ICANN SSAC Review:
Draft Final Report
Update by the Independent Examiner

Webinar

November 20, 2018

Agenda

Introduction to the Independent Examiner

Scope and Design of the Review

Interviews and the Survey Instrument

Draft Final Report Recommendations

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Q&A

Introduction

☐ We have been hired as the Independent Examiner to conduct an independent review of the SSAC, as mandated by ICANN's Bylaws.

☐ The team has deep practical and research experience in:

   – Domain name operations and internet security.

   – Non-profit governance and volunteer-based organizations.

   – The design of interview and survey instruments.

☐ Our team is lead by Almudena Arcelus, Dr. Shlomo Hershkop, Christopher Llop, Greg Rafert, and Professor Steven Weber.

Introduction

Dr. Shlomo Hershkop - Director of Engineering, Allure Security Technology, Inc.; Adjunct Professor at Columbia University and the University of Pennsylvania.

Professor Steven Weber - Faculty Director of the Center for Long Term Cyber Security, University of California, Berkeley

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Project Scope

- The goal of our review is to provide an assessment of:

  - The implementation state of SSAC's prior review.

  - Whether SSAC has a continuing purpose within the ICANN structure.

  - How effectively SSAC fulfills its purpose and whether any change in structure or operations is needed to improve effectiveness, in accordance with the ICANN-provided objective and quantifiable criteria.

  - The extent to which SSAC as a whole is accountable to the wider ICANN community, its organizations, committees, constituencies, and stakeholder groups.

Project Design

☐ Our project was designed as a two-step process.

☐ Phase 1: Assessment

  – Review of operating procedures, SSAC work product, other documents.

  – Interviews with 42 people during and after ICANN61.

  – A online survey distributed to the entire community.

  – Observation of 2018 SSAC meetings, including at ICANN61 and ICANN62.

  – Assessment report submitted for feedback to the ICANN community, and presented at ICANN62.

☐ Phase 2: Recommendations

  – Recommendations report for public comment and session at ICANN63.

  – Final recommendations report.

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Interview Process

□Interviews were semi-structured, lasted approximately 45 minutes, and touched on a range of topics that reflect the review criteria:

  – Purpose and the extent to which the SSAC fulfills its purpose.

  – Membership size, structure, and diversity.

  – Methods of setting committee focus and developing work product.

  – Internal and external communication

  – Transparency, accountability, and fairness.

  – Implementation of and developments related to last SSAC review.

□ Interviewees were encouraged to share both strengths and weaknesses of the SSAC, and suggestions for improving the SSAC.

Interview Process (cont.)

☐ Conducted 42 interviews at ICANN61 and remotely after ICANN61.
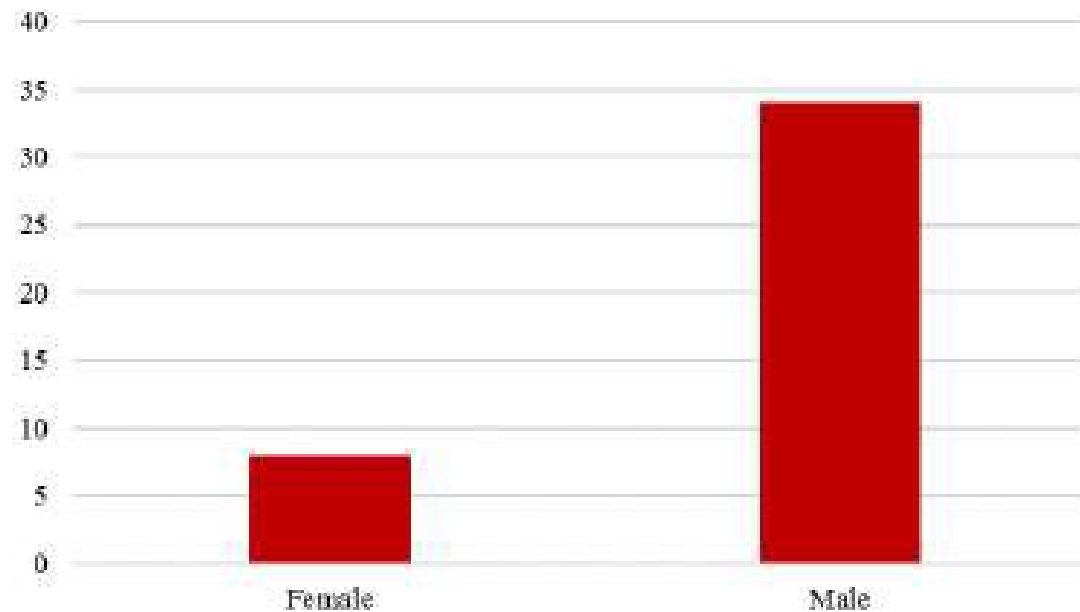
☐ Interviewees included individuals from the following:

Figure 1: Current/Former ICANN Roles and Affiliations
Number of Interviewees: 42
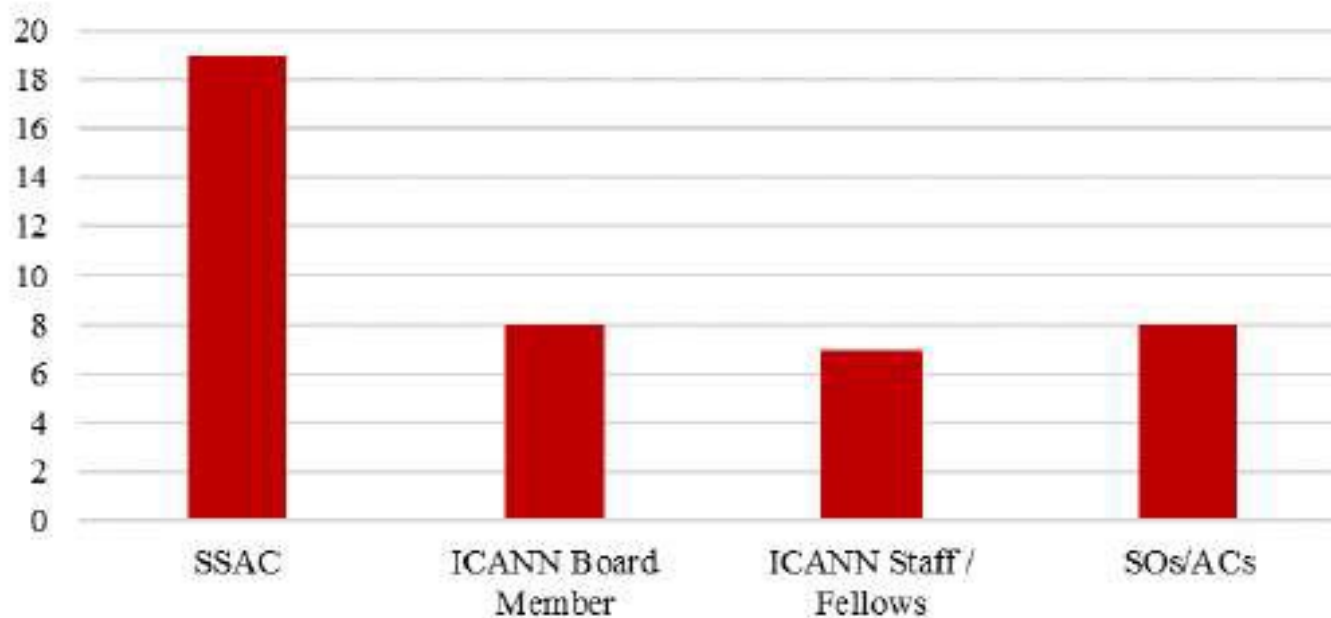
Interview Process (cont.)

