WEBVTT

1
00:00:37.980 --> 00:00:47.280
Robert Beverly: Okay Hello everyone, my name is Robert beverly I am a program officer in the office of advanced cyber infrastructure within size.

2
00:00:47.700 --> 00:01:01.020
Robert Beverly: And i'm delighted to have you all with us, myself and my colleague Kevin Thompson also from AC are here to talk about the CC solicitation, this is the cybersecurity innovation.

3
00:01:01.290 --> 00:01:03.180
Robert Beverly: For cyber infrastructure.

4
00:01:03.780 --> 00:01:13.710
Robert Beverly: This is solicitation nsf 22 581 and just a quick mentioned before we start that these recording.

5
00:01:14.280 --> 00:01:29.190
Robert Beverly: This presentation is being recorded and will be made available on to the public on the nsf web pages, it will take approximately a week to get posted, but you will be able to to rewatch this at your convenience.

6
00:01:30.960 --> 00:01:43.530
Robert Beverly: So the goals of this webinar are fourfold, the first thing we would like to do is to introduce the CC program and its objectives we'd like to detail the current solicitation the 22 581.

7
00:01:43.860 --> 00:01:57.690
Robert Beverly: As well as changes from the previous solicitation third we'd like to spend some time talking about how to ensure responsive and high quality proposals that are aligned with the program and the programmatic goals.

8
00:01:58.110 --> 00:02:04.590
Robert Beverly: And then last answer any questions from the audience any questions that you may have about the Program.

9
00:02:05.790 --> 00:02:09.120
Robert Beverly: So let's start talking about the CC program and its objectives.

10
00:02:09.420 --> 00:02:19.920
Robert Beverly: Before we do that, however, I do want to make sure everyone is sort of oriented in the space of what alessi does and its role in supporting scientific cyber infrastructure.

11
00:02:20.250 --> 00:02:32.220
Robert Beverly: So early see or the office of the advanced cyber infrastructure supports and coordinates development acquisition and provisioning of state of the art cyber infrastructure resources tools and services essential.

12
00:02:32.550 --> 00:02:41.760
Robert Beverly: To the advancement and transformation of science and engineering it's also important to understand what we mean by cyber infrastructure we take a fairly.

13
00:02:42.210 --> 00:03:01.140
Robert Beverly: expansive view and encompassing view of cyber infrastructure to include everything that that supports science and discovery, including computation data software networking and even the people in the workforce that are involved in this scientific discovery and innovation.

14
00:03:02.790 --> 00:03:14.550
Robert Beverly: Further when elysee thinks about supporting science and scientific discovery, we think about supporting really a very wide range of science and we collaborate with other divisions with nsf.

15
00:03:14.910 --> 00:03:24.240
Robert Beverly: So, for example, i've got six pictures here on the Left that illustrate some of the diversity of science, that NS that Oh, I see is involved in everything from things like.

16
00:03:24.900 --> 00:03:33.000
Robert Beverly: Large hadron collider to material science to Arctic discovery to computational biology and these.

17
00:03:33.570 --> 00:03:46.650
Robert Beverly: Cyber infrastructures introduce fairly significant challenges things like large instruments that are producing very big data that often requires big compute for scientists that are highly collaborative.

18
00:03:47.190 --> 00:03:59.010
Robert Beverly: And that are widely distributed that work in very different specializations and work with infrastructure that has to be both available and ensure the integrity of the workflow.

19
00:04:00.270 --> 00:04:07.140
Robert Beverly: All the time it has to be easy to use, while sometimes adhering to regulatory or policy requirements.

20
00:04:07.590 --> 00:04:16.530
Robert Beverly: So these are some of the unique challenges that these infrastructures face, and I think it's fairly clear that there are security issues across all of these challenges.

21
00:04:17.010 --> 00:04:28.410
Robert Beverly: So, at the very highest level part of what CC is trying to accomplish is supporting this infrastructure so that it's secure and trustworthy when we think about all of the.

22
00:04:29.940 --> 00:04:35.580
Robert Beverly: vested parties that are in various organizations that can benefit from cyber security.

23
00:04:35.850 --> 00:04:44.670
Robert Beverly: In the research and engineering space, first of all, we can think about the scientists and the scientists are the ones who are just trying to do research these may be domain scientists.

24
00:04:45.210 --> 00:04:55.590
Robert Beverly: Who really don't want cybersecurity to impede their research and, in fact, part of the goal of CC is to facilitate the scientists through cyber security.

25
00:04:56.550 --> 00:05:14.400
Robert Beverly: Furthermore, the scientists have colleagues and the colleagues are interested in sharing data having access to shared resources doing collaboration, but also things like reproducibility of research results also things like the integrity of research data.

26
00:05:15.660 --> 00:05:28.500
Robert Beverly: We also consider individuals such as the management of an organization that may be very interested in the institutional reputation where they may be interested in the financial aspects of the cyber infrastructure.

27
00:05:28.980 --> 00:05:40.080
Robert Beverly: Of course, the research office is interested in protecting intellectual property, whereas the it departments are concerned about the availability of the cyber infrastructure, ensuring that it's not.

