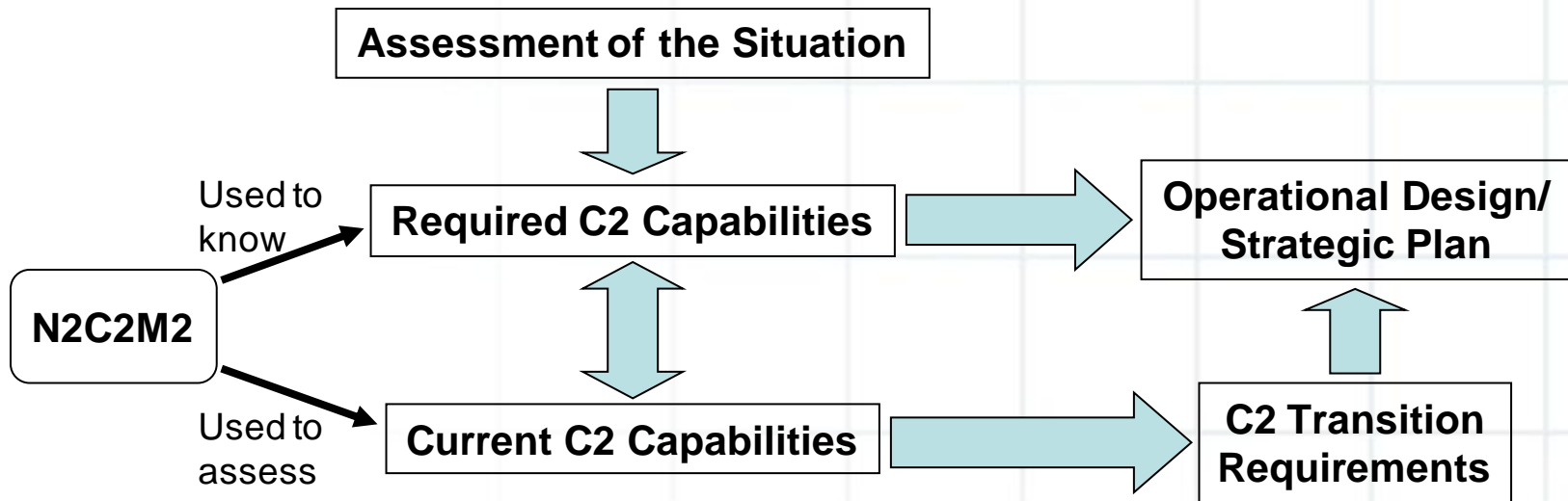
## Use of the N2C2M2 with other C2 assessment resources



Source: Alberts, Huber and Moffat, 2010, p. 181

# N2C2M2 Application Methods

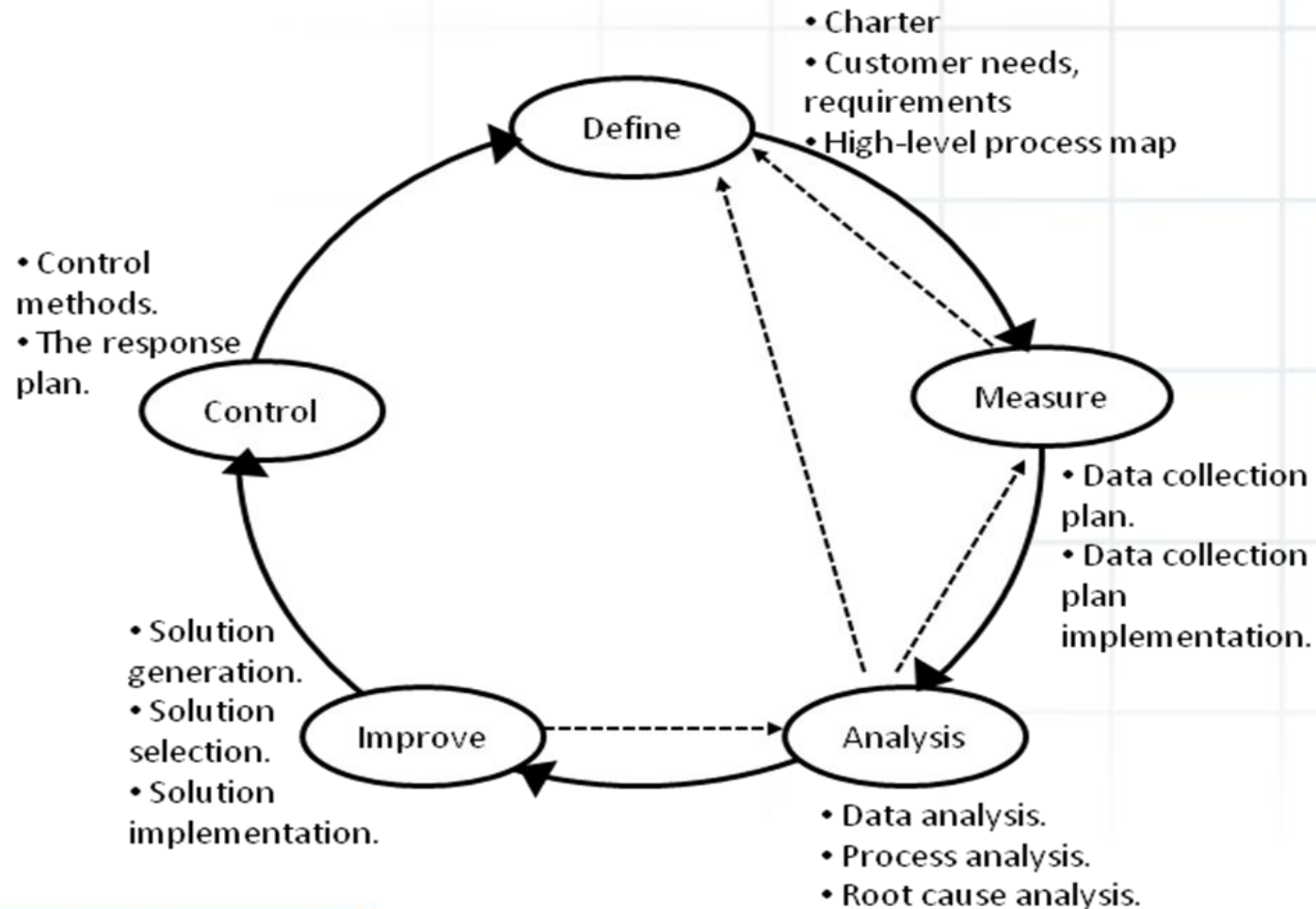
## Role of the N2C2M2 in Operational Design and Strategic Planning



