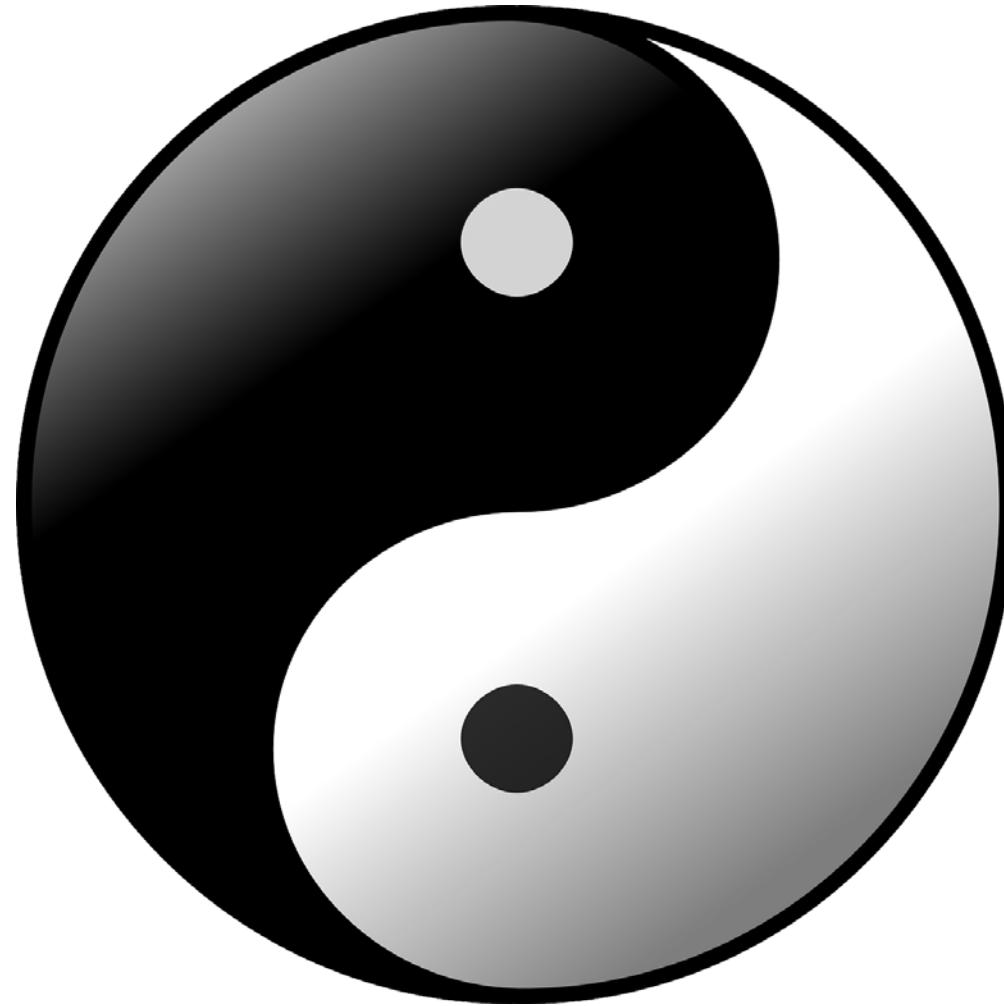


Agile and Enterprise Architecture



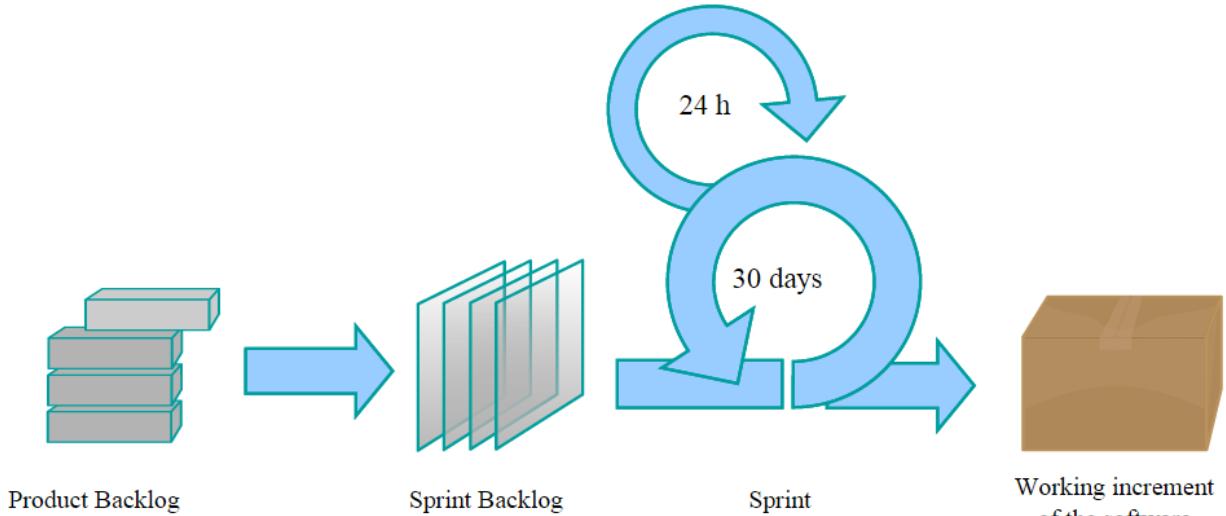
Joseph Anthony

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Agility & Architecture – Common Perception

Common Perceptions on Agile



Short iterations

Incremental implementation

Emergent design

Continuous feedback and learning

Pair programming

Process, methodologies,
frameworks and tools that support
agile software development

Agile & EA Compliment Each Other

Examine
Principles in
Agile Manifesto

Forces Driving
Lean/ Scaled
Agility

Impact on EA
Practice

What Is Lean/
Agile
Architecture?

