

BIL-T CONFERENCE CHIEF ARCHITECTURE, BIG CHALLENGES

NOV 10TH 2022, 9AM US CENTRAL

Achieving success
with
Enterprise architecture
in
digital transformation

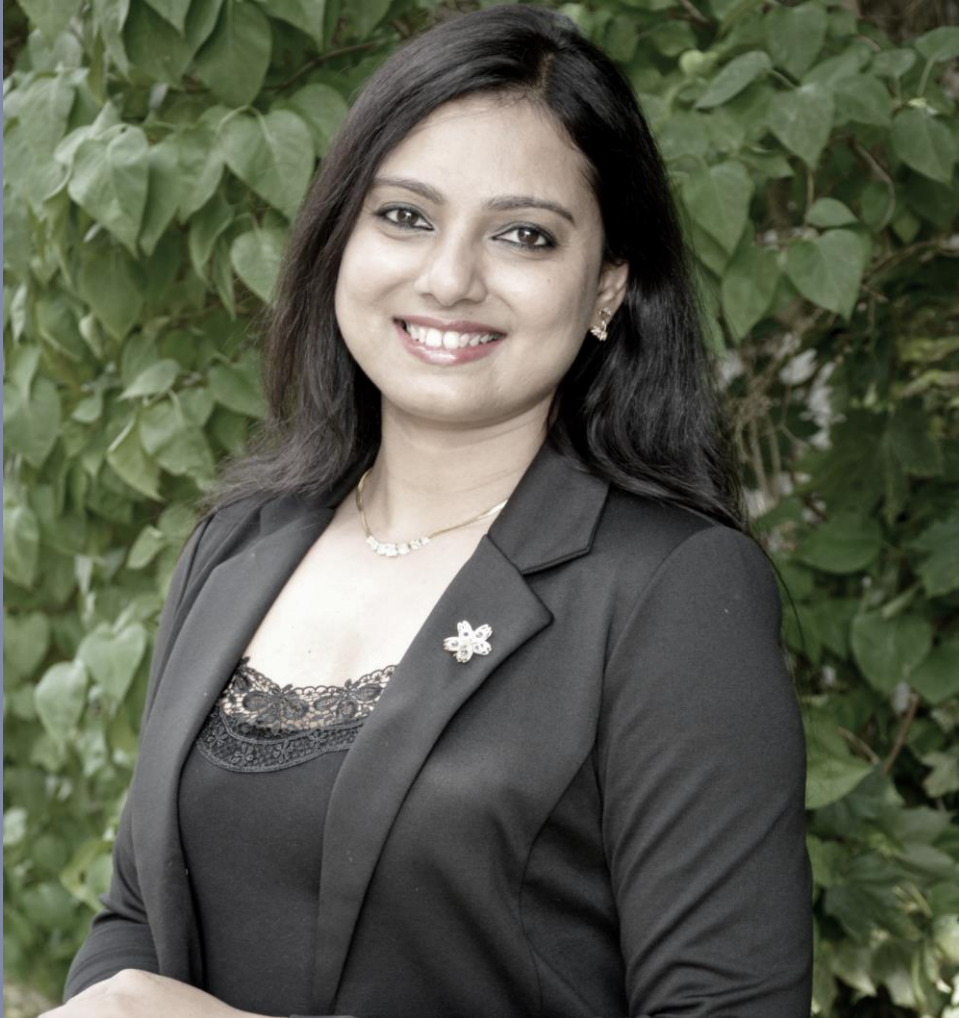
- Garima Singh, Chief Architect,

SANDVIK

IIASA

An Association for All IT Architects

WHO IS GARIMA ?



- Working as “Chief Architect” at Sandvik Machining Solutions
- 16 years of experience in software industry, with extensive background in software development (Java, Spring, Hibernate, React, BI/AI/ML data platforms, AWS, Azure and GCP)
- Worked with different architecture disciplines application architecture, information architecture, business architecture etc
- International standards co-author (ISO, CCC digital key)

A photograph of a desk setup. In the top left, a portion of a white keyboard is visible. In the top right, a small white pot contains a green plant with several leaves. The desk surface is made of light-colored wood with a vertical grain. A white notepad is placed on the desk, featuring a list of checkboxes. The top two checkboxes are filled with a small square, and the text 'Today's AGENDA' is written in a large, bold, black serif font across them. Below the title, there are several empty checkboxes. A faint 'dreamstime' watermark is visible on the notepad.

Today's AGENDA

- What is Enterprise Architecture and key contributing roles in Enterprise Architecture
- Why companies need Enterprise Architecture
- Challenges working with traditional enterprise architecture model in big size enterprises
- Enterprise architecture role in addressing digital disruption

WHAT IS ENTERPRISE ARCHITECTURE ?



