

# *Business Value of* Agile Product Management

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## USING LEAN & AGILE DESIGN THINKING PRINCIPLES TO RAPIDLY CREATE INNOVATIVE NEW PRODUCTS & SERVICES

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Agile Cost of Quality: <http://www.davidfrico.com/agile-vs-trad-coq.pdf>

DevOps Return on Investment (ROI): <http://davidfrico.com/rico-devops-roi.pdf>

Dave's NEW Business Agility Video: <http://www.youtube.com/watch?v=hTvtsAkL8xU>

Dave's NEWER Scaled Agile Framework SAFe 4.5 Video: <http://youtu.be/1TAuCRq5a34>

Dave's NEWEST Development Operations Security Video: <http://youtu.be/qrWRoXSS9bs>

Dave's BRAND-NEW ROI of Lean Thinking Principles Video: <http://youtu.be/wkMfaPaxO6E>

Dave's REALLY-NEW ROI of Evolutionary Design Principles Video: <http://youtu.be/TcXI26CIRb0>

DoD Fighter Jets versus Amazon Web Services: <http://davidfrico.com/dod-agile-principles.pdf>

Principles of Collaborative Contracts: <http://davidfrico.com/collaborative-contract-principles.pdf>

Principles of Lean Organizational Leadership: <http://davidfrico.com/lean-leadership-principles.pdf>

Principles of Evolutionary Architecture: <http://davidfrico.com/evolutionary-architecture-principles.pdf>

Principles of CI, CD, & DevOps - Development Operations: <http://davidfrico.com/devops-principles.pdf>

Principles of SAFe Transformations - Scaled Agile Framework: <http://davidfrico.com/safe-principles.pdf>

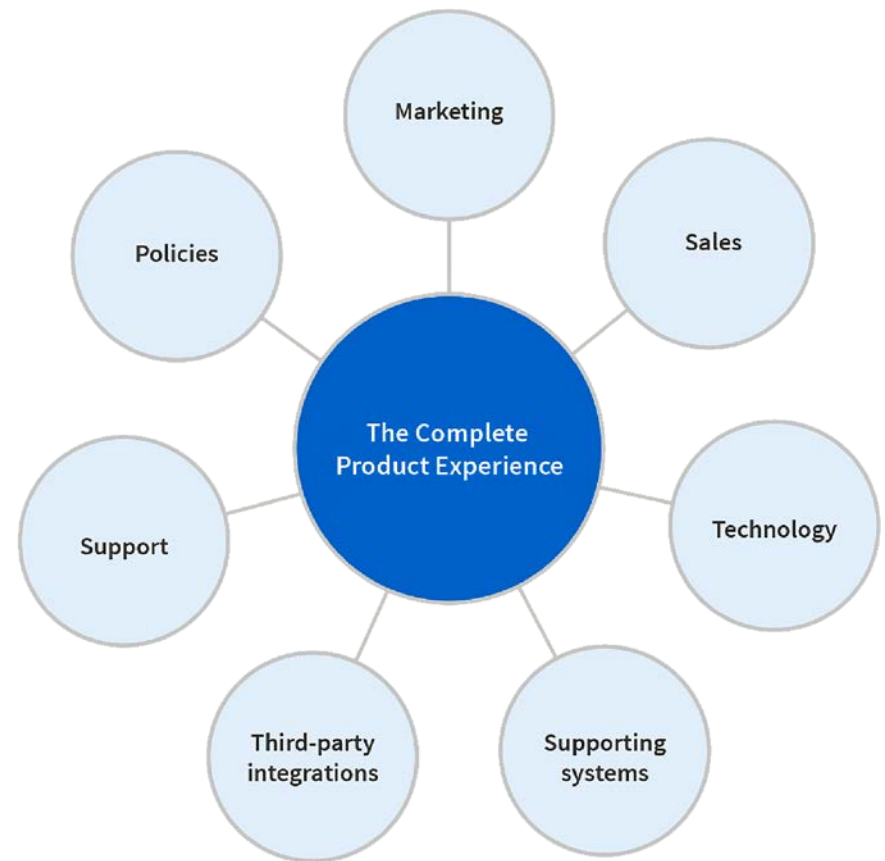
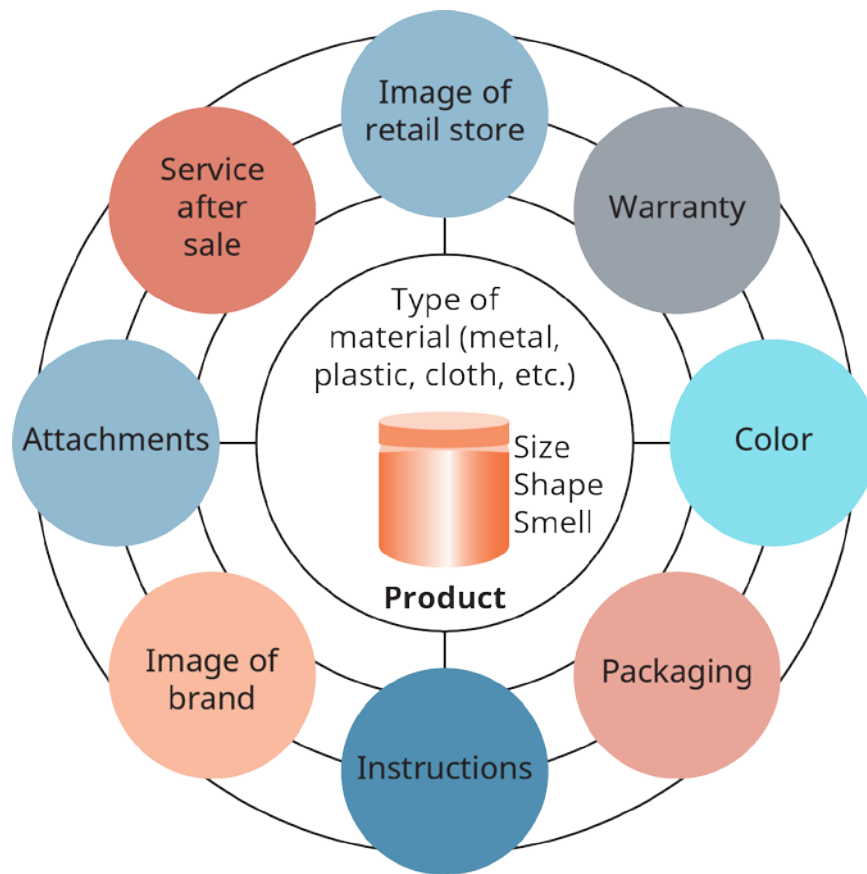
# Objectives

- ✓ Define What a Product Is
- ✓ Define What a Customer Is
- ✓ Describe What Product Management Is
- ✓ Illustrate Its Roles & Responsibilities
- ✓ Present the Product Management Process
- ✓ Investigate Product Management Artifacts
- ✓ Explore Our Internal/External Customers
- ✓ Perform a Product Management Exercise

