

# Adopting Value Creation Methods at Idaho National Laboratory

TTWG Annual Meeting  
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“**Culture eats strategy for breakfast.**”

~ **Peter Drucker**

“considered the single most important thought leader in the world of management” - Wikipedia

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## “Elevating Impact” Challenge at INL

**“** *We must achieve greater impact in science, engineering and innovation by encouraging employees to develop and deploy breakthrough, disruptive innovations...*

Dr. Mark Peters, Laboratory Director

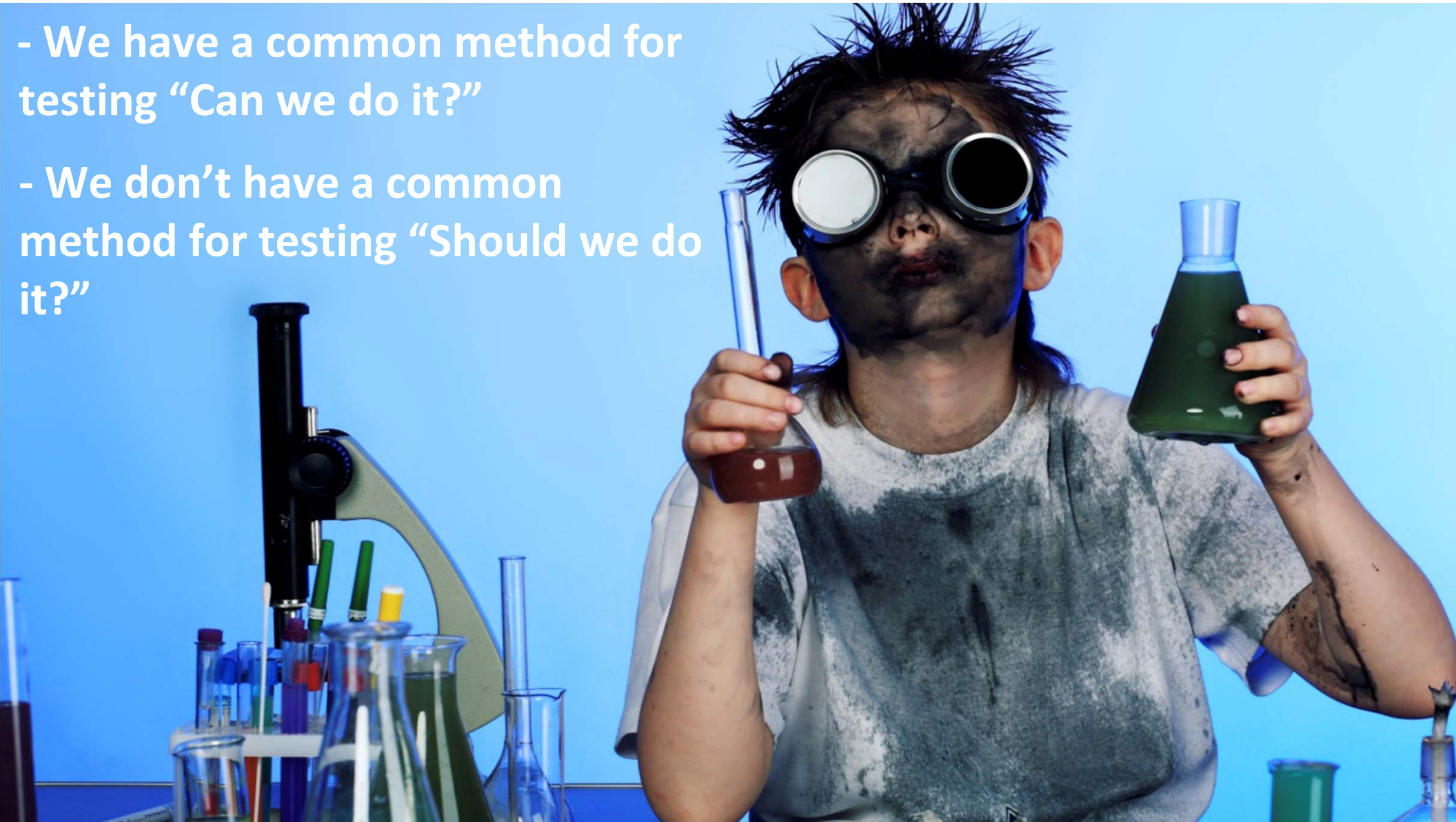
Easy to say - but practically, how do you do it?

# Observations:

- 1) R&D staff generally have no training on how to create value from research
- 2) Entrepreneurial training was having impact (I-Corp), but only reaching a few
- 3) Training alone generally does not result in adoption and use of techniques-people often pick up techniques and put them down after the training
- 4) R&D investment decisions were often made more like the “money ball” approach (e.g. LDRD decisions)
- 5) Too many inventions focused on interesting solutions vs. important solutions (incremental advancements vs. breakthrough)
- 6) See video (next slide)



- We have a common method for testing “Can we do it?”
- We don’t have a common method for testing “Should we do it?”



