

INNOVATION INSIDE



2009 INNOVATION EXPO
VIRGINIA BEACH



Innovation Management: Harvesting Ideas for Exponential Efficiency Improvement



Format for Discussion

- Introduction of Panel Members
- Panel Presentation
- Questions
- Final Comments



Panel Members

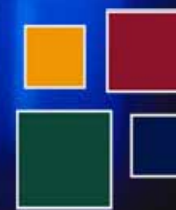
- Ms. Montressa Washington
 - IBM Global Services
- Ms. Christa Semko
 - Dell Computers
- Ms. Tina Cariola
 - Transportation Security Administration
- Dr. Phil Samuel (Moderator)
 - BMGI





Beyond Brainstorming for Breakthrough Innovation

Phil Samuel, Ph. D.

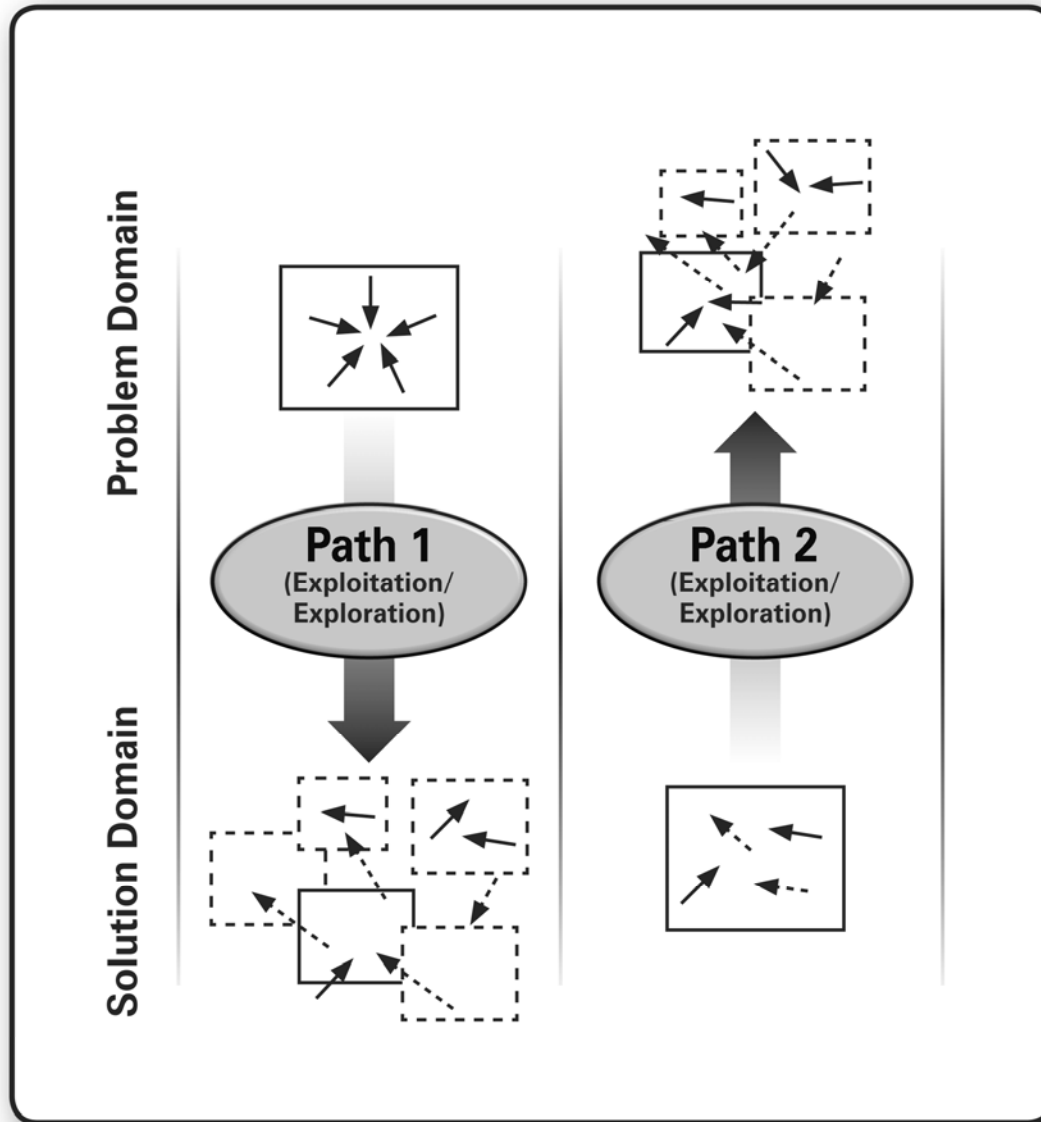


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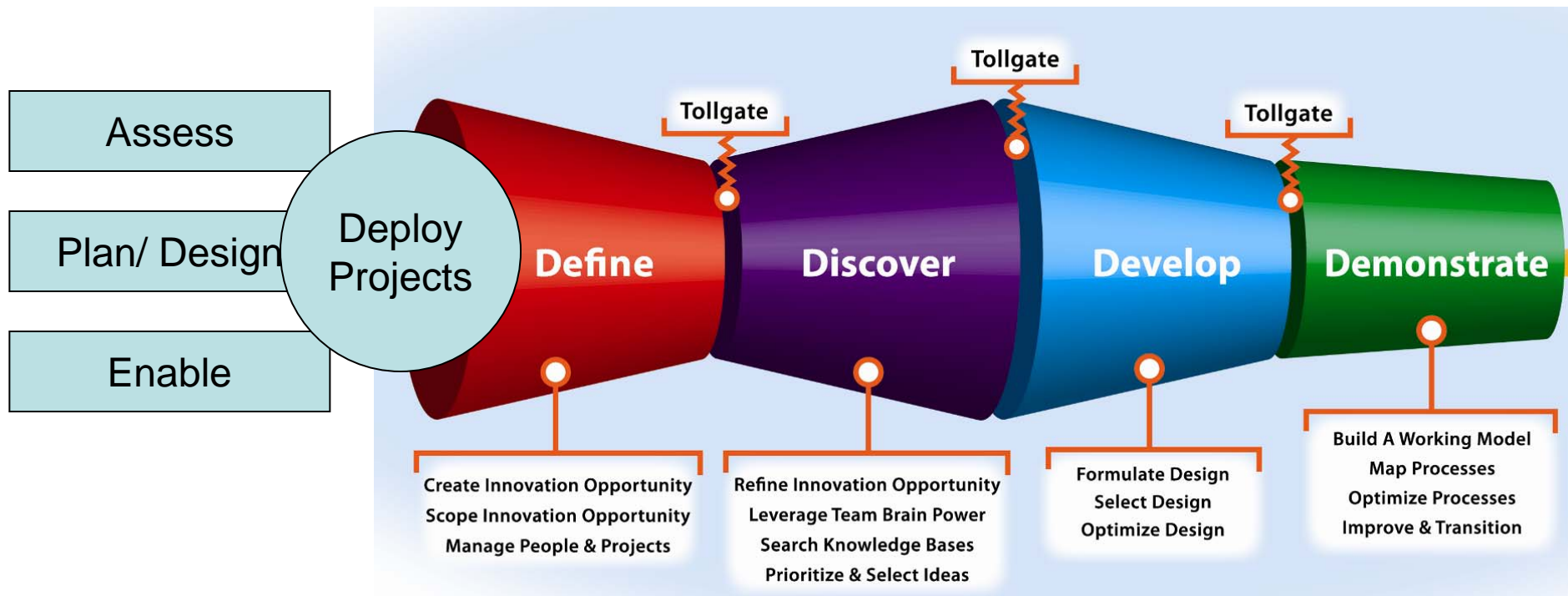
1

