

Understanding Enterprise Architecture

Introducing Enterprise Architecture



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Course Caters to a Wide Spectrum of Audience

Developers

IT/ Dev Ops Professionals

Architects and Designers

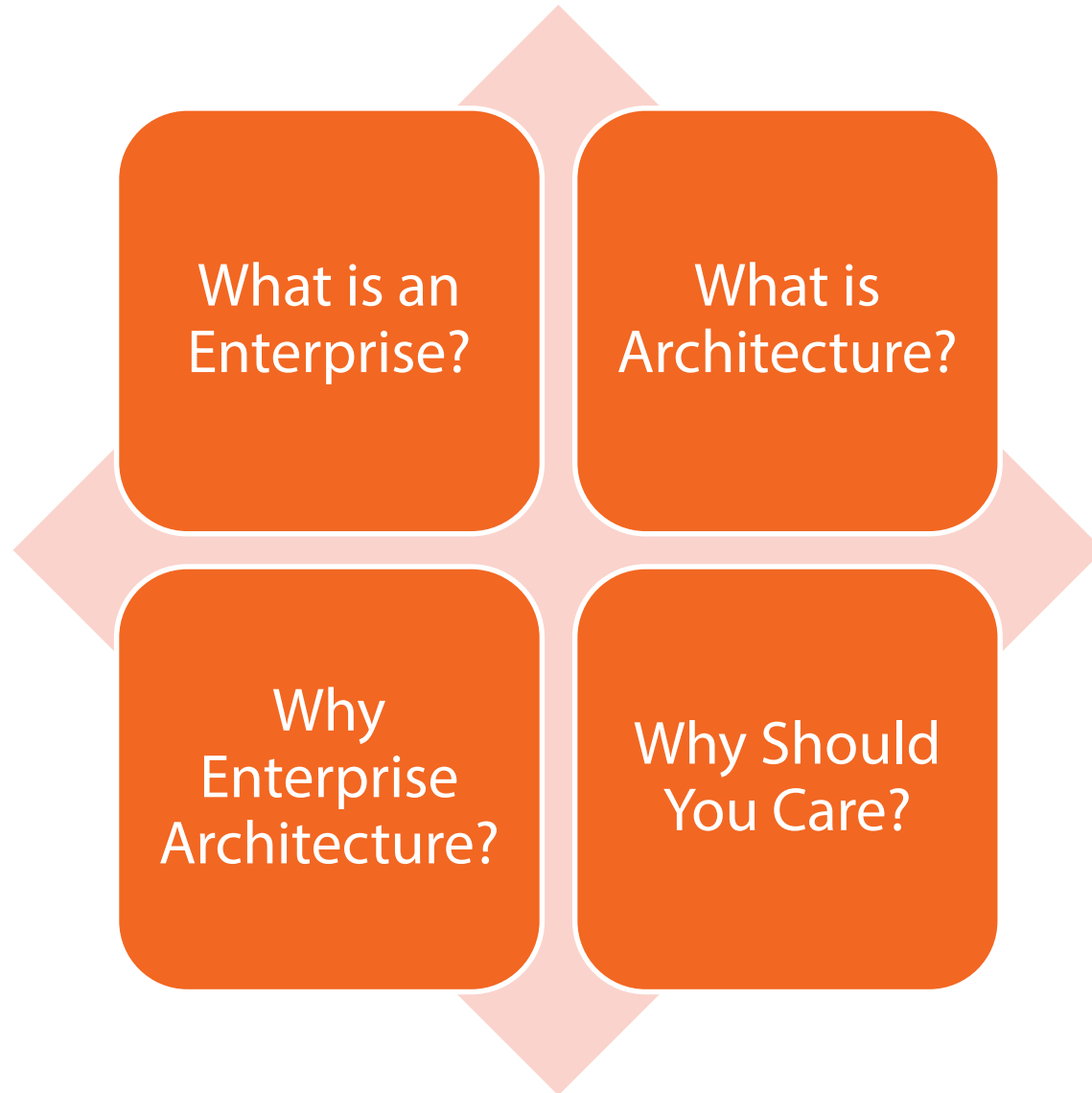
Business Analysts

Project/ Program Managers

Enterprise Architects

Senior Managers and Executives

Let's Get a Few Things Clarified...