28
00:05:40.710 --> 00:05:57.900
Robert Beverly: disrupted in any way and then it's not used as a a cyber attack vector and then last the public has a vested interest in this, where it's very important that the public has trust in the science that's being performed so all of these.

29
00:05:59.040 --> 00:06:11.070
Robert Beverly: vested parties contribute to what CC is trying to accomplish and, in fact, what the nsf it at its in its larger mission is trying to accomplish.

30
00:06:11.850 --> 00:06:19.440
Robert Beverly: To promote the progress of science to advance the national health prosperity and welfare and to secure the national Defense so with all of that.

31
00:06:20.010 --> 00:06:25.770
Robert Beverly: context, the way that always see views securing the cyber read research infrastructure.

32
00:06:26.610 --> 00:06:41.670
Robert Beverly: Is all of the sort of traditional components of cyber security, but this boils down to really three main components, one is ensuring reproducible science to is ensuring collaborative science and three ensuring production science.

33
00:06:42.780 --> 00:06:53.640
Robert Beverly: So CC or the cybersecurity innovation for cyber infrastructure program is geared towards supporting applied research to secure scientific data workflows and infrastructure.

34
00:06:54.180 --> 00:06:59.940
Robert Beverly: To develop deploy and integrate solutions that can benefit the broader scientific community.

35
00:07:00.930 --> 00:07:09.000
Robert Beverly: And it's interested in operationalize emerging and novel cybersecurity techniques into the science ci domain.

36
00:07:09.420 --> 00:07:24.240
Robert Beverly: As well as developing new cyber security approaches that may be specific to the science ci domain specific to bespoke science environments platforms so on and so forth, and the requirements of the scientific domain.

37
00:07:26.250 --> 00:07:35.910
Robert Beverly: So that's an introduction to the CC program now i'd like to talk in more detail about the actual solicitation and some of the changes from the prior solicitation.

38
00:07:36.660 --> 00:07:51.060
Robert Beverly: So one of the main changes of the solicitation is the addition of a new program area that we're excited about this is the TC our program area and this stands for the transition to cyber infrastructure resilience.

39
00:07:52.560 --> 00:08:08.910
Robert Beverly: This program area welcomes medium for up to medium proposals so up to 1.2 million for up to three years i'll talk more about the TC our area in a moment, and then we're continuing to have the program areas from 2021.

40
00:08:09.750 --> 00:08:20.160
Robert Beverly: I encourage you to look at the previous CC solicitation if you're interested in seeing what was funded previously that solicitation 21 dash 512.

41
00:08:20.730 --> 00:08:32.100
Robert Beverly: And in that previous solicitation we had to program areas you see SS and our ssd, this is the usable and collaborative security for science.

42
00:08:32.580 --> 00:08:47.460
Robert Beverly: And the reference security science data sets programs these these programs areas welcome proposals that are of small size up to 600,000 so one change from last year is that the.

43
00:08:48.090 --> 00:08:58.830
Robert Beverly: CAP, the budget cap has been raised on the small proposals from half a million to $600,000, and these are also welcome proposals for up to three years.

44
00:08:59.610 --> 00:09:15.420
Robert Beverly: The due date for the CC solicitation is June 27 so coming up soon and we anticipate supporting between 12 to 20 awards total across these program areas, of course, subject to availability of funds.

45
00:09:16.920 --> 00:09:27.030
Robert Beverly: So some key themes in the CC program the first is applied security research and you'll hear me say this several times, throughout this presentation.

46
00:09:27.570 --> 00:09:38.940
Robert Beverly: Where CC is really interested in taking some not working on foundational or basic security research which may be more appropriate to other parts of nsf.

47
00:09:39.270 --> 00:09:49.260
Robert Beverly: But indeed taking applied security research and using that, to the benefit of science domain, scientists and the scientific cyber infrastructure.

48
00:09:49.860 --> 00:09:58.590
Robert Beverly: But another theme is also to recognize the uniqueness of the science ci ecosystem and indeed leveraged inherent differences.

49

00:09:58.800 --> 00:10:08.760
Robert Beverly: In these science cyber infrastructures everything from the unique data that they have the unique software, the unique workflows and the unique workloads.

50
00:10:09.570 --> 00:10:21.330
Robert Beverly: Another key theme is to explicitly consider issues of usability adoption and ways to work better with the domain, scientists and empower the domain scientists.

51
00:10:21.930 --> 00:10:32.520
Robert Beverly: So, again we don't want security to get in the way or be an obstacle to actual scientific discovery but indeed we want it to be a benefit to the scientific discovery.

52
00:10:34.110 --> 00:10:38.850
Robert Beverly: we're also interested in transitioning cybersecurity research into science ci.

53
00:10:39.630 --> 00:10:54.210
Robert Beverly: We also want to discover and, where appropriate, mitigate weaknesses and vulnerabilities that are in some of these very bespoke science ci infrastructures and then last gather quantitative metrics wherever possible.

54
00:10:56.400 --> 00:11:06.510
Robert Beverly: So the three program areas ncc the first that I mentioned, or alluded to before is the ucsf or the usable and collaborative security for science.

