"Architecture"
A holistic concept

Building bridges between architectural disciplines and concerns
makes Architecture a strategic asset and capability
for Industries, Companies, Regulators and Consultants

Walter Stahlecker, Fellow of The Open Group

Toronto, July 10th 2009

Outline

- Intent, semantics and topics
- Model of "Enterprise"
- Model of "Enterprise Architecture"
- How to build an ecosystem of architectural disciplines

Intent for this Presentation

- Observations:
  - Architectural work is done throughout enterprises, although not always referring to "architecture"
  - Architects often focus inward on their discipline and neglect alignment with other disciplines
- Conclusion:
  - Making alignment part of architectural disciplines creates a holistic capability that will be valued, funded and used by executives

Some Meanings up front (1)

- "Enterprise" – a grouping of people and/or organizations with a purpose in an environment
  - An industry, or industry association
  - A company, NGO or other organization
  - Subsets of organizations (concerns or departments)
  - A person's activity or project
- "Enterprise" emphasizes intent, activity
- Players in any enterprise may have different goals

Some Meanings up front (2)

Architecture:

"Those properties of a mission, its solution and their environment that are necessary and sufficient for the solution to be fit for purpose for its mission in that environment." *

Multiple meanings of Architecture:

Concept – Profession – Documentation

Definition by Len Fehskens (The Open Group)

Scopes of architectural work
(Registered disciplines and associations)

- **Buildings (1.3 M)**: Architectural services, regulations, urban design, studies, models, documentations, supervision, …

- **Landscape (~35 k)**: Research & advice, planning, design, stewardship of environment, conservation, sustainability, …

- **Naval (~12k)**: Research, production, maintenance, operation, technical research, modeling, probability of failure, …

- **Planning (~100k)**: Development, preservation, environment, mobility, growth, economy, … *

- **AOGEA (~ 13k):** IT Architects with enterprise context **

* not called "architecture" but equivalent activity
** associated with The Open Group

Walter Stahlecker, February 2009

Other uses of Architecture

- **Industry Architecture**: Professor Jacobides (London Business School) – work on architecture of industry sectors, including distribution of value in an industry

- **Architect of war** (Financial Times article July 7, 2009)**: "McNamara, architect of the Vietnam war"** – recognition of non-feasibility (based on facts and statistics), strategy for exit and execution, realization of value (end of losses)

- **Brand Architecture**: Stern School of Business (NY), University of Nijmegen

- **Architecture of Financial Regulation** (Henry Paulson, Financial Times article March 18, 2009): Proposes rework of regulatory architecture to recognize dynamism and able to adjust regulations to it

- **Strategic Architecture:** Kim Warren (London Business School) - Dynamics of Strategy, defines "strategic architecture" for enterprises (focus on value creation)

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Static Model of an Enterprise