What Is an Enterprise?

- A single organization
- Parts of a large organization (such as a business unit)
- A collection of organizations collaborating in a value stream
- The word “Enterprise” covers a broad spectrum of organizational entities



Etymological Analysis of Architecture

ARCHITECT ➡ ARCHITECTÉ ➡ ARKHITECTON

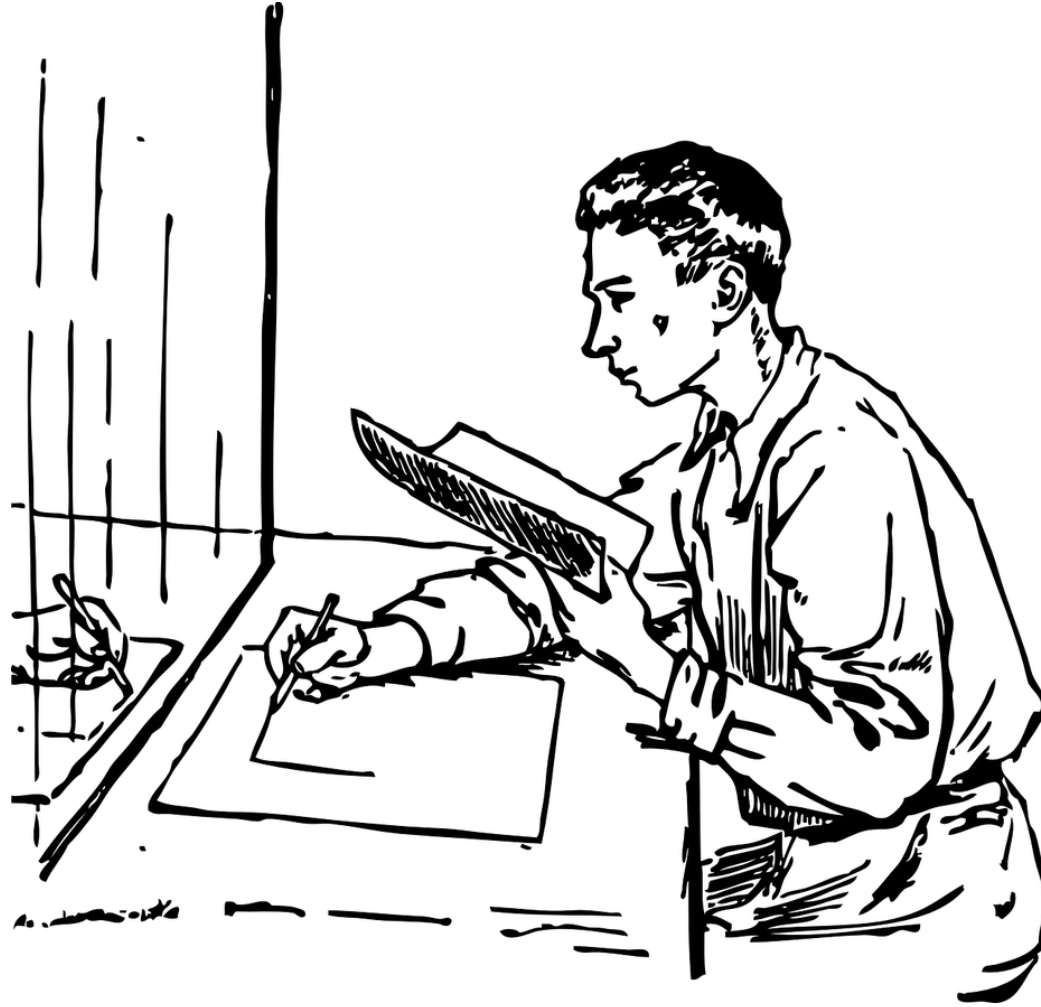
Arkhi = Chief

Tecton = Builder

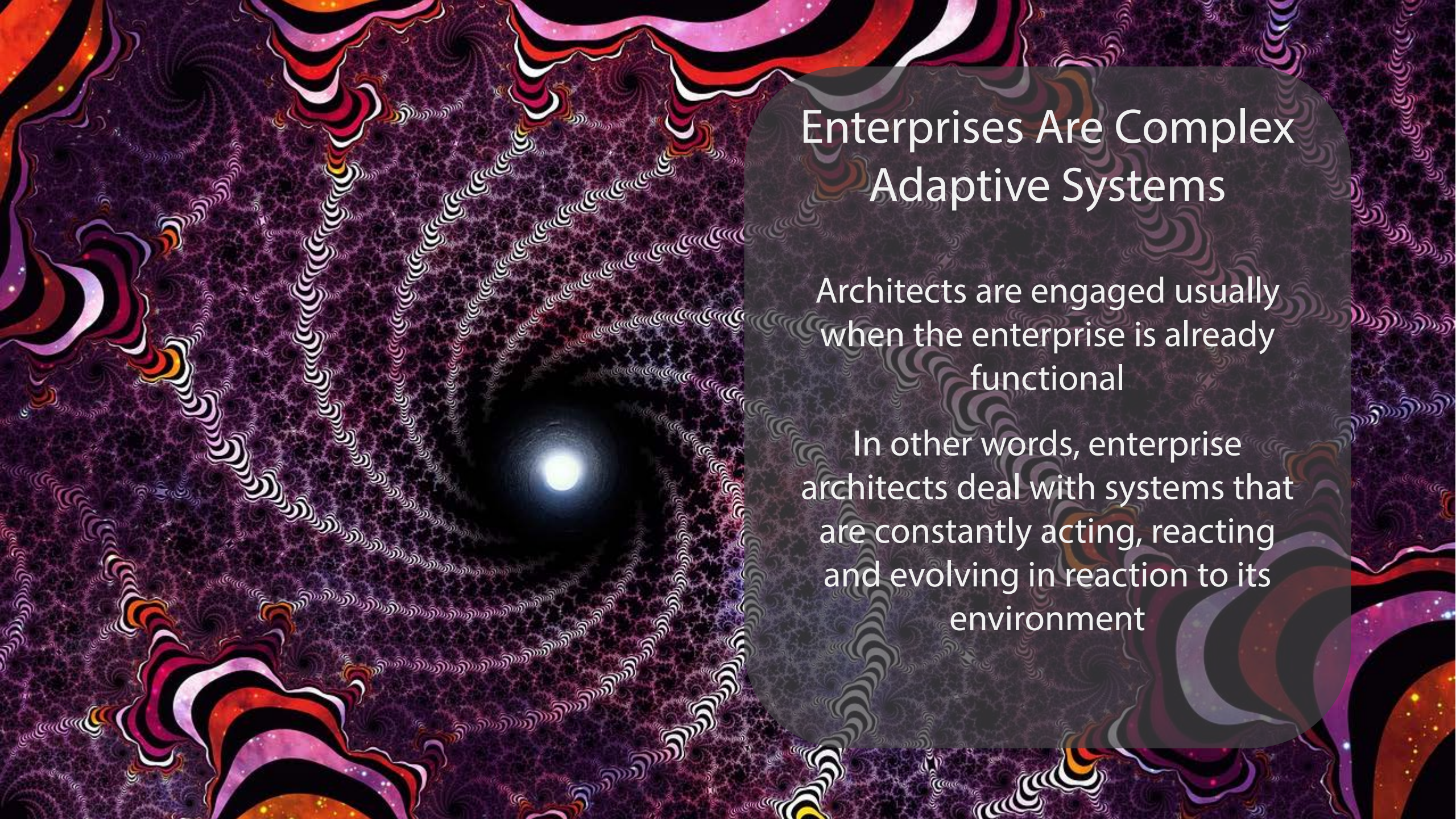


Master Builder

Architecture is the craft of the master builders



Enterprise Architecture can be interpreted as the craft of creating a blueprint of execution for the enterprise