55
00:11:07.320 --> 00:11:23.340
Robert Beverly: This program area seeks applied research that can facilitate scientific collaboration, it can adopt security into the scientific workflows but also overcome some of the security and usability obstacles to data and resource sharing.

56
00:11:25.440 --> 00:11:38.220
Robert Beverly: The second program area is the rss D area or the reference scientific security data sets here we're interested in capturing some of the science specific workflow or workload behaviors.

57
00:11:38.670 --> 00:11:45.360

Robert Beverly: That are in these scientific cyber infrastructures and we would like to promote efforts that can gather and curate.

58
00:11:45.600 --> 00:12:04.260
Robert Beverly: Some scientific workload data sets and even become a canonical data sets that can help facilitate techniques to help secure science ci help facilitate reproducibility and also engender research in cyber security for scientific cyber infrastructure.

59
00:12:05.940 --> 00:12:20.640
Robert Beverly: Both of these first two again are welcoming small proposals, the third area, which is the new area is the transition to cyber infrastructure resilience or TC are which welcomes up to medium sized proposals.

60
00:12:21.090 --> 00:12:32.730
Robert Beverly: And in this particular area, which again is new, our objective and what we're hoping to see our efforts that will help improve the robustness and resilience of the scientific cyber infrastructure.

61
00:12:33.270 --> 00:12:46.320
Robert Beverly: In a variety of potential different ways, including things like testing evaluation pardoning validation and transition of novel cyber security research.

62
00:12:49.260 --> 00:13:07.560
Robert Beverly: So what constitutes a successful CC proposal well some of the key things that you should think about when submitting a proposal, first of all, is what are the actual science drivers again, all of this cybersecurity research should, in the end, facilitate.

63
00:13:08.580 --> 00:13:26.760
Robert Beverly: scientific discovery and scientific exploration that the nsf is deeply engaged in so we encourage you to identify the applications and the users and the cyber infrastructures that actually would benefit from the particular piece of cyber security research.

64
00:13:29.850 --> 00:13:38.070
Robert Beverly: So, in addition, we would like to detail, not just the applications and users, but also the environments that will benefit.

65

00:13:38.520 --> 00:13:46.260
Robert Beverly: And furthermore, not just what the environment is, but what are the unique properties of the scientific environment or the scientific domain.

66
00:13:46.710 --> 00:13:59.820
Robert Beverly: Or the scientific cyber infrastructure that can influence the desired security functionality design or mechanisms, so how is this actually being tailored to the particular scientific cyber infrastructure.

67
00:14:01.170 --> 00:14:06.480
Robert Beverly: Similarly we're interested in understanding the actual threat model in the science domain.

68
00:14:06.960 --> 00:14:14.730
Robert Beverly: So, for example, some of these scientific cyber infrastructures are very open they may not be concerned about actually preserving.

69
00:14:15.150 --> 00:14:27.690
Robert Beverly: The the security of the data, but they may be much more interested in, for instance, the integrity of the data or the provenance of the data things like that so we're very interested in a precise threat model.

70
00:14:28.530 --> 00:14:42.180
Robert Beverly: And then last the thing that you should absolutely think about is your plan for gathering for doing evaluation of the work and your plan for gathering quantitative metrics to assess the security benefits.

71
00:14:46.050 --> 00:14:57.810
Robert Beverly: So what it what is CC not so it's important to distinguish, as I said, CC from some of the other cyber security programs, and some of the other efforts and solicitations.

72
00:14:58.440 --> 00:15:17.190
Robert Beverly: that are at the nsf so first of all CC has not the appropriate mechanism for non security infrastructure efforts, and in addition CC is not intended to support a pure infrastructure operation so we're much more interested in actual.

73

00:15:18.690 --> 00:15:29.940
Robert Beverly: proposals that are responsive to the program areas that are actually doing some sort of research or doing some sort of applied research as applied as opposed to something that's purely operational.

74
00:15:31.110 --> 00:15:50.640
Robert Beverly: Second CC is not intended to support basic or fundamental cyber security or privacy research and in fact we have an entire program called sassy or the secure and trustworthy cyberspace program where some of that basic security and privacy research may be a better fit.

75
00:15:53.550 --> 00:16:06.030
Robert Beverly: Okay, in terms of proposal preparation, so this solicitation falls under the most recent pap G, this is the nsf 22 dashes one.

76
00:16:07.080 --> 00:16:18.180
Robert Beverly: proposal and award policies and procedures guide, so please take a look at that the title of your proposal should first of all, indicate that it's a CC proposal.

77
00:16:19.050 --> 00:16:36.660
Robert Beverly: Then a colon, then it should indicate the program area, one of the three either ucs s are ssd TC our colon and then the title so, for example, CC colon rss rss de colon an amazing proposal.

78
00:16:37.620 --> 00:16:55.830
Robert Beverly: This will ensure that it's routed and categorized properly another change that has occurred, if you haven't recently submitted is that we now require submissions to be made by our research.gov or grants.gov we no longer support submission fire fast lane if you've used that in the past.