# Solution: Adopt a common approach to valuation of ideas



Need  
Approach  
Benefit  
Competition



Starts with  
Press  
Release

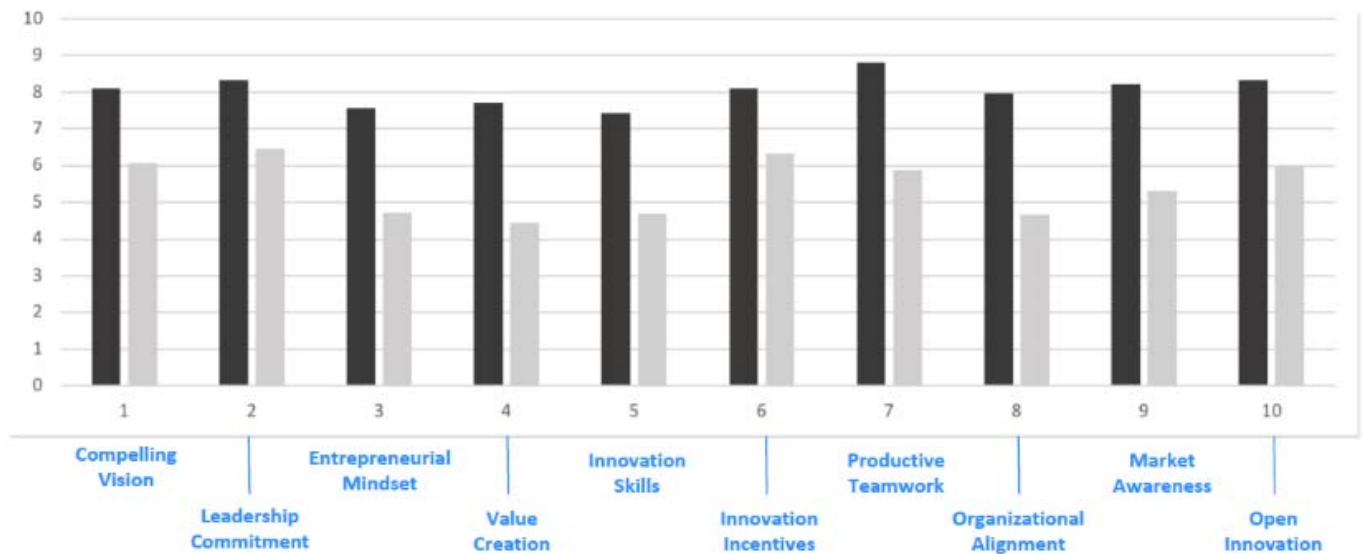


DARPA  
9 Questions

*Frank H. Hillman*

■ Average Overall Importance Ratings

■ Average Overall Agreement Ratings



With an overall agreement rating of only 5.3, there was plenty of room for improving innovation at INL.

# Execution Plan

Goal: Achieve lab wide adoption of CO-STAR and RIIS tools for testing/improving ideas, making research investment decisions, and pitching ideas.

Year 1:

- 1) Implement method and tools (CO-STAR and RIIS) into LDRD, IP and other investment decisions criteria/decision process
- 2) Set up network of trainers and mentors
- 3) Provide toolkit, with online training videos, examples, templates, etc.
- 4) Train relevant staff (over 250 trained so far – highly positive feedback)- fueled by pizza
- 5) Get management to adopt and implement use of COSTAR (many managers are now asking for employees to submit ideas/proposals in COSTAR format)
- 6) Have ready and available team (TD leading) with all resources needed to assist
- 7) Provide market analysts assistance to assist in providing market data and competitive matrixes

I am genuinely surprised how well this initiative is being received



# Welcome to Elevating Innovation: with the tools CO\*STAR and RIIS

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CO\*STAR Workshop



# Two Main Ideas about the CO★STAR Method we will go over today:

1. **CO★STAR** – A framework to Develop, Research & Validate.
2. **RIIS-** (or Rapid Idea Improvement Session)



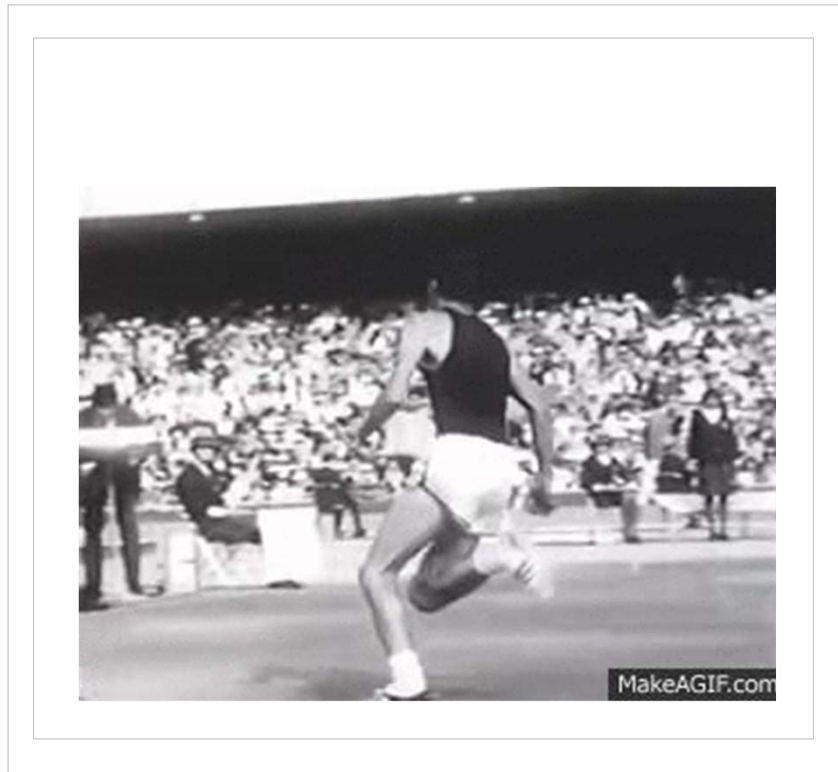
# The Benefit of New Techniques

From scissors...