Context

Relevant Context

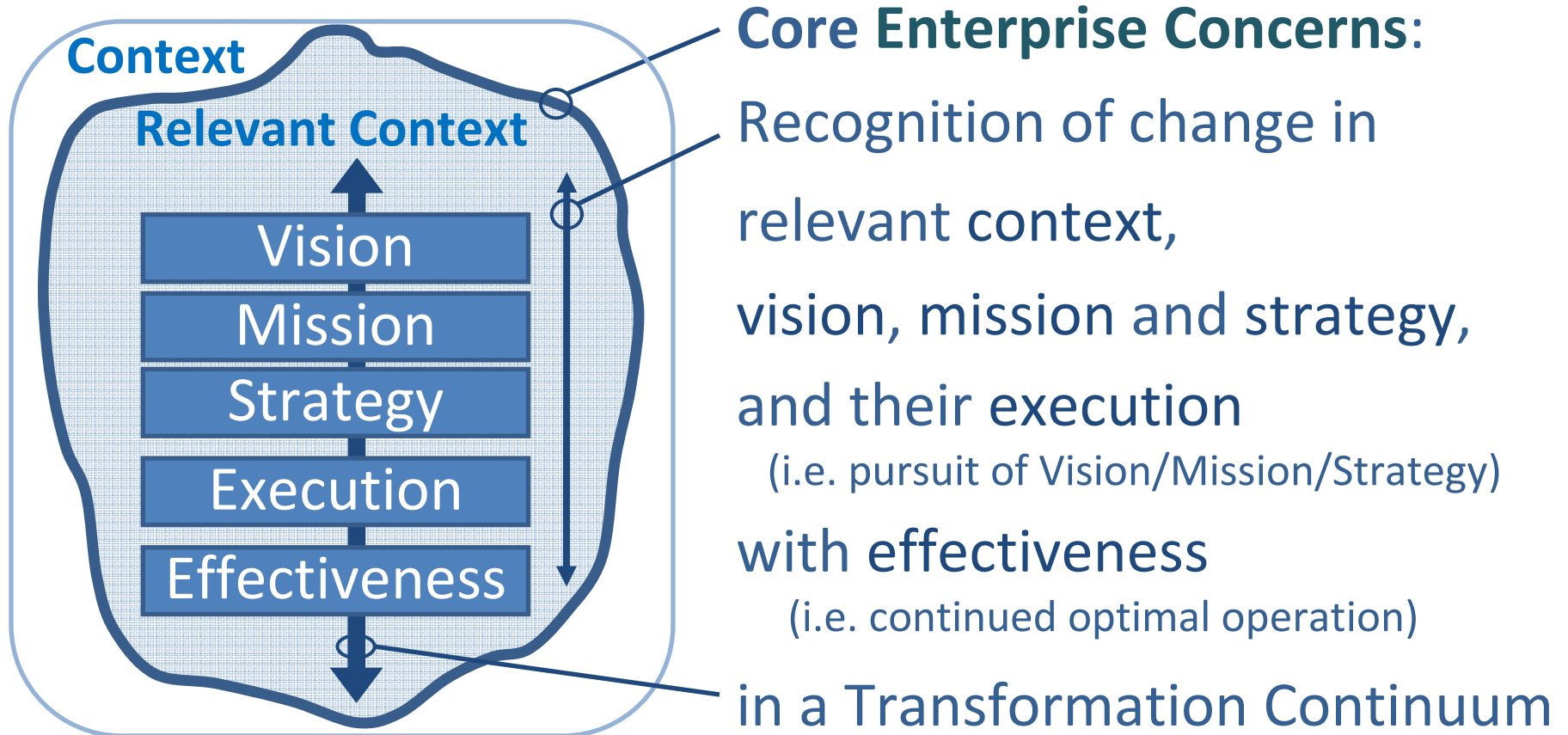| Vision |
| Mission |
| Strategy |
| Execution |
| Effectiveness |
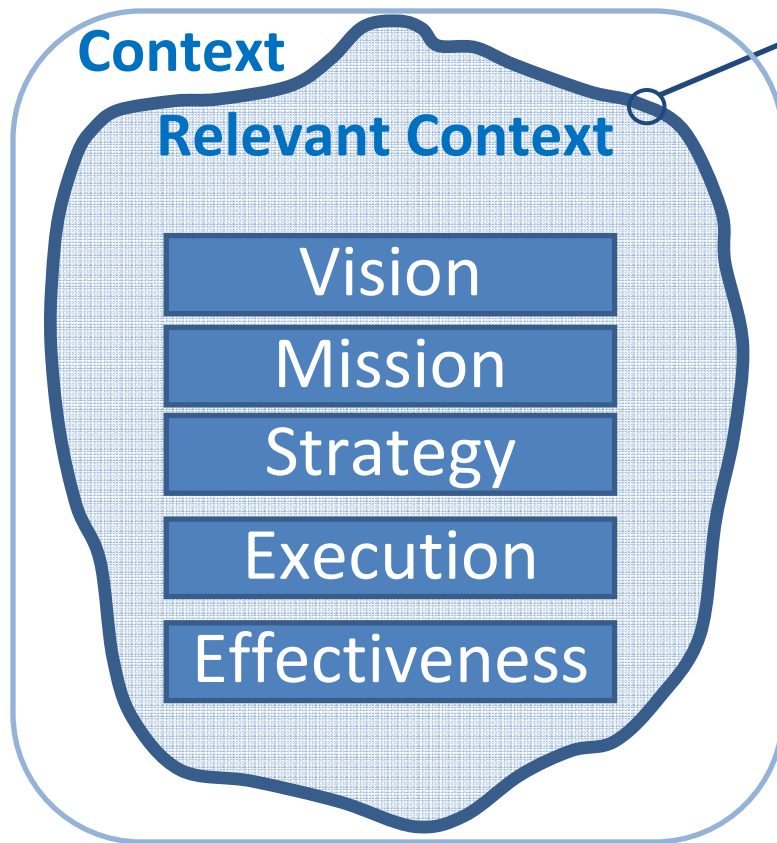
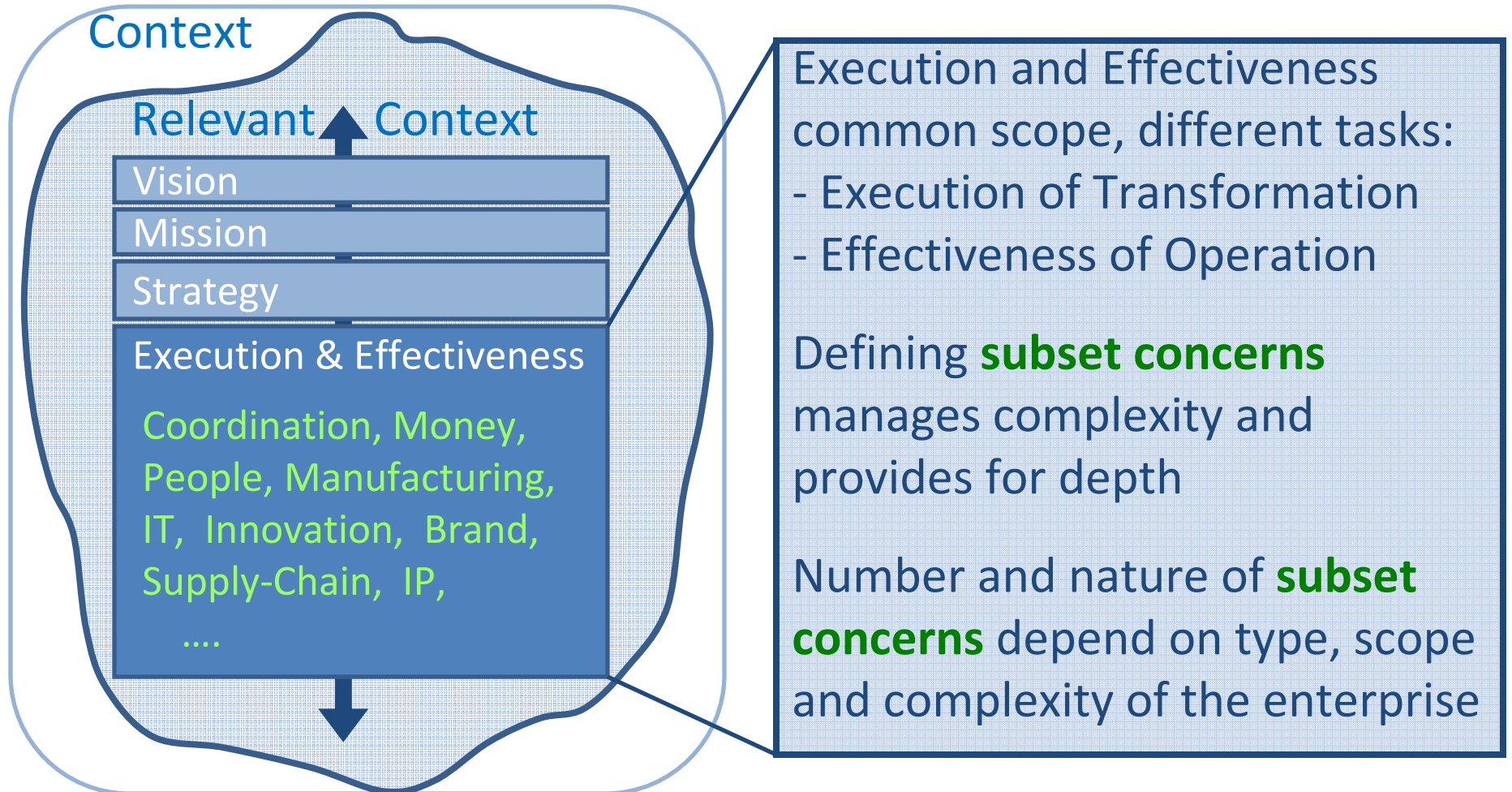**Core Enterprise Concerns**:

relevant context,

vision, mission and strategy,

and their execution
(i.e. pursuit of Vision/Mission/Strategy)

with effectiveness
(i.e. continued optimal operation)