Examine
Principles in
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Forces Driving
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Practice

What Is Lean/
Agile
Architecture?

Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

Individuals and interactions over processes and tools

Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Agile – Key Success Factors



Delivering great products that
customers love

For both internal and external customers

Creating the right culture and
environment for knowledge-work
Liberating software development from a
“dilbert-esque” work culture



Is That Good Enough?

Moving Agile Beyond Software



Prerequisites for building enterprise software

- Identify initiatives
- Business case
- Funding
- Resources
- Business objectives
- Architecture and others

There is scope for expanding the role of agile to other broader areas

Evolving Agile Manifesto for Agile Enterprise

Individuals and Interactions Over Processes and Tools

The right approach to knowledge work within a team
Can good/ productive interactions occur without a unifying vision to guide them?
Can teams play their roles effectively without the larger context?
Can teams effectively collaborate without knowing the dependencies and constraints that operate across teams?

“Establishing shared vision and strategy which sets the context for individuals and interactions within a team over following processes systematically”

Working Software Over Comprehensive Documentation

Working software does not automatically result in business or customer outcome
Working software cannot be the end goal for an enterprise – business outcomes are Pursuing agility and efficiencies locally often fail to achieve effective enterprise outcomes

“Effective customer and business outcomes over working software over comprehensive documentation”

Customer Collaboration Over Contract Negotiation

Implies on-going customer input, continuous feedback, prioritization and ability to course correct

Would work great only if the customers know what they want
Strategic, Tactical and Operational context and priorities need to be set

“Establishing strategic, tactical and operational priorities and employing customer collaboration in the light of these priorities”

Responding to Change Over Following a Plan

This is the very definition of agility
Enterprise agility means agility for the whole organization

“Responding to change holistically as an enterprise rather than taking a piecemeal approach to agility”

Summing Up



Agility inherently applies to the whole of enterprise

Agile manifesto for enterprise could read as below:

Establishing shared vision and strategy to set the context for individuals and interactions

Effective customer and business outcomes over working software

Customer collaboration in the light of strategic, tactical and operational priorities

Responding to change holistically as an enterprise



It is not the strongest of the species
that survive, nor the most
intelligent, but the one most
responsive to change

– Leon Megginson



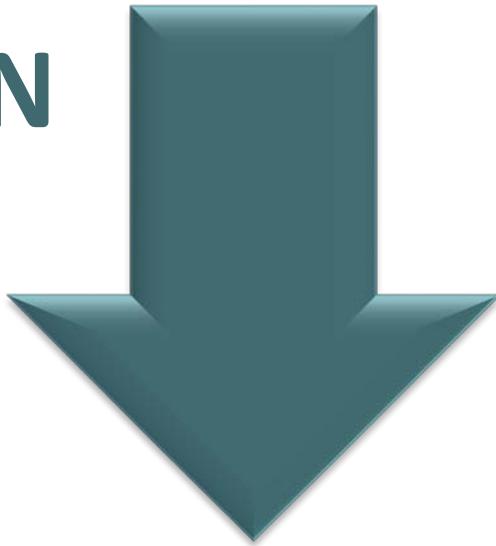
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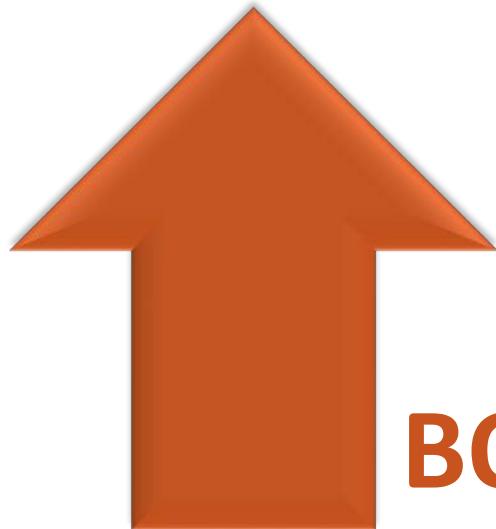
Impact on EA
Practice

What is Lean/
Agile
Architecture?

TOP DOWN



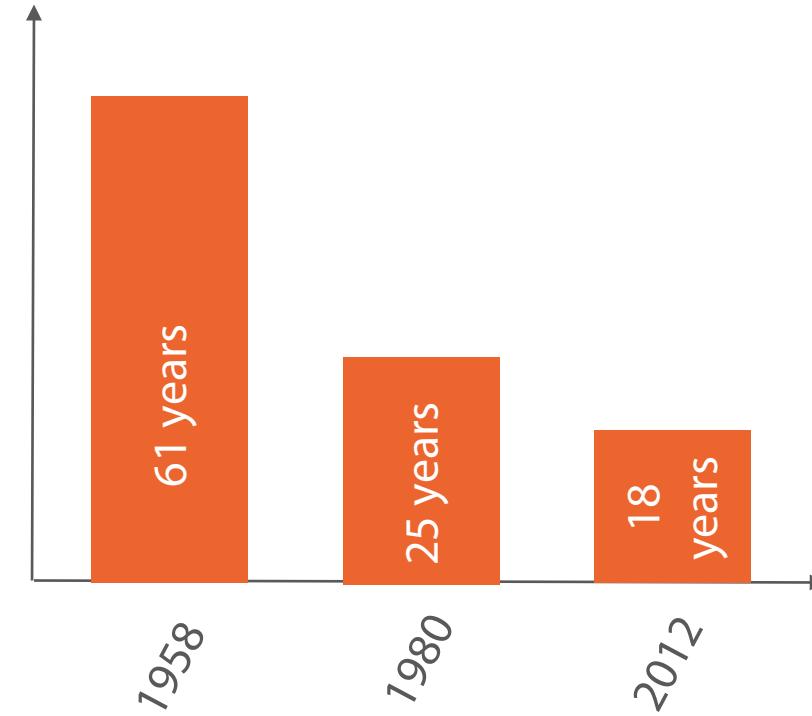
Why Scale Agility?



