The transcript of the Town Hall held on October 29th, 2026. The times correspond to the recording of the Town Hall. The slide numbers refer to the slide deck and both the slide deck and the recording are available at https://science.nasa.gov/earth-science/esd-community-forum/

Speakers are identified by name (in bold) whenever the speaker changes.

ESD Town Hall Oct 29 2026

0:01 – Slide 1 **(Kate Becker)**
Good afternoon, everyone, and morning.

0:02
Thanks so much for joining us for the Earth Science Division Town Hall.

0:06
My name is Kate Becker.

0:07
I am the executive officer of the Earth Science Division.

0:10 - Slide 2
I'll just do a few one quick announcement here.

0:12
First, before we get started, you can use this QR code that you see on your screen to ask questions via a Google Form.

0:21
I'll just give you a moment here.

0:24
If you also, if you go to our Earth Science Division Community Forum page, you'll also find this link and it will be on most of Karen's charts throughout her presentation.

0:34
So you'll be able to see those through her presentation.

0:38
So without further ado, I would like to introduce Doctor Karen Saint Germain, the director of NASA's Earth Science Division.

0:50 **(Dr. Karen St. Germain)**
All right.

0:53
Thanks, Kate.

0:54
It is terrific to be here.

0:57
It's been a little while since we have had a community town hall and it's particularly exciting to be able to do this in conjunction with our CESAS meeting here at the Academy.

1:11
So I hope many of you, all of you were able to see Doctor Nicky Fox's town hall.

1:19
She really set the stage with a lot of cross cutting SMD news.

1:25
I'm going to focus today on some areas of of activity inside of Earth Science, some of which Earth Science led on behalf of the entire Science Mission Directorate.

1:39
So oops, where are we here?

1:43
The the theme is of of all three of the topics I'm going to hit is faster to science.

1:50
So these are things that that we're we're working on and exploring to get to science.

1:58 – Slide 3
And here they are.

1:59
Here are the three things.

2:00
First, I'm going to talk about Science as a Service.

2:03
This was a a major undertaking over the last oh gosh, about six months.

2:09
And then I'm going to go through some updates to the Earth System Observatory and then finally end on some things that that we've been working on for to accelerate and improve the ROSES process.

2:23 – Slide 4
So you know, first, I, those of you who see me talk all the time, know I always have the pyramid somewhere right up front.

2:32
The Earth Science to Action Strategy.

2:34
This is, you know, Earth science started to really think about accelerating discovery and and use of science several years ago.

2:45
It's embedded in the thinking behind the Earth Science to Action Strategy.

2:50
So now we're really we're, you know, we're focusing in on different elements there.

2:56 – Slide 5
But of course, when the, when Administrator Isaacman came in, he asked us specifically to really, really think more broadly differently about the opportunities to go faster.

3:11
And so I want to put this slide up to, to really just talk about kind of the principles and the, the, what we, the way we've been thinking about this, this question of accelerating.

3:23
And I, and actually, I should start by saying faster to science does not mean we only do fast science, right?

3:33
It, it means that it really is about getting, clearing as many of the, the, the hurdles out of the way as we can that, that slow down our progress without adding value, right?

3:48
Those are the things we're, we're really trying to, to work past.

3:52
So, so the, the fundamental principles are, you know, we're, we're trying to accelerate the, the processes we implement.

4:01
We're really trying to focus on those things where NASA has unique capability, right, because you can't do everything and do everything fast.

4:11
So we're really trying to stay focused on those things that where we can uniquely contribute the most.

4:19
We're really focusing on innovation.

4:20
NASA is an innovation agency.

4:23
It is, it is what we do and it's, it's, it's, it's a luxury we have frankly that is is more challenging for many of our operational sister agencies.

4:35
So you know, we're leaning into that innovation angle and we're leaning into partnerships.

4:44
Partnering includes in in many ways in many stages of the the science cycle from technology and

mission development through science, how we handle data, how we handle applications and and so forth.

5:04
So partnering throughout alignment, we're really, we're really focusing on making sure that we are well aligned with the broader agency aspirations.

5:18
And and that's something that we've we always have been aligned, but we haven't exercised that muscle as much as as we are now in ensuring that, that the investments we make benefit not only Earth Science, but the rest of the agency.

5:37
And the reverse is true.

5:39
The investments the rest of the agency are making we're bringing to bear on Earth Science.

5:44
And then of course focusing on impact.

5:46
You know, there was a a particular executive order that really, really focused on empowering state and local communities to to be looking out for their own resilience.

6:00
And a lot of what we do is directly applicable.

6:03
So, so those are some of the guiding principles.

6:08 – Slide 6
As I mentioned earlier, our strategy has long been about acceleration.

6:14
And so we had a number of major lines of effort already underway and they're they're, they're kind of several of them.

6:21
This is not an exhaustive list, but several of them are are listed on on this slide.

6:28
And these are all targeting particular adjustments in our Venture and our our Earth System Explorers really looking at how we're running those competitions, the Sustainable Land Imaging.

6:42
This is an area where we are looking at how we can augment in the even in the near term the the Landsat and data record with commercial capabilities and, and taking a very methodical approach to all the challenges we have to manage to make that happen.

7:04
The Earth's System Observatory evolution, we're taking now a different approach than we were a few years ago.