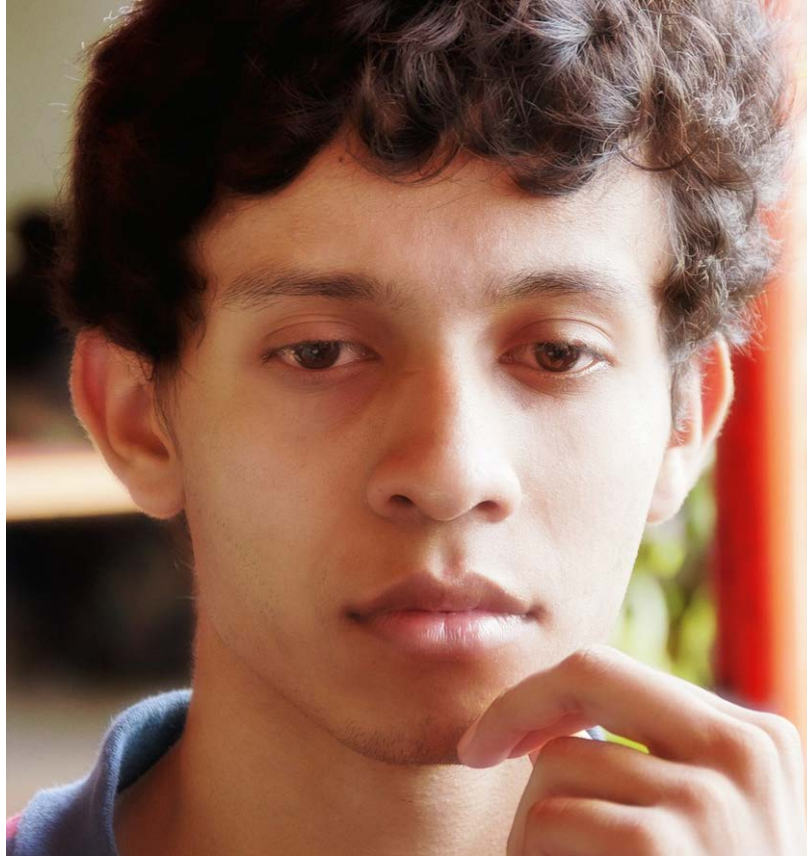
Enterprises Are Complex Adaptive Systems

Architects are engaged usually when the enterprise is already functional

In other words, enterprise architects deal with systems that are constantly acting, reacting and evolving in reaction to its environment

Why Do We Need Enterprise Architecture?

Historically, it emerged as a mechanism to handle the complexity of IT systems implementation



Along the way the role of EA transformed to address the architecture of the whole of the enterprise rather than just the IT components

Why Should You Care?

It Depends ...



Developer,
System Admin,
System/ Business
Analyst



Project/ Program
Managers



Technical/
Solutions
Architect



Enterprise
Architect



Senior
Executives &
Managers

Objectives of This Module

A working definition of enterprise architecture

Overview of the modules of the course



Thank
You!