79
00:16:58.740 --> 00:17:04.800
Robert Beverly: Eligibility so in terms of who may submit proposals may only be submitted by.

80
00:17:06.420 --> 00:17:15.720
Robert Beverly: colleges and universities so institution institutions of higher education or by nonprofit non academic organizations.

81
00:17:16.350 --> 00:17:30.000
Robert Beverly: The limit on the number of proposals PR PR KPI or senior personnel is too, so an individual may participate as API cookie I or other personnel for no more than two of these proposals.

82
00:17:32.100 --> 00:17:48.660
Robert Beverly: Okay, so next let's move on to the third part of the webinar where we'd like to talk about some of the specific program criteria, some of the evaluation criteria and how to ensure that proposals are aligned with the programmatic bolts.

83
00:17:50.850 --> 00:18:04.320
Robert Beverly: So, as with other nsf solicitations the primary were review criteria or the standard rate review criteria of intellectual merit and broader impacts in addition.

84
00:18:05.250 --> 00:18:18.840
Robert Beverly: We do consider CC specific review criteria, so the reviewers and the review panel will look at all of these in their reviews and their individual reviews in the panel discussions and in the panel summaries.

85
00:18:20.940 --> 00:18:26.700
Robert Beverly: So let's talk about the CC specific criteria so first of all.

86
00:18:27.750 --> 00:18:36.960
Robert Beverly: The The first area that we're interested in is the project motivation and the impact and i've mentioned this before, but i'd like to re emphasize it.

87
00:18:37.350 --> 00:18:48.420
Robert Beverly: That we're absolutely interested in proposals that are driven by some science motivation we're interested in proposals that have a degree of innovation and impact.

88
00:18:48.960 --> 00:19:00.180
Robert Beverly: Second we're going to talk about all of these in a bit more detail in a moment, second we're interested in seeing your cyber infrastructure plans so we're interested in seeing the project plans.

89

00:19:00.600 --> 00:19:09.360
Robert Beverly: The system and the process architectures were interested in ensuring that the proposals built on any available existing.

90
00:19:09.990 --> 00:19:21.180
Robert Beverly: recognized capabilities furthermore we're interested in seeing close collaboration among stakeholders, in particular, some of the domain scientists, or some of the cyber infrastructures.

91
00:19:22.860 --> 00:19:28.950
Robert Beverly: Third we're interested in measurable outcomes here we're talking about sustained and sustainable impacts.

92
00:19:29.970 --> 00:19:38.610
Robert Beverly: So let's go through each of these all of this is in the solicitation itself, so I encourage you to read through that but I will go over it.

93
00:19:39.030 --> 00:19:50.610
Robert Beverly: So the first is science driven to what extent is the proposed project science driven, how will the project outcomes phil well recognized science and engineering needs of the research community.

94
00:19:51.120 --> 00:20:01.470
Robert Beverly: What will be the broader impacts of the project, such as its benefits to science and engineering communities beyond its initial targets underrepresented communities and education and workforce development.

95
00:20:02.340 --> 00:20:07.950
Robert Beverly: The project description should provide a compelling discussion of the potential benefits its intended.

96
00:20:09.420 --> 00:20:13.590
Robert Beverly: As well as broader communities to its intended as well as broader communities.

97
00:20:14.880 --> 00:20:30.510

Robert Beverly: In terms of innovation we're interested in seeing To what extent is the proposed project innovative what innovative and transformational capabilities for the project bring to its target communities and how will the project integrate innovation and discovery into the project activities.

98
00:20:32.610 --> 00:20:42.060
Robert Beverly: For the cyber infrastructure plans were interested in seeing how well detailed or the project plans and the logical and physical architectures if it's appropriate.

99
00:20:42.570 --> 00:20:51.690
Robert Beverly: The project plan should include user interactions and provide a timeline including a proof of concept demonstration or prototyping of the proposed system or framework.

100
00:20:53.220 --> 00:21:03.690
Robert Beverly: Secondly, we'd like to see that it builds on any existing or recognized capabilities, so, to what extent does the proposed project build on existing recognized capabilities.

101
00:21:03.870 --> 00:21:13.920
Robert Beverly: How will the project activities build on and leverage existing nsf national and open source cyber infrastructure and cyber security investments, as appropriate.

102
00:21:15.480 --> 00:21:19.950
Robert Beverly: And then third close collaboration amongst stakeholders to what extent does the project.

103
00:21:20.460 --> 00:21:32.730
Robert Beverly: involve close collaboration among stakeholders, how will the project activities engage ci experts specialists and scientists working in concert with the relevant domain scientists who are users of ci.

104
00:21:34.350 --> 00:21:48.360
Robert Beverly: And then last this we're looking for things that will have some sustained impact So how will the project outcomes and its activities have these long term impacts and how will they be sustained beyond the lifetime of the award as appropriate.

105
00:21:49.230 --> 00:21:53.340
Robert Beverly: And are the sustainability approaches following well established models.

106
00:21:56.010 --> 00:22:12.270
Robert Beverly: OK, so the CC schedule the deadline for CC again just to reiterate is June 27 of this year so coming up in a couple months and in terms of the review scheduled the nsf targets, a six month dwell time, so this means that.