Treat Innovation as a Process

Two Paths to Innovation



Innovation Process



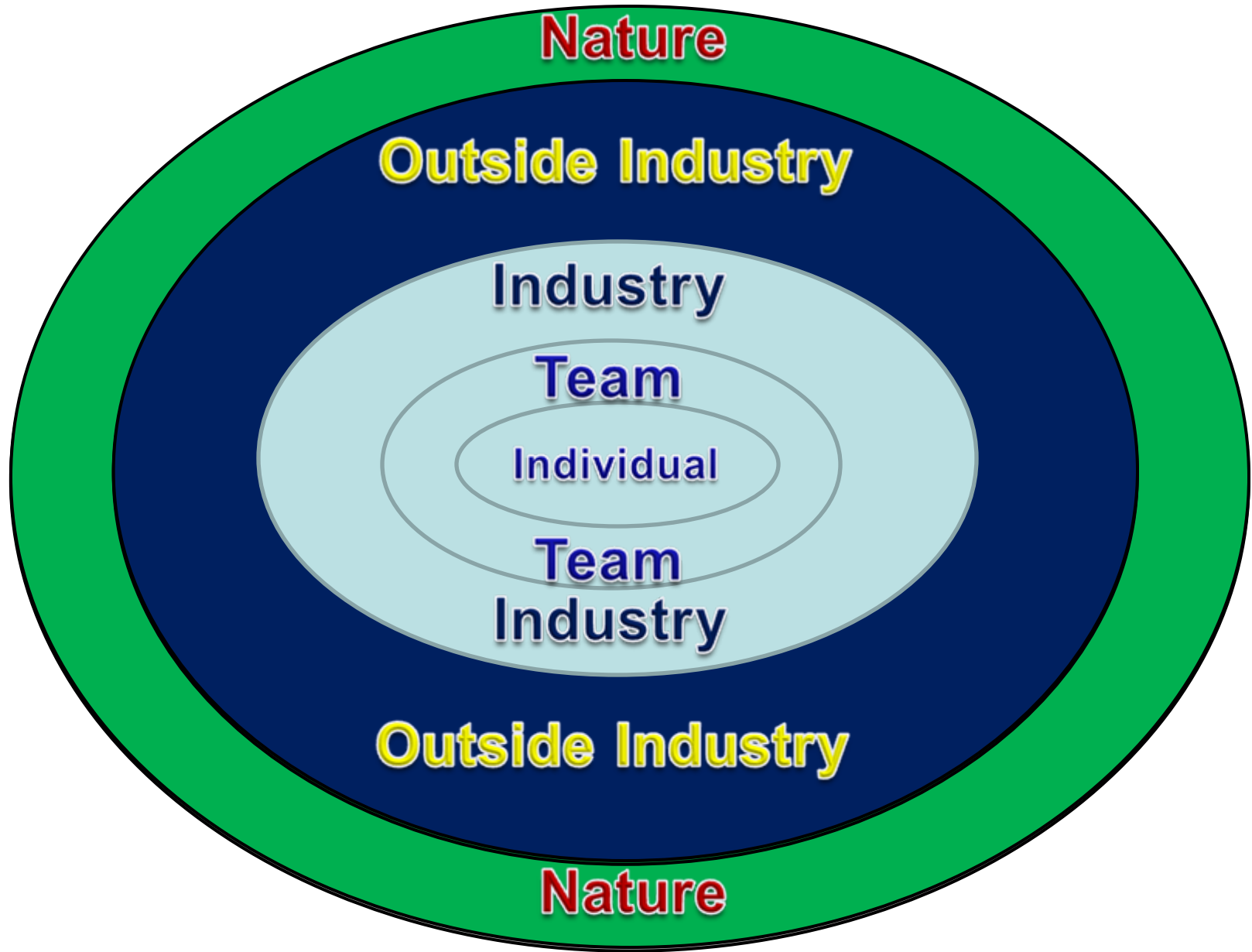
Model for Innovation Projects

2

Look Beyond Your Industry For Ideas

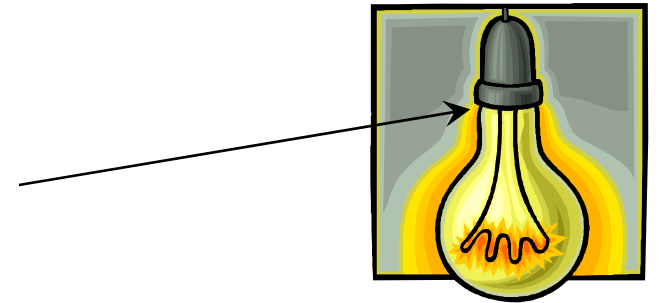
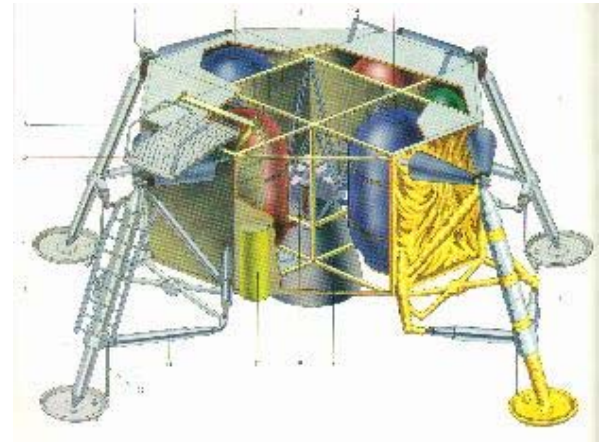


Where do Ideas Come From?

