



# LavaCon

*The International Conference on  
Technical Project Management*

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## Inventing the Wheel

Presented by Emily Sopensky

# Inventing the Wheel

When innovation is the Foundation of  
Your Project



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# Introduction

- Working with projects born of or for innovation requires skillsets different from more typical projects.
- Awareness of the innovation environment will help project managers and independent contributors assess their opportunities with such projects.



# Agenda

- Background – Presenter / Participants
- Discussion: What is innovation?
- Discussion: What kind of wheel are you?
- Project Management
- Summary



# Background

- Presenter's

- Student and follower of innovative trends, esp. in technology
- Startups to Fortune 500s
- Reluctant first-adopter; ADD for trial and error

- Participants'

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# What is innovation?

- Invention – create/establish something new.
- Innovations – inventions that become economically successful
- Characteristics
  - Results from disruptive technologies(Internet); effort to solve problem; spinoff from major investments (Human Genome Project)
  - Transforming
  - Risk factor
- Multifunctional capability (own/source ideation, project selection, development, & commercialization)



# Best-in-Class Innovation

New Market	<p>Market-Based Ideation, No New Technology</p> <ul style="list-style-type: none"> <li>● Easy to replicate</li> <li>● Difficult to maintain a competitive edge</li> </ul>	<p>Best-in-Class Innovation</p> <ul style="list-style-type: none"> <li>● New usage or market segment</li> <li>● Proprietary technology (Apple iPod, Listerine PocketPaks)</li> </ul>	
	<p>Current</p> <p>No Innovation</p>	<p>Technology Innovation to Meet Current Needs</p> <ul style="list-style-type: none"> <li>● Tough competition for market share</li> <li>● Competitors can reduce price, playing the price vs. value game</li> </ul>	
	Current	Technology	New

Source: Booz Allen Hamilton



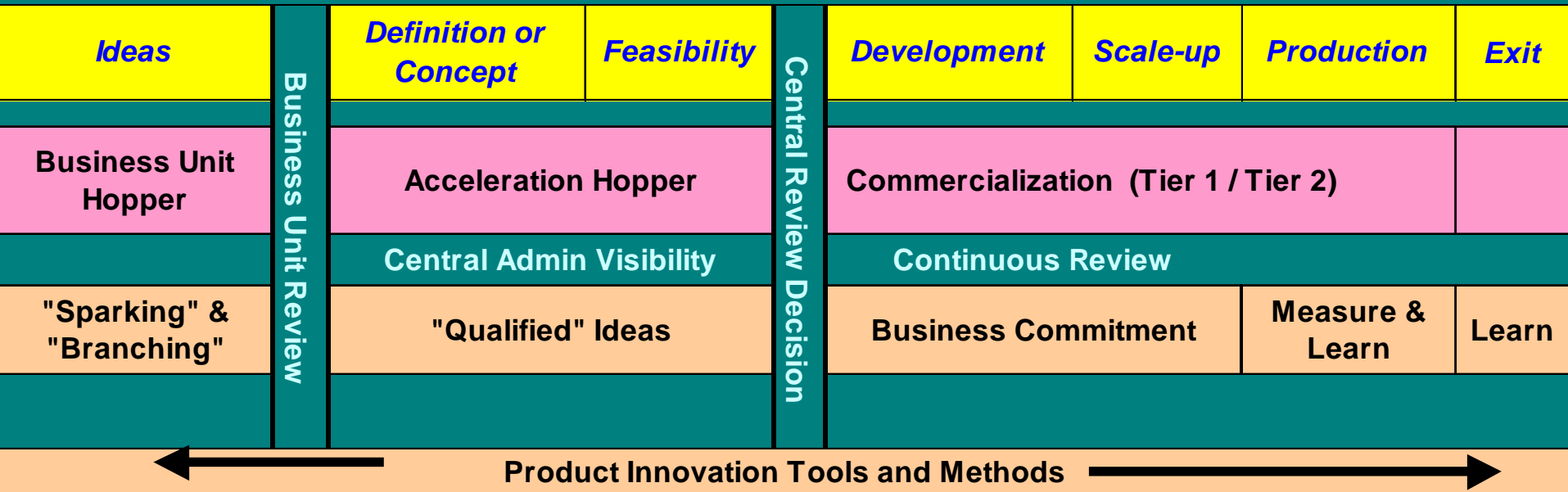
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# Idea → Product: The Hopper

## Innovation Cycle





# Innovation Environment

## Put Aside Ego

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“Getting people to expand their views – to see a situation through others’ eyes – often raises ego issues.”

**Thomas Fogarty**, invented the first balloon catheter; cofounder of **Three Arch Partners**, a Portola Valley, California venture capital firm.

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## Mix People Up

“People respond well if you can get them to focus not on the inconveniences of restructuring but on the satisfaction of setting high goals and then knocking down the barriers to achieve them.”

**Lt. General Ronald T. Kadish**, director of the Missile Defense Agency, **U.S. Department of Defense**.

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## Don't Fear Failure

“Make sure that people aren't afraid of the possibility of failure, and do a lot of experiments.”

**Michael Dell**, founder, chairman, and CEO of **Dell Computer**

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# Environment cont.

## Hire Outsiders

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“Employing people with diverse skills and talents helps us challenge the status quo when developing business strategies.”

