WHAT'S IN BETWEEN?
Hybrid Agile Processes
for Product Development
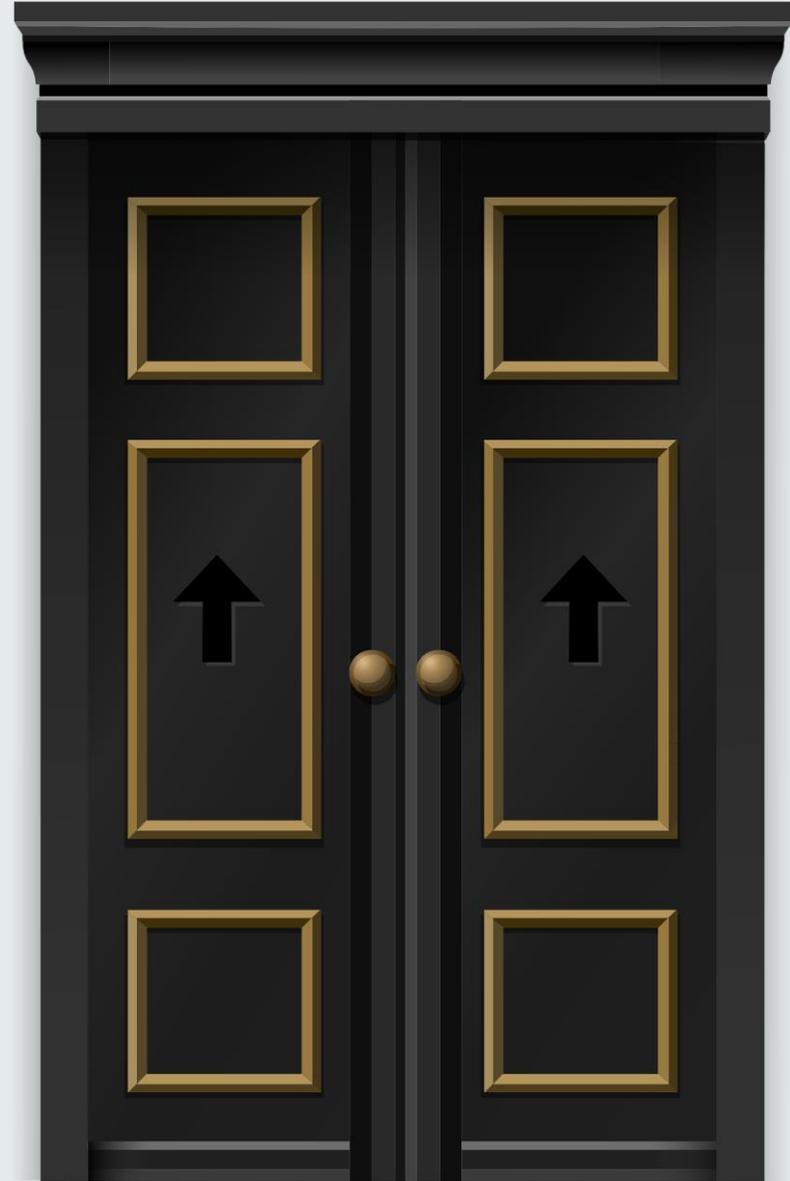
GNPS
Global NP Solutions

8 April 2025
12:00 – 1:00 pm CDT

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Sponsored by

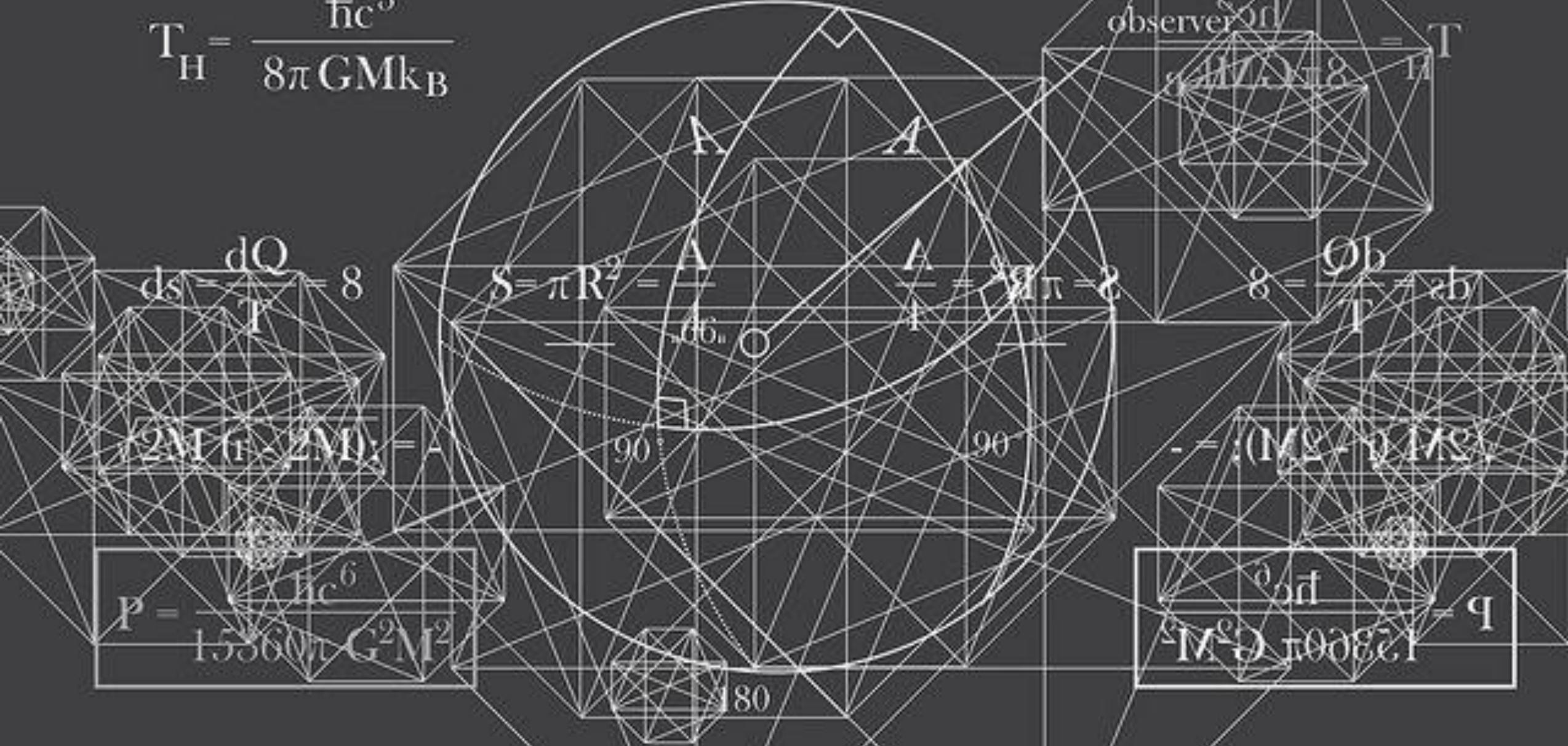PMI Project Management Institute Central Illinois

Need 2 Volunteers

Let's Debrief…

Volunteer #2

- How did you **feel** about this exercise?