BOTTOM UP

Challenges to Big Businesses - Some Statistics

70% of the Fortune 1000 companies
have been replaced by 2013
(<http://onforb.es/1CkHGER>)



Enterprise lifespan is shrinking (Standard & Poor's)

What Is Driving These Statistics?



Empowered customers

Age of the customer is upon us

Overwhelming levels of disruption

Continuous disruption is the key to survival

Competitive business landscape

Entrepreneurship and innovation are vital

Nature of workforce is shifting driven by knowledge economy

Knowledge work requires a deep cultural and paradigm shift



Continuous Customer Delight

Quality products are a given

Incremental innovation and improvements are not differentiators anymore



Continuous Disruptive Innovation & Adaptable Differentiation



Agility could be what saves you ... (<http://bit.ly/1lyepp>)

Examine
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What Is Lean/
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Architecture?

Enterprise Architecture Is Shifting Its Emphasis

Enterprise agility
Innovation

Enterprise Architecture & Agility

Enterprise Agility



Embracing agility involves changes
Mindset
Culture
Organizational structures
Processes
And willingness to leverage technology
Agility is part of the conversation today
EA practice is expected to adapt and be an enabler of agility



Digital Transformation

Digital Transformation

Not surface level changes

Often changes foundational business models

Introduces sweeping changes

Across business units

Revamping systems, processes, interfaces

Renegotiating relationships, contracts and agreements

Technology footprint - refresh

New refrain is “Build to evolve rather than to last”

Enterprise Architects are called to shift their focus to rapidly building and configuring evolvable architectures for an agile enterprise



Enterprise Architecture – Enabling Disruptive Innovation



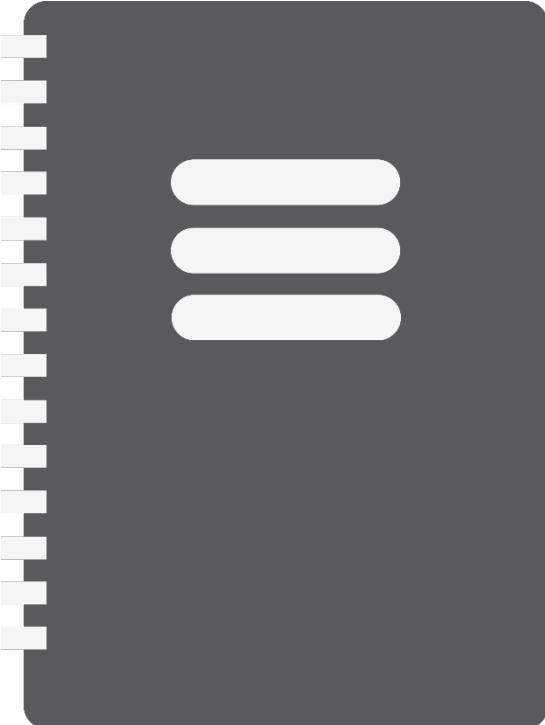
Rapid, Continuous and Disruptive Innovation

EA Enabling Disruptive Innovation



- Deep and broad knowledge of technology
- EA understands the platforms, data and information assets and their interconnections and their value
- Unique and holistic perspectives of business
- Trends in the industry and marketplace
- Holds deep connections within and outside the organization
- EA practice is uniquely positioned to catalyse disruptive business innovations

