RIPE NCC
RIPE NETWORK COORDINATION CENTRE

Annual Report
2024

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WELCOME TO THE 2024 RIPE NCC ANNUAL REPORT

In 2024, we focused on ensuring cost efficiency while delivering the same quality service to our members and the community. We explored new sources of income like sponsorship and strengthening our investment portfolio. This allowed us to not only keep up all of our activities but in many cases even optimise and expand them, while spending only 36.3M EUR of our 38.2M EUR budget.

At the same time, our organisation went through some changes. We implemented a new management system to improve our way of working and clarify what is expected from staff while allowing each department to manage their processes in the most efficient way. Additionally, our Chief Registry Officer stepped down, so Managing Director Hans Petter Holen took on the role of acting Chief Registry Officer for the rest of the year.

In the Registry, our teams remained busy processing resource update requests and transfers. A major source of work this year was handling changes in sponsorship of independent resources driven by changes in

our Charging Scheme. Additionally, we made two-factor authentication compulsory for all RIPE NCC Access accounts to increase security and diminish the risk of account takeovers. Supporting members through this change also added to the workload this year. And we focused on ensuring Registry accuracy, in part by committing to carrying out an ambitious amount of Assisted Registry Checks (ARCs) – 2,400. We surpassed this goal, completing 2,445 ARCs alongside our usual efforts to validate member information.

We also strengthened our role as an RPKI Trust Anchor. We deployed a new, enhanced RPKI dashboard with a better user experience and flexibility in adding new functionalities as needed. And to demonstrate our commitment to the security and integrity of our RPKI service, we also successfully obtained a Service Organisation Control 2 (SOC 2) Type 1 attestation.

One of our four major focus points for 2024 was to be a centre of excellence for data, measurements and tools that provide insight on the Internet and its operations. To that end,

one of our biggest efforts was the reduction of our data centre backend. We began work on the backend of RIPE Atlas to prepare to reduce our data centre storage from 46 racks to ultimately 10 at the end of 2025. This will allow us to operate a more financially effective solution for storing Internet measurement historical data.

We also considered the look and feel of our information services. We worked on improving the UI for RIPE Atlas and planned the release of a new UI for RIPEstat. And for DNS and K-Root, we upgraded all nodes to a newer operating system, as well as implemented a new configuration management system. Another major initiative was the RIPE NCC Tools Deployment Project, which aimed to improve our deployment efforts. In part through this project, for RIPE Atlas we achieved significantly increased probe coverage in 12 countries and a moderate increase in six countries. We also increased the number of hosted nodes for AuthDNS and K-Root. And we followed a more selective peering strategy for RIS that allowed us to add sessions with IXP routeservers and networks in under-covered regions.

HANS PETTER HOLEN
MANAGING DIRECTOR

ONDŘEJ FILIP
CHAIR OF THE
EXECUTIVE BOARD

On top of collecting data and measurements, another key part of our strategy was improving our data storytelling. Our goals here are to better support network operators in understanding and implementing best practices and inform governments and regulators in their development of digital policies. We delivered reports on key Internet events like the Baltic Sea cable cuts, and offered deep dives into the Internet landscape in different regions. We also offered our take on trends in Internet number resource management and published helpful reports on how to get IP addresses and the important role of IXPs.

On top of offering data and insights, we promoted best practices and capacity-building through our training efforts. We increased the number of in-person course locations and topics, for which we collaborated with local hosts to keep costs down. We offered online learning in the form of webinars and the RIPE NCC Academy, as well as RIPE NCC Certified Professionals exams, with an expanded portfolio of topics. We also offered our community members the option to take Certified Professionals exams onsite at our events.

We held two RIPE Meetings as well as three regional events - SEE, CAPIF and MENOG - three Internet Measurement Days and 13 Open Houses, reaching members across our service region. Recognising the needs of our members and the challenges of travelling these days, we offered numerous forms of engagement this year. We continued to support local hubs at RIPE Meetings and to offer opportunities to travel to our meetings for free through our Fellowships and the RACI programme for academics.

We also expanded our language support by launching the RIPE NCC Language Centre on our website, for which we will collaborate with the community to offer more translated content in more languages. We also revamped our website for better navigation and accessibility.

Our second major focus point for the year was to ensure the organisation's stability and financial strength. A major part was making our financial portfolio more resilient, such as through our Treasury Project. We also looked for new sources of funding, such as sponsorship for our events and training courses. Our change in management system was also part of this, and we put effort into enhancing the legal framework of the RIPE NCC. We also worked to strengthen the resilience of the overall Regional Internet Registry (RIR) system by adopting implementation procedures for the current ICP-2 together with the NRO EC and by supporting the NRO NC in the revision of the ICP-2 document ("Criteria for Establishment of New Regional Internet Registries"). The latter included sharing a questionnaire to gather responses from RIR communities about principles the revised ICP-2 document should be based upon.