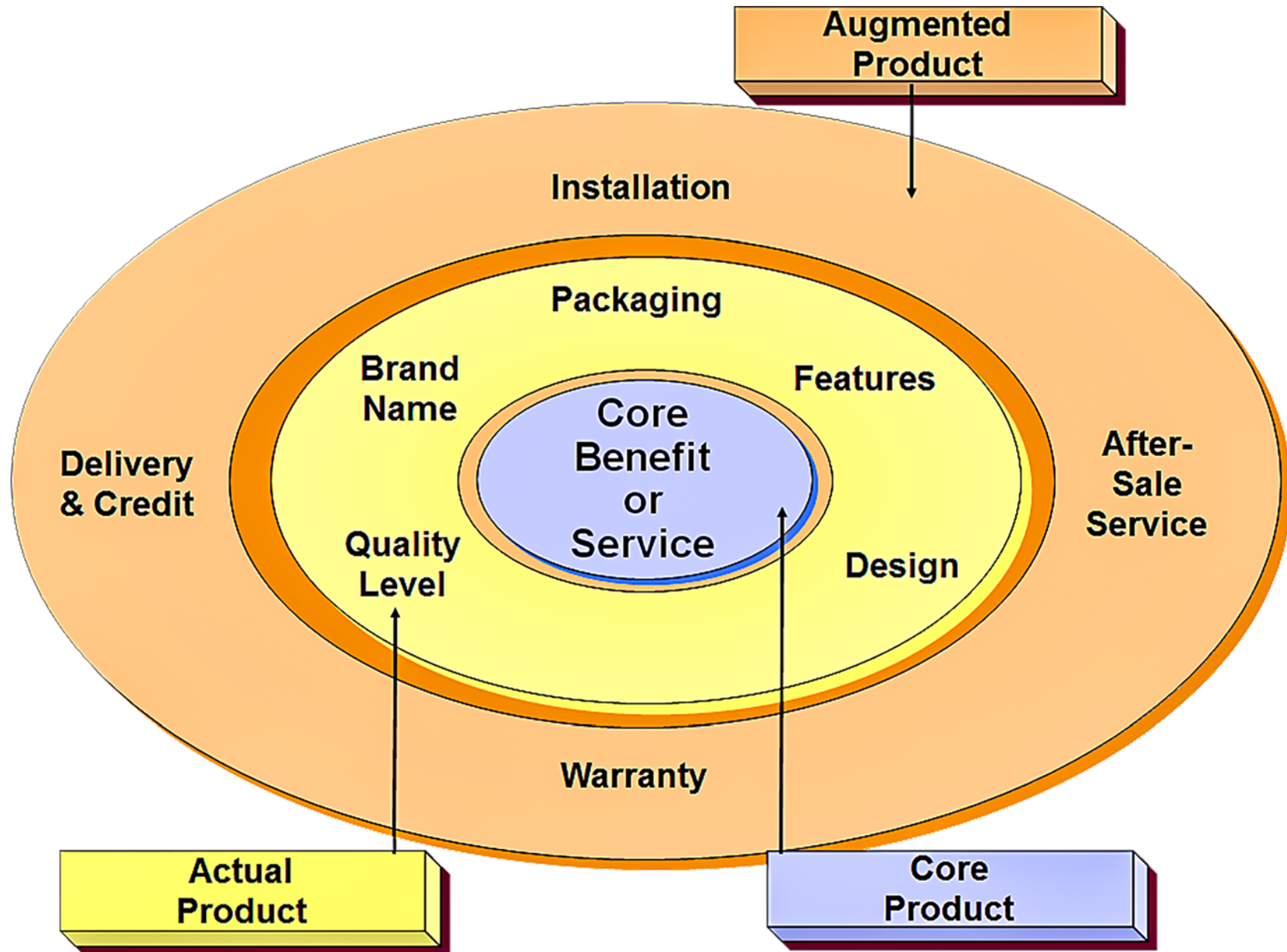


# What is a Product?

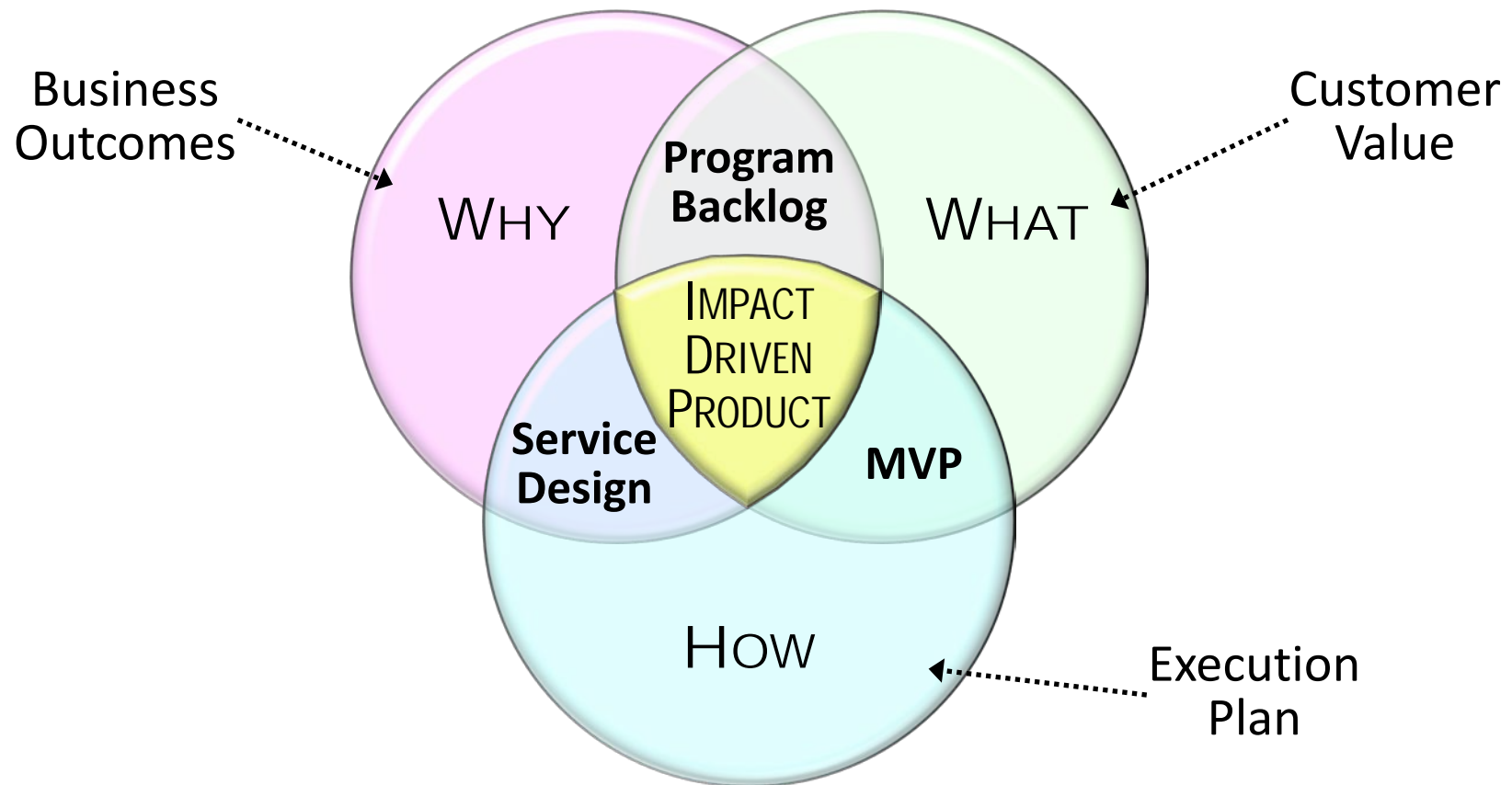
“A tangible or intangible item, output, or service purchased by or sold to a consumer, customer, buyer, or end-user because it has value to them (bundles of attributes such as functions, features, benefits, and uses).”



# What is a Product—Product Levels?

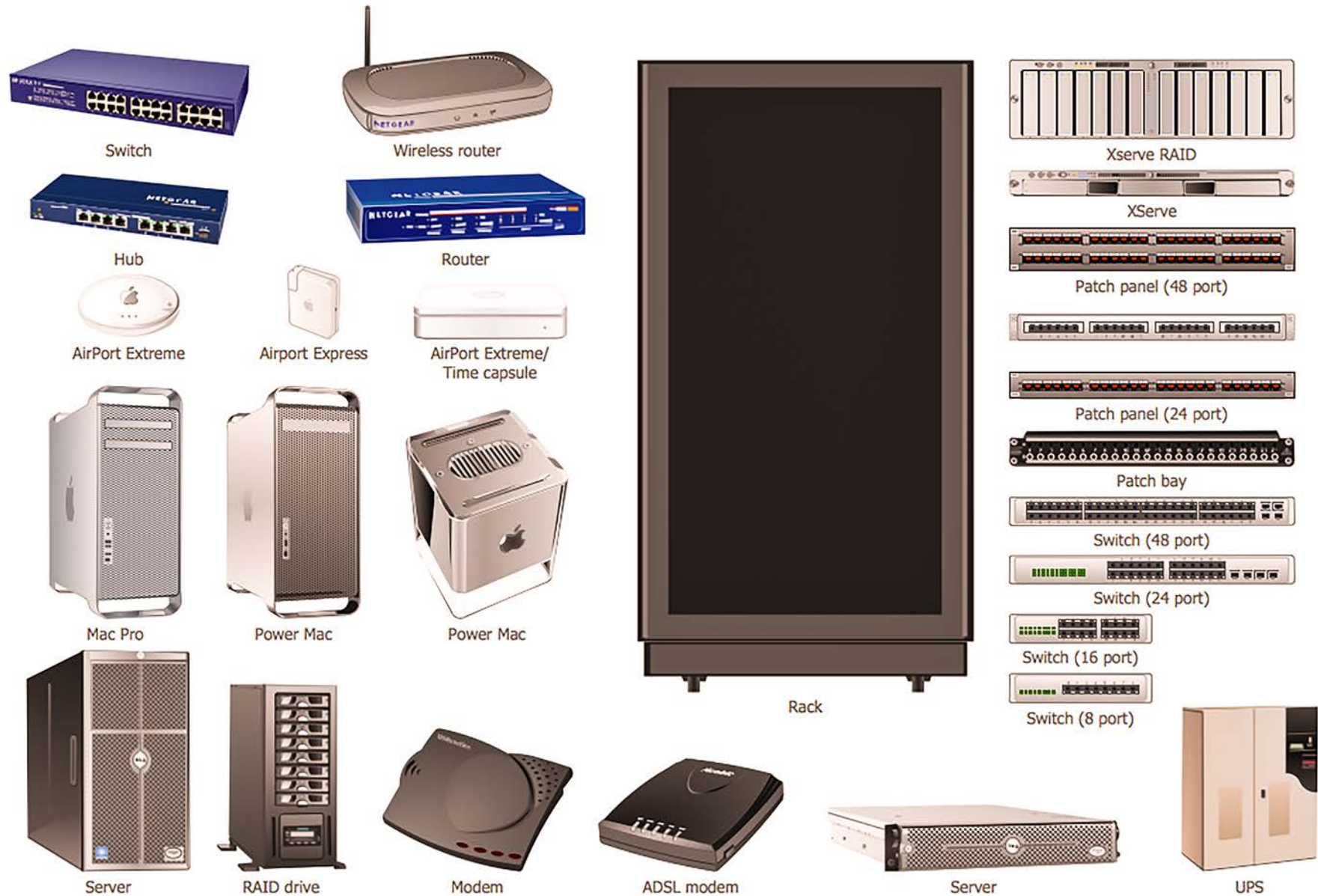


# What is a Product—Impact Driven Product?



(Internal) Business Constraints and (External) Market Influences

# What is a Product—Various Network Devices?



# What is a Customer?

A customer is one or more people who purchase or use a supplier's products or services:

- Any person who buys for resale directly from the seller, or the seller's agent or broker.
- Any buyer of the seller's product for resale who purchases from or through a wholesaler or other intermediate reseller.
- Any person who uses or depends upon a seller's product, whether or not they purchased the product directly from the seller or an authorized reseller.

CUSTOMER TYPE	ATTRIBUTES
Internal	Use products or services provided by the organization and belong to the organization.
External	Use products or services provided by the organization but come from outside the organization.
Direct	Deal directly with an organization.
Indirect	Use an organization's products or services but have no direct involvement with the organization.
Existing	Already use the organization's products or services.
Potential	Those the organization would like to gain.

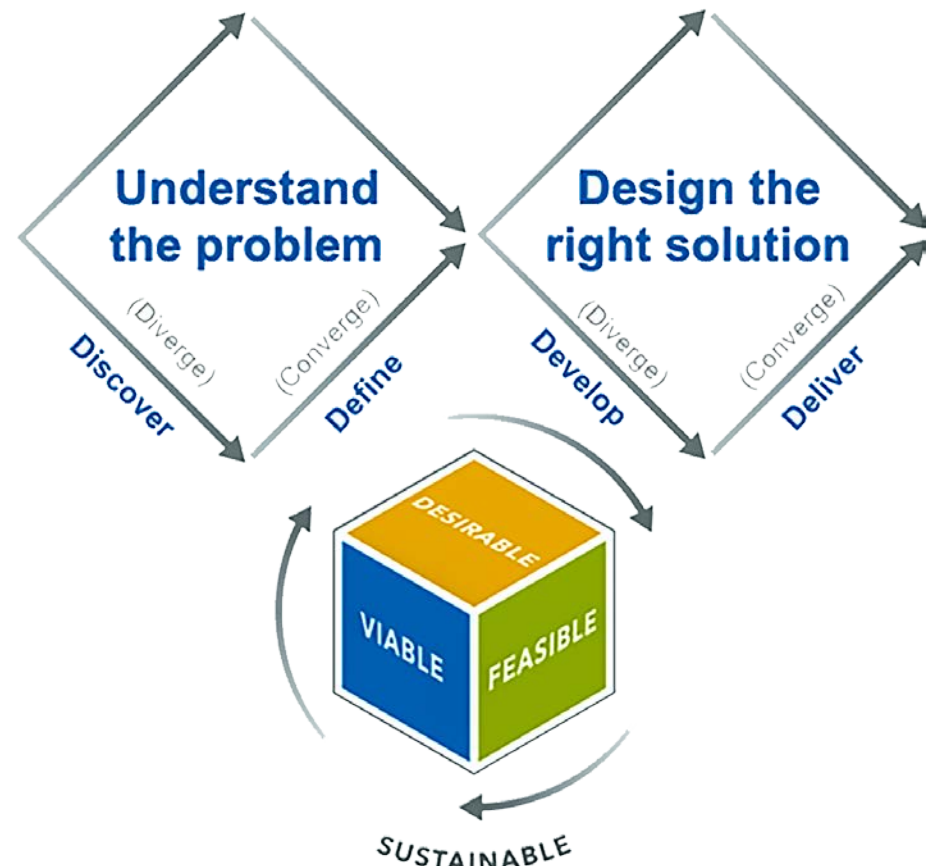
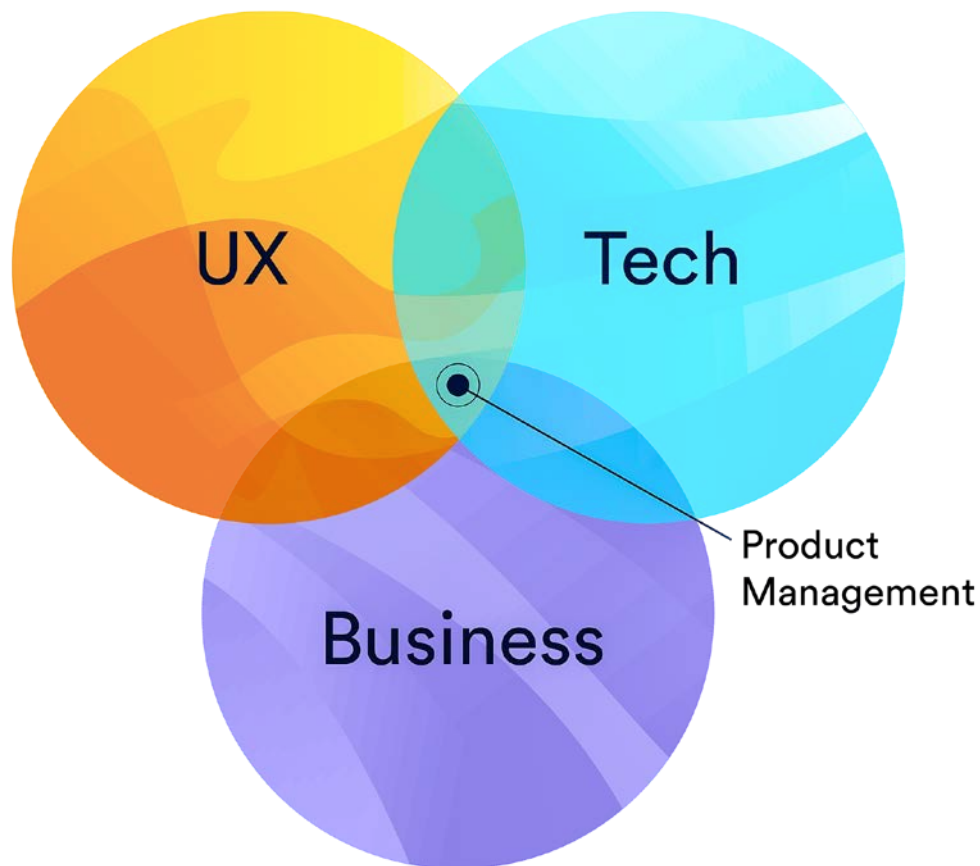
# Exercise #1—Identify Your Customers?

