Collaboration Engineering Approach to Enterprise Architecture Evaluation and Selection

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Outline

1. Background
2. Problem Area
3. Research Challenge
4. Research Approach
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Background (1)

- Changes in the business environment
  - Competitors, globalization, new technologies, business models & regulations
  - Organisations must be capable of adapting swiftly
- Enterprise Architecture
  - Insight & overview to embrace complexity
  - Design business processes & build applications – inline with business mission, vision, strategy and goals
- Explicit vision on the relation between business & IT
  - IT infrastructure - supports business, & a business – achieves from IT development
- Business-IT alignment - integration of all enterprise aspects

Background (2)

- Enterprise Architecture
  - Instrument for addressing company-wide integration
- Enterprise Architecture Definition
  - Principles, methods and models,
  - Enterprise's organisational structure,
  - Business processes, Information systems and infrastructure.
- A framework that facilitates decision making in:
  - Business architecture,
  - Data and Applications (Information Systems) architecture,
  - Technology architecture.

Background (3)

- Stakeholders conflicting concerns and views
  - Resolve concerns, negotiation and shared understanding
  - Problem solving process - social not individualistic (‘acceptable’ & adequate solution not a right answer).

- Collaboration Engineering
  - Design and deployment,
  - Collaborative technologies and collaborative processes,
  - Support mission-critical tasks.
  - Collaboration processes - enable organisations to achieve sustainable success with Group Support Systems

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Problem Definition

- Selecting an adequate &‘acceptable’ enterprise architecture
  - Requires a collaborative effort of stakeholders,
  - Conflicting concerns and views should all be addressed.

- Research motivation

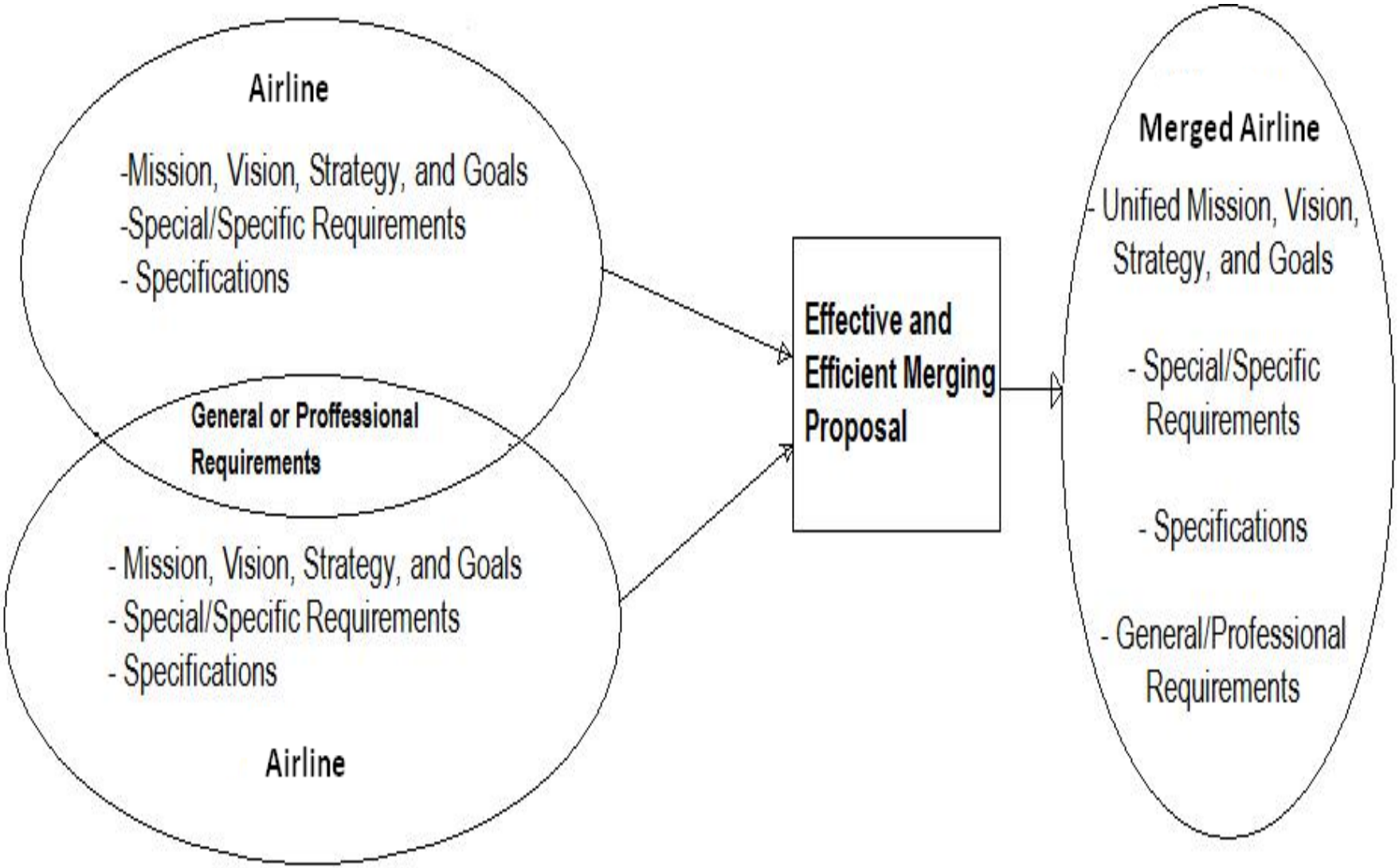
  (1) Shared conceptualisation on Enterprise Architecture
    - comprehensive understanding facilitates negotiation;

