# LLNL Open Innovation & Crowdsourcing Development

DOE OCIO Open Government Technology Summit January 25, 2012

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# **Challenge Lifecycle**



#### **Target Impacts**

- ProgramDevelopment
- Cost Reduction
- Operational Improvement

#### **Value Propositions**

- Speed Collaboration
- Increase Transparency
- Surface New Ideas
- Connect Expertise

#### 1. Conceptualize

- Define Problem
- Frame Question
- Identify Incentives

#### 2. Develop

- Develop Messaging
- Build Website
- Review & Release

#### 3. Engage

- Launch Communication
- Idea Moderation
- Adjust by KPIs

#### 4. Close

- Idea Evaluation
- Debrief with Sponsor
- Communicate Impacts

# Challenge

 What would you do to improve, reinvigorate and energize scientific/technical collaborations across the DOE Complex and the Federal Government?

#### DURING THE EVENT



#### PROVOCATION

No configuration changes are required, as the platform is not used during this round.

	PRIOR	DURING
STAGE 2	<ul> <li>Idea submission turned on. Idea submission template set up in a simple format.</li> <li>Virtual currency configured so that participants earn 25 spigits per idea (this number will depend on a user's reputation).</li> <li>All other site actions (incentives, voting/commenting on ideas) turned off.</li> <li>Site bookmark added to the iPad home screen (if using iPads).</li> </ul>	Leaderboard pages displayed on a projector screen and regularly refreshed by the Spigit rep (to show the most active participants and the participants with the highest reputation).
STAGE 3	<ul> <li>Voting and commenting on ideas turned on.</li> <li>Virtual currency configured so that participants earn 500 spigits per vote and 1000 spigits per comment (depending on reputation).</li> <li>Countdown clock set to 20 minutes.</li> </ul>	Leaderboard pages displayed on a projector screen and regularly refreshed by the Spigit rep (to show the most active participants and the participants with the highest reputation).
STAGE 4	<ul> <li>INVESTMENT</li> <li>Top 10 ideas by approval rating are graduated (by a Spigit representative) to the "Investment time" stage.</li> <li>All outstanding ideas are archived.</li> <li>Idea trading enabled.</li> <li>Countdown clock set to 1 minute for each pitch and 2 minutes for each period of idea trading.</li> </ul>	Stock Leaderboard and Leaderboard pages regularly refreshed by the Spigit rep (to show the ideas with the highest market cap and the wealthiest participants).
STAGE 5	FINALE Leaderboard results checked and verified.	





Home

1. Post idea

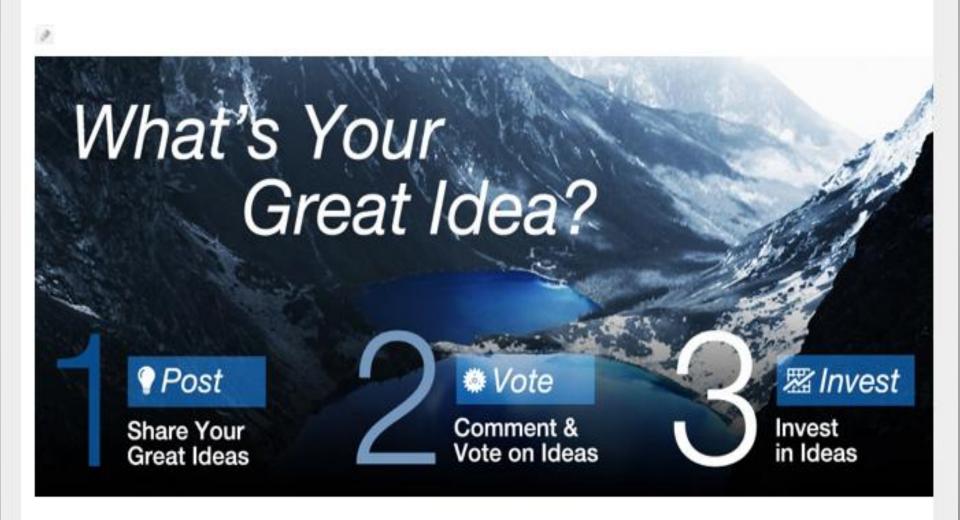
2. Vote & Comment

3. Invest

My Portfolio

Admin







Q

Home

1. Post idea

2. Vote & Comment

Invest

My Portfolio

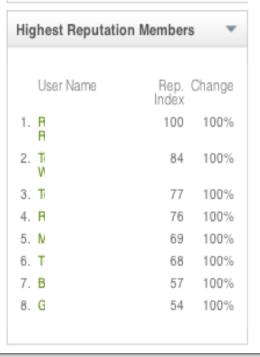
Admin

01/12/2012 09:09 PM CST

Current Filter :	CATEGOR	Y: All Role: A	ll .		
By:					
_ast Modified ▼	Post Date 🔺	Likes A	Dislikes A	Approval Rating	*
Review Rating A	Author 🔺	Votes 🔺			

