Convergence of Semantic Naming and Identification Technologies

The Key Questions

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Thames Tower
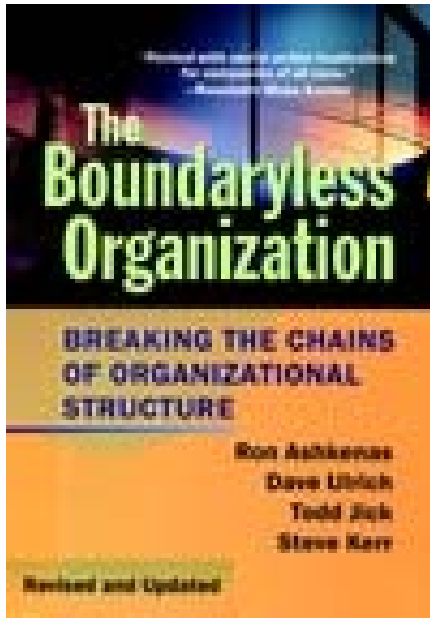37-45 Station Road
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Boundaryless Information Flow

- ❑ The vision of The Open Group is *Boundaryless Information Flow*™

- ❑ Enterprise IT should make information available
    - ▪ Where it is needed
    - ▪ When it is needed

- ❑ To support the business operation of the boundaryless organization
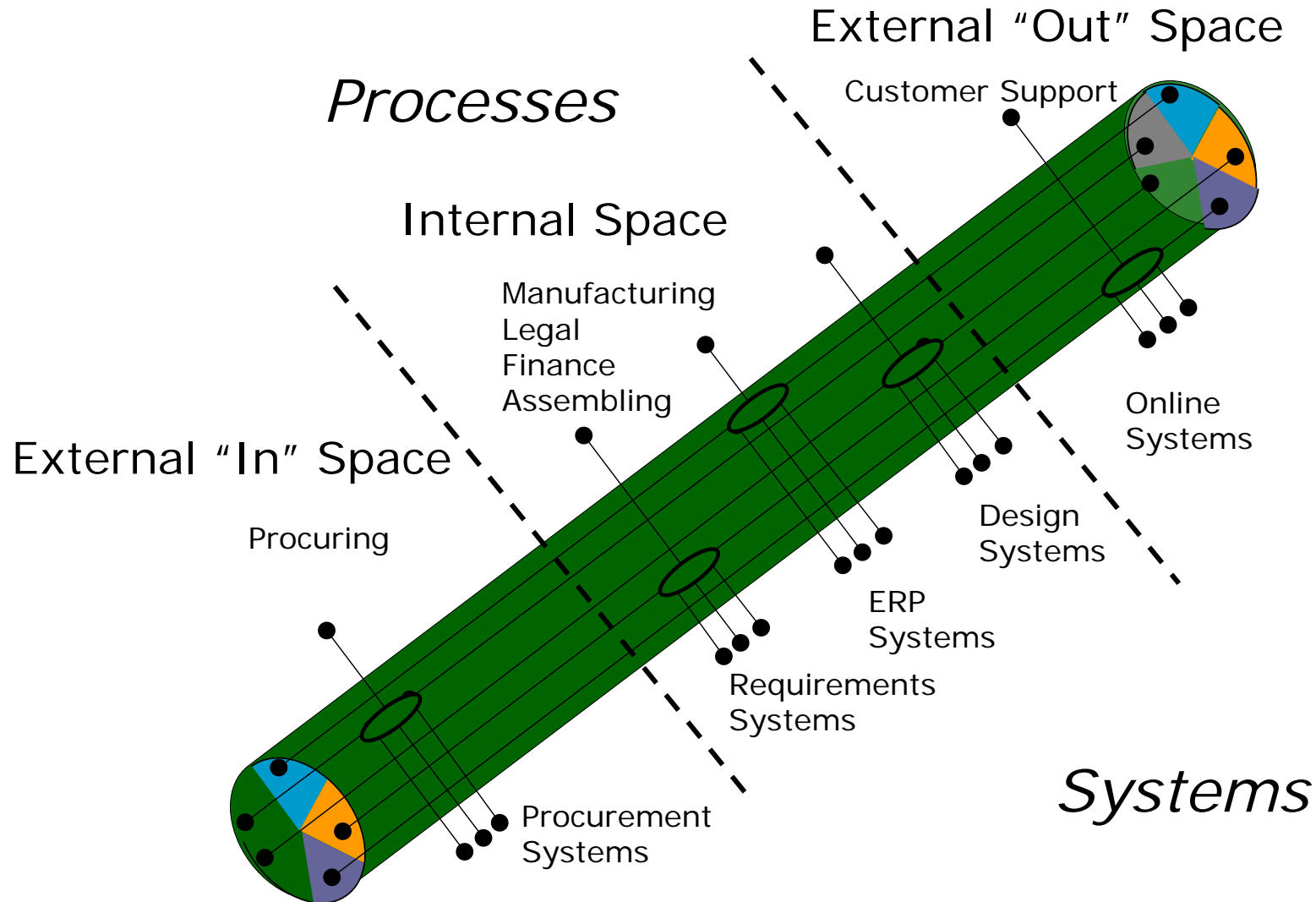
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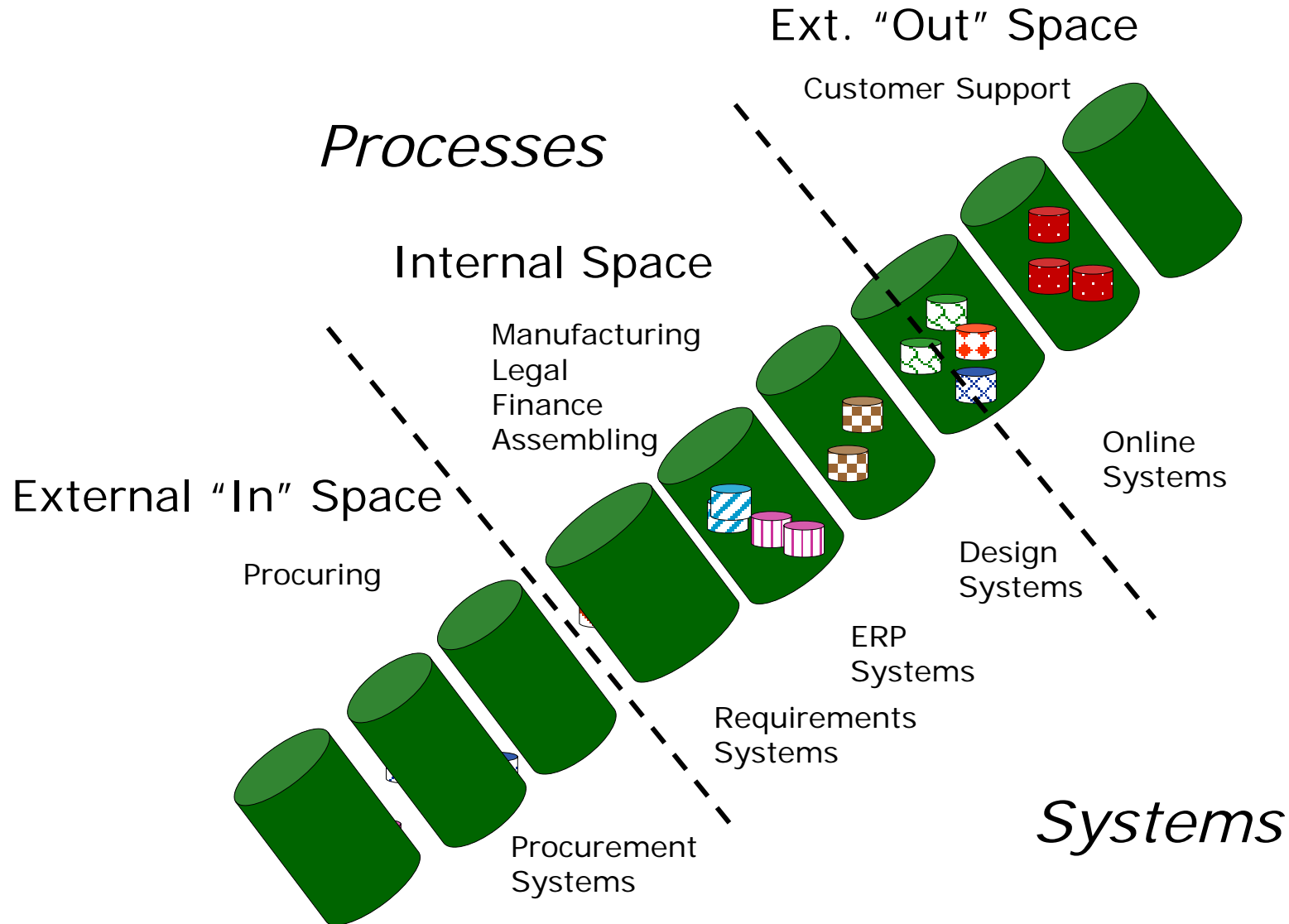
Boundaryless Business Architecture

□ Permeable boundaries between
  - Nations
  - Enterprises
  - Organizational levels
  - Departments

□ Deliver
  - Productivity
  - Agility

But traditional IT architectures hinder this!