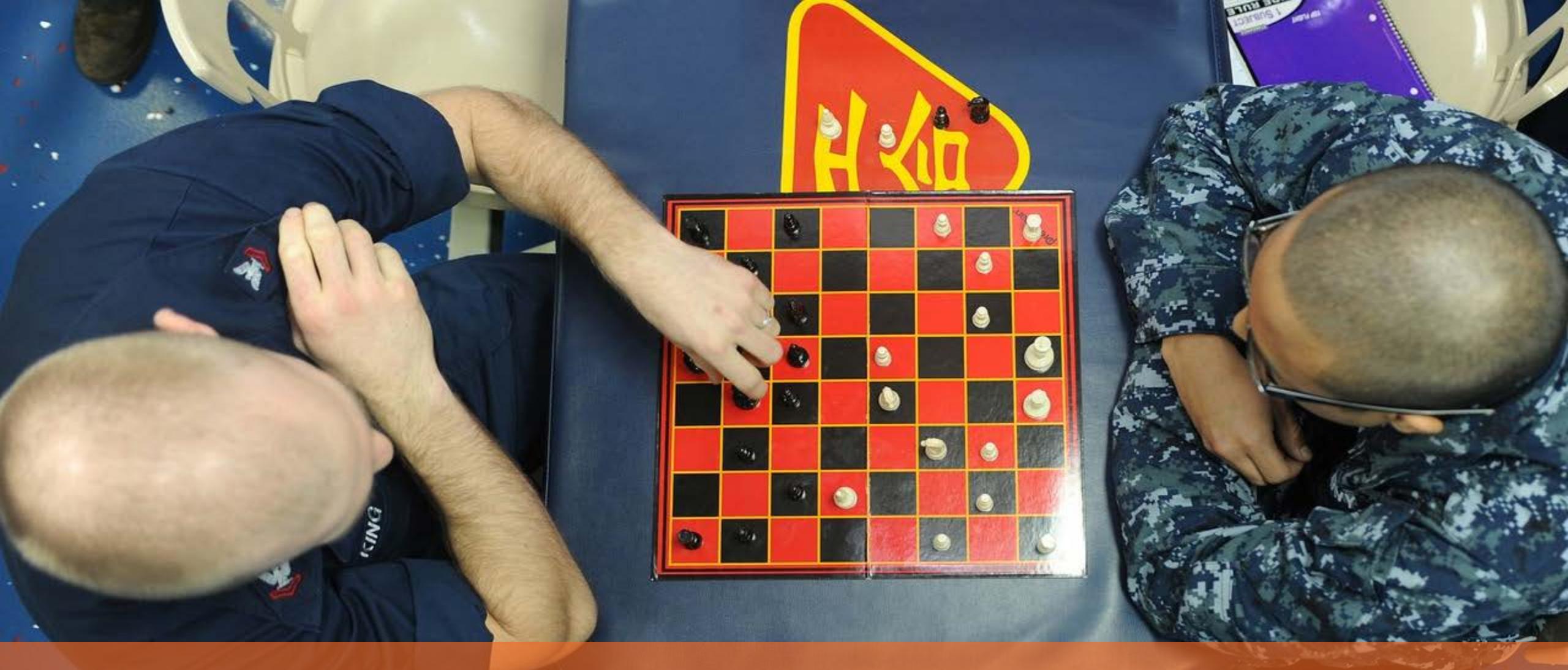
Summing Up



Enterprise architecture is becoming an enabler of enterprise agility and innovation

Enterprise agility and digital transformation are revamping enterprises rapidly

Enterprise architecture is uniquely positioned to catalyze innovation within the enterprise



9 million different possible positions after three moves each
Distinct 40-moves games greater than total number of atoms in Universe

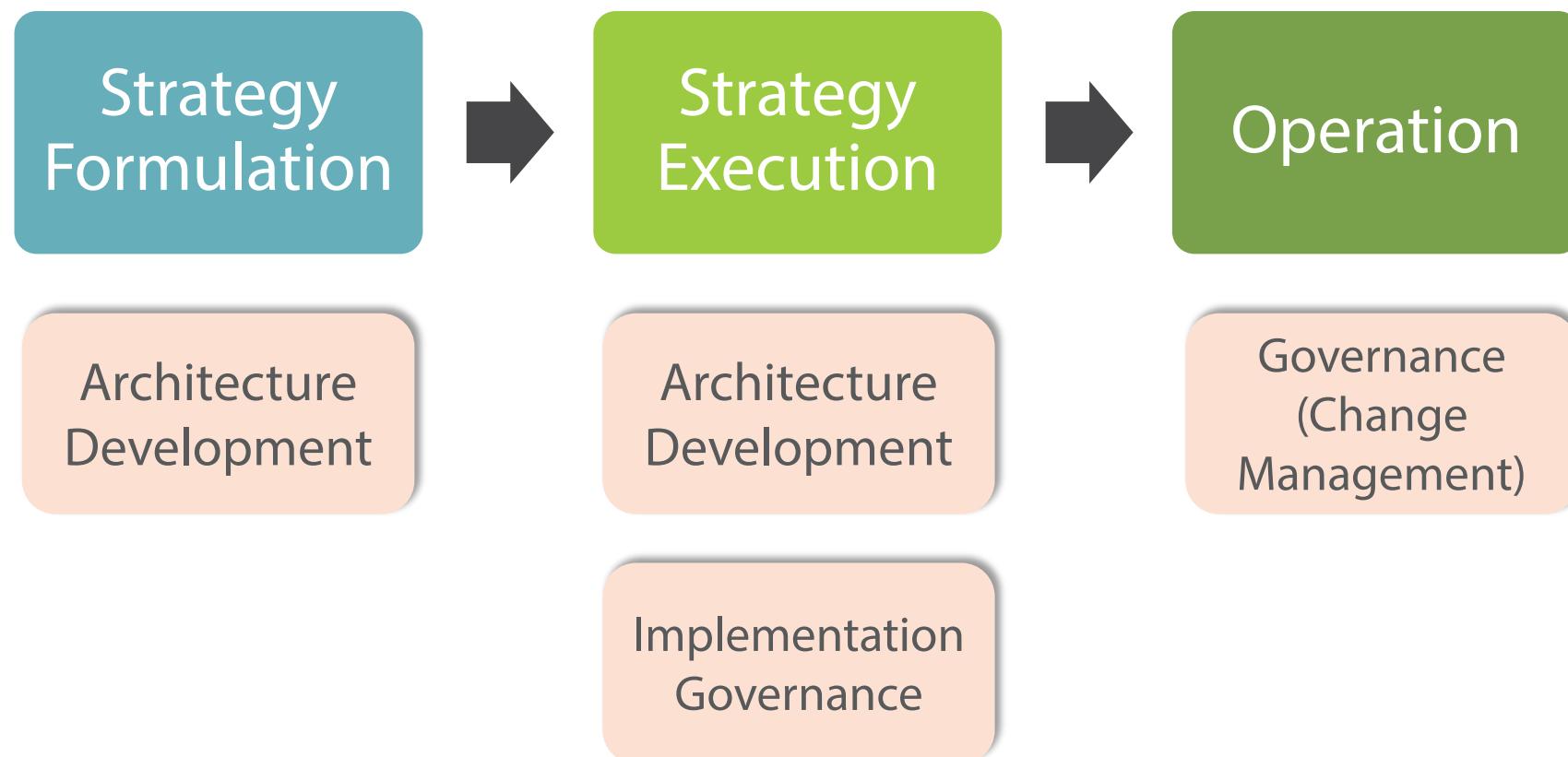
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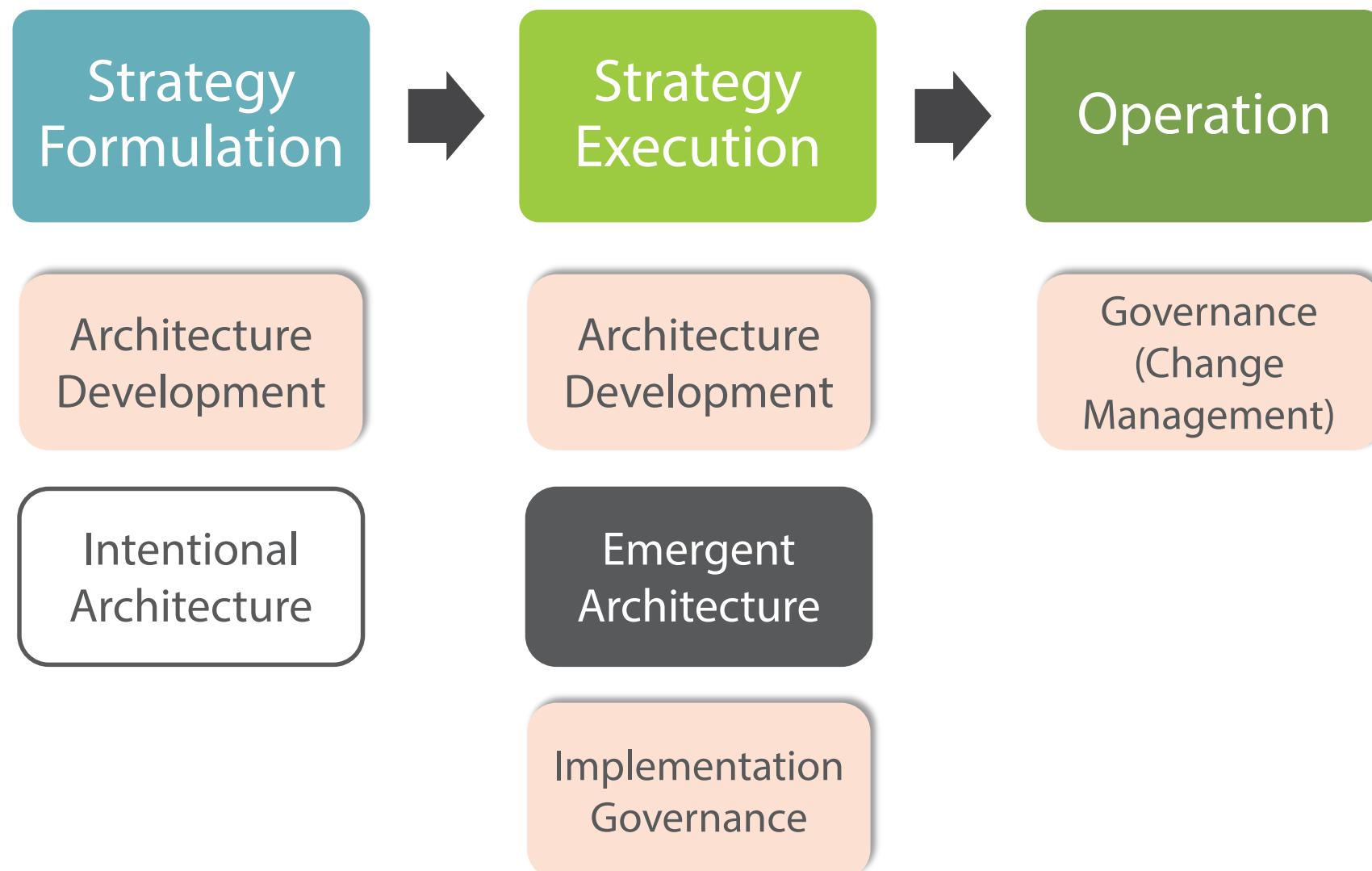
Impact on EA
Practice

