



# Career Compass Challenge Webinar

April 26, 2019

Email us at [CareerCompassChallenge@nsf.gov](mailto:CareerCompassChallenge@nsf.gov)



**Robyn Rees**  
*Senior Advisor, NSF*



**Dorothy Aronson**  
*Chief Information Officer, NSF*



**Chezian Sivagnanam**  
*Chief Enterprise Architect, NSF*



**CAREER  
COMPASS  
CHALLENGE**

# ...Our Journey

Can we use Artificial Intelligence to help the NSF workforce adapt more easily to future work opportunities?

January 2018



Imagine a Federal workforce that is a model for other governments and for industry.

Imagine a Federal workforce that functions as an agile integrated team within and between agencies.

Imagine that employees move freely in and out of the Federal workforce.

Imagine that you, a Federal employee, have the power to chart the path of your own career, and dedicate time (each day) to both executing your current job functions and building skills needed for your next job.

Imagine that you carry on a continuous conversation with your leadership.

Imagine an app that:

- knows your skills, strengths and preferences,
- recommends possible future careers,
- suggests growth paths (class-work, detail opportunities, work experience, advanced degrees, and more...)

Imagine that.

Small icon: A person with a gear.

Small text: Email us at [CareerCompassChallenge@nsf.gov](mailto:CareerCompassChallenge@nsf.gov)

Small icon: A compass rose.

Small text: Future

Imagine a Federal workforce that is a model for other governments and for industry.

Imagine a Federal workforce that functions as an agile integrated team within and between Agencies.

Imagine that employees move freely in-and-out of the Federal workforce.



Today

**Imagine that you, a Federal employee, have the power to chart the path of your own career, and dedicate time (each day) to both executing your current job functions and building skills needed for your next job.**

Imagine that you carry on a continuous conversation with your leadership.

**Imagine an app that:**

- **knows your skills, strengths and preferences,**
- **recommends possible future careers,**
- **suggests growth paths (class-work, detail opportunities, work experience, advanced degrees, and more...)**

Imagine that. ✖



Future



**Focusing on NSF as a model, the Challenge was to imagine a solution that, given information about a person, will predict jobs that suit that individual's strengths and aspirations and helps them to develop the skills needed to qualify for current and future careers.**

## **Because...**

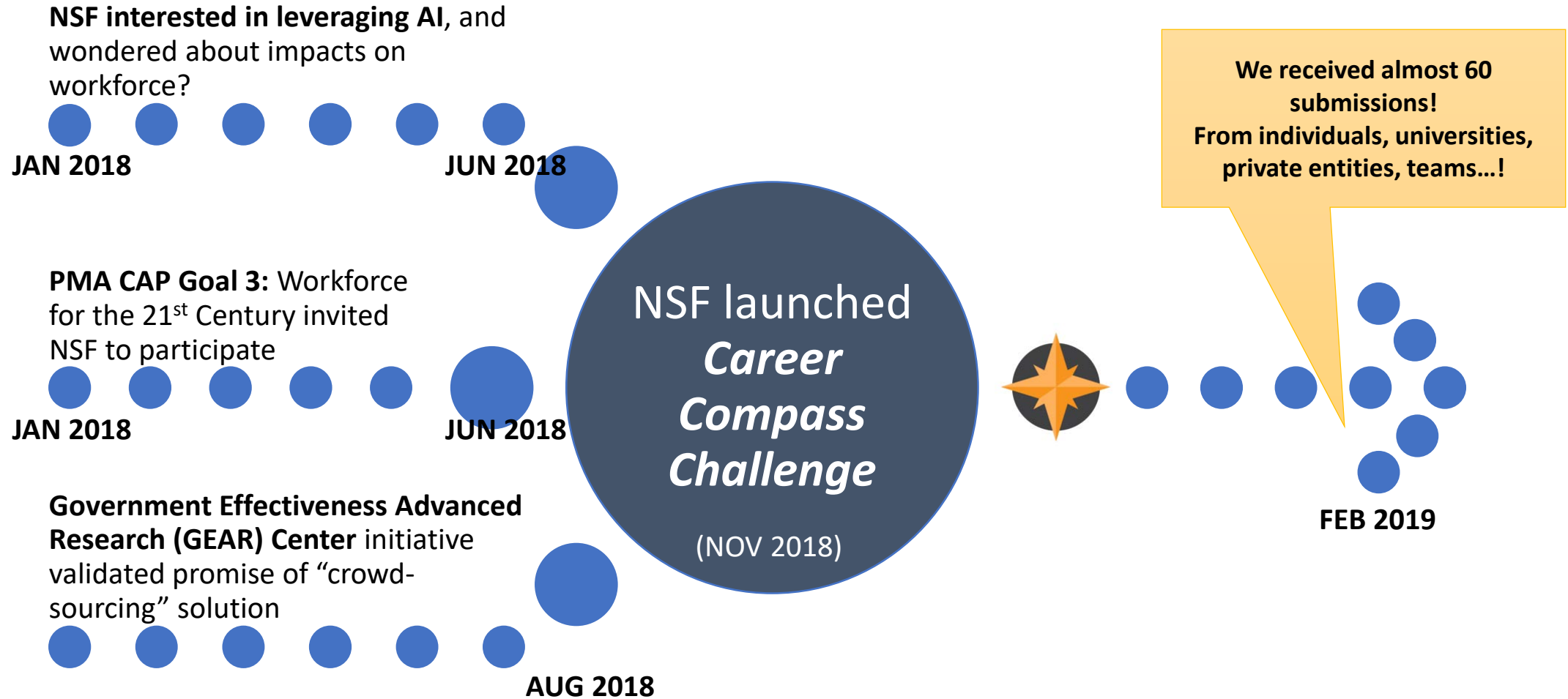
- ✓ *Advanced technologies ARE HERE*
- ✓ *and, they WILL CONTINUE to present NEW OPPORTUNITIES*
- ✓ *and, WE ARE PREPARING for it*
- ✓ *and, WE CAN EMBRACE it*