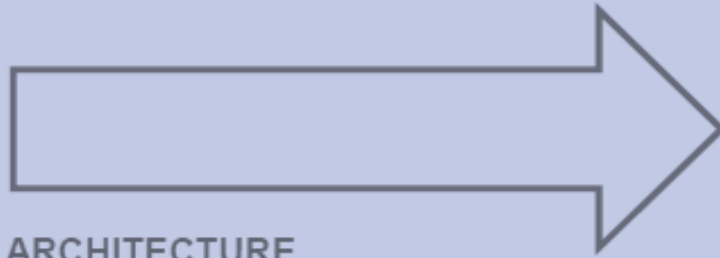
ENTERPRISE ARCHITECTURE



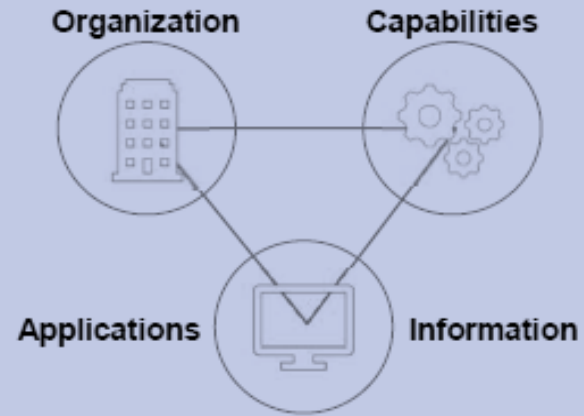
ENTERPRISE
Any Organization that uses
software system



ARCHITECTURE
The manner in which the
components of a computer
or computer system are
organized and integrated