Third, we focused on increasing our resilience in the face of political, legislative and regulatory changes that have the potential to affect our operations. In general, we worked to achieve this through building solid relationships with governments and policymakers and offering our expertise as the voice of the technical community at engagements such as our RIPE NCC Roundtables and contributions to consultations on major Internet governance topics like

the Global Digital Compact and WSIS+20. Sanctions are another major part of our workload here. We must screen potentially sanctioned members and End Users. We have implemented automated sanctions screening to do so more effectively, but we still must do manual follow-up due diligence checks. We also have been dealing with ongoing banking issues that prevent us from collecting funds from our members in Iran and Syria, so we have offered these members payment extensions until this can be resolved. While we continue to investigate the possibility of a blanket exemption from all EU sanctions for Internet number resources, the complex geopolitical situations in our service region make this a challenge.

Our last major focus was maintaining necessary levels of security and compliance with best practices and applicable regulations. After our legal analysis on our obligations under the NIS2 legislation, we concluded that achieving ISO 27001 compliance would support complying with our legal obligations under NIS2 and so undertook a company-wide effort to do so. This meant a holistic review and improvement of our security practices and comprehensive security training for all staff. While we accomplished a great deal, we are still working toward full compliance.

Overall, 2024 was a successful year of strengthening our organisation where it counts. We are confident that we have bolstered our foundation and offered our members and the RIPE community more while finding ways to spend less. We are excited for the future this past year's work will bring. But in the meantime, let's look back in more detail through this report.
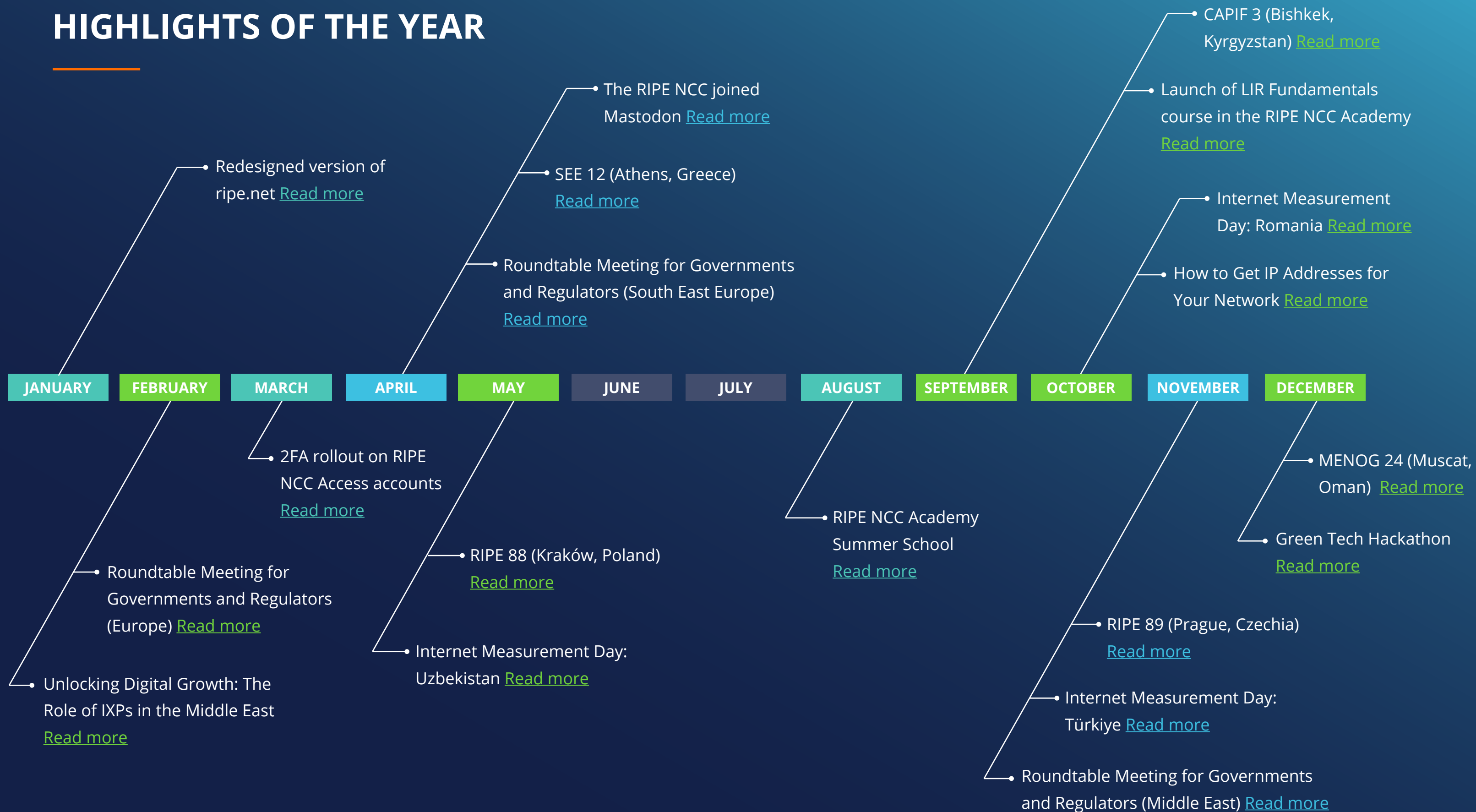
RIPE NCC EXECUTIVE BOARD

