Emerging Enterprise Architecture Trends

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Chief Enterprise Architect

- Purpose: what are going to tell them.
- 3 major trends and how the impact EA practice
- guidance for being successful with EA. We're investigating how to provide more OOTB ardoq support for this
- Context - IT-intensive, continuous change
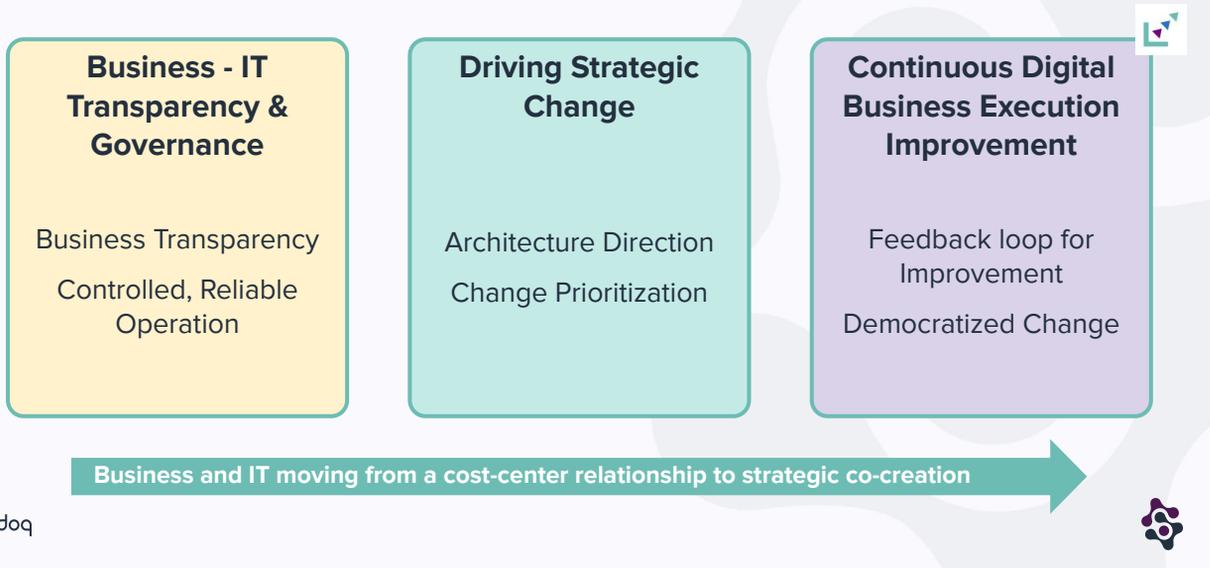
Core message: This is the business context our users face. This is what is driving the trends

- Increasing digitalisation and increased competition means harder change and constant change
    - EA is not about modelling the business, its about support this context

3 aspects of Enterprise Architecture practice

Business - IT Transparency & Governance	Driving Strategic Change	Continuous Digital Business Execution Improvement
Business Transparency Controlled, Reliable Operation	Architecture Direction Change Prioritization	Feedback loop for Improvement Democratized Change

Business and IT moving from a cost-center relationship to strategic co-creation →

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- Purpose: the 3 major areas where we see EAs helping companies. The first trend is this extension in Agile Business
- Orientation -> Continuous change -> Continuous Adaptation
- Bus - IT Gov
  - Minimise run cost to maximise Innovation Spend
- Driving Change
  - Target, Strategic v Tactical
- EA is about providing faster and better quality decision making
  - For business and solution teams. Intentional EA
  - get away from lengthy pre-projects

Emerging Trend

Digital Twin of the Organization

A model of how your business operates - in real-time - that allows you to make decisions to improve it

Business Architecture + IT Architecture + Operational Behavior

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- What is DTO
  - Structure + behaviour
  - Comes from the idea of providing a simulated, virtual replica of the production environment
  - How you operate as a company to deliver new and improved products and services IS a product environment. You can simulate it by adding behaviour to structure. Your traditional EA models are the structure. You want to add behaviour to enable decision making