7:11
And then the Venture Technology Accelerator, this was an idea that we started working on six months ago or so.

7:20
And the idea behind it was, you know, we have, we have, we make a number of technology investments in our ESTO office and we often do technology demonstrations, but then only then the next step would be a Venture class mission.

7:38
Well, what if we could insert a step there to get more technologies on orbit and, and testing not just the widget, but can it make a measurement that is, that is relevant and working with partners to do so.

7:53
So we had a number of these initiatives underway and the Ignition event that NASA held back in the spring was an opportunity to take these initiatives that we already had underway, align with the agency, amplify these initiatives and accelerate them.

8:15
So, so we really welcome to that Ignition event and, and now I'm going to move into one of the Earth Science's principal responsibilities at the Ignition event was to take on this question of science as a service.

8:33 – Slide 7
OK, so this is a phrase that the administrator's been using because he thinks it's an opportunity, an opportunity to do things a little bit differently, maybe more cost effectively.

8:47
He's always trying to drive us to more cost effective approaches because we can then do more science per dollar very much aligned with with our objectives.

8:59
But what is science as a service, right.

9:01
That was, that was a, a significant question and a lot of folks really, really were focused on the data buy kind of interpretation that that science as a service means I'm buying data as a service, maybe even buying science results as a service.

9:23
So we thought that, you know, there's, there's a lot of space in between our traditional approach to working with, with industry and commercial partners, you know, in our traditional mission development and buying data, right?

9:41
There are a lot of ways to collaborate with industry in between buying spacecraft and, and buying data, right?

9:51
So that's the space we wanted to explore with this RFI.

9:56
So we released an RFI in March 2026.

10:00
And I should say we were actually exploring even further beyond that on, on ways to, to exploit data, ways to get to new science services, not just for us, but for the country.

10:14
So we released an RFI on Ignition Day in March and we we were seeking feedback on a wide variety of things that could enable the these kinds of partnerships.

10:29
So even asking questions like what kinds of technology investments could NASA make that would make it easier for commercial providers to meet more of our needs?

10:42
What kinds of pathways are there to get technology and capabilities from NASA out into the commercial sector?

10:51
And, you know, and what, what kind of public private partnerships might they propose?

10:57
So, so we, we, we listed, I don't know, I'm looking at Mike Seablom.

11:03
How many questions did we have in that RFI?

11:08
A dozen or so, yeah.

11:10
All right.

11:10
So however many that is sections A through I in that RFI for people to respond to.

11:17
And and then just a couple of few weeks back, we had another industry day to follow up.

11:24
And at that industry day, we did this.

11:28 – Slide 8
We, we got a, let's see, we got about 200 total responses to the RFI.

11:36
It was largely focused.

11:38
There was a lot of Earth science content in the RFI, but it also covered heliophysics and astrophysics.

11:48
So we got about 200 responses in the neighborhood of 50 of them were pretty directly relevant to Earth science.

11:57
The, you know, the, the, the quality and the content, as you might expect, varied widely.

12:04
Some people use the opportunity to essentially advertise their capabilities.

12:09
Some actually wrote up intriguing thought pieces on, on, on partnership models, right.

12:16
So there was a lot in there.

12:18
We had a great team led by Mike Seablom to go through these responses and, and really look for themes.

12:27
It won't surprise you if I tell you that company A and Company B might not want the same thing, right?

12:35
Different companies have different business models, different ways that they're proposing to make their make their money, right?

12:42
So, and, and this wasn't about optimizing for every individual company, it was really about can we pull out themes?

12:52
Are there ideas here that would make us more impactful in general?

12:57
So these were the themes that the broad themes that emerged from, from our analysis of all of that input.

13:08
So there were, there were topics around commercial technology needs, things that they want and there were a number and you'll see it pop up in a number of places.

13:20
Calibration and validation of commercial products was a consistent theme throughout that industry was looking for help with.

13:29
There were, there were some inputs that were really focused on streamlining access to space for new capabilities and those covered things like standardizing interfaces, shared infrastructure again, and that some of those were also tied to calibration.

13:47
When we talk about sharing infrastructure, let's see demonstration pathways and validation.

13:53
So this was about largely opportunities to take payloads and and sensors that we were in that were in

development at NASA and finding ways to demonstrate them on orbit using, using the commercial sector's infrastructure, their fleet infrastructure, for example, and and and vice versa.

14:19
That we also asked about faster ways to transition our technologies over to the commercial side.

14:27
So for example, could we take a new sensor technology, test it in partnership with a commercial provider?

14:37
If it works, they might take it over and commercialize it.

14:41
Instead of us flying a dedicated NASA mission for that capability, then we could use our dedicated NASA mission to to do something else.

14:51
Right.

14:52
So so that's what the transition to commercial operations was about.

14:58
Let's see in the bottom left you we talk about partnerships and the community ecosystem.

15:04
This was about, you know, can are there ways to Co fund pilots?

15:10
Are there ways to to increase the the interaction with users of data, value added users, for example, people who take our data and produce other products.

15:24
So there were a number of of topics there.

15:26
So this is just again I realize this is a lot of bullets on a slide and it really is just scratching the surface of the depth of those responses.

15:36
But it's to give you a broad sense of the kinds of things we heard back from industry.