...to the flop!

and rolls...



# How about a technique that can impact many activities at the lab?





Innovators are now using CO★STAR in over 42 countries, including Austria, Azerbaijan, Belgium, Bulgaria, Burma, China, Columbia, Croatia, Czech Republic, Denmark, Ecuador, Estonia, France, Germany, Hungary, Iceland, Indonesia, Ireland, Israel, Italy, Japan, Kenya, Latvia, Lithuania, Netherlands, Nigeria, Philippines, Poland, Romania, Russia, Serbia, Slovenia, South Africa, Switzerland, Tanzania, Thailand, Trinidad, Turkey, Ukraine, United Kingdom, USA, and Zimbabwe.

Mindset



Be Open



1

# Creating Value With CO★STAR

The CO★STAR Method





## Elements of CO★STAR

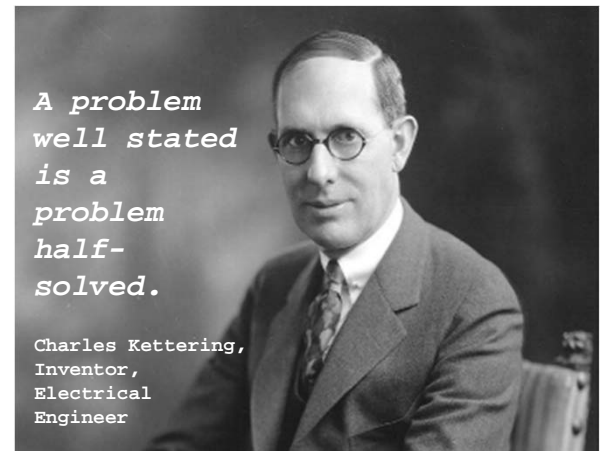
CO★STAR is a value proposition tool for perfecting, pitching, proving, coaching, and evaluating high potential ideas



- ✓ Who is the **Customer** (DOE, companies) and what is their unmet need (energy problem)?
- ✓ What is the **Opportunity** (number of companies or scale of problem)?
- ✓ What is your **Solution** (technology, program)?
- ✓ Who needs to be on the **Team** (Dr. XYZ, expert in ABC, from INL)?
- ✓ What is your competitive **Advantage** (pluses over other technologies or programs or current field of research)?
- ✓ What **Results** will you achieve (benefits to customers and returns to INL)?

## Who will care about your innovative idea and why?

- What is the problem you are solving?
- Why is it essential to solve it?





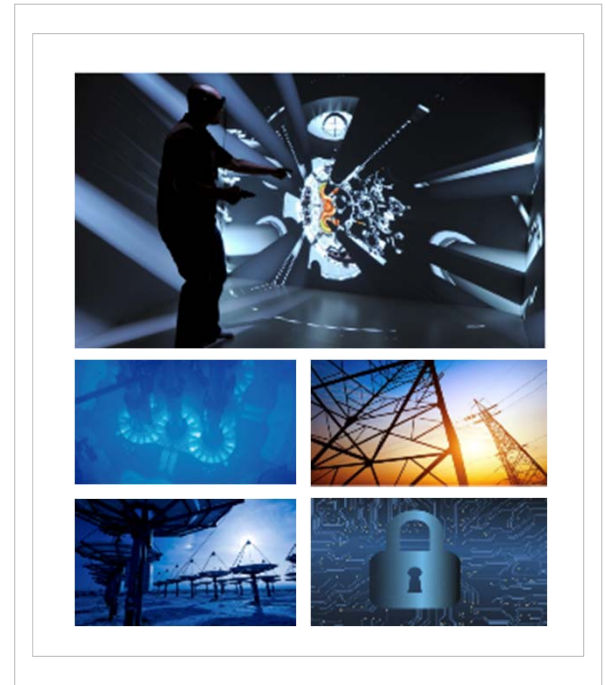
## What is the **opportunity** presented by the customer problem?

- What is the size and growth potential of your target market?
- How big is the problem?



What is your **solution** for addressing the customer opportunity?

- What are the key ingredients (technologies, devices, software, facilities, methods, etc.) that make up your solution and how will it work?
- What's new in your approach and why do you think it will be successful?