☐ Conducted 42 interviews at ICANN61 and remotely after ICANN61.
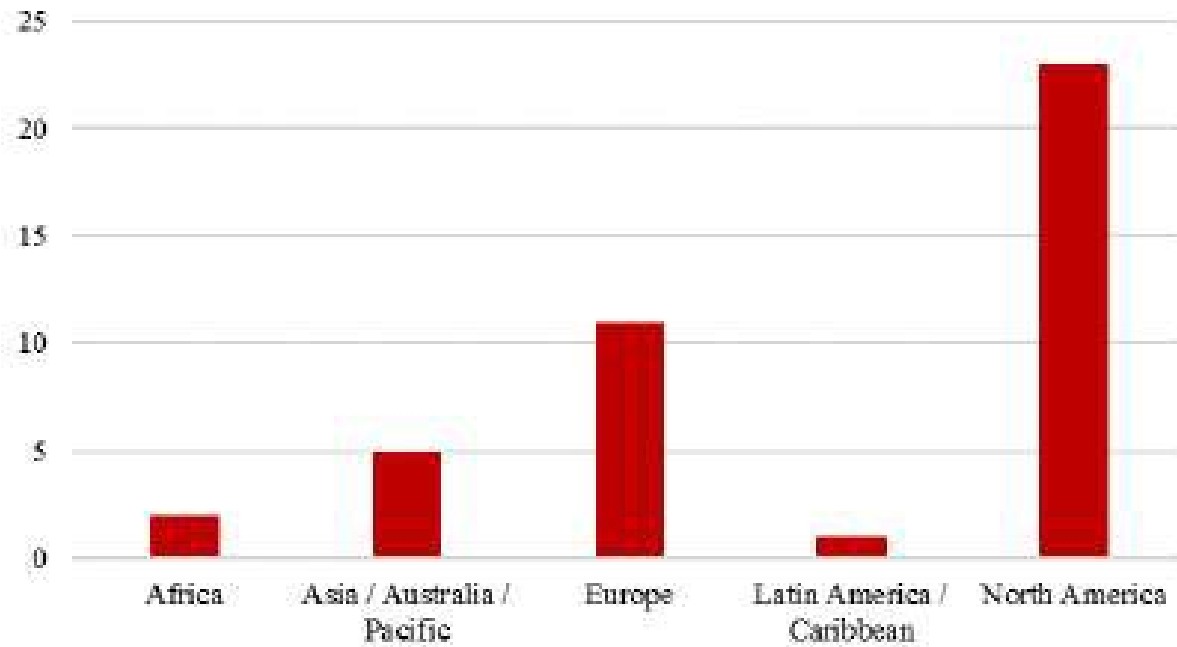
☐ Interviewees included individuals from the following:

Figure 2: Gender Composition
Number of Interviewees: 42

Interview Process (cont.)

☐ Conducted 42 interviews at ICANN61 and remotely after ICANN61.

☐ Interviewees included individuals from the following:

Figure 3: Region in which Interviewees Reside
*Number of Interviewees: 42*

Survey Process

☐ The survey was designed to elicit feedback on the SSAC's strengths and weaknesses from the community.

  – The survey is an information gathering tool and is not analyzed in a statistical manner. But, the Assessment Report provides a quantitative analysis of the survey results.

  – Supplements interviews and casts a wider net in the ICANN community.

☐ Informed by interview experience.

  – The survey also provides an opportunity for free-form responses.

☐ Open from April 18th through May 25th, 2018.

Survey Process (cont.)

☐ 52 complete responses, 80 partial or complete responses.
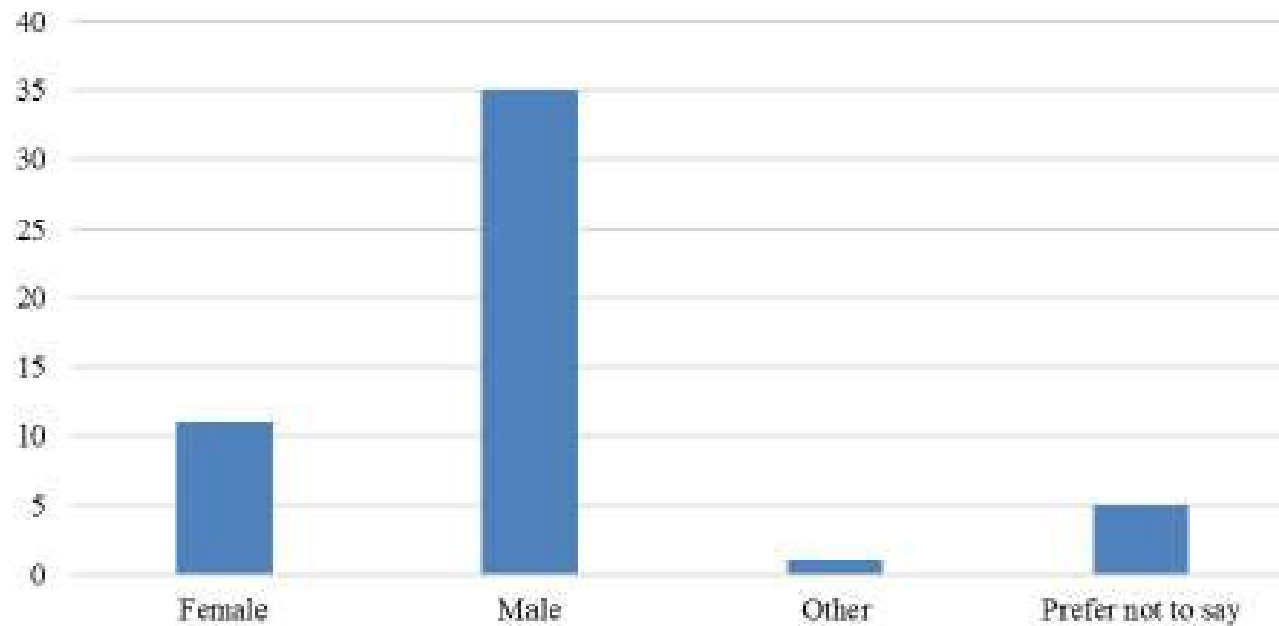
☐ Results robust to both groups of responses.