- Was there **risk** or **uncertainty** involved?

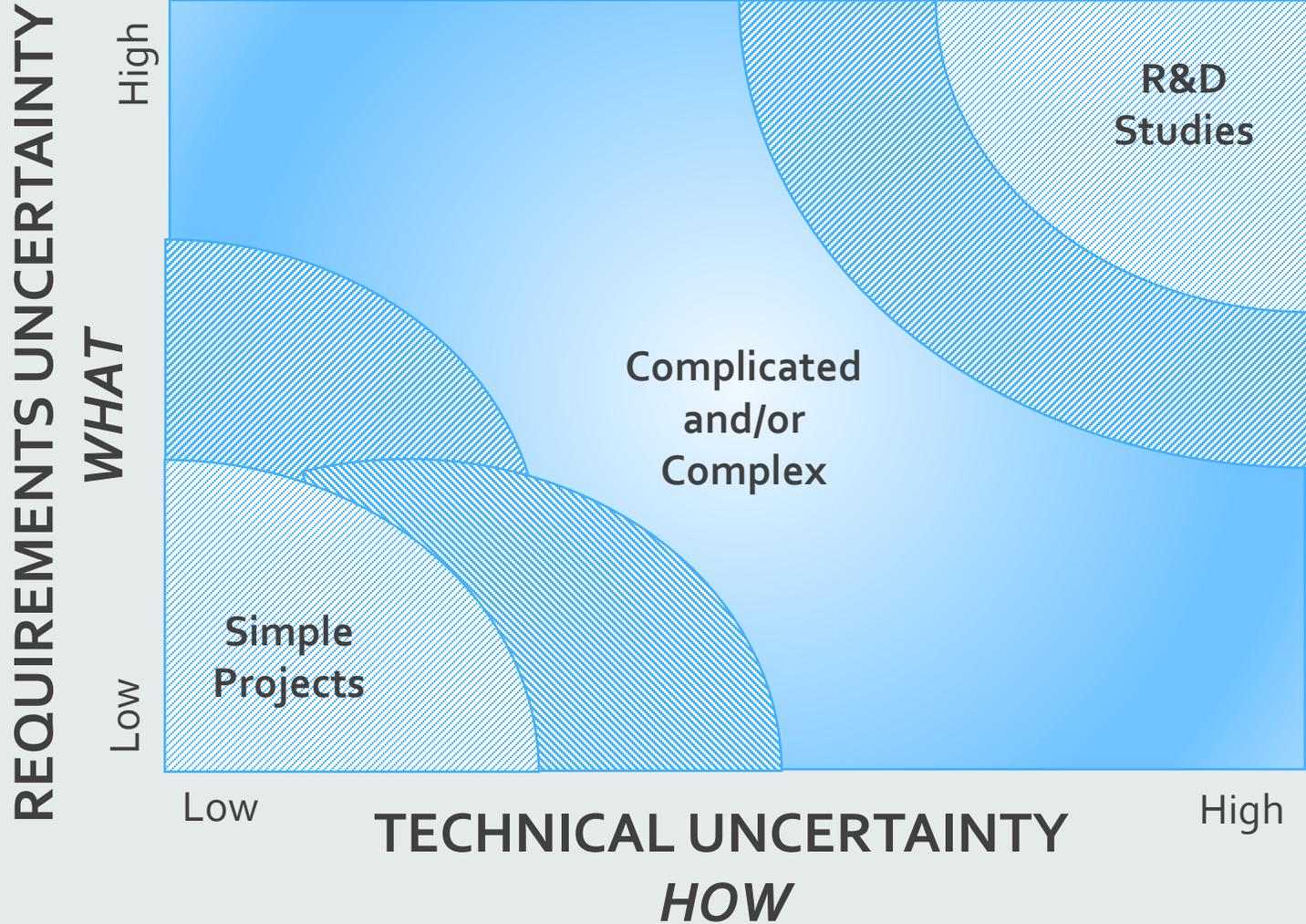## Volunteer #1

- How did you **feel** about this exercise?

- Was there **risk** or **uncertainty** involved?
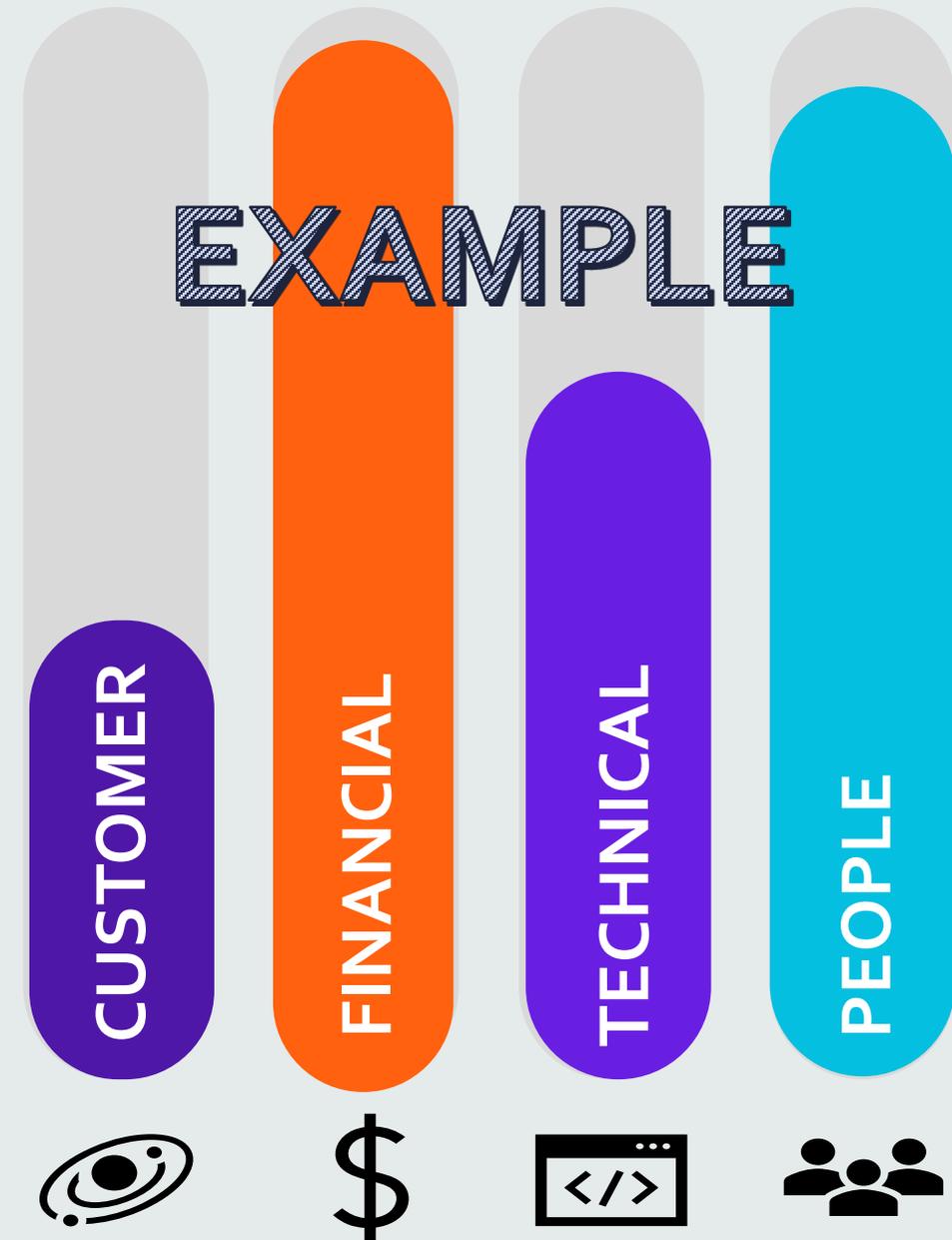
Topics for Today