**CAREER  
COMPASS  
CHALLENGE**

# ...Our Journey: Part 1



# Part 1 Winning Submissions



**My Career  
Compass**

**Career  
CHARTING**

**ACCESS**

**E-TAG**

**A GPS For  
Learning  
and Work**

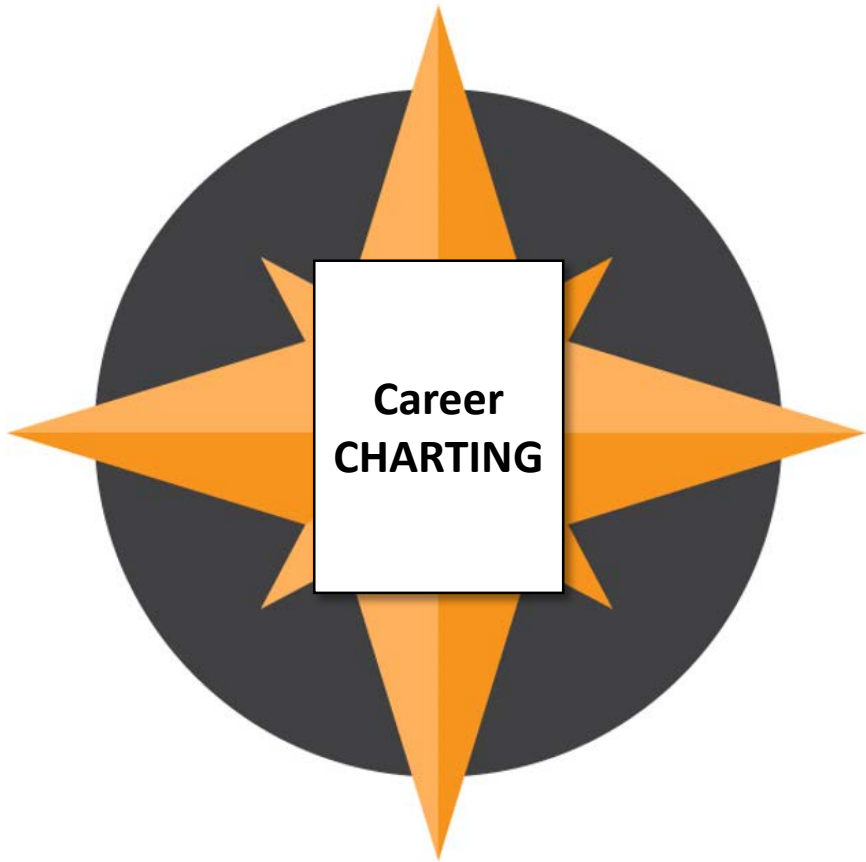
# My Career Compass



- Based on user interests and skills
- Dynamically creates several career path options and allows users to select and customize their optimal paths
- At every stage of their career, it supports users with access to a wide variety of learning and development opportunities that align to their selected career paths, established goals, and identified skills and interests