15:46 – Slide 9
And then on the next slide, we took those broad themes and we mapped them to the places in our portfolio where we are either already doing something that is close an we can adjust it based on the input from this RFI or in some cases start new initiatives to address those those opportunities.

16:08
So this was the mapping.

16:11

And so some of the things that you saw me show on this slide that we were already doing, you'll see popping up again on this slide.

16:27
For example, the SLI commercialization is actually aligned with a number of these bins.

16:34
That's the first time we're really trying to take a NASA observation and really tackle the technical questions and the programmatic questions associated with whether or not we can transition some or all of that responsibility to industry over time.

16:53
Let's see.

16:54
Venture Tech Accelerator fits here under partnerships, as well as demonstration pathways.

17:02
Vendor Cal Val Support fits under commercial needs, but it also fits under partnerships.

17:09
And I thought it was someplace else up there anyway.

17:15
And then there are a few, few more initiatives.

17:18
So this was the mapping.

17:20
We're still, this is still a work in progress to fully integrate these inputs.

17:24
But that's the big picture on, on how things mapped.

17:29
And now what I'm going to do is talk about some of the newer initiatives that are aligned with and and and at least in part an outcome of this effort.

17:43 – Slide 10
So first I want to show you these are the companies that are part active participants in our CSDA program right now.

17:53
And the number might surprise you.

17:54
And by the way, this number grows substantially every every time we have an on ramp.

18:00
You know, it wasn't that long ago that the offerings were largely Electro optical imagery or radio occultation.

18:08
And now what you see is many measurement phenomenologies showing up on this list and many types of observables showing up on this list.

18:20
So, so this list continues to grow and in response to requests for accelerating this process, we are trying to move toward a what we call a rolling on ramp.

18:33
Right now it's, it's a windows based on ramp.

18:36
The window opens, people propose to, to on ramp to the contract and and the window closes and we, we do our thing with those vendors.

18:46
We're now working on a rolling on ramp.

18:50
So you'll see this list grow at the pace of industry as opposed to at the pace of our bureaucracy, right.

18:58
That's the idea there.

19:01
Somebody write that down.

19:02
I've never said it that way before.

19:07 – Slide 11
NASA provided calibration and validation.

19:09
So this I, you know, we had heard this before.

19:13
I was actually a little bit surprised to see how often this showed up in the RFI responses.

19:22
But this is a commercial provider saying, hey, look, you're recognizing NASA is one of the best places in the world when you, when you want to talk about deep knowledge of how instruments work and calibration and sustaining that calibration over time, which is fundamental to extracting science from these measurements, right?

19:45
So, so a number of the, the providers said, hey, could you help us with not just Cal Val's strategy, but also doing the work and using your infrastructure?

19:59
So, so there are a number of of of elements here, but but we have now stood up within our commercial data program a whole effort around calibration and validation.

20:14
In partnership with commercial vendors of their of their data.

20:22 – Slide 12
Another example here is FALCON-Radiometry.

20:24
So, so the in when in the current version of the Earth System Observatory, we disaggregated the, the mission that was formerly known as AOS into what we're now calling FALCON and the F in FALCON.

20:42
The only thing is, I'm not going to spell out the acronym because it's tortured, but the things you should remember is the F stands for fleet and the C stands for commercial.

20:51
So the idea was that we're going to a fleet concept.

20:54
By the way, this is not new, right?

20:56
The A train was, you know, you could think of that as a fleet.

20:59
So we're, we're, we're copying the success there, but we're doing it with intention from the beginning.

21:06
We're planning it that way.

21:07
And what we want to do is create a fleet where not only can new NASA capabilities join the fleet, new international partner capabilities can join the fleet, but also commercial capabilities can join the fleet.

21:22
And, and so we released an RFI specifically looking for radiometry support for both orbits of the FALCON fleet.

21:30
And the idea was that they could use their assets and and formation fly.

21:37
So that's a new idea for us.

21:41 – Slide 13
The next one I want to talk about is the Venture Tech Accelerator.

21:44
Again, this is a a project that is, it's sort of a partnership between ESTO and Flight to get new technologies matured and to orbit faster and identify transition pathways where those exist out to the commercial sector.

22:05

And then part of what we were trying to do here is say, you know, when we do a tech demo that's usually just for a few months, send the thing up, see if it works.

22:16
You know, the thing could be a widget, it could be, you know, it's a, it's not necessarily an instrument intended to make a science measurement.

22:25
All right.

22:26
And then on the, on the next step was in our current model is a full science mission, at least a Venture class mission for which you typically book multiple years of operations.

22:37
And you know, it's a, it's a larger undertaking.

22:40
So we asked ourselves, is there room in between so that we could take a new instrument very affordably, get it on to orbit, see if it makes the measurement we want.

22:51
And if it's making a measurement that we like and is productive, we can keep it going.

22:56
But that's a decision we can make on the fly instead of committing to a whole mission upfront.

23:01
And that works best if we have a partner, particularly a commercial partner that is hosting that that instrument because that that's the key to affordability in extending this.

23:14
So this, this, this program is new we're, but we're pretty excited to try it.

23:21
We've got one venture, we've got one Venture Tech Accelerator project in the pipeline now having to do with fires.