UPPER ROW (LEFT TO RIGHT): **RAYMOND JETTEN** *(TREASURER)*, **REMCO VAN MOOK**, **ONDŘEJ FILIP** *(CHAIR)* AND **SANDER STEFFANN**.
BOTTOM ROW (LEFT TO RIGHT): **HARALD A. SUMMA**, **MARIA HÄLL** AND **PIOTR STRZYŻEWSKI** *(SECRETARY)*.

HIGHLIGHTS OF THE YEAR

JANUARY | **FEBRUARY** | **MARCH** | **APRIL** | **MAY** | **JUNE** | **JULY** | **AUGUST** | **SEPTEMBER** | **OCTOBER** | **NOVEMBER** | **DECEMBER**

Redesigned version of ripe.net Read more

The RIPE NCC joined Mastodon Read more

SEE 12 (Athens, Greece) Read more

Roundtable Meeting for Governments and Regulators (South East Europe) Read more

CAPIF 3 (Bishkek, Kyrgyzstan) Read more

Launch of LIR Fundamentals course in the RIPE NCC Academy Read more

Internet Measurement Day: Romania Read more

How to Get IP Addresses for Your Network Read more

2FA rollout on RIPE NCC Access accounts Read more

Roundtable Meeting for Governments and Regulators (Europe) Read more

Unlocking Digital Growth: The Role of IXPs in the Middle East Read more

RIPE 88 (Kraków, Poland) Read more

Internet Measurement Day: Uzbekistan Read more

RIPE NCC Academy Summer School Read more

MENOG 24 (Muscat, Oman) Read more

Green Tech Hackathon Read more

RIPE 89 (Prague, Czechia) Read more

Internet Measurement Day: Türkiye Read more

Roundtable Meeting for Governments and Regulators (Middle East) Read more

MEMBERSHIP OVERVIEW

All numbers are as of 31 December 2024. Please note that one member can hold more than one LIR.

19,993
Total number of active members

957
New LIRs

15,381
Members with an IPv6 allocation

20,991
Total number of active LIRs

120
Member countries

TOP 10

Members by country

DE	2,233
GB	1,977
RU	1,418
FR	1,238
IT	1,137
NL	1,127
ES	901
CH	720
PL	664
TR	591

TOP 10

New members by country

DE	85
GB	78
IR	69
TR	61
FR	48
IT	43
RU	43
NL	42
ES	30
CH	27

TOP 10

LIRs by country

DE	2,323
GB	2,047
RU	1,474
FR	1,306
IT	1,190
NL	1,179
ES	942
CH	744
IR	700
PL	688

CLOSURES INITIATED BY

TOTAL 1,536

196 the RIPE NCC
1,340 members

REASONS FOR CLOSURE BY THE RIPE NCC

TOTAL 196
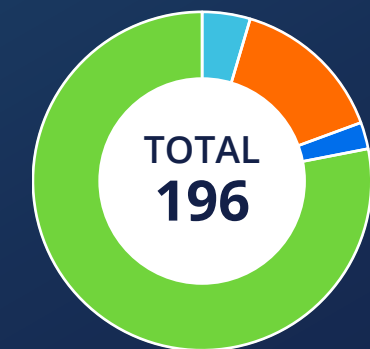
9 Untruthful information
29 Unresponsiveness
5 Bankruptcy
153 Non-payment

952 new LIR applications cancelled

The Registry

INTERNET NUMBER RESOURCES OVERVIEW

All numbers are as of 31 December 2024.

