OPPORTUNITIES IN OPEN INNOVATION AND COMMUNITY APPLICATIONS

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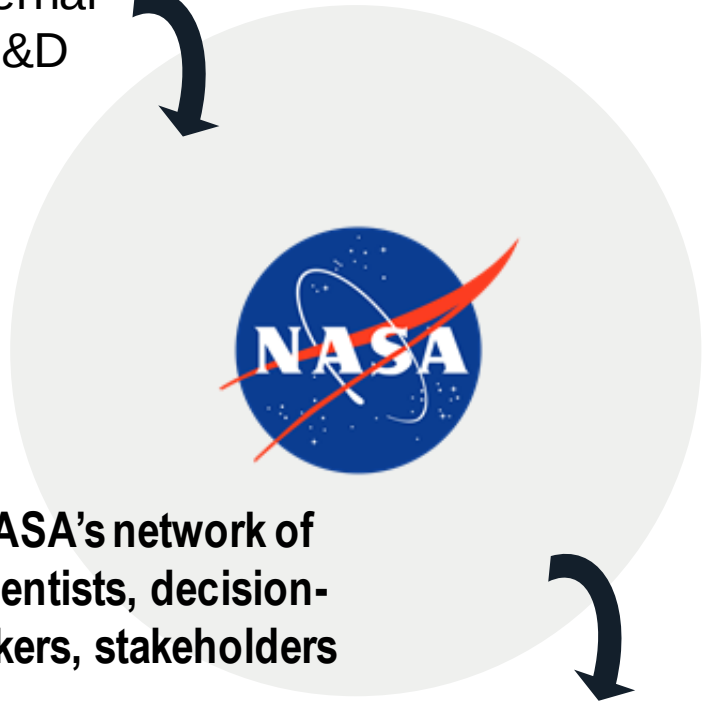
Open Innovation

Ideas for Internal R&D



NASA's network of scientists, decision-makers, stakeholders

New Uses and New Markets

- Crowdsourcing

  Solicits products, services, ideas, or content contributions from many people for distributed problem solving

- Challenges

  Use focused problem statement to competitively obtain solutions and/or stimulate innovation from broad public

- Prizes

  Competitively award prizes to stimulate innovation with potential to advance NASA's mission

- Citizen Science

  Public participating voluntarily in scientific process

“discover and demonstrate innovative and practical uses of Earth observations”

Enable near-term uses of EOs:

- **formulating new applications**
- **integrating EOs and related products in practitioners’ decision making**
- **transition the applications for sustainable use**

Information Gathering

- Are you interested in identifying existing data or technology
  - Collect insights, resources, and ideas FOR FREE on internal challenge platform.
- Are you trying to gather new data
  - Is data collection straightforward, can be accomplished on existing platforms
  - Are you trying to develop new data gathering platform

NASA@WORK

NASA TECHNOLOGY TRANSFER PROGRAM

Prototyping and Integration

- Would you like to develop a software application, an algorithm for data analyses, or a hardware tool?
  - Launch challenges for curated communities through NASA Tournament lab or on challenge.gov. Partner with external organizations for technical, financial, other support
- Do you have more targeted tasks?
  - Microtasks or repetitive tasks?
    - Run micro-purchase challenges from $200+ to obtain solution within weeks!
  - Logo designs, user dashboards?

NTL NASA Tournament Lab

Challenge.gov Government Challenges, Your Solutions

freelancer.com

amazon mechanical turk beta

Community Applications

Identifying new communities and partnerships to test applications of data products

Opportunities for Commercialization

Sharing new capabilities and identifying new markets to develop sustainable solutions