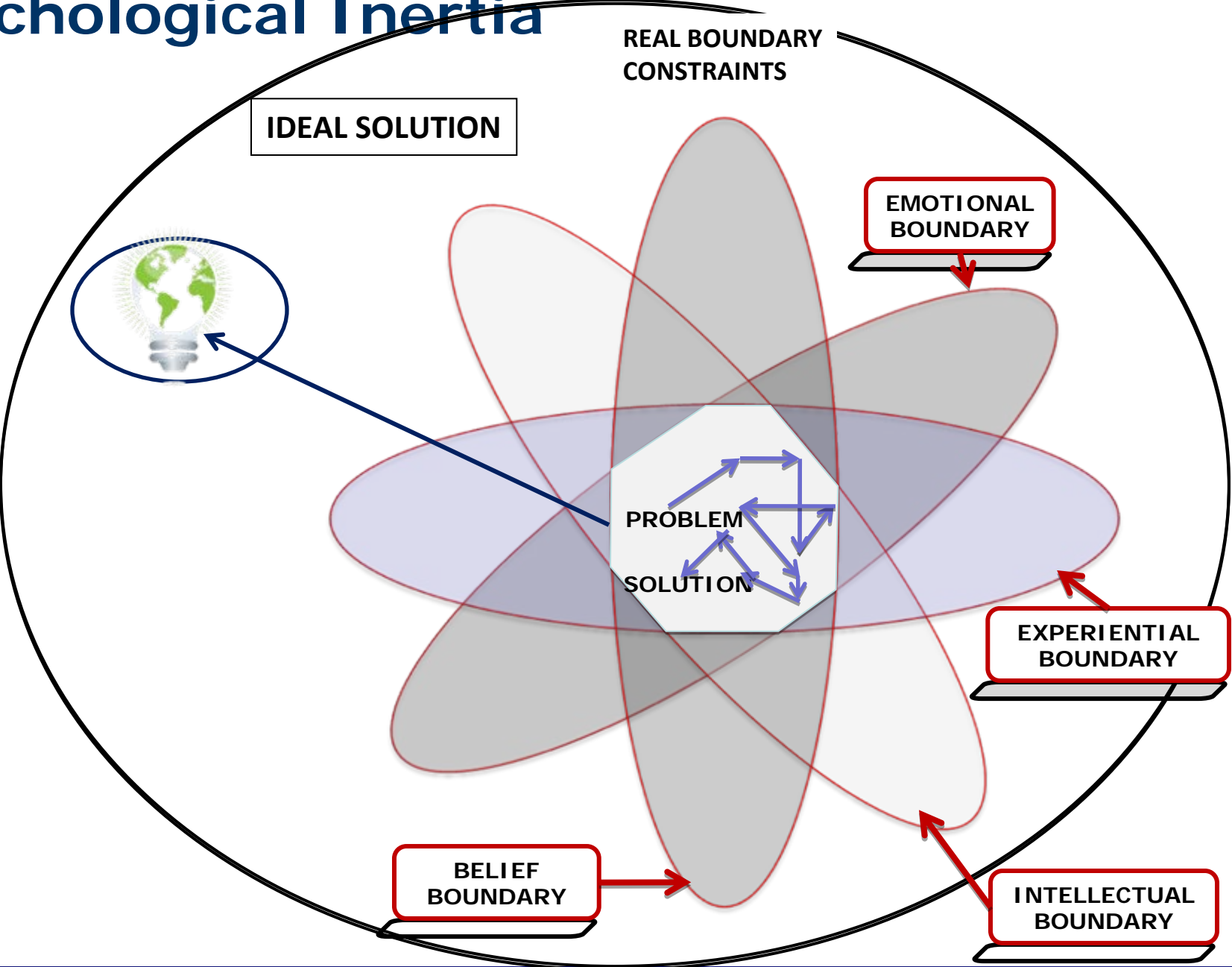


Russian Lunar Vehicle Light Bulb

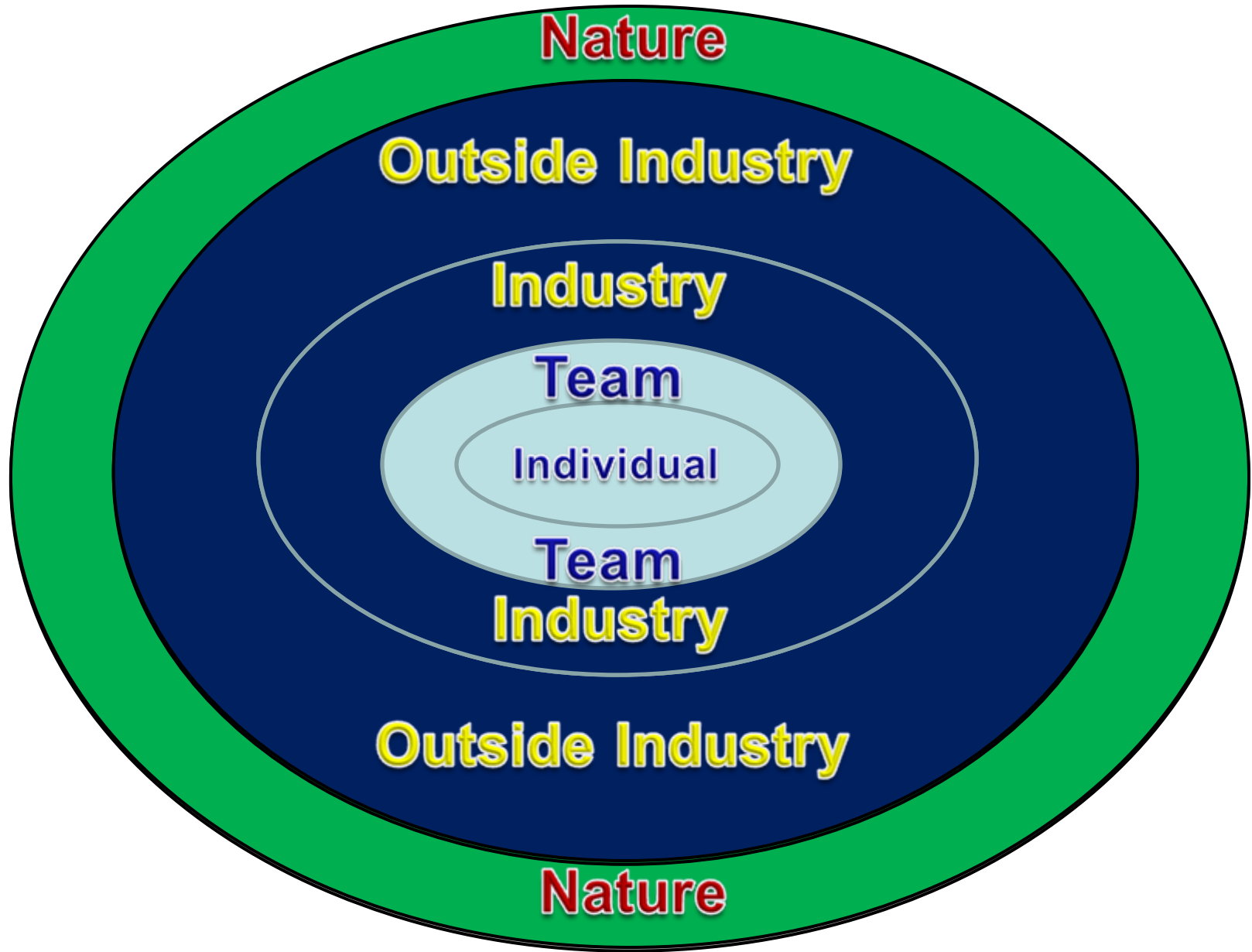
- The Russians launched an unmanned Lunar Probe to the moon's surface with the intention to transmit TV pictures to the Earth. A projector using a light bulb was designed to illuminate the lunar surface ahead of the vehicle. However, existing light bulbs would not survive the impact of landing on the Moon surface.
- The most durable bulbs were ones used in tanks, but even those bulbs would crack at the joint between the glass and the screw base during tests.
- Problem – How to keep the light bulb from cracking at the interface between the glass bulb and the base?



