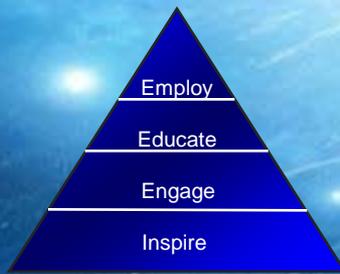


Education at NASA



Dr. Joyce L. Winterton

Assistant Administrator for Education



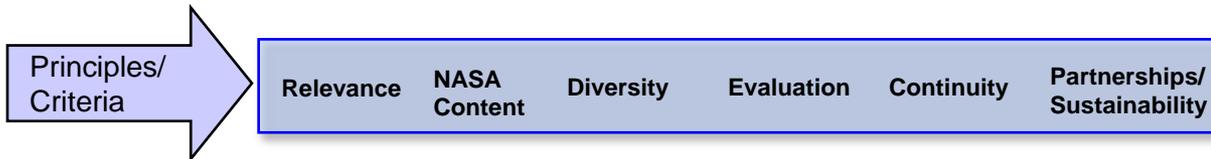
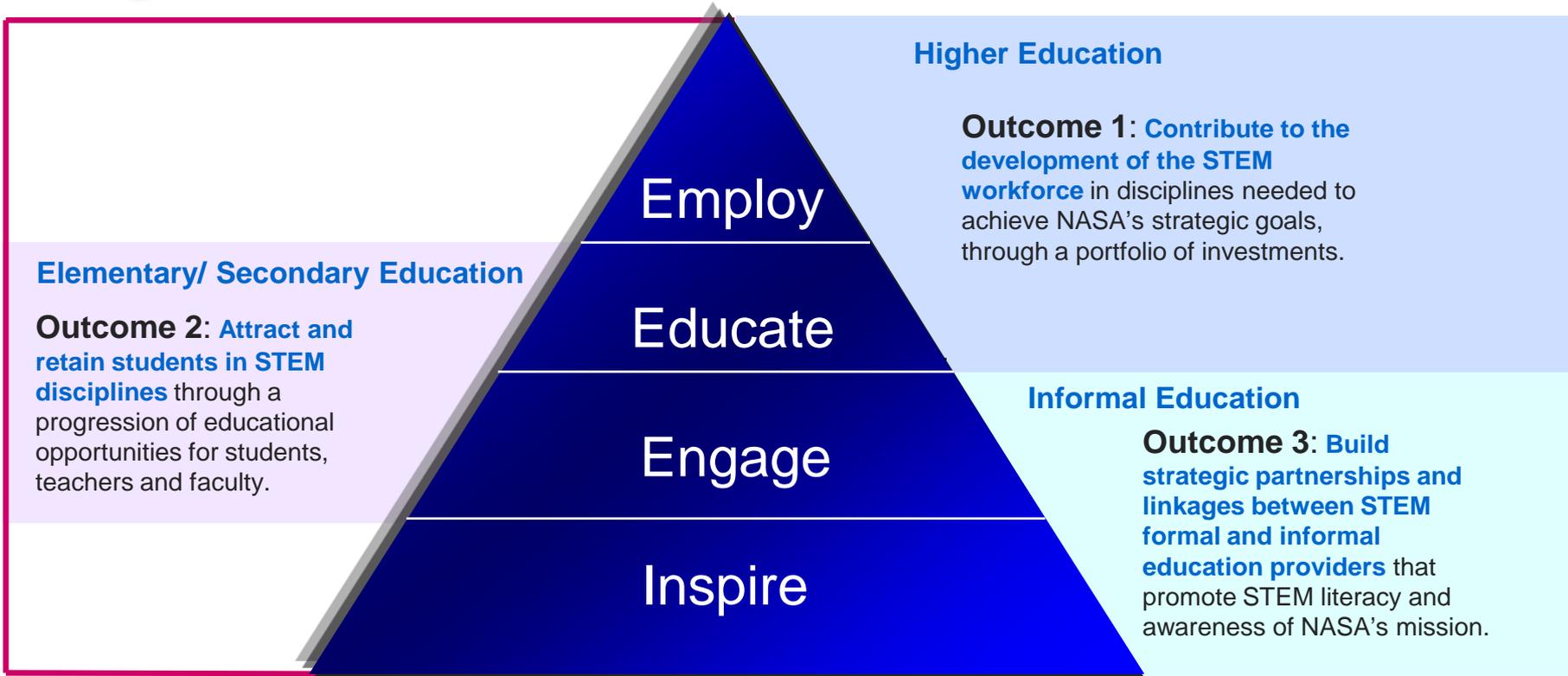
*The nation that
out-educates us today
will out-compete us
tomorrow.*