Figure 4: Current/Former ICANN Roles and Affiliations
Number of Survey Respondents: 80
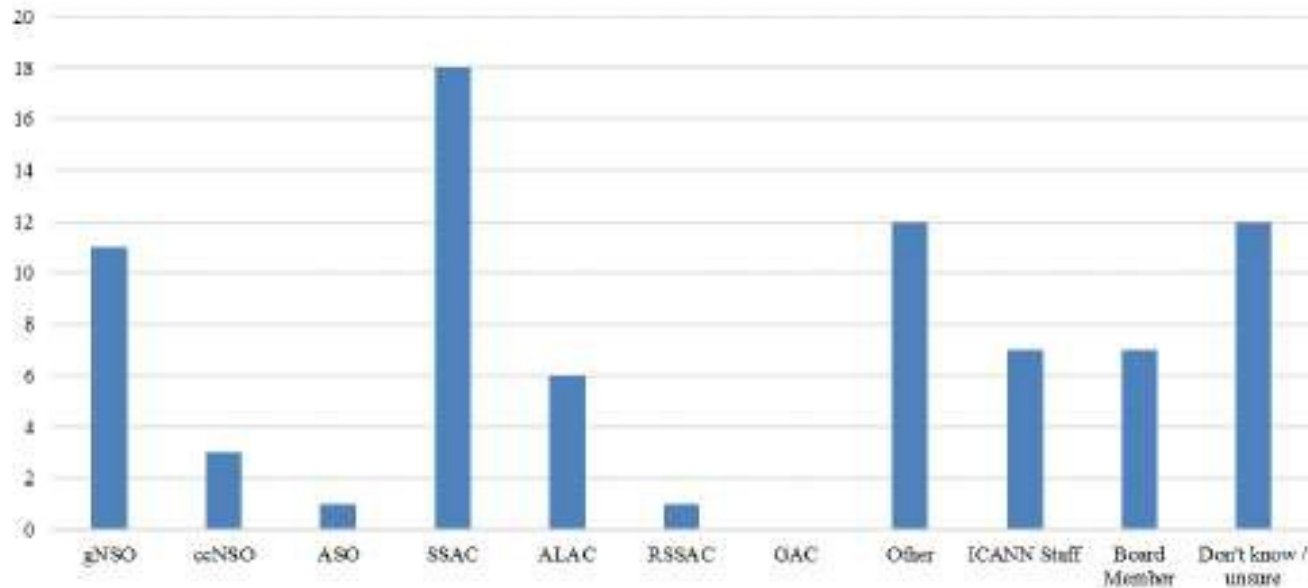
Survey Process (cont.)

- 52 complete responses, 80 partial or complete responses.
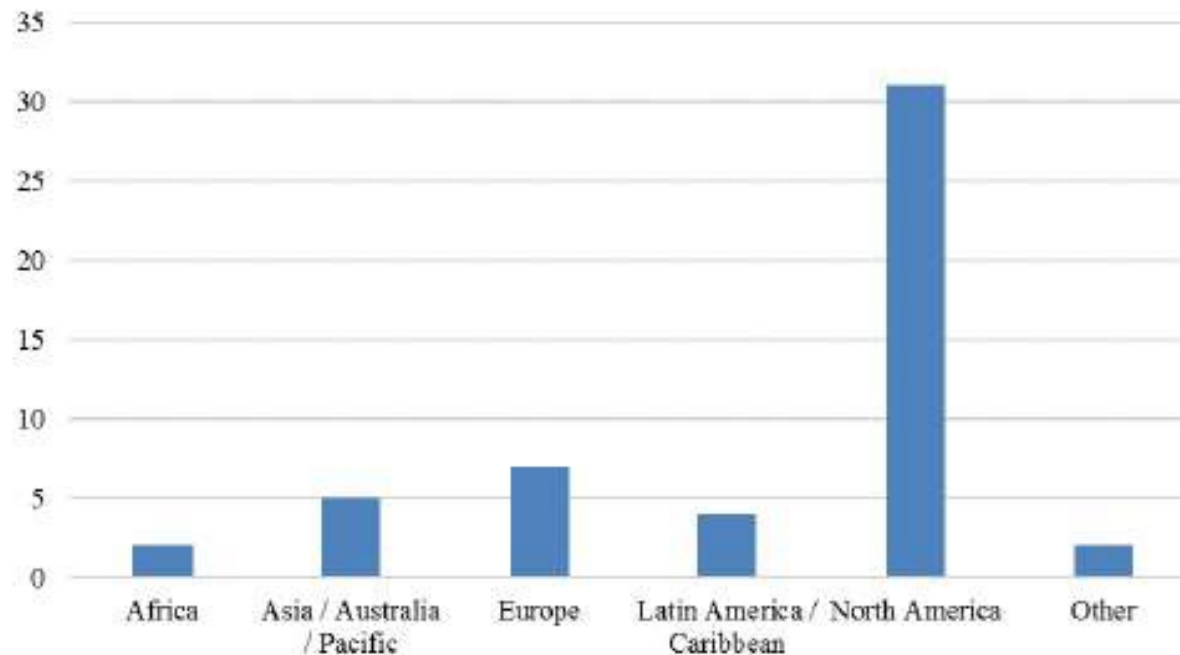- Results robust to both groups of responses.

Figure 5: Gender Composition
Number of Survey Respondents: 53

Survey Process (cont.)

☐ 52 complete responses, 80 partial or complete responses.

☐ Results robust to both groups of responses.

Figure 6: Region in which Survey Respondents Reside
Number of Survey Respondents: 52

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Assessment Report Overview

☐ The SSAC is performing very well and plays an important role within ICANN.

    – As with all organizations, there are places for continued refinement.

☐ Our 58-page Assessment Report contains 22 assessment points:

    – Effectiveness of the SSAC (#1-6)

    – Topic Selection Process (#7)

    – Interactions with SOs/ACs (#8-9)

    – SSAC Size and Membership (#10-16)

    – Transparency and Accountability (#17-20)

   – Prior Review Implementation and Self-Improvement (#21-22)

Recommendation Report Overview

□ We made 30 recommendations across five categories:

– The continuing purpose of the SSAC (1 recommendation)

– The SSAC's advice generation and provision of advice to the ICANN Board (12 recommendations)

– The SSAC's integration with SO/ACs and the ICANN community (6 recommendations)

– The SSAC's size, membership, and term length and limits (10 recommendations)

– The SSAC's prior review and continuing efforts for self-improvement (1 recommendation)

SSAC Purpose – Assessment

Finding: The SSAC is widely acknowledged to be very important to the overall mission of ICANN. The role of the SSAC is closely aligned with ICANN's mission.

