ICANN Strategic Outlook: FY24 Trends Report

ICANN Planning Department November 2022



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1 Summary of Findings and Recommendations

Tracking new and shifting trends affecting ICANN and the Internet is a critical first step in ICANN's strategic planning process. Each year, ICANN uses trend information to inform appropriate changes to the ICANN five-year strategic plan, operating plans (five-year or annual), and budget. This report provides a summary of ICANN's FY24 strategic outlook program participated by ICANN organization (org), Board and the community. The Strategic Outlook Program is intended to inform the Board, executive team, and relevant ICANN staff about shifts in trends, risks, opportunities, that may affect how ICANN staff plans for the development of the annual Operating Plan and Budget.

The strategic outlook program began with trends identification sessions that took place in February through April 2022. Therefore, any subsequent topics discussed with the org, Board and Community since that time will be incorporated into the next annual Strategic Outlook Program starting in early 2023.

For the FY24 planning process, ICANN convened 13 strategic outlook trend identification sessions with 261 participants from the community, Board, and org, and collected 1,016 data points. Trend identification session participants were asked to consider trends, risks, and opportunities across five strategic objectives: security, governance, unique identifier systems, geopolitics, and financials. It should be noted that this data is collected at a point in time, influenced by people's perceptions and opinions, and recounted here as provided by the participants in the trend identification sessions. Inclusion of the statements in this report is intended to reflect the data collected and is not intended as an endorsement of any of those positions.

ICANN org conducted a thorough analysis of the data received from the trend identification sessions. The analysis includes assessing the trends, risks, opportunities, and potential impacts on ICANN. The synthesis of this analysis is a set of proposed priority trends, related impacts, and associated strategic or tactical recommendations, summarized in the table below.

This paper also provides a description of the process of the strategic outlook program, methods used to conduct the analysis, the results of those analyses, and appendices with more details on the trend inputs received.

SUMMARY OF TRENDS, IMPACTS AND CONCLUSIONS

On the basis of the analysis to-date, some ongoing activities will continue to be emphasized and reflected in the Operating Plan (see table below), but the Strategic Plan for fiscal years 2021 to 2025 (FY21-25) does not need to be updated at this point. The trend analysis also identifies some of the ongoing efforts that relate to the trends, even where no change to the strategic plan is noted. The Board considers many of the trends to be of high urgency and continues to oversee org's work towards addressing these trends.

Trends	Notable Shifts in Trend	New Impacts on ICANN / Impacts of Shifts from previous years	Conclusions
On Security: The topic of DNS abuse and DNS security threats continues to be widely discussed within the ICANN community. Progress within the community to agree on the definition of the problem and the correct mechanism toward solutions has been slow. Items listed as DNS security threats are within ICANN's remit; however, many other examples of abuse discussed in some sectors of the community, while malicious, are outside of ICANN's remit as they pertain to content.	Certain stakeholder groups' attention on DNS abuse increased, mainly at the regulatory / government level. In particular, there is increased concern in the African and Middle East regions about DNS abuse.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress, such as ICANN org's DNS Security Threat Mitigation Program, the Domain Name Security Threat Information Collection and Reporting project, etc. See section B.1, additional observation of ICANN org. Moreover, please also see Section B.4 for GE and IGO engagement enhancement to mitigate potential risks that threaten ICANN's mission.
On Security: Issue relating to Domain Name System security threats remains a topic of focus. This includes the issue of any potential to erode the public trust in the Internet.	Last year's trend remained consistent. No notable shifts.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress, such as the launch of the Knowledge -Sharing and Instantiating Norms for DNS and Naming Security (KINDNS) initiative, and the Operating Initiative of Supporting the Evolution of the Root Server System in FY24 Operating Plan, etc. See section B.1, additional observation of ICANN org.
On Governance: The continued challenges associated with complex policy development and implementation work are testing the ability of ICANN's multistakeholder model to support efficient and effective decision-making processes.	There is a sense of urgency to address the complex policy development and implementation work.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress, such as continue the two Operating Initiatives targeted to improve the MSM in the FY24 Operating Plan. These two Operating Initiatives include works planned to address some of the challenges of policy development and implementation, which is part of the notable shift of this trend. Additionally, continue the work of Enhancing the Effectiveness of ICANN's MSM. The Board is overseeing this work through its Strategic Planning

Trends	Notable Shifts in Trend	New Impacts on ICANN / Impacts of Shifts from previous years	Conclusions
			Committee and will provide strategic advice during the implementation of the work plan. See section B.2, additional observation of ICANN org.
On Governance: Inclusiveness, transparency, accountability, and openness remain the key elements of the ICANN's multistakeholder model. The prolonged, mainly virtual settings challenge the process of attracting and onboarding active and effective volunteers in ICANN's technical and policy work. Ensuring a truly inclusive and accessible model remains critical to ICANN's multistakeholder model within the current landscape.	Last year's overarching trends remain consistent; but there is a sense of urgency to address how to attract, onboard, and retain the next generation and for the multistakeholder model to maintain a truly inclusive model.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress, such as in regards to the notable shift of this trend - "to attract, onboard and retain volunteers", ICANN org will continue to evaluate ICANN's diversity program, e.g. Fellowship, NextGen and Newcomer Programs; as part of the Operating Initiative - Develop internal and external ethics policies in ICANN's FY23–27 operating plan, ICANN org continues enhancing transparency and uphold accountability; ICANN has multiple accountability mechanisms, such as the Independent Review Process (IRP), which is an essential mechanism for holding ICANN Board and the Org accountable. See section B.2, additional observation of ICANN org.
On Governance: The public's trust in the legitimacy of the multistakeholder model (MSM) can be affected by the influence of parties who oppose it. There continues to be a need to create greater awareness of ICANN's role and remit and the legitimacy of the ICANN MSM through public communications.	There is a shift from lack of understanding of ICANN's role to the public's trust of the MSM model.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress. For example, ICANN org reignited its public relations efforts to increase global awareness through a newswire distribution that reaches more than 65,000 media outlets in 170 countries. ICANN org has selected a public relations agency to assist in a global education and awareness campaign to increase awareness of ICANN, UA and