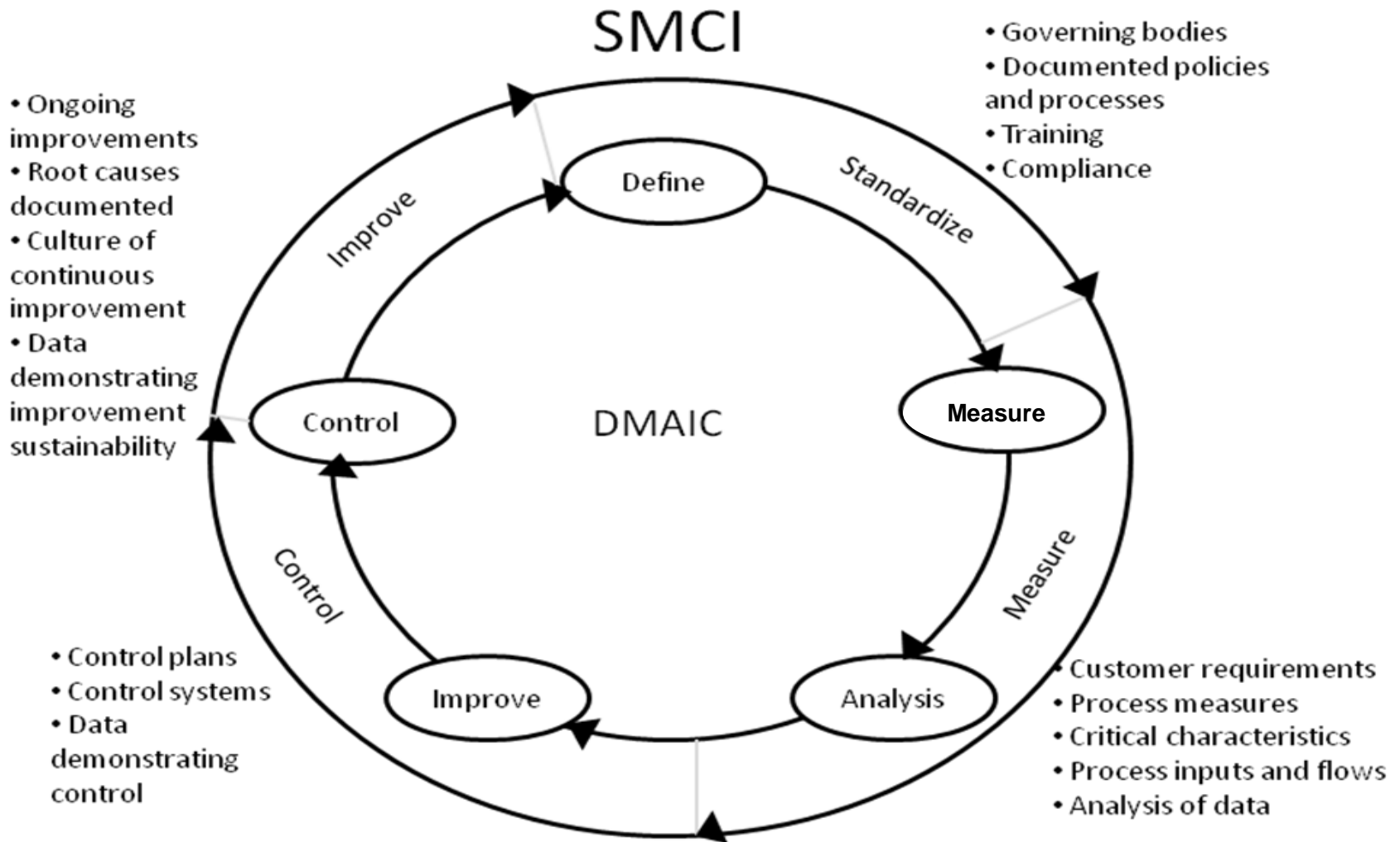
Source: Alberts, Huber and Moffat, 2010, p. 182