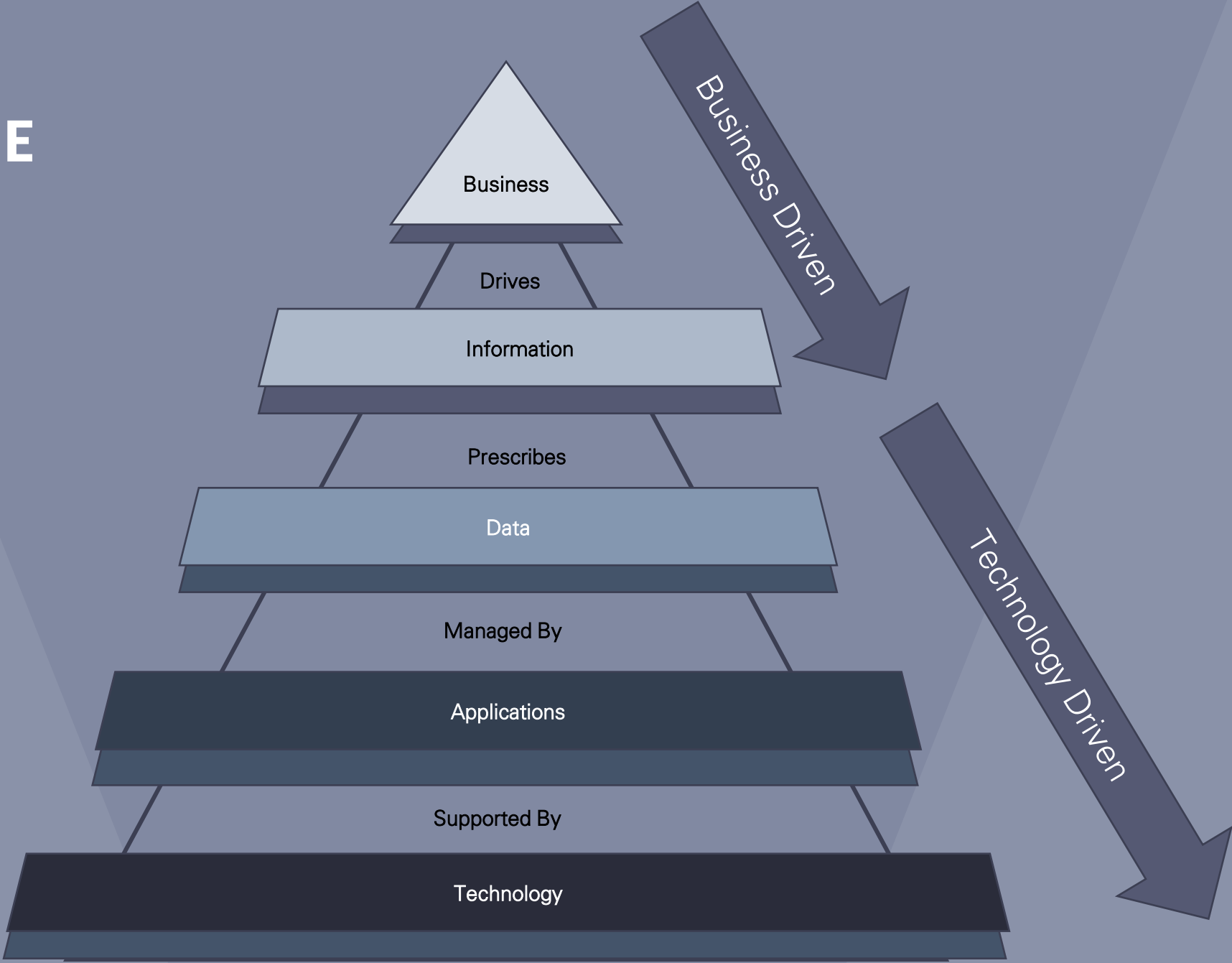


ENTERPRISE ARCHITECTURE

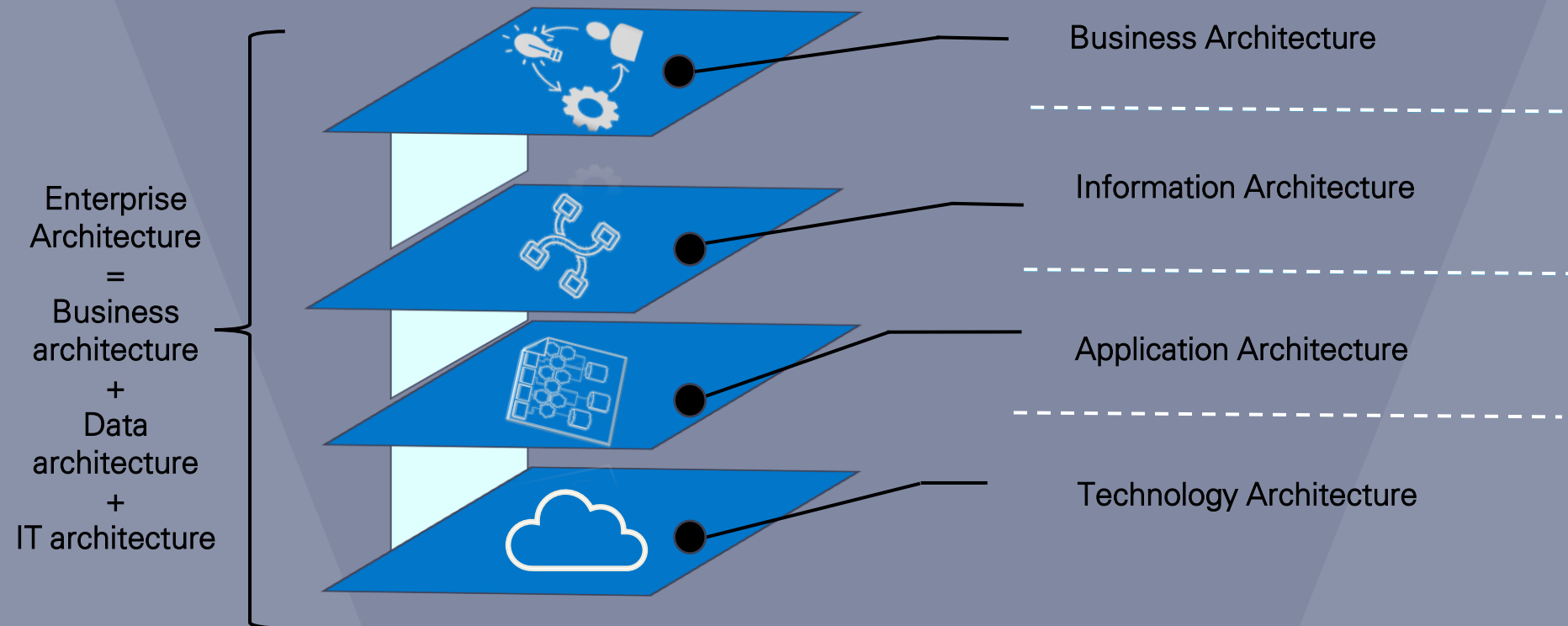


Deals with the complex relationships between an enterprise **organization**, its **people**, the **business processes** they support, and **systems** that automate those process.