Trends	Notable Shifts in Trend	New Impacts on ICANN / Impacts of Shifts from previous years	Conclusions
			IDN as ICANN prepares for the next round of new gTLD applications. See section B.2, additional observation of ICANN org.
On Unique Identifier Systems: There is a perception that alternative namespaces could potentially threaten the relevance of DNS and the IANA functions are putting pressure on ICANN and requiring ICANN to be more responsive to the emerging identifier technologies.	The perception that alternative namespaces could potentially threaten the relevance of DNS and the IANA functions have increased.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress, such as the Operating Initiative - Facilitate DNS Ecosystem Improvements. The ICANN Board has also increased its focus on this issue, including through the Board's Technical Committee inclusion of a standing agenda item to discuss and address blockchain-based and other alternative name services. Moreover, ICANN will continue to engage discussion regarding alternative namespace in the public interest, promote and raise awareness of consumer protection and confusion. See section B.3, additional observation of ICANN org.
On Unique Identifier Systems: As ICANN is getting closer to launch the next round of New gTLDs, pressure to address UA issues continues to increase to support a multilingual Internet.	This year, it seems the pressure to increase uptake IDN and UA comes from the readiness of launching the New gTLD Subsequent Procedures (SubPro) rather than the diversity of online participants.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress, such as ICANN's support to the UASG; the Operating Initiative to promote UA, the work on UA and IDN as part of SubPro ODP, etc. See section B.3, additional observation of ICANN org.
On Unique Identifier Systems: There are perceived concerns of whether the New gTLD SubPro can solve some of the outstanding issues, such as inclusivity, affordability, geographical diversity and security for the benefit of the global internet users and public interest.	Last year's trend remained consistent. No notable shifts.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress. The Operating Initiative of Promote and Sustain a Competitive Environment in the Domain Name System focuses on preparation for the launch of additional rounds of new gTLDs, including review and analysis of the policy

Trends	Notable Shifts in Trend	New Impacts on ICANN / Impacts of Shifts from previous years	Conclusions
			recommendations developed by the community, supporting Board discussions, and estimating anticipated resources requirements. See section B.3, additional observation of ICANN org.
On Geopolitics: Efforts to regulate or legislate the Internet continue to intensify, and the current geopolitical landscape has added pressure. This could lead to policy fragmentation within the internet ecosystem.	Mostly unchanged. But the Russia-Ukraine war intensified the geopolitical landscape and may put more pressure on some countries or IGOs to take actions that could accelerate the risk of policy fragmentation on the internet ecosystem, including ICANN.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress. Currently, there are three Operating Initiatives in the FY24 Operating Plan to enhance GE and IGO engagement and mitigate any risks that threaten ICANN's mission. In support of these Operating Initiatives, ICANN org has added resources and subject matter experts in targeted regions. See section B.4, additional observation of ICANN org.
On Financials: Although ICANN's current financial position is promising, the shift of user behavior to rely on online platforms, the uncertainty of the global economic climate, and upcoming implementation costs may impact ICANN's long-term funding.	While last year's trends remain mostly true, it seems important to underline a few important shifts: Temporary financial confidence may not remain long term in the face of the current global economic climate. Interest surrounding the gTLD name space and its impact on financials has lessened but is still addressed (Trend 1.16 under the UIS Strategic Objective). The extent of Internet users rapidly changing their preferences to relying on online platforms rather than domain names, and its impact on ICANN's long-term funding, is still unclear.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress. Such as Operating Initiatives that focus on improving the depth of understanding of the domain name marketplace drivers and impact on ICANN's funding; and ICANN's reserve fund policy is intended to safeguard ICANN's long-term financial sustainability. See section B.5 , additional observation of ICANN org.

Trends	Notable Shifts in Trend	New Impacts on ICANN / Impacts of Shifts from previous years	Conclusions
On Financials: Prioritization and implementation is becoming more critical to continue supporting the needs and demands of ICANN's global community.	Last year's overarching trends remain consistent, but there is the perception that policy development and implementation is progressing slowly, and there is a sense of urgency to address issues in a timely manner.	No new impacts or impact on ICANN is minimal.	No change to the Strategic Plan; continue to carry out the ongoing and planned activities in the FY24 Operating Plan and report on progress. Such as Operating Initiatives Planning at ICANN, which includes the development of planning prioritization framework; enhancing the effectiveness of ICANN's MSM program includes work areas addressing prioritization and efficiency improvements across the ecosystem; the creation of the Implementation Operations department by org is making visible progress towards the implementation work of community review recommendations. See section B.5, additional observation of ICANN org.

2 Process & Methodology

The strategic outlook trend identification is an annual process, which ensures ICANN has a consistent way to:

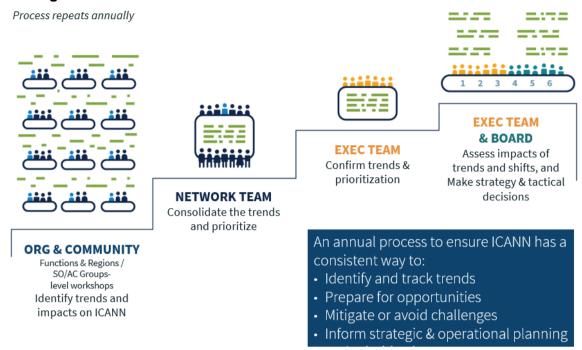
- Identify and track trends;
- Prepare for opportunities;
- Mitigate or avoid challenges;
- Inform strategic and operational planning and prioritization.

It is a joint effort among the organization, the community, and the ICANN Board to engage on emerging or evolving trends that affect ICANN. Trends indicate general directions in which things are developing or changing, that have or could have an impact on ICANN, its mission, its operations, or its ecosystem. Trends can be internal or external, organization-specific, community-related, or go beyond ICANN's ecosystem as ICANN does not operate in a vacuum.

The organization has found the exercise to be beneficial to help surface opportunities and challenges that lay ahead, inform planning, help with prioritization considerations, and risk management.

As a first step in the <u>strategic planning process</u>, the community, ICANN Board, and ICANN org participate each year in strategic outlook trend identification sessions to discuss emerging trends that could affect ICANN. The trend identification process repeats annually to help inform ICANN's strategy in an ever-changing environment.

Strategic Outlook Process:



The ICANN Bylaws (Section 22.5) mandate ICANN to develop a five-year strategic plan, a five-year operating plan, and an annual operating plan. Every year, new trends or shifts in existing trends related to the operating plans (five-year or annual), the budget, or both are factored into the annual iteration of those plans, as appropriate.