Based on Mohamed El-Erian, Financial Times, p. 28., Nov. 4, 2008: About the mistake to break the "Recognition–design–execution–effectiveness chain"   (*design = vision/mission/strategy)*
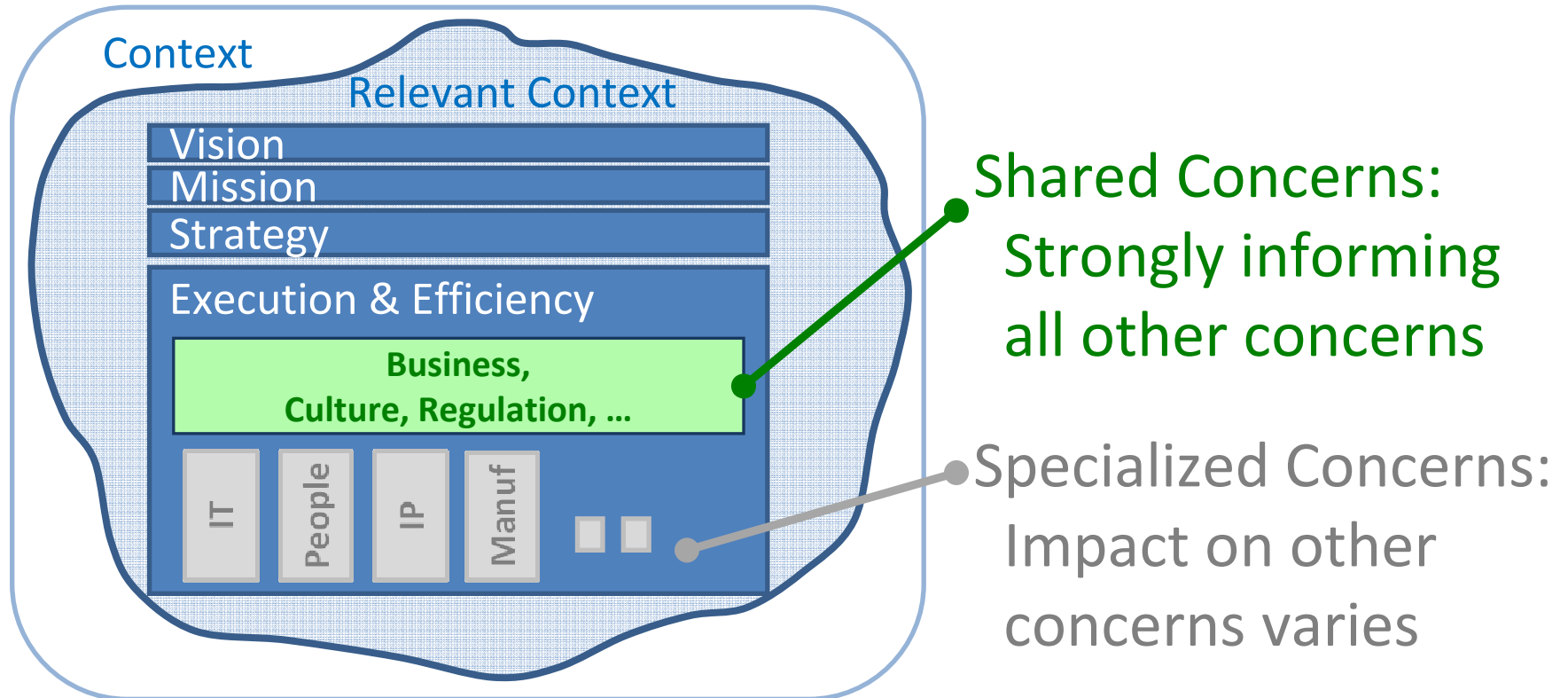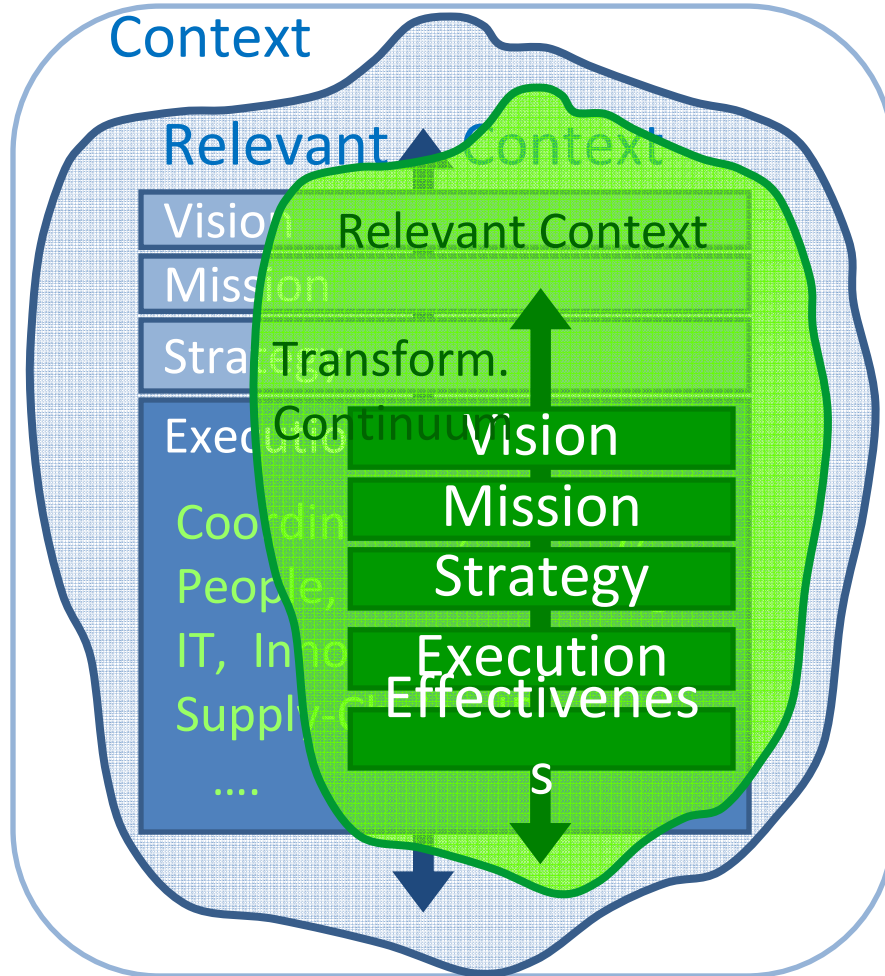
Dynamic Model of an Enterprise

Context

Relevant Context

Vision

Mission

Strategy

Execution

Effectiveness

Core Enterprise Concerns:

Recognition of change in

relevant context,

vision, mission and strategy,

and their execution
(i.e. pursuit of Vision/Mission/Strategy)

with effectiveness
(i.e. continued optimal operation)

in a Transformation Continuum

Inside "Execution" & "Effectiveness"

Context

Relevant Context

Vision

Mission

Strategy

Execution & Effectiveness

Coordination, Money, People, Manufacturing, IT, Innovation, Brand, Supply-Chain, IP, ….

Execution and Effectiveness common scope, different tasks:
- Execution of Transformation
- Effectiveness of Operation

Defining **subset concerns** manages complexity and provides for depth

Number and nature of **subset concerns** depend on type, scope and complexity of the enterprise

Differentiation of Concerns in an Enterprise

Context

Relevant Context

Vision

Mission

Strategy

Execution & Efficiency

Business,
Culture, Regulation, ...

IT | People | IP | Manuf

Shared Concerns:
Strongly informing
all other concerns

Specialized Concerns:
Impact on other
concerns varies

Such differentiation is deliberate and driven
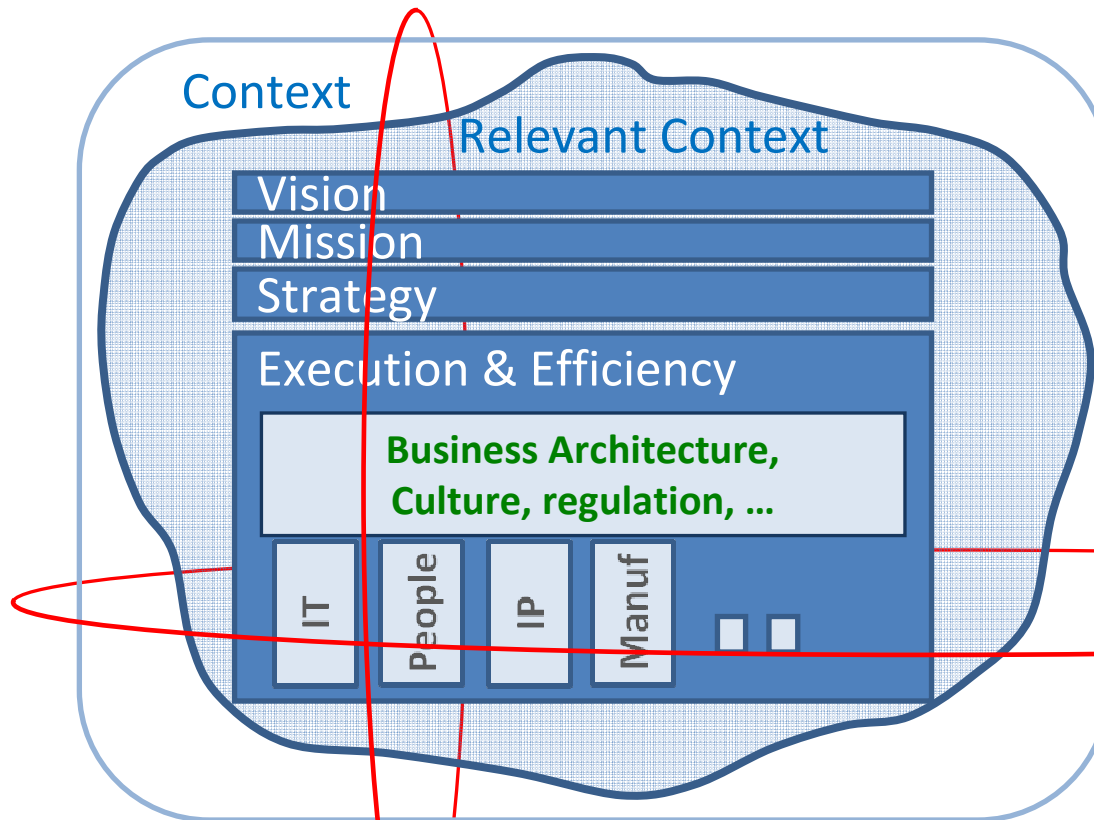by balancing effort with effectiveness