23:30 – Slide 14
OK.

23:33
The Sustained Land Imaging commercial commercialization plan, this is also something that I mentioned, this is a we're taking a product based approach here to to really explore how we can integrate commercial data in the Landsat record to meet the Landsat user needs.

23:56
And it's a, it's, I mentioned it's a phased approach and the, because we took this phased approach and a product based approach because we didn't think the traditional approach of government setting the requirements, call me when you can meet my requirements was going to work.

24:14
And it hasn't in this space.

24:17
So the idea was, can we lower the barrier to entry, start solving some of the thornier questions like calibration, like how do you stitch together data that's collected at different times and from different look angles?

24:29
Like how do we handle the programmatics?

24:31
Let's solve those on small scale first, learn as we go.

24:36
So this is a, a, a long term commitment to exploring this space and it's in partnership with USGS.

24:45 – Slide 15
All right, so upcoming Science as a Service opportunities here.

24:49
We have the, the CSDA rolling on ramps starting in 2027.

24:56
We have an Earth Venture opportunity coming up.

25:00
We have the FALCON Radiometer solicitation.

25:04
Oh, and I didn't mention this, but Goddard is, is exploring commercial mission operations.

25:13
And then in 2028, that's when you'll see the Venture Tech Accelerator coming in.

25:18
There will be more opportunities than this.

25:20
These are just the ones that we have firmly established in the pipeline now.

25:26 – Slide 16
And the last topic in this section is really about the private sector engagement strategy.

25:33
You know, while we are looking expansively at the full range of opportunities that a science as a service mentality opens up for us, we thought that there there may be a lot more interesting ways that we can interact with the private sector.

25:55
This is everyone from consumers of our data to value added providers to, to commercial vendors, right, or commercial fleet operators.

26:07
So there's a, a wide range of partnerships we create that are possible.

26:12
We created a private sector engagement office.

26:15
This is small, it's a small office, but it's intended to simplify the process for folks who want to work with us and don't know where to go, right?

26:25
It's so it's sort of a front door to for the private sector to engage with us.

26:31 – Slide 17, 18
All right, I'm going to move on to the second part of the talk here, which is the updates to the Earth System Observatory.

26:41
You've seen this graphic a bunch of times.

26:44
What's changed is really in the white font.

26:46
The implementation approach, mass change and surface deformation and change.

26:54
Those have not changed.

26:56
We're still flying NISAR we're still building GRACE.

26:58
Most of the change has been on the surface biology and geology as well as the ACCP observables.

27:08
So there you see the, the, the FALCON fleet and here the anchors for surface biology and geology are the EAGLE fleet.

27:16
I'm not going to go through, I've tried this before and it takes a long time to march through each one of these components.

27:23
So I'm not doing that in this talk.

27:25
We have done it before and we'll I think we're going to be doing it at the at our next CESAS maybe, or I'm not or AGU, we'll be doing it at the AGU town hall.

27:37 – Slide 19
But here's some of the highlights, right.

27:39
Why is why is that disaggregation strategy faster?

27:43
So on the on the left, we're talking about the EAGLEs.

27:46
These are the surface biology and geology missions.

27:50
These are one is VSWIR.

27:52
The other is Thermal Infrared and the idea is to do a couple of things.

27:58
One build best in class instruments in both cases, but do them under cost and schedule constraints.

28:06
So, and the, and the interesting thing here is doing on many of you probably know this, doing things under time constraint is actually in many ways a, a more productive constraint than a cost cap.

28:22
Because when you have a time constraint, it gives you the ability to question every single thing that is in between you and and mission success, right and clear those hurdles out of the way.

28:35
So, so that's what we're doing.

28:37
We're doing this in deep partnership with JPL.

28:40
The other key thing here is when we started the SBG originally, we had two totally different design teams.

28:48
What we realized when we went back and looked at it is the thermal infrared can sort of draft behind the VSWIR and use the very same instrument architecture.

28:59
Of course the front end is is different, but, but we can reuse a lot of the NRE drop the cost, drop the time of developing the thermal infrared.

29:09
So that's what we're doing over there on the for the atmosphere side.

29:14
We're likewise working on the FALCON-Radar, that's a JPL build also cost and schedule capped and then working with JPL and Langley on a LIDAR concept to fly along with that as well.

29:31
So you can see that we, we're, we're trying to keep, you know, pull in these launch readiness dates as close as we can and wherever we can, we're targeting 36 months to launch.

29:43
Now you can't do that if you A don't have mature technologies, right?

29:49
So this idea of accelerating mission speeds is very much tied to having a very strong technology program.

29:57
Also, we're standing on the shoulders of a, a lot of phase A work that was already done here.

30:04
All right, let's see.

30:08 – Slide 20
So this is what the launch schedule would look like if, if everything plays out the way we are working to it toward it right now.

30:19
Let's see.

30:19
So of course we have NISAR, INCUS, and PolSIR here coming up and then our EAGLEs, GRACE-C, the FALCON-Radiometry and then PMM, that's the precipitation mission that we're partnering with JAXA on STRIVE and EDGE.

30:37
Those were our selected competitive explorers.

30:40
Now this depends very much on on our appropriation, you know, whether we'll we would be able to carry 2 forward or down select to 1.