IPv4 /24 ALLOCATIONS BY COUNTRY

89	IR
61	LT
52	DE
50	GB
40	FR
36	RU
34	IT
30	TR
25	NL
315	Other

ALLOCATIONS AND ASSIGNMENTS

IPv6
1,116

0	IPv6 anycast assignments
1	IPv6 temporary assignment
22	IPv6 assignments to IXPs
68	IPv6 allocation extensions
261	IPv6 PI assignments
764	IPv6 allocations

IPv4
773

0	Addresses allocated from IANA's Recovered IPv4 Pool
18	IPv4 temporary assignments
23	IPv4 assignments to IXPs
732	/24 allocations

ASNs
2,205

0	temporary 16-bit assignments
4	temporary 32-bit assignments
25	16-bit assignments
2,176	32-bit assignments

/24 IPv4 ALLOCATIONS
2023 **751** 2024 **732**

IPv4 ADDRESSES ALLOCATED
2023 **192,256** 2024 **187,392**
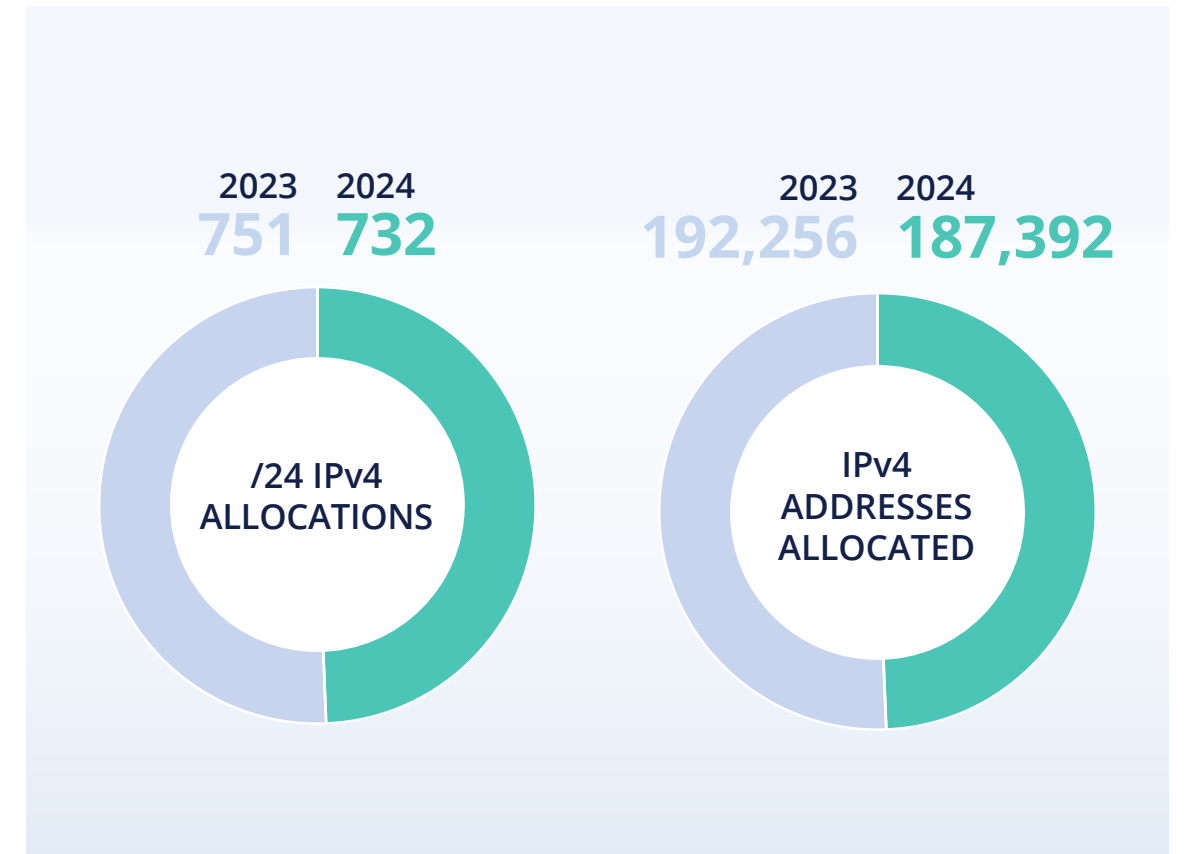
RIPE Labs
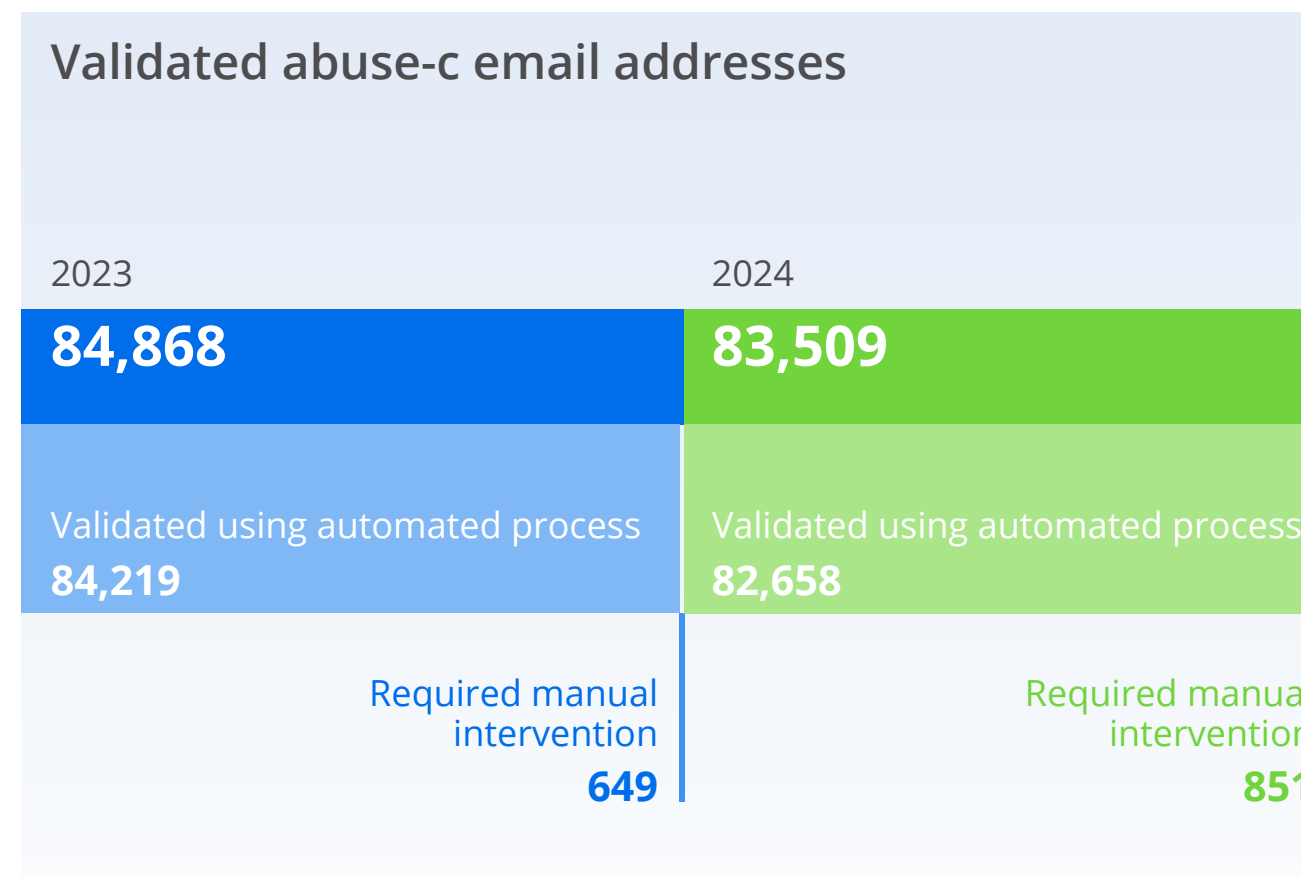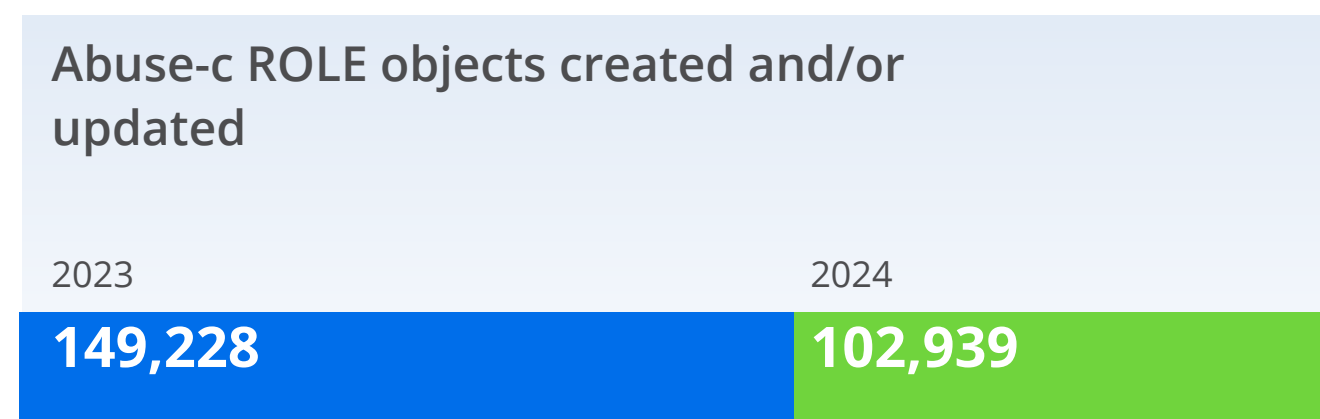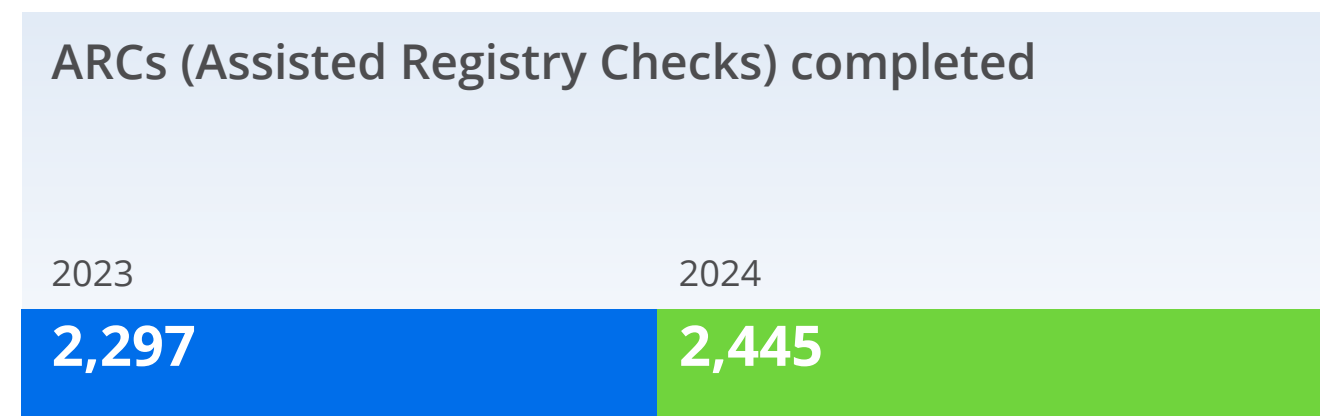IPv6 Stockpiling: A Trojan Horse in Our Midst? Read more