Enterprise Architecture Has Many Facets

EA limited to enterprise IT architecture

EA is enterprise-wide solutions architecture

EA as a tool for business – IT alignment

EA as a discipline for architecting business capabilities and functions

Historical View

- IT initiatives and spending have been historically tactical and operational, directed at solving an immediate problem
- This attitude to IT systems resulted in a clutter of technology implementations
 - Spaghetti relationships
 - High level of redundancies
 - Systems cross-purpose with each other





Hairball Architecture of IT Systems resulted from years of planning neglect

Enterprise Architecture Timeline

Early works by Duane P Walker (IBM) in 1960s

1987 John Zachman published - A framework for Information Systems Architecture

1989 National Institute of Standards and Technology (NIST) publishes EA Model

2006 Jean Ross (MIT Sloan School) publishes her work on Enterprise Architecture

Further developed by IBM Business Systems Planning (BSP) program 1970s and early 1980s

US DOD works on Technical Architecture Framework for Information Management (TAFIM)

1996 Clinger-Cohen Act passed



Today's business reality is significantly different from that of 1960s and 1970s
The nature of problems, opportunities and business environment businesses deal with today are significantly different than the previous decades



Businesses have grown increasingly dynamic and complex


Role of IT within enterprises took many unexpected twists and turns along the way

Most businesses see IT as a foundational core competency

Pace of change is only accelerating



EA at different eras solved different challenges faced by the enterprise in that era
It began as a discipline to architect IT systems
Along the way it additionally took on the role of enabling business IT alignment
Further along the way it is now seen as a discipline to architect whole of the enterprise

An aerial night photograph of Paris, France, featuring the Arc de Triomphe prominently in the center, illuminated with warm yellow lights. The surrounding city is densely packed with buildings, many of which have their lights on, creating a vibrant urban scene. The sky is dark, and the overall atmosphere is one of a bustling city at night.

Enterprises are like cities; they
evolve and modernize
balancing the old and the new

EA practice is evolving keeping
pace with the needs of an
evolving enterprise

Evolution Continuum

A given enterprise's EA practice occupies a certain range in the EA evolution continuum

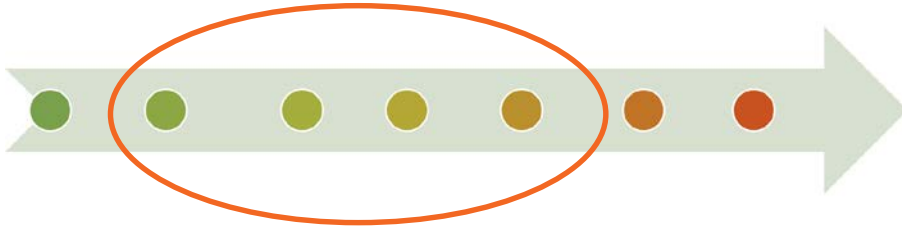
This depends on many factors such as:

- The enterprise's history of adopting EA practice

- Individuals leading the practice

- The kinds of problems and opportunities the enterprise is tackling

- The leadership's view on how it can leverage EA



Defining Enterprise Architecture

Enterprise Architecture

Enterprise Architecture is a discipline which enables designing the enterprise consciously and deliberately, rather than letting it happen randomly.

The design is informed by business vision, strategic intent and insights on the functioning of the enterprise.



The purpose of EA is to enable consciously designing
your enterprise

When we say Design, it implies knowledge of a certain
intended outcome or desired state

Target State



- Target state is defined by attainment of capabilities and fulfillment of milestones
- Target state is informed by business vision, strategic intent and insights
- Vision and strategic intent conveys the top-down holistic view of the enterprise direction
- Vision and mission are relatively static
- Strategy evolves continuously in response to stimulus from business environments
- Insights represent the knowledge of the functioning of the enterprise