107
00:22:12.960 --> 00:22:19.500
Robert Beverly: We try it extremely hard to get an answer back to the p is within six months of the submission.

108
00:22:21.540 --> 00:22:33.270
Robert Beverly: Okay, so that's the whirlwind overview of the CC program changes to the solicitation and expectations of what we're looking for in terms of responsive proposals.

109
00:22:33.750 --> 00:22:46.350
Robert Beverly: So at this time i'd like to take any questions from the audience, so please and i'd like to also welcome you to send us any message to send us a message at any time.

110
00:22:46.890 --> 00:23:00.300
Robert Beverly: we're delighted to hear from the Community and answer any specifics about your actual idea or your proposed activity but we're happy to take any questions in the Q amp a at this time.

111
00:23:01.470 --> 00:23:02.190
Robert Beverly: So thank you.

112
00:23:07.080 --> 00:23:15.210
Robert Beverly: All right, and I will I will read these off in the order that I see them, so the first question is.

113
00:23:15.840 --> 00:23:30.960

Robert Beverly: Given that the projects will contribute to cybersecurity of scientific and engineering infrastructures, there may come up problems that may require inventing developing novel techniques slash fundamental research is this, in line with the CC Program.

114
00:23:31.980 --> 00:23:45.000
Robert Beverly: The answer is absolutely Yes, this is something that CC tries to explicitly recognize that, indeed, some of these scientific domains have very unique cyber infrastructure.

115
00:23:45.840 --> 00:23:54.150
Robert Beverly: That may be again that may be the computing platform, the software platform, the data that users or the security model.

116
00:23:54.930 --> 00:24:09.090
Robert Beverly: So, while we are so we're interested in both are interested in taking emerging cyber security research and transitioning that to the cyber infrastructure, so you know essentially best practices.

117
00:24:09.480 --> 00:24:28.200
Robert Beverly: Applying those but we're also very interested in novel techniques and fundamental research as it applies to the scientific domains So yes, that's absolutely in line with the CC program and its objectives and in line with with what nsf likes to support.

118
00:24:29.490 --> 00:24:39.900
Robert Beverly: Okay, so I have answered that one life okay um The next question is Thank you so much for hosting a similar it's helpful, I wonder, one.

119
00:24:40.260 --> 00:24:50.340
Robert Beverly: When referring to science driven would the program be more interested in basic science like biology chemistry or broad science, engineering disciplines like civil.

120
00:24:51.630 --> 00:25:12.240
Robert Beverly: Chemical environmental engineering is computer science itself included as well, and to what the program prefer, or at least recommends submitting a CC proposal collaborative with domain scientists EG biologists or industrial partners, these are great questions so.

121
00:25:13.470 --> 00:25:25.050

Robert Beverly: First of all, the first question is about the science drivers is the program more interested in basic science or other broader scientific and engineering disciplines.

122
00:25:25.500 --> 00:25:37.740
Robert Beverly: We are interested in in in both I don't think we're more interested than one or the other away see as an organization has a rich history of collaborating with.

123
00:25:38.280 --> 00:25:57.330
Robert Beverly: physicists and the chemistry divisions and the you know geophysical scientists, as well as the the other science and the more engineering based disciplines like civil engineering so on and so forth, so Both of these are extraordinarily.

124
00:25:58.410 --> 00:26:09.180
Robert Beverly: Important and of interest to us, and so, yes, as long as you can motivate the benefit to those domains were very interested in seeing those.

125
00:26:10.110 --> 00:26:19.740
Robert Beverly: On the second part of that and, yes, computer science would be itself could be included as well, but again, you would you would need to motivate how that.

126
00:26:20.130 --> 00:26:30.300
Robert Beverly: How that fits on the second part of that question is would the program prefer collaborative with domain, scientists and the answer to that.

127
00:26:30.690 --> 00:26:41.580
Robert Beverly: Is not We absolutely want to see those close stakeholder relationships, but this particular solicitation does not take.

128
00:26:41.880 --> 00:26:56.220
Robert Beverly: Collaborative proposals so anything you did you would want to identify the domain scientists, you could absolutely do a subtle or something of that nature, but we do not take the collaborative submissions.

129
00:26:57.600 --> 00:26:57.990
Robert Beverly: Okay.

130
00:27:00.480 --> 00:27:01.260
Robert Beverly: All right.

131
00:27:05.730 --> 00:27:12.990
Robert Beverly: Okay um so The next question is, are you expecting that there will be direct collaborators from the other scientific fields.

132
00:27:14.010 --> 00:27:27.150
Robert Beverly: So similar question great question so we, we would love to see so by direct we don't necessarily mean that they are they're funded collaborators, for instance.

133
00:27:27.780 --> 00:27:39.810
Robert Beverly: Really, what we are looking for is seeing some level of collaboration right and it's up to the proposers to define what that collaboration is, and you know if it makes sense.

134
00:27:40.230 --> 00:27:52.680
Robert Beverly: And to you know motivate why actually engaging in this research would be of benefit to the other scientific domain fields so here this.