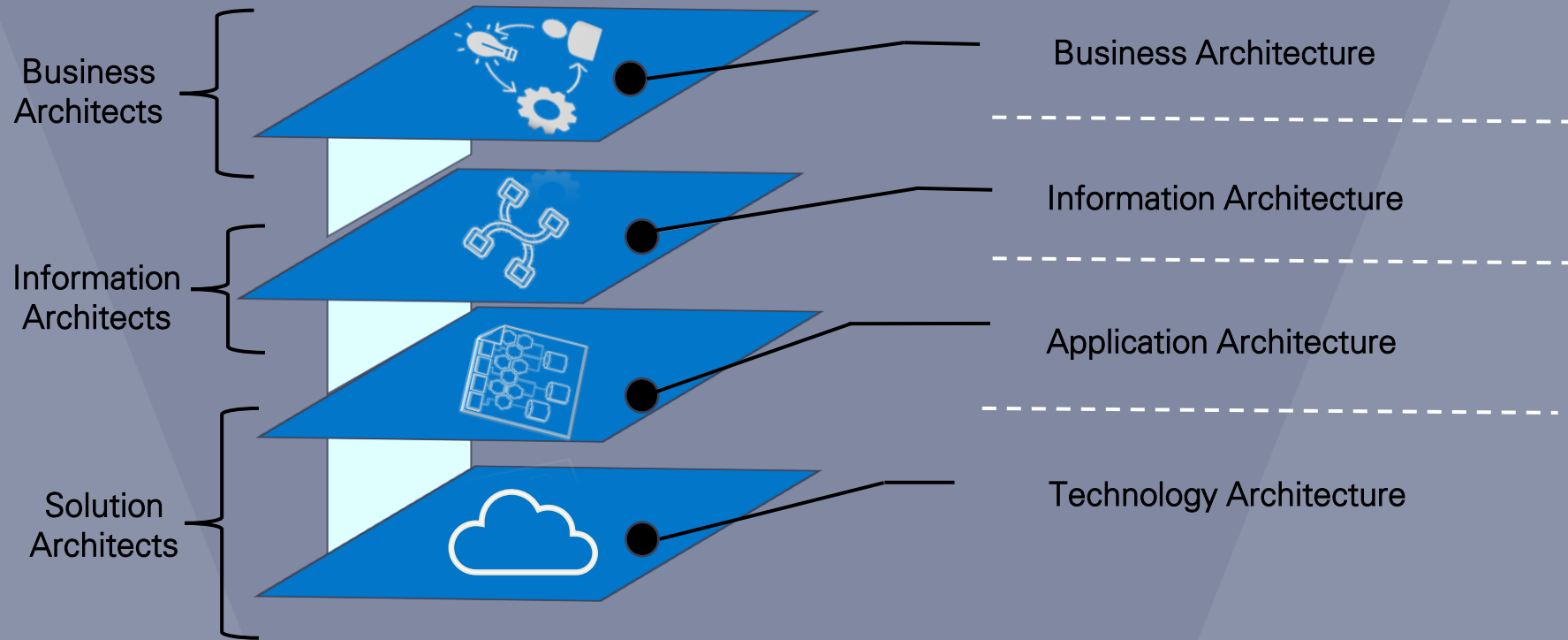
ENTERPRISE ARCHITECTURE MODEL



ENTERPRISE ARCHITECTURE ELEMENTS - TOGAF FRAMEWORK



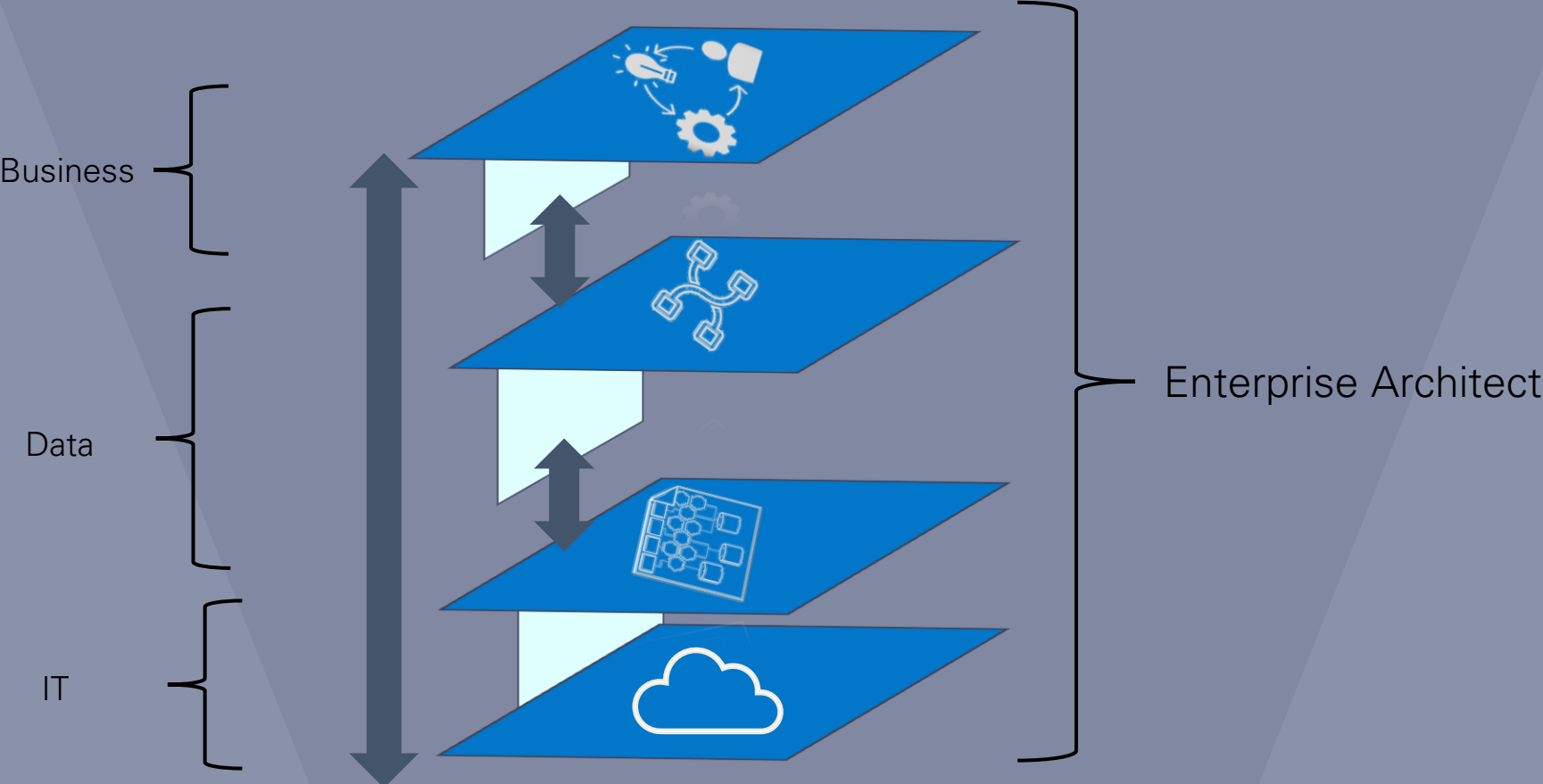
KEY CONTRIBUTING ROLES IN ENTERPRISE ARCHITECTURE



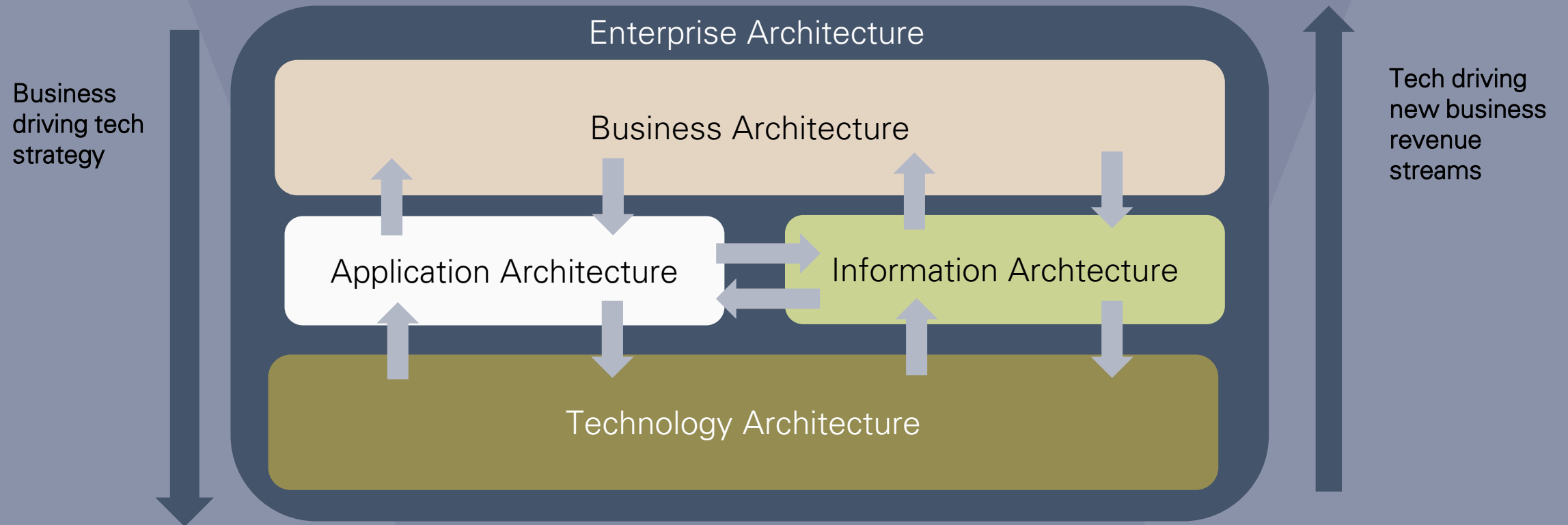
WHAT DOES ENTERPRISE ARCHITECTS DO THEN ?



BRINGING BUSINESS, IT AND DATA TOGETHER



RELATIONSHIP BETWEEN LAYERS ARE GETTING "BI-DIRECTIONAL"





Business Stakeholders

Vision

- Business vision, strategy, benefits
- Transformation Roadmap

Business Operating Model

- Business capability identification and priorities
- Business process and value streams

Dependencies