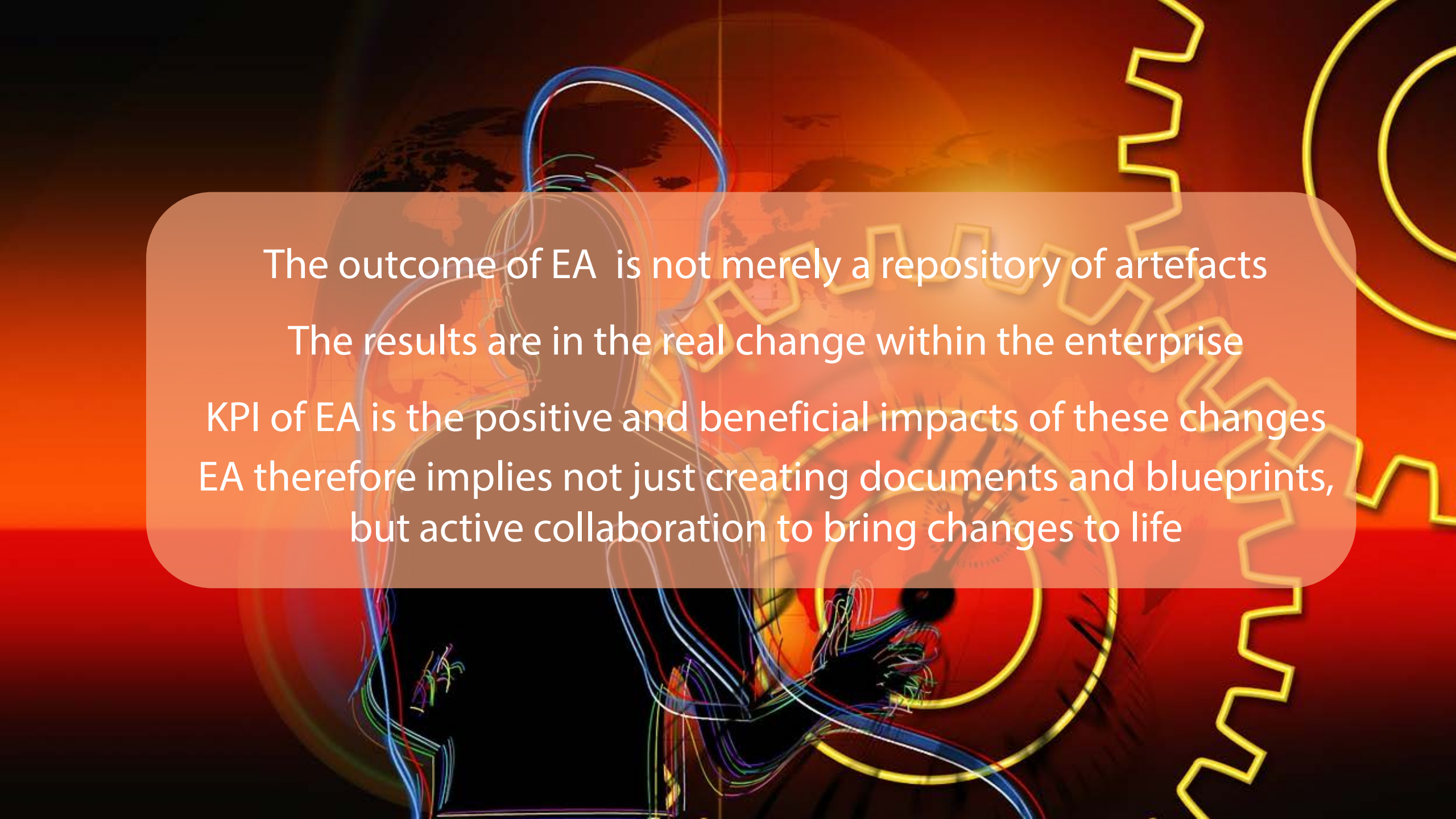
EA provides frameworks, tools, viewpoints and perspectives to comprehend, the current state, articulate the target state and enables road-mapping the journey from current to target state



Target State of the Enterprise



Current State of the Enterprise

The background is a vibrant, abstract composition. It features a warm color palette of reds, oranges, and yellows. A faint, stylized globe is visible in the upper left. Large, yellow, stylized gears are positioned on the right side. Swirling, multi-colored lines (blue, green, red, and purple) create a sense of dynamic movement across the center. The text is presented in white, sans-serif font, centered within a semi-transparent, rounded rectangular box.