- How do **project managers** view risk?
- What is the link between **risk** and **product management?**
  - Quick review of typical project management processes
- Two **Hybrid Processes**
  - **WAGILE** and an example
  - **Lean NPD** and an example
- Wrap-up, Q&A

PM View of Project Risk

Product Development and Process Risks

- **Why?** The product itself

- **Where?** Customer Risk

- **What/When?** Financial Risk

- **How?** Technical Risk

- **Who?** People (Team) Risk

EXAMPLE

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Quick Review: Waterfall / Predictable Process

- Low degree of **requirements uncertainty (*what*)** …PLUS…

- Low degree of **technical uncertainty *(how)***

- Staged-and-gated process

Business Case

Design & Development

Scale Production

Go To Launch

Post-Launch Reviews

1   2   3   4   5

Selection of a <u>Waterfall</u> Process

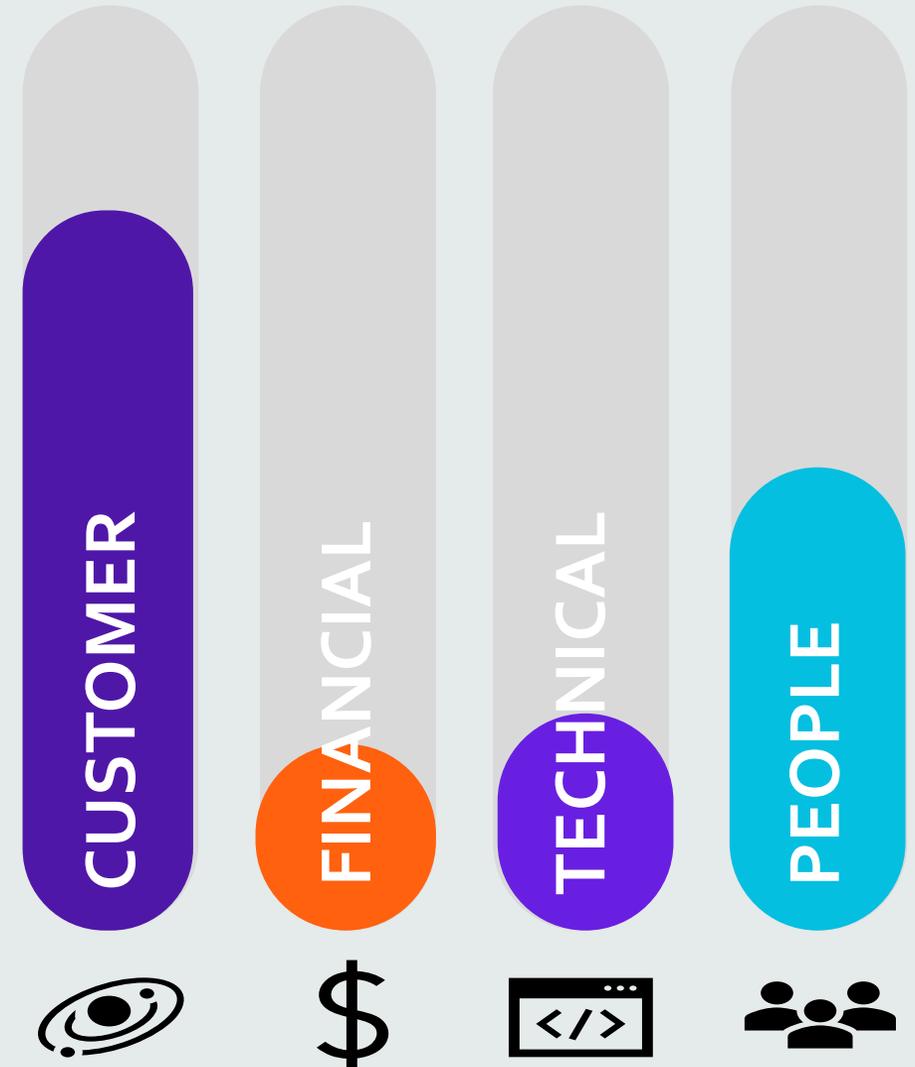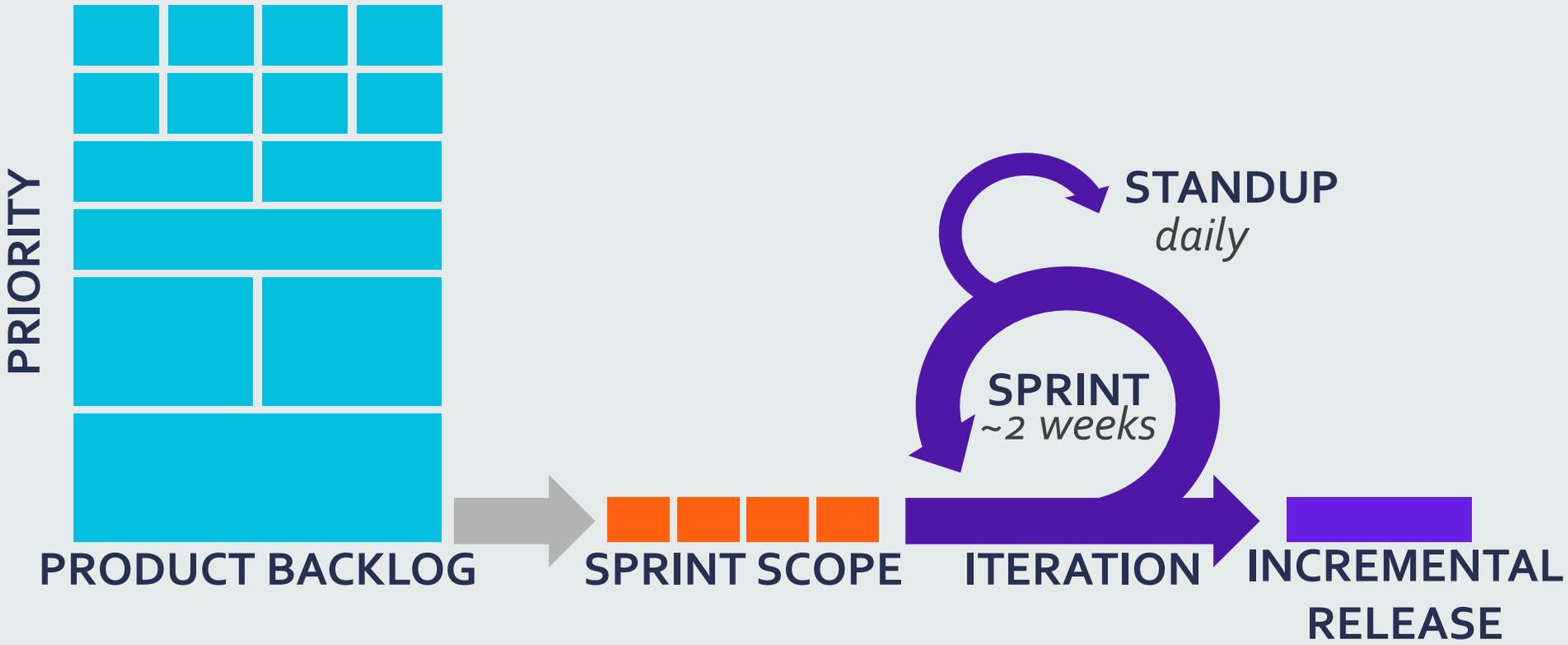- ▪ *Example:* Simple project
  - ▪ Expand food and beverage product to global (vs. regional)