- What is STA
  - People in the Architecture
  - From Systems Thinking and Open Systems Theory also about how the business operates, but more about how the people interact in that operation.
  - How teams are organised, how information flows, how collaboration happens.
  - People perform better when they are connected to business goal, have decision authority, and can self-organise to make it happen.
  - People perform worse when boxed into a specific function
  - Reduce handoffs, reduce complexity, reduce cognitive load
  - Peopleware, Accelerate, Team Topologies
- product strategist says, its also about democratisation - "I model you as part of the architecture so I can change how you do your job." New Thinking: "I model you as part of the architecture so you can change how you do your job."
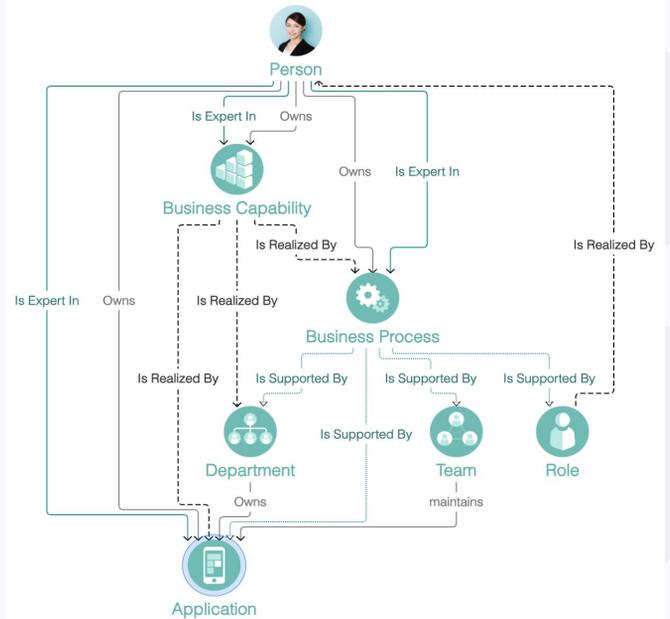
Business - IT Transparency and Governance

Outcomes

Business Transparency
- How the business operates through IT
- How underlying issues impact customers

Controlled, Reliable Operation
- Minimize running cost and maximize innovation spend
- Mitigations for operational risk

Person

Is Expert In   Owns

Business Capability

Owns   Is Expert In

Is Realized By   Is Realized By

Is Expert In   Owns   Is Realized By

Business Process

Is Realized By   Is Supported By   Is Supported By   Is Supported By

Is Supported By

Department   Team   Role

Owns   maintains

Application

Architecture Structure

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- Outcome
    - Do we understand how our Business operates through IT?
    - Do we know where our quality issues are coming from and level of customer impact?
    - Do we have full control of our running costs?
    - Does all infrastructure have effective ownership?
    - Do we have control over basic operational risks with licensing and end-of-life?
- Structure
    - traditional EA models and combinations
    - Mistake: documenting without a purpose
    - shared understanding to support distributed autonomy

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Architecture Structure
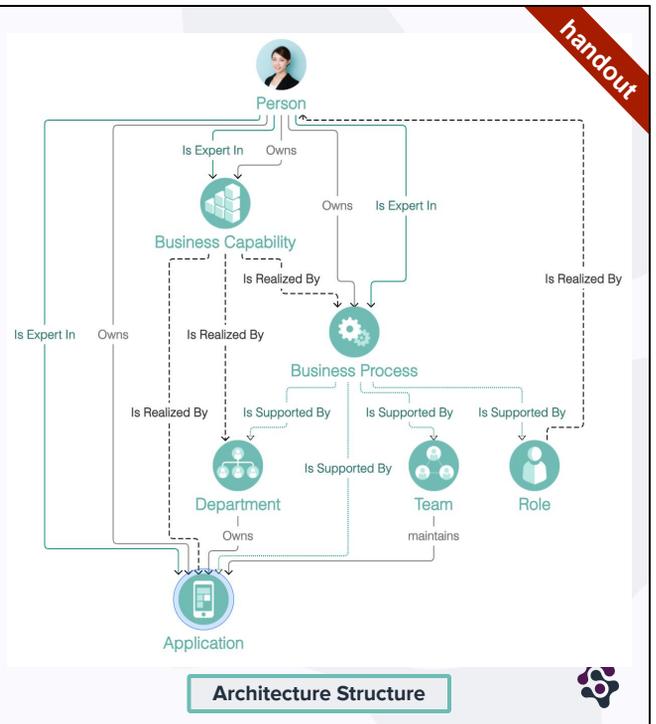
- Structure
  - traditional EA models and combinations. AS-IS
  - Mistake: documenting without a purpose
  - shared understanding to support distributed autonomy
- Behaviour - beyond BI and monitoring
  - non-functionals
    - cost roll-up - CAPEX and OPEX (especially)
    - process latency.
      - how long does customer onboarding take
      - how long does it take for a front-end sale to show up in analytics
    - data volumes e.g., if B2B and B2C take different paths through the business
    - incidents rolled-up to customer-facing business capabilities
  - a lot getting pushed from Strategic DDD
    - shared understanding of domain models and major entities that flow between them
  - democratisation of Bus-IT and Governance information collection and maintenance
- a lot of the behaviour info is captured in traditional BI analytics and technical monitoring. But not all