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Enterprises Want This…

External "Out" Space

Processes

Customer Support

Internal Space

Manufacturing
Legal
Finance
Assembling

External "In" Space

Online
Systems

Procuring

Design
Systems

ERP
Systems

Requirements
Systems

Systems

Procurement
Systems

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But Have This

Ext. "Out" Space

Customer Support

Processes

Internal Space

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Systems

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Systems

Systems

Procurement
Systems

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Boundaryless Information Flow Needs

- ❏ Data flow with **_semantic interoperability_**
- ❏ Delivered by an **_enterprise IT architecture_**
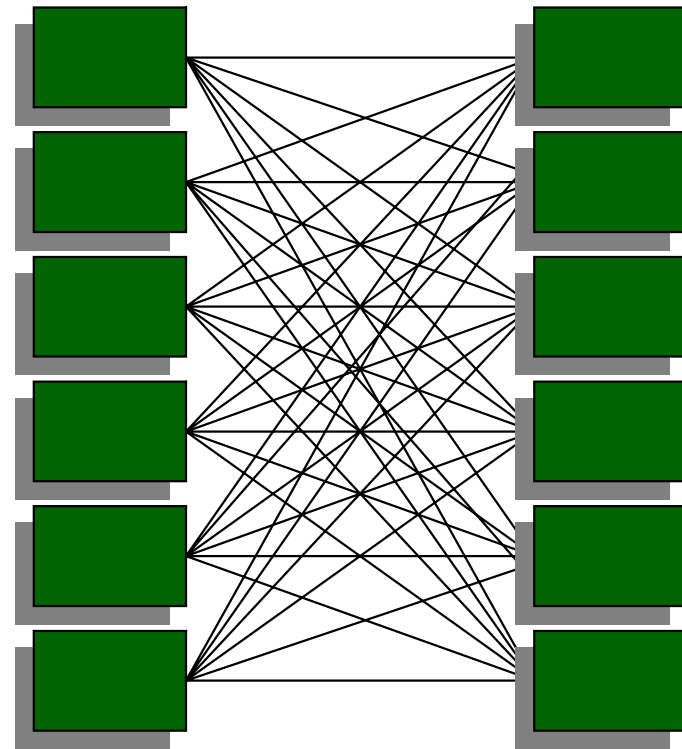- ❏ Based on **_open standards_**

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Semantic Interoperability

Each business domain, each company, and each application has its own language!

Prod_Code	015321		Prod_Code
Quantity	3		Number
Date	4 Jun	8 Aug	Date

Customer's requested delivery date

Planned shipment date

The Problem of Semantic Interoperability

- ❑ Many different business domains
- ❑ Many different companies
- ❑ Many different applications programs

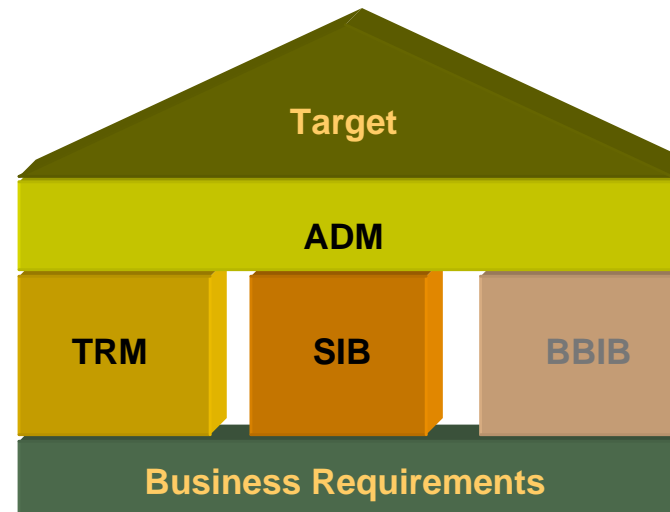All need to inter-operate

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Enterprise IT Architecture

- Conceptually, an IT Architecture is the fundamental organization of a system, embodied in:
    - its components and
    - their relationships to each other and to the environment.