Subset Concerns in an Enterprise

Context

Relevant Context

Vision

Mission

Strategy

Execution

Coordin...

People,

IT, Inno...

Supply-C...

....

Relevant Context

Transform.
Continuum

Vision

Mission

Strategy

Execution

Effectiveness

The Enterprise model can be used for Subset concerns. However there are differences:

- Nature of concern: Subset
- Scope of concern: Relevant Context <= Enterprise Context
- This transformation continuum is concerned with the subset
- Stakeholders differ from those of the Enterprise

Note: "Enterprise" includes the union of all subset concerns

Alignment

Context

Relevant Context

Vision
Mission
Strategy

Execution & Efficiency

Business Architecture,
Culture, regulation, …

IT | People | IP | Manuf

Operation: Alignment between shared concerns and specialized concerns to achieve efficiency

Transformation: Alignment along the Transformation Continuum to adapt to changes

Summary for Enterprise Model

- The Enterprise Model is intended to support discussion of transformation and alignment

- The Enterprise Model defines a set of key concerns in an Enterprise

- The model is intended for scopes ranging from industries to specialized concerns

- "Enterprise" includes the union of all subset concerns

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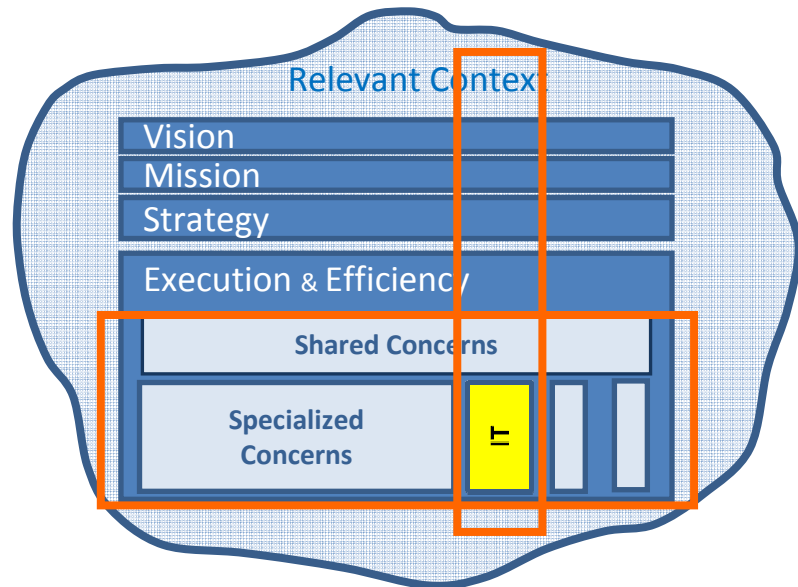
Enterprise Architecture (EA):
Union of all architectures in an Enterprise

Context

Relevant Context

Vision

Mission

Strategy

Execution & Efficiency

Shared concerns

Focused concerns

Enterprise

Enterprise Architecture

- Nature of concern: Enterprise
- Scope of concern: Enterprise
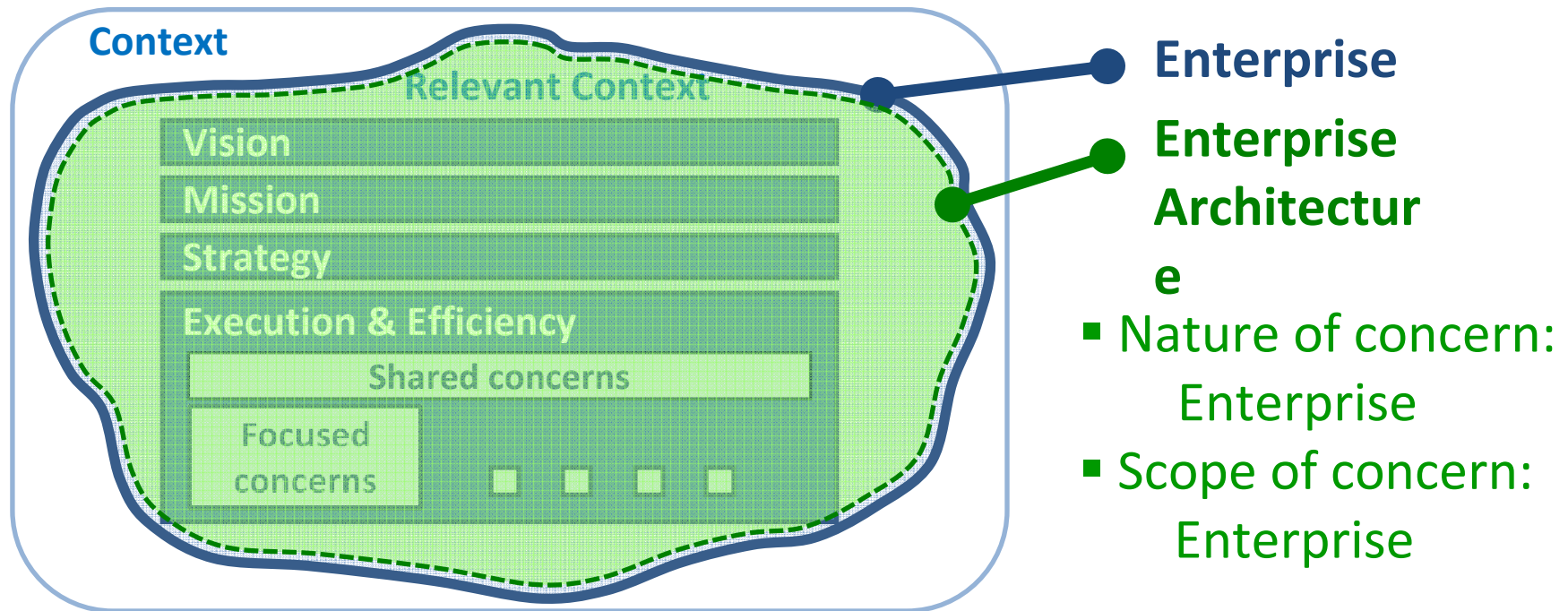
Nature and scope of EA are driven by the observation that architectural work is performed
on all aspects of an enterprise