Figure 7: How important do you perceive the SSAC is to the overall mission of ICANN?
Number of Survey Respondents: 74
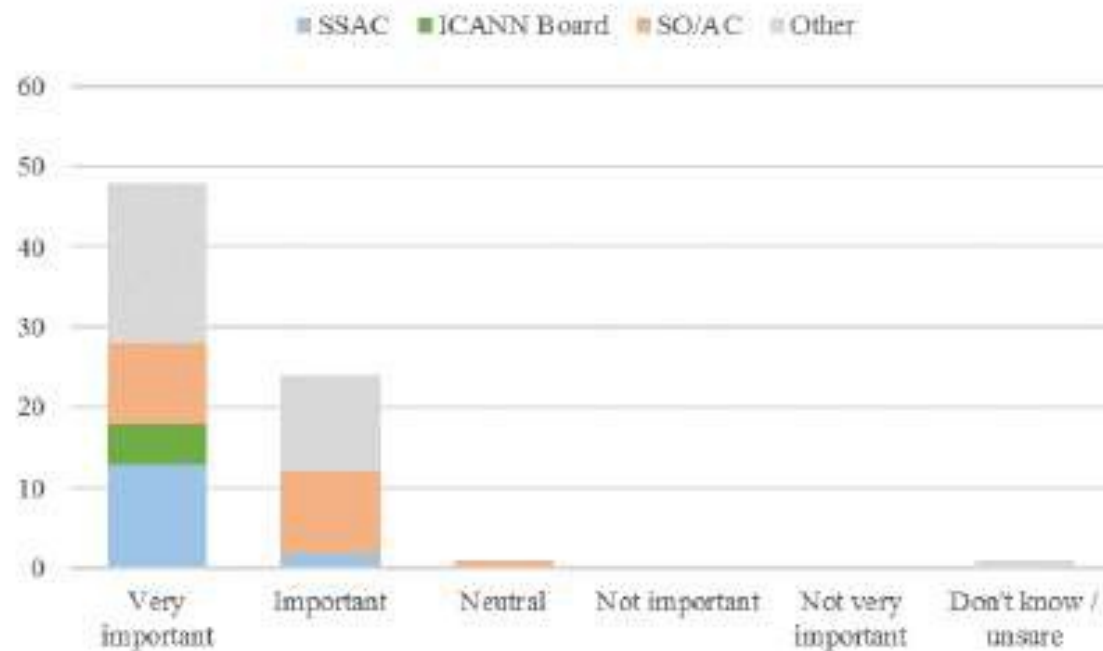
SSAC Purpose – Recommendation

1. The SSAC has a clear continuing purpose within ICANN. Its existence as an Advisory Committee should continue.

   The SSAC is widely acknowledged to be very important to the overall mission of ICANN.

SSAC's Advice – Assessment

Finding: There is some concern among members of the SSAC that advice provided to the ICANN Board is not acted on in a timely manner. Similarly, there is some concern among members of the ICANN Board that the advice of the SSAC cannot be provided quickly.

Figure 10: How effective, or ineffective, are the outcomes from SSAC's advisory process?
Number of Survey Respondents: 51
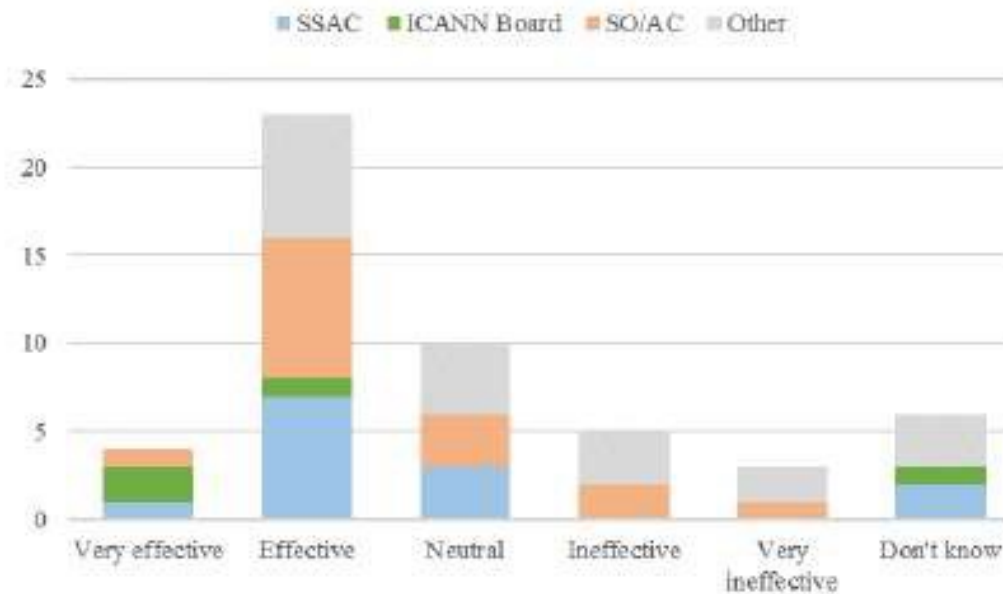
SSAC's Advice – Recommendations

2. The SSAC should ensure that each advisory or report provided to the ICANN Board includes a <u>high-level summary</u> that outlines the topic or issue in easily understandable terms and lists the key findings with <u>uniquely numbered recommendations</u>.

    This will assist the Board in interpreting then implementing SSAC advice by making individual recommendations easier to identify and track through to resolution.

3. When providing advice, the SSAC should ensure that the Board Liaison reviews and provides feedback on both the summary and full document before submission to the Board. The SSAC should proactively discuss talking points and potential Board response timing with the SSAC Board Liaison.

    This will help ensure recommendations are phrased in a way that can be understood and acted upon expediently, and will help the SSAC to predict how the Board's advice review timing may interact with its competing priorities.

SSAC's Advice – Recommendations

4. The SSAC Board Liaison should work with the ICANN Board and ICANN Staff to ensure that Board Action Request Register (ARR) adequately captures the information required to understand the status of advice from when it is given through its implementation.

   This will make it easier and less time-intensive to identify the status of any recommendation that is pending ICANN Board response or implementation.

Figure 16: Current Status of Open Advice Items in the ARR
As of 31 July 2018

Status of Open Advice Items (#items)	Phase 1 | Receive & Acknowledge	Phase 2 | Understand Request	Phase 3 | Evaluate & Consider	Phase 4 | Implement	Phase 5 | Close Request	Total Number of Open Advice Items
ALAC	0	0	0	3	1	4
RSSAC	0	7	4	0	0	11
SSAC	0	7	0	27	12	46
Total by Phase	0	14	4	30	13	61
Δ since update	0	-1	-1	-1	-2	-5

- Potential fields include "Date Last Updated," "Action Taken (by the ICANN Board)," "Implementation Owner", and "Implementation Status."
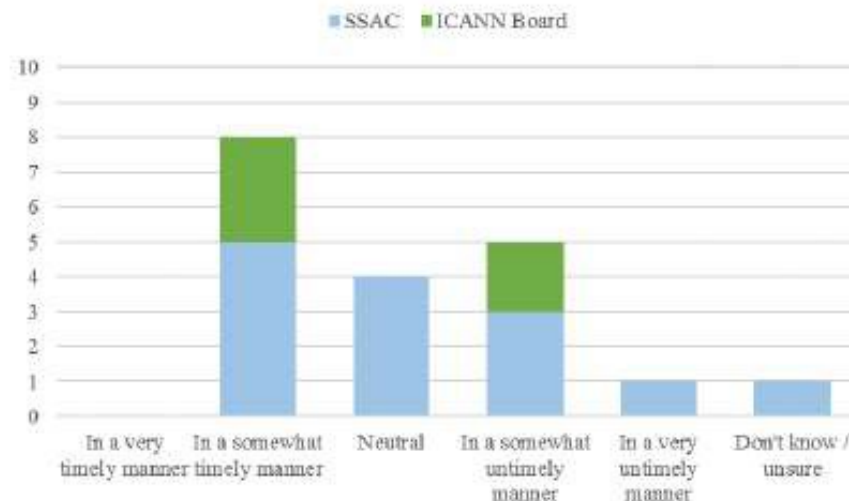
SSAC's Advice – Recommendations

5. The SSAC should periodically review the implementation state of past and future advice provided to the ICANN Board to ensure that all action items are listed in the ARR. The SSAC should follow-up with the ICANN Board via its Board Liaison when advice has not yet been addressed or when progress is unclear.