- President Barack Obama
Speech to the National Academy of Science
April 27, 2009

NASA Education Overview

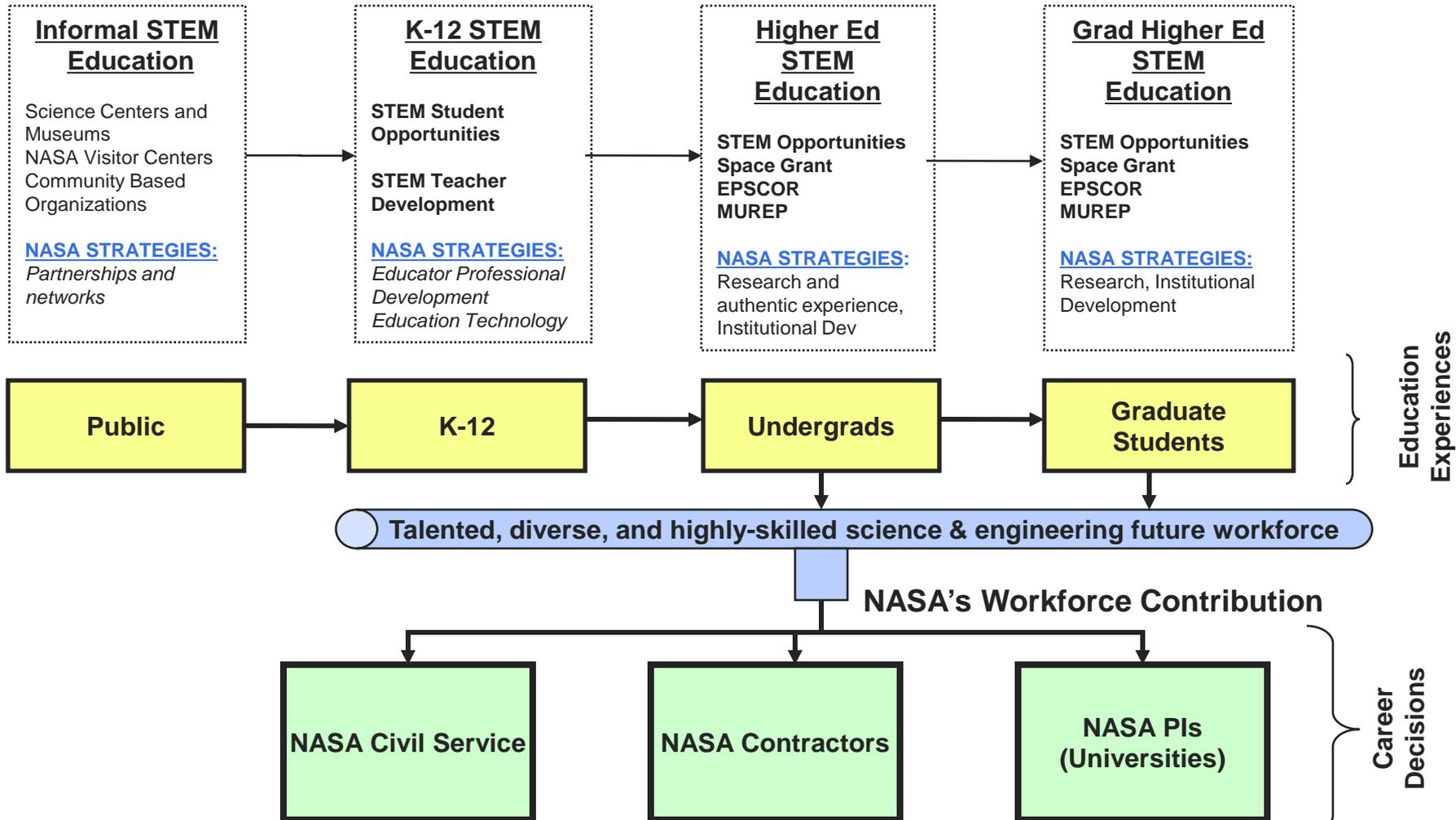
Strategic Framework

Cultivate Diversity of Workforce Disciplines and Practitioners



* Science, Technology, Engineering and Mathematics (STEM)