CUSTOMER TYPE	ATTRIBUTES	CUSTOMERS
Internal	Use products or services provided by the organization and belong to the organization.	
External	Use products or services provided by the organization but come from outside the organization.	
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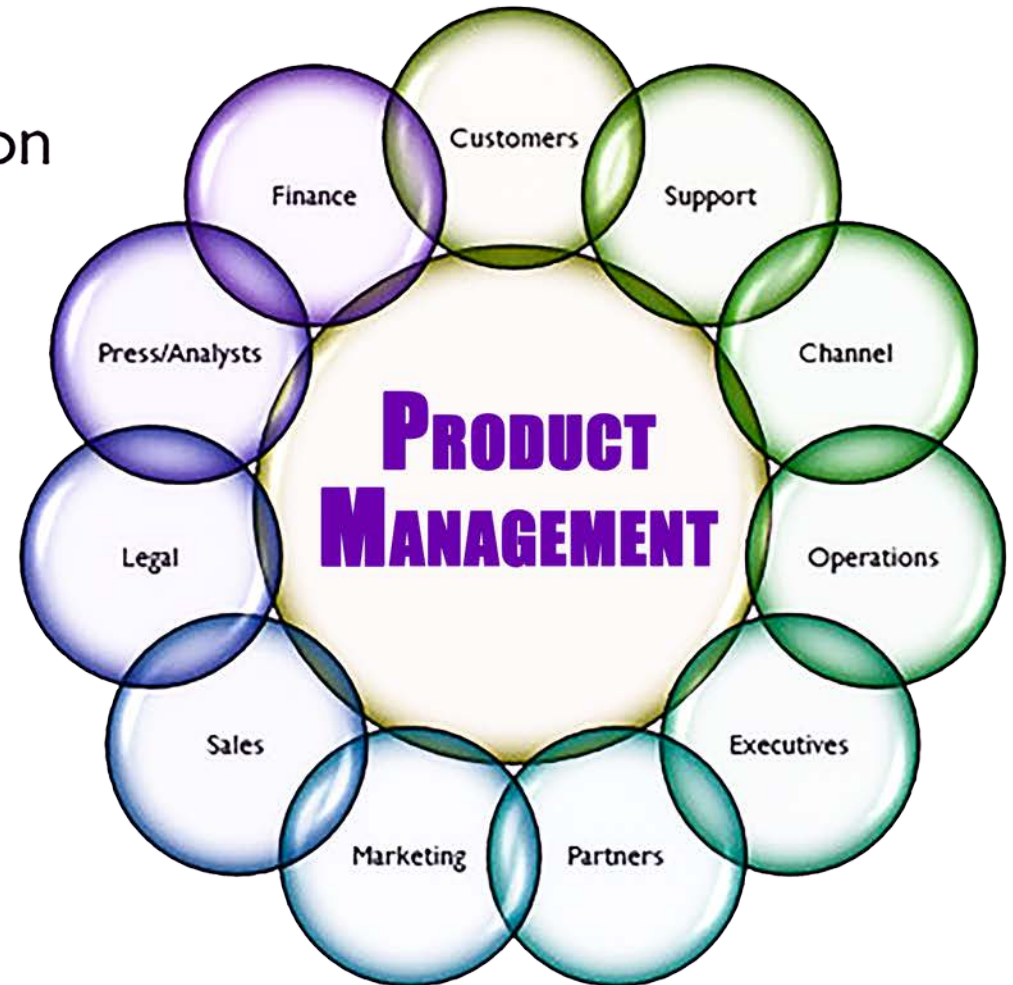
# What is Product Management?

“Product Management is responsible for defining and supporting the building of desirable, feasible, viable, and sustainable products that meet customer needs over the product-market lifecycle.”



# What is Product Management—Cont'd?

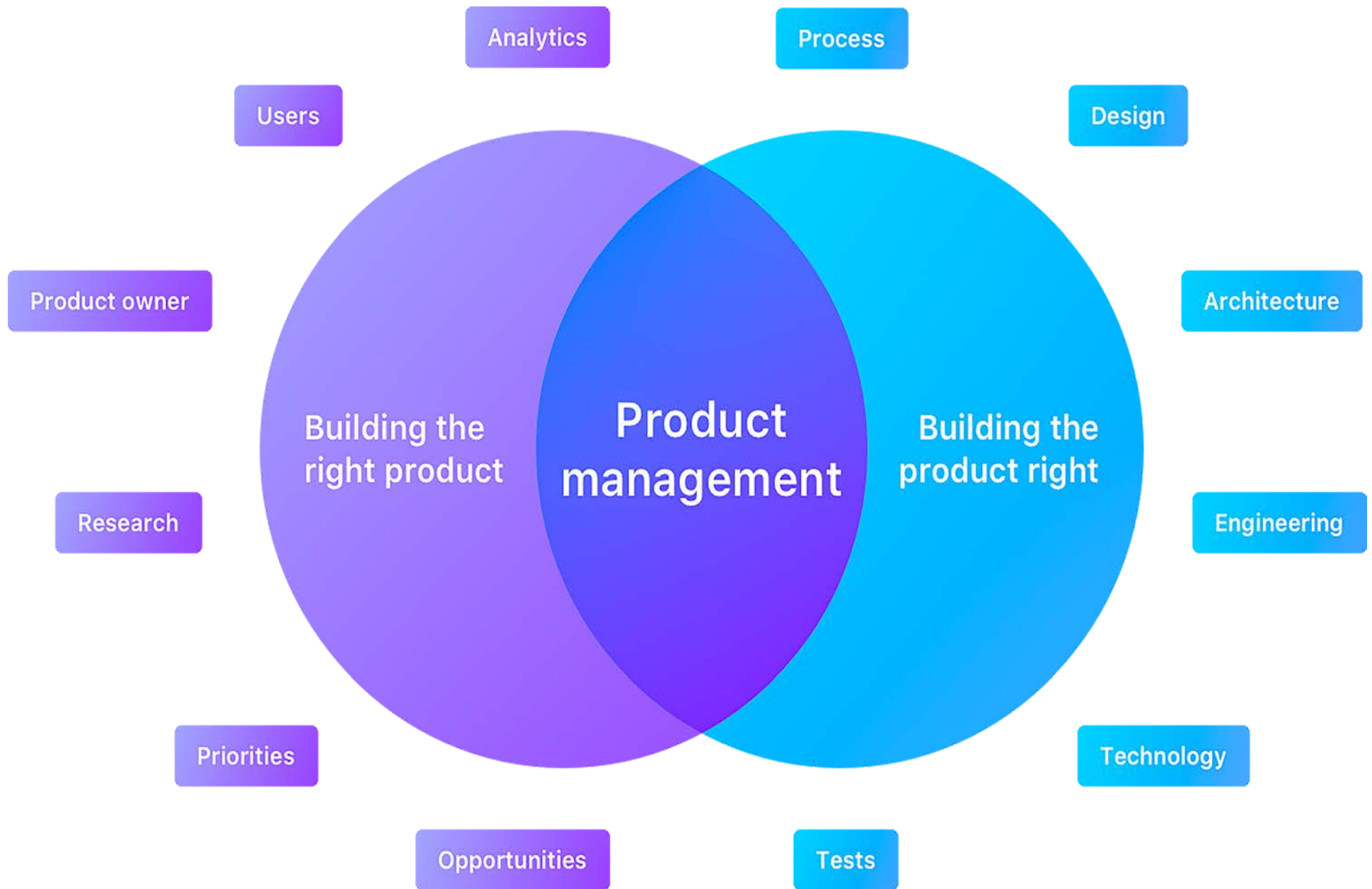
- Central point of communication
- Whole product
- Define product strategy
- Define go-to-market strategy
- Gather requirements
- Guide engineering
- Guide sales and marketing



# What is Product Management—Cont'd?



# What is Product Management—Cont'd?



# What is Product Management—Cont'd?

## Product Manager's

- Strategically focused
- Develop the business case for the product
- Be the expert on the product and customer
- Develop and maintain the roadmap
- Position the product
- Advocate for funding and manage the budget

## Product Owner's

- Tactically focused
- Clearly express the product backlog items
- Order backlog items to best achieve goals
- Optimize the value of the dev team's work
- Ensure the backlog is visible and clear
- Show the Scrum team what to work on next

# What is Product Management—Cont'd?

<b>Product Manager</b>	<b>Product Owner</b>
This role is all about the big picture for a product with the whole long-term project in mind.	A role that looks at the smaller details rather than the big picture. Short-term focus.
The vision of the product.	Making product vision into an actionable backlog.
Customer understanding.	Advocate for the customer's needs.
Prioritize features.	Highlight needs for the development of a team.
<b>Product roadmap.</b>	Backlog, epics, and user stories.

# What is Product Management—Cont'd?

## PRODUCT MANAGER

A Product Manager is a person responsible for the entire product lifecycle. They have to connect business strategy, customer needs, and product building knowledge to build the most valuable product for the market.

### RESPONSIBILITIES

1. Setting the product strategy
2. Understanding user needs
3. Translating the strategy into a plan
4. Curating product suggestions
5. Prioritizing what should be done next
6. Analyzing and adapting

### CERTIFICATIONS

Various with the emphasis on continued learning. Some examples - Product School, AIPMM, and others.

### AVERAGE SALARY

\$111,150 a year in the United States,  
£52,442 a year in the United Kingdom.

## PRODUCT OWNER

A Product Owner is a Scrum role that communicates the voice of customer to the Scrum Team and prioritizes the Product Backlog. Product Owners work to translate the product vision into detailed requirements and tasks.

### RESPONSIBILITIES

1. Developing and communicating the Product Goal
2. Creating and prioritizing the Product Backlog items
3. Collaborating with the team, customers and other stakeholders
4. Assisting the Scrum Team

### CERTIFICATIONS

Two main certifications are CSPO (Certified Scrum Product Owner) and PSPO (Professional Scrum Product Owner).

### AVERAGE SALARY

\$98,926 a year in the United States,  
£51,928 a year in the United Kingdom.

## PROJECT MANAGER

Project manager is a person responsible for the project on a day-to-day basis. They focus on executing the product vision with the project team and ensuring everything runs smoothly. This is the most hands-on role out of the three.

### RESPONSIBILITIES

1. Developing the project plan
2. Setting the project schedule
3. Managing the team
4. Dealing with the project constraints and conflicts
5. Communicating with all stakeholders

### CERTIFICATIONS

PMP (Project Management Professional), CAPM (Certified Associate in Project Management), PMI-PBA, and more.