RIPE Labs
Schrödinger's IPv6 Cat
Read more

TRANSFERS OVERVIEW

Here is an overview of resource transfers between the RIPE NCC and other RIRs, and within the RIPE NCC service region. The figures below include policy transfers and other changes that move resources, such as mergers and acquisitions.

INTRA-RIR TRANSFERS BY COUNTRY - TOP 10 (IPv4 addresses)

IN		OUT
1,901,568	**GB**	2,636,544
1,831,680	**PL**	1,826,560
1,492,480	**RO**	1,859,840
1,258,572	**IT**	1,223,244
1,283,584	**DE**	883,200
34,304	**IR**	1,520,128
617,856	**RU**	934,656
694,528	**NO**	680,448
1,340,160	**AE**	3,072
393,728	**NL**	879,360

10,848,460 TOTAL **12,447,052**

TRANSFERS WITHIN THE RIPE NCC'S SERVICE REGION

IPv4

ADDRESSES
PI 845,388
PA 16,216,320

BLOCKS
PI 803
PA 5,401

IPv6

BLOCKS
PI 63 (/48)
PA 1,587 (/32)

TOTAL **17,061,708**   TOTAL **6,204**   TOTAL **1,650**

INTER-RIR TRANSFERS (IPv4 addresses)

FROM OTHER RIRS TO THE RIPE NCC		FROM THE RIPE NCC TO OTHER RIRS
1,364,992	APNIC	70,144
7,871,232	ARIN	4,171,008
8,192	LACNIC	5,632

9,244,416 (8,450,816 in 2023)   TOTAL   **4,246,784** (2,298,624 in 2023)

RIPE REGISTRY ACCOUNTABILITY

ARCs (Assisted Registry Checks) completed

2023	2024
2,297	**2,445**

Abuse-c ROLE objects created and/or updated

2023	2024
149,228	**102,939**

Validated abuse-c email addresses

2023	2024
84,868	**83,509**
Validated using automated process **84,219**	Validated using automated process **82,658**
Required manual intervention **649**	Required manual intervention **851**

READ MORE

REPORTS AND INVESTIGATIONS

REPORTS RECEIVED VIA THE ABUSE FORM

TOTAL
380

ABUSE-C VALIDATION INVESTIGATIONS

TOTAL
2,366

841 LIR accounts

774 LIR resources

751 End Users

2FA ROLLOUT

On 27 March 2024, two-factor authentication (2FA) became compulsory for all RIPE NCC Access accounts. This allowed us to increase the security related to these accounts and to therefore diminish the risk of hijacks. This was also a direct response to a security breach that involved several RIPE NCC Access accounts being hijacked.