Business - IT Transparency and Governance

Behavior (DT)	Architecture plus Non-functional behavior
	Cost roll-up (CAPEX & OPEX)
People (STA)	Document with purpose
	Democratize EA work
	Reduce the complexity
	Shared understanding
	People and Teams in the Architecture

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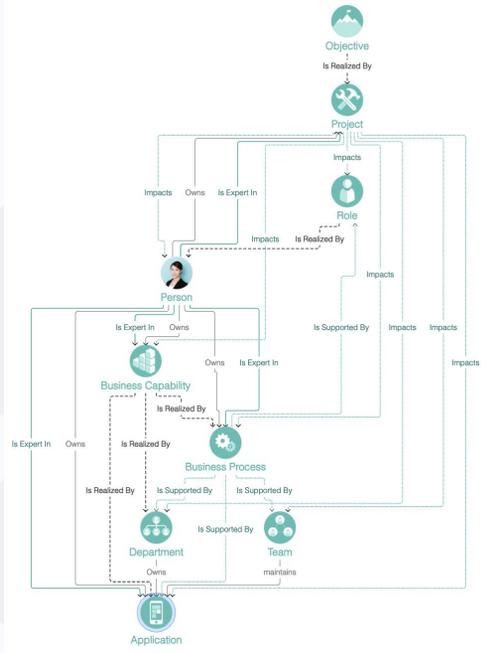 - Understanding how Org, Teams, Arch interact

Driving Strategic Change

Strategy to Portfolio and then enough direction for Solution execution to happen
Distributing autonomy still requires some initiatives that cross those autonomous
domains

- Outcomes
    - can we see the cost and benefits?
    - can we extract value? Are we delivering the proposed benefits?
    - are the changes ripple effects?
    - should be (re)prioritized?
    - will the impact be?
    - is the best bang for my buck?
    - reduce lead-time?
    - improve time-to-value?
    - approach should we take? (tactical/strategic)
    - stakeholders should be involved?
- Structure
    - TO-BE
    - includes Strategy -> Portfolio concepts
    - supporting the prioritisation process
        - including SMEs, teams, and how they self-organize

Driving Strategic Change

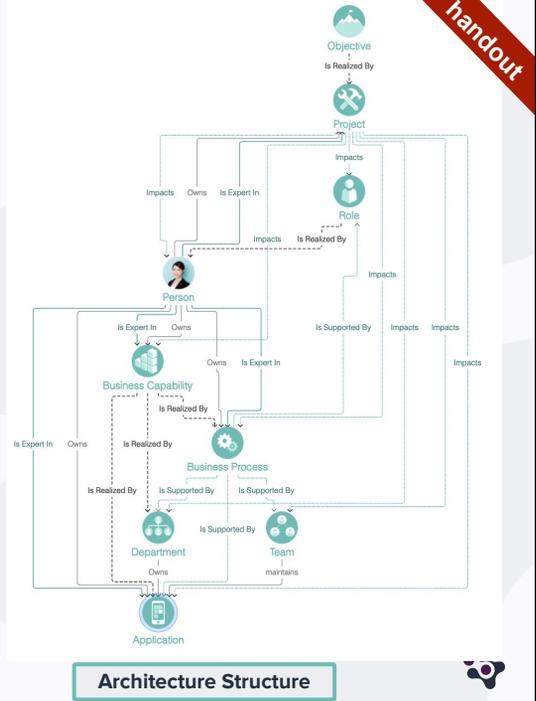| When | can we see the cost and benefits? |
	can we extract value?
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Where	will the impact be?
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Can we	reduce lead-time?
	improve time-to-value?
Which	approach should we take? (tactical/strategic)
	stakeholders should be involved?
How long will it take?	