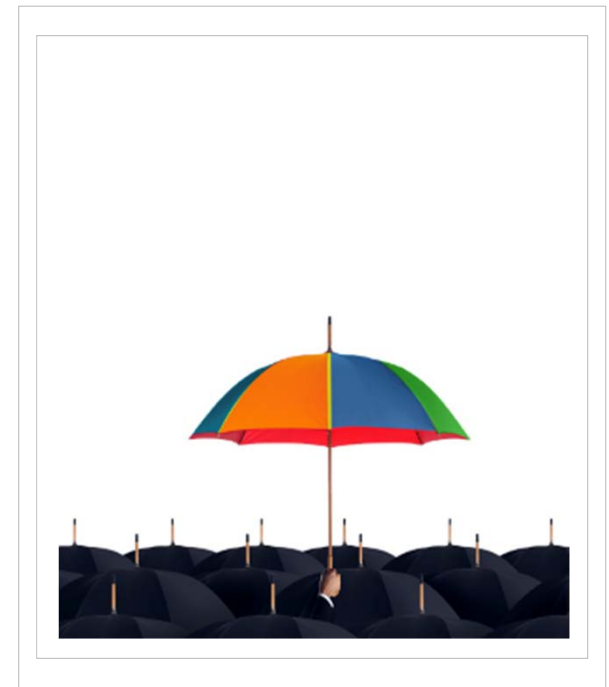
## Who needs to be on the **team** to establish proof-of-concept or successful deployment?

- Who is already on the team?
  - Their name?
  - Their role on the team?
  - Their relevant expertise?
  - Their organization?
- Who else should be on the team?



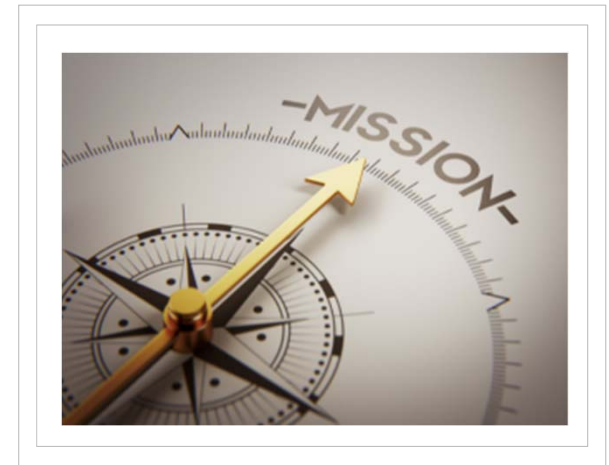
## What is your **advantage** over the alternatives?

- What makes your approach novel and why is it better?
- How does it compare with the latest published work? How does it advance the field of research?



## What are the results? To the customer, or the INL?

- How will the idea further the mission of federal agencies or the bottom line of businesses?
  - What impacts (e.g., lives saved, costs reduced, cyber attacks prevented, profits generated, time to market condensed) will it deliver?