2.1 Description of the Trends Identification Sessions

Trend identification session participants from Board, ICANN org, and the community are divided into subgroups. All participants are engaged in a brainstorming exercise to identify and track the evolution of trends that may affect ICANN; participants were also asked to evaluate the impacts that these trends pose to ICANN, either in terms of threats or in terms of opportunities. Subgroups share their ideas with the larger group, and additional discussions follow. At the end of the session, each participant is invited to vote for the top three priorities they believe ICANN should be focusing on.

This year, the sessions were structured around the five areas of focus of ICANN's Strategic Plan for fiscal years 2021 to 2025:

- Security Relating to cybersecurity, Internet of Things (IoT) vulnerabilities, Domain Name System (DNS) security, root service reliability, resilience, interoperability, and DNS abuse.
- ICANN's Governance Referring to ICANN's governance rather than Internet governance in general, ICANN's multistakeholder model of governance, efficiency and effectiveness, transparency and accountability, inclusiveness, and openness.
- Unique Identifier Systems Evolution of the unique identifier systems in the context of the development of their uses and their user base, considering external technology advancement (such as blockchain, IoT, rise of artificial intelligence, etc.), alternate roots, alternative infrastructures, Universal Acceptance, Internationalized Domain Names (IDNs), and the new generic Top Level Domains program (gTLD).

- **Geopolitics** Including the effects of legislation and regulation on ICANN, as well as other globalization topics such as the global reliance on the Internet, or Internet fragmentation.
- Financials Including financial sustainability, financial responsiveness to changing industry economics, funding strategies, and cost management, as well as prioritization and implementation.

Each session was initiated by reviewing previous year's trends with participants. Then, questions were asked about the relevance of last year's trends, any notable shifts, or new trends to consider as well as the impacts, opportunities, and priorities arising from those trends.

2.2 Trend Identification Sessions & Data Computation

Between February and April 2022, 261 participants (36% community, 7% Board, 57% org) participated in 13 trend identification sessions collecting 1,016 data elements. All sessions were held remotely and used Zoom breakout rooms and a Jamboard virtual whiteboarding solution to engage participants.

Following each session, results were summarized and shared with those participants to gather final feedback, where needed, before aggregating all results for further analysis. Inputs were also cataloged in a central repository by several criteria:

- **Strategic Objective**: Security, ICANN's Governance, Unique Identifier Systems, Geopolitics, or Financials.
- **Data qualification**: Data points were qualified as a trend, a risk, or an opportunity.
- **Number of votes** received: During each session, participants were asked to vote for what they thought ICANN should consider to be top priorities.
- Topic: The core issue primarily discussed in the statement. Each year, new topics may be introduced based on the inputs received while some previous topics may no longer be relevant.
- Overarching trend connected to the data element. Overarching trends are
 identified through consolidation and summarization of similar or related trend
 statements. Each year, overarching trends may be added, removed, or revised to
 reflect the evolutions observed.

In some cases, the previous year's overarching trend was no longer applicable and was retired; in other cases, data indicated a new overarching trend was needed to reflect an emerging trend.

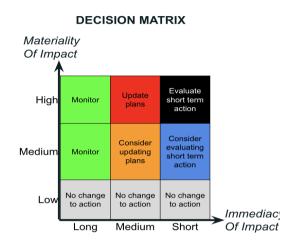
2.3 Trend Analysis

To analyze the trends, ICANN org formed a liaison network bringing together different subject matter experts from across the organization. For each Strategic Objective, the liaisons assessed trends, risks, and opportunities identified through the trend identification sessions and shared their observations. The analysis can result in either identification of new trends and / or notable shifts in previously identified trends and their impacts on ICANN. The analysis is based on the data collected from sessions conducted in February through April 2022. It should be noted that this data is collected based on participants' perceptions and opinions at a point in time. The analysis is appended to this paper in section 3 A and B.

2.4 Trend Impact Assessment

The following methodology was followed to conduct the assessment:

- Identification of **notable shifts** in trends or new trends and their impact on ICANN.
- Directional Data Model: determination of the materiality and the immediacy of the impacts of the new and or notable shifts in existing trends identified in the trend analysis. (Completed by org)
- Evaluation and recommendation of the Strategic and Operating Plan



2.5 Conclusion and Actions Taken

On the basis of the work accomplished by the Board Strategic Planning Committee (BSPC) as supported by ICANN org, and after careful consideration of the inputs received from the community, ICANN organization and the Board through the strategic outlook trend identification sessions, the BSPC recommended keeping the ICANN Strategic Plan for fiscal years 2021 to 2025 unchanged.

On 16 November 2022, the ICANN Board resolved that the ICANN Strategic Plan for Fiscal Years 2021 to 2025 as approved on 23 June 2019 shall remain in force and unchanged, with no restatement of the Strategic Plan needed at this time.

As highlighted in Section 1, some ongoing activities will continue to be emphasized and reflected in the Operating Plan. This will be documented for community consideration in the next Draft ICANN Operating Plans.

The FY24 trends will serve as reference for the next iteration of the strategic outlook trends identification process, which will start early 2023 at the latest.

3 Appendices

Appendix A | Statistical Analysis

Evolution of Strategic Objectives

The figure below provides an overview of how the focus of the strategic objectives have evolved in the past three years, based on the number of votes for each strategic objective.

Over the years, the strategic objective of finance has been losing votes. Governance has regained votes in FY24. Security and geopolitics show a slight decline when compared with the last two years. The strategic objective of unique identifier systems gained more focus this year.

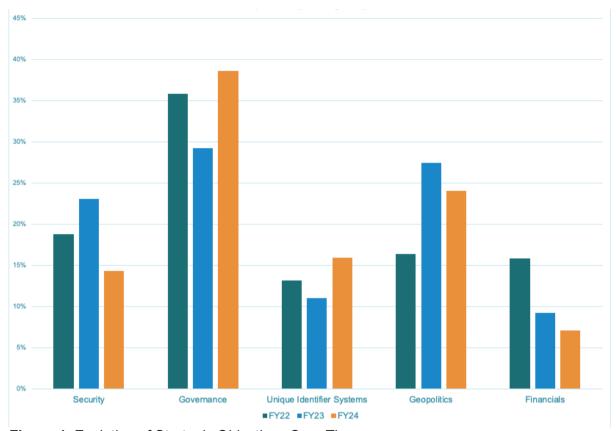


Figure 1: Evolution of Strategic Objectives Over Time.

Evolution of Top Priority Trends

Figure 2 below illustrates the trends that received the most votes in FY24, compared to their priority in the previous two years. It is calculated based on the ratio of the number of votes for each trend over the total number of votes for a given year.