What Is Lean/
Agile
Architecture?

Lean/Agile Enterprise Architecture Value Chain



Lean/Agile Enterprise Architecture Value Chain



Intentional Architecture

Take long term views
Look at wide landscape
Articulate Enterprise-wide architectural vision
Strategic architecture roadmap
Architectural building blocks
Logical view of architectural city-scape
High-level architecture for specific initiatives, supporting

Sizing
Estimation
Business case creation



Intentional Architecture



Not cast in stone

Best effort architecture done at a point in time

Collection of light-weight forward thinking architectural views

Guides further architecture work closer to implementation

Informs, influences and shapes early decisions on various initiatives

Provides a head-start to more detailed architecture work closer to implementation

Documents a point-in-time view of assumptions, issues and constraints



Emergent Architecture

Developed closer to implementation
Architecture emerges
Influenced by many operating factors
Leverages the intentional architecture
Validates intentional architecture
Keeps the architectural vision alive

Why Do You Need to Engage in Both Intentional and Emergent Architectures?

Possibilities

Possibility

Possibility

Possibility

Possibility

Possibility



Comparing Architecture to Road Trip

Identify the routes you can take

Your choices vary based on many factors and trade off decisions

This stage of planning is similar to intentional architecture

It helps you think ahead

Consider the options available to you

Make informed decisions in advance

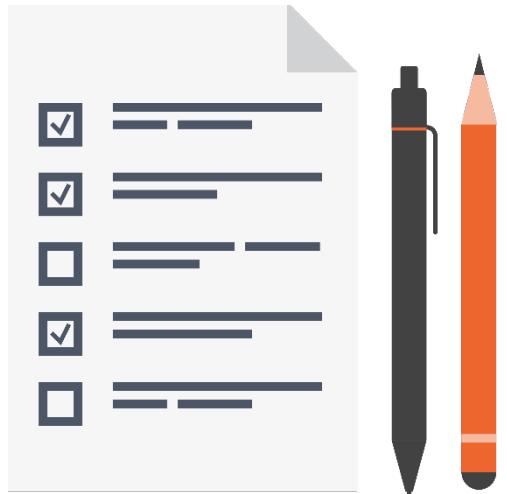
Help you make best use of opportunities along the way

Prepares you better for the day of the journey

Emergent architecture is like the decisions you take on the day of journey

Both Intentional and Emergent Architectures are important and they complement each other

To Sum-up



Architecture is both intentional and emergent

Intentional architecture establishes the landscape

Supports high-level decision making

Head-start for detailed architecture work

Emergent architecture provides context rich guidance

Affordance to allow architecture decisions to be delayed

Emergent architecture is roll-up your sleeves, collaborative kind of architecture