Architecture of subset concern X

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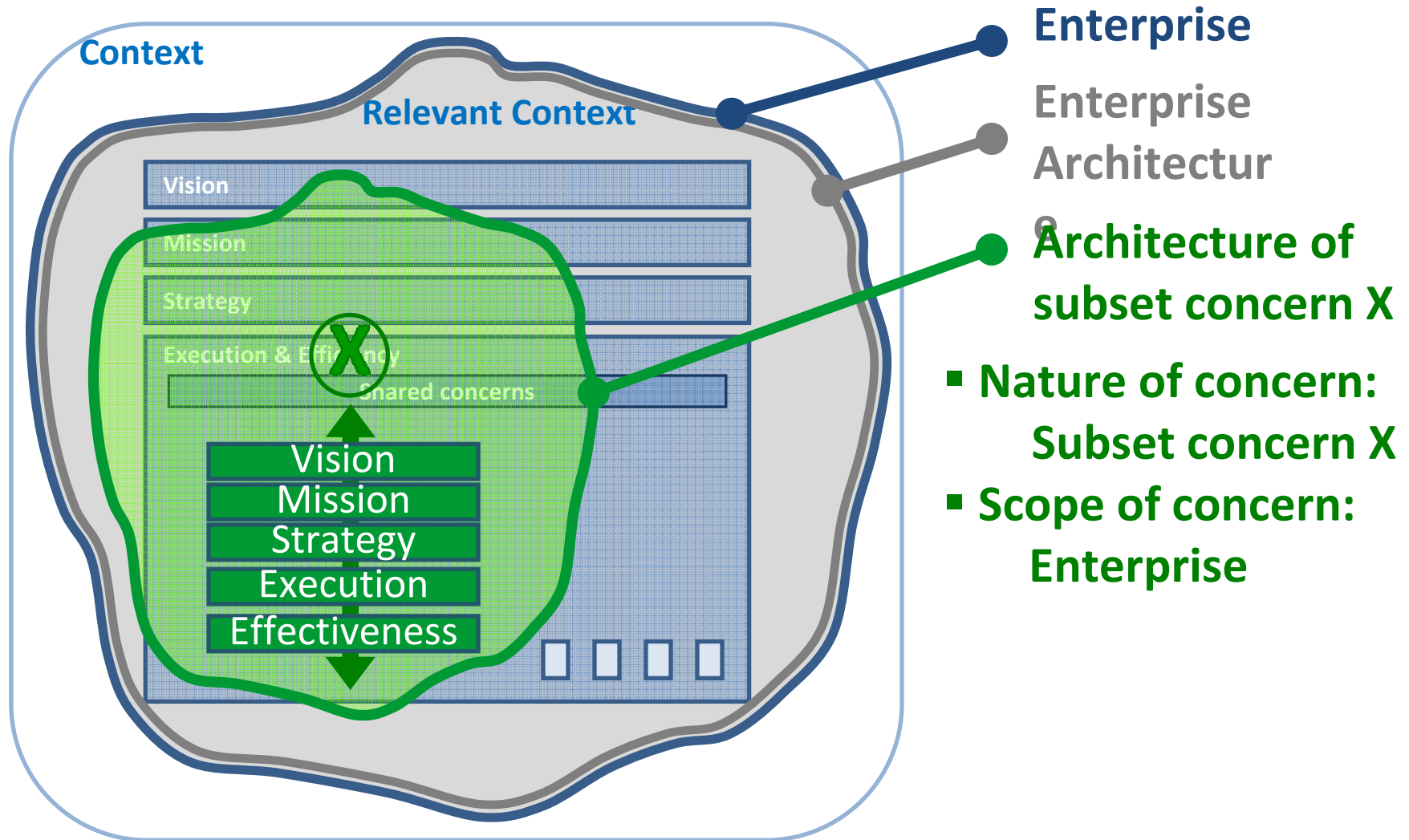
Inside Enterprise Architecture
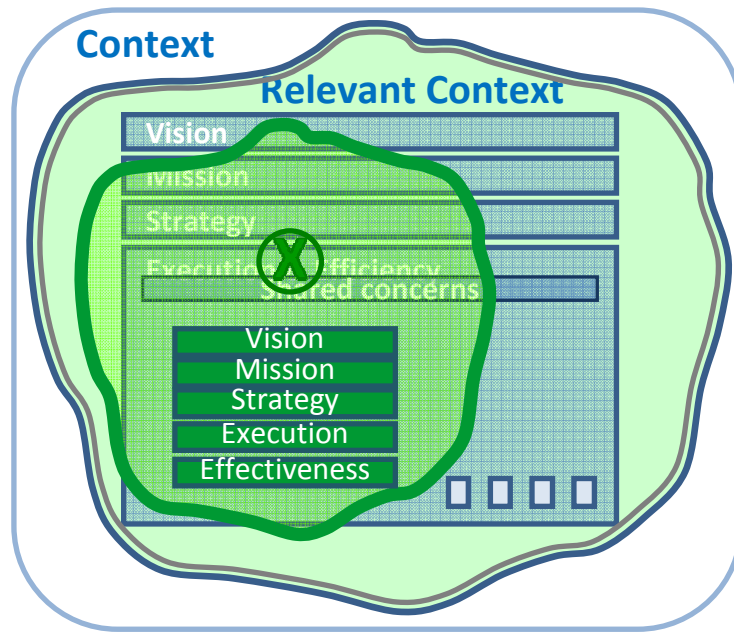
Enterprise Architecture (essential properties to support purpose) reflects agreement among the enterprise's stakeholders

Architecture of subset concerns also addresses essential properties, but purpose and stakeholders differ (may the same people, but in different roles)

Issue:

X-architects and X-stakeholders

     often prefer discussing X and subsets of X

         over discussing alignment of X with the whole enterprise

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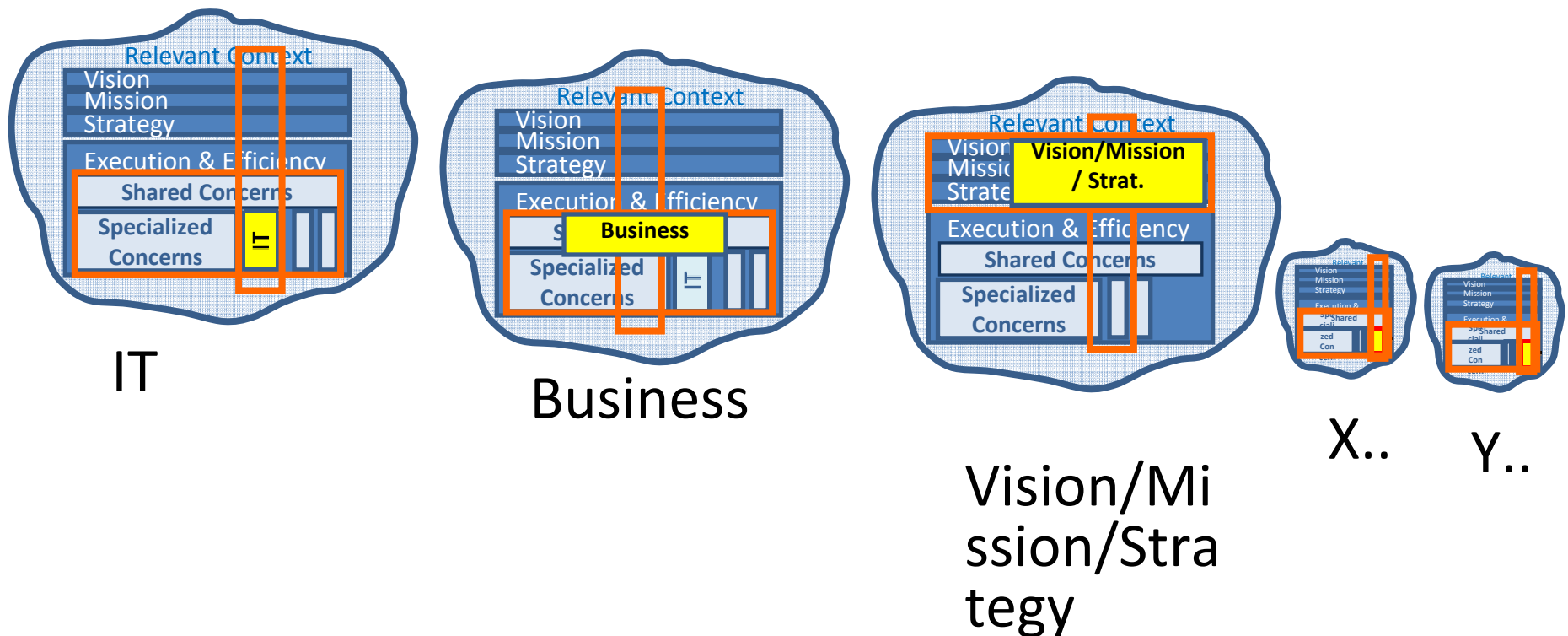# TOGAF (IT-centric) and the Holistic Model of EA
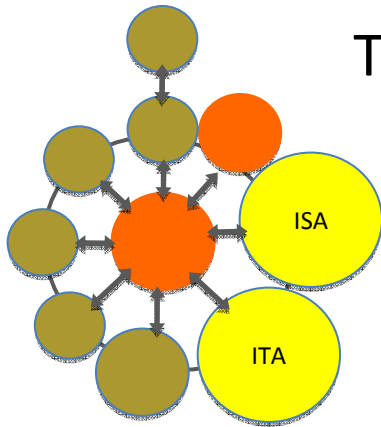
The ADM in TOGAF addresses
a <mark>subset concern</mark> of the enterprise ….

ISA

ITA

... that can be mapped into the
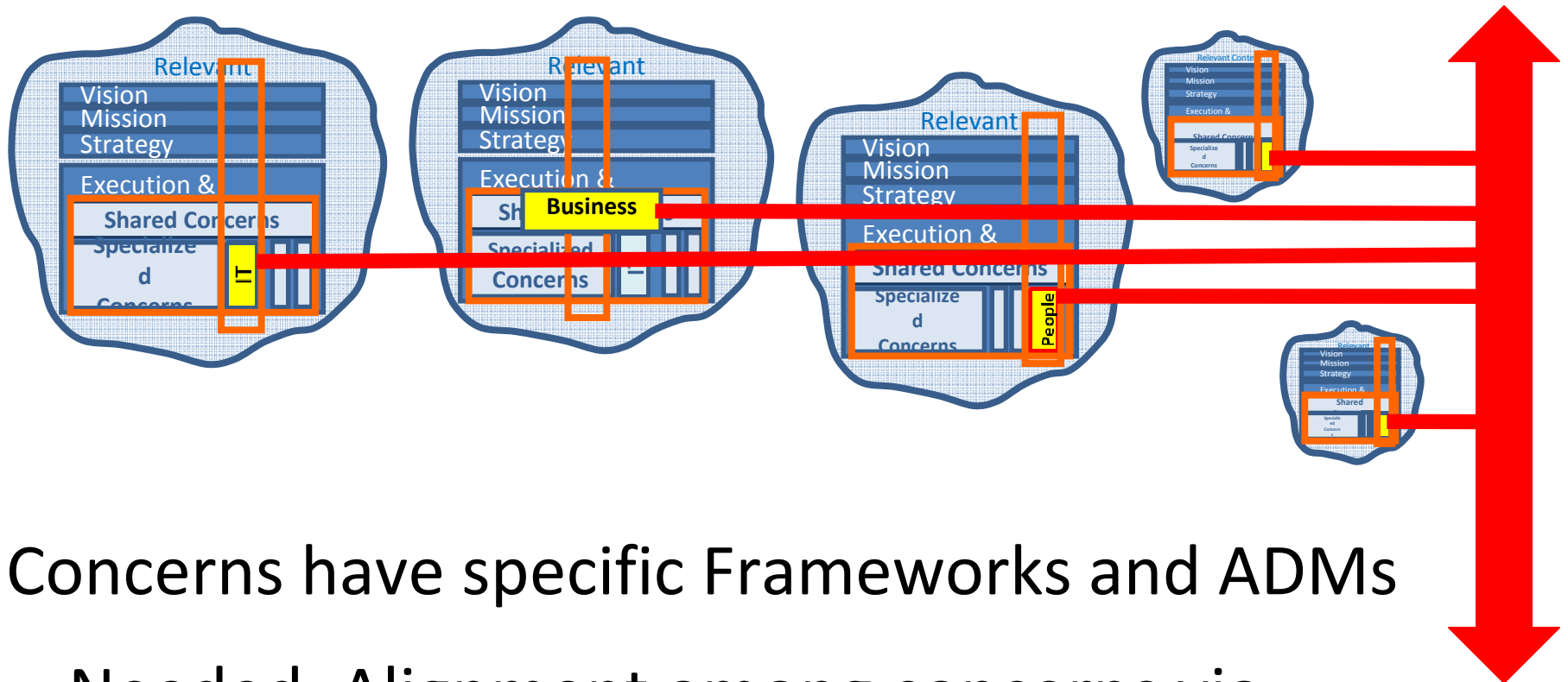holistic architectural model
of the enterprise

Relevant Context

Vision
Mission
Strategy
Execution & Efficiency

Shared Concerns

Specialized
Concerns

IT

Wider environment of TOGAF

Architectural efforts thrive for multiple <mark>concerns</mark>

IT

Business

Vision/Mission/Strategy

X..

Y..