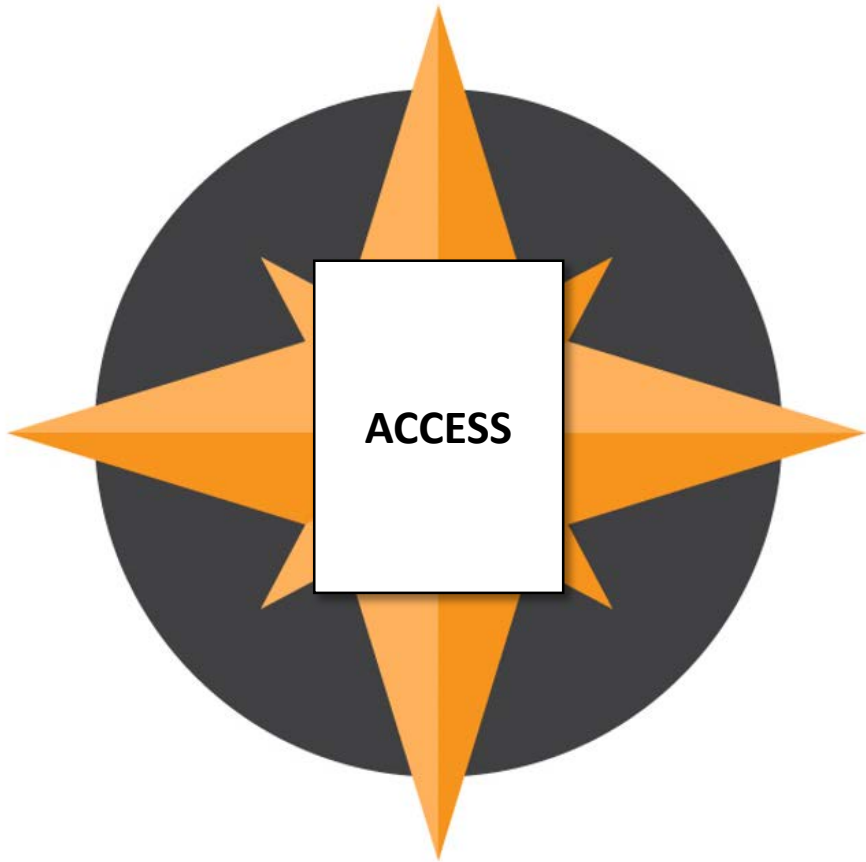
# Career CHARTING



## **Career Help via Analysis, Recommendation, and TrainING App**

- Helps employees identify and self-select new jobs and even career paths according to their skill sets and interests
- Provides guidance on how they can prepare for new jobs that require new skills

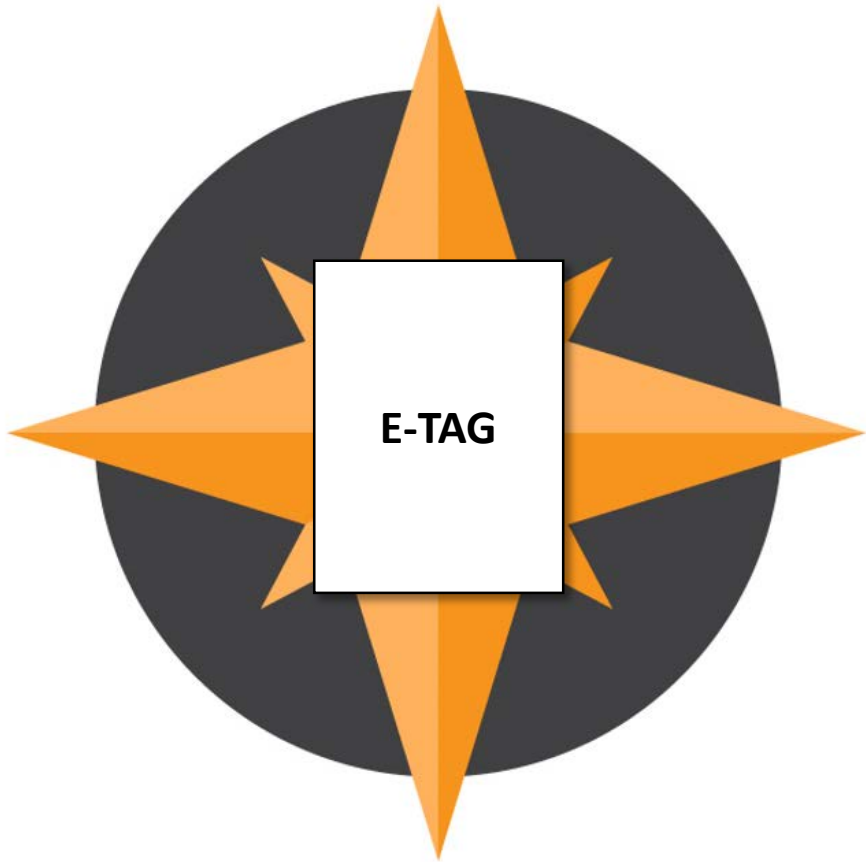
# ACCESS



## Advanced Career Compass for Enhancing Skills to Successes

- Integrates multiple services to prepare the future American workforce
- Leverages advanced technologies and aims at providing a *personalized* career.