- Capability mapping per product
- Identification of all users/actors per capability



Information Managers

Data

- Identification of data objects across value streams, users, context
- Relationship between data objects, governance, lifecycle management



IT Managers/CIOs

Solution Architecture

- Business capability → product capability → IT capability mapping
- Target IT architecture, incl data and security

IT Execution Model

- Execution roadmap
- Complaince and adaptations

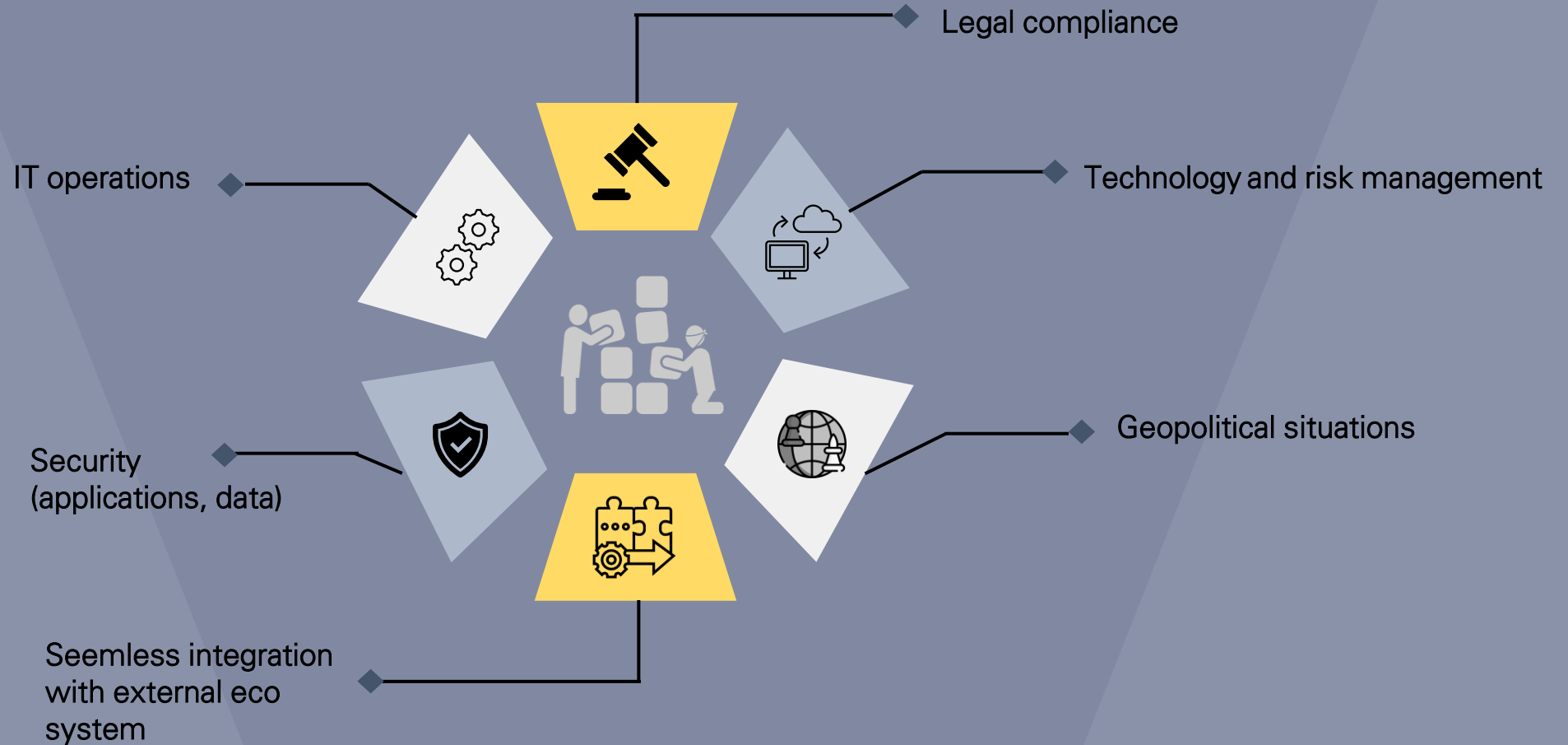
Delivery Plan

- IT deployment roadmap
- Operations and maintenance

New trend, "Business from Tech"