# OPM3 – Underlying Concepts

## Process Improvement of Portfolio, Program, Project Processes



# OPM3 – Underlying Concepts



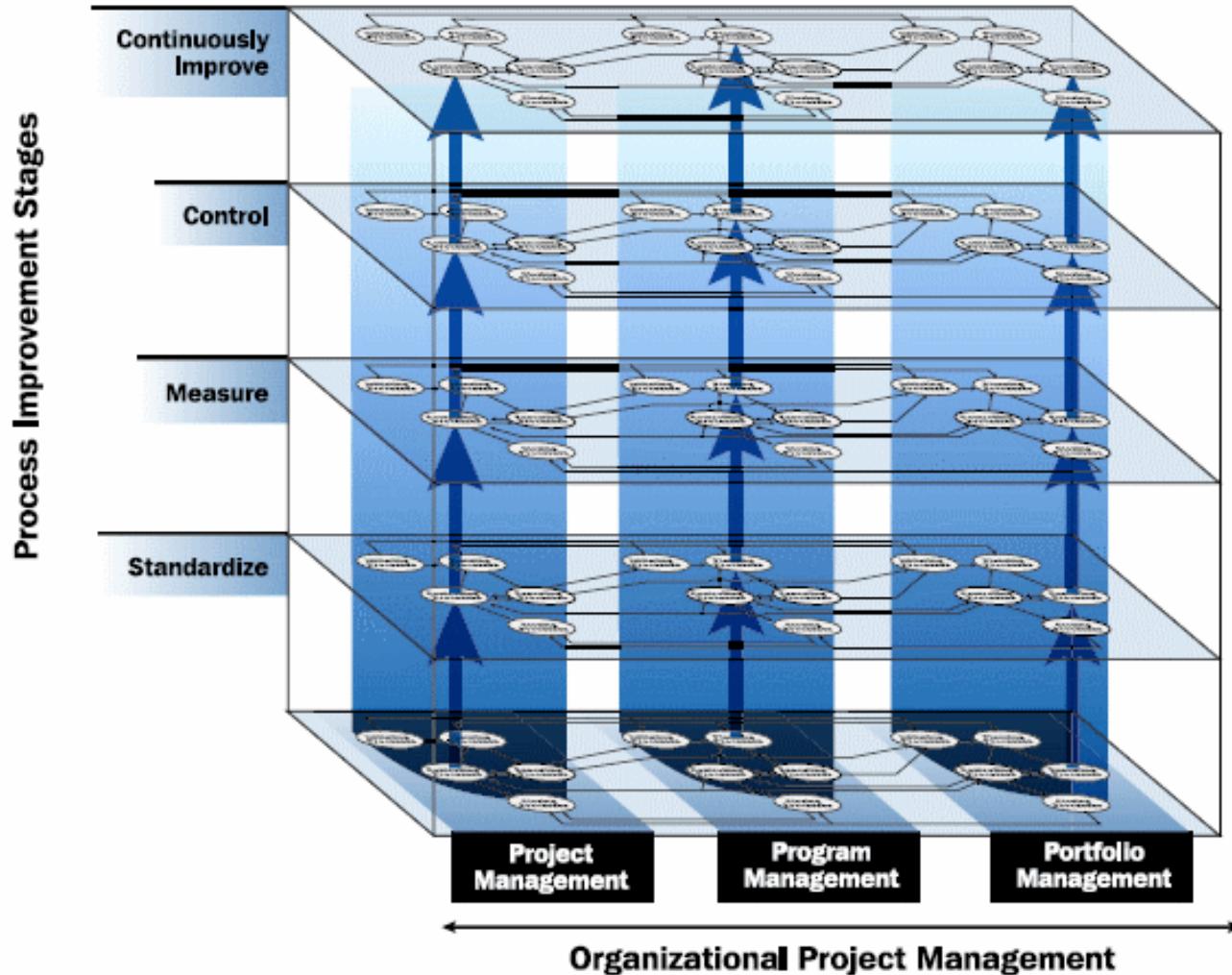
# OPM3 – Underlying Concepts

## Organizational Enablers

Organizational Project Management Policy & Vision	Strategic Alignment	Resource Allocation
Management Systems	Sponsorship	Organizational Structures
Competency Management	Individual Performance Appraisals	Project Management Training
Organizational Project Management Communities	Organizational Project Management Practices	Organizational Project Management Methodology
Organizational Project Management Techniques	Project Management Metrics	Project Success Criteria
Benchmarking	Knowledge Management	Project Management Information System