NASA Education Opportunities



Outcomes and Objectives

Outcome 1: Higher Education

Faculty and Research Support

Student Support

Student Involvement, Higher Education

Course Development

Targeted Institution Research and Academic Infrastructure

Outcome 2: Elementary and Secondary Education

Educator Professional Development, Short Duration

Educator Professional Development, Long Duration

Curricular Support Resources

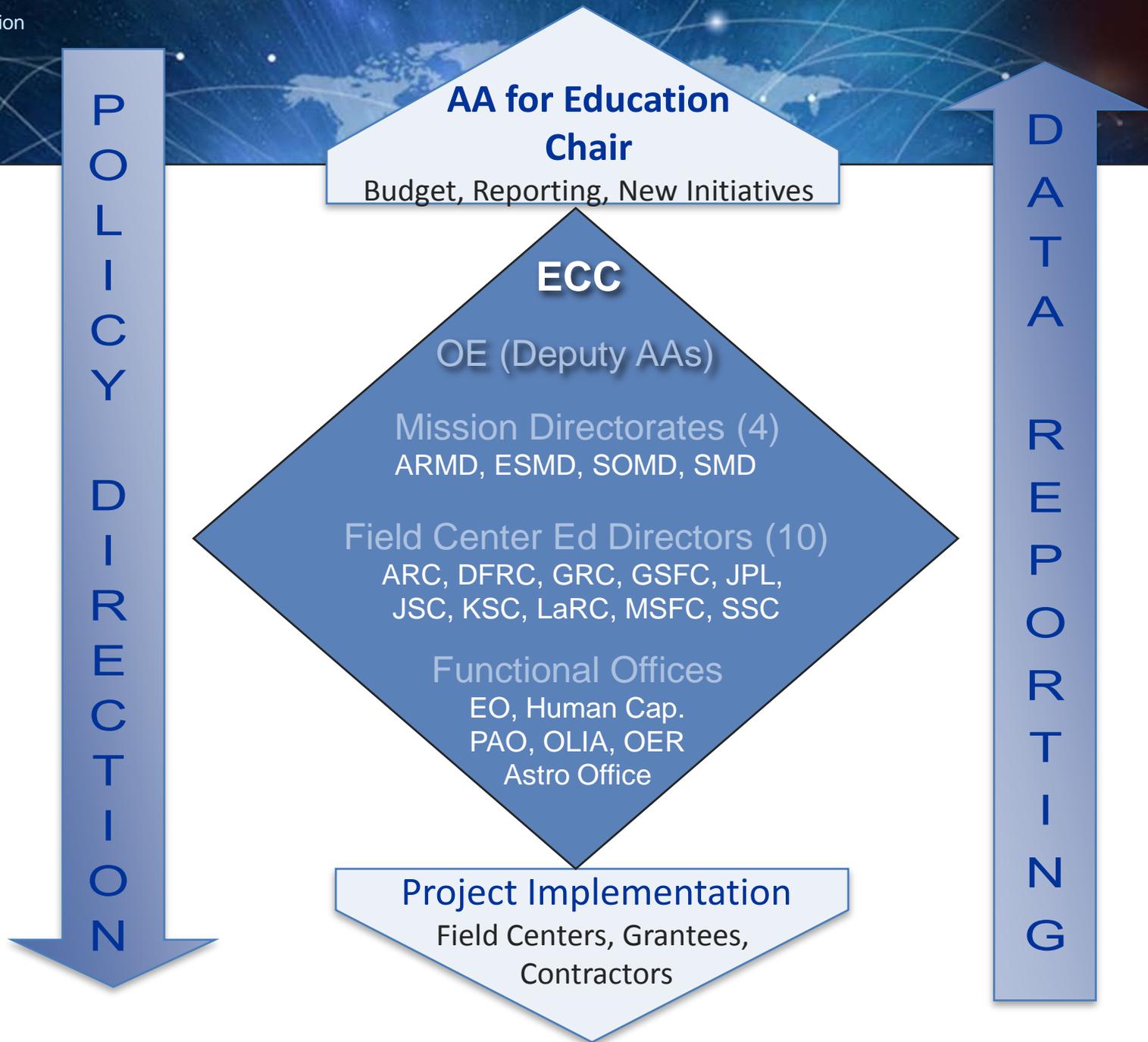
Student Involvement, K-12

Outcome 3: Informal Education

Educational Support Resources

Professional Development for Informal Education Providers

Informal Education Provider Involvement Opportunities



First Steps to a STEM Career



Education Opportunities

Higher Ed STEM Opportunities:

Space Grant

- RockOn!
- Remote controlled airplanes



Higher Ed STEM Opportunities

- COSPAR
- IAC

STEM Student Opportunities (K-12)

- INSPIRE
- Student Launch Initiative
- FIRST Robotics
- STS-119: Spacesuits



NASA Informal Education Opportunities

- Smithsonian Folklife Festival
- Kids Space activities
- Remote presentations
- STEM Competitions for Students
- Toys in Space