  (2) Common evaluation criteria & evaluation method
    - Collaborative evaluation and selection of design alternatives

Related Work

- Enterprise Architecture Frameworks
  - ArchiMate, Zachman, xAF, FEAF, IAF, TOGAF etc.
- Economic methods
  - Economic value of enterprise architectures,
  - Comparison of enterprise architecture frameworks
- Adequate splitting & allying of organisation(s)
- Dialog Mapping
  - technically complex problems & socially complex groups
- Collaborative architecting of enterprise applications
- Enterprise architecture domain
  - Lack of environment for collaborative evaluation & selection of design alternatives

Application Scenario/Case



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Research Questions

- How can all key stakeholders of an organisation reach a shared conceptualisation and understanding of the EA design for the organisation?
- How can we obtain a common evaluation criteria and evaluation method for design alternatives?
- How can the key stakeholders collaboratively select an optimal EA design for the organisation?

Research Objectives

- Repeatable, Predictable, & Transferable collaboration process
  - evaluation and selection of design alternatives
    - Transferable; reduced conceptual load for practitioners
    - Predictable; different practitioners get similar results
    - Repeatable; re-usable

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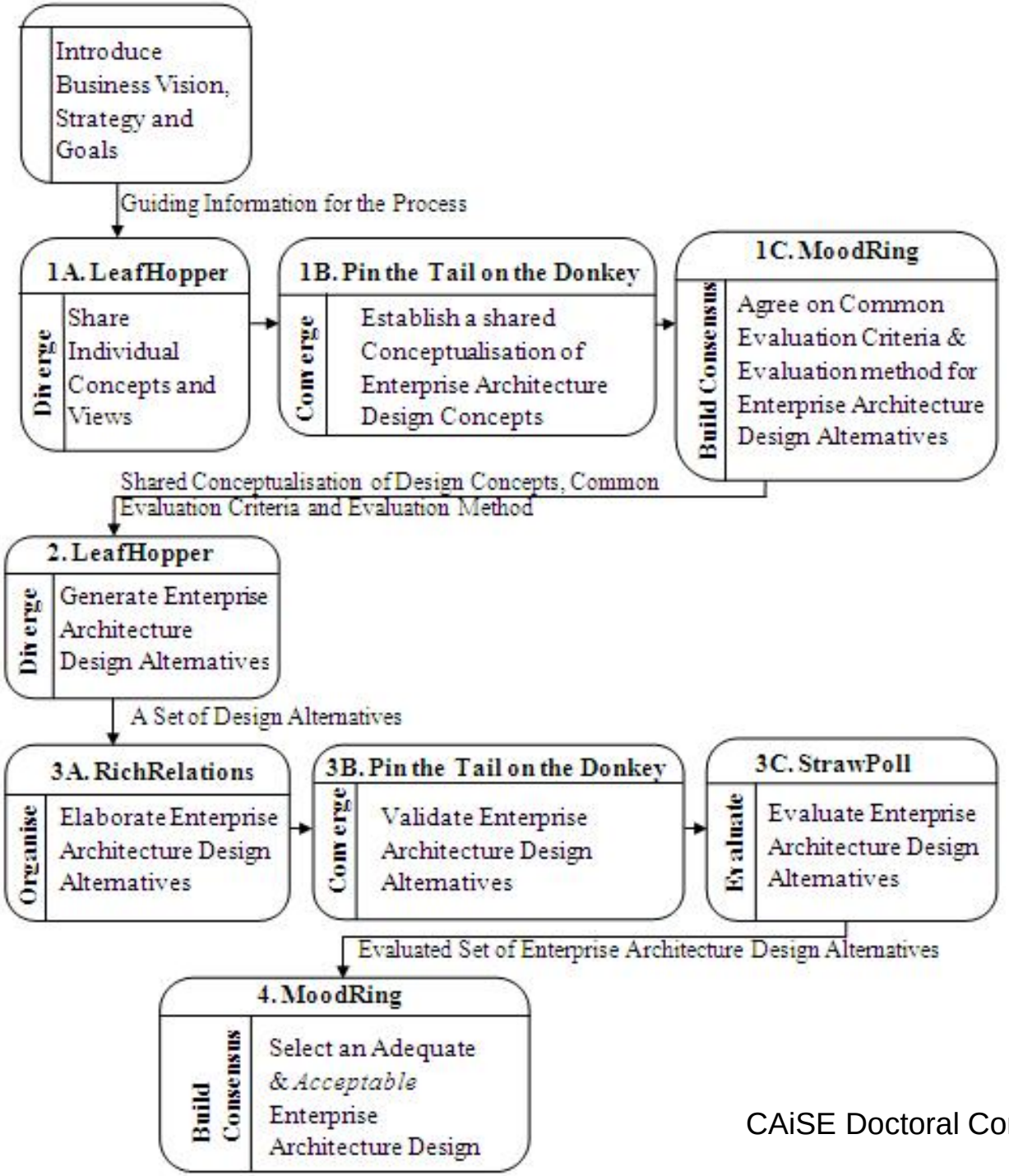
Approach

- Collaboration Engineering
- Process Design Approach
  - Task Diagnosis
  - Decomposition
  - ThinkLet Choice
  - Agenda Building