NASA TECHNOLOGY TRANSFER PROGRAM

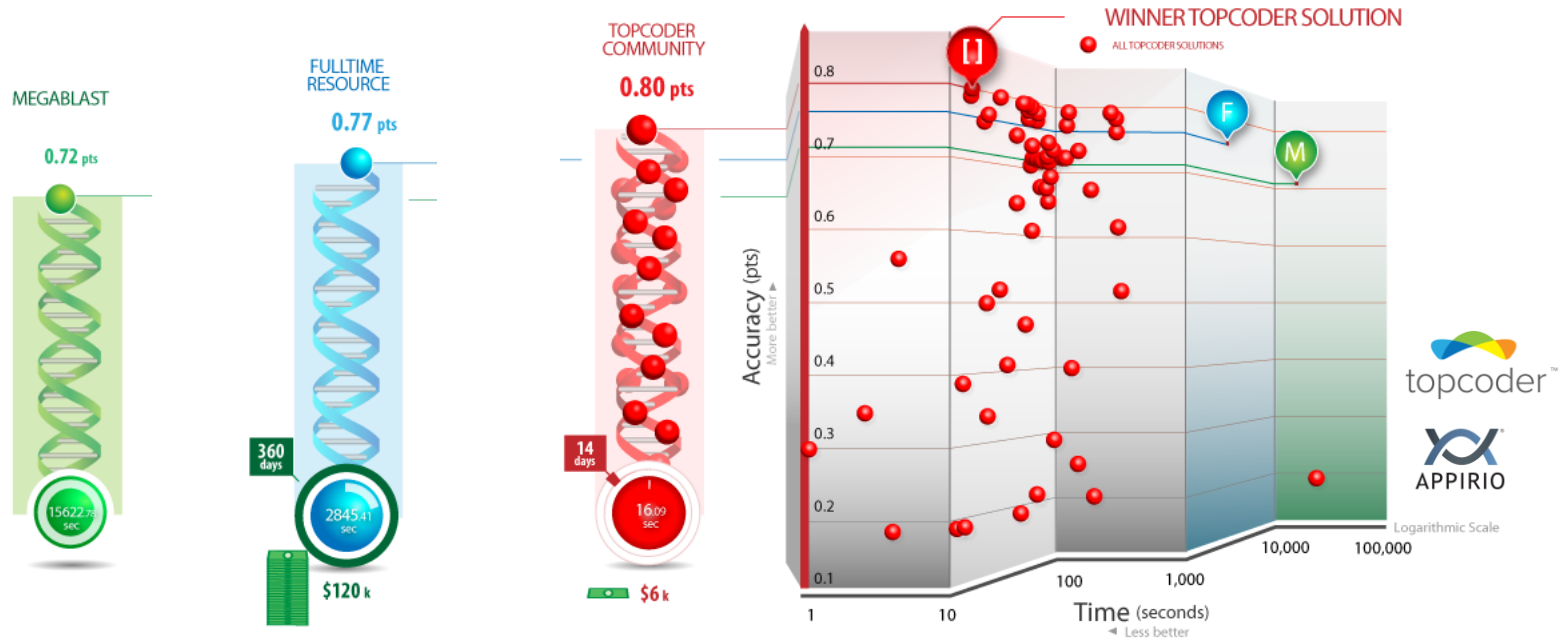
scaling

Open Innovation tools can *complement* current efforts to discover and demonstrate innovative and practical uses of Earth science data to enhance decision-making, improve quality of life, and strengthen the economy.

- Ideation
- Scientific
- Software
- Technology and Hardware Demonstration
- Design and Communications
- Entrepreneurship
- Data Analytics and Visualization

GOAL: Create better algorithm for sequence annotation than established methods such as BLAST

COMPETITION: Ran 2 week prize competition on Topcoder with pot of $6000



4.3 hours

$2M+
Multi-year
Development

47 min.

$120K
1 year
Development

16 sec.

$6K Prize
14 Day
Challenge

HARVARD BUSINESS SCHOOL

NASA Tournament Lab

GOAL: Create a 2-3 minute animation/video from storyboard for REALM project, based on RFID technology

PRIZE: $3000 on freelancer.com

NASA INTERNATIONAL SPACE APPS CHALLENGE

Annual Hackathon in over 200 locations in around the world

October 18-20, 2019

Virtual Participation Options Available!

Integrate NASA Earth science data and citizen science data to learn more about the ***connections between human, animal, and environmental health***.

Build a tool for beach-goers to monitor for hazards including ***sun exposure and presence of harmful algal blooms*** and to alert them of precautionary measures for protection on their swim- and surf-filled adventures!

Develop an app or platform to ***crowd-source information for comparing changes in environmental factors***, such as temperature, relative humidity, air pollution, ***with occurrence of symptoms of allergies and respiratory diseases***.

THANK YOU

Applied Sciences Program

Lawrence Friedl

Health and
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John Haynes

Sue Estes

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NASA Prizes and Challenges

Amy Kaminski

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QUESTIONS?