30:51
And then we have our EAGLE-TIR and the Lidar.

30:54
So, so a pretty exciting portfolio if, if we can pull it off.

31:00 – Slide 21
All right.

31:02
I want to touch on the Decadal Survey.

31:05
We are working with the team at the Academy to get that rolling.

31:09
And I just wanted to highlight some of the, the, you know, how our thinking about our portfolio and how we manage it has made its way into what we've asked the decadal team to do.

31:23

So we've asked the decadal team to expand the the points of view that come into the decadal survey through targeted direct engagement with users and in particular users outside the scientific community.

31:39
We've we've asked them to really focus on prioritizing the science and the observables and, and, and being clear that our intent is to implement through a mission class based approach.

31:54
And I'm going to show you more about that on the next slide.

31:58
And then we also asked them to think a lot about how quickly the Earth's system is changing and what does that mean for the agility we should be building into our program?

32:12
Because we've seen significant changes in the Earth's system just since the last decadal was released.

32:20
And we're, we're halfway through the period, right?

32:23
So, so how should we be thinking about about that?

32:28
We've also asked the decadal to again focus on, you've heard me say some of these themes before.

32:34
What are those unique capabilities that NASA can bring?

32:38
They should be complementary to what our sister agencies provide.

32:45
How should we be thinking about the commercial EO sector and enabling their potential and considering the evolving user needs?

32:55
So that goes hand in hand really with the evolving Earth system.

33:01 – Slide 22
This is the mission class framework that I mentioned.

33:04
So again, 3 categories of missions at the top of the the the list here is the venture class.

33:12
This emphasizes rapid development, commercial partnerships, innovation and, and more more appetite for risk and more appetite for, for, for going for it, for, for greater reward from these smaller missions.

33:27

The Explorer class in the middle enables priority science indicator objectives that can't be met through the the Venture class and then large missions.

33:40
We've we've really, we've said, look, we've got a we've got a really think hard before we put an observable into this large mission category that it must truly be transformational science become because it comes at the expense of a lot of other capability.

33:59
So these are the the three mission classes in any mission class, they could be competed or directed.

34:07
All right.

34:08 – Slide 23, 24
And I'm going to close here talking a little bit about ROSES streamlining and focusing.

34:13
So, so we've gotten a lot of feedback from the community over the years on our ROSES process.

34:22
So there are a number of changes we're implementing there.

34:26
We've, we have dramatically reduced the number of individual roses elements to create larger, you know, we, we call them omnibuses in inside the, the building.

34:43
They're not really omnibuses, but they are larger solicitations at the, you know, at the sphere level, the biosphere, the atmosphere, the hydrosphere, for example.

34:55
And we did that because we wanted to ensure that we were really getting the benefits of competition broadly, but also making sure that for, you know, some of these really some of these ideas that didn't neatly fit into any one of the narrow solicitations that we used to have.

35:15
Making sure they have a home 'cause we really want the competition of ideas.

35:20
We really want more expansive thinking.

35:24
And so that this was one of the ways we're facilitating that.

35:27
We're implementing A 2 step process with notices of intent.

35:32
This is so that we can give you give proposers feedback if their proposal idea is not aligned with an area of interest for example, or or there's some other issue.

35:47

It allows us to give them the feedback before they have invested all the time in developing a full proposal.

35:54
So that's an important improvement.

35:56
We've reduced proposal length and we're using pre panel reviews for proposal triage.

36:06
And the idea here in this is this is really sort of the punch line on the bottom is to reduce the review time from 162 days in ROSES 24 to 91 days in ROSES 25.

36:21
And we're looking to drive that down by at least another 30 days as we as we move forward.

36:27
So we're really trying to get that, get our response time down going to run through.

36:33 – Slide 25
These are the ROSES 25 selections that have been completed.

36:37
And I'll just give you a second to look at that.

36:45
These are the ROSES 25 elements that are still in progress, many in many cases about to be awarded.

36:56
And if I could get a drum roll, whoops.

37:02
Not to go backwards.

37:04 – Slide 27
These are the planned ROSES 27 elements.

37:07
Now you'll you'll notice that we skipped from 25 to 27.

37:11
My boss talked about that in in our town in her town hall last week.

37:17
I guess it was no, it was just earlier this week.

37:21
Well, that tells you something.

37:24
The, and the reason for that is we couldn't, we, we weren't able to get a ROSES 26 cleared.

37:30
What we were able to do was keep ROSES 25 open and add more elements to it.

37:36
You know, there was, there was a delay in getting it cleared to the point where it didn't really make sense now to release a 26 and then four months later release a 27.

37:46
So we're keeping 25 open.

37:48
We've been adding elements to it and then we'll go straight to the 27 release in the not too distant future.

38:01 – Slide 28
My team wanted to make sure that I shared this slide.

38:05
This is this is pretty, pretty amazing stuff.

38:08
In 2026, we reviewed over 1000 proposals, 31 panels, almost 500 panelists and reviewers.

38:16
And the the punchline here is to thank the community very much.

38:20
Without your continued support, we could not process this number of proposals and do it at the speed that we are trying to do it.

38:30
So, so thank you very, very much.

38:36 – Slide 29
And this is this is my get off the stage slide.

38:39
This is just our ongoing engagement with the Earth science community.