- ▪ **Benefits:**
  - ▪ WHAT and HOW are known

- ▪ **Potential Pitfalls:**
  - ▪ Customer Identification End-User Needs/Wants?
  - ▪ Lack of PM Process Experience (People Risk)
  - ▪ Often slow and bureaucratic

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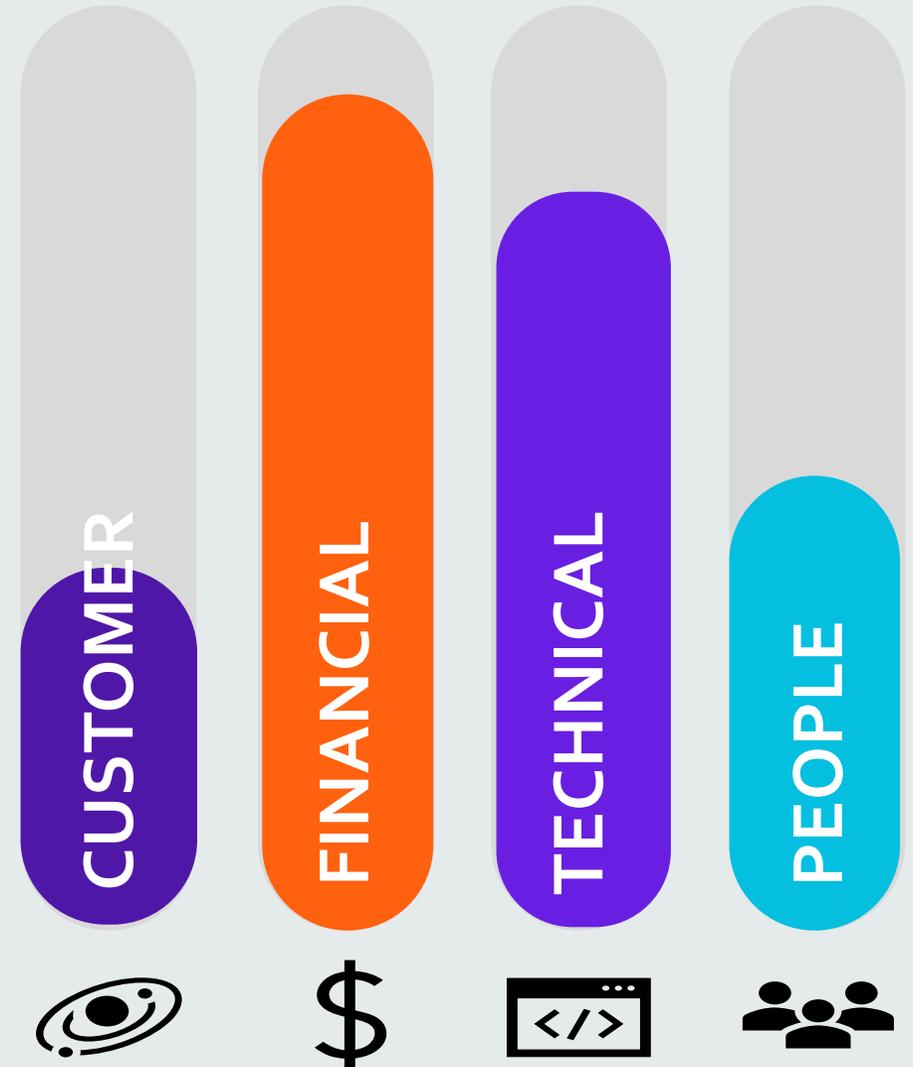# Quick Review: (Agile) Scrum Approach

- Med-high degree of **requirements uncertainty (*what*) …**PLUS…

- Med-high degree of **technical uncertainty** *(how)*

- Iterative, incremental process

PRIORITY

PRODUCT BACKLOG → SPRINT SCOPE → ITERATION → INCREMENTAL RELEASE

STANDUP *daily*

SPRINT *~2 weeks*

Selection of (Agile) <u>Scrum</u> Process

- *Example:* Complex project
  - Integrate software packages
  - WHAT and HOW are unknown

- **Benefits:**
  - Close "customer" interactions
  - Teams granted autonomy

- **Potential Pitfalls:**
  - Lacking Definition of Done
  - Final Product Design Unknown
  - No outstanding successes…