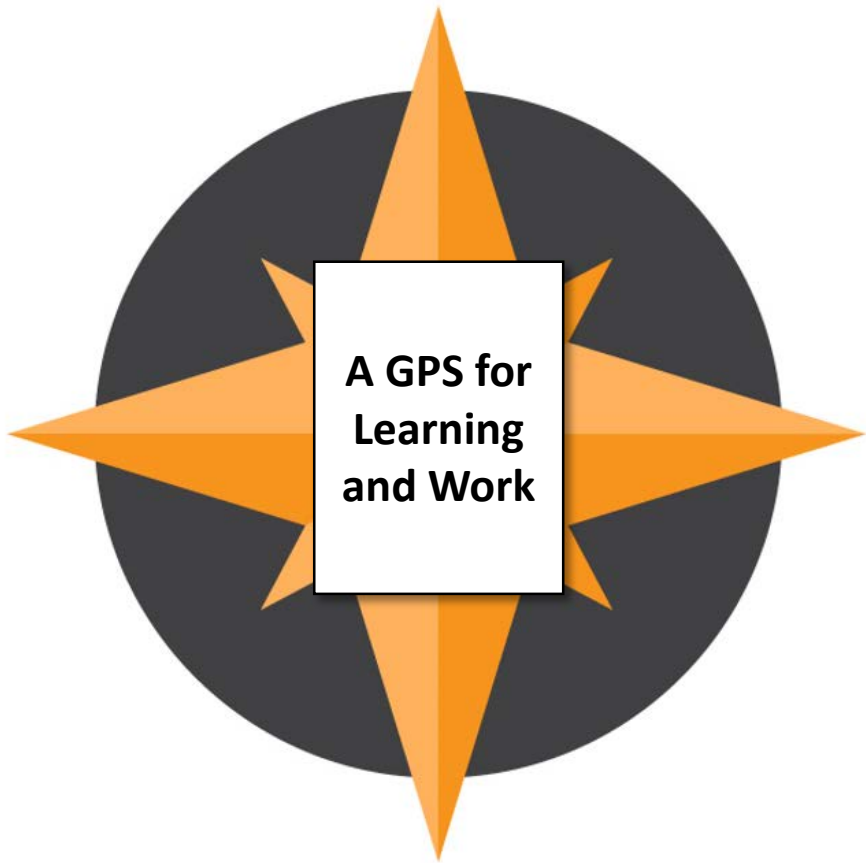
# E-TAG



## **Employee Training and Growth through Electronic Games**

- A cross-platform software gaming engine that provides employees with a fun, engaging way to access information, improve their skills and learn about future opportunities.

# A GPS for Learning and Work



This GPS for careers will be accessible at any time to any person or set of needs and aspirations and available throughout a person's life.

