# STRATEGY & DIGITAL

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STRATEGY AND OPERATIONS COMPLIMENT EACH OTHER

STRATEGY is about:

- What product to sell
- How to build it?
- To whom to sell it
- At what price
- With what performance
- How to repeat the sell

Sustains

Strategy

Operations

Executes

OPERATIONS

- Capture how work is done daily
- Defined using business processes
- Include three components: sales forecast, resource capacity, budgets (OP-EX, CAP-EX)

WHAT DIFFERENT STRATEGIES EXISTS AND WHY?

Stabilizing Strategy

- Locally stabilizes a firms position among existing competition
- Cannot be long-term reason to exist since change is inherent in and around us

Disruptive Strategy

- Locally reconstructs a new position within existing competition
- Can produce short-term birth

Reconstructive Strategy

- Globally reconstructs a new position beyond the existing competition
- Can produce continuous reasons to exist to adjust and introduce change

WHAT TECHNOLOGY HAS TO SAY?

Supporting a stabilizing strategy
"Enterprise Architecture"

- Automates repetitive tasks →reduces labor → reduces cost
- Increases accuracy and speed of processes → more customers to be serves at a higher quality → increases revenue and growth
- Increases employee productivity → Reduces cost and increases revenue
- Works along two dimensions integration or standardization

Supporting a disruptive strategy
"Tech Startup"

- Great way to build platforms
- Majority of the last decade startups are tech startups

Supporting a reconstructive strategy
"Digital Transformation"
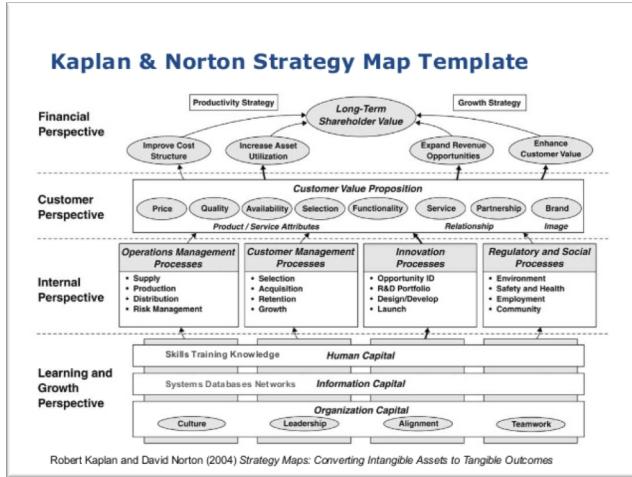
- As the fastest changing phenomenon around shapes what customers demand
- Provides unique ways to create reconstructive strategies around customer, competition, data, innovation, and value
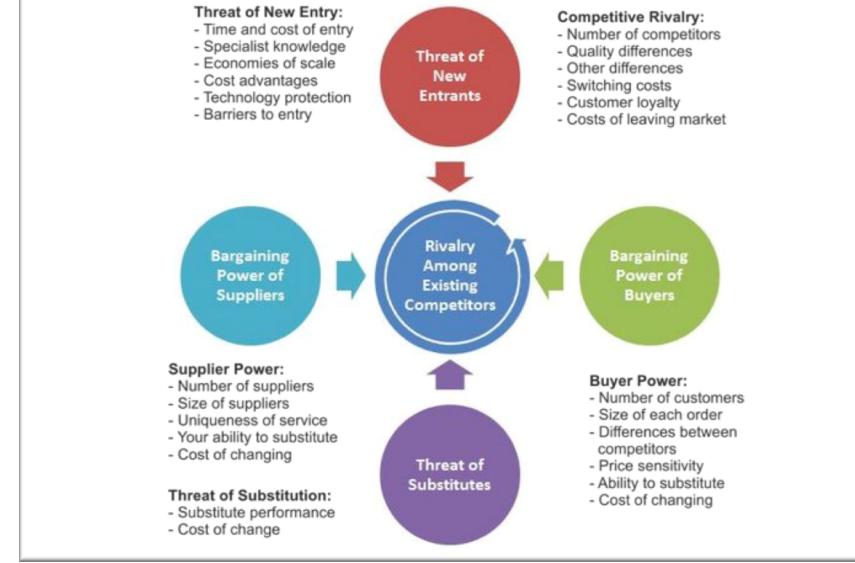
STABILIZING STRATEGY & ENTERPRISE ARCHITECTURE