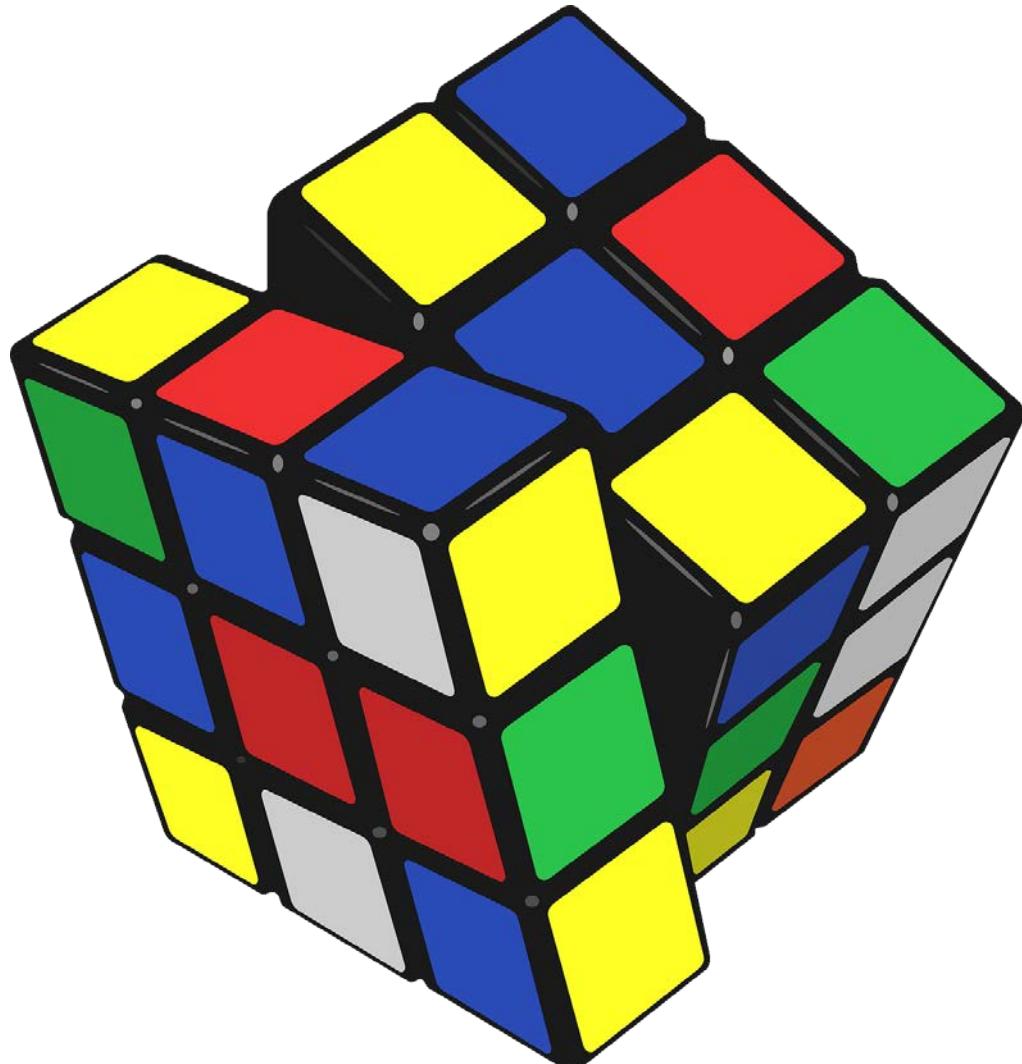
In preparing for battle I have always found that plans are useless, but planning is indispensable.

— Dwight D. Eisenhower



Strategy as it relates to lean/agile architecture

What Exactly Is Strategy?



A very high level plan

How an enterprise organizes its people and resources to fulfil its vision

Drives many layers of detailed plans

Strategy Themes define broad areas of focus

Typically the top 5 areas of focus for the enterprise

Strategic objectives adds specificity

Strategic outcomes/ results further defines each objective

Strategic objectives are mapped to enterprise initiatives managed by Enterprise Project Portfolio Management

Initiatives can be categorized as business and architecture initiatives

Strategy promotes the lean/agile values of focus and effectiveness

VISION

To be the number one retail bank in our core markets within the next 3 years, measured in terms of customer delight

Transform every customer digital touch point for best possible experience



Streamline branch interactions to extend and augment online and mobile experience



Achieve operational excellence, by streamlining internal and customer facing processes



Organize around lean and agile principles and evolve towards greater effectiveness and responsiveness