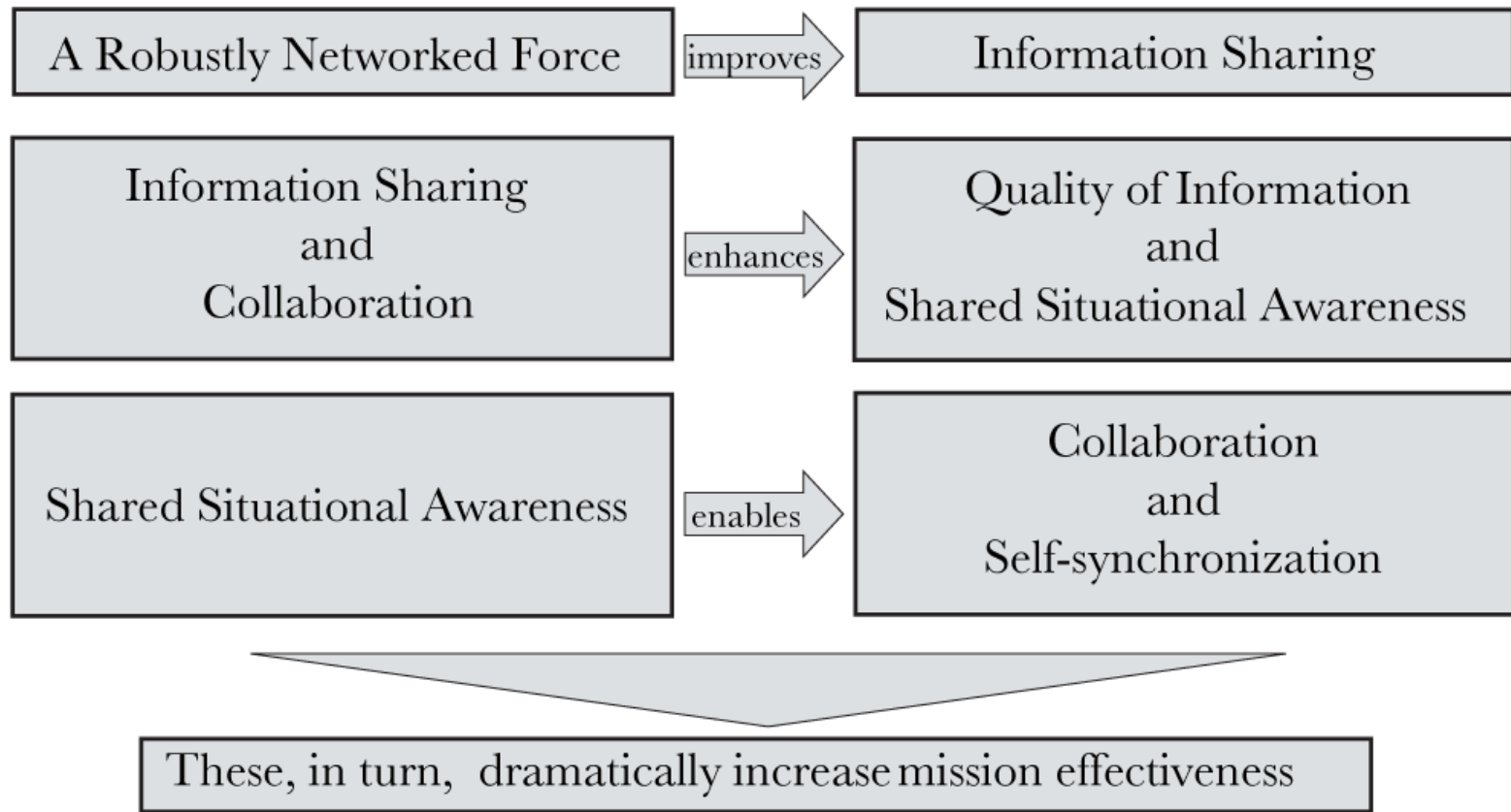
# OPM3 – Underlying Concepts

## Maturity Levels



# N2C2M2 – Underlying Concepts

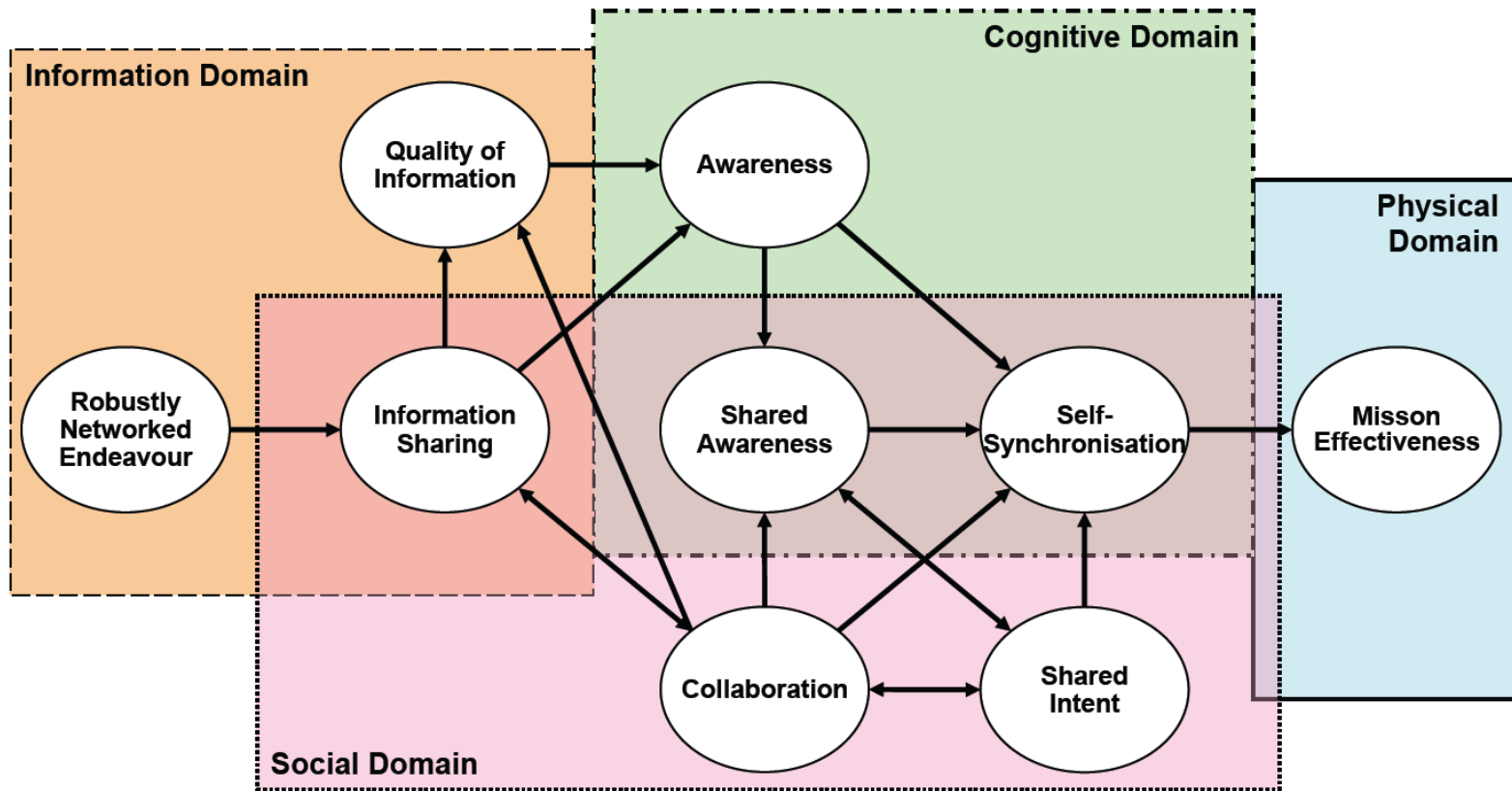
## The Tenets of Network Centric Operations