HOW TECHNOLOGY CAN HELP IMPLEMENT A STABILIZING STRATEGY USING STANDARDIZATION & INTEGRATION

Kaplan & Norton Strategy Map Template

Robert Kaplan and David Norton (2004) *Strategy Maps: Converting Intangible Assets to Tangible Outcomes*
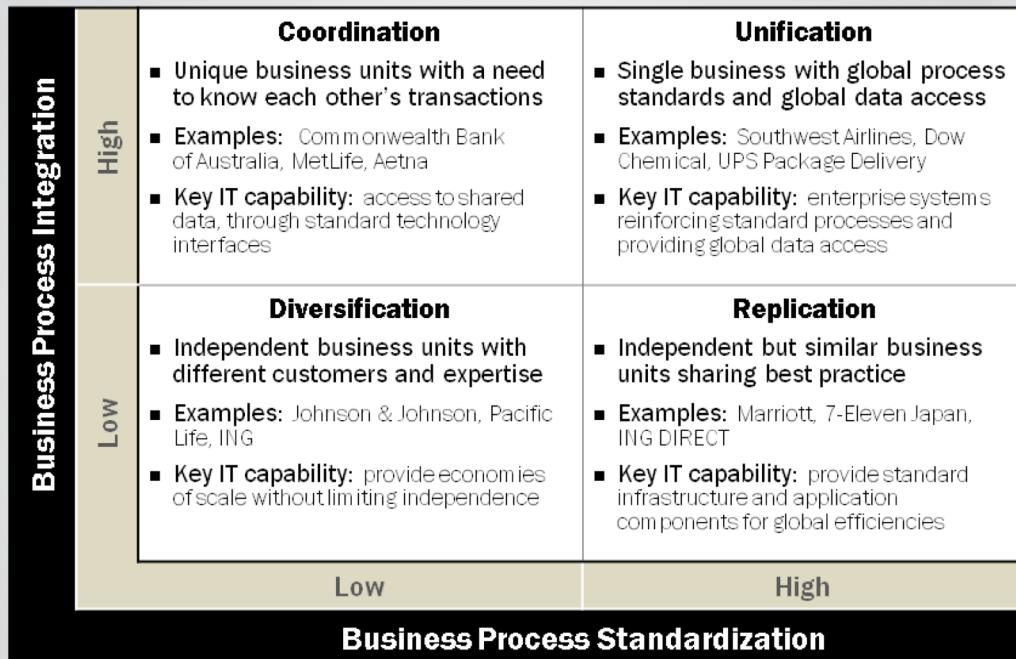
Five Forces Analysis (Porter)
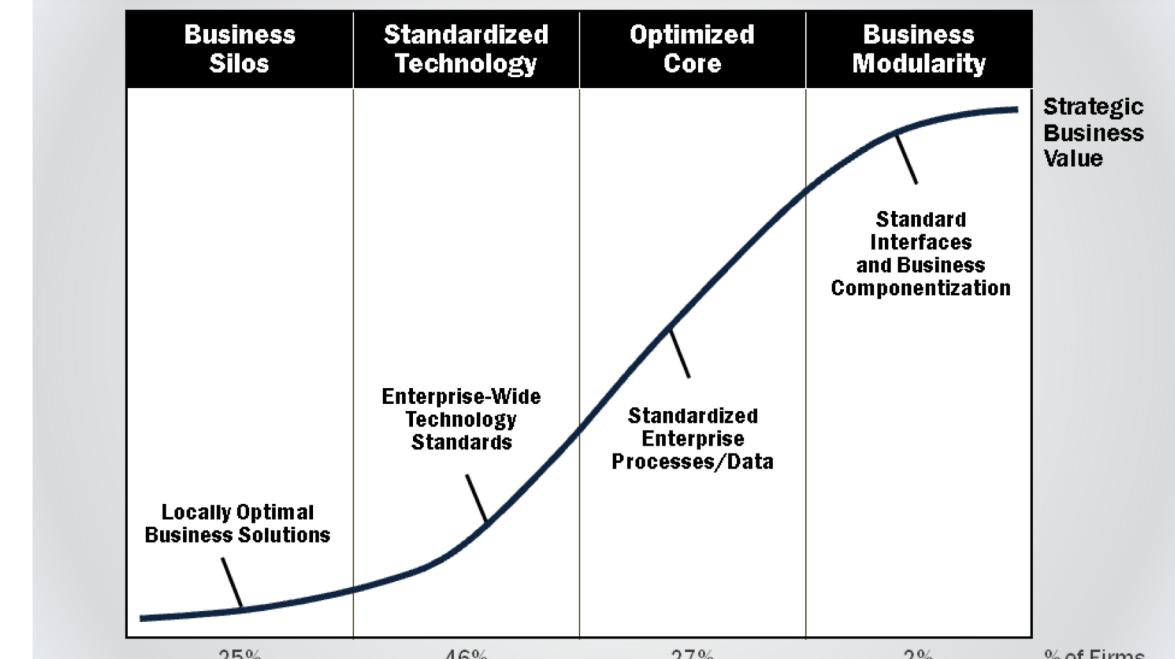
STABILIZING STRATEGY