Psychological Inertia



Where do Ideas Come From?

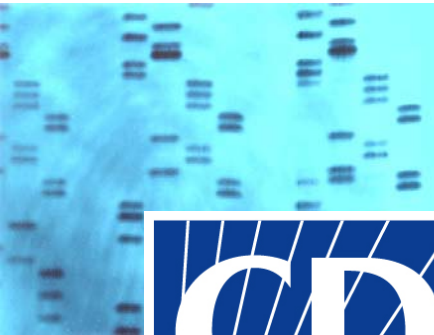


Catching Errors in New Car Models



- GM had a problem. It took GM over 70 days to track an error introduced while assembling a new car model
- GM used Process Benchmarking and Forced Association techniques to innovate
- Who is good at catching errors very quickly?
 - Answer: CDC

Center for Disease Control

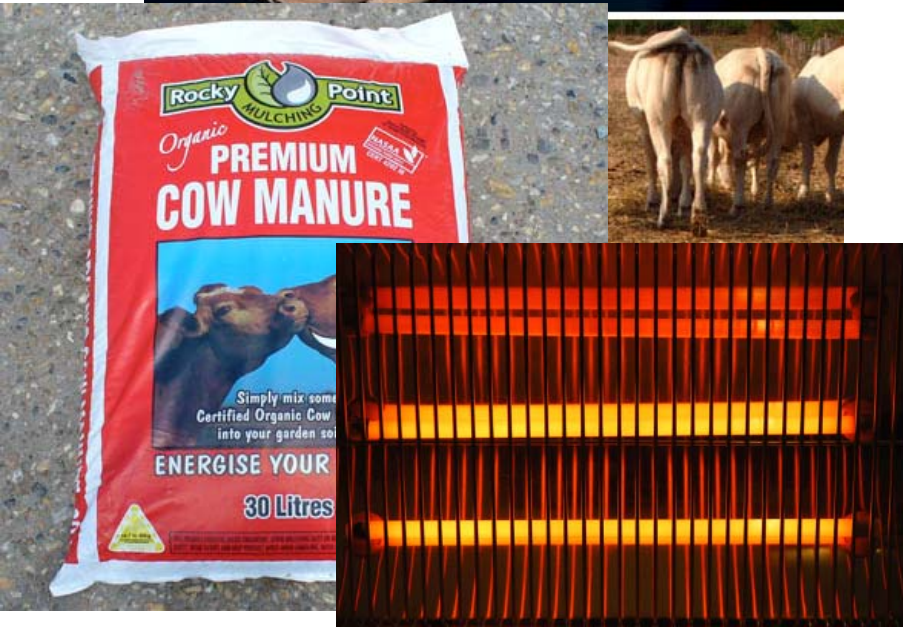
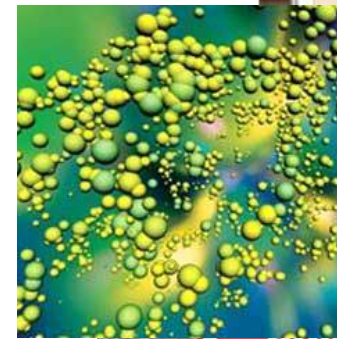