Achieve market leadership through continuous disruptive innovation



Strategic Themes

Values | Culture | Executive Management Support

Lean Portfolio Management

Ideation

Analysis

Approval & Funding

Biz.
Initiatives

Arch.
Initiatives

Portfolio Backlog

Intentional
Architecture

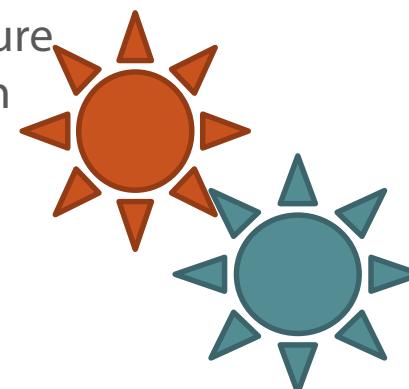
Emergent
Architecture

Project a

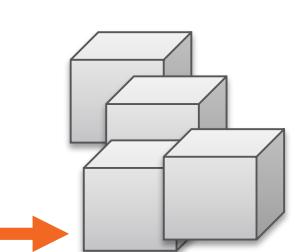
Project b

Program X

Architecture
Kanban

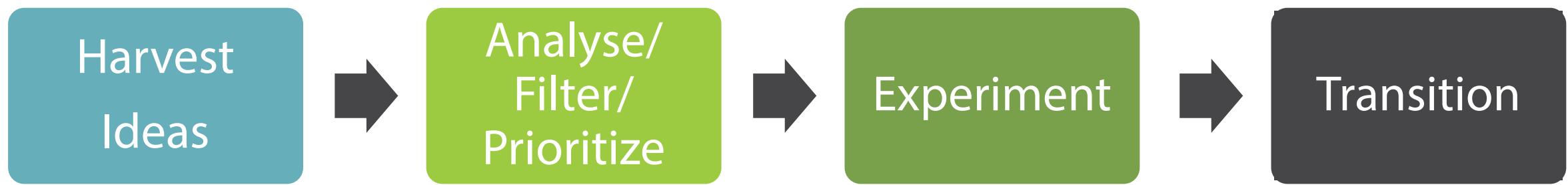


Implementation
Sprints



Understanding Enterprise Architecture's Role In Innovation Value Chain

Innovation Value Chain



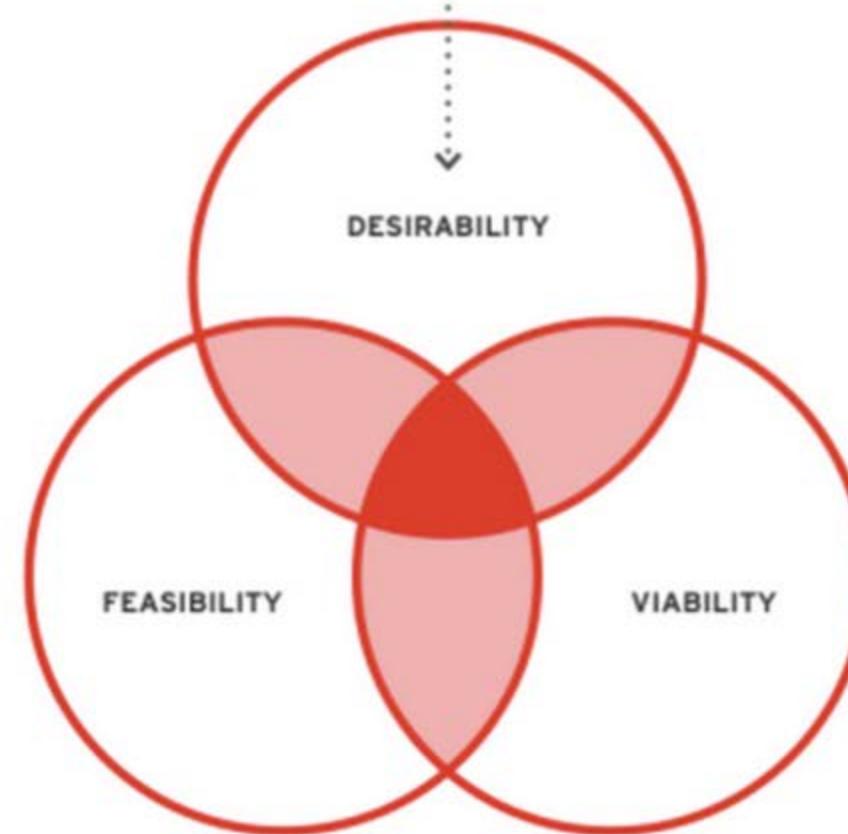
Harvesting Ideas



The executive management has a key role to play in creating a culture of innovation.