Using the updated ARR, the SSAC should be able to review then check in on the status of any recommendation provided to the ICANN Board with relative ease.

Figure 15: How timely, or untimely, is the ICANN board in reacting to, and potentially incorporating, SSAC advice?
Number of Survey Respondents: 19

SSAC's Advice – Recommendations

6. For time sensitive issues, the SSAC should establish process and work deadlines that take into account the decision <u>timelines of other ICANN entities</u>. The SSAC should work with SSAC staff to ensure internal deadlines are set to make meeting external deadlines <u>as possible as reasonable</u>.

   The SSAC should continue to endeavor to align its work with ICANN deadlines where reasonably possible, without compromising the provision of sound advice.

7. The SSAC should develop a process to, when possible, provide a "<u>quick look</u>" at a particular issue for the ICANN Board. Such "quick looks" might not be the result of a consensus-driven process, but rather would disclose differing opinions.

   This will help the ICANN Board better understand certain issues more quickly. When a "quick look" request is unreasonable, the SSAC's Liaison can work with the ICANN Board to refine the request or questions asked of the SSAC.

SSAC's Advice – Assessment

Finding: The SSAC is well prepared to deal with emerging security threats. Some interviewees indicated that as threats continue to increase in number and in complexity, there could be some value in developing processes by which the SSAC could more formally review the security ecosystem as part of its topic selection.

Figure 19: How well do you feel the current topic selection process is able to identify emerging and future threats?
Number of Survey Respondents: 17
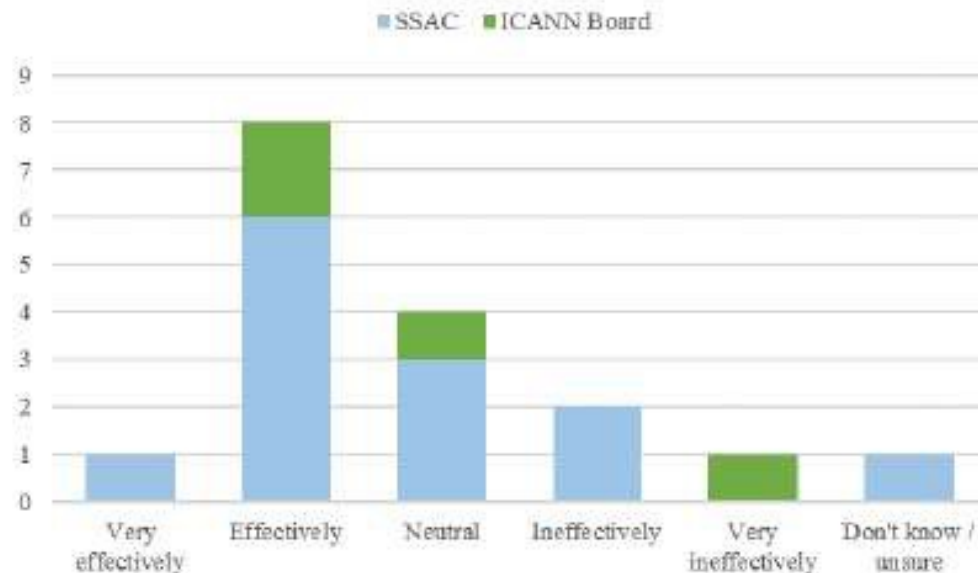
SSAC's Advice – Recommendations

8. The SSAC should <u>formalize an annual process</u> geared towards setting research priorities and identifying relevant emerging security, stability, and resiliency (SSR) threats in the short- and medium-term.

    This will allow the SSAC to plan research goals and membership needs around both a short- (1-year) and more medium-term (5-year) time horizon.

9. The skills needed for tasks identified in the SSAC's annual priority setting and emerging threat identification exercise should feed into the SSAC's membership and recruitment processes.

    The SSAC's upcoming priorities can be assessed against current member interest, skills, and availability. The Membership Committee can help determine if new members or Invited Guests could be brought in to the SSAC for upcoming needs.

SSAC's Advice – Assessment

<u>Finding:</u> Individuals suggested that the largest impediment to the SSAC's success is the fact that the organization is volunteer-based, yet has a large amount of work to do. SSAC volunteers express they have been subject to an increasing requests, both in number and in scope.

SSAC's Advice – Recommendations

10. The SSAC should explicitly <u>communicate the reasons</u> for its decisions around topic selection and focus with others in ICANN. New requests should be compared to the current set of priorities and communicated about accordingly.

   The SSAC fields many requests and completes a large amount of work. A well-articulated set of research priorities can be referred back to when considering tradeoffs or resources needed to fulfill requests when more is asked of the SSAC.

11. The SSAC should continue to <u>approach the ICANN Board</u> when additional funding, resources, or access to external contractors may be required to achieve a project in the desired timeline or at the desired scale.

   This enables the ICANN Board to either refine requests or to assist the SSAC in obtaining required resources.

Interactions within ICANN – Assessment

Finding: Many individuals both inside and outside of the SSAC identified that creating more interaction with other ICANN SOs/ACs should be an area of focus for the SSAC. The SSAC has been making strides to communicate more frequently and to forge stronger relationships with other SOs/ACs.

Figure 25: How satisfied, or unsatisfied, are you with the current level of interaction between the SSAC and the ICANN community (outside of SOs/ACs)?
Number of Survey Respondents: 57
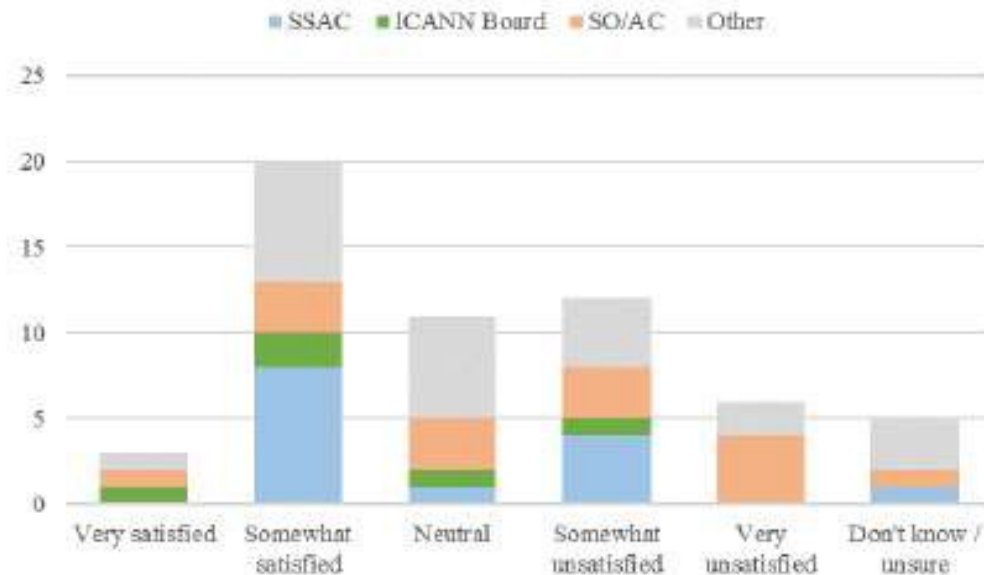
Interactions within ICANN – Assessment

<u>Finding:</u> Many individuals both inside and outside of the SSAC identified that creating more interaction with other ICANN SOs/ACs should be an area of focus for the SSAC. The SSAC has been making strides to communicate more frequently and to forge stronger relationships with other SOs/ACs.