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Very Limited Agile Successes

COVID

Amazon
NASDAQ
Macy's
QRG

Dec-17 Jun-18 Dec-18 Jun-19 Dec-19 Jun-20 Dec-20 Jun-21 Dec-21 Jun-22 Dec-22

— QVC   — NASDAQ   — Macy's   — Amazon

Typical Project Management Approaches to New Product Development… and What's In Between

The WAGILE Process Approach

IDEA GATE	FUNCTIONAL GATE	TECHNOLOGY GATE	CONSTRUCTABILITY GATE	LAUNCH DECISION
☐ Customer Needs	☐ Profit and Loss	☐ Intellectual Property	☐ Market Testing	☐ Logistics
☐ Competitive Analysis	☐ Pricing Strategies	☐ Pilot Testing	☐ QA and QC	☐ Sales & Marketing

Opportunity Identification → **Business Case** → **Technical Development** → **Scale-Up** → **Production**

Create, Trial, Validate

Strategy, Concept

Design, Build, Test

Prototype, Verify

Ship, Measure, Manage

Selection of Hybrid <u>WAGILE</u> Process

- *Case Study:*
  - Publishing & events ministry
  - No PM process in place
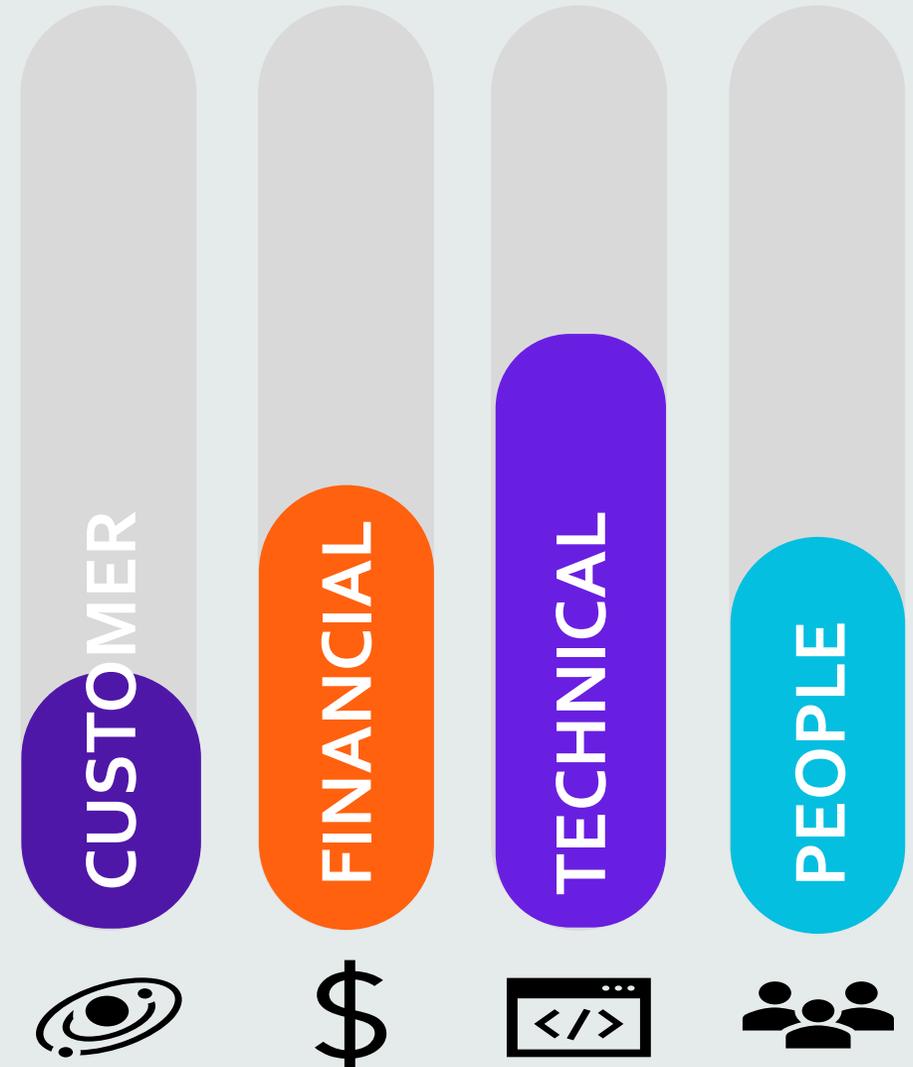 - WHAT and HOW mostly known

- **Benefits:**
  - Close customer interactions
  - Small teams granted autonomy

- **Potential Pitfalls:**
  - Bureaucracy & Gate Creep
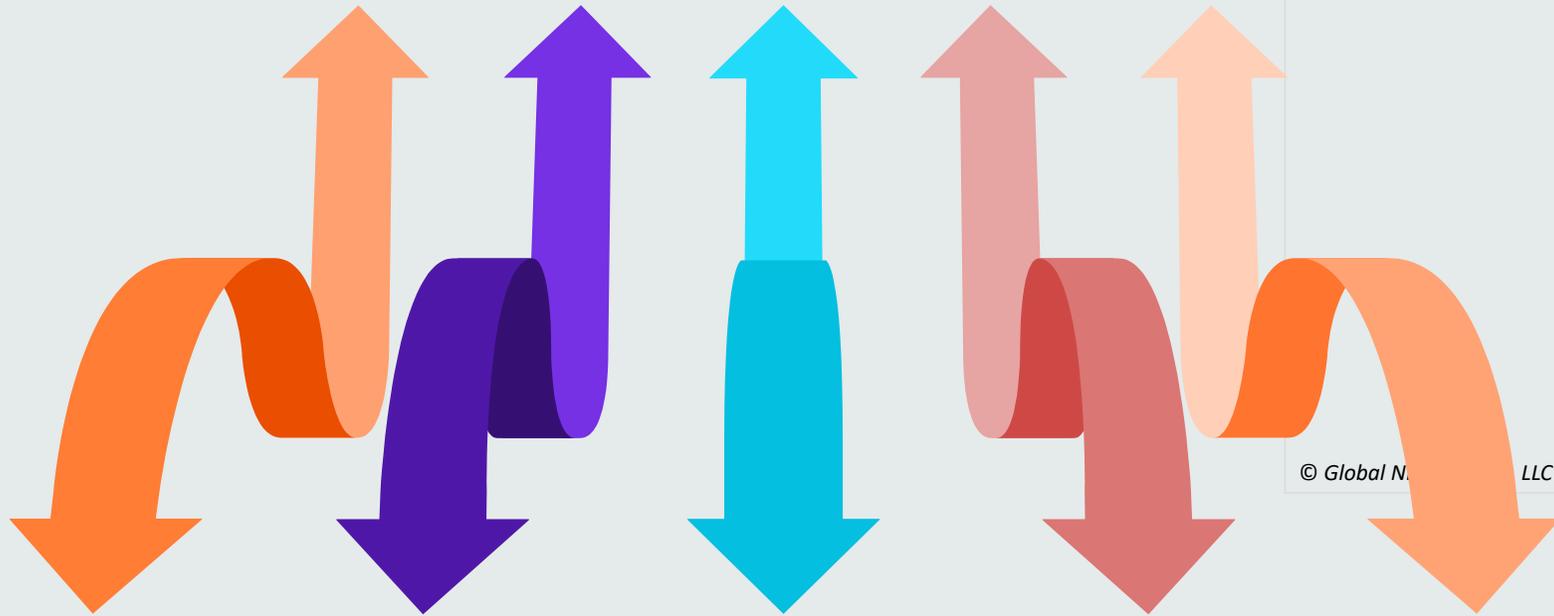 - Incomplete Design Thinking Cycles during Stage Iterations

