



**Cardiff**  
Metropolitan  
University

Global Innovation Week  
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Let's **Innovate!**

Tools & Approaches

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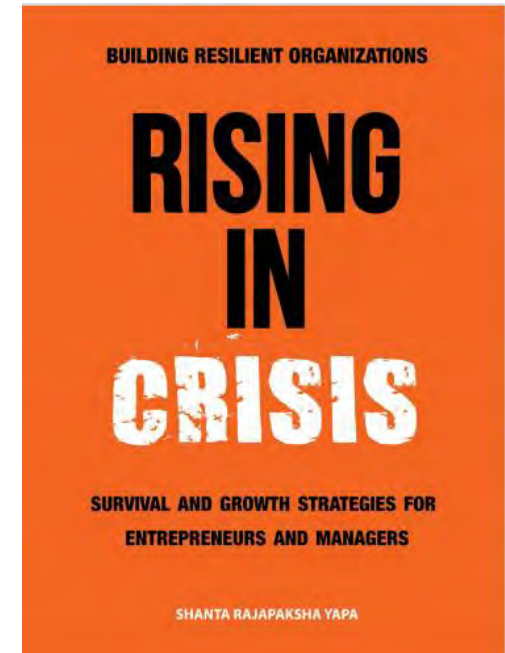
# Where to begin?

- Selecting a **problem** is an easy way to begin.
- Many options are available.
  1. Benchmark
  2. Identify gaps
  3. Pain points
  4. Social problems
- Prepare a list of options/ opportunities available for innovations.
- Next, use an appropriate tool to select the appropriate ones.

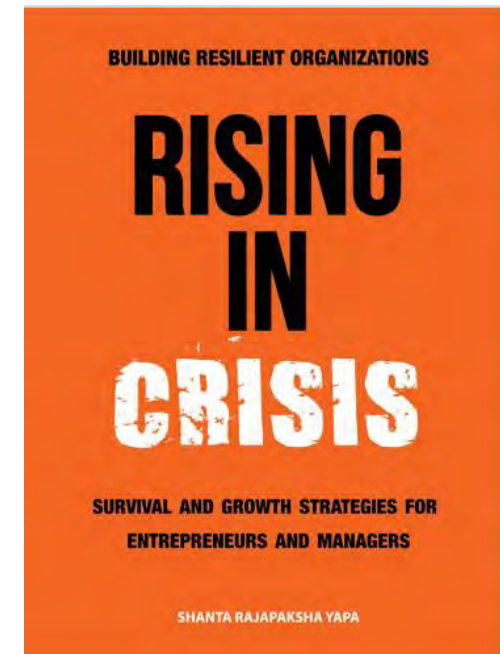
# Tool 1 – The EPIC formula



# Tool 2 - The R Hexagon©



# The R Hexagon© How does it work?



# How to innovate?

## The approach

1. Consider the vital few.

# Vital few than trivial many!



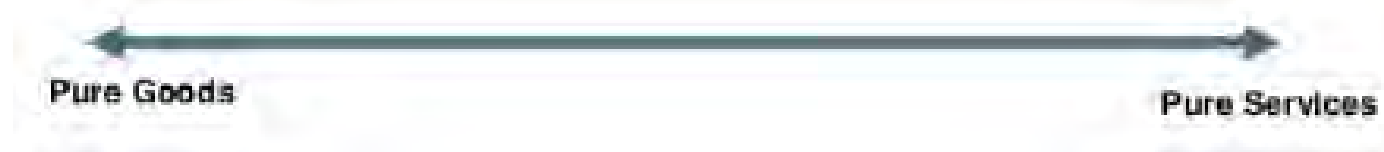
# How to innovate?