Architecture Structure

Strategy to Portfolio and then enough direction for Solution execution to happen
Distributing autonomy still requires some initiatives that cross those autonomous domains

- Structure
    - includes Strategy -> Portfolio concepts
    - supporting the prioritisation process
        - including experts, teams,
- Behaviour
    - Benefit, Cost, Time
    - Ideation and Innovation events
    - portfolio and prioritisation events
    - epics, projects, events
    - major deployment events
    - Benefit realisation mapped back to proposed benefits
    - Traceability: Domain and initiative level events traceable to company level outcomes

- Behaviour
  - Benefit, Cost, Time
  - Ideation and Innovation events
  - portfolio and prioritisation events
  - epics, projects, events
  - Industry trends - wardley mapping of industrialisation
  - Benefit realisation mapped back to proposed benefits
  - Traceability: Domain and initiative level events traceable to company level outcomes
- People
  - How do people understand the target direction, the reasoning, and their role
  - How to make tradeoffs between target and tactical. One-way doors and two-way doors. What is a partial, sideways step and what is a dead-end?
  - How to get teams involved in the business problem. How to give them authority to do the solution design
  - How to get people to understand where the boundaries of their decision-making is. Who else to involve. When to include EA.

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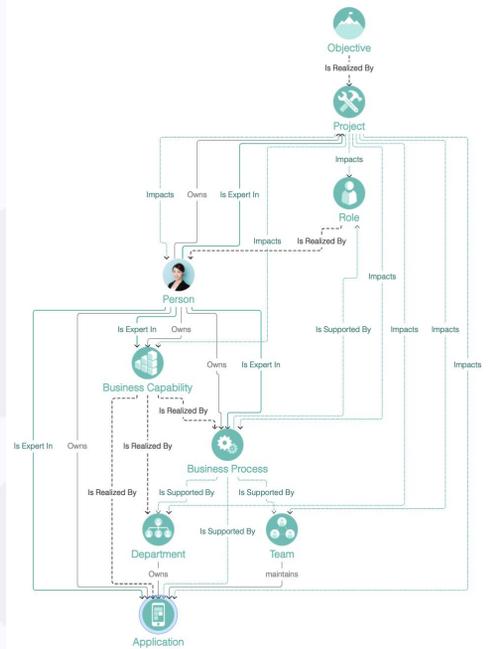   level outcomes
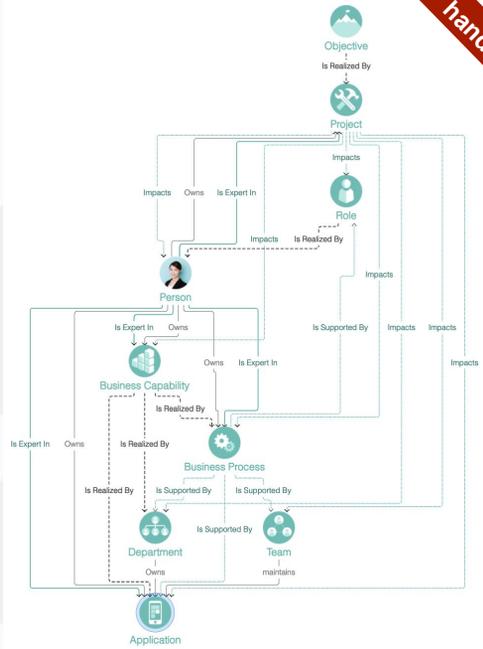
- Outcomes
  - How do we get better innovation throughput?
  - How do we reduce lead-time from Idea to Prioritization?
  - Are we delivering the measurable benefits our prioritized initiatives promised? How do we improve prioritization?
  - Can we deliver smaller initiatives that give faster time-to-value?
  - Can we innovate with smaller experiments and amplify them only if they show value?
  - Can we rearrange teams to reduce handoffs and cognitive load?
  - Who do I need to collaborate with to deliver this initiative?
- Structure
  - Deeper on the concepts from the previous level
  - More modularity to enable change
  - Composability through eventing to reduce dependencies