### AVERAGE SALARY

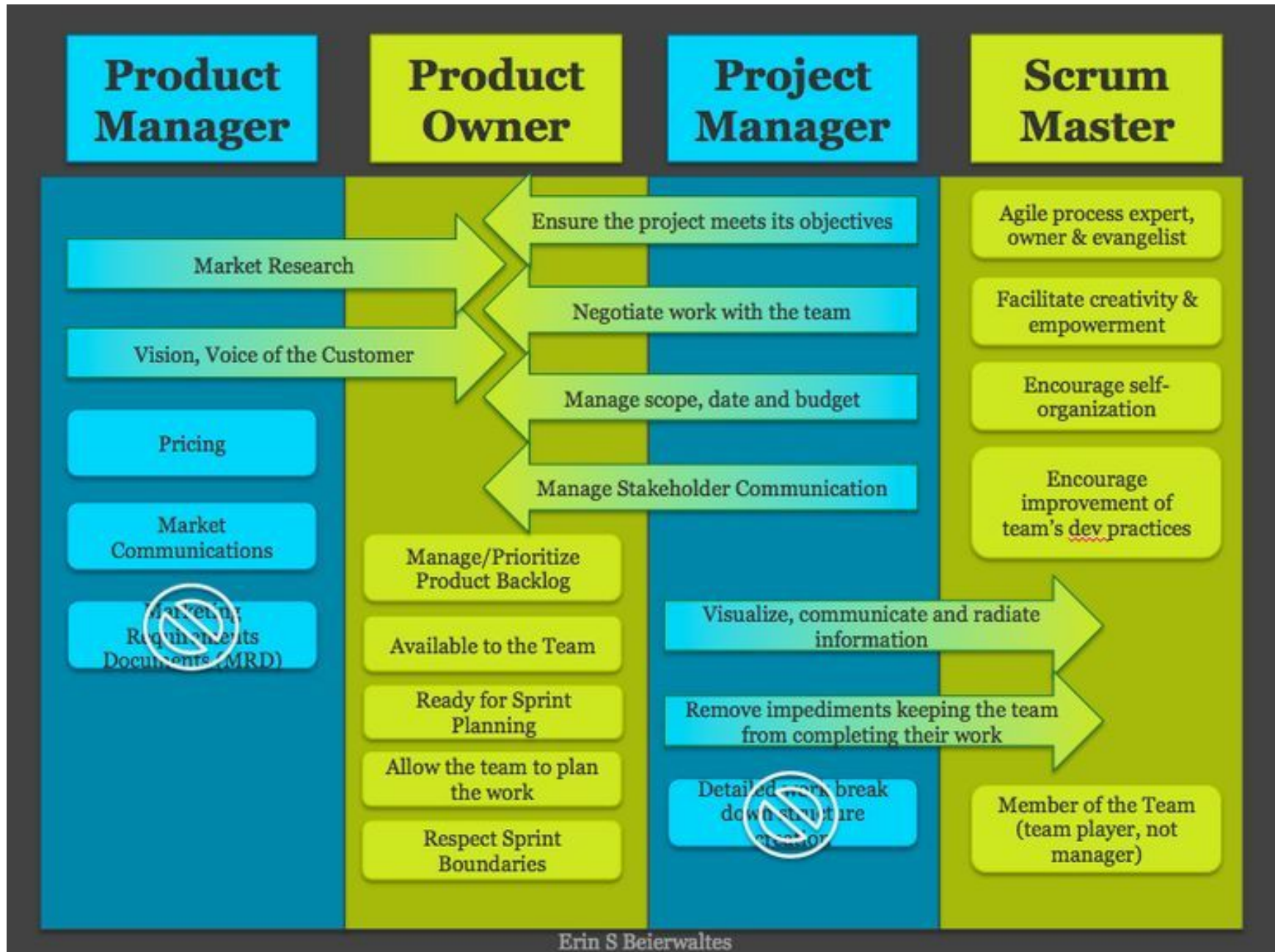
\$87,349 a year in the United States,  
£45,969 a year in the United Kingdom

# What is Product Management—Cont'd?




FEATURE	PRODUCT MANAGER	PRODUCT OWNER
FOCUS	STRATEGIC VISION & LONG-TERM PLANNING	TACTICAL EXECUTION & BACKLOG MANAGEMENT
STAKEHOLDERS	LEADERSHIP, MARKETING, SALES	DEVELOPMENT TEAM, CUSTOMERS
RESPONSIBILITIES	PRODUCT VISION & ROADMAP, MARKET RESEARCH, USER RESEARCH	BACKLOG PRIORITIZATION, USER STORY CREATION, COLLABORATION WITH DEVELOPMENT TEAM
PROJECT MANAGEMENT	SCRUM: MAY INFORM PRODUCT STRATEGY, NOT AN OFFICIAL ROLE	SCRUM: BACKLOG MANAGEMENT, USER STORY CREATION
FRAMEWORK	AGILE & TRADITIONAL METHODOLOGIES	PRIMARILY AGILE METHODOLOGIES (LIKE SCRUM)
ADDITIONAL NOTES	BROADER SKILLSET APPLICABLE BEYOND SCRUM	RESPONSIBILITIES MAY VARY DEPENDING ON SCRUM TRAINING



# What is Product Management—Cont'd?



# What is Product Management—Cont'd?

<b>Product Manager</b> <i>Drives the PI and product</i>	<b>Product Owner</b> <i>Drives the Iteration</i>	<b>Agile Team</b> <i>Drives program execution</i>
		
Owns Program Backlog	Owns Team Backlog(s)	Builds Quality-In, evolves Agile architecture
Defines Features, PIs and Releases	Defines Iterations and Stories	Owns estimates
Owns Vision, Roadmap, pricing, licensing, ROI	Contributes to Vision, Roadmap, ROI	Evolves the Continuous Delivery Pipeline
Collaborates on Enablers	Accepts Iteration increments	
<i>Build the right thing...</i>		<i>... Build the right way</i>

# What is Product Management—Cont'd?



# What is Product Management—Cont'd?



# What is Product Management—Cont'd?

Strategic planning • Resources Allocation • PLC Strategy  
Pricing strategy • Competitive analysis (company & financial level)

## Product Management *Inbound*

- Customer research and insights
- Business case analysis
- Positioning
- Product road mapping
- Market req. & prioritization
- Whole product definition
- Differentiation and desirability
- Features/cost/schedule trade-offs
- Develop product req. w/ eng. & UX
- Competitive analysis  
(product & market position)
- Beta programs

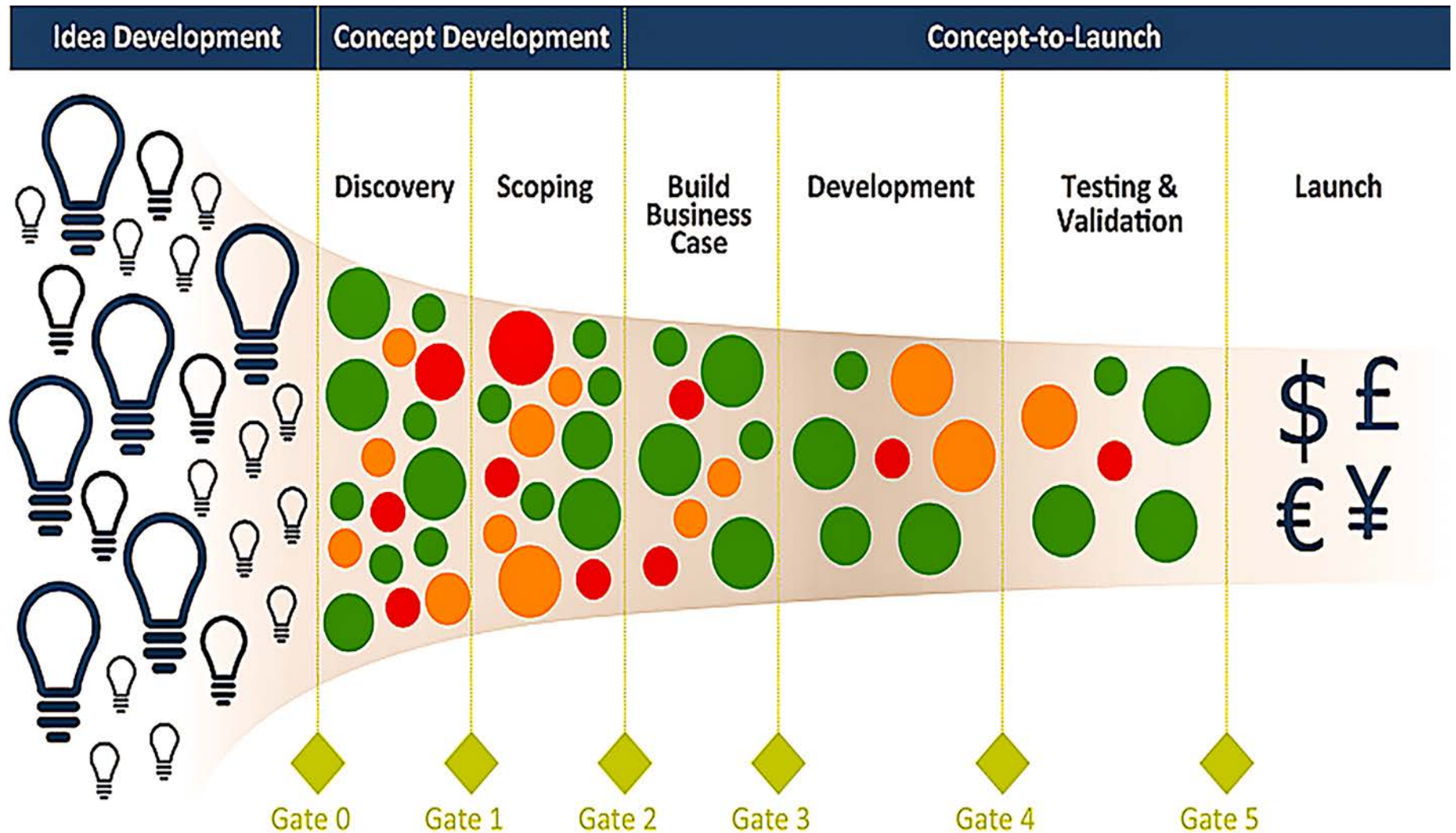
## Product Marketing *Outbound*

- Launch and marketing plans
- Features and benefits
- Messaging by market and role
- Training
- Sales tools
- Product launch
- Marketing program
- Success stories
- Market analysis
- Competitive analysis  
(price, promotion and place)

