



Convert Uncertainty to Opportunity

How to Fail Fastest within the 'Messy Middle' of the Innovation Process

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Doug Williams, Assoc. Dir., Innovation

InnoLead Master Class
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Welcome!



David Matheson
President and CEO



Doug Williams
Associate Director, Innovation

Find, Fuel and Fund your best opportunities with SmartOrg's Decision Intelligence software

Innovation Navigator®

Accelerate the path from risk to upside

- Work on what matters
- Build the business case
- Win over stakeholders
- Manage inflection points

Portfolio Navigator®

Where and how much to invest

- Evaluate and compare opportunities
- Cut through the clutter
- Find hidden upside
- Make more objective decisions

Services

Partners Propelling Progress

- Consulting
- Training
- Implementation

We are powered by 20+ years of what works

Pharmaceuticals

- Teva Pharmaceuticals
- Inspire Pharmaceuticals
- KV Pharmaceuticals
- Jazz Pharmaceuticals
- Catalent



Medical Device

- Stryker Neurovascular
- Philips (Respironics)
- Varathon
- Zimmer
- Medtronic



Agriculture

- Bayer Crop Science
- Pioneer Seeds
- DuPont Crop Protection
- Corteva Agriscience
- Christensen Farms



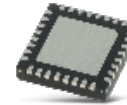
Materials

- Rogers Corporation
- DuPont
- Hexion
- GAF



Semiconductor

- Intel
- SanDisk
- Applied Materials
- Orbotech
- Texas Instruments



Equipment

- Ingersoll-Rand
- Eaton
- Scholle Packaging



Energy

- ExxonMobil
- Chevron



Consumer Products

- SaraLee
- VF
- Kimberly Clark



Communications

- Sprint
- T-Mobile
- Cisco
- Smiths Interconnect