A way forward for Architecture in Enterprises
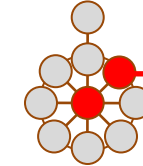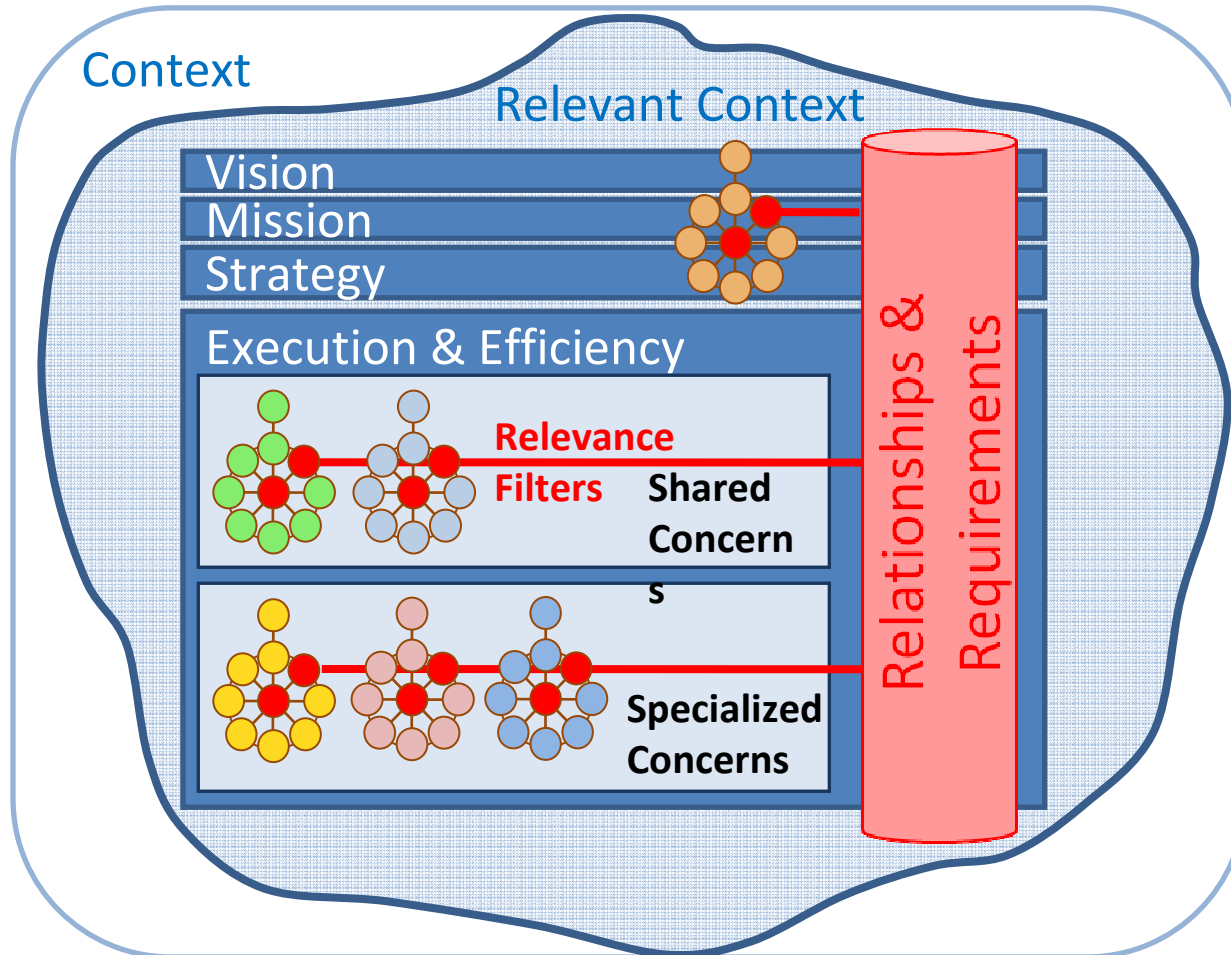

Concerns have specific Frameworks and ADMs

Needed: Alignment among concerns via
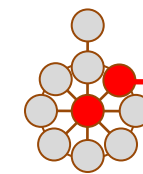"Boundaryless Architecture Information Flow"

Model of
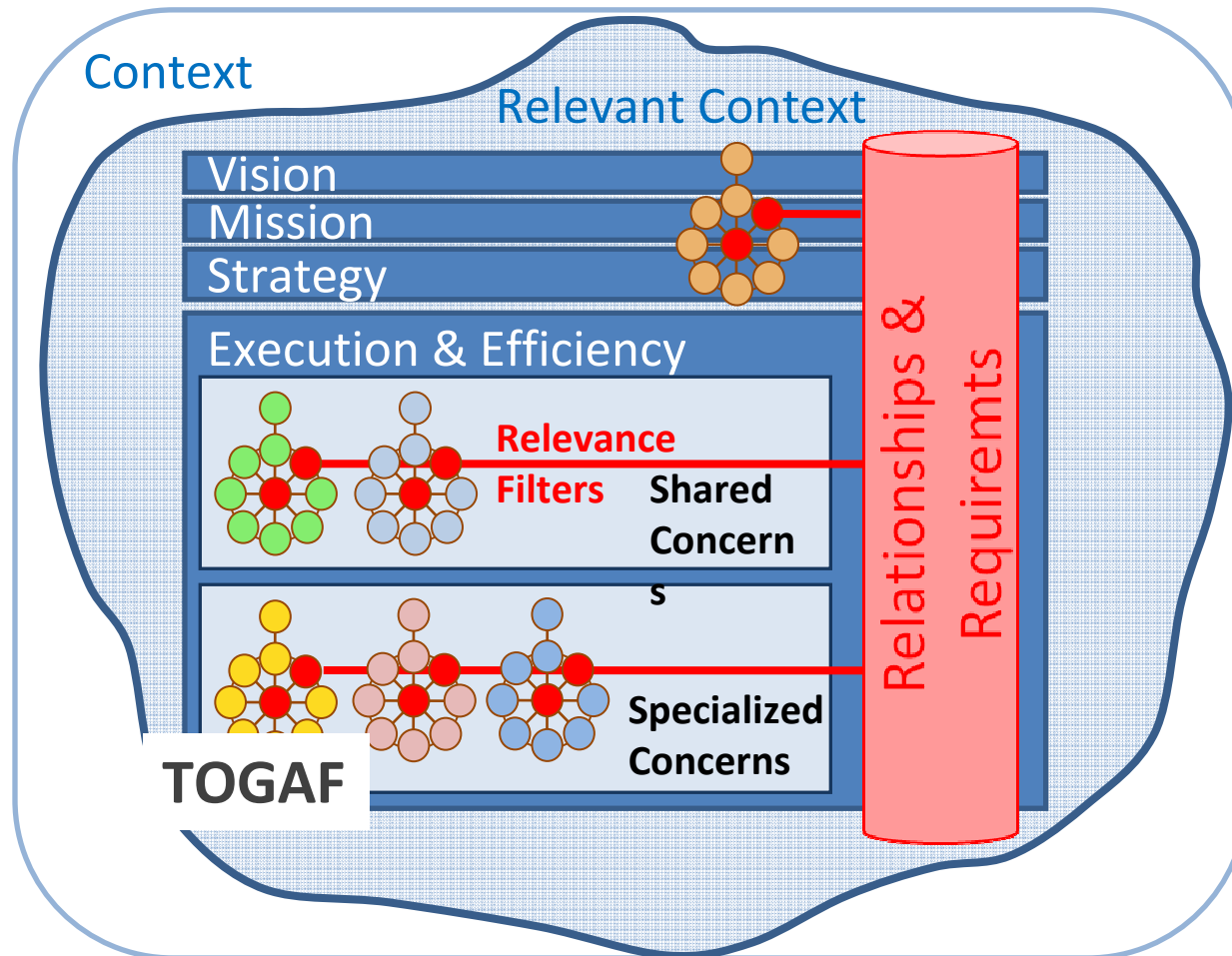# Holistic Enterprise Architecture

Context

Relevant Context

Vision
Mission
Strategy

Execution & Efficiency

Relevance
Filters

Shared
Concern
s

Specialized
Concerns

Relationships &
Requirements

Icon for:
Methods &
Best Practices
in a Concern

Attempt to reconcile the models of TOGAF and Holistic Enterprise (1)