Figure 21: How often is the advice given by the SSAC incorporated into the policy development process of the following SOs/ACs?
Number of Survey Respondents: 51
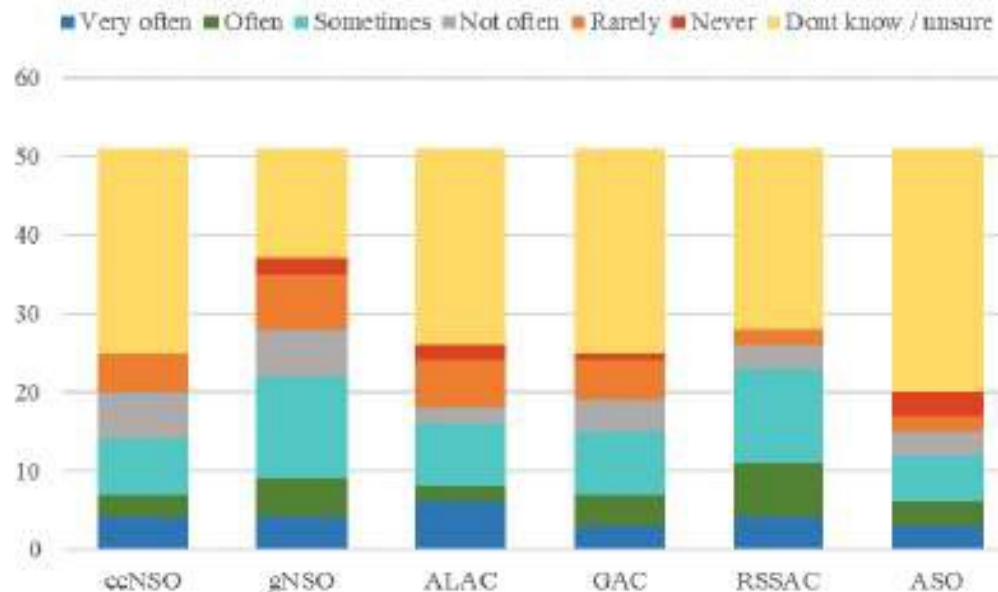
Interactions within ICANN – Recommendation

14. We recommend the SSAC <u>designate an outward liaison</u> to each SO/AC that is willing to receive one. These roles should be structured to add minimal burden to the SSAC's already large set of responsibilities.

    An open line of communication with each SO/AC provides a mechanism by which the SSAC can keep apprised of the activities and PDP processes of SO/ACs, and can help it understand the types of SSR issues that may become important. They also can help the SSAC communicate proactively when its advice and recommendations may affect an SO/AC.

Interactions within ICANN – Recommendation

16. In the process of developing each SAC-series document, the SSAC should <u>explicitly discuss who affected parties</u> may be and whether or not affected parties should be <u>consulted for feedback</u> or should be notified that the SSAC plans to publish a document on a given topic.

Soliciting feedback can give the SSAC additional information to consider when generating advice, assist the SSAC in considering how its advice may be put into action, and increase SSR awareness within the potentially affected party.

Interactions within ICANN – Recommendation

17. The SSAC's Administrative Committee should provide an <u>email update</u> to the leadership of ICANN's SOs/ACs one month <u>prior to each ICANN meeting</u> with links to relevant SSAC documents/proceedings from the SSAC's website.

Brief communications that can be shared within SO/ACs makes the SSAC more transparent and keeps SSR top of mind as an ICANN meeting approaches.

Figure 38: How well do you feel as though the SSAC's level of transparency balances with competing values (e.g., the importance of confidentiality in security issues)?
Number of Survey Respondents: 48
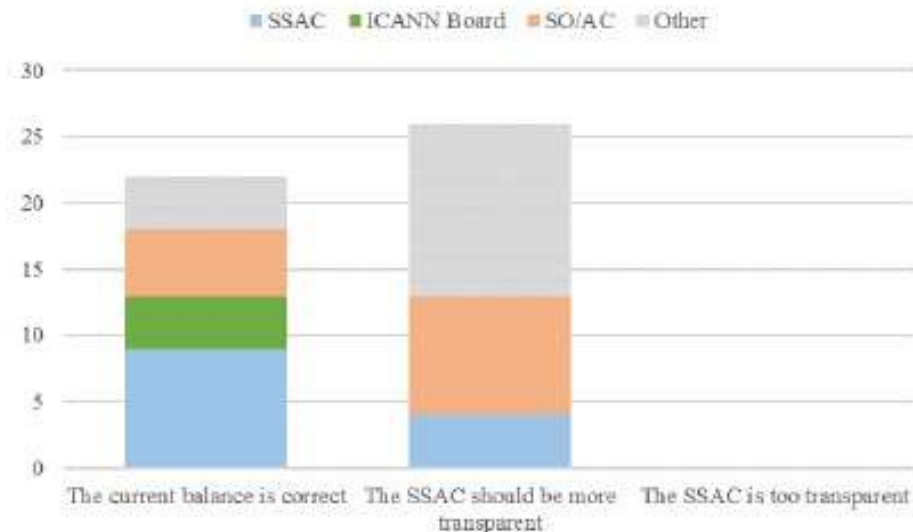
Interactions within ICANN – Recommendation

18. The SSAC should post specific <u>additional materials online</u> in the short-term, to consolidate information and increase transparency. The SSAC's Administrative Committee should then undertake a <u>yearly review of the SSAC's website</u> to determine whether additional content should be provided or whether the website should be restructured.

Periodic website improvements increase transparency and can assist with member recruitment.

- An explanation of the purpose of the SSAC-Correspondence Series.
- A link to the most recent ICANN Board ARR.
- A clear articulation of how and when an SO/AC or Work Party within ICANN might request feedback or comments from the SSAC.
- A clear explanation of how one can apply to join the SSAC and high-level information regarding the types of skills that the SSAC is looking for in members.
- (Optional) Pictures of current members who are willing to include one, to assist newer members of ICANN in identifying SSAC members at ICANN meetings.