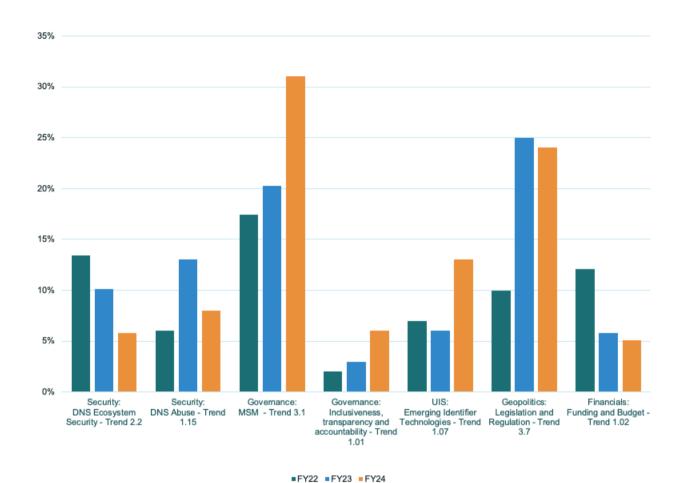


Figure 2: Evolution of Top Priority Trends

Evolution of Top Priority Trends (left to right)	Noteworthy Evolution
Security trend relating to DNS ecosystem security	Steady drop in priority for three years
Security trend relating to DNS abuse	Decreased in priority this year after steady increase in the past years
Governance trend relating to ICANN's multistakeholder model	Significant increase in priority and is ranked as top priority this year
Governance trend relating to inclusiveness	Steady increase in three years; ranked 5th in priority this year
UIS trend relating to the emerging identifiers technologies	Priority varied during the past three years, increased from previous two years
Geopolitics trend relating to legislation and regulations	After the sharp increase in priority last year; its priority level continues to remain high and ranked the second highest priority this year
Financial trend relating to impacts on ICANN's funding	Decrease in priority for three years

FY24 Trend Topics

The FY24 Trend Topics chart (Figure 3) presents the number of priority votes received by strategic objective (e.g., governance) and by topic (e.g., engagement and participation). This reflects the level of attention these topics received in FY24. This year, the strategic objective of governance received the greatest volume of priority votes, followed by geopolitics and unique identifier systems.

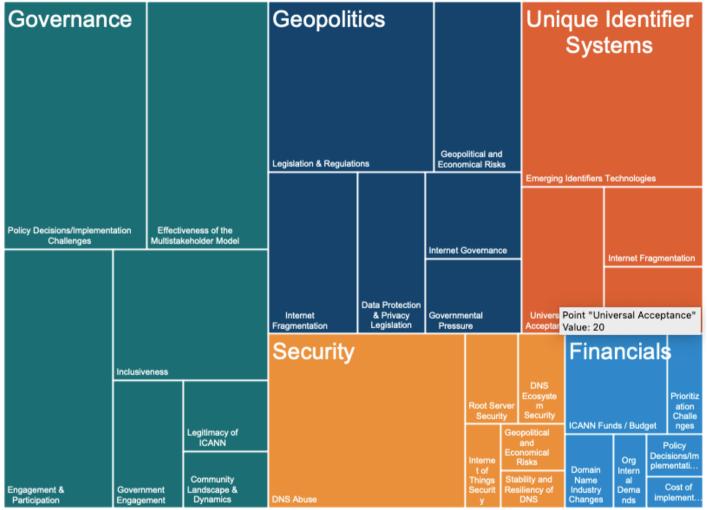


Figure 3: FY24 Trend Topics

To illustrate how this year's top 20 topics compared to last year's, Figure 4 shows a comparison ranked by the number of votes per topic. The # of votes column indicates the number of priority votes received related to that topic in a given year. The topics policy decision/implementation challenges, Emerging Identifiers Technologies, and DNS abuse received the most votes in FY24.

FY24 Top-20 Topics by No. of Vote	No. of Votes	FY24 Ranking by No. of Vote
Policy Decisions/Implementation Challenges	63	1
Emerging Identifiers Technologies	59	2
DNS Abuse	57	3
Effectiveness of the Multistakeholder Model	50	4

Legislation and Regulations	47	5
Engagement and Participation	47	6
Internet Fragmentation	38	7
Geopolitical and Economical Risks	35	8
Inclusiveness	34	9
Universal Acceptance	20	10
Data Protection and Privacy Legislation	18	11
ICANN Funds/Budget	17	12
Government Engagement	15	13
Internet Governance	14	14
Internet Evolution and DNS Relevance	13	15
Governmental Pressure	12	16
Capacity Building	11	17
Domain Name Industry Changes	11	18
Legitimacy of ICANN	10	19
Prioritization Challenges	8	20

Figure 4. Top 20 Topics in FY24

The chart below (Figure 5) uses a heat map in the final column of the chart to compare the ranked position of the top 20 trend topics of this year to the ranked position of the same topics last year. This heat map shows which topics had the greatest movement between these two years. The green fields highlight which topics saw the greatest increase in emphasis and the red fields show the topics that have fallen in importance.

FY24 Top-20 Topics by No. of Vote	No. of Votes	FY24 Ranking by No. of Vote	FY23 Ranking by No. of Vote	Topic Evolution
Government Engagement	15	13	50	37
Capacity Building	11	17	49	32
Policy Decisions/Implementation Challenges	63	1	25	24
Legislation and Regulations	47	5	1	19
Internet Governance	14	14	33	19
Legitimacy of ICANN	10	19	34	15
ICANN Funds / Budget	17	12	23	11
Internet Evolution and DNS Relevance	13	15	24	9
Geopolitical and Economical Risks	35	8	16	8
Emerging Identifiers Technologies	59	2	7	5
Effectiveness of the Multistakeholder Model	50	4	9	5
Inclusiveness	34	9	13	4
Data Protection and Privacy Legislation	18	11	15	4

DNS abuse	57	3	2	-1
Universal Acceptance	20	10	8	-2
Engagement and Participation	47	6	3	-3
Internet Fragmentation	38	7	4	-3
Prioritization Challenges	8	20	14	-6
Domain Name Industry Changes	11	18	11	-7
Governmental Pressure	12	16	6	-10

Figure 5. Top 20 Topics in FY24 in Comparison to FY23

This year, the topics of government engagement, capacity building, and policy decisions/ implementation challenges received the highest increase in priority votes year over year, while the topics of governmental pressure, domain name industry changes, and prioritization showed the greatest drop in votes as compared to last year.