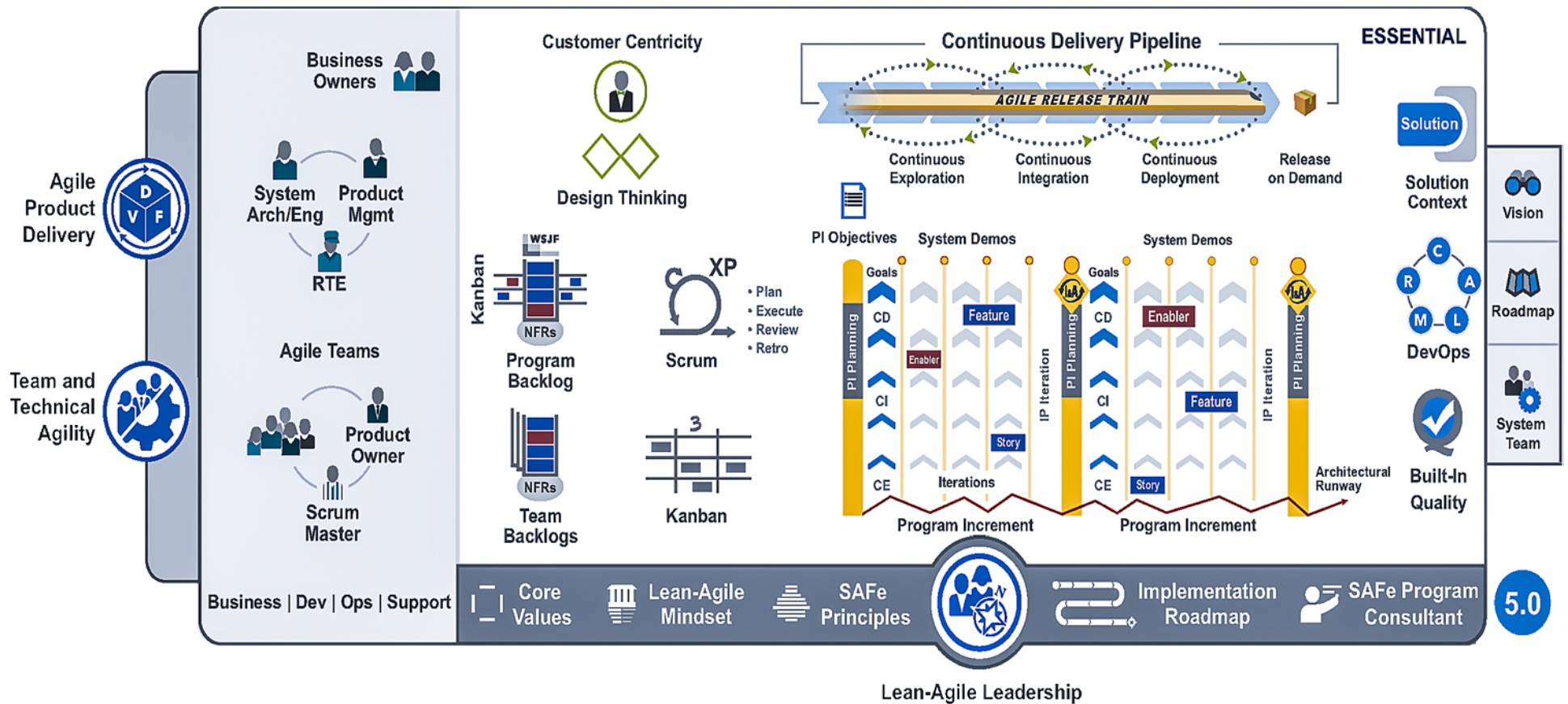
# What is Product Management—Cont'd?

- ✓ Business Cases
- ✓ Marketing Strategy
- ✓ Market Segmentation
- ✓ Market Positioning
- ✓ Marketing Plans
- ✓ Value Stream Analysis
- ✓ Sales Plans
- ✓ Financial Analysis
- ✓ Portfolio Analysis
- ✓ Cost-Benefit Analysis
- ✓ Risk Analysis
- ✓ Product Prioritization
- ✓ Analytic Hierarchy Process
- ✓ Kano Analysis
- ✓ SWOT Analysis
- ✓ Enterprise Architecture
- ✓ Product Security
- ✓ Customer Experience
- ✓ User Experience
- ✓ Outsourcing
- ✓ Subcontracting
- ✓ Partnerships
- ✓ Purchasing
- ✓ Pricing
- ✓ Cost Analysis
- ✓ Budgeting
- ✓ Tradeoff Analysis
- ✓ Product Roadmaps
- ✓ Product Visions
- ✓ Product Objectives
- ✓ Product Messaging
- ✓ Product Development
- ✓ Materials Analysis
- ✓ Packaging
- ✓ Platform Analysis
- ✓ Product Lines
- ✓ Product Launch
- ✓ Product Training
- ✓ Product Demos
- ✓ Customer Negotiations
- ✓ Licensing Agreements
- ✓ Copyrights, Trademarks
- ✓ Patents, Inventions
- ✓ Legal Agreements
- ✓ Advertising
- ✓ Internationalization
- ✓ Documentation
- ✓ Support
- ✓ Operations
- ✓ Maintenance
- ✓ Retirement