Interactions within ICANN – Recommendation

19. The SSAC should remain accountable directly to the ICANN Board and through it to the wider ICANN community.

    The current accountability mechanisms for the SSAC are appropriate.

Size and Membership – Assessment

Finding: The SSAC does not undergo active or targeted recruiting, but rather recruits informally based on need and the existing network of SSAC members. Many interviewees would like to see improvements in the SSAC's recruiting process, but they are cautious about the burden such processes might place on the SSAC's volunteers.

Size and Membership – Recommendation

20. The current number of SSAC members is appropriate. The SSAC should continue to work to ensure its members are engaged, in conjunction with the recruiting points made below.

There should be a yearly flow of individuals on to and off of the SSAC, providing new ideas and perspectives while retaining active members' expertise.

Figure 27: How Effectively Does the SSAC Cover All Areas of Expertise?
Number of Survey Respondents: 17
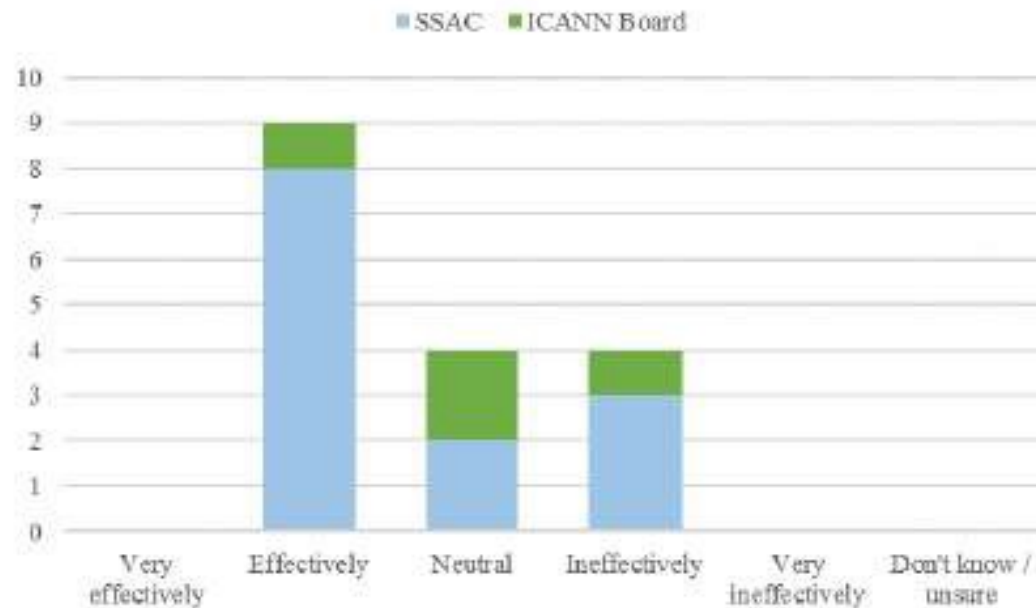
Size and Membership – Recommendation

21. Each year, the SSAC should develop a formalized recruiting plan with goals, potential recruiting targets, meetings to attend, messaging for prospective candidates, and any other items that are deemed useful.

A formalized recruiting plan can help the SSAC to increase the robustness of its talent pipeline, ease the transition of retiring members, reflect on the required skills and diversity for more medium-term goals, and grow its network in light of increased workload.

Figure 29: How effective, or ineffective, do you believe the SSAC's recruiting operations are?

Number of Survey Respondents: 49
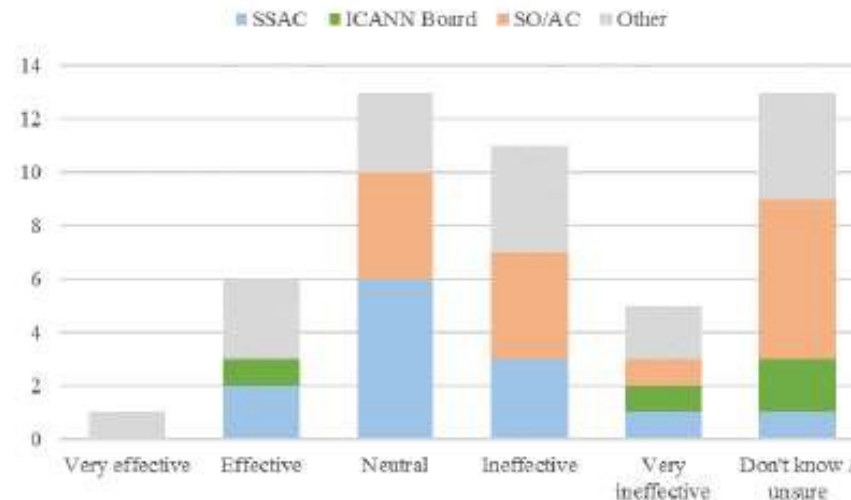
Size and Membership –Recommendation

22. The SSAC should work with the ICANN Board to secure funding to present its work at and/or attend <u>two or three major security conferences</u> outside of ICANN meetings annually, where members may <u>meet new interested applicants</u>.

Both academic and professional conferences provide opportunities to meet established and emerging experts in SSR-related fields who could bring new and useful perspectives as future SSAC members or Invited Guests. It also can assist with increasing geographical diversity.

23. The SSAC Membership Committee should generate a list of academic or other institutions with research efforts in fields related to SSR. The Membership Committee should keep this list up to date, and <u>consider if academics may bring useful perspectives</u> as either Invited Guests or full SSAC members.

Academics working in related fields may be interested in collaboration with the SSAC. A connection to academic institutions can also serve as a feeder for individuals to assist with SSAC work.

Size and Membership – Assessment

<u>Finding:</u> The SSAC is perceived to lack geographical and gender diversity and is comprised mostly of male individuals from the U.S. and Europe. While many individuals do not feel it is appropriate for a technical body to have "diversity for diversity's sake" at the expense of technical skill, several SSAC and non-SSAC members indicated that perspectives from other regions and types of individuals would be beneficial.