FRAMEWORK:
ENTERPRISE ARCHITECTURE

Four operating models

	Business Process Standardization	
	Low	**High**
High (Business Process Integration)	**Coordination** ■ Unique business units with a need to know each other's transactions ■ Examples: Commonwealth Bank of Australia, MetLife, Aetna ■ Key IT capability: access to shared data, through standard technology interfaces	**Unification** ■ Single business with global process standards and global data access ■ Examples: Southwest Airlines, Dow Chemical, UPS Package Delivery ■ Key IT capability: enterprise systems reinforcing standard processes and providing global data access
Low	**Diversification** ■ Independent business units with different customers and expertise ■ Examples: Johnson & Johnson, Pacific Life, ING ■ Key IT capability: provide economies of scale without limiting independence	**Replication** ■ Independent but similar business units sharing best practice ■ Examples: Marriott, 7-Eleven Japan, ING DIRECT ■ Key IT capability: provide standard infrastructure and application components for global efficiencies

Enterprise architecture builds agility over time

Business Silos	Standardized Technology	Optimized Core	Business Modularity

- Strategic Business Value
- Standard Interfaces and Business Componentization
- Standardized Enterprise Processes/Data
- Enterprise-Wide Technology Standards
- Locally Optimal Business Solutions

25%	46%	27%	2%	% of Firms

TOOL 1:
CLOUD ENABLES A WELL-ARCHITECTED FRAMEWORK

Operational Excellence	Security	Reliability	Performance Efficiency	Cost Optimization
Monitor systems	Maintain the confidentiality and integrity of data	Scale horizontally to increase availability	Democratize advanced technologies	Only pay when using
Anticipate failure	Protect information, systems, and assets	Automatically recover from failure	Go global in minutes	Share unused capacity (PaaS)
Perform operations as code	Identify security incidents	Stop guessing capacity	Experiment more often	
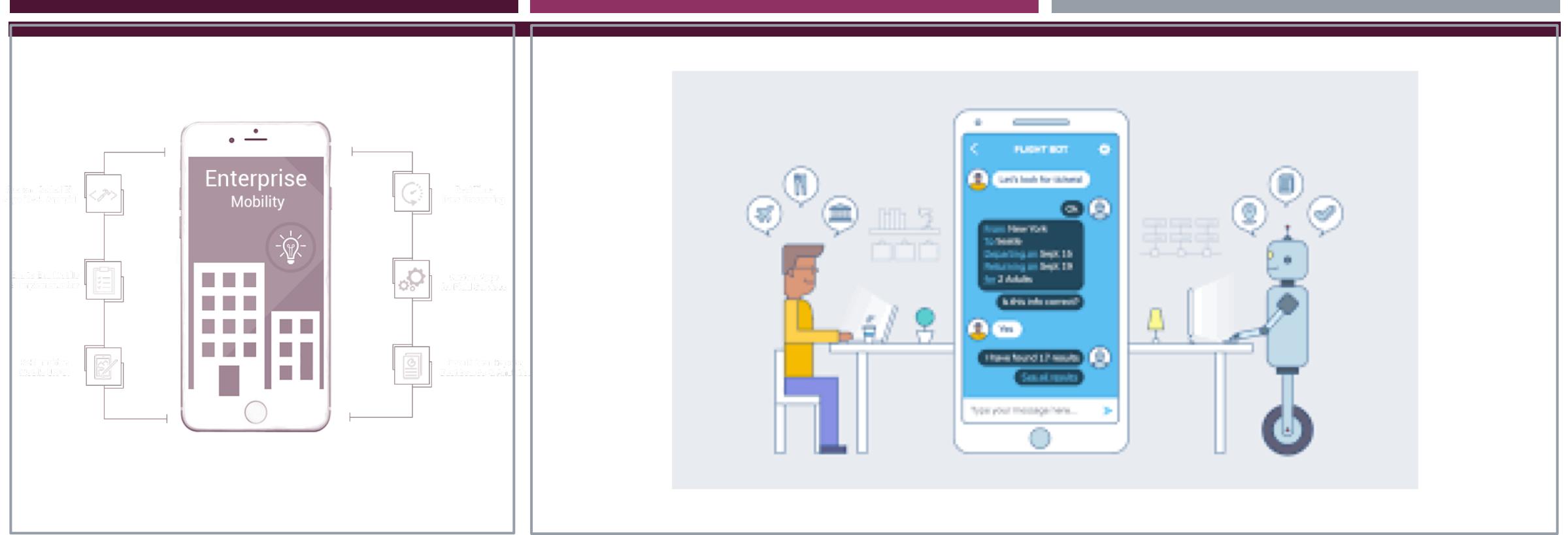
TOOL 2:
DIGITAL WORKPLACE