Author: Rich

Spigit Administrator   w				
Join Date: Posts:	12/12/2 6	011 07:43 PM CS	Т	
Views:	258	Times		
Net Worth:	0	Points		



15 Views

3 Idea Threads

admin.title.category: LLNL



Q

 Post idea 2. Vote & Comment My Portfolio Home Invest Admin Begin A DOE Wide Innovation Delete Edit Idea Stats **Program** Discussion Forum Posts: 2 by Mike 01/12/2012 09:09 PM CST Views: 6 Approval Rating: 66.66 Subscribe Print Idea Quality Rating: 3.66/5.0 Likes/Dislikes Likes: 4 Dislikes: 2 Post a review Comments Control Panel by Tim 01/12/2012 09:14 PM CST Metrics could be patents granted, blogs written Reply by Bob 01/12/2012 09:16 PM CST May need to establish goals



Q

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My Portfolio

Admin

los	t Popular	*
	Idea	Popularity Index
1.	Simplicity	4
2.	Eliminate oversight	4
3.	Five dollars	3
4.	Encorage multi site research collaboration projects	3
5.	Working groups	3
6.	Broaden collaboration partners	3
7.	Collaborate in small teams of key people in different areas with specific goals	3
8.	Begin a DOE wide innovation program	2
9.	Social media	2
10.	Communicate	2
Гор	Contributors	~
	User Name	Posts
	USBLINGLING	Posts

Гор	Rated Ideas	*
	Idea	Rating
1.	Eliminate oversight	86
2.	Simplicity	86
3.	Collaborate in small teams of key people in different areas with specific goals	80
4.	Encorage multi site research collaboration projects	80
5.	Working groups	80
6.	Five dollars	75
7.	Build strong incentive models	75
8.	Communicate	75
9.	Begin a DOE wide innovation program	67
10.	Develop laboratory innovation strategy	67
		More
	t Liked Ideas	

Wealthiest Members				
User Name	Net Worth			
GII	160553			
Bol	26644			
Mik	13843			
Tim	9094			
Rid	8829			
Ten	7337			
Ro(	6290			
Rot	5750			
Ton	5651			
Joh	4750			
	More			
	GII Bol Mik Tim Rici Ter Rog Rol Ton			

Highest Reputation N	Members	*
User Name	Rep. Index	Change
1. Rich	100	100%
2. Teressa	84	100%

### **Bioscience**



#### **Objective**

# Program Development:

Speed response to sponsors by surfacing new ideas and connecting expertise.

#### **Realized Impact**

Work group formed within 2 weeks – including new expertise with ideas worth exploring – to prepare a white paper ahead of a sponsor call estimated at \$15M.

#### Background

Medical diagnostics requires multi-step bio-sample collection and processing by trained personnel, and are thus limited to labs with advanced facilities and staff.

#### **Challenge Questions**

Sample Collection: How might we design and implement a simple, one-step scheme for self-collection (or collection by untrained personnel) of sufficient amounts (5-10 ml) of bio-samples such as blood?

**Sample Analysis:** How might we process and perform multiplexed analysis of the sample in a highly disposable format?

#### Communication

- Posts on Internal social network
- Personal emails from managers to Interns and Post Docs
- Internal news portal announcements for launch and success

#### **KPIs**

**Users: 793** 

Ideas: 27

Comments: 35

# **IT Roadmap**



#### **Objective**

### Operational Improvement:

Transparently validate – or identify the shortcomings of – the existing IT strategy.

#### **Realized Impact**

Increased transparency of the CIO's strategic IT roadmap. Positive interactions between contributors and the CIO became a topic of conversation on internal social network.

#### **Background**

Programs voiced an interest in being more directly involved in the ongoing assessment and development of the Strategic IT Roadmap.

#### **Challenge Question**

The CIO is looking for your input as he reexamines the Lab's IT priorities. How do you rate the seven strategic goals of the IT roadmap?

#### Communication

- Posts on Internal social network
- Personal emails from IT managers
- Mass email to contributors of previous challenges
- Internal news portal announcements

#### **KPIs**

**Users: 429** 

Comments: 29



# **Cyber Security**



#### **Objective**

## Program Development:

Speed response to sponsors by surfacing new ideas and connecting expertise.