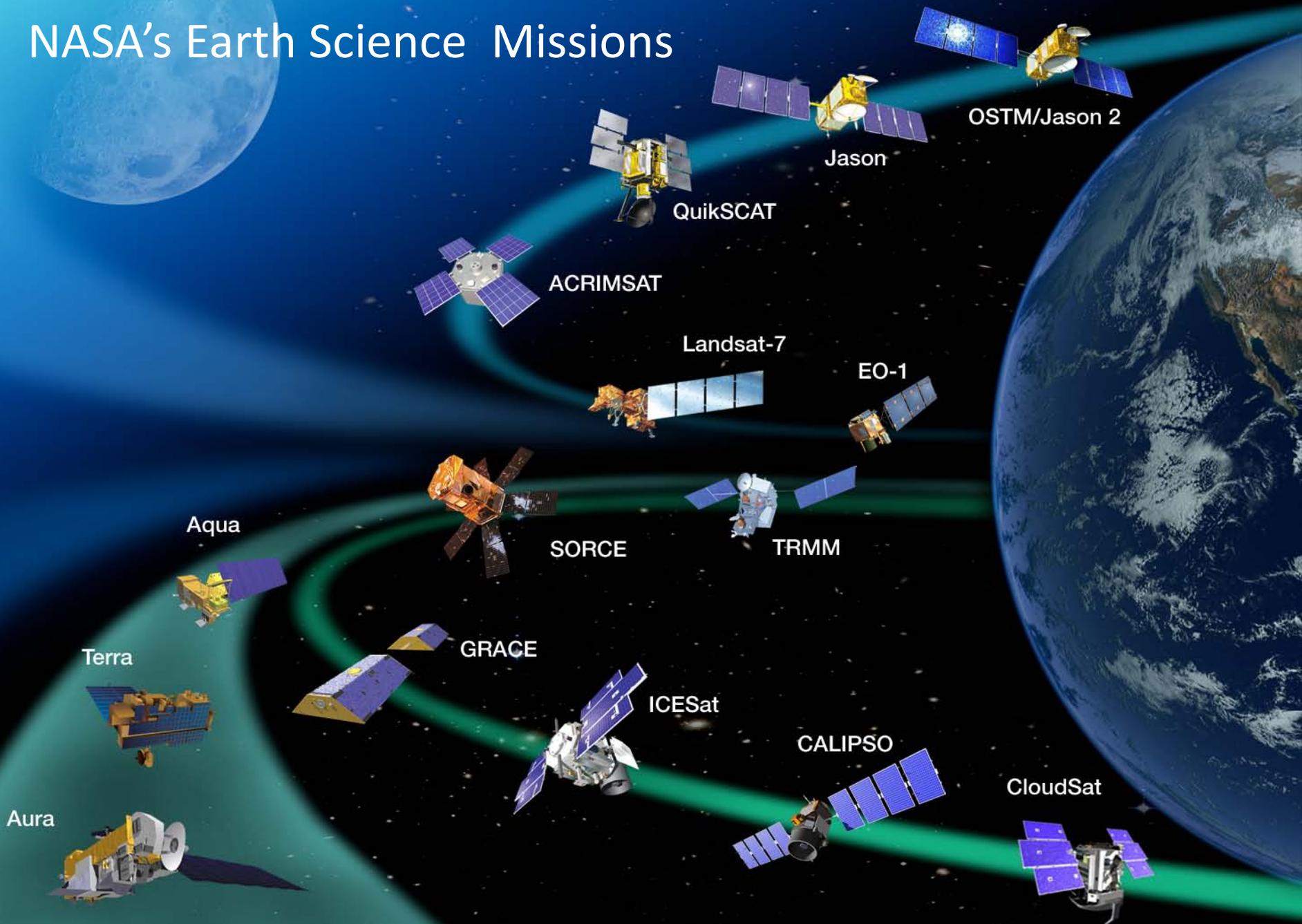
Improving NASA Education: Launch Conferences

- Identifying and retaining top students
- Attracting Hispanic students
- Preparing grads for the STEM workforce
- Informal Education and NASA resources





NASA's Earth Science Missions







51% of Higher Education students are employed by NASA, aerospace contractors & education institutions