Appendix B | Strategic Objective Trend Analysis

B.1 Security Trends

Summary of Trend Elements Collected During the Trend Sessions

Related to Trend 1.15 on DNS abuse:

DNS abuse continues to be a top priority for the ICANN community. There is further increase of certain stakeholder groups' attention on DNS abuse, mainly at the regulatory and government levels. In particular, there is increased concern about DNS abuse in the African and Middle East regions.

The ICANN community is realizing that more precision is needed around the issue of DNS abuse, so that the instance of abuse can be more appropriately mitigated. There is feedback that external development related to DNS abuse has become more useful within the ICANN community to further advance DNS abuse-related work (e.g., DNS abuse Institute (DNSAI)). However, there is also an increased number of external scopings of DNS abuse that do not necessarily align with ICANN's mission. Also, there is still frustration about ICANN's perceived lack of action in addressing DNS abuse, which comes from a misunderstanding about ICANN's role in DNS abuse mitigation.

• Related to Trend 2.2 on DNS ecosystem security threats:

DNS ecosystem security threats remain high, as there were various major attacks last year; sophistication of Internet blockages and other exploits increased. Blockchain and other emerging technologies, such as supercomputing and cryptographic, will intersect with the DNS in the future, affecting the current DNS. (*Please also see trend 1.07 under the Strategic Objective Unique Identifier Systems*). There are suggestions to increase and effectively collaborate with relevant partners in the ecosystem in responding to the emerging technologies.

Internet of Things (IoT) security can cause stress on the DNS, as IoT botnets can grow to infected devices and then launch large Distributed Denial of Service (DDoS) attacks against the Internet infrastructure. The recognition of Domain Name System Security Extensions (DNSSEC) importance remains unchanged; but, to understand DNSSEC deployment across the Internet, the DNSSEC algorithm usage and adoption information is lacking.

Suggested opportunities and risk mitigation:

- The perceived lack of action on mitigating DNS abuse will lead to lack of trust in the DNS and in ICANN. Education, clarifying ICANN's role, and raising awareness of ICANN's approach in dealing with DNS abuse is needed.
- Further advance the discussion of DNS abuse and clarify the responsibility of the Contracted Parties.
- Identify and articulate security lessons learned from the Russia-Ukraine war.
- Blockchain and other emerging technologies are seen as threats to the security and stability of DNS.
- ICANN needs to be aware of new standards and should keep engaging with the security community.

Additional Observations from ICANN org

ICANN org and Board are conducting many activities related to increasing understanding and raising awareness of the broader issues related to DNS Abuse and the narrow definition of DNS Security Threats, including:

- The Board has formed a DNS Abuse Caucus that is refining the problem statement.
- The GNSO Council formed a small group to further the discussion on the next step of the DNS abuse mitigation effort.
- ICANN org's <u>DNS Security Threat Mitigation Program</u> (also known as the Gutsy Star project) strives to make the Internet a safer place for end users by reducing the prevalence of DNS security threats across the Internet.
- The <u>Domain Name Security Threat Information Collection and Reporting (DNSTICR)</u> project provides evidence-based reporting to registrars. In responding to the potential security concerns related to the recent geopolitical issue between Ukraine and Russia, ICANN org is adding terms to <u>DNSTICR</u> to help monitor and search for malicious domain registrations. It is still too early to identify and draw conclusions of the impact on wider security.
- The ICANN Domain Abuse Activity Reporting (DAAR) project was established to study and report on domain name registration and security threats, such as phishing, malware distribution
- ICANN and the gTLD registries are in the process of finalizing a change to the contracts to allow ICANN access to data that will enable ICANN to extend the DAAR research to registrars.
- ICANN, as a neutral technical operator of the Internet, is to actively share facts and
 data so that policymakers can make informed policy decisions. <u>ICANN is focusing on
 three pillars</u> striving to reduce the prevalence of DNS security threats. ICANN org will
 continue to monitor related activities, such as legislative and regulatory initiatives
 around DNS abuse (e.g., <u>The Study on Domain Name System Abuse by the
 European Union</u>), to provide expertise to assist the community in conducting factbased discussions about the topic.
- In March 2022, ICANN published <u>The Last Four Years in Retrospect</u>: A Brief Review of DNS Abuse Trends, indicating that the global sum of DNS abuse instances dropped over the last four years.
- The data collected indicated there is a perception that "further increase of certain stakeholder groups' attention on DNS abuse, mainly at the regulatory and government levels" exist. ICANN org wants to highlight that currently there are three Operating Initiatives in ICANN's Operating Plan to enhance GE and IGO engagement and mitigate potential risks that threaten ICANN's mission. In support of these operating initiatives, ICANN Org has added resources subject matter experts in targeted regions. Please also see Section B.4, additional observations from ICANN org for activities relating to government and intergovernmental organization engagement for more details.
- In regards to the Root Zone security, ICANN org has not yet conducted the specific study of a key rollover with an algorithm change. The current cryptographic algorithm has not been found to have any known exploitable vulnerabilities. Moreover, there are other security questions beyond the algorithm, such as the physical key storage security. Thus, a comprehensive and holistic approach is needed, with consideration of all other components, readiness, and effects.
- As part of the Operating Initiative Support the Evolution of the Root Server System in ICANN's FY23–27 operating plan, ICANN org is working on defining and publishing a long-term Root Zone Key Signing Key (KSK) Rollover Policy and implementing the next rollover in accordance with that policy.
- DNSSEC adoption has been lagging because it was viewed as optional and marketdriven. ICANN org continues to raise awareness of and encourage DNSSEC adoption. Encouraging DNSSEC adoption is also within the scope of the Operating

- Initiative Facilitate DNS Ecosystem Improvements in ICANN's FY23–27 operating plan. The ICANN CEO also initiated a study group on DNS Security Facilitation. The recommendations from that study group are currently under review for implementability with a report expected in the coming weeks.
- ICANN recently launched the Knowledge-Sharing and Instantiating Norms for DNS and Naming Security (KINDNS) initiative to promote voluntary security best practices for authoritative and recursive DNS operators. More information can be found at https://kindns.org

B 2 Governance Trends

Summary of Trend Elements Collected During the Trend Sessions

Related to Trend 3.1 on ICANN's Multistakeholder Model: After more than two years in a fully virtual environment, ICANN's multistakeholder model is re-establishing its hybrid model and adjusting to the "new normal" post-pandemic environment. ICANN's multistakeholder model has been largely impacted by the current geopolitical and economic environment. Concerns over global health risks still exist but have predominantly shifted to the impact of hybrid meetings to community dynamics. Maintaining effective engagement and participation is critical in this new environment.