38:43
So in the not too distant future, we're going to kick off the Decadal Survey and then we'll be having an ESD town hall at AGU on December 7th followed by another ESD town hall at AMS on January 10th.

38:59
So lots of opportunities to to engage along the way.

39:04
I should say that I have most of the ESD leadership team here with me in the room today.

39:12 – End Slide
So I think with that, we're ready to close the how'd we do?

39:17
We're ready to close the the formal presentation and turn to questions.

39:22
And for questions, I think I will come sit at the table.

39:28
Hey, you're in the hot seat.

39:38
All right.

39:39 **(Kate Becker)**
Thanks to everyone who has submitted questions.

39:40
We've got a lot of great questions here and we will get through as many as we can.

39:45
The first one up, does the current three to six month lag time from grant submission to awarding at NSSC align with your expectations for Speed to Science?

39:57
If not, how can we improve?

40:00
And Barry, I think over to you for that one.

40:03 **(Barry Lefer)**
Thank you, Kate.

40:05
We're really excited with the improvements we've made in the review process we're.

40:12
Working hard with NSSC to see what we can do to make the period of time from when we make a selection to when the money actually shows up at your location much faster.

40:23
But it's a work in progress.

40:26
I also want to encourage you all to reach out to me or your program managers with ideas on how we can reduce the burden on the proposal writing and the proposal process.

40:37
We have lots of ideas that we've haven't tested yet, but we're we're excited to hear from you and and we will have a ESD research town hall at AGU.

40:48
I think it's Thursday.

40:51
I apologize, I should know that it's at noon on Thursday.

40:55
Thank you team.

40:57
And that's a chance to talk to me.

41:00
Talk to all your program managers.

41:01
We'll have a separate table at that town hall for each sphere.

41:04
So please come and share with us your frustrations and your ideas on how we can do better.

41:12 **(Kate Becker)**
Great.

41:12
Thanks so much, Barry.

41:14
All right, we had several questions about funding primarily in the Research portfolio and also in Applied Science.

41:23
So I'll just sum those up with a question of can ESD provide some transparency on the relative budgets of Research and Earth Action?

41:33 **(Dr. Karen St. Germain)**
Yeah, I'll take that one.

41:37
Can you hear me?

41:38
We're good.

41:38
OK.

41:40
So the, the funding on RNA, so I, I will say we from budget to budget responding to, to you know, different inputs from the executive branch and legislative branch, the structure of our budgets changed a little bit.

41:57
But when we compare apples to apples, there hasn't, there's been very little change in the RNA spend since 2023.

42:08
Between 2023 and 2026, the the total is around 400 million.

42:17
Again, you know that includes airborne science and A and A and modeling and all of those activities.

42:25
Well and spending on applied science is just under 150 million and that also reflects I think getting the transfer of CSDA and an SNWG to the Earth Action portfolio.

42:44
So that's just under 150 million.

42:48
So we have increased the spending on Applied Science a little bit, but it has not come at the expense of Research.

42:56
All right, back to you Kate.

42:58 **(Kate Becker)**
Thanks Karen.

43:00
All right, a few questions about let's see the Earth Venture Orbital and the let's see maybe can be summed up by what is the schedule for the Earth Venture Orbital draft and final release dates.

43:19 **(Dr. Karen St. Germain)**
Yeah, I'll just say we do have a very mature draft.

43:22
It is in the release process.

43:25
A lot of the processes have changed a little bit in the in the last, last six months to a year.

43:31
So I don't have a, a firm date, but I, I can say quite literally on a weekly basis, I'm, I'm poking somebody to, you know, to make sure it's moving along.

43:42
So we're trying to get that out the door as quickly as we can, but I don't have a date that I can give you quite yet.

43:49
Stay tuned though.

43:52 **(Kate Becker)**
Thanks, Karen.

43:53
Next up, another let's see a question about Earth Venture more broadly.

43:59
Earth Venture was mentioned at the recent SMD town Hall on competition 2.0, is the upcoming Earth venture orbital AO following that model And if so, is the model to be understood as welcoming institutions to propose managing an Earth Venture investigation including NASA centers other than JPL and Goddard?

44:23 **(Dr. Karen St. Germain)**
So the the competition 2.0 model is not really a major change compared with past Earth venture AO's.

44:32
Some new streamlining is is planned for the EVO.

44:37
Our plan is to enable a broader set of allowed implementing organizations such as commercial entities as as one example consistent with the center roles announced by the administrator.

44:52
Our plan is that centers whose primary designations focus on research innovation and specialized subsystems such as AIMS Innovation, Langley Aeronautics and Marshall Structures and Propulsion are not eligible to serve as full platform managers or full mission managers, but they do remain fully eligible to provide science concepts, science instruments and subcomponents.

45:20
So that's straight out of that policy.

45:22
So not a, not a substantial change.

45:26 **(Kate Becker)**
All right.

45:27
And now a question about the Earth System Observatory, which new ESO assets will provide capabilities that were not available before versus ones that will increase cadence or resolution of existing capabilities?

45:45 **(Dr. Karen St. Germain)**
Yeah, I think every one of the, the, the focus of the ESO missions is to increase capability compared to past measurements.