SECURITY INCIDENTS

Security incidents are detected on the basis of audits performed, alerts from our security monitoring tooling and external reports.

INFORMATION SECURITY INCIDENTS

IN 2024

0 Crisis (Priority 1)

1 Major Incident (Priority 2)

5 Unexpected Incidents (Priority 3)

0 Incident (Priority 4)

INFORMATION SECURITY REPORTS

We encourage the reporting of vulnerabilities in line with our Responsible Disclosure Policy.

IN 2024

79 Reports were relevant

239 Security-related reports received

READ MORE

HIJACK INVESTIGATIONS

IN 2024

214 Hijack investigations

16 Reports to the police

6 Due diligence warnings (official warnings)

5 Disputed transfers

9 New membership applications blocked*

2 SSA terminations*

Provision of untruthful information.

RPKI

In 2024, the stability and resilience of our RPKI Trust Anchor and service remained our topmost priority.

A lot of time and effort was spent on our ISAE 3000 project, which culminated in receiving a SOC 2 Type I assurance report in October 2024. As a part of this project, we not only needed to document our operations and services thoroughly, and demonstrate that our operations were done in accordance with the controls that we defined, we also improved our operations where applicable.

In addition to this, we continued to work on the new RPKI dashboard with the following goals:

1. Improve the user experience for LIRs and End User organisations that manage ROAs in the hosted RPKI services.
2. Update our technology stack to ensure future stability and security.
3. Prepare for future extensions in functionality (like improved ROA history, and new RPKI object types).

READ MORE

ROA COVERAGE - IPv4

66%	71%
2023	2024

ROA COVERAGE - IPv6

38%	40%
2023	2024

ROAs

19,614	21,045
2023	2024
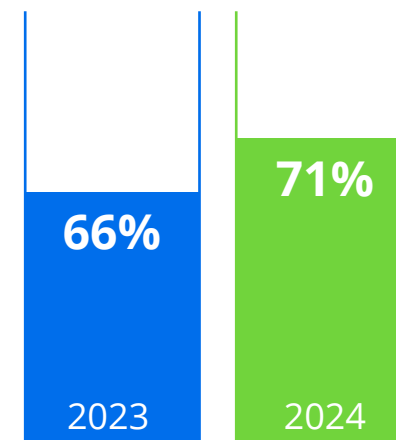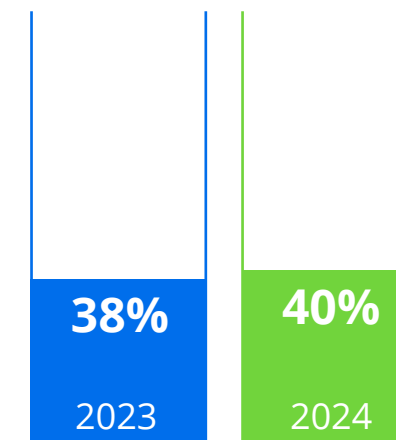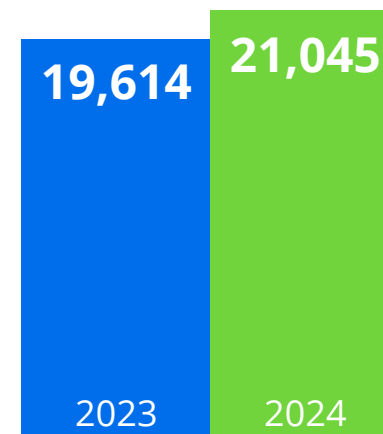
RPKI CERTIFICATES

19,614	21,045
2023	2024
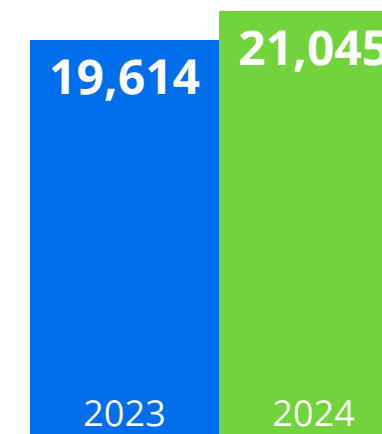
IN 2024

The new RPKI dashboard was deployed to production.