Source: Alberts and Hayes, 2003, p. 108

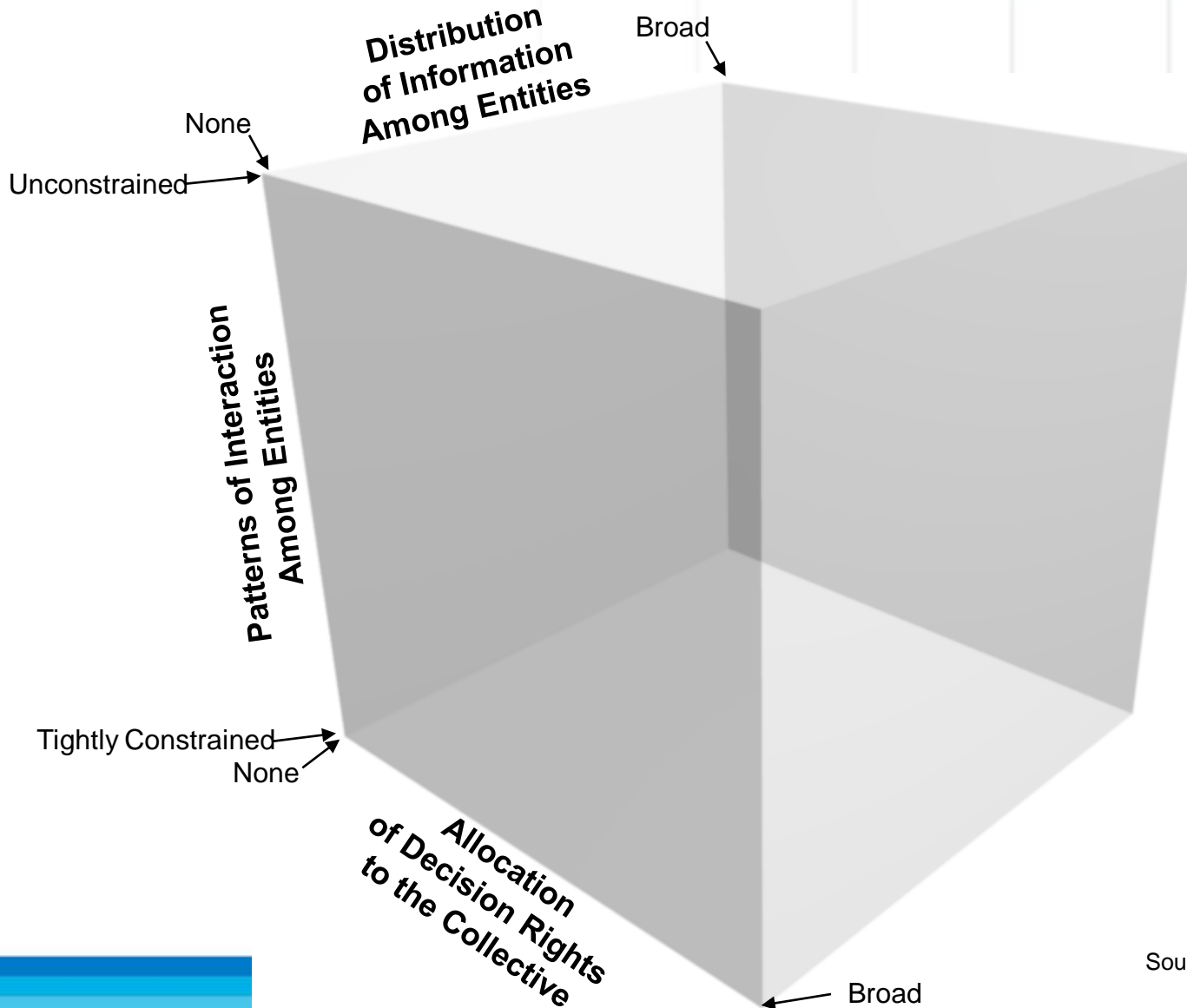
# N2C2M2 – Underlying Concepts

## The Network Centric Value Chain



Source: Alberts, Huber and Moffat, 2010, p. 27

# N2C2M2 – Underlying Concepts

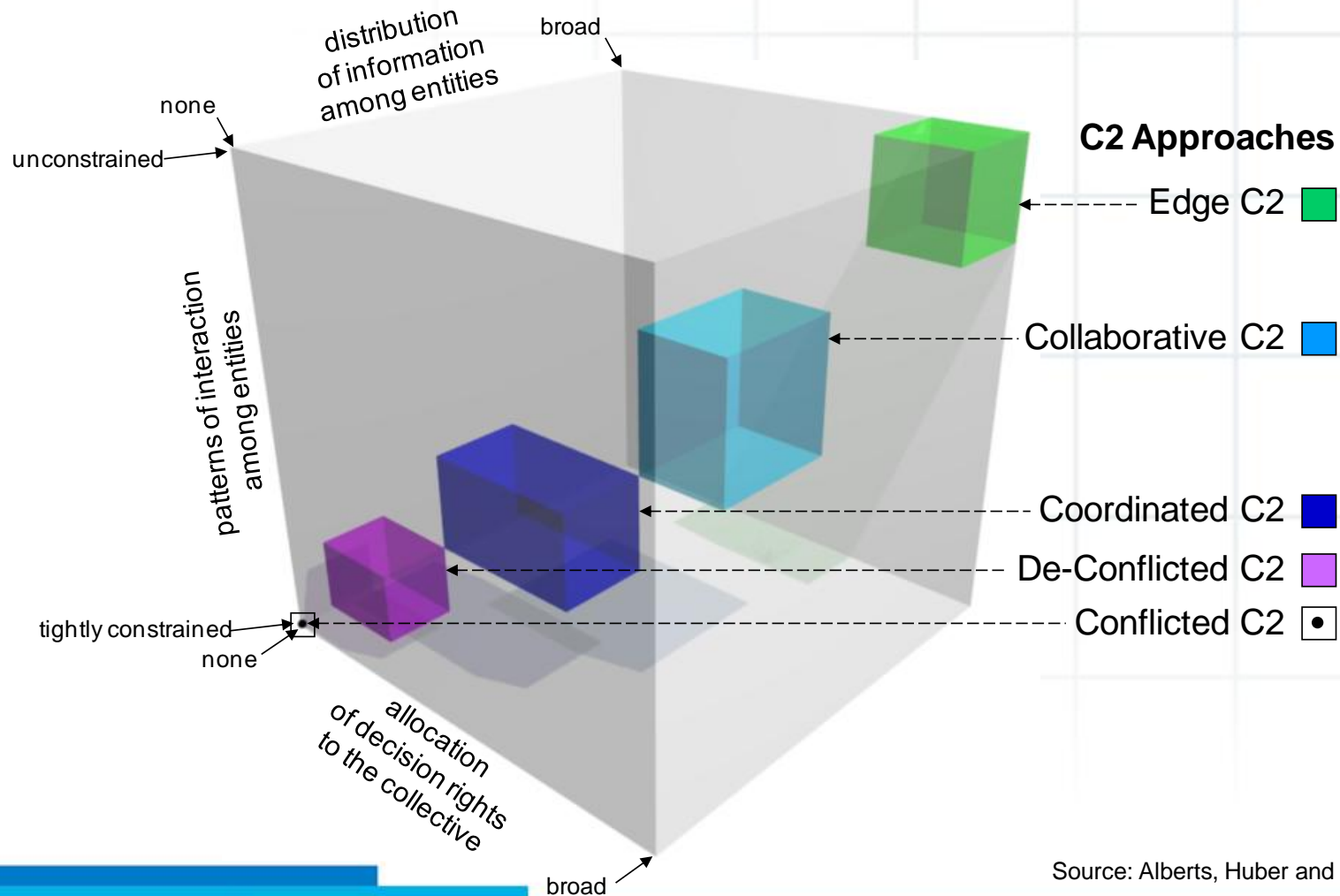


**C2  
Approach  
Space**

Source: Alberts, Huber and Moffat, 2010, p. 66

# N2C2M2 – Underlying Concepts

## C2 Approaches as Regions in the C2 Approach Space



Source: Alberts, Huber and Moffat, 2010, p. 66

# N2C2M2 – Underlying Concepts

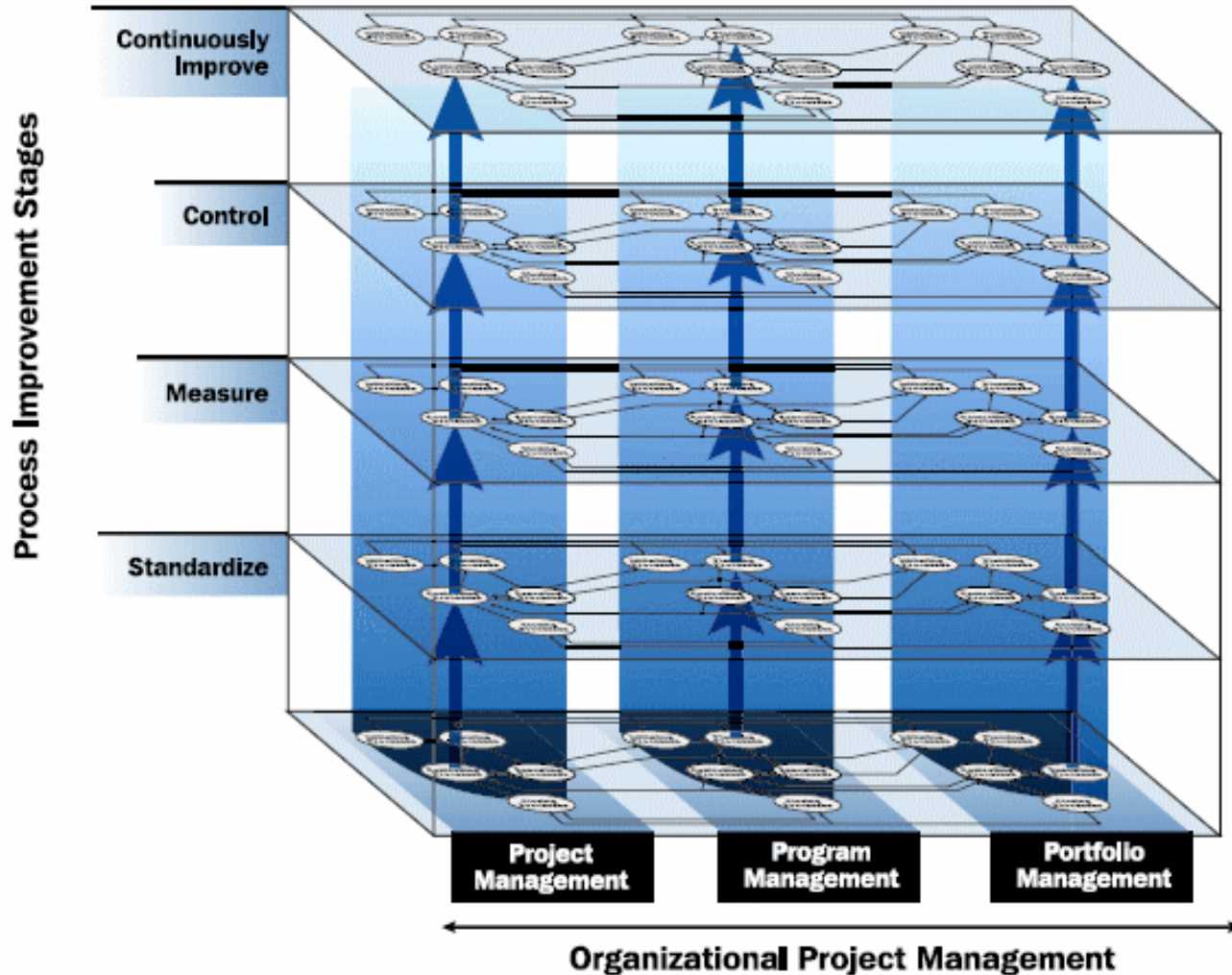
Collective C2 Maturity Levels 1 to 5, defined in terms of the different possible C2 Approaches

	Conflicted C2	De-Conflicted C2	Coordinated C2	Collaborative C2	Edge C2
5					
4					
3					
2					
1					

Source: Alberts, Huber and Moffat, 2010, p. xix

# OPM3 – Underlying Concepts

## Maturity Levels



# OPM3 – Adoption

- The OPM3 Standard was developed as a document describing Best Practices, Capabilities, Outcomes, and KPI's.