# Product Management Process—Stage Gate

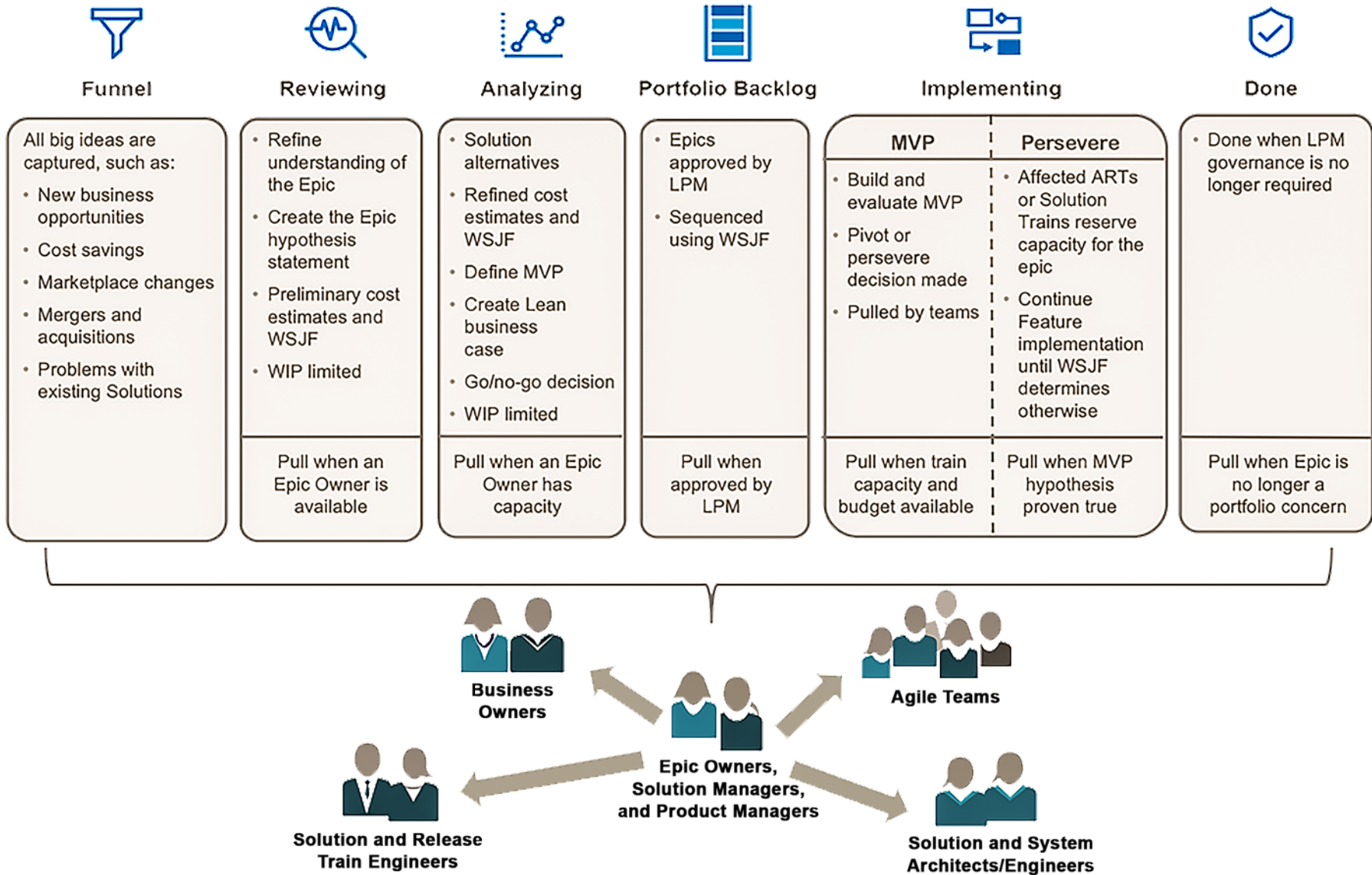


# Product Management Process—Essential SAFe

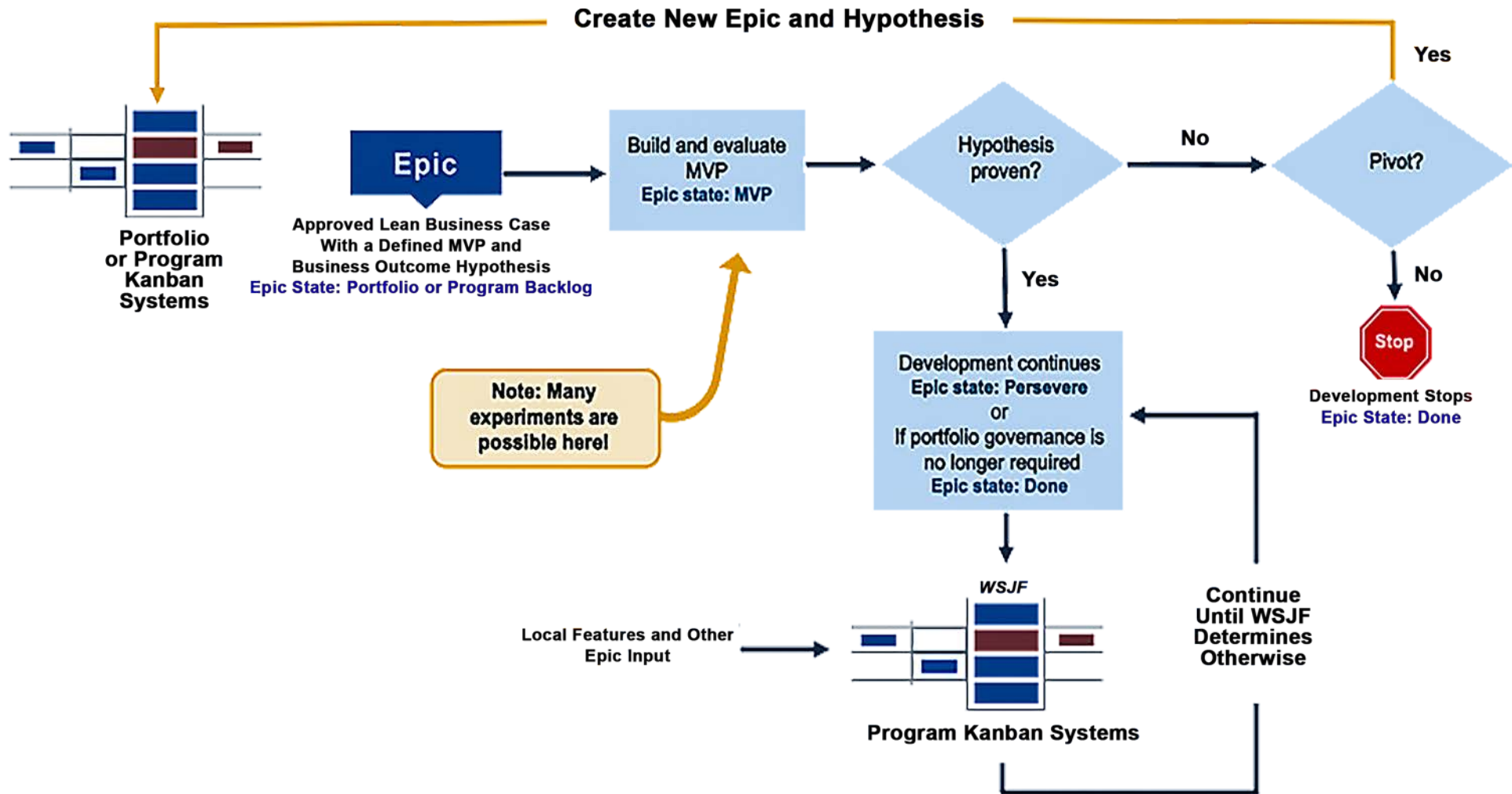




# Product Management Process—Innovation Funnel

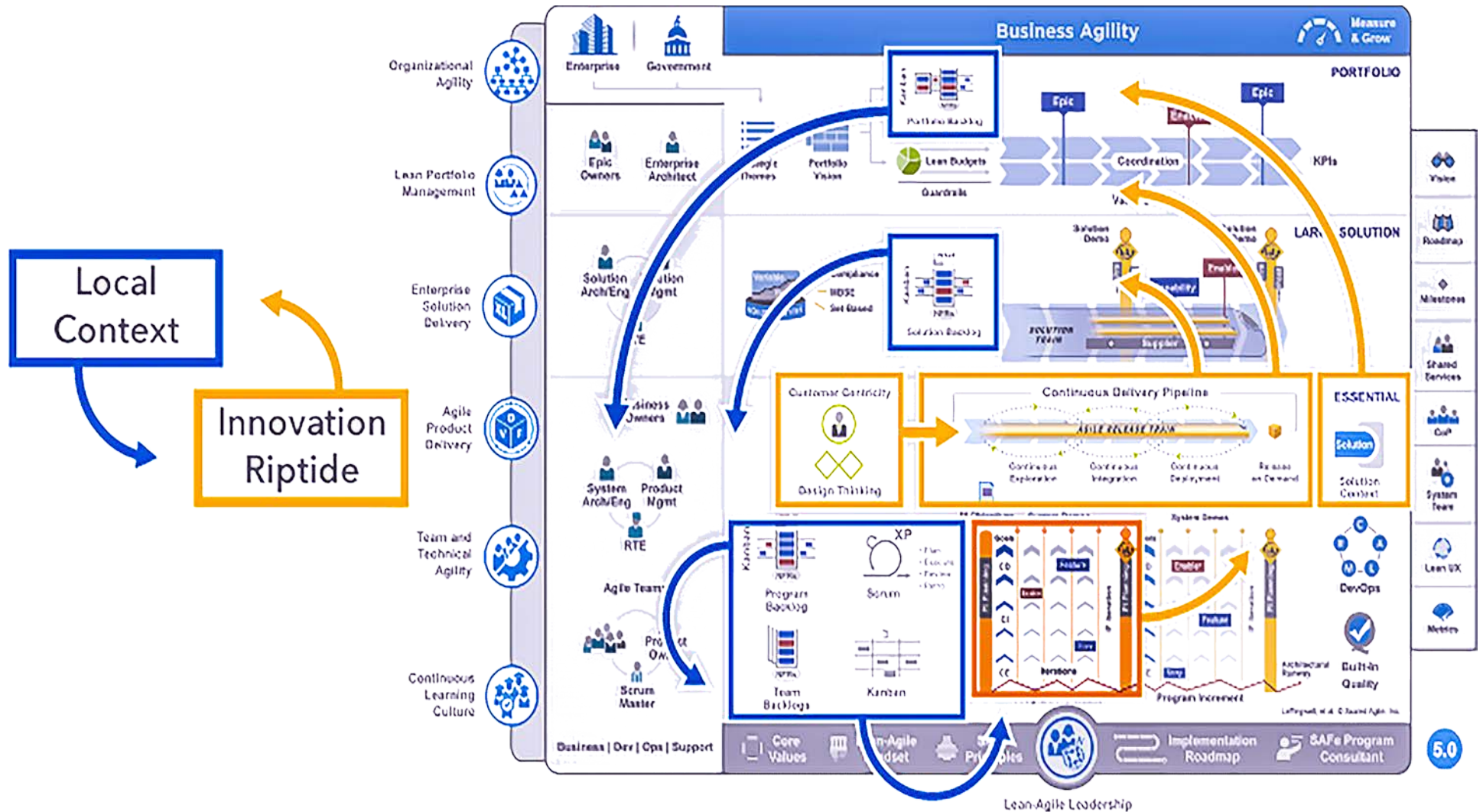


# Product Management Process—SAFe Lean Startup



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# Product Management Process—Innovation Riptides



# SAFe Epic Owner

*Epic Owners* are responsible for coordinating [Epics](#) through the [Portfolio Kanban](#) system

- They collaboratively define the epic, its Minimum Viable Product (MVP), and Lean business case, and when approved, facilitate implementation.
- Epic Owner works directly with the [Agile Release Train](#) (ART) and [Solution Train](#) stakeholders to define the [Features and Capabilities](#) that realize the value of approved epics.
- They may also have some responsibility for supporting the initiative as it moves downstream through the [Continuous Delivery Pipeline](#) to [Release on Demand](#).

# SAFe Business Owner

*Business Owners* are a small group of stakeholders who have the primary business and technical responsibility for governance, compliance, and return on investment (ROI) for a [Solution](#) developed by an Agile Release Train (ART).

- They are key stakeholders on the ART who must evaluate fitness for use and actively participate in certain ART events.
- Business Owners can be identified by asking the following questions.
- The answers to these questions will identify the Business Owners, who will play a key role in helping the ART deliver value.
  - ☞ Who is ultimately responsible for business outcomes?
  - ☞ Who can steer this ART to develop the right solution?
  - ☞ Who can speak to the technical competence of the solution now and into the near future?
  - ☞ Who should participate in planning, help eliminate impediments, and speak on behalf of development, the business, and the customer?
  - ☞ Who can approve and defend a set of Program Increment (PI) plans, knowing full well that they will never satisfy everyone?
  - ☞ Who can help coordinate the efforts with other departments and organizations within the Enterprise?

# SAFe System Architect

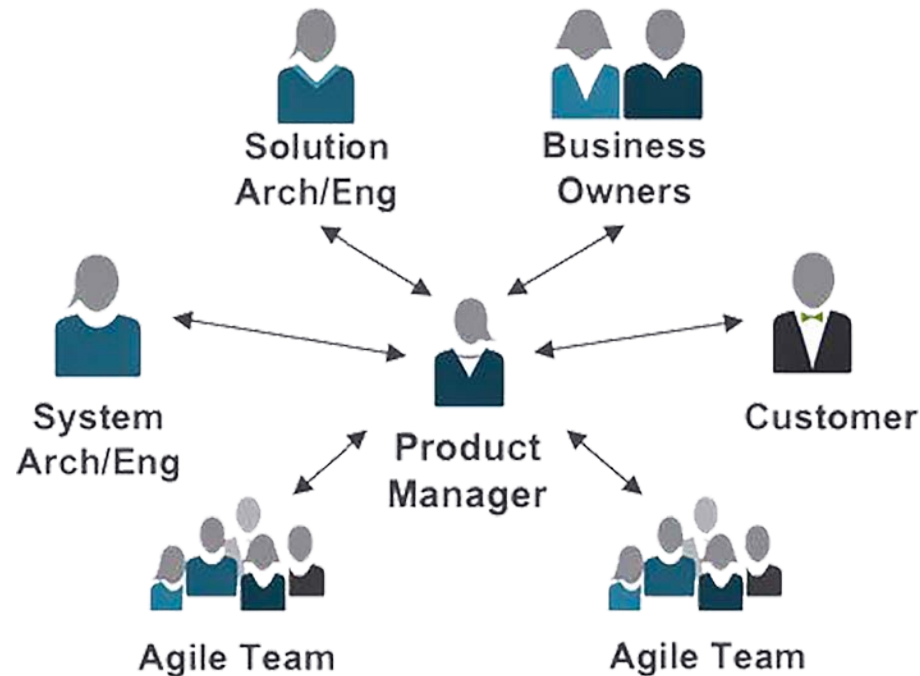
*System Architect/Engineering* is responsible for defining and communicating a shared technical and architectural vision for an [Agile Release Train \(ART\)](#) to help ensure the system or [Solution](#) under development is fit for its intended purpose.

- Solution Architect/Engineering is responsible for defining and communicating a shared technical and architectural vision across a [Solution Train](#) to help ensure the system or Solution under development is fit for its intended purpose.
- System and Solution Architects describe the [Solution Context](#) and [Solution Intent](#), analyze technical trade-offs, determine the primary components and subsystems, identify the interfaces and collaborations between them, define [Nonfunctional Requirements \(NFRs\)](#), guide [Enablers](#) through the [Program and Solution Kanban](#) systems, and work with [Product and Solution Management](#), customers and Suppliers to help ensure fitness for purpose.
- They play a critical role in aligning teams on the ART and Solution Train to a shared technical direction and partner with those teams in elaborating the solution, validating technology assumptions, evaluating implementation alternatives, and creating the [Continuous Delivery Pipeline](#). In ARTs that are not part of a Solution Train, System Architects also perform many of the activities of Solution Architects.

# SAFe Product Manager

*Product Manager* is responsible for defining and supporting the building of desirable, feasible, viable, and sustainable products that meet customer needs over the product-market lifecycle.

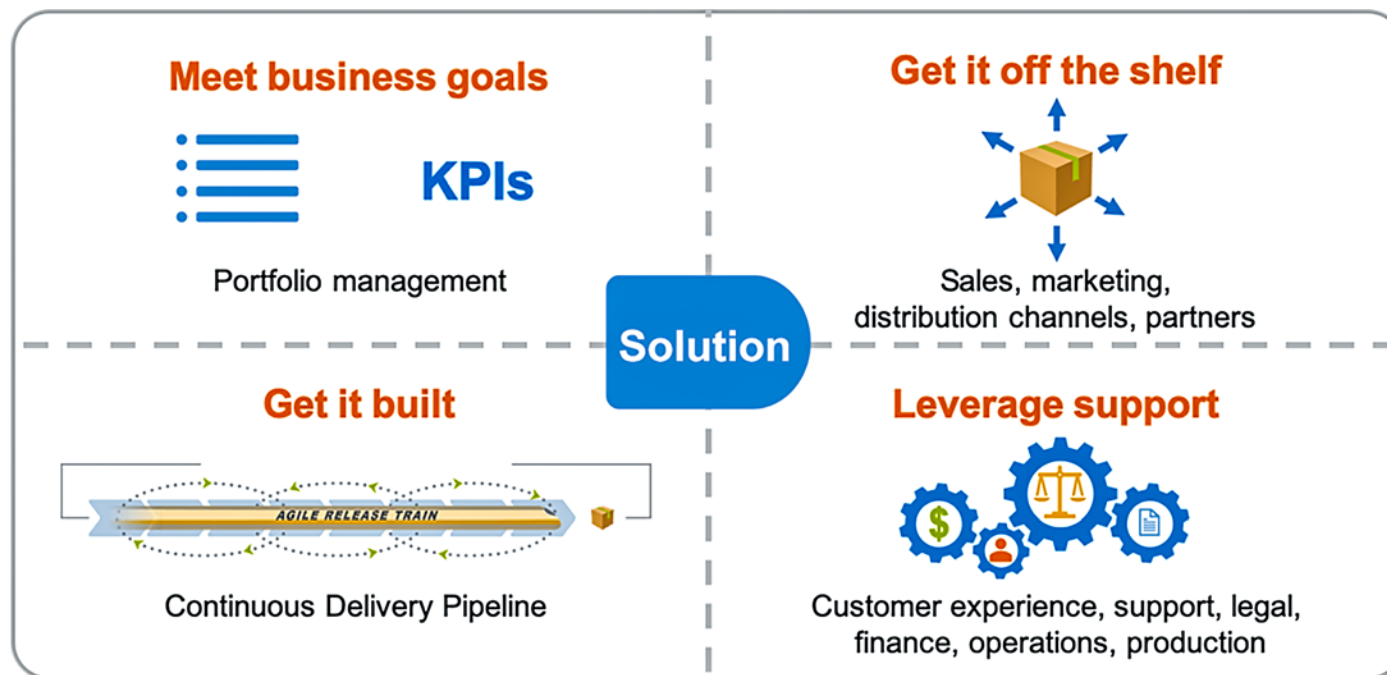
- They collaborate with a wide range of people to identify customer needs, understand the [Solution Context](#), and develop the [Program Vision](#), [Roadmap](#), and [Features](#).
- Then, they support the ARTs in delivering value through the Program Kanban (program- and solution-kanbans) and Continuous Delivery Pipeline (continuous-delivery-pipeline).



