

RECLAMATION

Managing Water in the West

Technology Prize Competitions

New business model for federal agencies to harness the creative capacity of the American public and private sectors to spur innovation and solve agency's problems through financial incentive prizes.

Research and Development Office
Science and Technology Program



U.S. Department of the Interior
Bureau of Reclamation

Reclamation Mission Statement

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.



RECLAMATION

Global R&D Practices: The Emerging Trend Toward Open Innovation

Bloomberg Business Journal:

Collaborative innovation will mean the end of the great-man theory of innovation. Before much longer, the differentiator among great managers will be less individual brilliance and more skill in extracting value from a fluid network of internal and external parties.

<http://www.bloomberg.com/bw/articles/2013-07-10/the-end-of-the-great-man-theory-of-innovation>

A Sampling of Prize Competition Platforms and Organizations

INNOCENTIVE[®]

NINESIGMA[®]

XPRIZE[®]

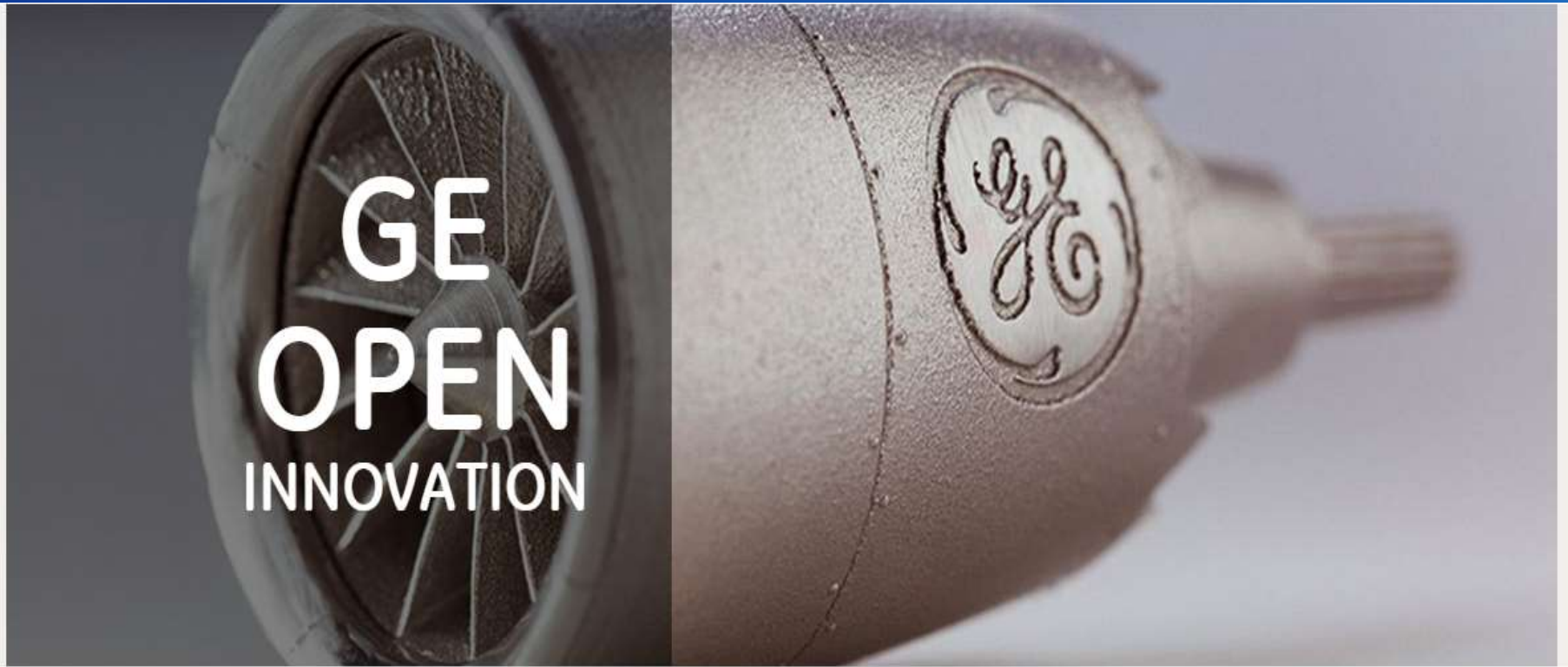
kaggle



[topcoder][™]

Challenge yourself. Get paid.

\$69,316,885.00 in cash awarded to date.



GE Open Innovation



GE understands solving the world's toughest problems through advanced manufacturing techniques and processes requires collaboration. By crowdsourcing innovation—both internally and externally—GE is improving customer value and driving advancements across industries. By sourcing and supporting innovative ideas, wherever they might come from, and applying GE's scale and expertise, GE's approach to open innovation is helping to address customer needs more efficiently and effectively.

Open Innovation Manifesto

We believe openness leads to inventiveness and usefulness.

We also believe that it's impossible for any organization to have all the best ideas, and we strive to collaborate with experts and entrepreneurs everywhere who share our passion to solve some of the world's most pressing issues.

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Water Prize Competition Center

<http://www.usbr.gov/research/challenges/>

- **Federal Authority:**

**America COMPETES Reauthorization Act of 2010 (15 USC 3719);
Section 24 - Prize Competitions**

- **Reclamation R&D Office Appropriations Specific for Funding**
 - **FY2014: \$ 2 million**
 - **FY2016 President's Budget: \$ 3 million**
- **Any Federal Appropriation Can be Expended for Prize Competitions...specific appropriation not required**

RECLAMATION

Problems that are typically better suited for solving through prize competitions

- An adequate or strong solution has been evasive or expensive.
- You find yourself saying that somebody, somewhere probably knows a better way of doing this.
- Market forces may not provide appropriate incentives to solve...or solve well.
- You would like to reach beyond the usual sources of potential solvers and experts that commonly work in your domain.
- You would like to jump-start your research project by augmenting your literature search with a prize competition to gather good ideas or see what else exists.
- You would like to see if anybody can help you solve a tough, complex element that is bogging down your overall research project.