Context

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Relevance
Filters

Shared Concerns

Specialized Concerns
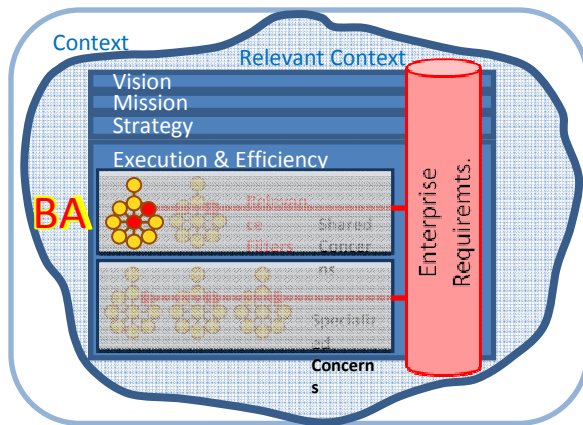
Relationships & Requiremts

TOGAF

Icon for:
Methods &
Best Practices
in a Concern

TOGAF can be positioned as a specialized concern

Attempt to reconcile the models of TOGAF and Holistic Enterprise (2)

Context

Relevant context

Vision
Mission
Strategy

Execution & Efficiency

Shared Concerns

Specialized Concerns

Relationships & Requiremts
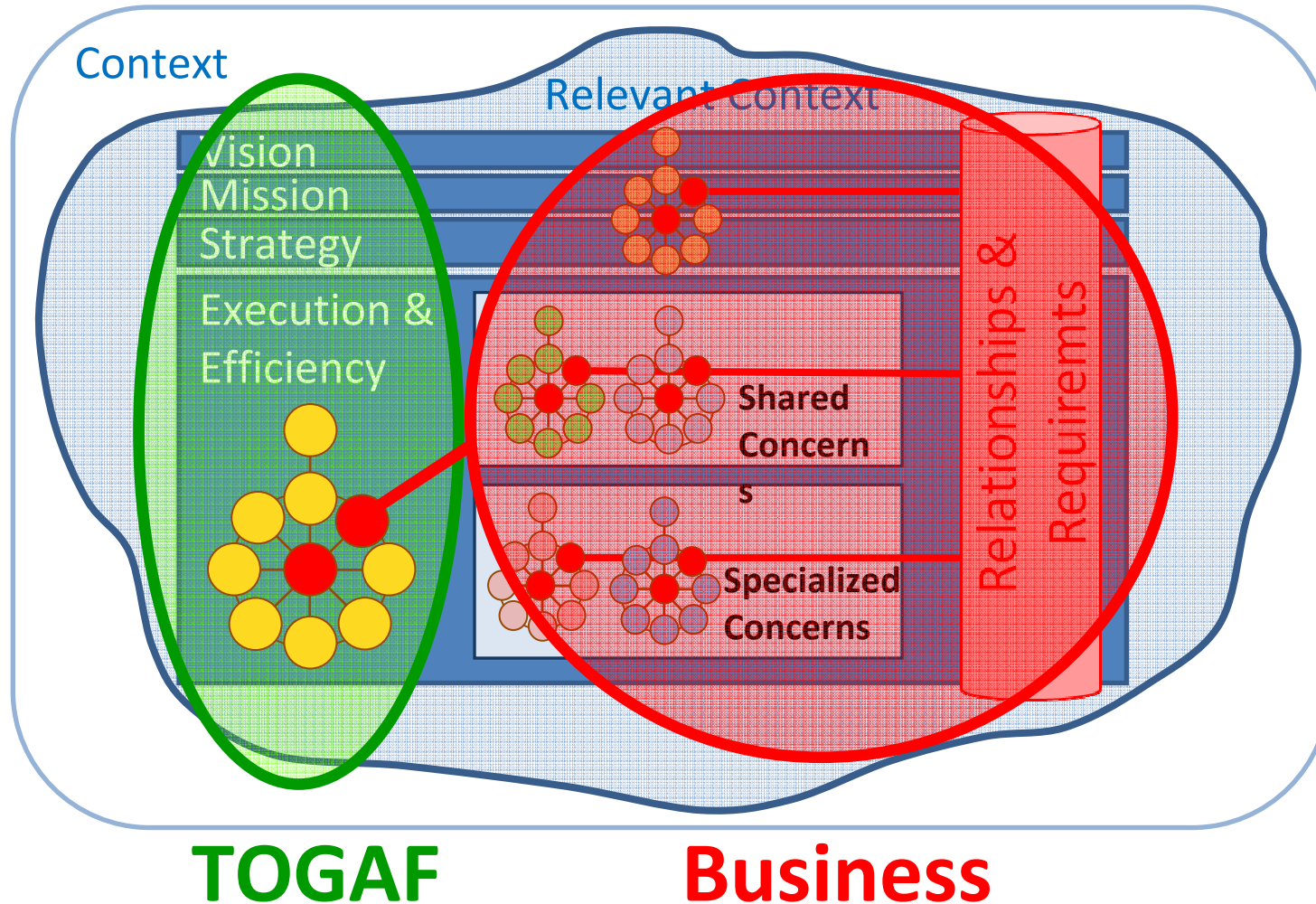
TOGAF   **Business**

Attempt to reconcile the models of TOGAF and Holistic Enterprise (3)

Position "Business Architecture" as a shared concern:

"Chemistry" – how the intended value, defined by stakeholders, is created from the capabilities

(This is intended as description, not definition)

Range of chemistry types: Rigid to ad-hoc, explicit to tacit, simple to complex, etc.

BA: Much richer than an org-chart or business processes

BA: Expressed in executives' language, not implementers'

Holistic EA – a goal

Enterprise stakeholders need Enterprise Architects, not X-Architects

Executives will understand architecture if X-Architects link their disciplines to enable Holistic EA
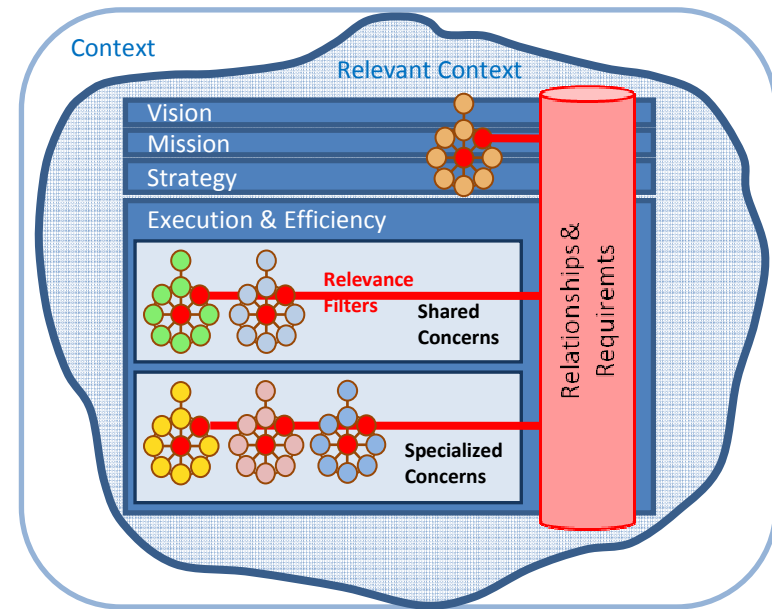
Architects: get out of your specialty's depth,
share best practices for aligning architecture disciplines
and build **true EA** that is valued across the enterprise