IT

- Apple
- Google
- Microsoft
- HP



Other

- Boeing
- Sony Pictures
- The Nature Conservancy

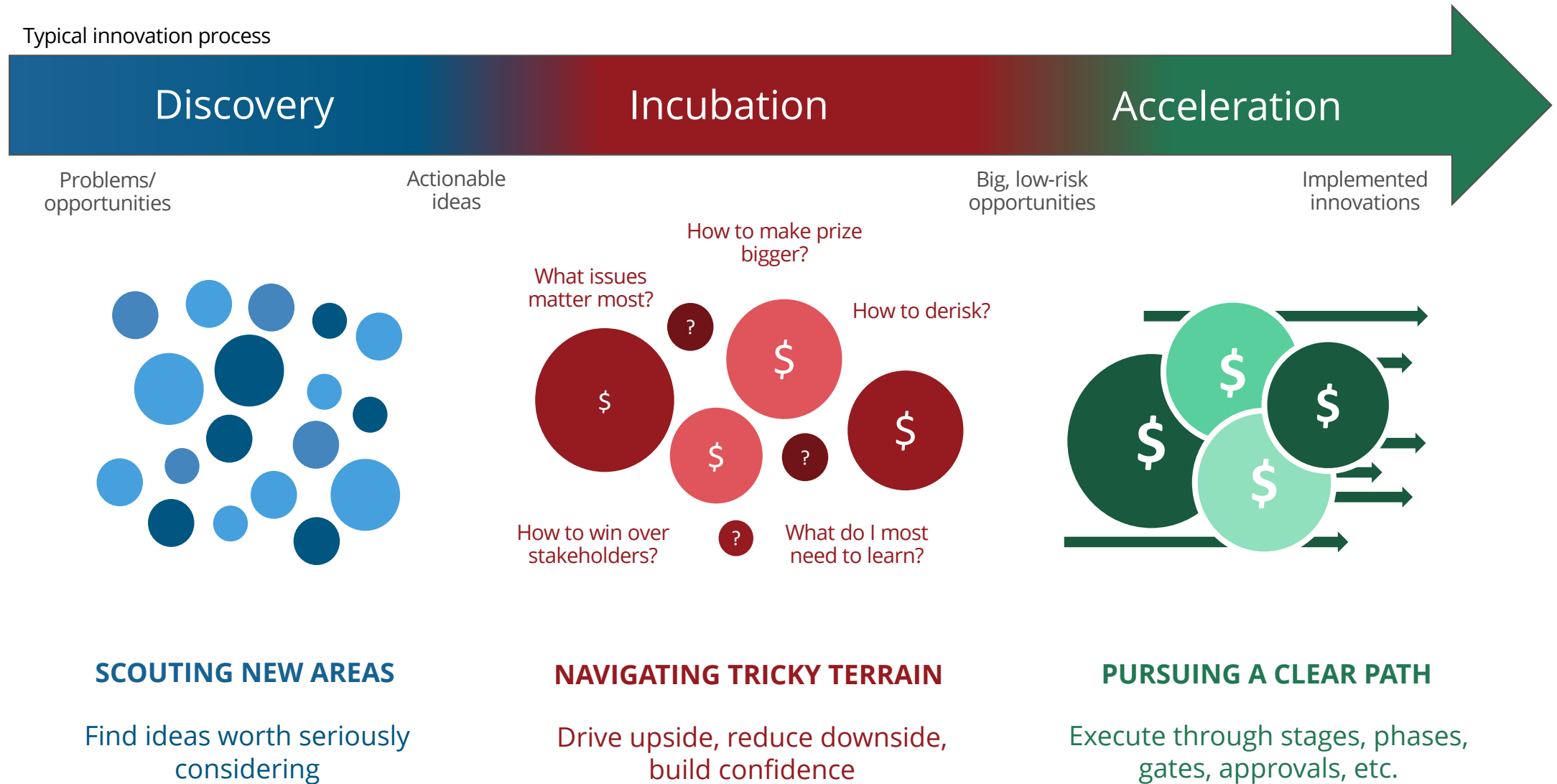


ALL INNOVATION PROJECTS HAVE RISK.
HOW DO YOU KNOW WHICH ARE **WORTH IT?**



How do you explore the upside and minimize the downside risk in your innovation opportunities?

Typical innovation process



Poll Question #1

On a scale of 1 to 5, how effective is your incubation process?

- 1 **Ineffective:** we produce only incremental/core innovation opportunities and struggle to get the business to adopt cool new things
- 2
- 3 **Inconsistent:** we only occasionally produce surprising growth opportunities that are adopted by the business
- 4
- 5 **Effective:** we consistently produce surprising growth opportunities that are embraced by the business



Today's objective:

Have a **“Great Scott!”** moment
about the “fail fastest” approach

Our story: Rogers Corporation and frequency-hopping radios



What issues will improve confidence in the business case?



Customer acceptance:
Will they be satisfied?



Incorporating tech into radios & vehicles:
Can we install efficiently?



Demonstrating performance:
Is the technology reliable?



Qualification of materials:
Can we produce it with low-cost inputs?

Poll Question #2

Which issue would you have prioritized?

- Customer acceptance (desirability)
- Incorporating tech into radios and vehicles (viability)
- Demonstrating performance (feasibility)
- Qualification of materials (viability)

What issue did Rogers prioritize?



Customer acceptance:
Will they be satisfied?



Incorporating tech into radios & vehicles:
Can we install efficiently?