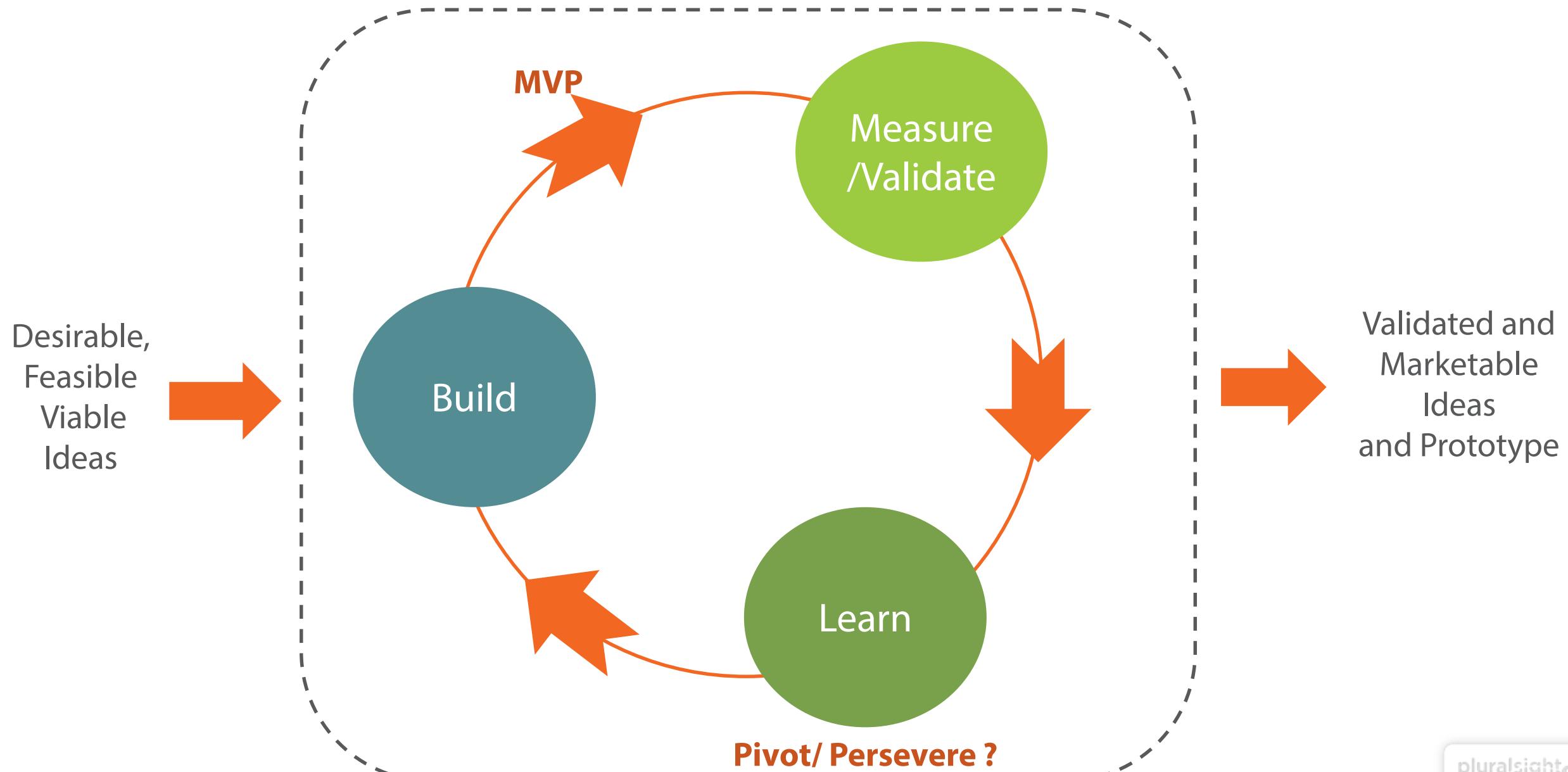
Analysis & Filtering of Ideas

Start here.

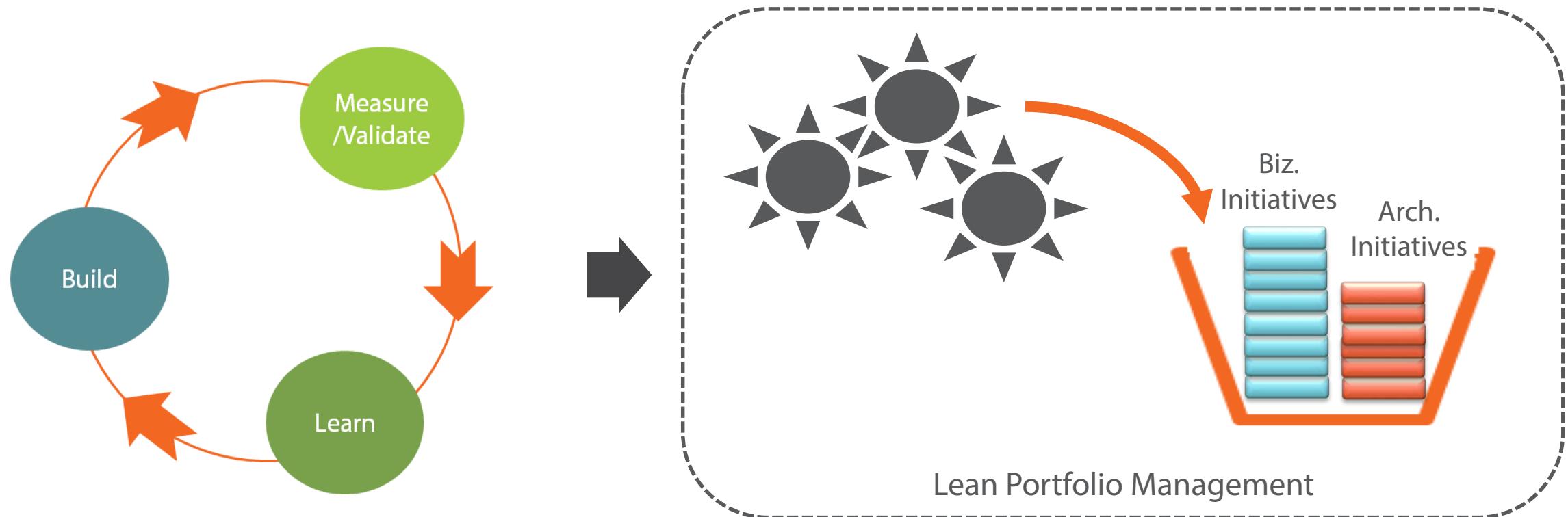


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Experimentation



Transition





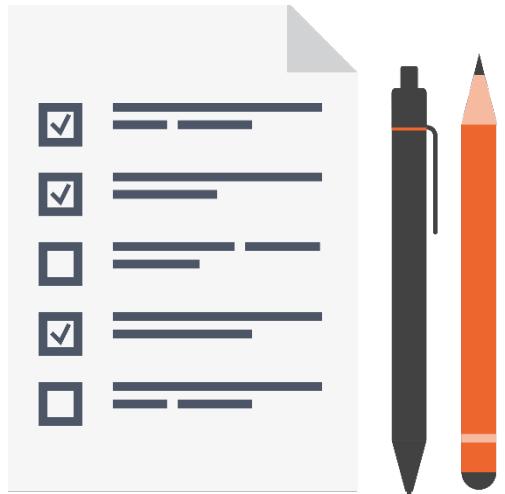
Enterprise Architects are expected to be innovating futurists
Functions as catalysts for innovation

Influences the innovation clearing-house in the filtering and prioritization of ideas

EA consults for and mentors innovation teams

EA helps the transition from viable ideas into mainstream development

Module Summary



- Examined agile manifesto for software development
- Identified ways in which the manifesto could be evolved to support agile enterprise
- Explored macro factors impacting enterprises and understood the rationale for rapid adoption of agility and innovation by the enterprise
- Examined the impact on enterprise architecture practice and how it is transitioning to become a key enabler of agility and innovation
- Identified what constitutes agile enterprise architecture
- Explored how enterprise architecture role fits within the agile scheme of things