The challenge of reaching agreement in policy-making processes has amplified across the multistakeholder model. Associated concerns about volunteer burnout among stakeholders trying to keep up with policy responsibilities continued to be voiced. Challenges to reach consensus and ensure participation from technical and nontechnical stakeholders in ICANN's complex environment continues to be a challenge.

There was also discussion about how challenging it is to engage with appropriate governmental representatives. The turnover or assignment rotation among the GAC members necessitates repetitive communication to educate a perennially new set of the stakeholder members. In addition, there is an increase in new legislative proposals that may impact the DNS ecosystem and impact ICANN's mission. (*Please also see trend 3.7 under the strategic objective Geopolitics.*)

- Related to Trend 1.01 on transparency, accountability, inclusiveness, and openness: The need for diversity, balance, inclusivity, and openness continues to be reaffirmed, but many challenges remain to ensure all relevant interested stakeholders are included and to ensure that the ICANN multistakeholder model reflects the evolution and needs of the broader Internet user base. Newcomer retention challenges are enhanced in the prolonged virtual setting and finding ways to attract, onboard, and motivate volunteers poses an existential threat to ICANN's multistakeholder model.
- Related to Trend 1.04 on public awareness of ICANN:
 Continued media and public attention on ICANN has spurred misconceptions and led to differing opinions about ICANN's remit and role in Internet governance. This increased attention has led to questions about the legitimacy and role of ICANN's multistakeholder model and whether this is the right governance structure.

Suggested opportunities and risk mitigation:

Reduced or insufficient community participation could have an immediate impact on ICANN's ability to do its work. It presents risks of capture and poses an existential threat to

ICANN's multistakeholder model if we end up with insufficient representation of the various stakeholders and ensure a truly inclusive model within the current landscape.

Policy delays may erode trust and put the credibility and legitimacy of ICANN and the multistakeholder model at risk. There has been an increase in the number of complex issues and legislation proposals that may impact the industry and ICANN and are a potential threat to ICANN and its governance model.

Additional Observations from ICANN org

Currently, there are two operating Initiatives targeted to improve the MSM in the Operating Plan. One of which focuses on the decision-making process, and the other one focuses on growing the community membership. These two Operating Initiatives include works planned to address the notable shift of policy development and implementation complexity discussed during the trend session this year. Additionally, the MSM Work Plan implementation is underway. The Board is overseeing this work through its Strategic Planning Committee and will provide strategic advice during the implementation of the work plan.

In regard to "inclusiveness", ICANN successfully transitioned to remote-only participation throughout the pandemic by leveraging the Zoom platform for remote meetings. As a result, we experienced greater regional balance, increased openness, and expanded inclusivity by providing a platform that encouraged equal participation across the community. Zoom will continue to be used for hybrid meetings because it enables a more robust experience where in-person and remote attendees can take advantage of transcription and interpretation. To ensure that the community could continue its work, in FY22 alone, ICANN org facilitated more than 4,200 community calls. Language Services continues to provide teleconference interpretation and transcriptions in the six United Nations languages for the GAC, GNSO, and other general meetings so that language is not a barrier to participation.

In addition, ICANN evaluates its diversity program, such as Fellowship, NextGen and Newcomer programs on a rolling basis to continue enhancing the program objectives.

During the virtual ICANN public meeting cycle and throughout the pandemic, the amount of work did not change for the regular core of volunteer participants within the community, although the level of interest in ICANN's work from newcomers may be decreasing. It is critical and a role of ICANN org, supporting organizations, and advisory committees to attract and sustain volunteers and prepare the next generation of leaders.

Simultaneously, ICANN has embarked on intensive, significantly complex efforts in the last few years that have required large effort, resources, and commanded attention. Reaching consensus has been challenged by competing interests across the multistakeholder model. The importance of meaningful, effective collaboration has increased further. Equipping and motivating volunteers to effectively engage in policy work will be critical to the credibility and legitimacy of ICANN's multistakeholder model. This will be particularly important as the geopolitical, legislative, and economic impacts may resurface previous discussions about the efficacy of the multistakeholder model (vs. multilateralism). At a regional level, ICANN org's Global Stakeholder Engagement team works to attract and engage with newcomers who may not come to ICANN meetings, but do participate in regional readouts and roadshows, regional DNS Forums, and other events with partners.

The Policy Transition Program will be launching soon with an objective to motivate and equip interested volunteers to actively participate in policy development work. ICANN org will be involving the community in developing and launching the Policy Transition Program through a pilot and also through "listening sessions" before launch.

In regard to "transparency and accountability", as part of the Operating Initiative - Develop internal and external ethics policies in ICANN's FY23–27 operating plan, ICANN org continues enhancing transparency and uphold accountability; and the policies will help the ICANN community to continue enhancing their transparency practices to increase accountability and trust. While there is always more work to be achieved and this trend is an important item of focus, ICANN also already has robust accountability mechanisms, such as the Independent Review Process and the Reconsideration Process, through which the ICANN community can hold ICANN accountable.

Lastly, in regard to "public awareness of ICANN", ICANN org reignited its public relations efforts to increase global awareness through a newswire distribution that reaches more than 65,000 media outlets in 170 countries. ICANN org has selected a public relations agency to assist in a global education and awareness campaign to increase awareness of ICANN, Universal Acceptance and Internationalized Domain Names as ICANN prepares for the next round of new gTLD applications. ICANN continues to hold regional events that include readouts, topic-specific webinars, DNS forums to share information and updates. The team also participates in industry events. ICANN also works with governments, global and regional intergovernmental organizations, as well as the country missions and permanent representatives to the various IGOs in Geneva, Brussels, and New York.

B.3 Unique Identifier Systems Trends

Summary of Trend Elements collected during the Trend Sessions

- Related to Trend 1.07 on the evolution of emerging identifier technologies: With the rapid advancement of emerging identity technologies, the perception of possible threat to the relevance of DNS and the IANA function increased. While the driver behind the increasing interest and registration of alternative namespaces is undefined, several factors were raised, such as the general public's lack of DNS knowledge, the complex and long policy development process, and lengthy process to create new gTLDs, which contributed to the increased interest. There is clearly increased interest in the alternative namespace, which has seen an increase in registration of alternative root domains. The community continues to expect ICANN org and Board to have a position, expertise, and opinion about new technologies. Moreover, there are concerns that the creation of new namespaces without any coordination will lead to name collisions, user frustration, and ultimately, further fragmentation of the Internet, which is alarming.
- Related to Trend 1.13 on Internationalized Domain Names (IDNs) and Universal Acceptance (UA):
 Internationalized Domain Names (IDNs) and UA are key to supporting a more multilingual and accessible Internet. The advancement in IDNs and UA is essential for greater inclusivity of language in the next rounds of gTLDs.