45:55
It's true for both EAGLE, the EAGLE missions, the FALCON mission in formulation as well as GRACE-C and NISAR.

46:02
So they're all focused on advancing capabilities.

46:07 **(Kate Becker)**
All right.

46:09
And then moving to open science, what are the plans for the open science program and what is NASA's vision for enabling cloud native data exploration and collaboration?

46:25 **(Dr. Karen St. Germain)**
So I want to phone a friend on this one.

46:27
Katie, Katie Baines.

46:28 **(Kate Becker)**
Do you want to Katie is Katie is not on, but Jim not on.

46:32 **(Dr. Karen St. Germain)**
Oh, Jim, Jim right here.

46:33
All right, go ahead, Jim.

46:36
Katie, that's sorry.

46:37 **(Jim O'Sullivan)**
Katie is that's a remnant, so sorry, I confirmed.

46:43
Yeah, no, thanks for the question.

46:45
So the five year transform to open science or TOPS initiative ended, but NASA's still committed to open science.

46:54
All SMD.

46:55
The Science Mission Directorate funded work is still covered by SPD41A's the Directorate Science Information Policy and it requires all the publications that be openly available without embargo and the data and the software behind them also be shared openly.

47:11
The open science tools, frameworks and libraries.

47:15
I did have to read that from from a note continues within the ROSES calls and the open science 101 remains available as training for the community and the new NASA Data and SI directive reinforces this across the agency and Earth Science, we hope will be aiming to go a little bit beyond the compliance that policy sets and set a further example for NASA to enable cloud native data exploration collaboration.

47:46
The division's approach is to bring computing to the data instead of moving data to the users.

47:52
We're doing this by migrating our data to our cloud, which we've been very successful on making products analysis ready and consistent using cloud friendly standards and formats.

48:03
And we're providing shared processing environments such as some processing tools and building open tools in community, including our Data Cloud cookbook and our NASA Open States collaboration, which has been very successful.

48:16 **(Kate Becker)**
Great.

48:18
Thanks so much, Jim.

48:20
All right.

48:21
And then we have a, just a, a straightforward, who is the POC for the Venture Tech Accelerator program, Mike.

48:29 **(Michael Seablom)**
OK, So the program officer is Sachi Babu at NASA Headquarters.

48:34
And then I, I myself can also take any questions related to that program so much, Mike.

48:42 **(Kate Becker)**
All right, actually.

48:43
And let's see if we can take any questions from our CESAS members in the room.

48:48
Very quick.

48:52
Does anyone in the room have a question?

48:59 **(Anne Nolin)**
Yep.

49:00
Previously we had planned to hold questions until a little bit later, but we have time.

49:04
So let us know what questions you might have.

49:12 **(Ana Barros)**
Have a question on the ratio of external versus NASA centers research funding ratio.

49:21
Has it changed over time or how, how's, how is it?

49:29 **(Dr. Karen St. Germain)**
Sorry, you're asking about the ratio of of internal versus external, particularly for research grants.

49:38
Do you want to take that, Barry?

49:42 **(Barry Lefer)**
It did change in last year because of a lack of ROSES opportunities.

49:49
So it increased I think overall for the whole research budget, our directed portion was like 38% of the total or did I get that right?

50:02
I had this on my last presentation and I apologize I don't have the number for the research, for the research only the ROSES type of sphere research.

50:15
It was more than that.

50:18
But we are excited to have a correction in 27 more opportunity for external funding and that opportunities all of those sphere calls is are going to happen every year.

50:34
So right now we're frantically writing finishing up the Sphere Calls for ROSES 27, which is supposed to come out next month.

50:42
Well, in December is the goal.

50:44
And so please talk to your program managers if you have questions.

50:49
But we did our best to do some forward funding last year and to try to reach out to our community if there were graduate students or people on soft money that were struggling to be able to send them funding directly.

51:08
But it is, it was a very stressful time for all of us this past year.

51:13 **(Anne Nolin, Dr. Karen St. Germain)**
So I see a question from, sorry, just one quick.

51:16
I think I think the target is actually January for Rose's release.

51:20
OK.

51:21 **(Anne Nolin)**
I see a question from Charles, then I have one and then Rebecca and then Graham.

51:26 **(Charles Ichoku)**
I was wondering about the Venture Technology Accelerator program.

51:33
How is it going to work?

51:35
So will the instrument development follow the same TRL model up to maturity before it is launched to space to test whether it will acquire the required data and then keep it going?

51:50
What is the, what is the idea behind it?

51:52 **(Michael Seablom)**
So I, I think he described it fairly well.

51:55
So we had a previous program called Invest which stood for in space validation of Earth Science technology.

52:02
And it's basically the way Karen described it.

52:04
We would, we would put the instrument in space, instruments that needed space validation and we would operate them for a period of time collecting enough information to determine that they were mature and, and at the TRL 6 Venture Tech is basically a superset of that program in which if we're able to demonstrate successful that the instrument is working, we'll keep the mission operating and turn it into a science mission.

52:38
We'll collect the data and hopefully like Karen was saying, we'll we'll offer it up for commercial transfer if appropriate.

52:48 **(Charles Ichoku)**
There is no relaxing of quality or anything.

52:51 **(Michael Seablom)**
It will still follow the same rigorous correct method of yeah, everything is just like I said, it's a super set of what we were doing before.