135
00:27:53.460 --> 00:28:08.280
Robert Beverly: it's really up to the proposals to define that relationship, but where there's no expectation, for instance, that you submit a proposal that has, as an example, a KPI from one of the scientific fields.

136
00:28:10.320 --> 00:28:14.850
Robert Beverly: All right next question, thank you for all the questions, these are great.

137
00:28:16.020 --> 00:28:23.490
Robert Beverly: Can you allow my allocated time to questions Okay, so can you elaborate more about the difference between basic research and security and privacy.

138
00:28:23.790 --> 00:28:29.940
Robert Beverly: compared to what you expect and CC compared to what you think is better suited for for sassy.

139
00:28:30.780 --> 00:28:52.620
Robert Beverly: So you know here there there's obviously a continuum between a basic research and more applied research, this one this program is you know definitely more on the be applied side so here, as you know, as an example to this question.

140
00:28:54.120 --> 00:28:54.630
Robert Beverly: We.

141
00:28:56.730 --> 00:29:09.210
Robert Beverly: There are you know particular technologies that you know, for instance, may not be ready for consumption by the domain scientists right these could be things that are.

142
00:29:09.630 --> 00:29:20.370
Robert Beverly: Much more on the theoretical side these could be things that are not you know computationally tractable these could be things that are simply you know not.

143
00:29:21.390 --> 00:29:30.750
Robert Beverly: You know they're very emergent type of technologies rate, so you know here again there's a continuum we don't discourage.

144
00:29:31.140 --> 00:29:47.820
Robert Beverly: You know, fundamental research, we absolutely acknowledge the fact that there could be fundamental research being done in this space that specific to the science domain, but it may be, in many cases, more appropriate for for sexy.

145
00:29:49.890 --> 00:30:03.480
Robert Beverly: Okay, can you make questions visible to all I am not entirely sure how to do that, but i'm trying to read them read them read them out okay next question.

146
00:30:04.320 --> 00:30:12.690
Robert Beverly: Do you think we should try to include some domain scientists as KPI, so I think we covered this one up before I think you know, this would be.

147
00:30:13.590 --> 00:30:22.980

Robert Beverly: We are looking for the demonstration of close close collaboration with the stakeholders, but it's not required that they're that they are kochi is, for instance.

148
00:30:23.340 --> 00:30:34.140
Robert Beverly: And again, if you want to see some examples of that I have you know what's been done in the past in terms of collaborations with the stakeholders, I encourage you to look at some of the things that were.

149
00:30:35.040 --> 00:30:44.310
Robert Beverly: funded in previous years um so not a requirement but it's absolutely one of the review criteria that the panel will will look at.

150
00:30:46.470 --> 00:30:52.890
Robert Beverly: Okay alright so for the rss D or the reference scientific security data sets.

151
00:30:53.490 --> 00:31:06.330
Robert Beverly: Can a program area can the project activities also involve developing the ci to support analysis of those data sets or would the primary objective be generating and hosting these data sets.

152
00:31:07.020 --> 00:31:26.400
Robert Beverly: So that is a that is an excellent question and the answer is is is both we are interested in both so we do recognize that there may be instrumentation required in order to get some of these reference security data sets we you know we understand.

153
00:31:27.870 --> 00:31:47.850
Robert Beverly: That you know even getting some of this data can an instrument is that the infrastructure can be the hardest part that we would like to see out of that so we would support proposals that actually work on the development of the ci to support all of this.

154
00:31:49.620 --> 00:31:55.680
Robert Beverly: But we're you know we're most interested in in generating and hosting these data sets.

155
00:31:56.580 --> 00:32:05.310

Robert Beverly: And you know I saw I saw part I think part of this question too I may not be answering it completely correctly is supporting analysis of the data sets.

156
00:32:06.060 --> 00:32:14.460
Robert Beverly: So I think the answer, there is that could also could be in scope, but I think it would be important to to motivate.

157
00:32:15.150 --> 00:32:34.470
Robert Beverly: You know why that would benefit the community as a whole, so if they're you know if there's a good argument for some cyber infrastructure that could be a supporting piece of infrastructure for analyzing these data sets that would be in scope, but it would be up to you to motivate that.

158
00:32:36.870 --> 00:32:52.530
Robert Beverly: Okay, would nsf except research proposals that leverage research infrastructure for reproducible and scalable computations developed by other government agencies, for example, whip developed by by nest.

159
00:32:54.450 --> 00:32:54.870
Robert Beverly: um.

160
00:32:56.040 --> 00:33:09.840
Robert Beverly: So uh right, and I think I think this one would probably be one that would be most appropriate to talk about perhaps perhaps one on one you know we are.

161
00:33:10.560 --> 00:33:21.210
Robert Beverly: You know, we are of course interested in leveraging nsf infrastructures that doesn't preclude leveraging other research infrastructures.

162
00:33:22.080 --> 00:33:35.610
Robert Beverly: However, I think you know, a solid case would need to be made for for how this benefits the broader scientific community and how it's aligned with you know both the nsf and this goals.