- OPM3 Online was developed as an abbreviated survey with limited functionality, does not allow the assessment of capabilities, and does not identify the appropriate steps to increase maturity.
- OPM3 ProductSuite was developed as a more robust assessment tool, designed to implement the Standard correctly and as originally conceived.
- OPM3 implementation requires the expertise of certified specialists, i.e. an OPM3 Professional.

# OPM3 – Adoption

- **Automatic Data Processing (ADP)**
- **Battelle Memorial Institute**
- **BSM Group**
- **C.A.R.E.**
- **Defense Intelligence Agency (US DIA – DoD)**
- **Harris Corporation**
- **Saudi Arabian Ministry of Interior**
- **M.A.R.T.A.**
- **Melco-Crown Entertainment**
- **Microsoft**

# OPM3 – Adoption

- Northrop Grumman
- Panasonic-Mobile
- Pearson Education Measurement
- Popular Financial
- SAP
- T-Mobile
- TATA
- Valassis
- Others

# N2C2M2 – Adoption

- **N2C2M2 underwent extensive peer review in the international C2 community**
  - 19 senior personnel from 9 countries acted as formal peer reviewers for the products;
  - Results also exposed to two major international conferences for broad feedback before the N2C2M2 was finalized;
- **N2C2M2 effort included application to case studies for both validation and development**
- **N2C2M2 being integrated into NATO assessment efforts**

# N2C2M2 – Adoption

- **Selected N2C2M2 case study applications**
  - Response to Hurricane Katrina, the 2002 Elbe River floods, the 2004 Indian Ocean Tsunami, and the 2005 Pakistani earthquake;
  - NATO operations in Bosnia and Kosovo;
  - Comparisons of the potential maturity of alternative unit organizations in U.S. forces (Light Infantry, Airborne and Stryker Brigade Combat Teams).