- Practically, it is represented in architectural descriptions from the viewpoints of the stakeholders.
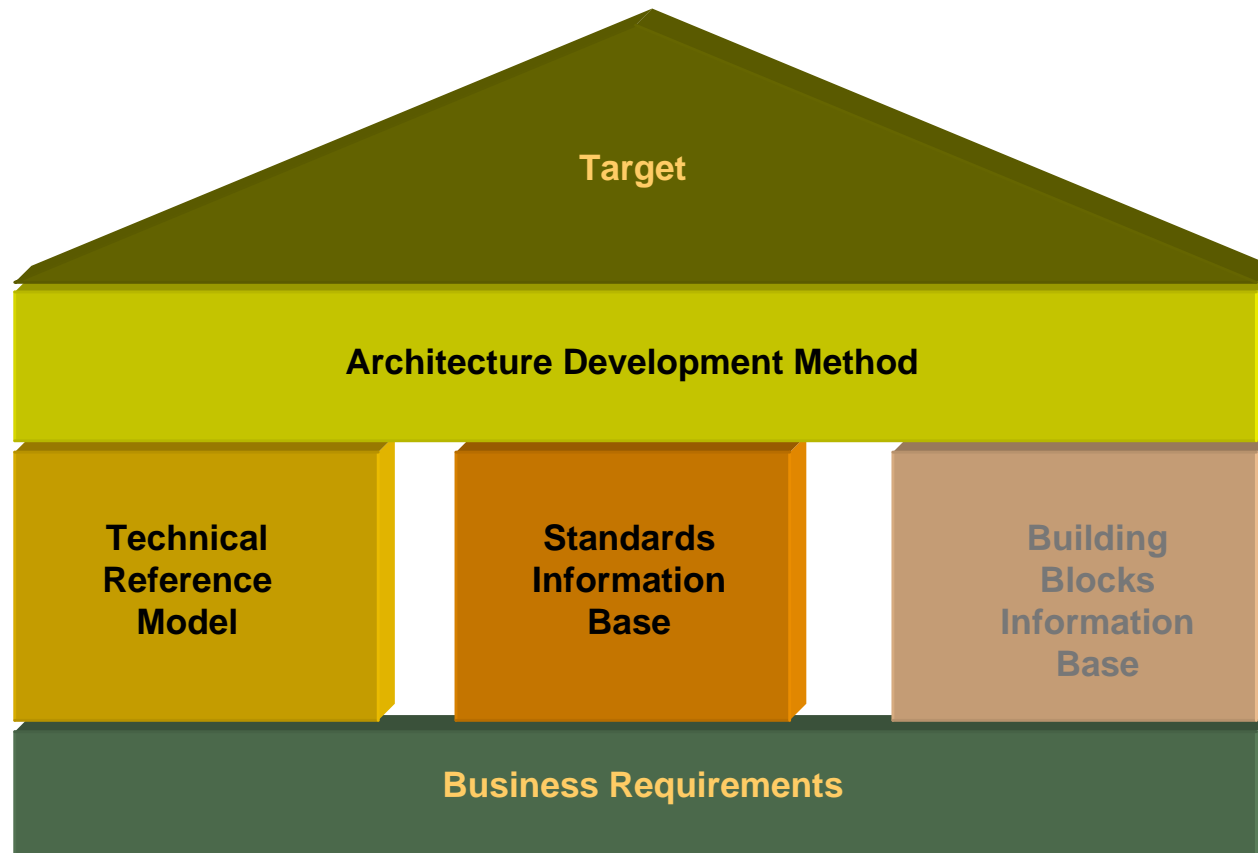
[ANSI/IEEE Standard 1471-2000]

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TOGAF

The

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Architecture

Framework

- ❑ Tool that helps the architect to select and build the right architecture for an organization
- ❑ Embodies best practice and acknowledged wisdom