## The approach

2. Think differently!



# Product continuum

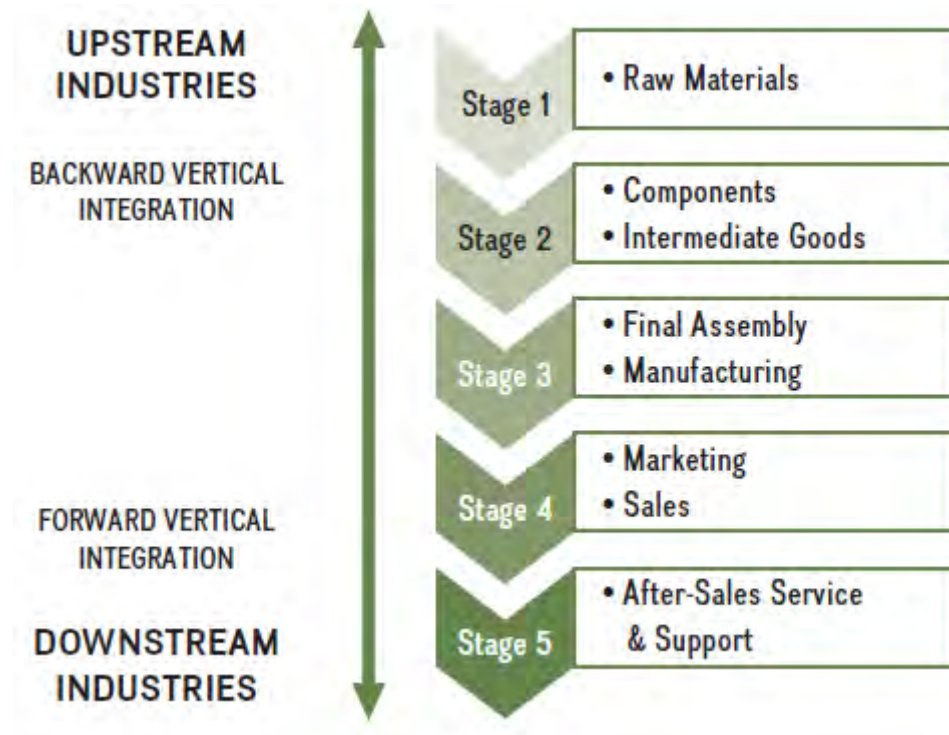


# How to innovate?

## The approach

3. Back to basics

# Value chain analysis



# How to innovate?

## The approach

4. Look at other industry sectors!

# Cross industry innovations

**BMW's iDrive system was transferred  
from the game industry**



# Cross industry innovations

**Nike Shox shoes were adapted  
from Formula One racing shock absorbers**



## MRI Scan meets entertainment

GE Healthcare made MRIs less frightening for young children. Doug Dietz -principal designer- finally discovered that the real problem was the experience. The GE Adventure Series was born.



## Baby pram meets landing gear

Using the concept of an airplane's retractable landing gear, Owen Maclaren — a retired aeronautical engineer and test pilot who worked on the Spitfire — developed the first foldable lightweight baby buggy, to save his daughter the struggle with her cumbersome pram when getting in and out of airplanes.