STRATEGY TO EXECUTION JOURNEY

NON- FUNCTIONAL DOMAINS UNDER ARCHITECTURE RESPONSIBILITY



WHY EVERY ENTERPRISE NEED ENTERPRISE ARCHITECTURE ?

FROM

TO

Unclear in strategy to execution plan



Integrated technology, business strategy and operations plan

Siloed WoW with more risk of higher gaps



Engaged organizations end to end with lesser gaps

Heterogeneous, scattered and uncontrolled IT landscape and data management



Consolidated/simplified system landscape, building common, reusable services, managing data as asset

Unrealistic decision making

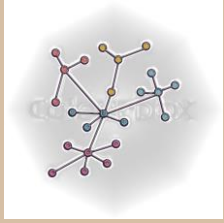


Data driven decision making

Challenges working with
Enterprise Architecture
in
fast moving, modern big
size enterprises



KEY CHALLENGES



Decentralized, Distributed and Decoupled autonomous organization set up, with no central governance



Everyone in organization, strives for faster decision making process – dev teams, business, management



Lack of single tool to store EA data of all elements



Fast organic/inorganic growth of companies, contributing to dynamic application portfolio. For ex: acquisitions, joint ventures

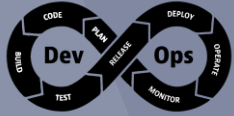


EA information stored in tools is far away from ground situation



Legal compliance and geopolitical situations are getting more challenging

DIGITAL TRANSFORMATION FOCUS AREAS



**SPEED IN NEW SERVICES
DEVELOPMENT**



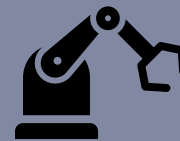
DIGITAL MODERNIZATION



**SEAMLESS INTEGRATION
WITH EXTERNAL ECO
SYSTEM**



**DATA DRIVEN
STRATEGY AND DECISION
MAKING**



**AUTOMATION TO ACHIEVE
OPERATIONAL EFFICIENCY**

**ENTERPRISE ARCHITECTURE STEP WISE APPROACH
- LEADING THE DIGITAL TRANSFORMATION**



STEPS TO REACH SUCCESS



STEP 1: EVALUATION USING ENTERPRISE ARCHITECTURE MATRIX

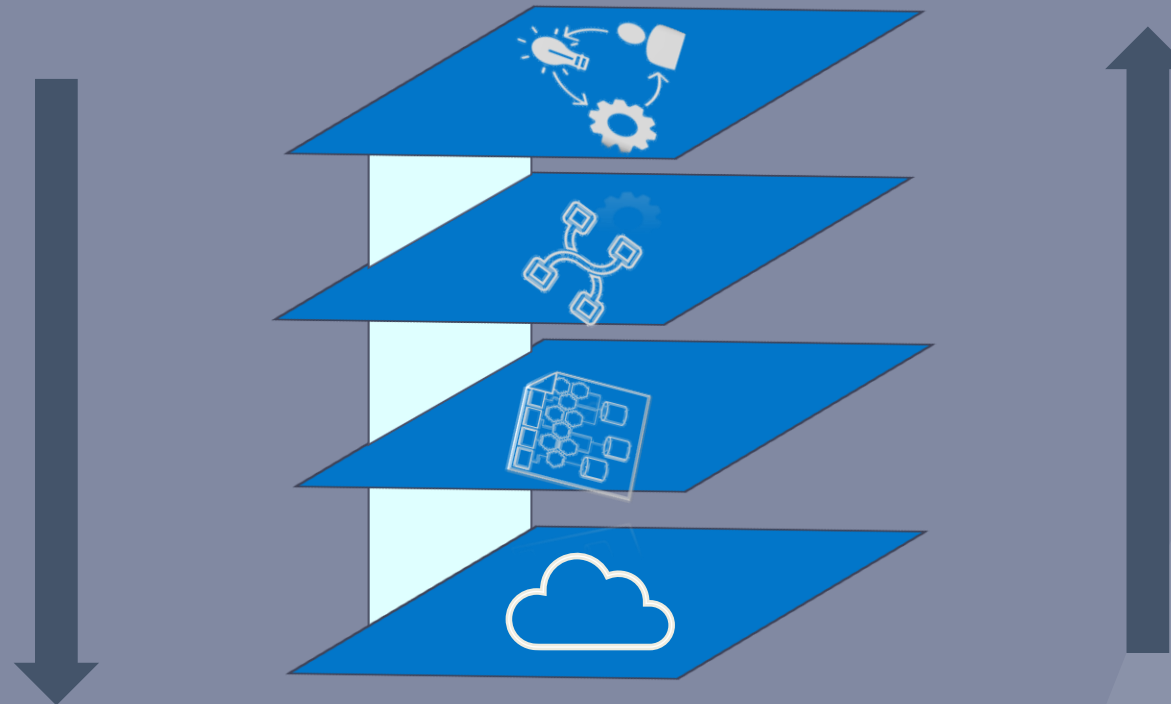
	Enterprise information management	Business transformation management	Enterprise application management
Business and IT alignment	<ul style="list-style-type: none">• Information architecture	<ul style="list-style-type: none">• Business process/capability management• Product portfolio management	<ul style="list-style-type: none">• Enterprise IT landscape
IT governance, strategy and execution	<ul style="list-style-type: none">• Data architecture• Data maturity assessment• Data ownership	<ul style="list-style-type: none">• Target solution architecture and gap analysis from AS-IS	<ul style="list-style-type: none">• Legacy migration plan• Technical foundation for intelligent centralisation
IT operations	<ul style="list-style-type: none">• Data lifecycle management	<ul style="list-style-type: none">• IT support tools, for new products	<ul style="list-style-type: none">• IT support strategy