Figure 30: How Diverse is the SSAC along these Dimensions?
Number of Survey Respondents: 48
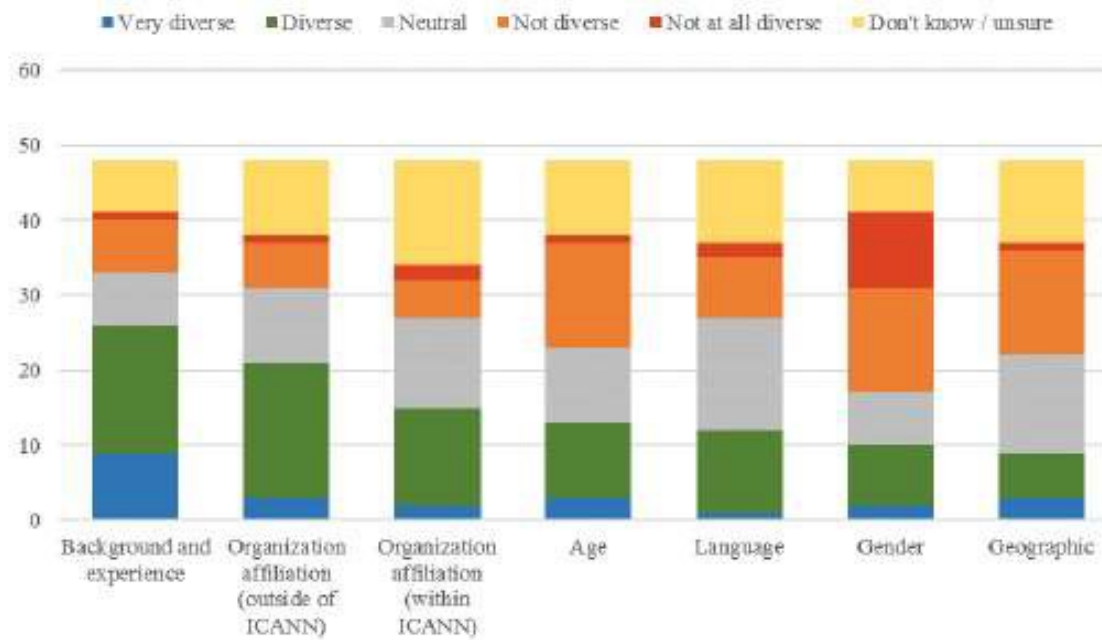
Size and Membership – Recommendation

25. The SSAC should endeavor to recruit individuals with a strong technical background who also represent a <u>broad set of geographical locations</u> and <u>reasonably balanced set of genders</u>. Discussion of how to do so should be codified in each year's recruiting plan.

When it is possible to obtain both diversity and the required technical expertise for the SSAC, processes should be in place that maximize the likelihood of doing so.

Size and Membership –Recommendation

26. The SSAC's membership review process should include a <u>yearly review </u>process for the SSAC's <u>external Liaisons</u>.

    This informal review will provide feedback to the SSAC's Liaisons to help them identify actions that are seem as useful to the SSAC.

27. The SSAC's leadership should be limited to <u>two, three-year terms</u>. The SSAC should impose <u>no term limits </u>on non-leadership members.

    This aligns with the SSAC's current term limits, except for the SSAC Chair.

Size and Membership – Assessment

Finding: The SSAC has mechanisms to allow for the disclosure of conflicts of interest, and members seem comfortable identifying other's potential conflicts of interest. Some SSAC members indicated that, by nature of the technical expertise required to contribute to the SSAC, limited conflicts of interest are unavoidable. Other SSAC members believe more can be done to limit potential conflicts.

Figure 40: Do you perceive the current level of conflict of interest on the SSAC to be low, moderate, or high, on a scale of 1 to 5 (with 1 being low and 5 being high)?
Number of Survey Respondents (SSAC Members): 15
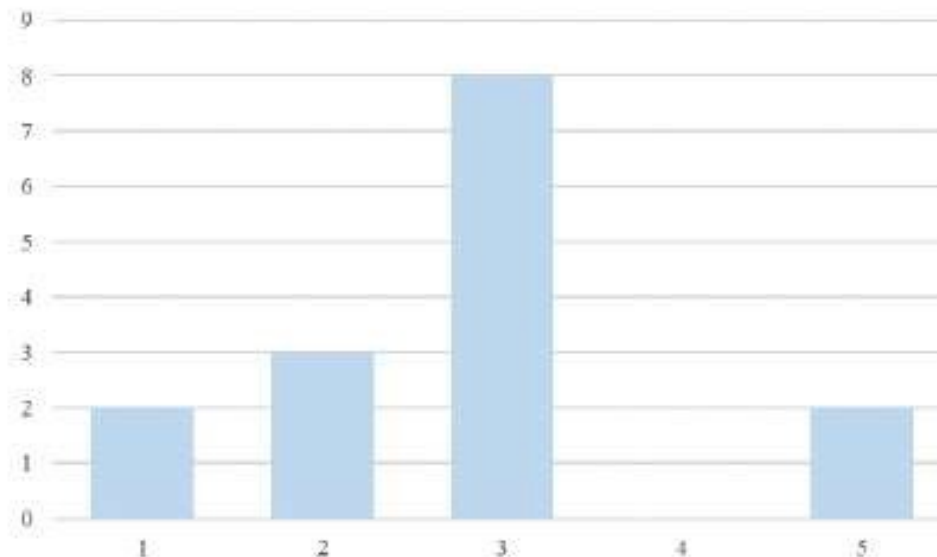
Size and Membership – Recommendation

29. The SSAC should maintain its current processes and activities around disclosing potential conflicts of interest, both at the individual level and as a group of individuals. It should also update its online disclosure of interest statements to clearly articulate when the disclosure was last submitted for each member.

In an organization such as the SSAC, it is impossible to assure a complete lack of conflict of interest on the part of each individual. Instead, the SSAC needs internal checks among the group of individuals to assure that conflicts are addressed and don't influence the institutional decisions of the organization.

Disclosure of Interest: (last updated XX XXXX, 2018)

1. Please identify your current employer(s) and position(s):

2. Please identify the type(s) of work performed at #1 above:

3. Please list any financial or other material relationship beyond de minimis stock ownership that you or your employer has with any individual, company, or other entity that to your knowledge has a financial or other material relationship with ICANN:

4. Is your participation as an SSAC member the subject of any arrangements or agreements between you and any other group, constituency, or person(s)? Please answer "yes" or "no." If the answer is "yes," please describe the arrangements or agreements and the name of the group, constituency, or person(s):

Self Improvement – Recommendation

30. The SSAC should continue to nurture and build upon the SSAC's culture that values self-improvement, including between formal reviews.

Effective organizations do not learn and improve only during formal processes, but via continuous reflection as experience is gathered. Such continual improvement allows an organization to learn in real time and to be robust to change.

– The SSAC often updates its Operating Procedures

– The SSAC's Annual in-person meeting polls attendees and reports back on effectiveness

– The SSAC RWP conducted a proactive internal analysis outside of this assessment

– The SSAC is proactively updating its skills matrix

– The SSAC is engaged in internal conversations regarding how it might be more transparent

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Project Timeline

lestone	Estimated Date
1. Review relevant background documents	February
2. Develop interview questions and solicit RWP interview question feedback	Finalize by March 5
3. Interviews at ICANN61 (and remotely as needed)	March - Late April
4. Process interview notes, design survey, and solicit RWP survey feedback	March - Mid April
5. Survey period	Mid April - Mid May
6. Send Draft Assessment Report to RWP for discussion	Late May
7. Assessment Report published	June 20
8. Present Assessment Report at ICANN62	June 25 - 28
9. Deliver Recommendations to RWP	August
10. Draft Final Report published for public comment	Oct. 15 - Dec. 3
11. Public Session at ICANN63	October 20 - 26
12. Final Report published	December 17

Next Steps - Public Feedback

☐ There are additional opportunities for your feedback prior to the release of the Draft Final Report.

- The public comment period is open through December 3, 2018.

- There will be a public webinar on November 20, 2018.

- For more details, please visit: https://www.icann.org/public-comments/ssac-review-final-2018-10-15-en

☐ The Final Report will be released on December 17, 2018.

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Questions?