National Aeronautics and
Space Administration

INSPIRE - ENGAGE - EDUCATE - EMPLOY

The Next Generation of Explorers

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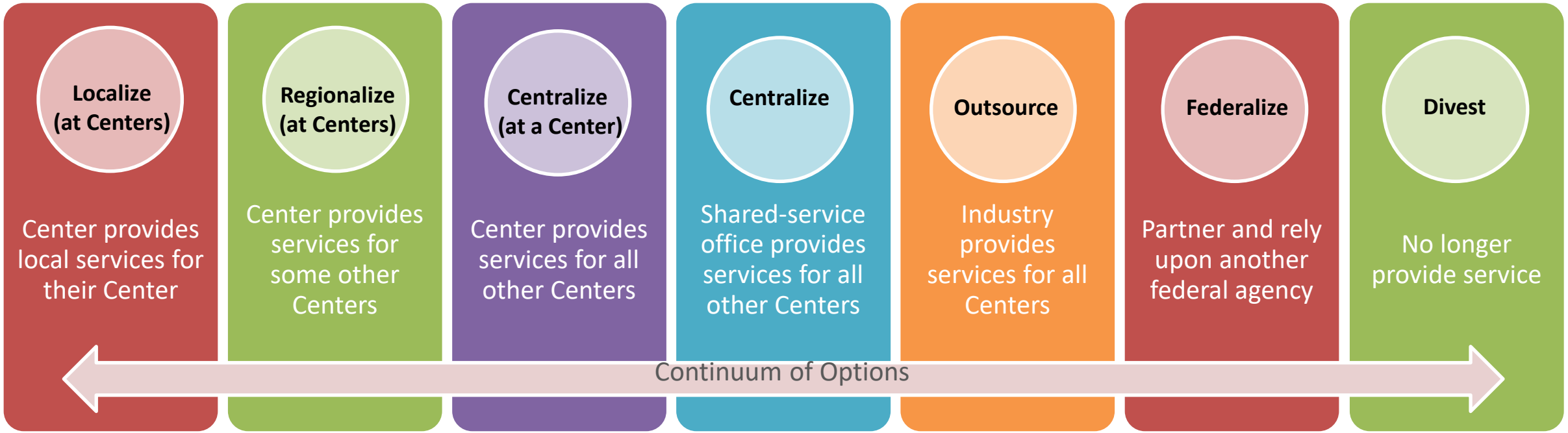
Office of STEM Engagement