Where are We At and Where are We Going ?



Build Core Competencies

Innocentive's Short, Targeted Competitions at \$10,000 - \$100,000 award/contest (Similar to Single Baseball Game, or 2 Game Series)

Ecosystem Restoration: ~ 1 Challenge Every 3-4 months

Water Availability: ~ 1 Challenge Every 3-4 months

Infrastructure Sustainability: ~ 1 Challenge Every 3-4 months

Seek Non-Federal/Private Sector Partners

Plan, Design, Launch 1 or more Grand Challenges (Similar to Baseball Division, League, or World Series Championship)

Recommend Future Directions

CHALLENGE



Challenge Development

~2 weeks

Challenge Posted

Posting Period

1 – 3 months

Some to no Federal involvement during posting period

Submission Evaluation & Award

1 – 2 months

Submissions Received

Award Given

Team of 3 to 4 or more federal subject matter experts join Innocentive Challenge designer. Federal Co-team leads spend ~ 3 to 4 (or more) staff-days each over a 3 – 4 week period. Other design team members provide reviews and contributions

Team of 3 or more federal and non-federal judges may spend 2-4 staff days or more. Design team co-leads become members of judging panel

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Water Prize Competition Posting Locations

Challenge.gov

<https://www.challenge.gov/list/>

Innocentive Challenge Center

<https://www.innocentive.com/ar/challenge/browse>



SCIENTIFIC AMERICAN™

Open Innovation Pavilion

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nature.com has teamed up with [InnoCentive](#) to offer its readers the opportunity to participate in research and development challenges. As a Solver, you can apply your expertise to important problems, stretch your creative boundaries, and win cash awards.

» [Need a Challenge Solved?](#) » [Become a Solver](#)

» [Solver stories](#) » [Contact InnoCentive and NPG](#)

All Challenge postings and submissions are managed by InnoCentive.

NPG Resources

SciBX: Science - Business eXchange

from NPG and BioCentury

The most important translational research and its implications at your finger-tips

bioentrepreneur

Nature Biotechnology's portal for scientists interested in commercializing their research

Nature Network

Connect with other scientists

Solver stories



Ivan Skachko
Solver since 2011



Samuel Peña-Llopis
Solver since 2010

FEATURED CHALLENGE:

[Improved Methods for In-vitro Plant Regeneration](#)

Challenge Reward: **\$10,000 USD** Challenge Type: **Ideation** INNOCENTIVE: **9933678**



The Seeker desires improved methods for *in-vitro* plant regeneration. Additional details are available in the Detailed Description and Solution Requirements section of the Challenge once you register as an InnoCentive Solver.

The Benefits of Federal Collaboration

1. Leverages collective Federal capabilities
2. Ensures a federal solution does not already exist
3. Avoids duplication
4. Catalyzes interagency working relationships
5. Better defines and solve joint problems
6. Solutions will have broader impact
7. Better serves the stakeholders and the public
8. Consultation across federal gov't required by prize competition law

Prize Competition Design Team Roles

1. Make sure an adequate solution does not exist.
2. Team-up with Innocentive to design the challenge.
3. Define and deconstruct the problem (Define the Black and Grey Space).
4. Define success = The prize performance criteria (Define the White Space).
5. Co-Design Leads participate on Judges Panel and recommend and other judges.

Prize Competition Agency/Office Broker Roles

1. Broker the participation of your subject matter experts.
2. Broker understanding of priorities with your agency/office
3. Keep your agency/office management informed as needed.
4. Keep stakeholders informed as needed.
5. Help broker partners and co-sponsors.
6. Participate on monthly coordination conference calls.
7. Review and concur that the prize competitions that you have a stake in are ready to launch.

Reclamation Prize Competition Theme Area Portfolio Manager Roles

Coordinate across Reclamation and with collaborating agencies to prioritize, select, form design and judging teams, schedule and budget prize competitions for final design and Nation-wide launch.

Prize Competition Reclamation and R&D Office Roles

1. Establish prize competition practices and process that meet legal requirements...and are win-win for all involved.
2. Ensure all prize competitions are posted on the Federal Register and Challenge.gov, as required by law.
3. Obtain the necessary DOI and Reclamation approvals to launch each prize competition challenge.
4. Fund Reclamation's subject matter experts and facilities, as needed.
5. Obtain and Pay Prize Competition Contract Services
6. Make payments to the winner(s)
7. Broker co-sponsors and other partners

Contacts

Prize Competition Portfolio Managers

Water Availability Theme Area:

Ian Ferguson: 303.445.2513, iferguson@usbr.gov

Andrew Tiffenbach: 303.445.2393, atiffenbach@usbr.gov

Aquatic Ecosystem Restoration Theme Area:

Connie Svoboda: 303.445.2152, csvoboda@usbr.gov

Tim Randle: 303.445.2557, trandle@usbr.gov

Pat Connolly: 509.538.2299 x269, pconnolly@usgs.gov

Infrastructure Sustainability Theme Area:

Bobbi Jo Merten: 303.445.2380, bmerten@usbr.gov

Jessica Torrey: 303.445.2557, jtorrey@usbr.gov

Erin Foraker: 303.445.3635, eforaker@usbr.gov

Water Prize Competition Center Manager

Chuck Hennig, 303.445.2134, chennig@usbr.gov

Questions and Discussion