G-FORCE ONE
www.goZeroG.com

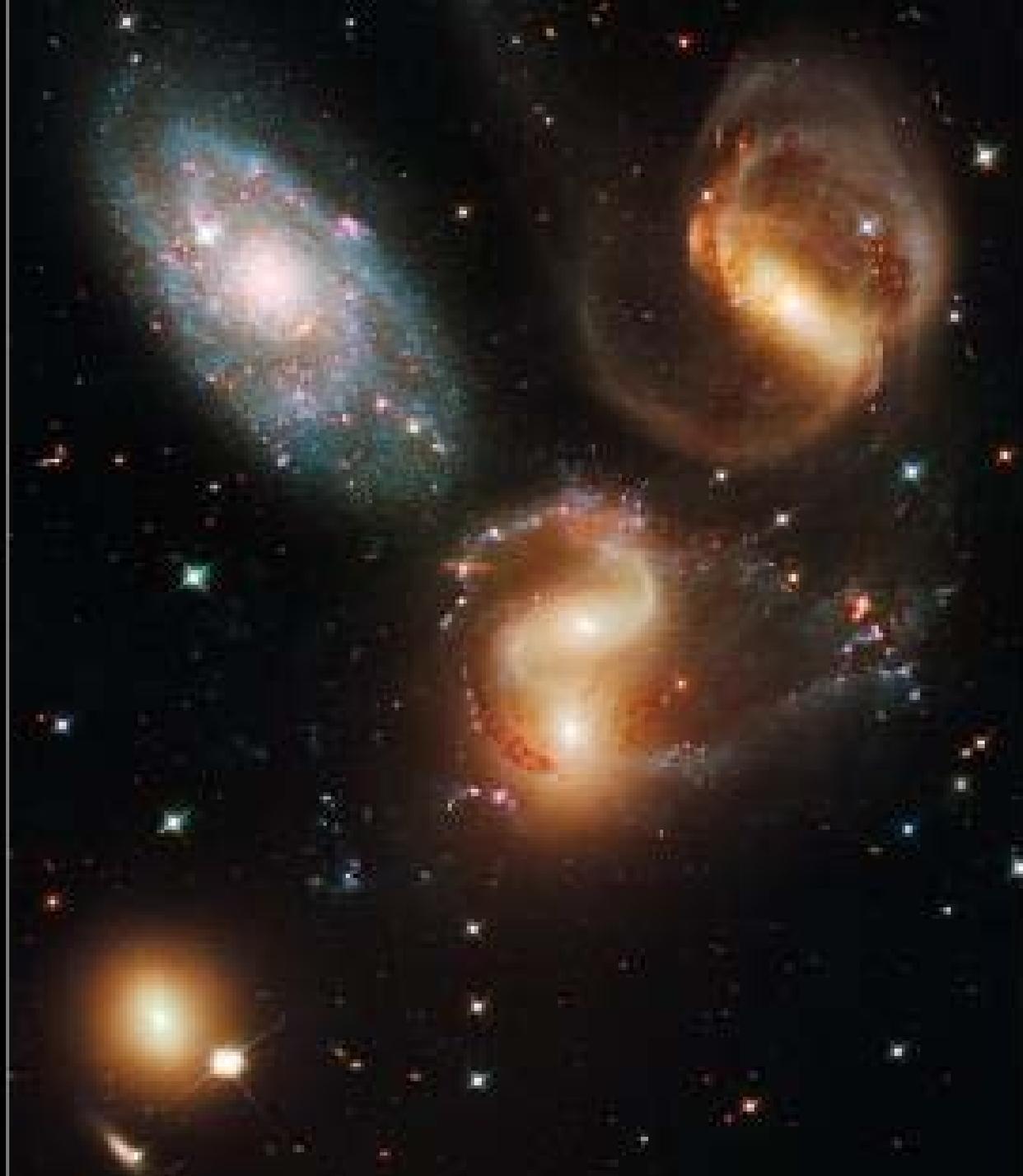
ZEROG
the weightless experience



44% of undergraduate students move on to advanced education



83% of educators in NASA training use resources in the classroom





S125E008007





350+ Museums/Science Centers in major NASA events



1,483,362 K-12 students engaged



44,500,000 Page Views - Education website



Our Unique People and Missions

CAN TOUCH THE WORLD





Challenges and Questions

What is the current status of science education in K-12 classrooms?

- Is increased time being spent and are there more courses?
- What are the successful strategies to recruit and retain teachers?
- In today's environment, what are the most successful professional development strategies?

Do parents understand the importance of STEM education and related career opportunities?

- Are students being encouraged to take rigorous STEM courses?
- Do they know if quality STEM content and courses are offered in their schools?
- What are their perceptions of engineering careers?

Are students encourage to be innovators and entrepreneurs?

- What real-world problem solving experiences are provided?
- Are they utilizing their creativity in and out of school?
- Do they have role models and mentors?