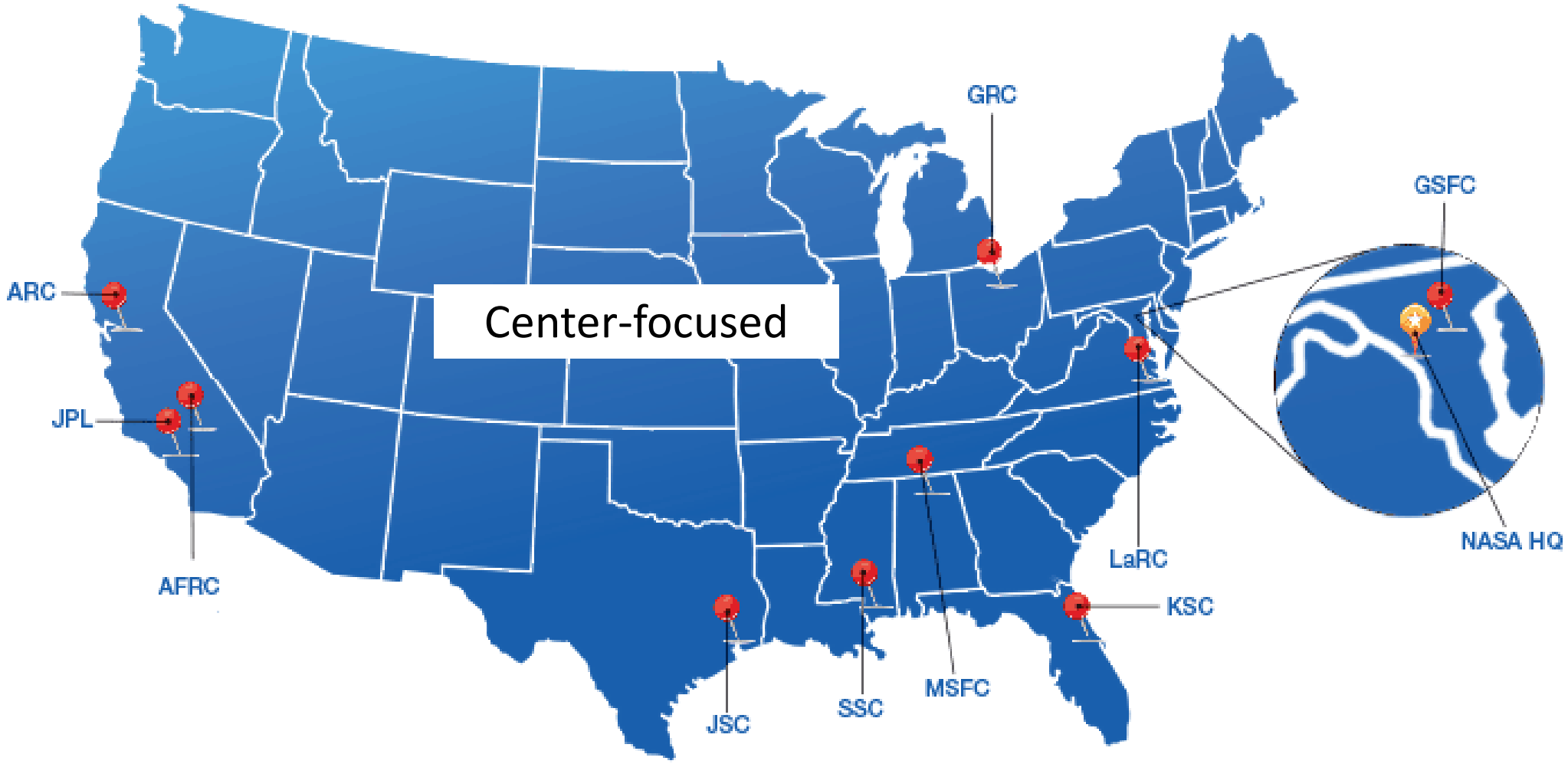
October 30, 2020

Office of STEM Engagement: What it means to be an “enterprise”

NASA Approach: Considering the Options



IMPLICATIONS FOR THE OFFICE OF STEM ENGAGEMENT



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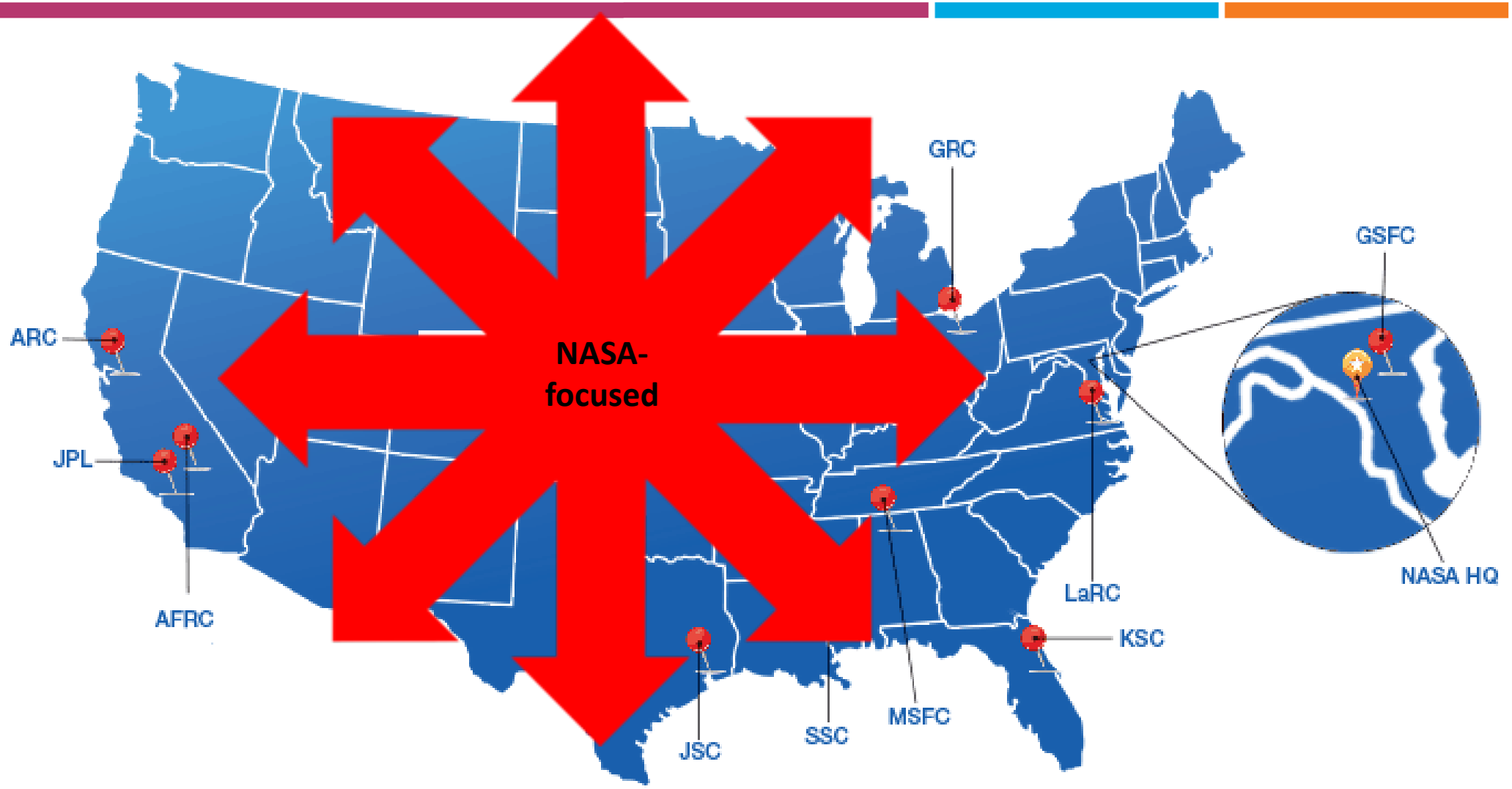