**Hal Tovin**, group executive vice president, Emerging Channels Division of **Citizens Financial Group**

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## Abandon the Crowd

“You can actually spend less and make more money if you pay attention to the valleys, those places your competitors have overlooked.”

**Larry Keeley**, president of **Doblin**, an innovative strategy firm

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## Don't Underestimate Science

“Our primary obstacle to innovation is getting funding.”

**Luciano Maiani**, director general of the European Organization for Nuclear Research (**CERN**)

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# Environment cont.

## Merge Patience and Passion

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“If the tools you’re working with are hammers, you don’t want all problems to be seen as nails.”

**John Talley**, vice president of drug discovery at **Microbia**, Cambridge, Mass

## Make It the Norm

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“For innovation to be reliable, it needs to be addressed systematically.”

Craig Wynett, Proctor & Gamble general manager for future growth initiatives.

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# Innovation Effectiveness

Company X	Large Projects	Poor Project Depth (not enough good projects)	Low innovation; low investment in innovation; Low returns
Company Y	Small projects	Good project depth (many projects)	Generate acceptable returns



# Innovation – Layers to Product



Is It Profitable?  
Is It Strategic?  
Is The Company Competitive?  
Is The Product Competitive?  
Is The Product Real?  
Is The Market Real?



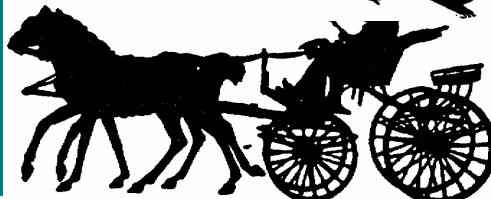
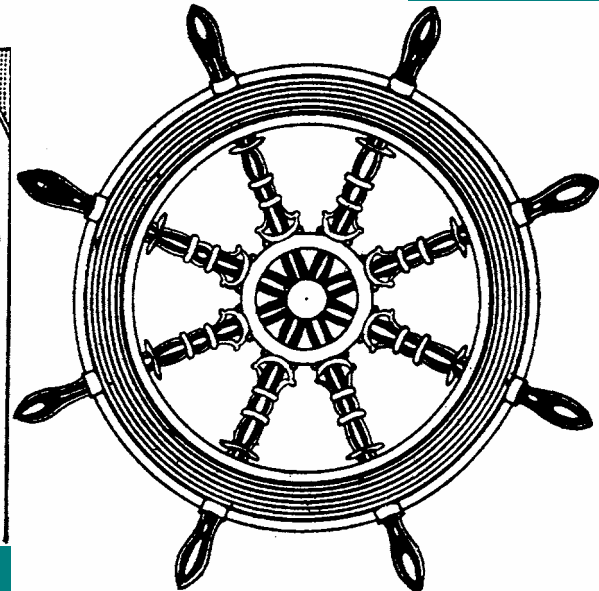
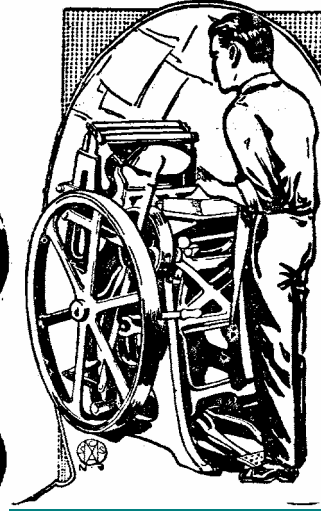
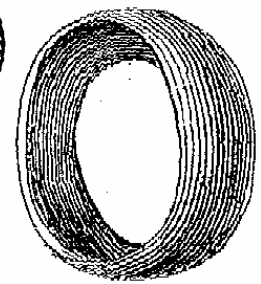
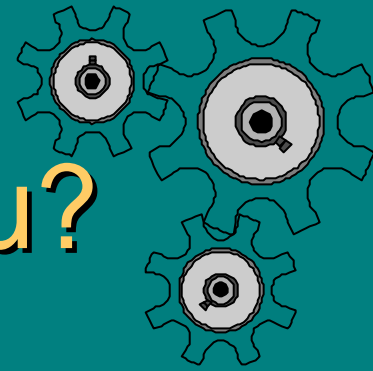
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# What kind of wheel are you?

- One wheeler?
- Two-wheeler?
- Three-wheeler?
- Four-wheeler?



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# Project Management

- Innovation

- Plan – execute
- Stakeholder revolt
- Expect the unexpected
- Others?

- Traditional

- Plan then execute
- Budgeted & appropriated
- Strive to avoid surprises
- Others?



# Summary

- Innovation has distinct characteristics, which “flavor” project management.
- Expect the unexpected – from product development; the market; and stakeholders
- Learn the lingo and the innovation cycle
- Feedback?





# Where to Get More Information

- Email [emily@iriscompany.com](mailto:emily@iriscompany.com) for bibliography





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The instructor is a business consultant who has long been involved in organizational development in both private and public enterprises.

Currently on an IEEE fellowship to the U.S. Department of State, part of Sopensky's portfolio includes chronicling a major innovative State-wide project that replaces World War II vintage messaging tools to those that are web-based.

She has authored several articles for Project Management Institute's monthly magazine *PMNetwork*, including a cover story, "Growing Pains" about the project management in city-states and "Red, Yellow, Green," on transportation project post-9/11.