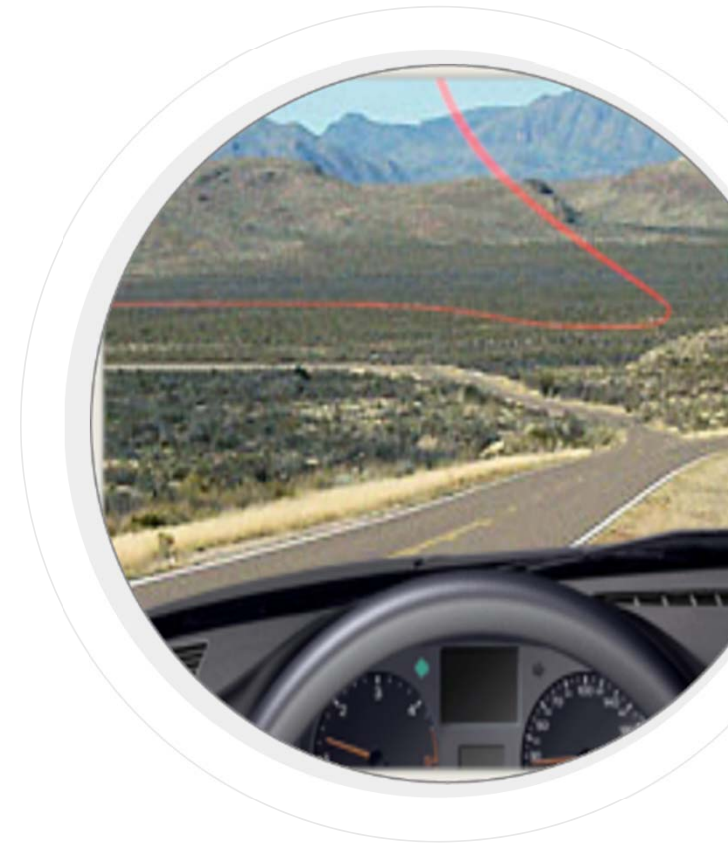
# Virtual Cable- Group Exercise

Try taking an existing idea and putting it into a CO\*STAR Framework



# CO-STAR CUSTOMER

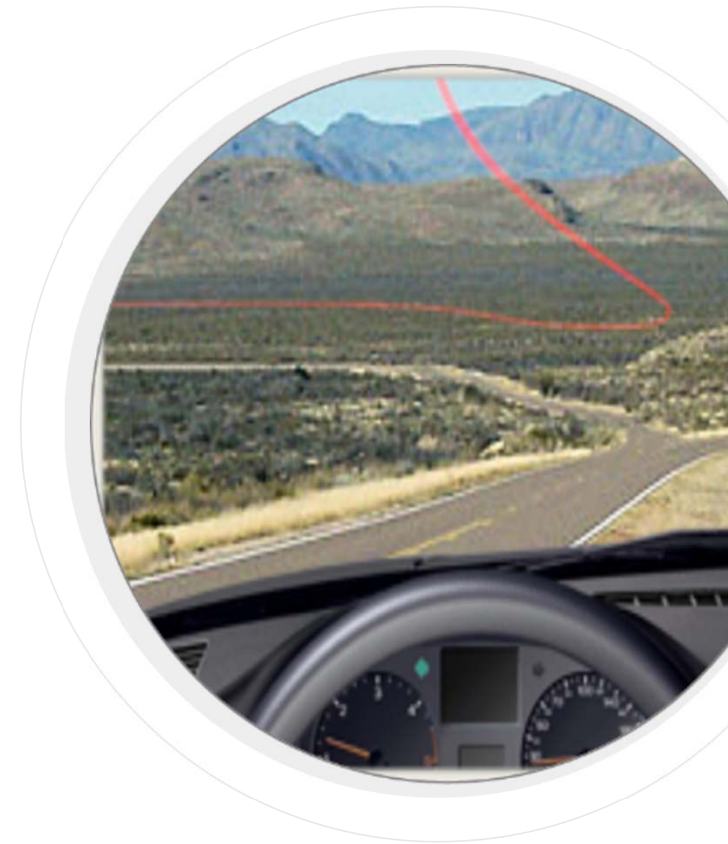
- Many drivers find current navigation systems cumbersome, stressful, and distracting, especially older drivers.



# CO-STAR

Opportunity

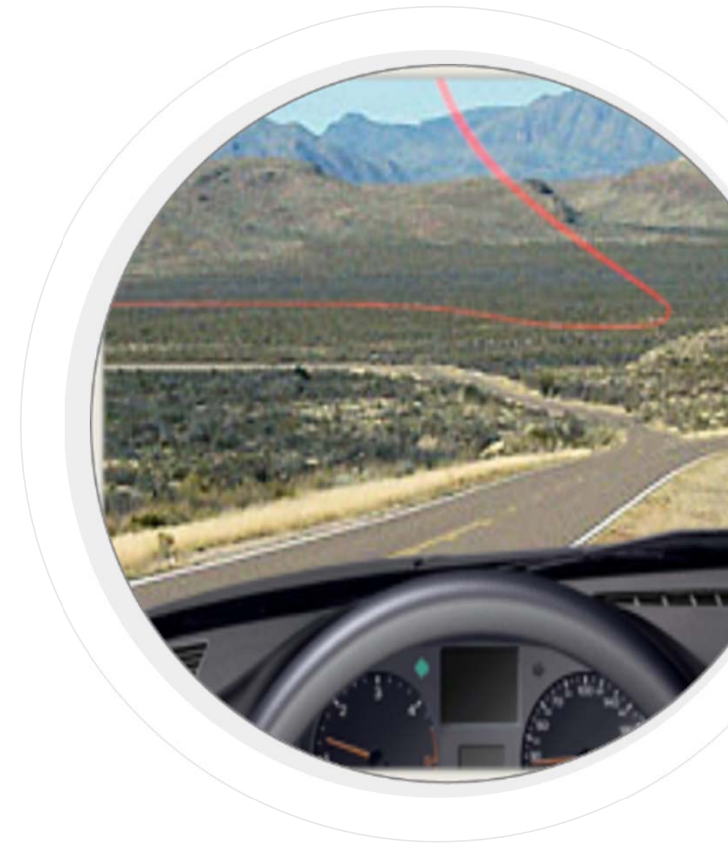
- The worldwide, multi-billion dollar car navigation market is currently growing by double-digit percentages annually
- Virtual Cable™ has the potential to become the predominant method of car navigation





# CO-Solution STAR

- The Virtual Cable™ is a unique display for a car navigation system. The driver sees the Virtual Cable™ image through the windshield. It appears as if suspended over the road, similar to a trolley cable. The image is in true 3D and appears to be a natural part of the landscape.