CENTERS FOR DISEASE
CONTROL AND PREVENTION

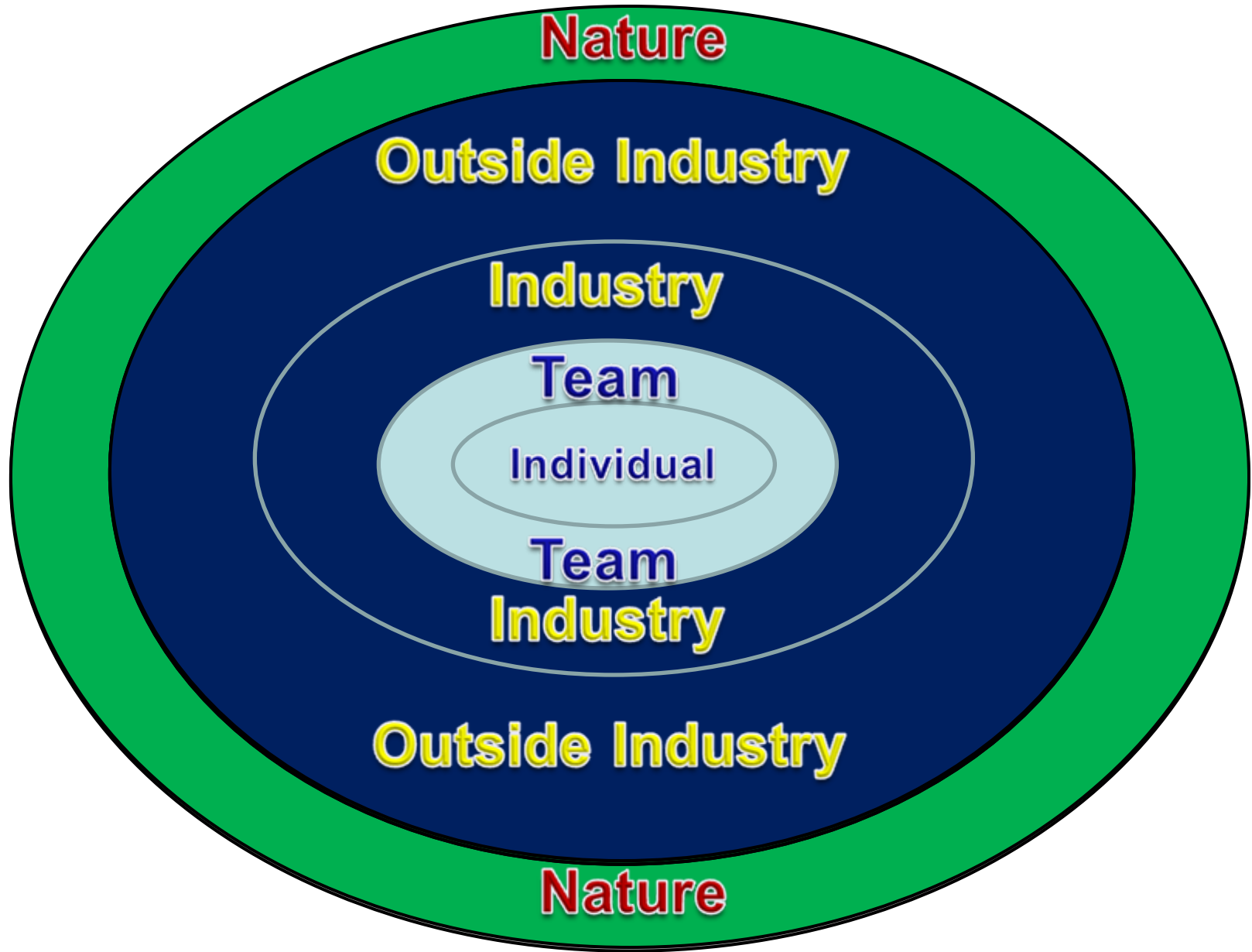


- CDC is able to track down the source of food poisoning within 72 hours of event
- By adapting the principles from CDC, GM reduced the time it takes to track vehicle errors from 70 days to less than 10 days resulting in savings of billions of dollars from recall expenses

Dairy Farm Steals a Page from Frozen Orange Juice Industry



Where do Ideas Come From?

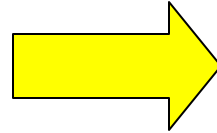
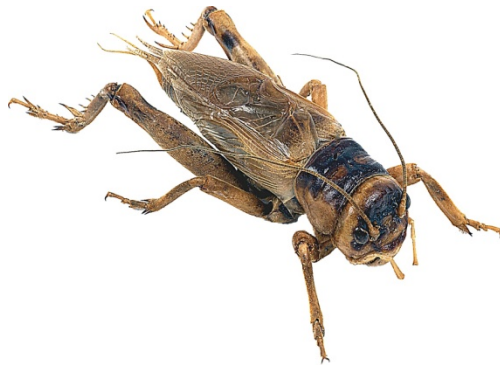
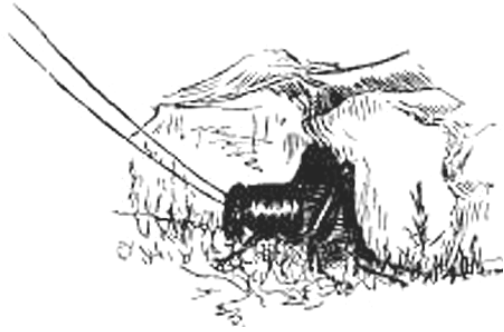


Kevlar vs Spider Webs

VS

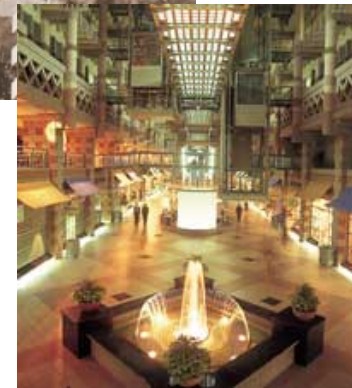
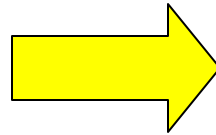


Cricket Inspired Speakers



Imagine making high-end audio speakers based on a cricket that uses its burrow to amplify sound. New Klipsch speakers are created by studying how Egyptian mole crickets amplify sounds

Termite Inspired Building



A termite mound can seem eerily like a skyscraper, especially when you consider the mound's efficient regulation of air flow, temperature and humidity.

Solving World's Water Problem



Namibian Beetle



Pill Bug

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