#### **Realized Impact**

Surfaced two ideas worthy of exploration, which have been internally funded for research and development in FY12 to determine viability for sponsors.

#### **Background**

Cyber security R&D priorities have traditionally been based on the network perimeter defense model. We now need to more thoroughly explore priorities consistent with mission assurance in a compromised environment model.

#### **Challenge Question**

What should the R&D priorities be to develop capabilities to protect cyber activities (like banking transactions) rather than networks?

#### Communication

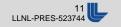
- Posts on Internal social network
- Personal emails from Cyber managers
- Mass email to contributors of previous challenges
- Internal news portal announcements

#### **KPIs**

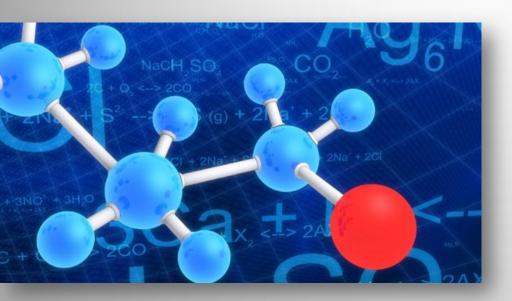
Users: 367

Ideas: 16

Comments: 18



### **Materials**



#### **Objective**

### Operational Improvement:

Speed collaboration to surface new ideas for facilities and capability investments.

#### **Realized Impact**

Leveraged next-day launch to gather new investment ideas for investment planning. Top ideas were presented to roadmap planners within one week of the challenge's launch.

#### Background

NNSA called for a 20-year roadmap for facility and capability investments.

Materials for Energy was one of the five focus areas.

#### **Challenge Questions**

What are the critical materials breakthroughs (science, technology, and engineering advances) in the energy area that would benefit the nation's security?

What does we need (facilities and capabilities) to achieve those breakthroughs?

#### Communication

 Posts on Internal social network

 Personal emails from Materials manager

 Mass email to contributors of previous challenges

#### **KPIs**

**Users: 319** 

Ideas: 17

Comments: 14



### **Defense**



#### **Objective**

# Program Development:

Speed response to sponsors by surfacing new ideas and connecting expertise.

#### **Realized Impact**

Surfaced one idea worthy of exploration, which is being vetted for sponsor viability.

#### **Background**

The DoD spends on the order of \$13B per year in what it terms 'operational' energy – the energy used in military deployments, direct support of deployments, and training – which is about 75 percent of the energy the Department consumes annually.

#### **Challenge Question**

How can the Department of Defense significantly cut its operational energy costs without degrading its operational tempo?

#### Communication

- Posts on Internal social network
- Personal emails from Materials manager
- Internal news portal announcement
- Mass email to contributors of previous challenges

#### **KPIs**

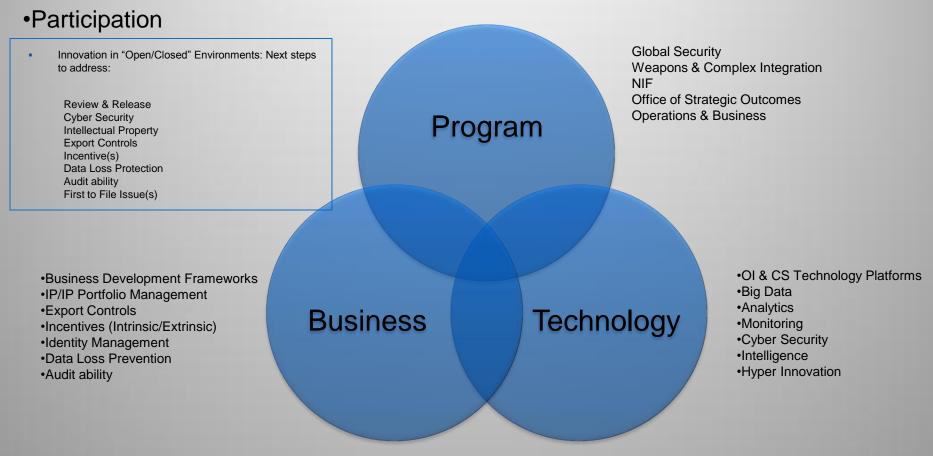
Users: 233

Ideas: 13

Comments: 3

# **Issues & Opportunities for LLNL**

- Technology Challenges
- Business Challenges
- Common Collaboration Platforms



# **Questions?**

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