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Case Study

Implement:
- The WAGILE Philosophy
- Design Thinking Tools

INNOVATION HEALTH ASSESSMENT®
Non-Profit 2022 vs. Non-Profit 2020

© Global N.   LLC

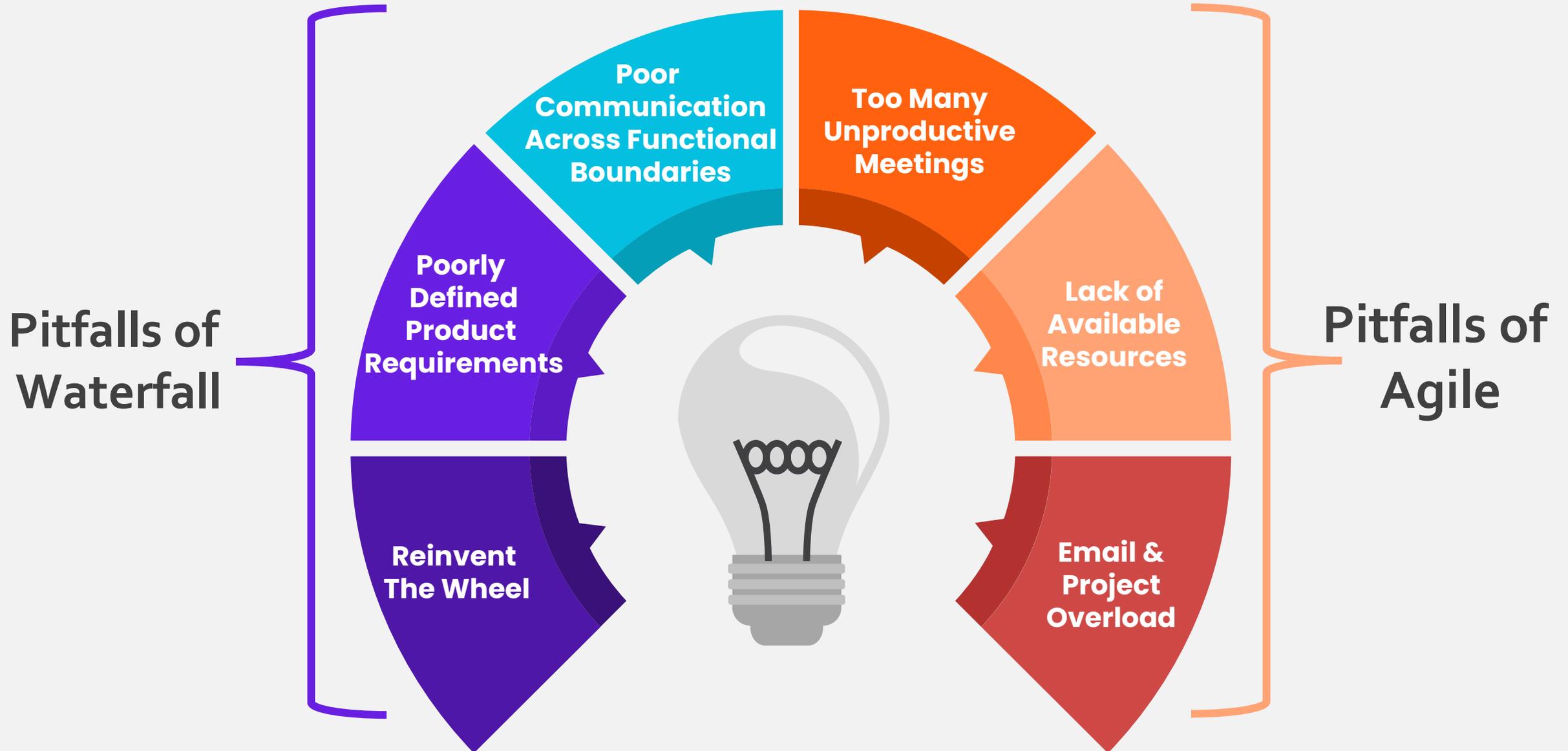| Move Fast	Practice Discipline	Understand Risks	Engage Customers	Provide Autonomy
Agile Practice	*Waterfall Practice*	*Waterfall Practice*	*Agile Practice*	*Agile Practice*

- Significant improvements over a 2-year period

- Some work still to do in strategic direction and competitive analysis

Typical Project Management Approaches to New Product Development... and What's In Between

Lean NPD Philosophy: Reduce Waste

Pitfalls of Waterfall

- Poor Communication Across Functional Boundaries
- Poorly Defined Product Requirements
- Reinvent The Wheel

Pitfalls of Agile

- Too Many Unproductive Meetings
- Lack of Available Resources
- Email & Project Overload