  - Design Validation
  - Documentation

Preliminary Results

- Activity Decomposition
- Synthesis (Hypothesis) Formulation
  - Facilitation Process Model (FPM)

FPM


Introduce Business Vision, Strategy and Goals
Guiding Information for the Process
1A. LeafHopper
Diverge
Share Individual Concepts and Views
1B. Pin the Tail on the Donkey
Converge
Establish a shared Conceptualisation of Enterprise Architecture Design Concepts
1C. MoodRing
Build Consensus
Agree on Common Evaluation Criteria & Evaluation method for Enterprise Architecture Design Alternatives
Shared Conceptualisation of Design Concepts, Common Evaluation Criteria and Evaluation Method
2. LeafHopper
Diverge
Generate Enterprise Architecture Design Alternatives
A Set of Design Alternatives
3A. RichRelations
Organise
Elaborate Enterprise Architecture Design Alternatives
3B. Pin the Tail on the Donkey
Converge
Validate Enterprise Architecture Design Alternatives
3C. StrawPoll
Evaluate
Evaluate Enterprise Architecture Design Alternatives
Evaluated Set of Enterprise Architecture Design Alternatives
4. MoodRing
Build Consensus
Select an Adequate & Acceptable Enterprise Architecture Design

Evaluation and Validation

- Application scenario/case
  - illustration purposes only
  - not good for purposes of evaluation & validation of hypothesis.
- Ways of process validation
  - Walk Through
  - Simulation
  - Expert Evaluation
  - Pilot Testing

Work in Progress

- Hypothesis Validation

Conclusion

- Application scenario, only illustrations
- Real case, process validation

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END

Comments & Discussions