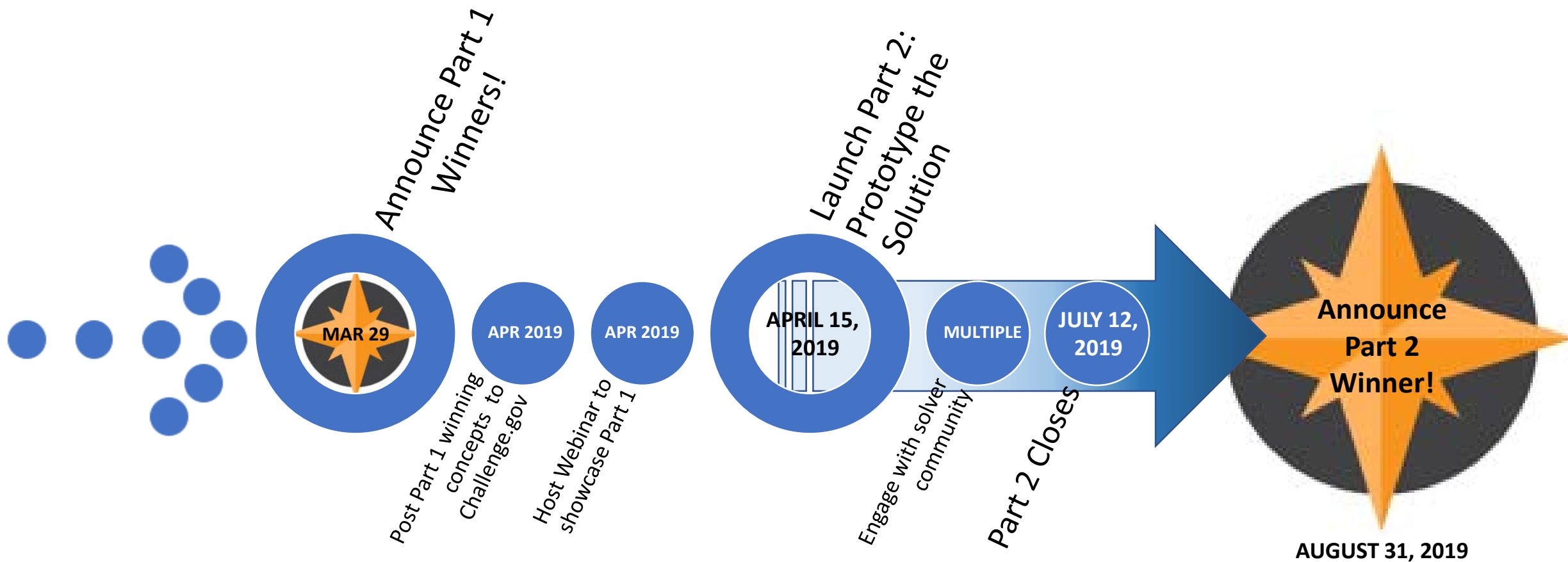


## Other great ideas!...

- Using Blockchain to build a decentralized system that shall help NSF staff to seamlessly move within federal agencies in the pursuit of their career
- Concept of "Digital Twin and Digital Self", where the digital twin works as a bridge between the physical and digital worlds

*We look forward seeing more innovative thinking in part 2 of the competition!*

## ...Our Journey: Part 2





# What we are looking for in Part 2

- Working prototype
- Build upon one of the winning concepts from Part 1, or one of your own
- Make the prototype available for testing by a government panel
- Provide a short narrative describing how your tool addresses the challenge



# Encouraging Partnerships

Use our hashtag on social media!

**#NSFCareerCompass**





## Part 2 “Toolkit” – Public Data

“Tool”	Description	Link
<b>FedScope Employment Cubes</b>	Data on employment and accessions may be combined to predict declining and growing occupations	<a href="https://www.fedscope.opm.gov/EmploymentDesc.asp">https://www.fedscope.opm.gov/EmploymentDesc.asp</a>
<b>USAJobs</b>	Data on Key Skills and Abilities required for particular occupations	<a href="https://www.usajobs.gov/">https://www.usajobs.gov/</a>
<b>Open Opportunities</b>	Data on available “stretch assignments” to build capacity in a particular developmental area	<a href="https://openopps.usajobs.gov/tasks">https://openopps.usajobs.gov/tasks</a> )
<b>OPM Handbook of Occupational Groups and Families</b>	Useful for understanding existing occupation data	<a href="https://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-general-schedule-positions/occupationalhandbook.pdf">https://www.opm.gov/policy-data-oversight/classification-qualifications/classifying-general-schedule-positions/occupationalhandbook.pdf</a>
<b>DOL O*NET</b>	Detailed descriptions of the world of work for use by job seekers, workforce development and HR professionals, etc.	<a href="https://www.onetonline.org/">https://www.onetonline.org/</a> )
<b>GitHub</b>	Open-source repository hosting service	<a href="https://github.com/search?q=APIs+jobs+data">https://github.com/search?q=APIs+jobs+data</a>



## Part 2 “Toolkit” – NSF Provided

- Subject Matter Expertise → to offer insight on government rules and regulations that could, if not addressed, prohibit a prototype tool from being marketable in the future to the Federal government.

### What else might be useful?

Example: “User Personas”, to understand...

- what types of data the Federal Government typically collects for employees;
- what stage of employment a particular user might be at when accessing the prototype tool, to demonstrate usefulness
- a variety of roles that might engage with the prototype tool



# Questions?

- Email your question or idea to

[CareerCompassChallenge@nsf.gov](mailto:CareerCompassChallenge@nsf.gov)

- Or, send us a social media message using [#NSFCareerCompass](#)

# Thank You!



**ENTER NOW!**

Create a new future for  
career growth possibilities.



<https://challenge.gov/a/buzz/challenge/86/ideas/top>

Email us at [CareerCompassChallenge@nsf.gov](mailto:CareerCompassChallenge@nsf.gov)