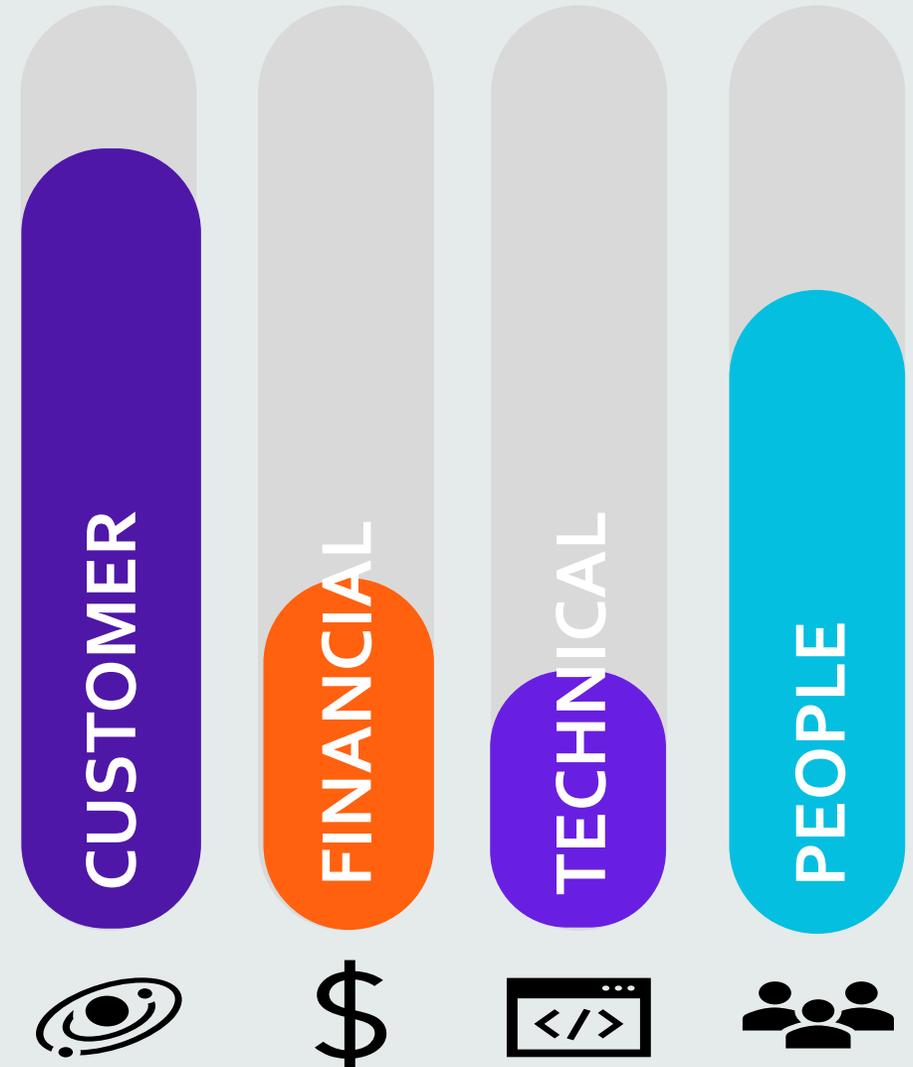# Selection of Hybrid <u>Lean NPD</u> Process

- *Case Study:*

  - Household Appliance Producer

  - Existing but *burdensome* waterfall process

  - HOW (technology) known

- **Benefits:**

  - Incremental improvements

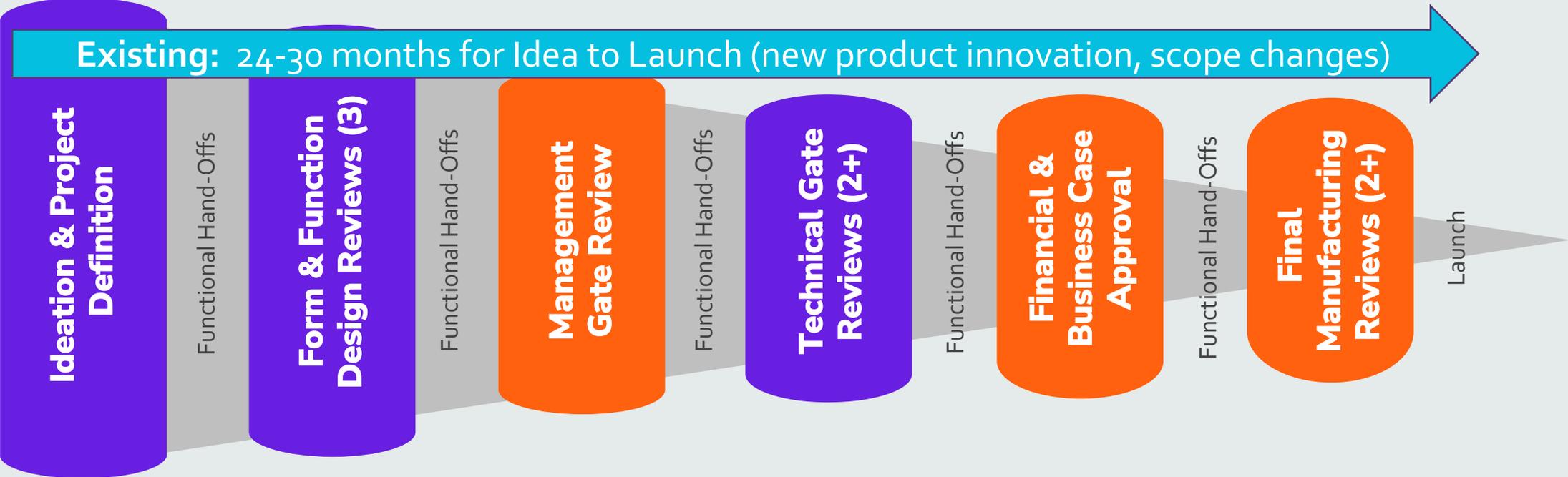 - Retail cycles (WHEN) known

- **Potential Pitfalls:**

  - Wholesale vs. retail customers

  - Lack of team trust (bureaucracy)

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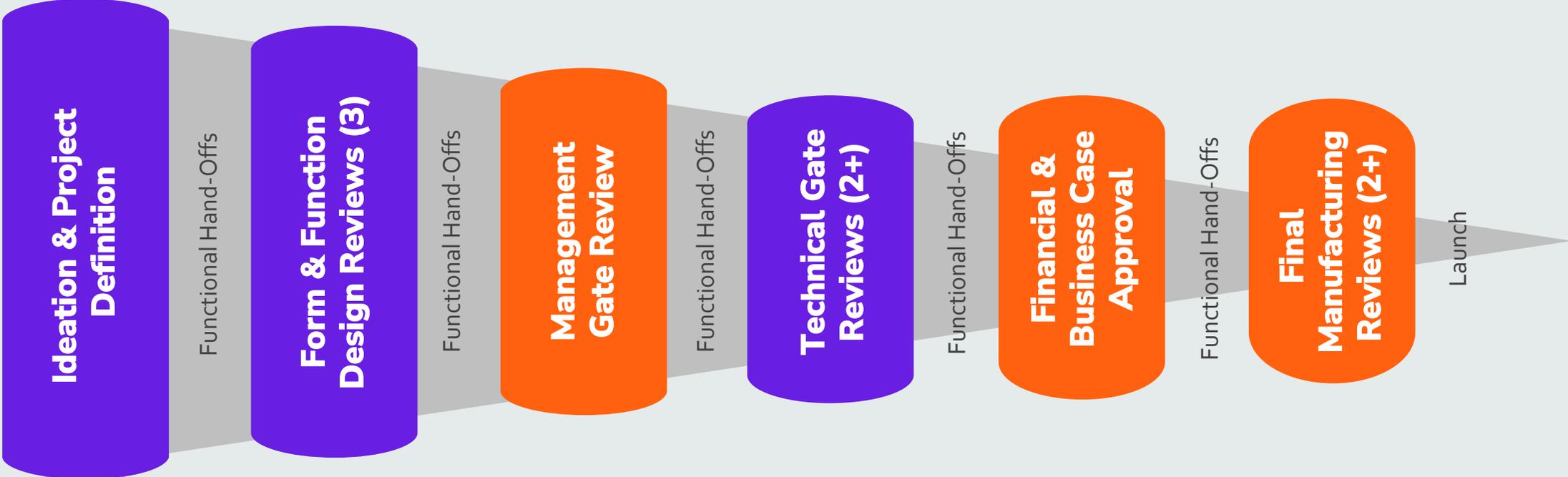**FINANCIAL**