Despite the investment and effort to promote and support IDNs and UA, the growth of IDNs and UA adoption continues to be stagnant. Although the topic is well understood within the ICANN community, there is little understanding in wider influencer communities. Some have argued that governments should play a role in supporting and promoting IDNs and UA.

Related to Trend 1.16 on New gTLD Programs:
 As the ICANN Board gets closer to making decisions on the final report of the Policy Development Process on New gTLD Subsequent Procedures (Subpro), discussion

and ongoing debate about how much interest there is to participate in the Subpro continues. Some key discussions during the trend session include:

- 1. The next round of gTLDs does not create the intended growth of TLDs in emerging countries, but instead leads to even more concentration of TLDs in the "Western" world because of the challenge of IDNs and slow uptake of UA.
- 2. Long processing time and expensive application cost might force others to look for alternate solutions.
- 3. Internet users rapidly change their preferences to replying on online platforms rather than domain names.
- 4. Level of adoption of the 2012 Round of New gTLD Program spoke to the level of interest in new gTLDs. What's the cost and benefit justification and decision-making supporting another round? ICANN may be seen as doing a "money grab" for opening another round.

Other challenges, such as name collision, and rights protection mechanisms were also brought up during the trend sessions.

Suggested opportunities and risk mitigation:

In regard to trend 1.07: ICANN should recognize that evolution and change is going to happen and should embrace it and steer the discussion with the community. The decentralized alternative namespaces and protocols are likely to present challenges and interoperability problems when ICANN finally opens the next round of new gTLDs. For example, the indiscriminate and uncoordinated introduction of new namespaces without a careful review from the larger community may cause ongoing and unavoidable name collisions, making the Internet less stable and less secure. It's important for ICANN to research, analyze, and document what's driving the alternative namespaces, so that ICANN can better plan how to address it. Engaging in discussion and educating the community about the significant differences between the DNS and alternative namespaces and alternative protocols is important, too.

In regard to trend 1.13: ICANN should first understand the actual demand for UA and IDNs in order to understand the level of effort needed to continue spreading awareness and to target stakeholders. There is a tendency to treat IDN and UA the same, while they are quite different and should have different targeted stakeholder engagement efforts.

In regard to trend 1.16: Continue to resolve potential concerns, such as name collision, UA, etc, and remove as many barriers as possible to participate in the next rounds of new gTLDs.

Additional Observations from ICANN org

Related to emerging identifiers technologies:

Although the DNS is the main and most widely used naming system today, there are other systems that predate the DNS. New naming systems are rising, but they face huge deployment challenges and are lacking namespaces coordination. ICANN org has for many years, tracked, reviewed, and commented on emerging technologies and identifiers. In the realm of alternative namespaces ICANN has published both blogs and technical papers related to the topic. As part of the *Operating Initiative - Facilitate DNS Ecosystem Improvements* initiative in ICANN's FY23-27 Operating Plan, ICANN org launched a new discussion platform, Special Interest Forum on Technologies (SIFT), which provides the ICANN community with a specific place online to discuss and promote knowledge-sharing on the evolving Identifiers technologies and their impact on ICANN's mission. The ICANN Board Technical Committee decided to have a standing topic to discuss and address blockchain-

<u>based name services</u> and other alternative name spaces in May 2022. ICANN will continue to raise awareness and engage with the community by publishing <u>blogs</u> and <u>OCTO papers</u> regarding alternative namespace in the public interest and consumer protection.

• Related to Universal Acceptance and IDNs:

Data shows a gradual decrease in total number of IDN registrations, but ICANN is committed to amplifying the message of UA adoption and helping to make UA a reality, ICANN org has worked on identifying gaps for addressing UA, and work will move forward toward remediation. More tools and systems are ready, but the ICANN community will need to continue work on deployment. As part of the Operating Initiative - Promote the Universal Acceptance of Domain Names and Email Addresses in the Operating Plan, ICANN org carried out a series of activities, such as outreach to providers of standards, programming language, tools, and platforms to support UA, raising awareness and capacity building activities, and updating ICANN org's relevant technical system to be UA ready. IDN and UA are key to supporting a more multilingual and accessible Internet, ICANN org will consider models for how the IDN recommendations in the SubPro Final Report may be implemented as part of the anticipated SubPro ODP. This would include, for example, steps required to implement IDN applications, e.g., by designing the tool or mechanism to integrate the use of RZ-LGR into the application process. ICANN org will continue to support the community's policy development work through ccNSO ccPDP4 and the GNSO IDN EPDP. The UA Steering Group (UASG) named the ICANN president and CEO as an UASG Ambassador to further promote UA readiness. ICANN also signed a Memorandum of Understanding to collaborate with the community in supporting and promoting IDNs and UA. ICANN org continues to support the efforts of the UASG to create and expand awareness.

Related to New gTLD Programs:

The New gTLD Subpro Operational Design Phase (ODP) will address some of the discussions around the complex topics brought up in the section above, which will support and facilitate the ICANN Board decision-making. This Operating Initiative focuses on preparation for the launch of additional rounds of new gTLDs, including review and analysis of the policy recommendations developed by the community, supporting Board discussions, and estimating anticipated resources requirements. ICANN org should measure the program's success by whether it is meeting the demand, rather than generating demand, and by its readiness to launch the program.

B.4 Geopolitics Trends

Summary of Trend Elements Collected During the Trend Sessions

• Related to Trend 3.7 on Legislation and Regulations:

There is a growing level of concern among participants from the trends identification sessions that more countries around the world are exerting increased control over the Internet within their borders in such a way that it might impair the functioning of the global interoperable Internet. The drivers and intentions behind Internet regulation varies from region to region. However, regardless of the intentions, there is the possibility of unintended consequences from legislation that could impact ICANN's mission.

Participants discussed the idea that countries may perceive that ICANN and the domain name industry are not doing enough to resolve ongoing Internet-related concerns around data protection, privacy, or security. Despite the open,

interoperable, and scalable design of the DNS, which has allowed ICANN and the multistakeholder model to support the growth of the Internet and which has functioned flawlessly for decades, many countries are continuing to increase these Internet-related initiatives. When general Internet-related legislation and regulation are put in place without a thorough understanding of the way the Internet functions, these laws may not only be challenging to implement, but could lead to unintended outcomes for the unique identifier system.