# SAFe Product Manager (Cont'd)

The primary responsibilities of *Product Managers* fall into four main areas:

- **Meet business goals** – Products and solutions must meet the economic business goals established by the portfolio
- **Get it built** – Product Managers collaborate with Agile Release Trains (ARTs) and Solution Trains to build the required functionality
- **Get it off the shelf**
  - **Internally.** Collaborate with IT to ensure solutions are deployed to internal customers and users
  - **Externally.** Collaborate with larger set of business stakeholders to deliver products to market
- **Leverage support** – Product Managers ensure their offerings are supported and enhanced to create a continuous flow of value





# Product Mgt. Artifact—Persona Canvas

**NEGATIVE TRENDS**  
Negative trends from the environment

**POSITIVE TRENDS**  
Positive trends from the environment

**HEADACHES**  
Professional and work related issues

**NEED**  
What does this person really want?

**OPPORTUNITIES**  
Professional and work related positive outcomes

**FEARS**  
Personal issues

**HOPES**  
Personal goals and hopes

NAME \_\_\_\_\_

ROLE \_\_\_\_\_



# Product Mgt. Artifact—Product Vision Canvas

## Fall in love with the problem



What is the most exciting problem we could solve? What problem scares us? What problem, if solved, would be transformational for our users?

## Embrace relevant and meaningful trends



What are the key trends in technology, user expectations and culture that will rapidly change over the next 5 years?

## Disrupt ourselves before someone else does



If a startup came into our space and started working with no legacy systems and no process and no hierarchy, what would they do differently?

## Inspire and help our users



What would make a 10x change to the way in which we help our users? How do we create new value for users rather than cement what we have? Be bold.

## Realise any vision is a leap of faith



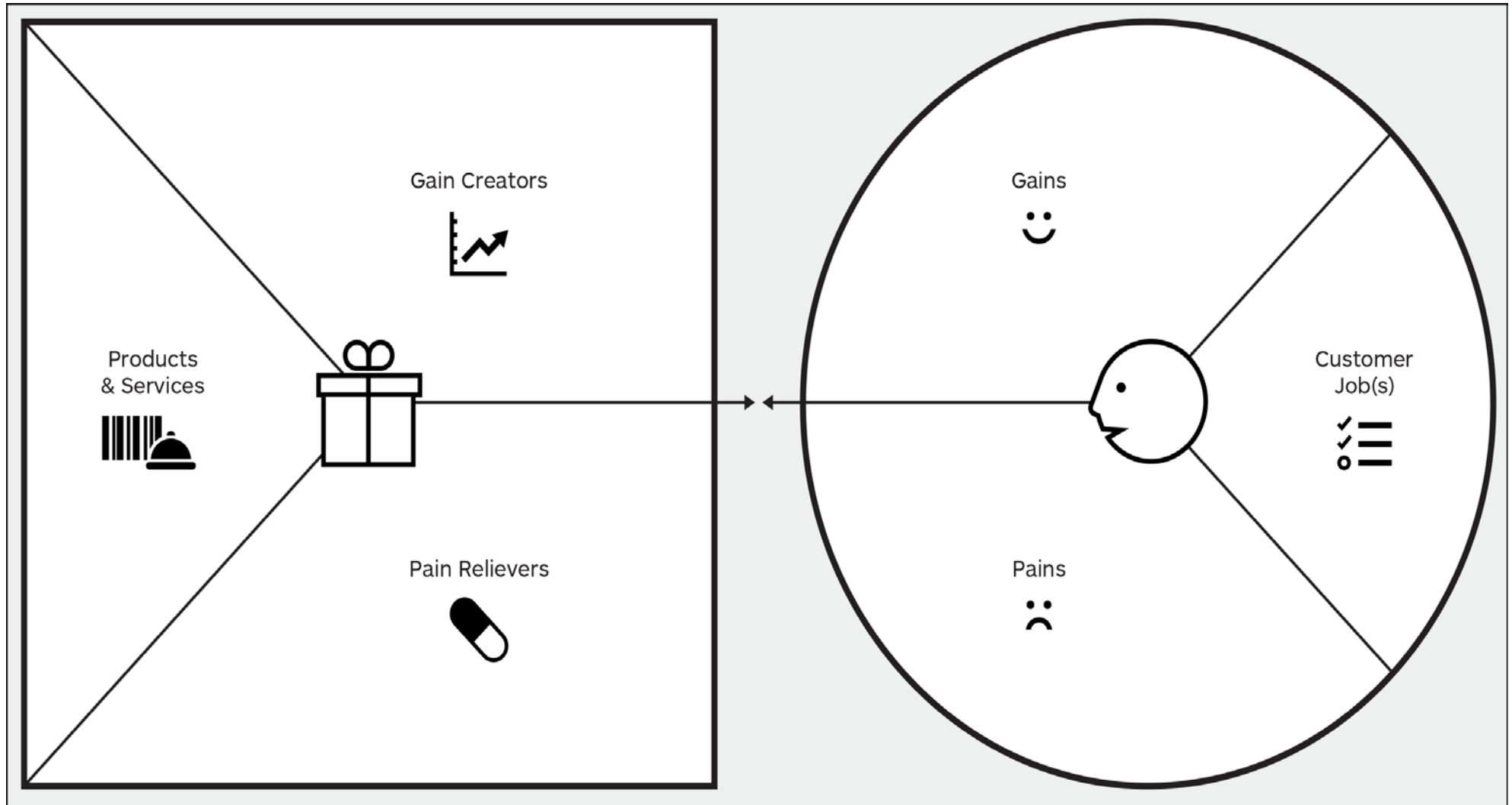
What will we choose to believe, that we cannot prove, in the pursuit of transformational change? What will we say is our leap of faith that we are being brave enough to make?

## Be missionaries, not mercenaries



What could we be doing that makes you evangelical about spreading the word of what you're working on? What would you want to go and recruit people to?

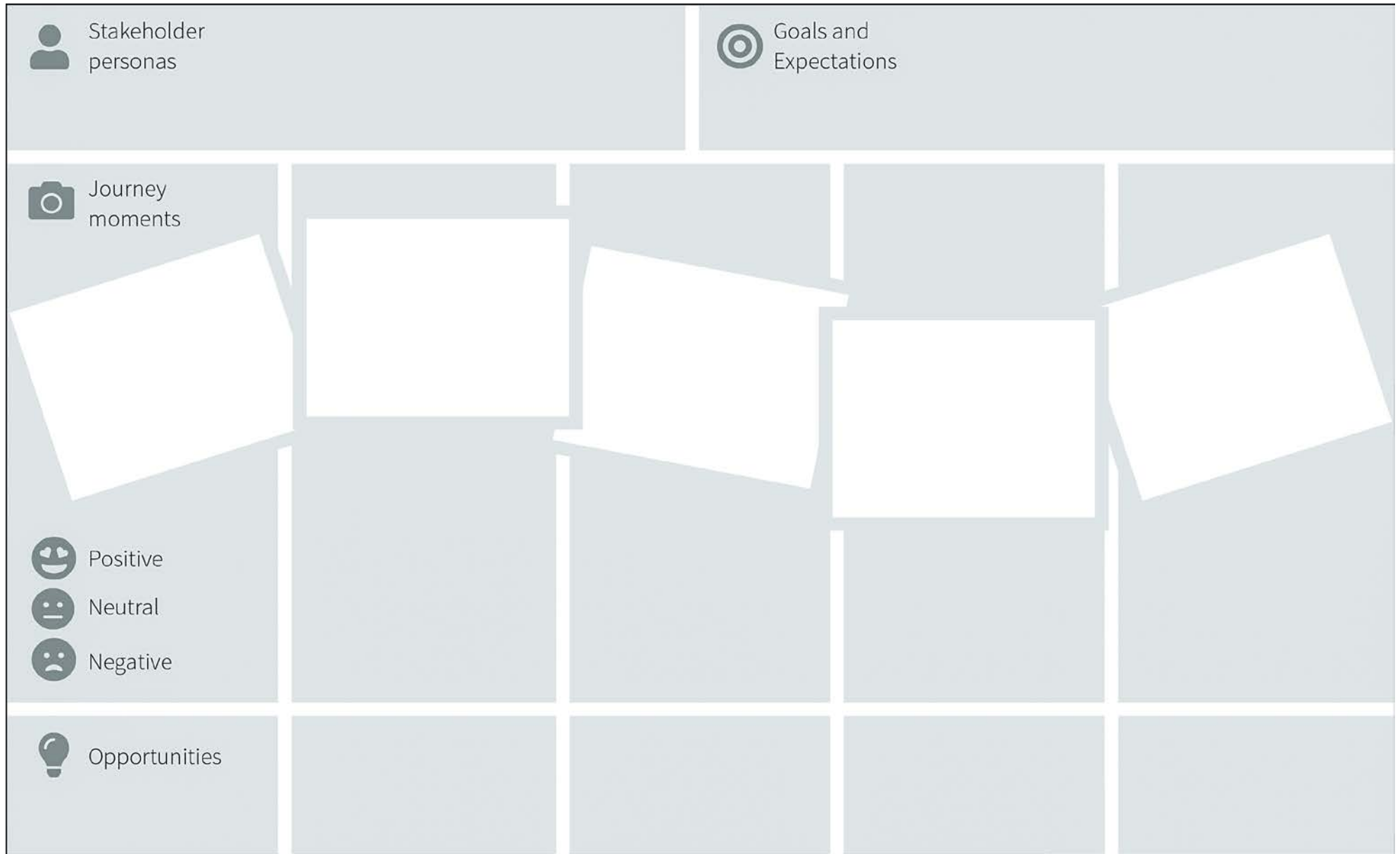
# Product Mgt. Artifact—Value Proposition Canvas



# Product Mgt. Artifact—Lean Canvas

<b>PROBLEM</b> <i>List your top 1-3 problems.</i>	<b>SOLUTION</b> <i>Outline a possible solution for each problem.</i>	<b>UNIQUE VALUE PROPOSITION</b> <i>Single, clear, compelling message that states why you are different and worth paying attention.</i>	<b>UNFAIR ADVANTAGE</b> <i>Something that cannot easily be bought or copied.</i>	<b>CUSTOMER SEGMENTS</b> <i>List your target customers and users.</i>
<b>EXISTING ALTERNATIVES</b> <i>List how these problems are solved today.</i>	<b>KEY METRICS</b> <i>List the key numbers that tell you how your business is doing.</i>	<b>HIGH-LEVEL CONCEPT</b> <i>List your X for Y analogy e.g. YouTube = Flickr for videos.</i>	<b>CHANNELS</b> <i>List your path to customers (inbound or outbound).</i>	<b>EARLY ADOPTERS</b> <i>List the characteristics of your ideal customers.</i>
<b>COST STRUCTURE</b> <i>List your fixed and variable costs.</i>		<b>REVENUE STREAMS</b> <i>List your sources of revenue.</i>		