What is OSTEM's Enterprise Organization

HQ & Center STEM Engagement Offices are ONE Organization

Internal Messages to our OSTEM team

- **Greater Productivity & Impact for our Partners & Beneficiaries**
  - Where is the duplication of effort? How can we work smarter and not harder, now that we are working together?
  - Examples: shared intern coordinator at Marshall and Stennis, and at Langley and HQ

- **Greater Collaboration Opportunities Across Centers**
  - How can we think beyond the local activities performed at our center and find opportunities to share best practices, partner together and scale what we do to reach more students?
  - Examples: Sphere 1 activities, Student Internships, IT Collaboration tools team

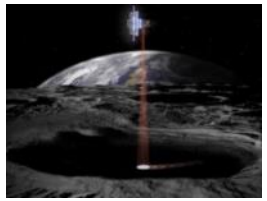
- **Greater Career Opportunities & Versatility**
  - As job opportunities become available, we will be closely evaluating whether the role must be tied to a Center or not
  - This means vacancy announcements would not be limited to one center but could be open to every center

Greater Focus on Program Collaboration and Efficiencies (Not Combining Projects)

NASA's Thematic Areas








Space Grant

- National network of 52 Consortia with 850 Affiliate members
- Stimulates cooperative programs among universities, industry, federal/state/local governments
- Encourages interdisciplinary education and research programs
- Incorporates State priorities, needs, and goals

Established Program to Stimulate Competitive Research (EPSCoR)

- 28 eligible jurisdictions (states and territories)
- Contributes to development of research infrastructure and capabilities
- Fosters partnerships between NASA research entities, industry, and academic institutions
- Incorporates state priorities, needs, and goals

Minority University Research & Education Project (MUREP)

- Limited to Minority Serving Institutions (MSI)
- Increases retention of underserved and underrepresented groups in STEM
- Enhances infrastructure at MSIs
- Portfolio with 7 funded elements

Next Generation STEM (NextGen STEM)

- Informal education and K-12 STEM engagement initiatives aligned to mission priorities
- Richer, more comprehensive STEM engagement opportunities
- NASA's Museum Alliance

STEM Engagement Beneficiaries

K-Elementary School

Middle School

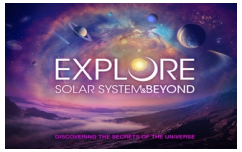
High School

Undergraduate

Graduate

Continued Progress in Transforming NASA STEM Engagement

NASA's Mission Thematic Areas



NASA STEM Engagement Projects

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Enabling Cross-Cutting Functions

Educational Tools and Platforms
- Focus: Access and Scalability
- Integrated suite of tools and platforms enabling student access/registration and comprehensive data collection
  - NASA STEM Gateway (Phase 1 operational in early FY2021)
  - STEM.NASA.gov
  - Intern.nasa.gov
  - NASA STEM@Home

Performance Measurement & Evaluation
- Focus: Outcomes and Metrics
- Learning Agenda
- Targeted Studies

Strategic Partnerships
- Focus: Scalability
- Strategic and comprehensive approach to foster and stimulate strategic partnerships
- New partnerships strategy kicked off in FY2020

Internships & Fellowships
- Enterprise model in extensive collaboration with Mission Directorates and Centers

STEM Engagement Beneficiaries


K-Elementary School


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Initial Results

Increased OSTEM Support to EPSCoR

- Assist finding proposal on-line reviewers
- Provide logistical support to Tech Monitors (especially JPL where they are all contractors with different requirements)
- Sit in on Technical meetings with NASA offices
- Provided TIM support. Center OSTEM folks identify researchers for TIM Q&A, obtain access to center facilities and arrange Center transportation, support planning meetings, etc.
- OSTEM assists visiting EPSCoR jurisdictions with badging, escorts, arranging meetings, etc.
- KSC manages TM travel program

Increased collaboration within OSTEM

- EPSCOR participation in MUREP STMD Roadshow (where all MSIs were from ESPCoR states)
- Facilitate interagency collaborations for EPSCoR and MUREP with other agencies (e.g. NSF)
- OSTEM provides performance and evaluation to all projects; EPSCoR in planning phase
- Collective effort to find proposal reviewers for all projects
- Promote visibility of all projects with external stakeholders like OMB and NAC
- Provide platform and facilitation of collaboration through Mega PI and NASA Better Together conference.