In addition to the role governments take in regulating the Internet, participants in the trends identification sessions also noted that intergovernmental entities, such as the ITU and UN, are developing new Internet-related resolutions and proposals that aim to tackle digital issues such as cybercrime, cybersecurity, personal data protection, e-commerce, regulating big platforms, etc. The lack of coordination among these initiatives and the limited technical knowledge of the Internet among the negotiators of these initiatives could lead to the creation of regulations that have the potential to undermine the global, interoperable, technical functioning of the Internet.

Participants noted that Internet fragmentation risks damaging the openness, reliability, and stability of the Internet, perhaps forever. Today, we see several legislative and other initiatives that make this fragmentation a serious threat. Although these national and regional laws and regulations may be based on good intentions, they risk compromising the fundamentals of Internet infrastructure. The participants used the example of the Russia-Ukraine war to highlight the increasing complexity of the geopolitical landscape, which could lead to more pressure from some countries or IGOs to take actions that could accelerate the risk of Internet fragmentation.

Suggested opportunities and risk mitigation:

Some of risks identified during the trends identification sessions include, but are not limited to, challenges to the single Internet, particularly its openness and interoperability, as well as a potential increased threat to ICANN's ability to perform its technical mission and to the ICANN community's ability to create policy using the multistakeholder model. Internet fragmentation is perceived as an increasing risk and threat to ICANN's legitimacy. ICANN has risk mitigation measures in place to address issues with the potential to impact its mission or remit. All of ICANN's operating and strategic planning also includes action plans and mitigation processes to address risks.

ICANN org monitors and analyzes legislative and regulatory activities to ensure that it has the necessary information and tools to address geopolitical issues. As part of this work, ICANN publishes reports that explore relevant legislative, regulatory, and governmental structures, policies, and processes. ICANN also makes submissions to Internet ecosystem processes when appropriate, publishes bi-monthly reports to the GAC on government and IGO engagement activities, and organizes briefings for UN diplomats.

Additionally, ICANN org makes submissions to various IGOs when the discussion has the potential to touch on ICANN's technical role or provides an opportunity to explain ICANN's mission to audiences outside the ICANN community.

ICANN has increased its efforts to inform the community about legislation and regulatory initiatives. During the ICANN73 meeting, the GE team organized the Discussion Forum on Geopolitical, Legislative, and Regulatory Developments plenary session. More than 600 members of the community attended the webinar, the goal of which was to provide a deeper understanding of potential impacts from legislative proposals and to encourage the

development of mitigation strategies for both the community and ICANN org. The session was the first of what will be a regular feature at ICANN meetings.

Additional Observations from ICANN org

- Potential reasons for this trend include, but are not limited to, misunderstanding of how the Internet functions and what ICANN's role in it is. There is also a perception that the multistakeholder model is not working whether it is believed to have been captured by the contracted parties or that it can't address some of the concerns of some governments, and therefore is not receptive to the concerns of governments seeking more protection for the online activities of their citizens. With that as a starting position, those governments then feel it necessary to legislate separately rather than navigate the multistakeholder process. An additional complication is the extraterritorial impact of legislation due to the international interconnectivity of the Internet and its users.
- Currently, there are three Operating Initiatives in ICANN's Operating Plan to enhance GE and IGO engagement and mitigate potential risks that threats to ICANN's mission: (1) Operating Initiative to identify where policies, legislation and regulation initiatives are taking lace and determine where, whether, and how ICANN org should engage; (2) Operating Initiative to improve Governmental and IGO engagement and participation in ICANN; (3) Operating Initiative to identify and report on legislative and regulatory development around the world that could have impact ICANN. In support of these operating initiatives ICANN Org has added resources subject matter experts in targeted regions.

B.5 Financials (and Domain Name Industry) Trends

Summary of Trend Elements Collected During the Trend Sessions

Related to Trend 1.02 on ICANN's long-term funding:

ICANN's financial position has remained strong throughout the COVID-19 pandemic. The strong financial performance is due to higher funding than anticipated at the beginning of the pandemic and savings from face-to-face ICANN meetings and travel.

Several trends were discussed during the trend identification session as having potential impact on ICANN's financials:

- Continued consolidation in the DNS marketplace,
- Economic uncertainty in the current global climate and additional costs to meet travel and/or health and safety needs.
- More and more internet users are shifting to visiting pacific online platforms for a variety of services and away from using domain names.
- Policy decisions and implementation challenges have come to the forefront.
 ICANN's operating costs might increase to implement community recommendations and policy decisions.
- Related to Trend 1.14 on Prioritization:

There appears to be increasing frustration at the pace in which ICANN prioritizes and implements projects. Absent effective prioritization and implementation, frustration will continue to build within the community and add pressure on ICANN org.

Additional Observations from ICANN org

Although market changes are happening, its impact on ICANN's financials has been minimal, in fact the global Covid-19 impact on ICANN's financial was positive to date. The change to the number and size of some of ICANN's contracted parties may change the tone and way the contracted parties interact with other stakeholders but have not resulted in a reduced count of registries or registrars.

There is confidence in ICANN's financial position, but global economics, travel, safety, and health costs are unclear and associated risks still exist. The overall perception continues that ICANN's challenge is not an issue of monetary resources available, but more a difficulty in prioritizing its work.

ICANN's Operating Plan contains an Operating Initiative focused on improving the depth of understanding of the domain name marketplace drivers and the impact on ICANN's funding. ICANN's reserve fund policy is intended to safeguard ICANN's long-term financial sustainability. ICANN's reserves will be continuously set, reached, and maintained consistent with the complexity and risks of ICANN's environment.

In regard to trend 1.14, as part of the *Operating Initiative - Planning at ICANN*, ICANN org developed and implemented the Planning Prioritization Framework for the annual planning process to improve ICANN's ability to prioritize. The ICANN Board is also working on prioritizing its work. Moreover, enhancing the effectiveness of ICANN's MSM program includes work areas addressing prioritization and efficiency improvements across the ecosystem. Lastly, the creation of the Implementation Operations department by org is making visible progress towards the implementation work of community review recommendations.

Appendix C | Trend Impact Assessment

The impact assessment framework used for the trends is available in the separately attached Excel document entitled "FY24 Trend Impact Assessment.xlsx".



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