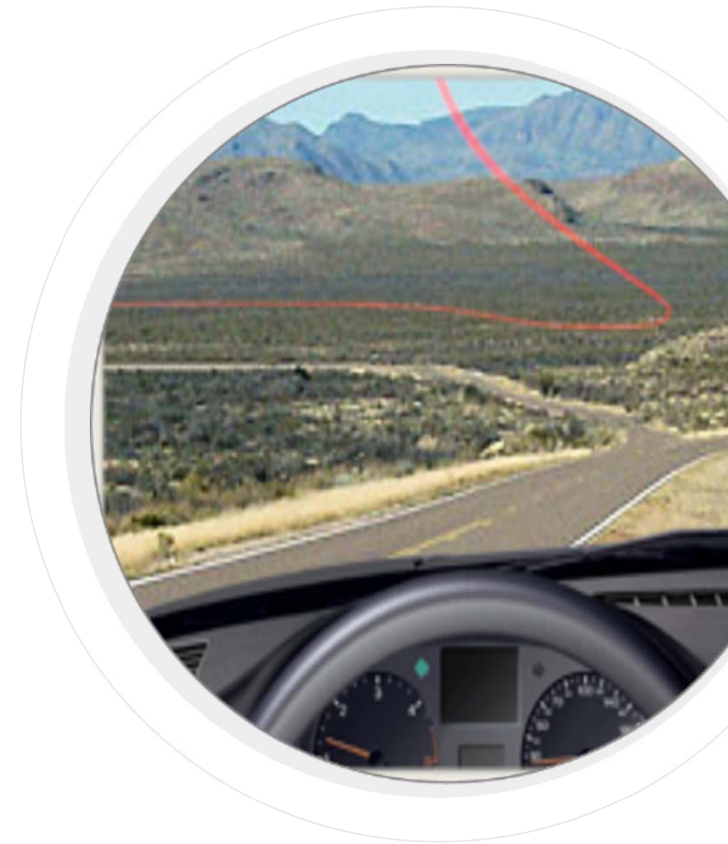
The logo for the CO-S TAR Team. It features the text "CO-S" in a bold, grey font above the word "Team" in a smaller, grey font. To the right of this text is a large, blue, stylized letter "T". To the right of the "T" is the word "AR" in a bold, grey font. The entire logo is set against a background of three concentric circles of varying shades of grey.

CO-S  
Team

T

AR

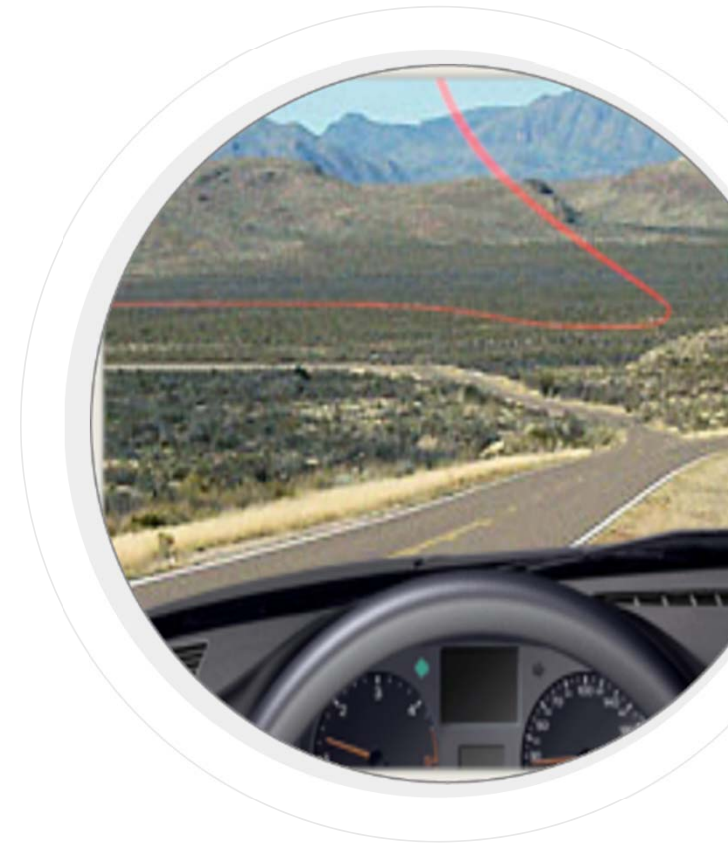
- In addition to the technical and business drivers behind the concept, Myra Schulman, Tom Zamojdo, Christopher Grabowski, we need Marketing, etc.



# CO-STAR

Advantages

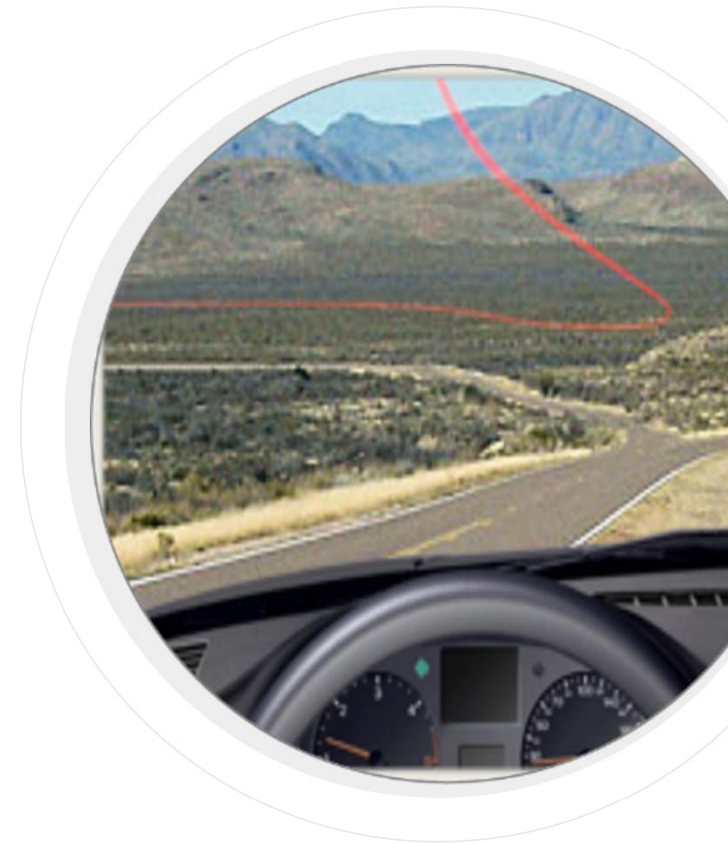
- The Virtual Cable™ can be integrated with ANY method of route planning: voice interface, in-car panel screen, portable map display system, cell phone, PDA, or PC.
- Because cell phones and portable GPS systems must be transportable, their display area is per se limited