Use cases described in N2C2M2 Final Report and in material posted online at [http://www.dodccrp.org/html4/research\\_nato.html](http://www.dodccrp.org/html4/research_nato.html)

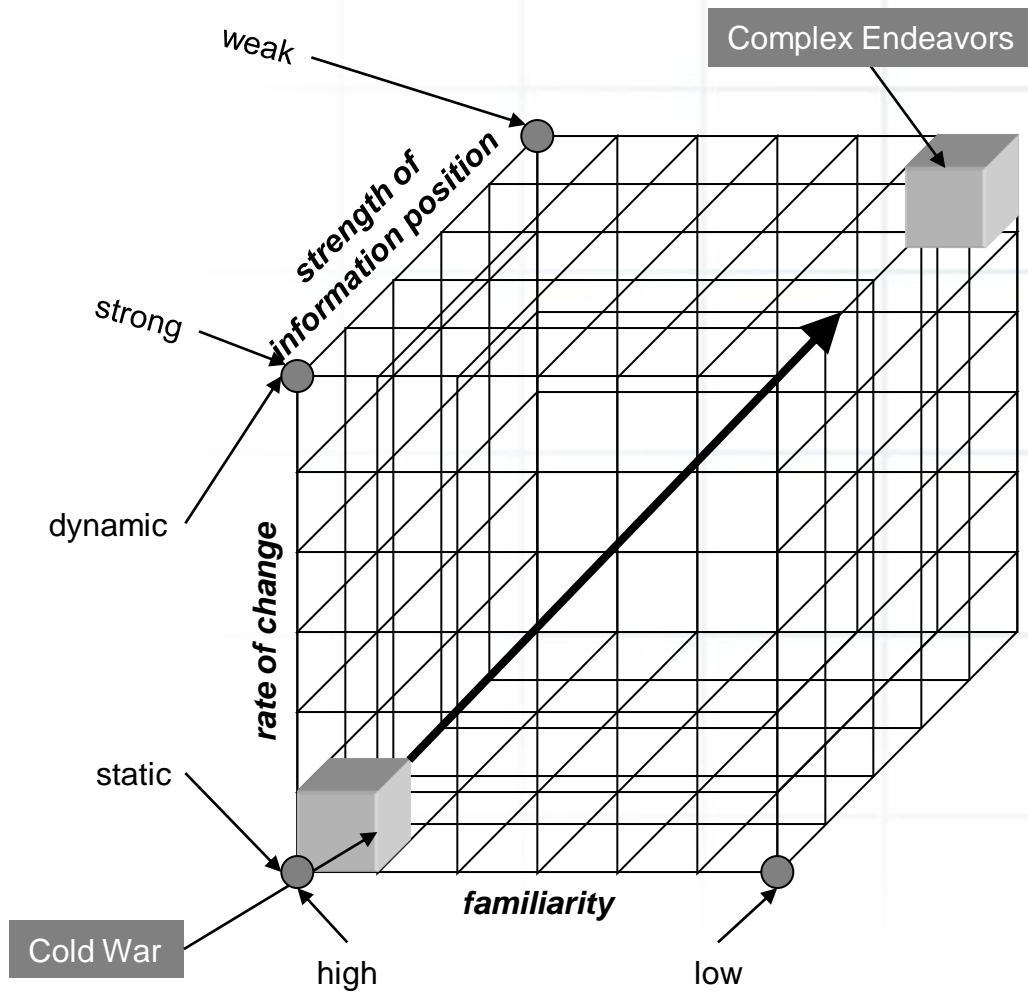
# OPM3 & N2C2M2 Synergy

- **Areas of focus of the two frameworks are different, but complementary**
  - OPM3 focuses on Organizational Project Management processes and internal environment
  - N2C2M2 emphasizes interactions and collective processes
- **Both address the challenges of complexity, dynamics and uncertainty; both enable agility;**
- **Though developed for different communities, both frameworks can be applied to any kind of enterprise**
- **Used in conjunction, OPM3 and N2C2M2 can enable both intra- and inter-organizational capabilities beyond what each can do alone**
  - OPM3: Evolving organizational capabilities
  - N2C2M2: Developing and managing organizational interactions and interdependencies in complex endeavors

# Changing Operating Environments

Adversary	Military Force	Policing & Monitoring	Supporting Civilian Missions
Nation States	Iraq (Desert Storm)	Bosnia	State Sponsored Counterfeiting and Smuggling
Sub-National Actors	Kosovo	Somalia	Rwanda
Organizations	Afghanistan	WMD Technology Transfers	Homeland Security
Individuals & Networks	Maritime Interception of Immigrants	Counter Piracy, Drug Interdiction	Illegal Monetary Transfers
Systemic Challenges	Quarantine to Control Ebola Outbreak	Illegal Fishing/ Pollution Control	Earthquake, Tsunami and Hurricane Responses

# Complex Endeavor Problem Space



# What is a Complex Endeavor?

- Endeavors are formed when a large number of disparate entities share a purpose or related purposes
- In military contexts, endeavors may include:
  - Joint and Combined Military Organizations
  - Inter-Agency Partners
  - International Organizations
  - Non-Governmental Organizations
  - Local Authorities
  - Traditional Leaders
  - Private Industry
  - Public-Private Partnerships
  - Private Voluntary Organizations

# What Differentiates Endeavors?

- **The actors involved do not share a single leader or commander**
  - Neither unity of purpose nor unity of command
  - Composed of independent entities
  - Different traditions, cultures, goals, priorities, and processes
- **The actors in an endeavor are interdependent**
  - No single actor is capable of achieving its relevant goals independently
  - Actors bring different expertise and resources to the endeavor

# What Differentiates Endeavors? (2)

- **Goal structures must be compatible**
  - Relevant purposes cannot be mutually exclusive
  - Some actors only support the endeavor coincidentally
- **Endeavors seek to synchronize their activities**
  - Arrange them purposefully in time and space
  - This may include: deconfliction, coordination, or collaboration
- **In complex endeavors the boundaries:**
  - Extend all the way through the problem, but...
  - Are permeable

# Summary

- Common context/motivation
  - The rise of complex endeavors
  - The need for agility
- Complementary use of two frameworks

# Questions, Thoughts, Puzzles?

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