Connecting strategy to execution



STEP 2: BI-DIRECTIONAL CENTRALIZED EA TOOL WITH AUTOMATION

- One wrapper tool, to consolidate all EA layers data from different tools (capability, data, IT)
- Real time view of top to down navigation, capability → data → product → system → server



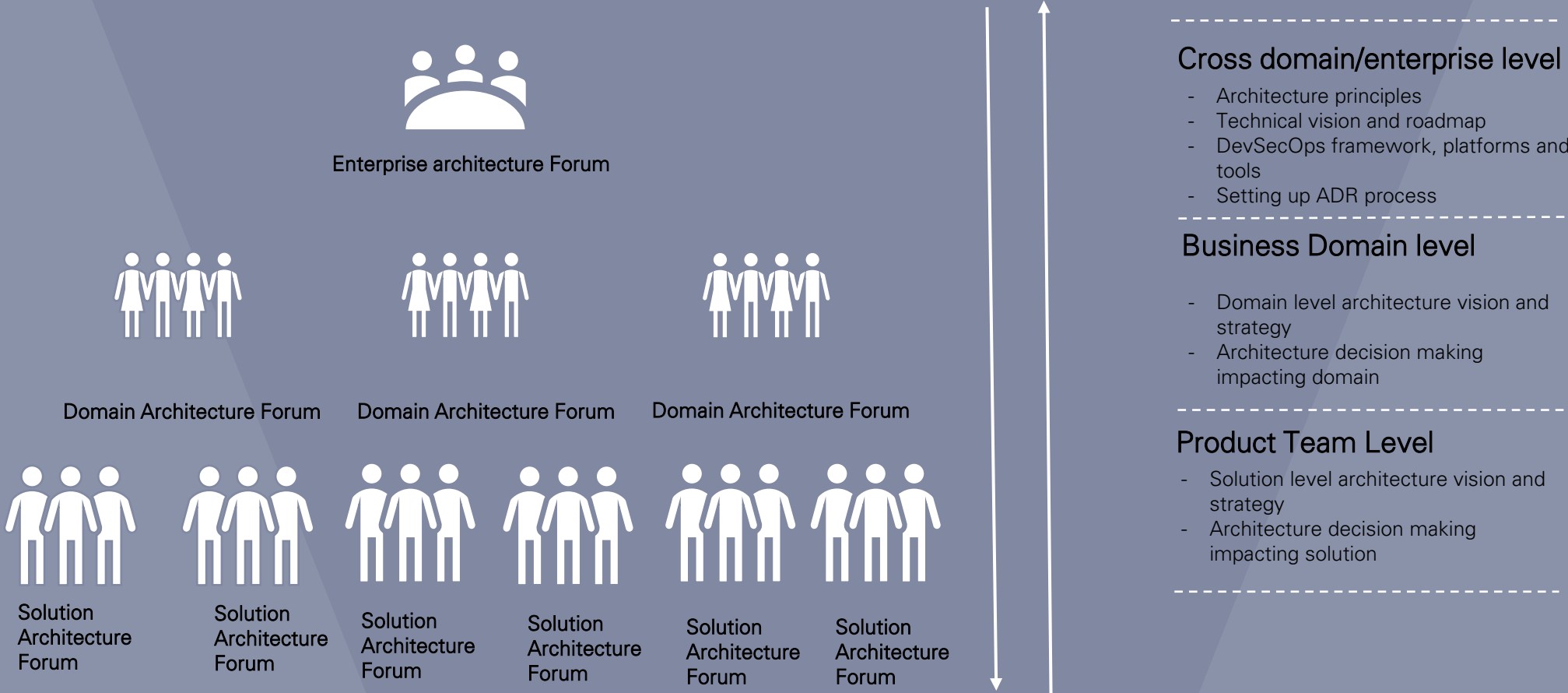
Automated generation
of data models and IT
landscape, from CI/CD
tools

STEP 3: ENGAGEMENT AND COMPOSABILITY

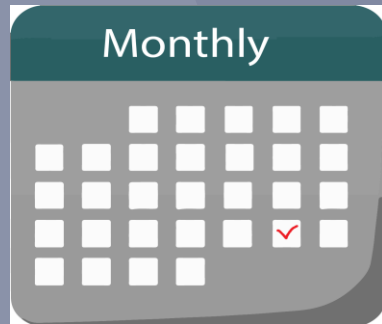
- Establish CoP (community of practice), engaging experts from all over the organizations globally, based on skills and domain (integrations, data, infrastructure platform)
- CoP should act as working body to build and own tech and architecture related roadmap (tools, frameworks, tech stack etc)
- Train one person within each team as EA champion, who contributes as well as help in maintaining EA related information.