# CO-STAR

## Results

- Customer's won't have to:
  - be able to estimate 500 feet to the next turn.
  - turn down the radio to hear directions.
  - search for the next intersection on an unlit roadway at night.
  - focus and refocus their eyesight as they look back and forth from road to map
  - search for a number on a building or surrounding landmarks.
  - And a passenger can use the entertainment system or input data to a navigation system without interfering with the Virtual Cable™ display observed by the driver.



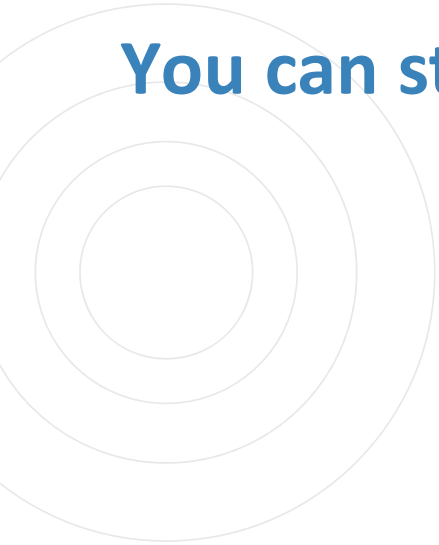
# Quantify

Better,  
faster,

cheaper, is not good enough!



You can start from either direction...



**External Market (FOA) or  
Internal Campaign (LDRD Call for  
Proposal)**

What is desired!

But to create  
value and deliver impact, the  
pieces must fit together at  
some point.



**Your Mind**

What is possible!

**Common  
language,  
concepts,  
and practices**



ANY  
QUESTIONS  
?



# Purpose and Types of Pitches

- Pitch to **think**
- Pitch to **learn**
- Pitch for **support**
  1. Elevator Pitch
  2. Funding Pitch
    - DOE – Proposal presentations
    - Seed – Oral Defenses
    - TD – Persuading licensees
  3. Partner Pitch
    - PI – Recruiting collaborators  
(industry, university, labs, etc.)





An all too typical first pass

*CO* **S** *TAR*



3

# RIIS

The CO★STAR Method



How do  
you create the  
optimum  
environment  
for  
collaboration  
and innovation  
to thrive?



**Nurture. Nothing grows in a hostile environment**

# Musical Metaphor

*Key Events in the Evolution of an Idea*

Concert



Rehearsal



Jam Session

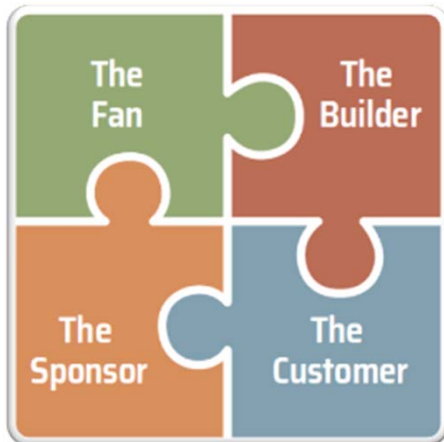


# RIIS- Rapid Idea Improvement Session

RIIS = Rapid Idea Improvement Session

Think...

- “You are a RIISing star in this company!”





# Outcomes

- Provides a way to quickly test and iterate concepts, gather diverse perspectives, and help innovators and their teams develop valuable ideas
- Improves transparency, evaluation and feedback skills, and encourages participation and collaboration

# Innovator

- Speak loud and clear
- Keep to the time allotted
- Listen to the comments
  - ✓ Non-defensively
  - ✓ Silently
- Be thankful for all feedback







# Teammates

- Listen and record comments and feedback
- Consider how to incorporate suggestions



**The Fan**

**The Builder**

**The Customer**

**The Sponsor**

All Play



# 1. The Fan

## *Appreciative Feedback*

- What was most valuable?
- What did you like and why?
- What should not change?

A person wearing a red and blue plaid shirt is gesturing with their hands while speaking in a meeting. In the background, another person is visible, and a laptop is on a desk to the right.

## 2. The Builder

### *Constructive Feedback*

- Where were things unclear?
- What is missing?
- What could be done to improve the pitch or value of the idea?