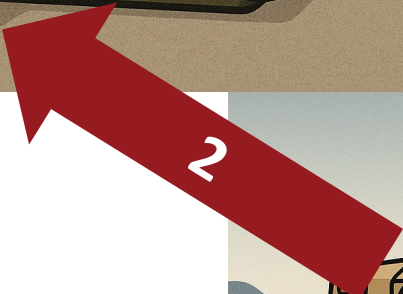
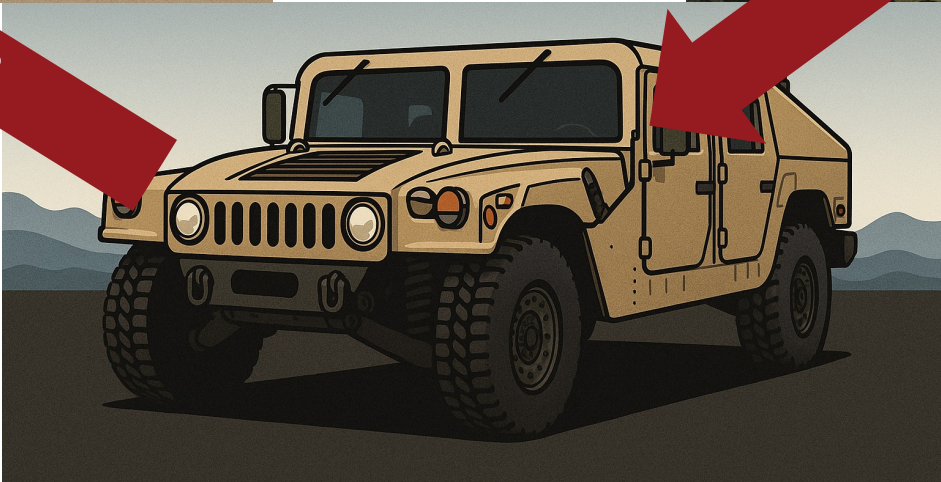


Demonstrating performance:
Is the technology reliable?