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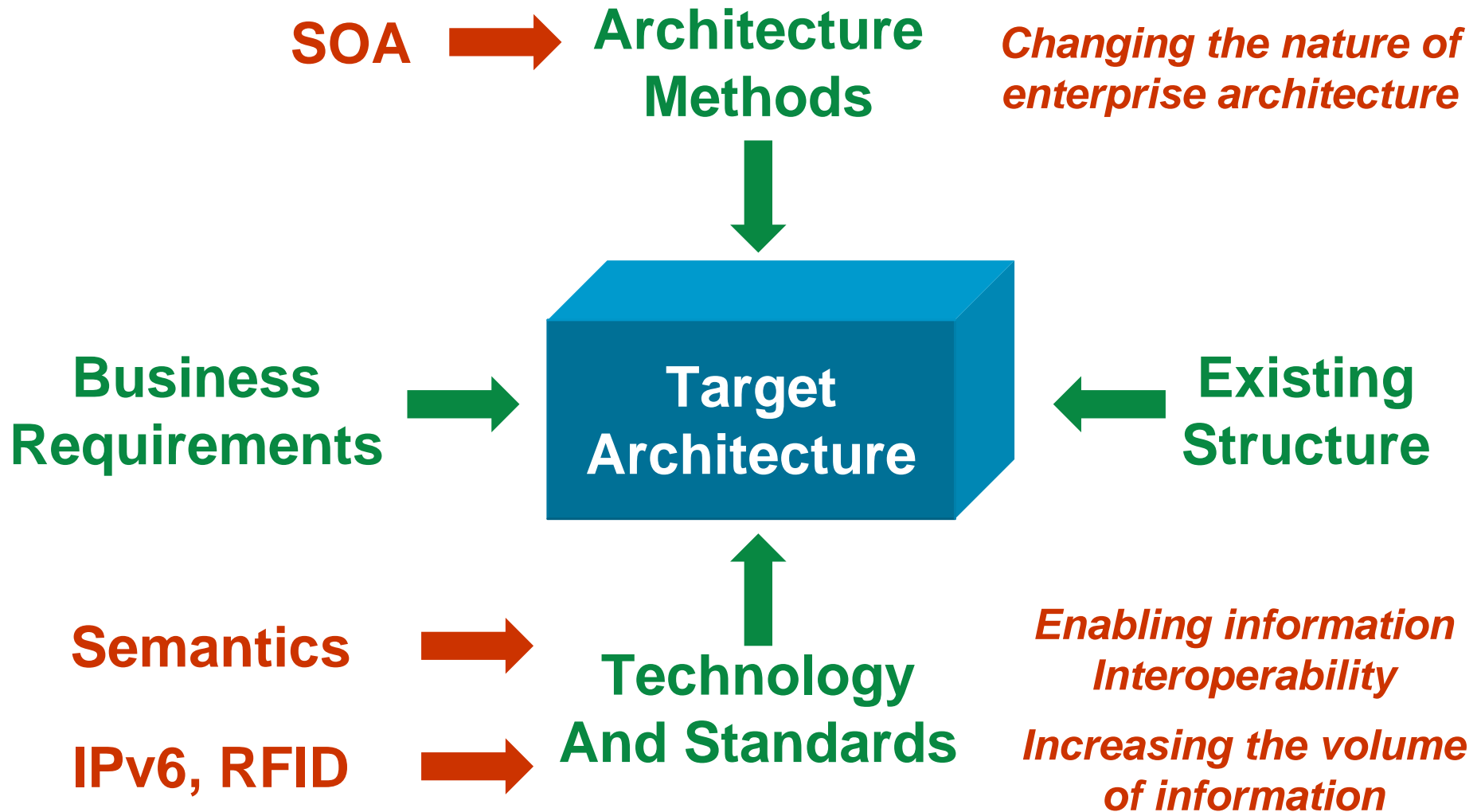
Enterprise IT Architecture Development with TOGAF

Target

Architecture Development Method

Technical Reference Model

Standards Information Base

Building Blocks Information Base

Business Requirements

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Open Standards

❑ Enable development of products that the architect can use "off-the-shelf"

❑ Enable the architect to design systems that will interwork with those designed by other architects

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Forces that Affect IT Architecture Development

SOA → Architecture Methods   *Changing the nature of enterprise architecture*

Business Requirements → **Target Architecture** ← Existing Structure

Semantics → Technology And Standards   *Enabling information Interoperability*

IPv6, RFID →   *Increasing the volume of information*

Key Questions

- ❑ What standards do we use when we describe enterprise information?
    - ▪ ISO 11179?
    - ▪ RDF?
    - ▪ Combination – but how?
- ❑ How do we cope with the flood of information from IPv6 and RFID?
- ❑ How do we refer to enterprise information in SOA?

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