163
00:33:36.450 --> 00:33:46.140

Robert Beverly: You know nsf does collaborate with with nist um, so I would certainly say that that could be in scope, but it would probably good to to chat about it a little bit more.

164
00:33:49.950 --> 00:33:56.580
Robert Beverly: All right, Kenny proposal focus on enhancing the security of ci in a social science domain.

165
00:33:57.960 --> 00:34:14.670
Robert Beverly: The answer, there is is absolutely yes we we are interested in in you know basic sciences, you know the chemistry, the physics, the engineering side of it, as well as a social sciences, so that is definitely in scope.

166
00:34:18.360 --> 00:34:33.270
Robert Beverly: Alright, is there, specific wording required for industry letters of support or commitment so on on that one I would would absolutely encourage you to to read.

167
00:34:33.750 --> 00:34:46.860
Robert Beverly: The the text of the program solicitation on all of that should be detailed in there pretty clearly so that that there's a whole section on the letters of support your commitment.

168
00:34:48.870 --> 00:34:50.460
Robert Beverly: Okay um.

169
00:34:51.630 --> 00:34:52.290
Robert Beverly: Okay.

170
00:34:53.790 --> 00:35:07.500
Robert Beverly: Here we go next question is if an industry supporter provides funds to support this research is that sufficient for a letter of commitment, or do we have to have funds specifically designated for support of this grant.

171
00:35:09.750 --> 00:35:15.120
Robert Beverly: So, in terms of of letters of commitment, I think.

172

00:35:16.860 --> 00:35:25.020
Robert Beverly: You know if they can, I think that would demonstrate a level of commitment that would certainly be adequate to the to the Program.

173
00:35:25.560 --> 00:35:40.080
Robert Beverly: i'm not sure I can completely understand where this is where this is going in terms of funds specifically designated for support of this grant so I if i'm answering this correctly, there is there's no requirement for instance that.

174
00:35:40.860 --> 00:35:50.730
Robert Beverly: That you sub award some of your funds to an industry supporter, that is, that is not a requirement and and indeed.

175
00:35:52.110 --> 00:36:10.890
Robert Beverly: You know, is is not a goal of the program to support industry instead work we're interested in supporting nonprofits and academics so that's part of the eligibility requirements here we're delighted if you collaborate with an industry.

176
00:36:11.940 --> 00:36:21.060
Robert Beverly: partner, you know, insofar as that supports the research enterprise, but we're we're not intending for any kind of.

177
00:36:22.890 --> 00:36:27.540
Robert Beverly: we're not requiring any kind of funds to go to them and that's really not the intention.

178
00:36:28.560 --> 00:36:33.600
Robert Beverly: i'm just clarify the climate of proposals are not allowed yes that's correct.

179
00:36:34.740 --> 00:36:35.280
Robert Beverly: Okay.

180
00:36:36.390 --> 00:36:46.800
Robert Beverly: Does that mean CC only allows for proposal submitted by a single single institution so so that is correct, on if you would it's certainly.

181
00:36:47.190 --> 00:36:56.370
Robert Beverly: possible for you to collaborate with others at other institutions, but we will make a single award and then that will, if you want to.

182
00:36:56.850 --> 00:37:12.060
Robert Beverly: to collaborate with with others and further distribute those funds that would have to be done as a sub award and so that would be the mechanism for doing that so nsf would make one award and then your institution would have to make the sub or.

183
00:37:15.510 --> 00:37:16.170
Robert Beverly: Okay.

184
00:37:18.690 --> 00:37:19.650
Robert Beverly: alright.

185
00:37:20.790 --> 00:37:32.670
Robert Beverly: So, should the proposed solution target only scientists for one domain EG climate science or multiple domains okay so so for that one.

186
00:37:33.300 --> 00:37:41.400
Robert Beverly: I don't think there's a should you know we're interested in your best ideas right I think both of those would be would be interesting.

187
00:37:41.880 --> 00:37:51.390
Robert Beverly: And I think we have examples of of work in the program that that fall into both of those bins so I don't think one is better than the other.

188
00:37:51.900 --> 00:38:09.180
Robert Beverly: Really we're just looking for the science driver the motivation and the benefits that particular community or communities Okay, the second part of that question is letters of collaboration.

189
00:38:10.260 --> 00:38:10.980
Robert Beverly: and

190
00:38:12.030 --> 00:38:25.560
Robert Beverly: So how many are required or or recommended so there's I don't think we, we have a requirement for any and I don't think we have any particular recommendation.

191
00:38:26.370 --> 00:38:38.940
Robert Beverly: I think the main recommendation is to make a convincing argument to to us, as well as the panel, that there is a close collaboration among stakeholders right.

192
00:38:39.540 --> 00:38:54.480
Robert Beverly: So whoever those stakeholders are we want to see that they are vested and interested in this so so really whatever is whatever is is required to support that is what we would recommend.

193
00:38:56.370 --> 00:39:13.380
Robert Beverly: Okay next question is can can national labs and other FF rtc participate, so this one is is is complicated and would would recommend you contact us directly for a specific answer.