The outcome of EA is not merely a repository of artefacts
The results are in the real change within the enterprise
KPI of EA is the positive and beneficial impacts of these changes
EA therefore implies not just creating documents and blueprints,
but active collaboration to bring changes to life

Enterprises Are Complex Adaptive Systems

Complex Adaptive Systems (CAS) are systems characterized by complex behaviors that result from non-linear interactions among large number of components in time and space at various levels of organization



The Brain



The Immune System

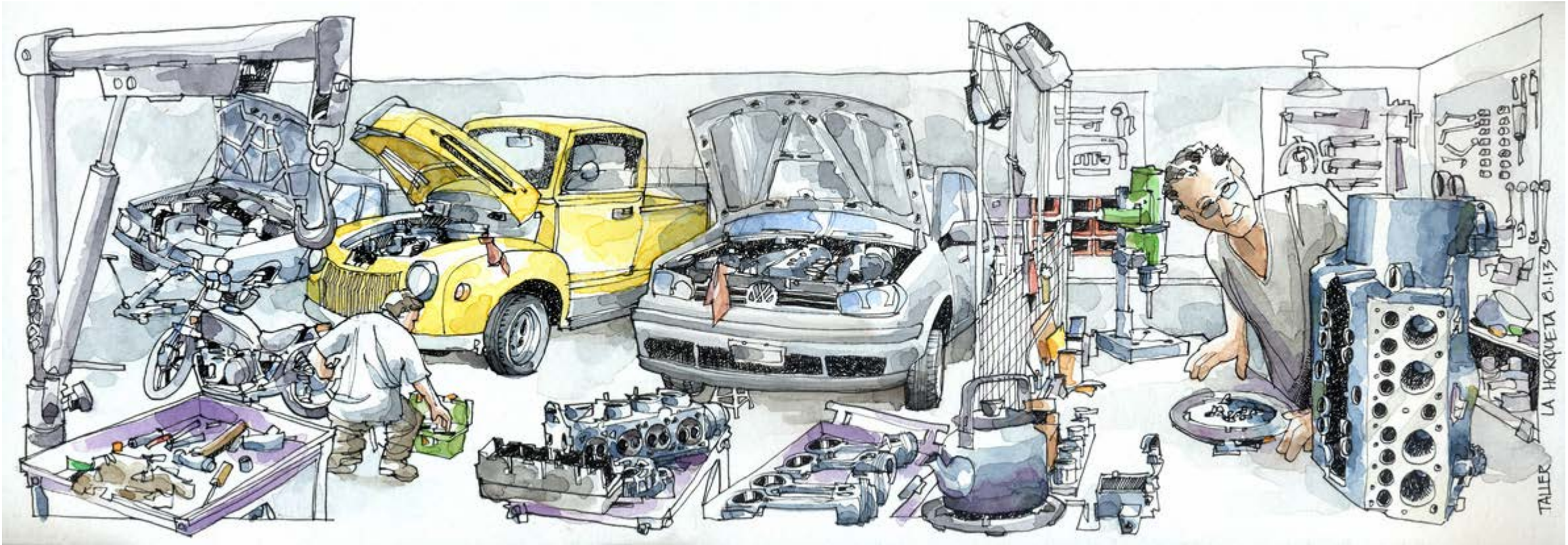


The Society



Ecosystem

Atomistic views alone will not result in a holistic understanding of a complex adaptive system



