NASA's Internal Crowd

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NASA's Center of Excellence for Collaborative Innovation (CoECI)

CoECI works across NASA and other U.S. Federal Government Agencies to assist organizations in understanding and using open innovation tools.



We are Sherpas!

Guide our Challenge Owners through every step

Set expectations in the beginning

Active participation during Challenge



Use the LASSO Technique for Challenge Definition

Challenge Worksheet

http://bit.ly/theworksheet

Limited Scope

Actionable

Specific

Supported

Owned



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Typical Challenge Timeline

Develop the Challenge

1-3 weeks

Challenge Open to Employees

4-6 weeks

Select Winner

1-2 weeks

Award

Winner

Facilitators work to minimize time/effort required by Challenge Owner.



Challenge Awards

NASA@WORK Certificates and Innovator pins

We notify Winners and their Management

We take care of all Certificates and Awards





Close Out Survey

How much of an impact does the idea make?

What is the plan for the solution?

Were there any lessons learned?

One year follow-up







國國國國國國民語是中國科學

CHIER

Million Million Province



Determining Urine Volume in Microgravity



Robert Pietrzyk from JSC's Human Health & Performance Directorate needed improved solutions for measuring urine volume in microgravity.

He ran a NASA@WORK challenge seeking solutions.

Results: Found an working prototype saving \$1.3M & 3-5 years of development.

The working prototype was developed for another purpose in a lab that was only 300 yards from the group seeking the solution.



Predicting Probability of Safety Incidents



Kamili Shaw from Stennis Safety & Mission Assurance was trying to better predict high safety risk conditions using large amounts of safety incident data and systems maintenance operations data.

She ran a NASA@WORK challenge seeking solutions prior to a planned public machine learning challenge.

Results: Found an existing machine learning based tool at HQ and saved \$5M in duplicated development efforts.

NASAQWORK

Washing Produce Grown in Space



Tracy Gill with KSC's Veggie project needed to find a way to safely sanitize the fresh produce being grown onboard the ISS.

SA@WORK

He ran a NASA@WORK challenge seeking practical methods to sanitize produce grown in space.

Results: Found 2 practical/effective solutions and saved the project an estimated \$125,000 over traditional methods.

Gateway Program Graphic Challenge



39 ideas posted 123 comments 3130 votes

"I really dig the Gateway Arch symbolism synonymous with our westward expansion. Humans always moving forward." – Scott Darpel, challenge participant

"This is awesome. Can't wait to get this on a shirt." – Marcos Pena, challenge participant



NASA's Internal Crowd

Over 20,000 NASA Civil Servants and Contractors

Over 160 challenges to date

94% resulted in a positive outcome

88% of solutions implemented/planned

83% of NASA@WORK challenges that provided cost estimates showing cost savings averaging 80% (total savings identified to date \$8.7M) over traditional methods.

No cost to projects to run a challenge

Offers a set of non-monetary awards

Very effective for enterprise knowledge sharing/discovery



Call for Challenge: SPACE APPS 2019

Attachments [1] | Close-Out Surveys [0] | Campaign Hierarchy [1] | Notes [0] | Campaign Members [2] | Open Activities [0] | Activity History [4] | Award Activities [5+] | Campaign Field History [2]

Campaign Detail	Edit Delete Clone I	Manage Members 🔻 🛛	CoECI Close Out Survey	New NA SA@	Work Challenge Email	
Campaign Name	Call for Challenge: SPACE APPS 2019 [View Hierarchy]]	Camp	aign Owner	💭 Carissa Cal <u>titiai (Cha</u>	inge]
Active			Campaign F	Record Type	CoECI Campaign [Cha	nge]
Status	6-Awarded		Is A Paren	t Campaign 🕜		
Challenge Type	Ideation		Paren	t Campaign		
Type of Service	Non-Technical			Agency	NASA	
Subject Areas	Engineering & Modeling; Health & Medicine; Living in Sp Science	pace; Planetary	Cer	ter Pick list 📀	Headquarters	
Challenge Web Link	https://nasa-at-work.nasa.gov/a/campaign-home/209		Organization (Progra	m/Division)	Earth Science Division	
Funding Likelihood			Challenge	e Readiness		
Tagline 🥑	This NASA@WORK challenge is seeking YOUR creativideas to be part of the SPACE APPS challenge. All NAS and contractor employees are eligible to be SPACE APP owners.	ve challenge SA civil service PS challenge	Challenge Ef	fectiveness		
Additional Contact Info			Solution	Description		
CoECI Engagement	HQ - Space Apps		Pa	rent Project		
Challenge Source	Personal Contact			Authority		
PAO Point of Contact						
Number of Attendees	0					
Follow Up Date	1/13/2020					

▼ Challenge Points of Contact

Vendor	NASA@work	CoECI Challenge Coordinator	Carissa Callini
Vendor POC		Backup CoECI Challenge Coordinator	Ryon Stewart
Additional Vendor POC email		Challenge Owner	Patricia Jacobberger-Jellison
Other Challenge Representative (Vendor)		Challenge Owner's Manager	
Engagement POC		Challenge POC (Technical)	Sarah Hemmings
Engagement Funding POC			

NASA@WORK Results from 8 Years

20,000+ NASA employees/ contractors participating

Effective in Enterprise Knowledge Sharing

*

160+ Challenges

96% Would Use Challenge Again Significant Advance

24%

53%

Incremental Advance

9% NO Advance

91%

Success

Rate



Outlet for Employees who want to be innovative and make a difference!

NASA Tournament Lab Challenges by the Numbers

50

NASA

370+ challenges

9476 Successful

nasa.gov\solve

80% Result in Cost Savings

CoECI's Challenge Experience

378 challenges total completed or in progress



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Best Practices

Be a Sherpa!

Choose the Right Problems

Use a Challenge Worksheet

Find the Right Incentive for your Community

Follow up after the Challenge

Capture Metrics that Speak to Stakeholders

Evolve Your Story



Questions?

NASA@WORK

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