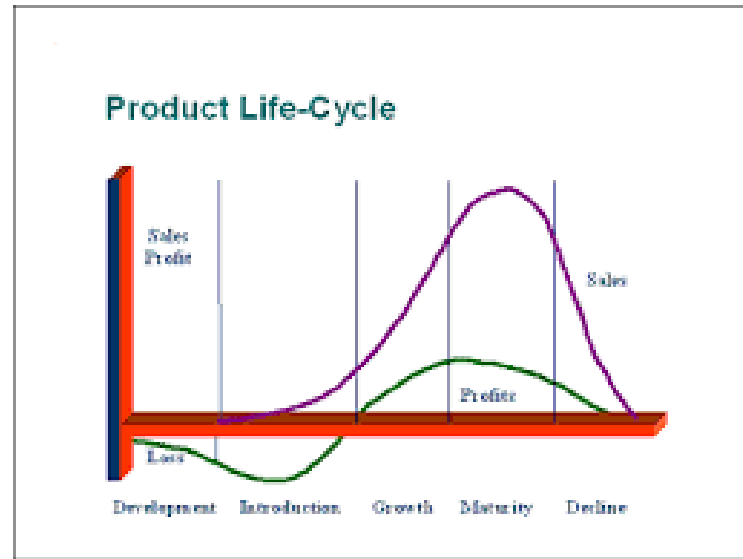


# How to innovate?

## The approach

5. Consider changing the position in PLC

# PLC



# Reverse positioning

# How to innovate?

6. Add components/functionalities.

# Adding components



# How to innovate?

7. Should we always add?

# What is the similarity?

- Exercise bicycle
- Powdered soup
- Contact lens



# LIMI Vs MIBI





# How to innovate?

## The approach

8. Use common (uncommon) sense!

# Common sense to innovate



# How to innovate?

9. Learn from nature. **Biomimicry**

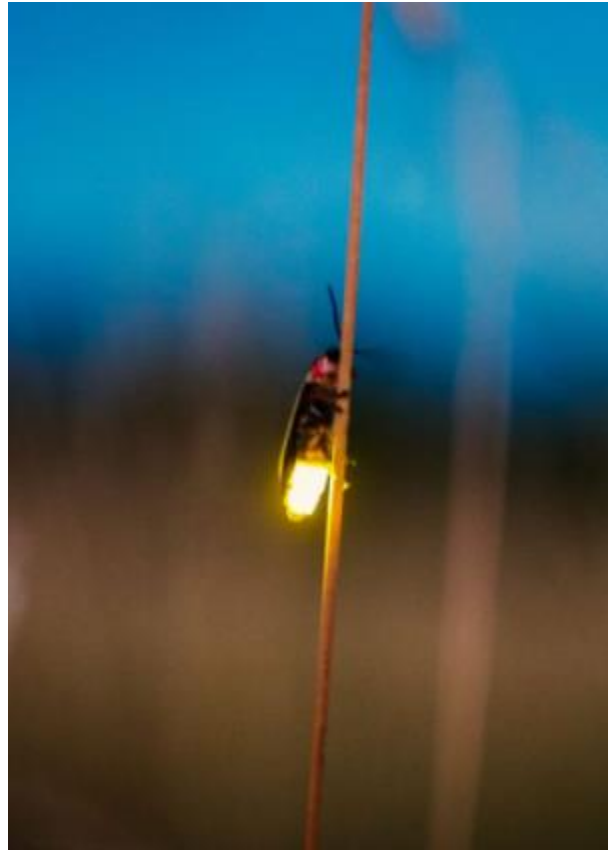
# Video



# Ex 1: Burrs and Velcro



# Ex 2: Microstructures of the fire fly copied to LED

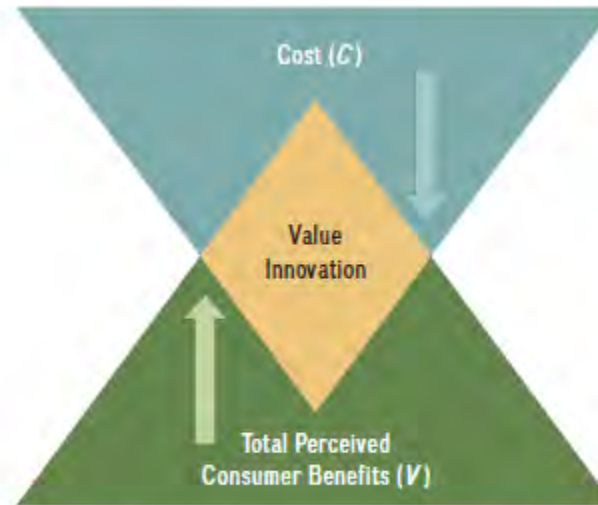


# How to innovate?

## The approach

10. Improve value

# Value innovation



Source: Adapted from C.W. Kim and R. Mauborgne (2005), *Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant* (Boston, MA: Harvard Business School Publishing).



# How to innovate?

## The approach

11. Remove a cost element



# How to innovate? The approach

12. Shift focus!

# Outcome driven innovation



# Summary

- Session 1: We studied invention vs innovations, product/process and business model innovations.
- Session 2: We discussed many types of innovations with examples.
- Session 3: We studied a few tools and approaches.



# Good luck with your innovation efforts!

**Thank You!**

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