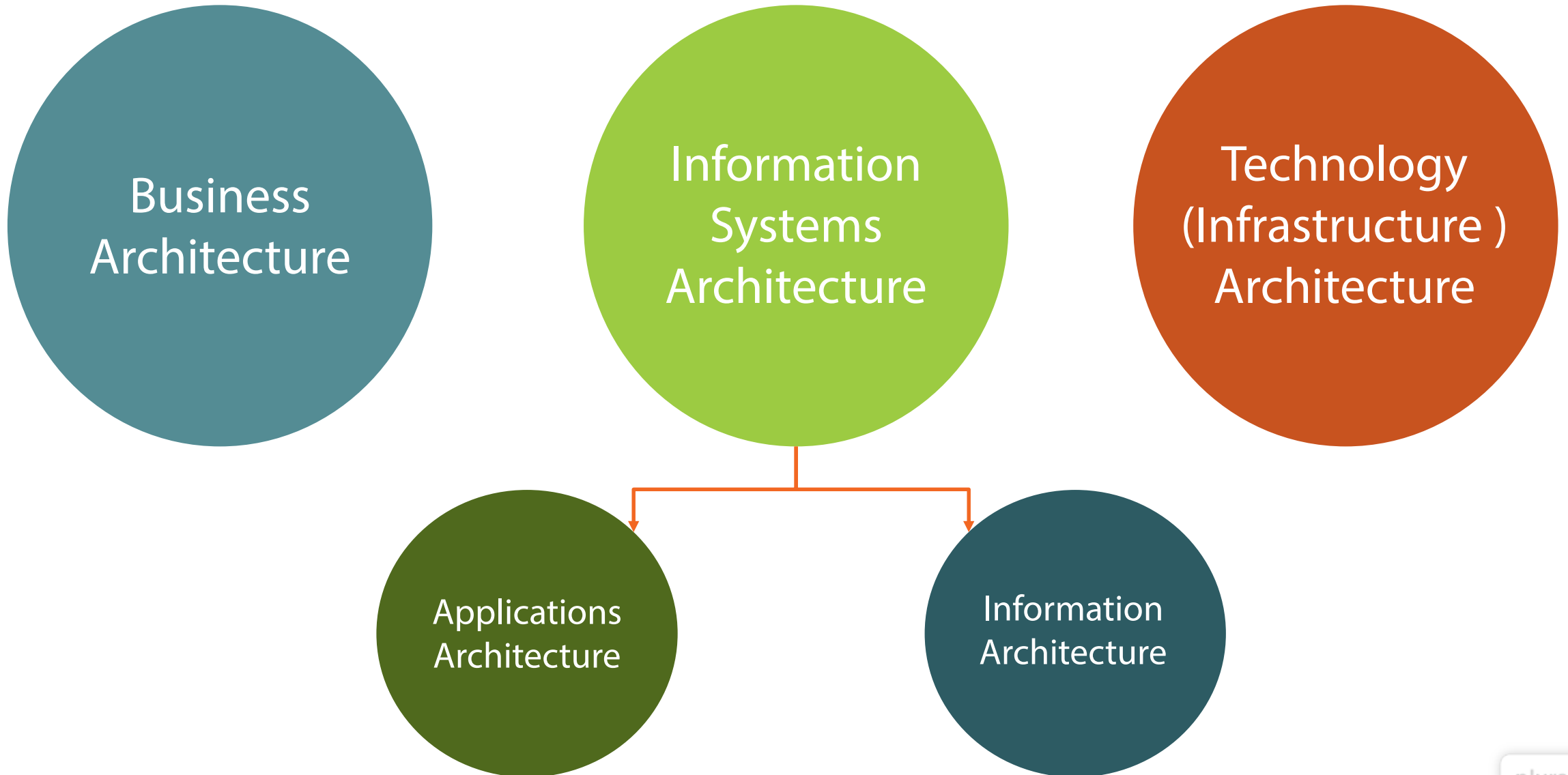
<http://bit.ly/1g1lskv>

Understanding the component parts does not lead to the full understanding of the whole
Inter-connectivity, interactions and inter-relationships give rise to complexity

Enterprise Architecture Embraces Both Atomistic & Holistic Views



Enterprise Architecture Domains



Module Overview

Module 1 – Introduction to EA/ Course Overview

Module 2 – EA Frameworks

Module 3 - Business Architecture

Module 4 – Applications Architecture

Module 5 – Information Architecture

Module 6 – Infrastructure Architecture

Module 7 – Other Architecture Disciplines

Module 8 – Enterprise Architecture Roles

Module 9 – Agile & Enterprise Architecture



THANK
YOU!