TOOL 3: CLOUD MIGRATION

RECONSTRUCTIVE STRATEGY & DIGITAL TRANSFORMATION

HOW TECHNOLOGY CAN HELP RECONSTRUCTIVE STRATEGIES USING DIGITAL TRANSFORMATION

PRODUCT DIMENSION

- For a given product (good or service), its continuum includes all other products that have an absolute cross elasticity of demand of $> \alpha : | E_{A \sim B} | > \alpha$.

  Below table shows all cases. This row shows strategy domain for a movie theatre:

$E_{A \sim B} < -\alpha$	$|E_{A \sim B}| < \alpha$	$\alpha < E_{A \sim B} < {\sim}100\%$	$E_{A \sim B} \sim 100\%$
Complement	Out of Domain	Alternative	Substitute (Industry)
Day care	Furniture	Nearby Restaurants	Netflix

- Product continuum contains complements, alternatives, and substitutes.

- Not easy to quantify α. So we can use a industry matrix
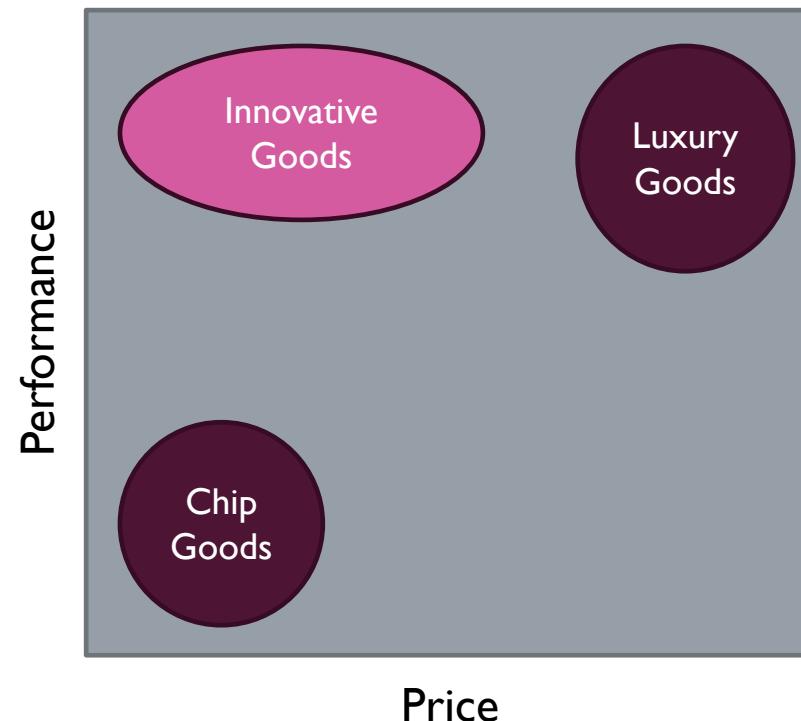
Cross elasticity of demand or cross-price elasticity of demand measures the responsiveness of the quantity demanded for a good to a change in the price of another good, ceteris paribus. It is measured as the percentage change in quantity demanded for the first good that occurs in response to a percentage change in price of the second good:

$$E_{A \sim B} = \frac{\Delta Q_A \%}{\Delta P_B \%}$$

For example, if, in response to a 10% increase in the price of fuel, the demand for new cars that are fuel inefficient decreased by 20%. A negative cross elasticity denotes two products that are complements, while a positive cross elasticity denotes two substitute products.