### 3. The Customer (or End User)

*Roleplay Feedback*

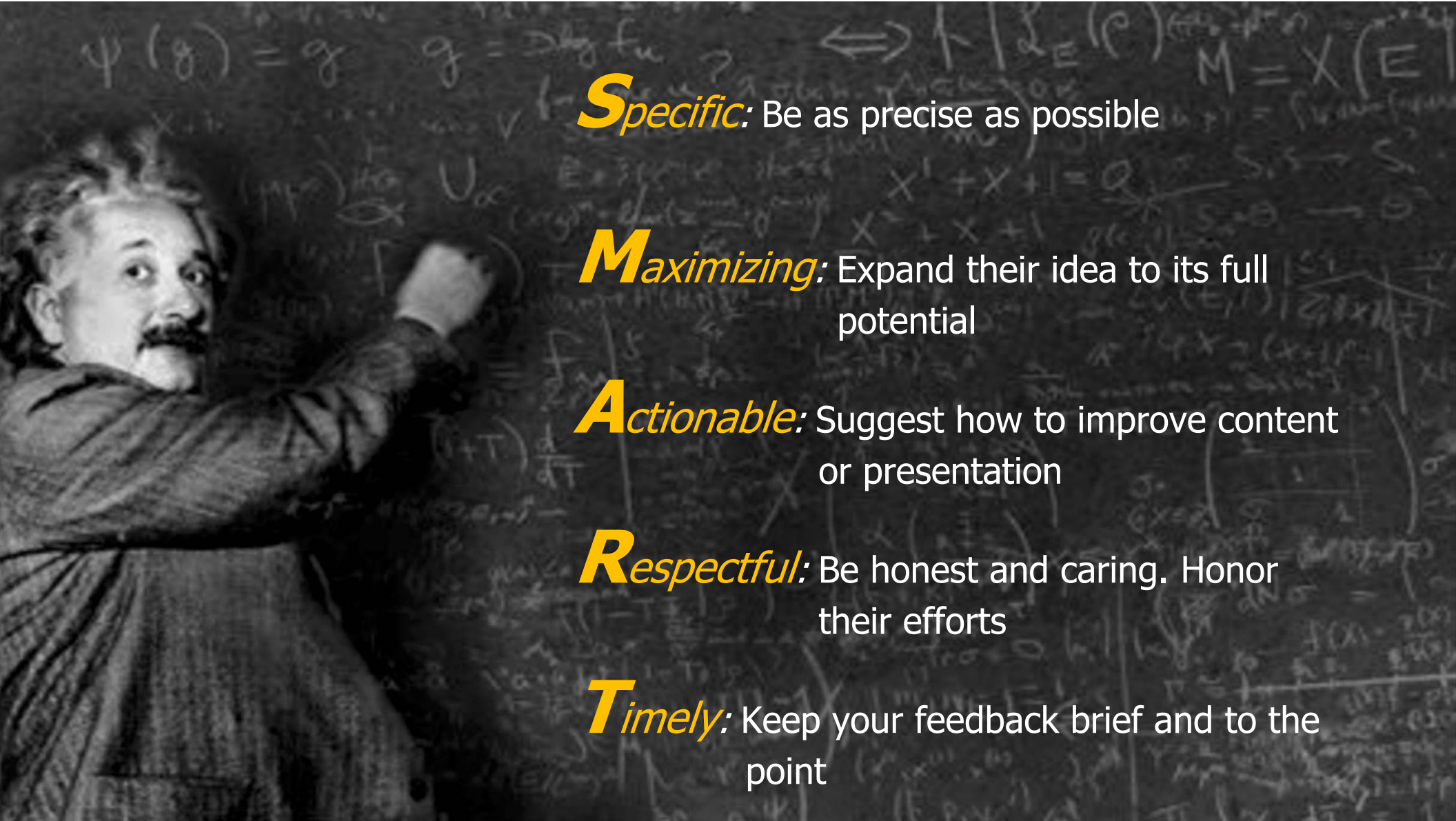
“I liked your idea because \_\_\_\_\_ and it would be stronger if \_\_\_\_\_.”



## 4. The Sponsor (or Funder)

*Roleplay Feedback*

“I liked your idea because \_\_\_\_\_ and I would be more willing to fund it if \_\_\_\_\_.”



***M*aximizing:** Expand their idea to its full potential

***A*ctionable:** Suggest how to improve content or presentation

***R*espectful:** Be honest and caring. Honor their efforts

***T*imely:** Keep your feedback brief and to the point

# RIIS- All Play

- After all role-playing participants have given feedback, RIIS session is open to all for additional feedback
- Innovator is allowed to respond and clarify at this point
- Keep feedback positive and constructive
- Use this opportunity to integrate all feedback to improve upon the idea





ANY  
QUESTIONS  
?

# Why CO\*STAR and RIIS

## FRAME

- CO\*STAR framework helps people to see the potential in your ideas

## DELIVER

- Provides a consistent, clear and concise delivery method so your ideas can be fully understood and appreciated

## ITERATE & VALIDATE

- RIIS solicits feedback to build upon and improve the idea



*In the end, it is what the customer thinks that matters.*



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# Resources for CO★STAR and Wrap-Up

The CO★STAR Method

## How to Learn more?

- Nucleus has a Value Creation Toolkit, (click A-Z, the CO\*STAR)
- Go to a RIIS session, Workshop or Talk to a CO\*STAR Expert.
- Who and Where can all be found on SharePoint - CO\*STAR Enthusiasts
  - E-mail [COSTAR@inl.gov](mailto:COSTAR@inl.gov)

Our “ask” to you.... Try it!



Leap!

## Remember your Pneumonic Device ...

1<sup>st</sup> : **CO★STAR** Crystallize your thinking

2<sup>nd</sup>: **RIIS-** (or Rapid Idea Improvement Session)