TECHNICAL

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Case Study: Household Appliance Producer

- Existing heavyweight waterfall process with executive management reviews, little team trust, high staff turnover

- Slow to market, losing share to competitors

- Quality and profit margins declining, costly downstream decisions

Existing: 24-30 months for Idea to Launch (new product innovation, scope changes)

| Ideation & Project Definition | Functional Hand-Offs | Form & Function Design Reviews (3) | Functional Hand-Offs | Management Gate Review | Functional Hand-Offs | Technical Gate Reviews (2+) | Functional Hand-Offs | Financial & Business Case Approval | Functional Hand-Offs | Final Manufacturing Reviews (2+) | Launch |

Streamline & Transition to Lean NPD

Ideation & Project Definition

Functional Hand-Offs

Form & Function Design Reviews (3)

Functional Hand-Offs

Management Gate Review

Functional Hand-Offs

Technical Gate Reviews (2+)

Functional Hand-Offs

Financial & Business Case Approval

Functional Hand-Offs

Final Manufacturing Reviews (2+)

Launch

Cross-Functional Teams

Eliminate Management Reviews

15% improvement in speed-to-market (18 months radical products)

Product Design Workshop

Project Planning Workshop

Prototype Build and Test

Optimize Production

Launch Decision

GET YOUR QUESTIONS READY!

Analyze Your Risk

- **Why?** The product itself

- **Where?** Customer Risk

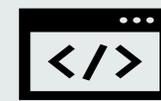- **What/When?** Financial Risk

- **How?** Technical Risk

- **Who?** People (Team) Risk

Your Organization
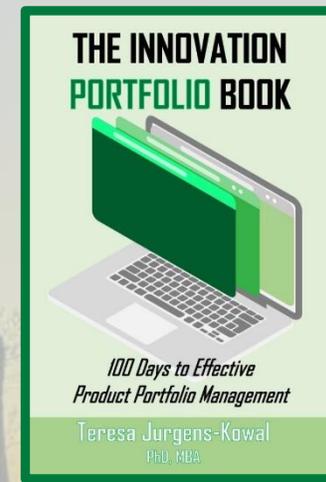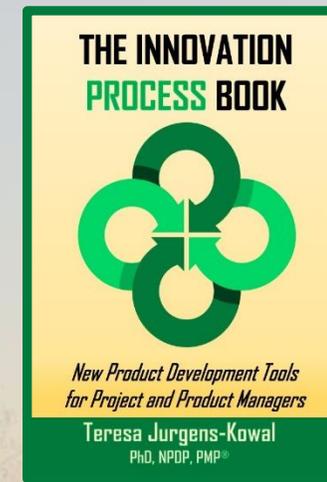
CUSTOMER
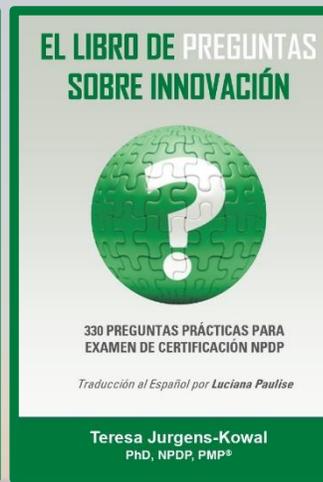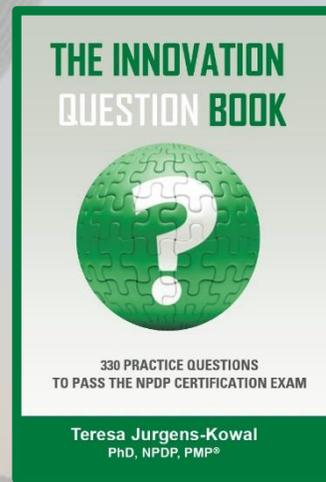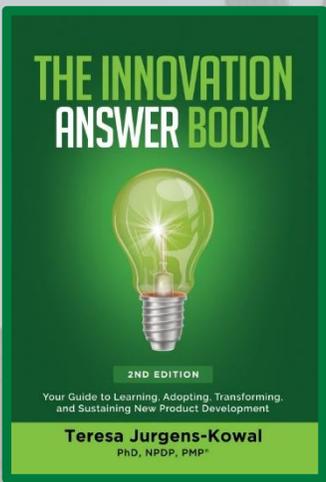
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Which Hybrid PM Process for NPD?
Case Study Comparisons

Goal: Implement NPD Process	WAGILE	Goal: Improve Time-to-Market	Lean NPD
Management Trust		Management Trust (*w/project constraints*)	
Risk Tolerance		Risk Tolerance	
Team Culture		Team Culture	
Marketing Maturity		Marketing Maturity	
Financial Strength		Financial Strength	

Summary: Hybrid PM Process for NPD

- Innovation and product development require taking **risks**

- Project management systems balance **investment risk** against novelty

- **Waterfall** (predictive) processes tend toward being slow & bureaucratic

- **Agile** is not typically successful for tangible product development
  - And questionable even for IT in many instances

- **Hybrid** approaches blend discipline of waterfall with flexibility of Agile
  - Examples include **WAGILE** and **Lean NPD**

- Continually analyze what works for NPD process improvement
  - **Customize** to address **risk**, organizational strategy, industry, team structures

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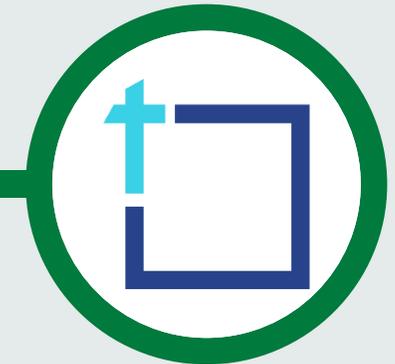
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- Group or 1-1

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- Support one another