52:58 **(Charles Ichoku)**
Thank you.

53:00 **(Kate Becker)**
Actually we and sorry we do have some more questions online.

53:02
Thanks so much.

53:05
We have a question.

53:07
Let's see, Will as as ESD reformulates the Earth System Observatory and expand Science as a Service, will ROSES or invest open more opportunities for commercial small satellite rides or hosted payloads for Earth science technology validation?

53:27
And is there a point of contact for small businesses offering that capacity?

53:33 **(Michael Seablom)**
OK.

53:33
So again the question references the old program name, which is Invest.

53:38
And again it we're still doing Invest, it's just now absorbed into Venture Tech.

53:44
So VTA will will validate instrument technologies in space and may continue the mission into operations.

53:52
We don't typically engage the vendor, the bus vendors directly.

53:56
The PI's are responsible for teaming with the bus providers.

54:01
So the recommendation would be to reach out directly to Active PI's not only in Venture Tech, but in our other program elements as well like instrument Incubator to make them aware of bus and provider capabilities.

54:19
Small spacecraft and Cubesat vendors can also contact the Flight Opportunities Program office that's in RTMD for flight opportunities and you can find the contact information on the RTMD web page.

54:36 **(Kate Becker)**
Great.

54:36
Thanks so much Mike.

54:40
All right, let's see we have got yeah, maybe another one in the room and sure me.

54:54 **(Anne Nolin)**
OK.

54:55

So my question is about international partnerships and to what extent do you see those increasing, changing in some way?

55:05
I know that the EAGLE Thermal Infrared is an international partnership and I'm just wondering how you see these kinds of mission partnerships perhaps changing in the future?

55:17 **(Dr. Karen St. Germain)**
Yeah.

55:17
You know, we, we spend a lot of time talking with our international partners and we have international partnership still in many aspects of of the, the the current plans.

55:31
And I expect that to stay the same moving forward.

55:34
I don't expect a dramatic shift in one direction or the other.

55:38
It always depends on resource, you know, alignment of resources, timing and interests, right.

55:45
So, so, but we are constantly exploring and there are a few partnerships in the works that we haven't talked about yet.

55:51 **(Kate Becker)**
So thanks, Anne.

55:55
Let's see one from online.

55:58
A service is of value to users if it is maintained and continuously available.

56:03
Is there not inherent friction between service and discovery?

56:07
How do you aim to resolve that?

56:12 **(Dr. Karen St. Germain)**
Yeah.

56:13
So, oh, sorry, we're we're tracking.

56:19
We've got a a whole slew of questions in here.

56:22
OK, Yeah.

56:29
So I think you know, the the the key is, is what it has always been.

56:34
We have always, even when we are providing, you know, a similar measurement like like GRACE Follow-On to GRACE-C, we're always driving to innovate, to make measurements that are, you know, more accurate, higher fidelity, you know, by whatever metric.

56:52
We're always pushing the boundary and that always opens the door for discovery.

56:58
I, I myself don't see inherent conflict between innovation and advancement and sustaining, you know, observations and and information for the community.

57:12
But we have, we have more tools at our disposal today as well.

57:18
And transitioning observations to industry is one of those tools.

57:23
So we'll we'll use that where we can.

57:26 **(Kate Becker)**
All right.

57:29
Maybe one more question in the room.

57:34 **(Rebecca Moore)**
Yeah.

57:34
I'm wondering as you think about the ROSES program and Earth Action, are they completely independent in your mind or do you see that you would ever like to focus the Roses community on some of the application priority areas of Earth Action?

57:53 **(Dr. Karen St. Germain)**
Yeah, we are doing that today and I'm going to ask Tom if he wants to comment on that.

57:58 **(Tom Wagner)**
Yeah, we've always, there's been competed elements of Earth Action and most of our different disciplines have them.

58:03
One of the things that Barry and I have been working on though is how do we open it up because we see more PI's that have traditionally done basic research, are interested in applications now.

58:12
So part of what we did with that, the AES ROSES element, that omnibus is to simplify things so that it make it easier for people to propose.

58:23 **(Barry Lefer)**
I also want to add, there's a wonderful Earth Action Proposers handbook that came out a few months ago.

58:34 **(Tom Wagner)**
Yeah, if you look online, we actually just released a handbook a few months ago that can help someone who's never applied before not only figure out how to do a proposal, but how to manage the project to to really work with partners.

58:47 **(Kate Becker)**
All right.

58:48
And we are just about at our time, but Karen, I want to come back to you and offer a chance for any closing comments before we wrap up.

58:57 **(Dr. Karen St. Germain)**
Yeah, just thanks to the community for the support over the the past year.

59:02
We're excited to be, you know, back out, you know, having events like this, both meeting with with the CESAS and also having town halls.

59:12
Stay tuned.

59:13
We'll, I'm sure we'll have more and new information at AGU and AMS.

59:18
And yeah, I think that's it.

59:21
Thanks everyone.

59:24
Oh, wait, let me also, let me also give a special thanks and appreciation to the Earth Science Division leadership team.

59:33
Most of them are in the room.

59:37
We're we're dealing with a lot of change.

59:39
We're really excited about it, but it is also a lot of work.

59:42
So thanks team.