194
00:39:14.220 --> 00:39:30.150
Robert Beverly: In general nsf does not support the national labs there are instances where the national labs may have a higher level umbrella organization that is a nonprofit.

195
00:39:30.780 --> 00:39:44.310
Robert Beverly: And there's been instances where we can do something there, but I would encourage you to to reach out to us to talk about your specific situation or your specific concern there.

196
00:39:46.290 --> 00:39:48.600
Robert Beverly: Alright next question.

197
00:39:50.760 --> 00:40:06.720
Robert Beverly: Okay, if I don't list any domain scientists as Co P eyes, does the panel expect at least some collaboration letters, or if I have already published some papers of domain scientists, with the publication record suffice, without the collaboration letter.

198

00:40:08.580 --> 00:40:28.560
Robert Beverly: So you know, this is a sort of a subjective question, I guess, I would say that you know, in my experience, the panel appreciates letters, it does demonstrate at least a base level of engagement with the.

199
00:40:29.670 --> 00:40:45.330
Robert Beverly: You know, with the domain, scientists and the collaborators, you know it's certainly not required, but I think it's appreciated by by the panel, so I think that's you know, probably the best answer I can give to that one.

200
00:40:48.000 --> 00:40:50.730
Robert Beverly: Alright, so.

201
00:40:52.440 --> 00:40:54.780
Robert Beverly: I think I have answered.

202
00:40:55.800 --> 00:41:21.900
Robert Beverly: Most of these if I didn't answer someone's question to their satisfaction, please drop it into the Q amp a box or please send myself or my colleague Kevin Thompson an email, and we would be glad glad to get back to you with more information.

203
00:41:30.120 --> 00:41:33.900
Robert Beverly: Alright, thank you another one popped in here.

204
00:41:37.230 --> 00:41:53.280
Robert Beverly: Okay got some more questions all right looking through the list of previously funded brands I didn't find an rss D, one can we expect to to five awards this year per the solicitation page, so you are correct, we received.

205
00:41:54.630 --> 00:42:08.700
Robert Beverly: Proposals in that area, last year, but we did not fund any and we are still excited to see you know, high quality proposals in this space so that's why we've continued the program area.

206
00:42:09.810 --> 00:42:12.030
Robert Beverly: Can we expect two to five awards this year.

207
00:42:13.950 --> 00:42:25.320
Robert Beverly: The answer is, depending on the quality of the proposals so absolutely if there's two to five quality proposals in the rss D area.

208
00:42:25.890 --> 00:42:40.350
Robert Beverly: We absolutely intend again caveat caveat subject to availability of funds and budgets and so on and so forth, our intention is to fund activities in that area, so So yes, we would love.

209
00:42:40.830 --> 00:42:49.260
Robert Beverly: To support work in that area, if you have specific questions about what you would like to do please reach out to us.

210
00:42:50.280 --> 00:43:01.500
Robert Beverly: feel free to send us a one pager or what have you and we're happy to give you some specific feedback about the reference a security science security data sets area.

211
00:43:03.270 --> 00:43:03.870
Robert Beverly: Okay.

212
00:43:11.190 --> 00:43:18.570
Robert Beverly: All right, just to be clear does proposing to the transitions area require existing ci.

213
00:43:20.700 --> 00:43:35.910
Robert Beverly: So again, so I think I would say, I would say pretty much yes, remember, we take a very broad view of what constitutes a ci so I don't think that that's a huge obstacle.

214
00:43:36.600 --> 00:43:48.930
Robert Beverly: But but yes, I think the general idea, there is that there is some existing ci again whether that's compute whether that's data, whether that's networking.

215
00:43:49.500 --> 00:44:08.760

Robert Beverly: Or, or you know all of the above right, I think we would like to see work done on some of these existing cyber infrastructures towards the robustness of them and a deeper understanding and a deeper protection or support in the domain scientists.

216
00:44:11.280 --> 00:44:11.940
Robert Beverly: alright.

217
00:44:14.070 --> 00:44:19.710
Robert Beverly: So going through these two makes if if I skipped anyone's question I apologize, please.

218
00:44:21.660 --> 00:44:23.730
Robert Beverly: Please repost.

219
00:44:53.370 --> 00:44:57.000
Robert Beverly: Alright, and then there there's a.

220
00:44:59.520 --> 00:45:17.520
Robert Beverly: A question about the presentation So yes, we will post, the presentation to the program recording a webinar recording of the webinar to the program page, hopefully in a week or so to the to the public.

221
00:45:38.040 --> 00:45:43.290
Robert Beverly: Alright, so I believe I have cleared the Q amp a Q.

222
00:45:44.760 --> 00:45:45.840
Robert Beverly: I will.

223
00:45:47.100 --> 00:45:53.730
Robert Beverly: Stick around for a few more minutes if there's any other questions that you all may have.

224
00:46:10.260 --> 00:46:10.650
Robert Beverly: Okay.

225
00:46:13.290 --> 00:46:30.930
Robert Beverly: Again, please reach out to us with any particulars, we are delighted to answer and go over anything about the program and with that we're excited to see your submissions so thank you so much, and have a great rest of your day.