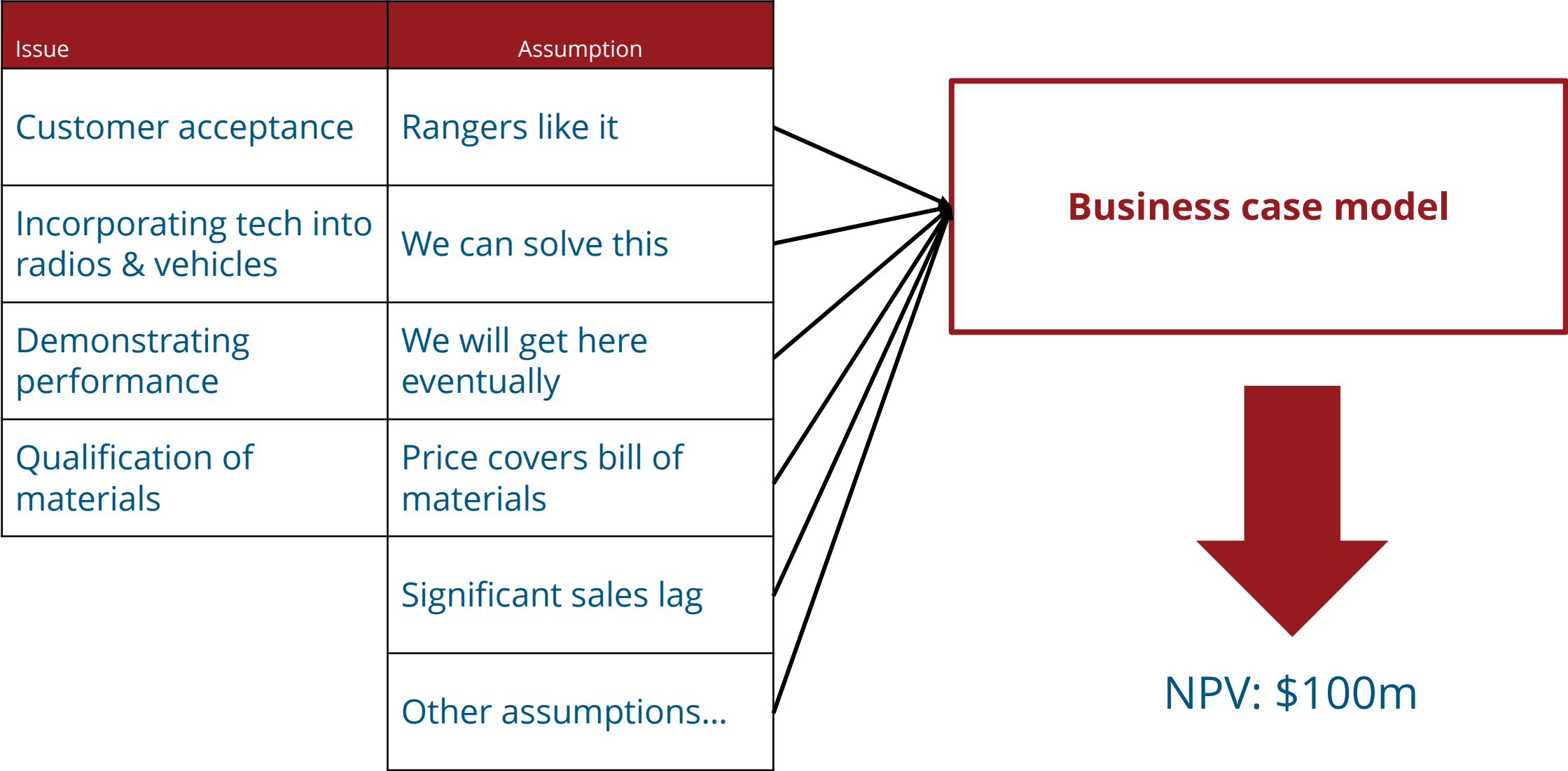


Qualification of materials:
Can we produce it with low-cost inputs?

The initial business case included US Army Rangers and specifying their vehicles with the new frequency-hopping radios



Building a business case requires finance to make assumptions systematically



Finance revealed a major blind spot issue



Customer acceptance:
Will they be satisfied?



Incorporating tech into radios & vehicles:
Can we install efficiently?



Demonstrating performance:
Is the technology reliable?



Qualification of materials:
Can we produce it with low-cost inputs?



OEM standardization:
Will OEMs standardize on our tech?

Prioritizing issues requires a range of assumptions, not just one

Project name/ description: Rogers Corp.: Frequency-hopping radios				Baseline value estimate: \$100m	
Issue	Reason for upside	Upside est. (\$)	Reason for downside	Downside est. (\$)	Swing (\$)
Customer acceptance	Pilot customers are very satisfied	\$130m	Pilot customers are somewhat satisfied	\$70m	\$60m
Incorporating tech into radios & vehicles	Efficient installation	\$105m	Costly installation	\$80m	\$25m
Demonstrating performance	Technology 100% reliable	\$110m	Technology not 100% reliable	\$70m	\$40m
Qualification of materials	Feasible materials available at low cost	\$125m	Feasible materials available at high cost	\$80m	\$45m
OEM standardization	OEM standardizes on our tech	\$1.1B	No standardization	\$100m	\$1B

Poll Question #3

Which issue would you have prioritized with this new information?

- Customer acceptance (\$60m swing)
- Incorporating tech into radios and vehicles (\$25m swing)
- Demonstrating performance (\$40m swing)
- Qualification of materials (\$45m swing)
- OEM standardization (\$1B swing)

The decision on what to learn shifted from subjective to objective after quantifying the impact of the issue

Project name/ description: Rogers Corp.: Frequency-hopping radios				Baseline value estimate: \$100m	
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The pivot: Get OEMs to standardize on the technology



Common reasons companies fail slowly in incubation.

- Missing critical issues that have significant impact on the business case (blind spots)
- Prioritizing learning based on subjective opinions
- Struggling to build a business case due to highly uncertain assumptions
- Failing to build alignment across key stakeholders
- Keeping projects on life-support (too many zombies)

Poll Question #4

What causes you to fail slowly in incubation?

- Missing critical issues that have significant impact on the business case (blind spots)
- Prioritizing learning based on subjective opinions
- Struggling to build a business case due to highly uncertain assumptions
- Failing to build alignment across key stakeholders
- Keeping projects on life-support (too many zombies)
- Other (share in chat)

Where do you need to fail faster?

SMARTORG®

**Convert
Uncertainty
to
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Innovation Navigator®

Accelerate the path
From risk to upside



“iNav in Action” eBook

Download now!

Q&A

Thank you!



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