# Product Mgt. Artifact—Customer Journey Canvas



# Product Mgt. Artifact—Product Roadmap Canvas

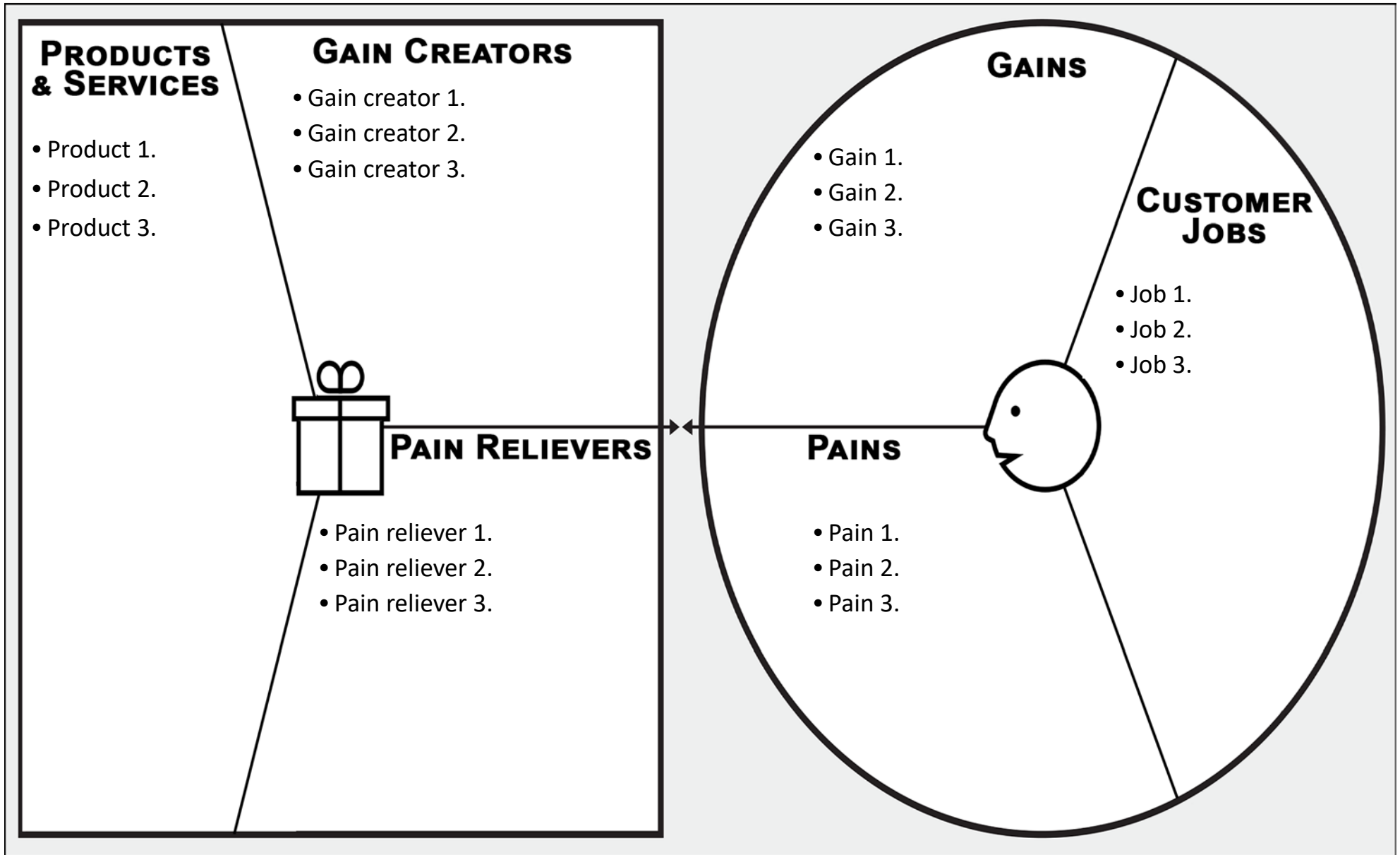
 <p><b>DATE</b> The release date or timeframe</p>	<i>Date or timeframe</i>	<i>Date or timeframe</i>	<i>Date or timeframe</i>	<i>Date or timeframe</i>
 <p><b>NAME</b> The name of the new release</p>	<i>Name/version</i>	<i>Name/version</i>	<i>Name/version</i>	<i>Name/version</i>
 <p><b>GOAL</b> The reason for creating the new release</p>	<i>Goal</i>	<i>Goal</i>	<i>Goal</i>	<i>Goal</i>
 <p><b>FEATURES</b> The high-level features necessary to meet the goal</p>	<i>Features</i>	<i>Features</i>	<i>Features</i>	<i>Features</i>
 <p><b>METRICS</b> The metrics to determine if the goal has been met</p>	<i>Metrics</i>	<i>Metrics</i>	<i>Metrics</i>	<i>Metrics</i>

# Product Mgt. Artifact—User Story Map Canvas

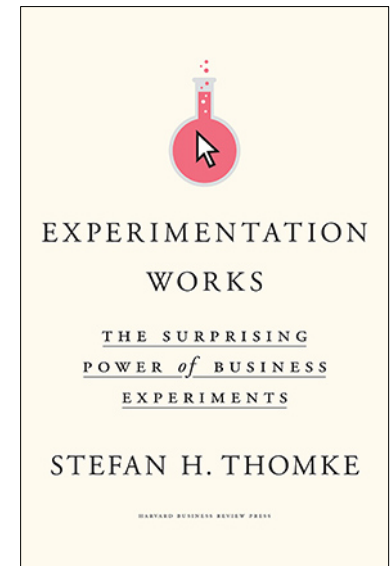
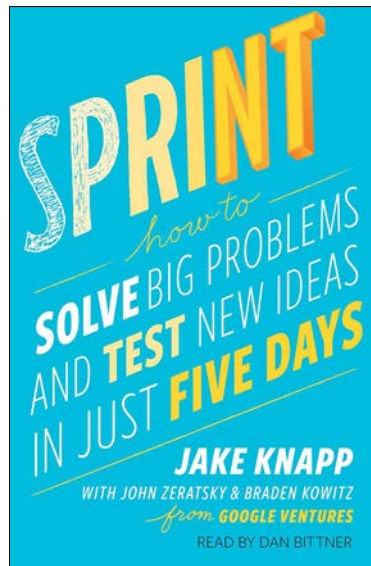
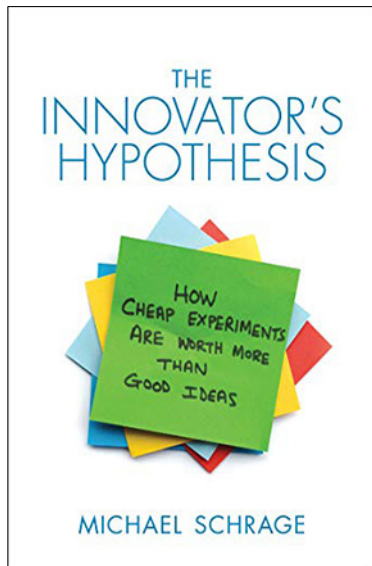




# Exercise #2—Complete Value Proposition Canvas?



# Further Product Management Resources



Schrage, M. (2014). *The innovator's hypothesis: How cheap experiments are worth more than good ideas*. Boston, MA: MIT Press.

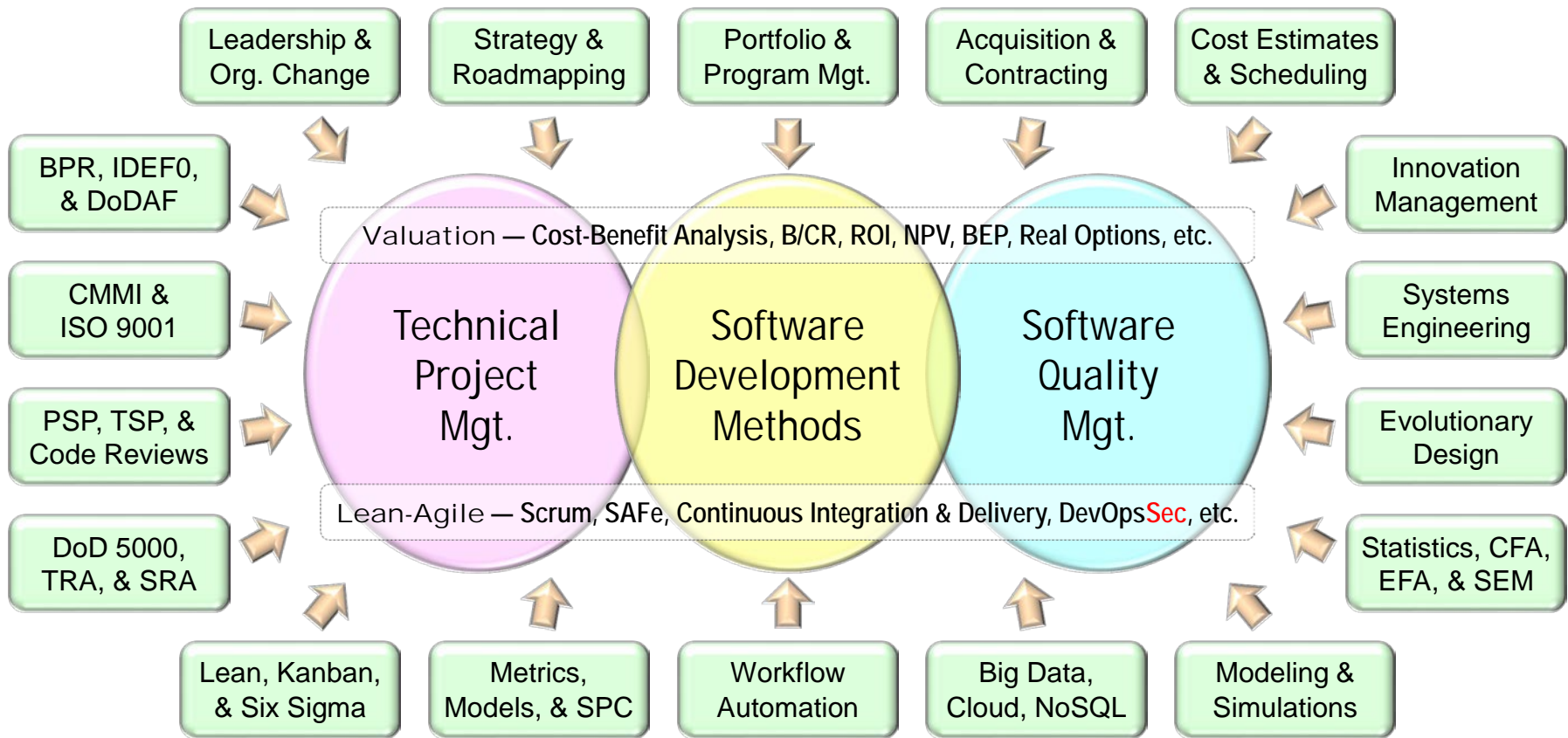
Knapp, J. (2016). *Sprint: Solve big problems and test new ideas in just five days*. New York, NY: Simon & Schuster.

Szabo, P. W. (2017). *User experience mapping: Enhance UX with user story map, journey map, and diagrams*. Birmingham, UK: Packt Publishing.

Ries, E. (2017). *The startup way: How modern companies use entrepreneurial management to transform culture and drive long-term growth*. New York, NY: Crown.

Thomke, S. H. (2020). *Experimentation works: The surprising power of business experiments*. Boston, MA: Harvard Business Review Press.

# Dave's Professional Capabilities



**STRENGTHS** – Lean & Agile Thinking • 360 Leadership Assessments • Executive & Agile Coaching • Enterprise Business Agility • Agile Acquisition Contracts • Scaled Agile Framework (SAFe) • DevOps + Security (DevOpsSec) • Cloud Computing/Amazon Web Svcs. • Portfolio, Program, & Project Mgt. • 5x5x5 Innovation & Marketing Sprints • Strategic Planning & Technology Roadmaps • Program Increment & Big Room Planning • Emergent & Evolutionary Microservices • Exploratory MVP, MVA, & MMF Experiments • Lean Startup Product-Focused Value Streams • Performance Metrics, Measures & Dashboards



- **Data mining.** Metrics, benchmarks, & performance.
- **Simplification.** Refactoring, refinement, & streamlining.
- **Assessments.** Audits, reviews, appraisals, & risk analysis.
- **Coaching.** Diagnosing, debugging, & restarting stalled projects.
- **Business cases.** Cost, benefit, & return-on-investment (ROI) analysis.
- **Communications.** Executive summaries, white papers, & lightning talks.
- **Strategy & tactics.** Program, project, task, & activity scoping, charters, & plans.