## Continuous Business Execution Improvement

handout

Outcomes

- Are delivering on the business benefit of the strategy?
- How do we reduce lead-time from Idea to Prioritization?
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Architecture Structure

Objective
Is Realized By
Project
Impacts
Impacts   Owns   Is Expert In
Role
Impacts   Is Realized By
Impacts
Person
Is Expert In   Owns
Owns   Is Expert In
Is Supported By   Impacts   Impacts
Impacts
Business Capability
Is Realized By
Is Expert In   Owns
Is Realized By
Business Process
Is Realized By   Is Supported By   Is Supported By
Is Supported By
Department
Team
Owns
maintains
Application

- Structure
  - Deeper on the concepts from the previous level
- Behaviour
  - feedback on the process itself so that it can be changed
  - lead-times from Idea to Prioritisation
  - Time-to-value for Idea to Customer feedback
  - number of hand-offs per project
  - number of teams that need to be involved
  - reverse conway manoeuvre
- value prop of Continuous Improvement
  - re-arrange teams, re-assign responsibilities
    - e.g., team topologies, reducing cognitive load

Continuous Business Execution Improvement
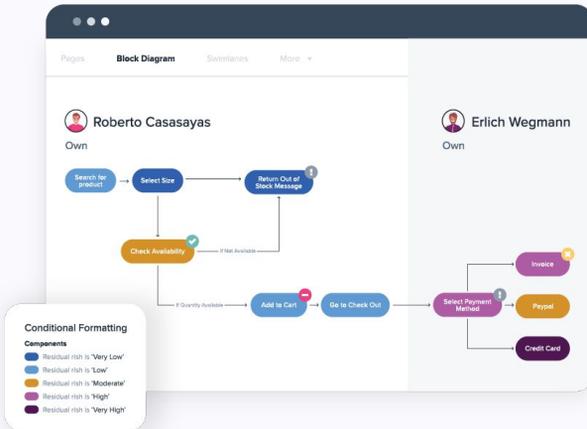
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- People
    - Reorgazing teams
    - Residuality theory
- value prop of Continuous Improvement
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EA provides value across the enterprise

Enterprise level

Domain level

Team level

Initiative level
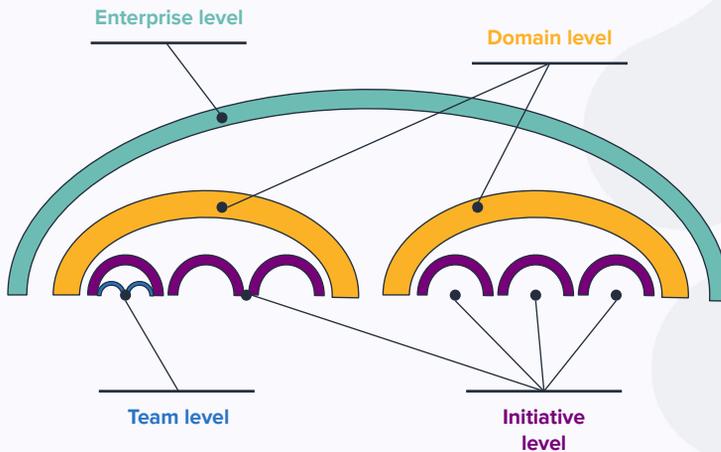
Decisions at the enterprise level cross larger business / IT scope and impact larger spans of time

They have greater consequences for cost and benefit

They require aggregation of information from all levels

EA's value:
Shorten the time to decision-making at the holistic level
Improve the quality of decisions
Improve certainty

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Adapted from https://twitter.com/ruthmalan

- Purpose: EAs value is broad and shallow.
- some of the things we'll talk about also happen at the team or project level. This is about moving it up and doing it across. Remove

Emerging Enterprise Architecture Trends

3 Aspects of EA

- Business - IT Transparency & Governance
- Driving Strategic Change
- Continuous Business Execution Improvement

EA Trends

Digital Twin of the Organization

Business Architecture
+ IT Architecture
+ **Operational Behavior**

Socio-technical Architecture

Business Architecture
+ IT Architecture
+ **People**

Incorporating the Trends

EA with a Purpose

- Focus on outcomes for your stakeholders
- Architecture to improve time-to-decision and decision quality
- Enable a democratized EA

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Start with the purpose
Answering those questions will require you to combine traditional EA models with operational behavior and people information