PROPOSITION DIMENSION

- Specific performance and price points that a firm decides to sell its product: Toyota produces mid-size cars at a low price whereas Porsche produces sports cars at high prices.

OTHER DIMENSIONS

- Value Dimension: set of activities that takes a product from its initial birth at a given firm to the hand of buyer.

    - Extended value Dimension : value dimension extended with upstream and downstream activities along that are accomplished by suppliers and buyers.

- Operations Dimension: operations that take place after the product is sold to keep it usable. E.g. maintenance.

- buyer Dimension: for a given product, includes all the buyer can receive value by purchasing the product. It also includes the intermediaries that could exist before the product is received by the end-customer. E.g. clinics can be intermediaries to provide a specific medication to a patient. Both clinic and patient belong to the buyer continuum.

- Demand Dimension: includes the first and all the possible subsequent opportunities to sell a product to a customer. E.g. a patient who comes for a visit to a clinic can go through multiple physician visits until he is completely healed rather than being seen by the first physician he made an appointment, given a prescription and let go.

- Time Dimension includes future time epochs that a firms can predict how is strategy should be set based on existing market trends.
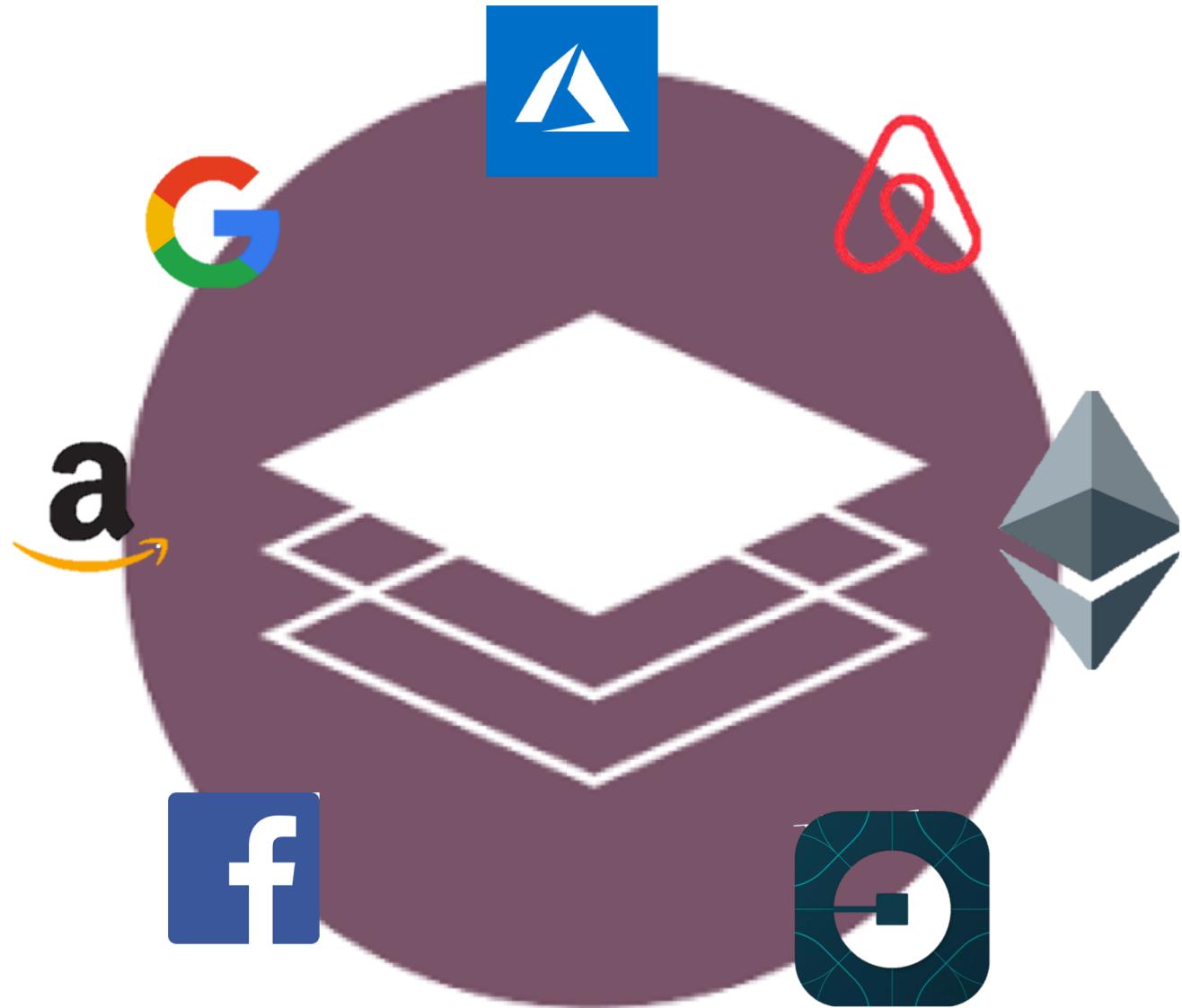
Strategy Domain