NASA STEM
BETTER TOGETHER
CONFERENCE SERIES

NASA STEM Better Together Conference Series

NASA STEM
BETTER TOGETHER
FOR STAKEHOLDER SUCCESS

February 1-2, 2021
Live Hours 10:00 am – 6:00 pm EST

- Open to **Internal NASA Participants and OSTEM grantee PI teams**
- Engage with the OSTEM stakeholders to build synergy to carry out NASA's vision for our next generation of explorers

NASA STEM
BETTER TOGETHER
FOR MISSION SUCCESS

Spring 2021 (TBD)

- Open to **Internal NASA Participants and OSTEM supported research-focused PIs**
- Engage in technical multi-center research and design technical interchange discussions with NASA mission critical personnel to forge new and strengthen

NASA STEM Better Together Conference Series

Be a voice in critical conversations with colleagues across the country as we focus on our OSTEM PIs and your success in STEM:

- ❑ Hear directly from NASA Leadership
- ❑ Engage in discussion and collaboration with other OSTEM PIs
- ❑ Access Content via Live and Pre-Recorded Sessions; content available for addt'l 90 days
- ❑ Virtual Booths and Lounge Areas for Sharing Knowledge and Networking
- ❑ Explore the platform through audio chat, video, text and interactive games

February 1 – 2, 2021

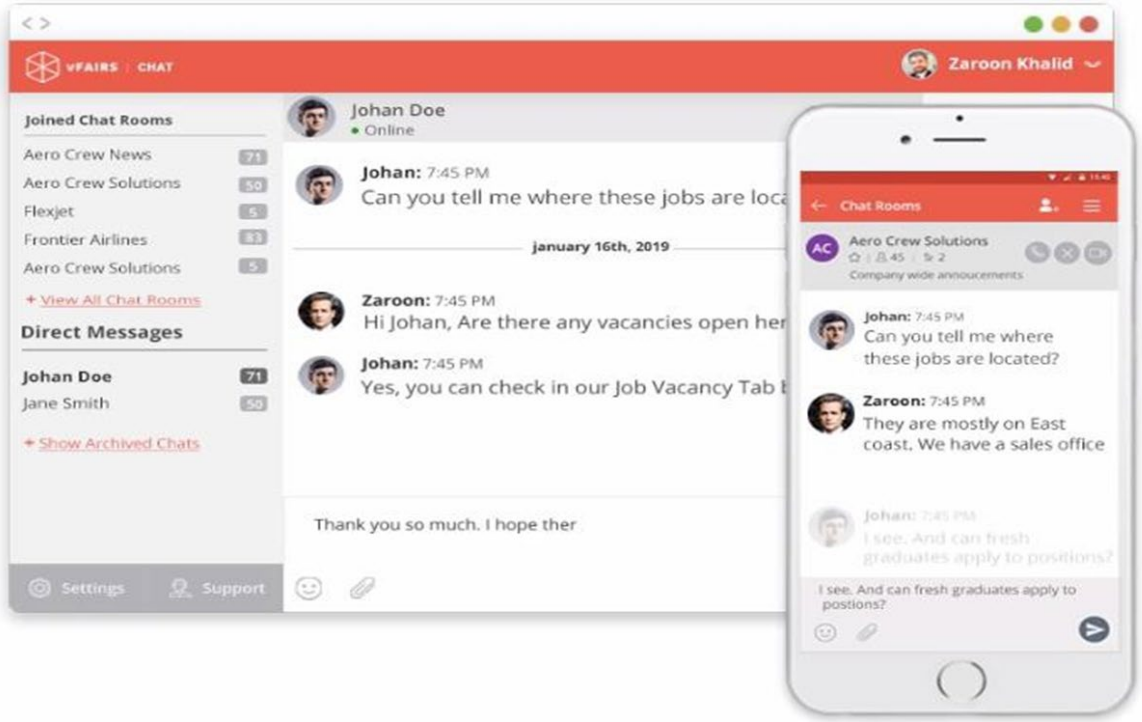
10:00 a.m. – 6:00 p.m. EST

With the use of this virtual platform, this conference is not limited by attendee numbers.

Connect with NASA & PIs from MUREP and NGS

- ❑ NASA STEM Exhibitor booths and posters
- ❑ Electronic “Hand-Outs” to share in Resources Area
- ❑ NASA STEM Networking Lounge

Text, audio and video chat, in a 1:1 chat or group chat settings



Questions?