STEP 4: BI-DIRECTIONAL COMMUNITY BASED DECISION MAKING – “DECOUPLED STILL CONNECTED”



STEP 5: COMMUNICATION AND AWARENESS



**MONTHLY
ARCHITECTURE
WEBINAR**



**MONTHLY TECH
LETTER TO ENTIRE
ORGANIZATION**



**PROACTIVE
APPROACH TOWARDS
STAKEHOLDERS**

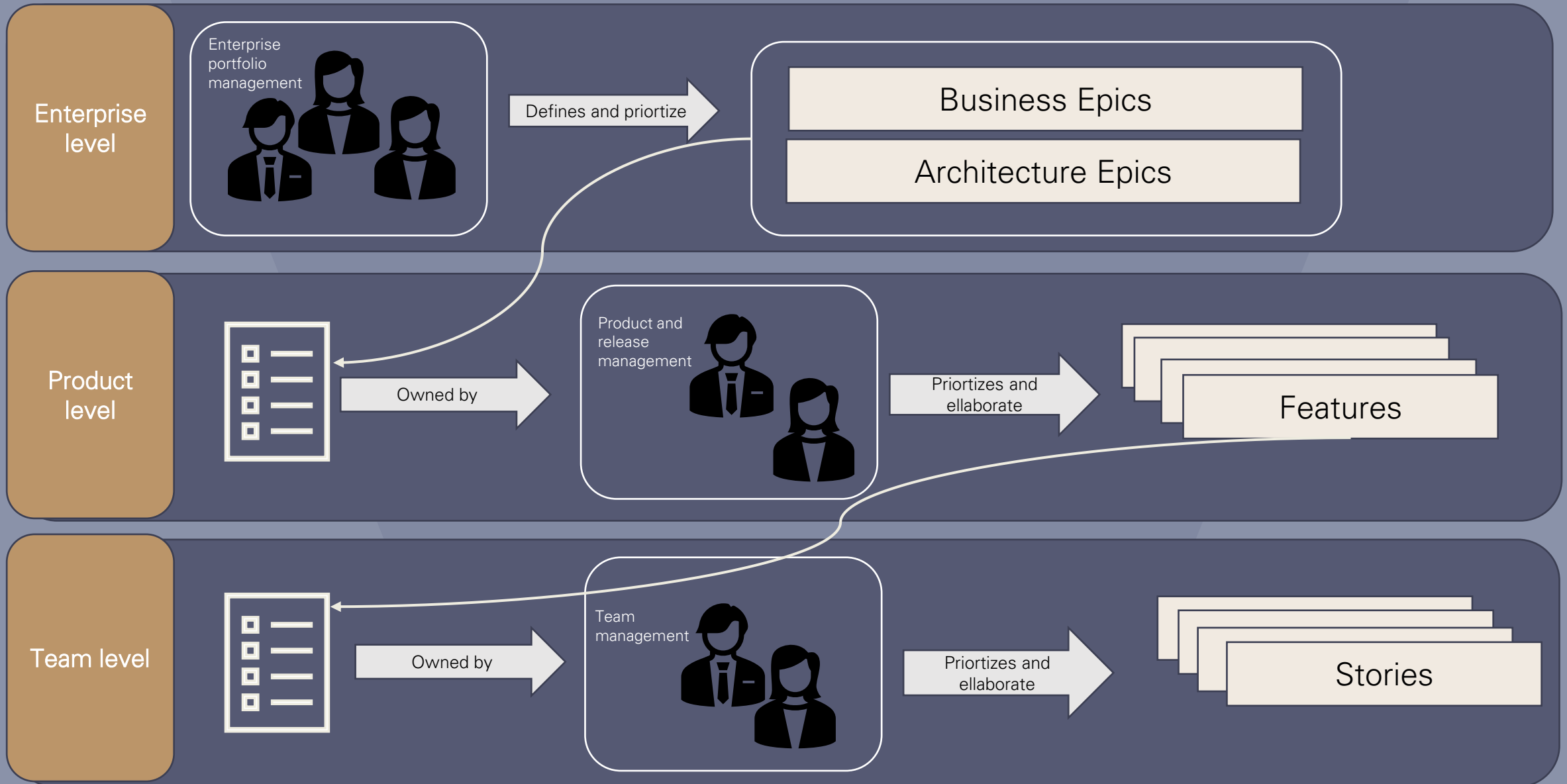


**SHOW VALUE AND
SHARE SUCCESS
STORIES**

WAY OF WORKING- VISION TO EXECUTION



WAY OF WORKING - CONNECTED WITH GROUND



ENTERPRISE ARCHITECTURE CONTRIBUTING TO

IT SUSTAINABILITY



**ELLIMINATING
NON ESSENTIAL
APPLICATIONS**



**BETTER DATA
LIFECYCLE
MANAGEMENT**



**CLOUD MIGRATION
FROM ON PREM**



**BETTER IT ASSET
MANAGEMENT**



KEEP IT REAL AND CLOSE TO REALITY



MAKE ENTERPRISE ARCHITECTURE TOOLS TRANSPARENT



INBUILT IN WOW IN IT AND BUSINESS ORGANIZATIONS



CONNECT WITH VALUE AND DRIVERS



WORK HARD WITH AWARENESS AND COMMUNICATION



ENGAGEMENT IS A KEY !!!

LESSONS

learned

THANK YOU



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