Product Dimension	Value Dimension	Operations Dimension	Proposition Dimension	Buyer Dimension	Demand Dimension	Time Dimension

FRAMEWORK:
DIGITAL TRANSFORMATION

Transforming the entire firm: redefining customer value proposition, value-added processes, and people's working method

Customers	Competition	Data	Innovation	Value
- Dynamic Networks - Economies of Value - Inspirational marketing - Key Influencers	- Co-opetition - Fluid Industries - Platforms	- Generated Continuously - Unstructured Data - Produce Information	- Experimentation - Problem vs Solution - MVP & Iterations	- Evolve vs Optimize - Not industry-specific - Futuristic Value Prop

APPROACH 1: PLATFORMS

APPROACH 2 MICROSERVICES ORGANIZATION

APPROACH 3 OMNICHANNEL
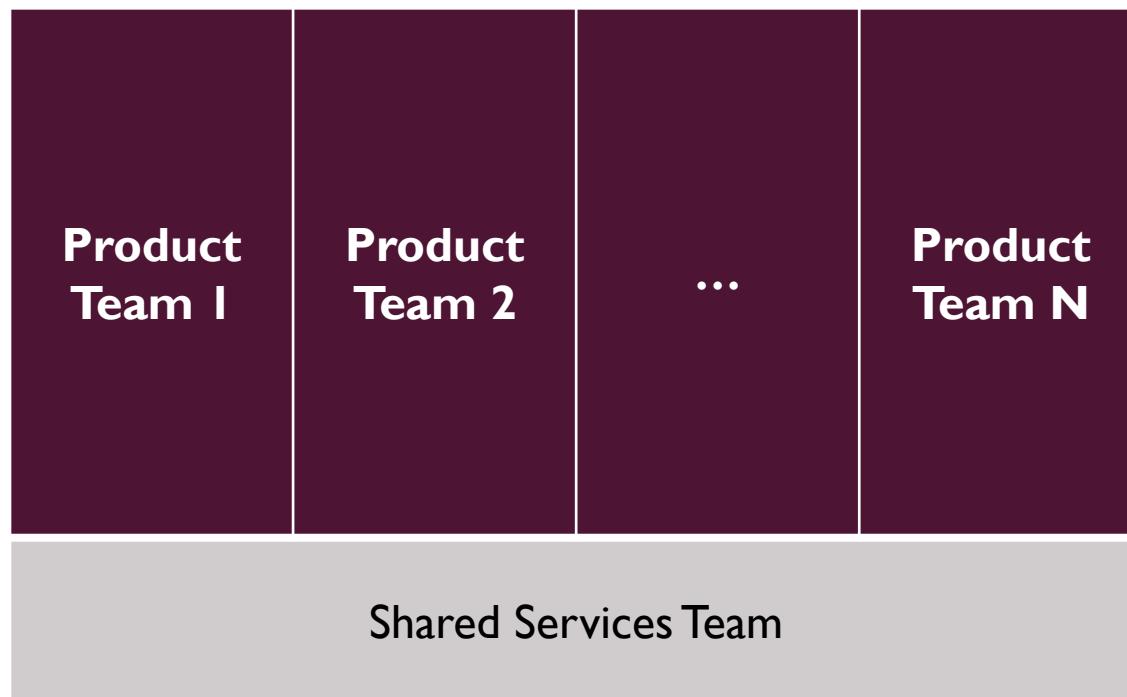
TRANSITION FROM TRADITIONAL TO DIGITAL IT
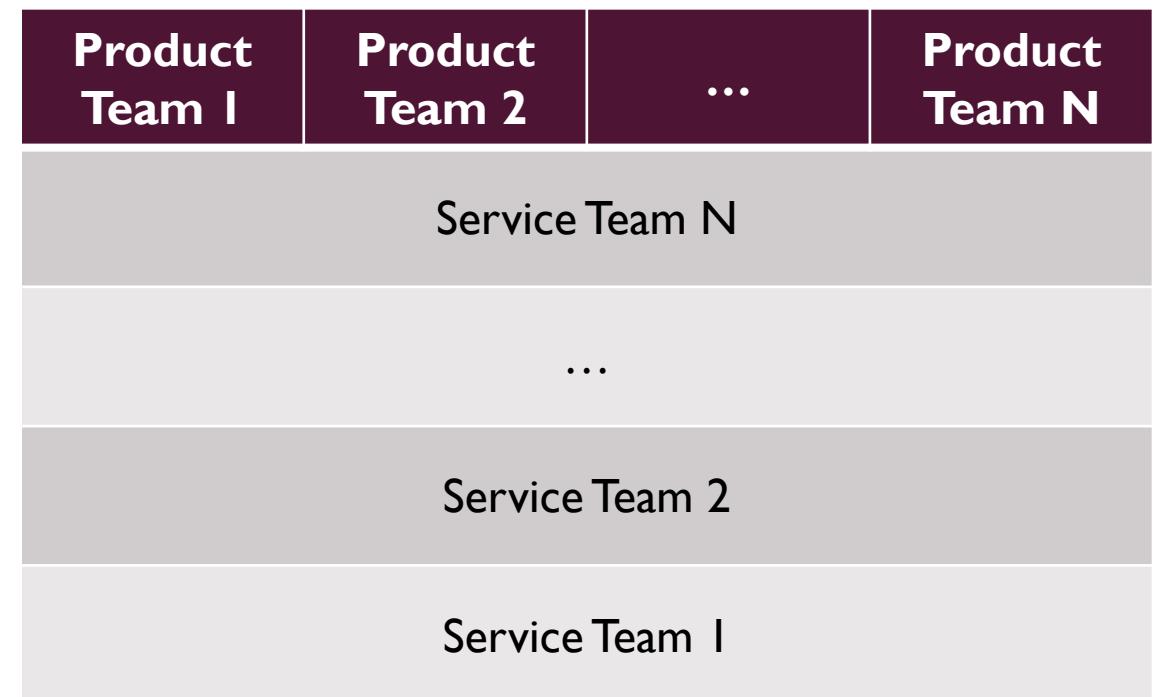
FROM PRODUCT TEAMS TO SERVICE TEAMS

TRADITIONAL VS DIGITAL IT

Traditional IT Organization

Product Team 1	Product Team 2	...	Product Team N

Shared Services Team

Digital IT Organization

Product Team 1	Product Team 2	...	Product Team N
Service Team N			
...			
Service Team 2			
Service Team 1			

DIGITALIZATION PHASES

Predigital	Pilot programs	Digital factories	Digitally integrated[1]	Digital pure play
Traditional application-domain-based model with some agile adoption	Small digital pods; rest of technology organization stays conventional	Digital product teams and conventional technology operating separately	Digital product teams collaborating with conventional technology teams	Holistic product-based organization
• Technology group organized based on application and infrastructure domains	• Small ring-fenced digital team with high autonomy	• Multiple digital teams with dedicated and pooled resources	• Teams organized around products, internal capabilities (platforms), and system of records	• Leverages capability-oriented delivery teams (tribes and chapters)
• Teams siloed and use waterfall methodologies	• Other teams remain organized around conventional application and infrastructure groups	• Minimal interoperability between digital and conventional teams operating at different speeds	• Significant agile and DevOps adoption by conventional groups; product teams fully agile	• At-scale automation enables continuous integration and continuous delivery
		• Conventional application groups starting to experiment with agile methodologies	• Increased focus on minimizing redundancy and maximizing interoperability between teams	