The RIPE NCC RPKI service received a SOC 2 Type I assurance report.

Migration to new HSM hardware was completed.

RIPE Labs

Tim Bruijnzeels: Patching Internet Vulnerabilities with RPKI Read more

RIPE DATABASE UPDATES

Here are some of the updates we made to the RIPE Database in 2024:

IMPLEMENTED

NWI-4 Added ALLOCATED-ASSIGNED PA inetnum status

RIPE-822 Added AGGREGATED-BY-LIR inetnum status for PA assignments

NWI-12 NRTMv4 key rollover and client implementation

RDAP Extension for Geofeed Data

RDAP RIR Search (Basic Search and Relation Searches)

Added character set flag (port 43)

Route ROA Checker (warn if RPKI conflicts with IRR)

Mail sender requirements (handle undeliverable mail and unsubscribe)

IMPROVED

NWI-12 NRTMv4 fixed signature race condition

Consolidated RIPE Database documentation

Return "e-mail" in RDAP entity responses

Cleanup "remarks:" attributes

ASSISTED REGISTRY CHECKS (ARCs)

ARCs: NPS 87 | CES 6.8 (out of 7)
Registration Services: NPS 88 | CES 6.7
Member Services: NPS 81 | CES 6.5

Assisted Registry Checks (ARCs) help members keep their data accurate and up to date by providing personalised support through phone calls or in-person meetings at events. Our goal is to continuously improve data quality in the Registry by identifying and resolving inconsistencies. During an ARC, we review key details such as an LIR's legal name, address and contact information. We verify IPv4 and IPv6 registration details and ensure BGP announcements align with the Routing Registry.

READ MORE

In 2024, we conducted 2,445 ARCs that resulted in 5,500 corrective actions, including updating contact information (e.g. legal address, email), ensuring compliance with RIPE Policies (e.g., Abuse-c policy, proper registration of address blocks) and clarifying services information related to RIPE NCC offerings like RIPEstat, RIPE Atlas and the RIPE NCC Academy. Through ARCs, we help members maintain accurate and reliable data, strengthening the integrity of the Registry.

ARC Outcomes 2024

■ Contact Information Update ■ Compliance with RIPE Policies ■ Services Information

Month	Contact Information Update	Compliance with RIPE Policies	Services Information
January	124	138	199
February	133	105	184
March	121	130	177
April	130	140	214
May	133	144	207
June	127	136	191
July	120	144	182
August	111	131	179
September	138	154	147
October	170	182	177
November	185	182	197
December	141	116	165

Information Services

	Probes connected	Probes shipped	Total anchors connected	Results collected per second	RIPE Atlas total users	RIPE Atlas active users	ASNs covered (IPv4)	ASNs covered (IPv6)	Countries covered
2024	~13,300	747	791	15,700	76,000	16,200	3,880	1,980	179
2023	~12,900	619	809	15,704	70,489	15,700	3,785	1,870	179

RIPE ATLAS

RIPE Atlas is a leading Internet active measurement network that collects unique data, providing both live and historical information about networks' reliability, reachability and connectivity.

In 2024, we implemented major changes to the RIPE Atlas data backend, with minor noticeable changes to users. As a result, this backend is now more scalable with a significant reduction in data storage costs. We also implemented changes in the user interface with modernisation and better user experience as a result. Finally, we also made significant steps in reworking the infrastructure component behind the scenes, mainly in order to reduce the associated costs.

During 2024, there was a dip in the total number of connected anchors due to a major Operating System change and related decommissioning of older anchors. The probe population overall shows a modest increase both in terms of absolute numbers and diversity.

READ MORE

RIPE Labs
A Detailed Look at Our Recent RIPE Atlas Infrastructure Migration Read more

DNS AND K-ROOT

The RIPE NCC runs two independent and equally important DNS services.

The first is K-root, one of the 13 Internet root name servers. The K-root service is provided by a set of distributed nodes using IPv4 and IPv6 anycast. The second is a DNS service for RIPE NCC zones, reverse DNS and secondary DNS, which we refer to as AuthDNS.

We continue to improve resiliency and availability of both services by adding hosted nodes. In 2024, we added 15 K-root nodes and decommissioned four of them. For AuthDNS, we added eight nodes and decommissioned one.

We completed the upgrade of all nodes to a newer operating system and adopted a new configuration management system. We also made good progress in implementing a new monitoring system, and we started the process to retire ns.ripe.net.

The RIPE NCC depends to a very large degree on open source software to run its DNS platforms. The operating system we use (Oracle Linux 9) is a collection of open source software, the name
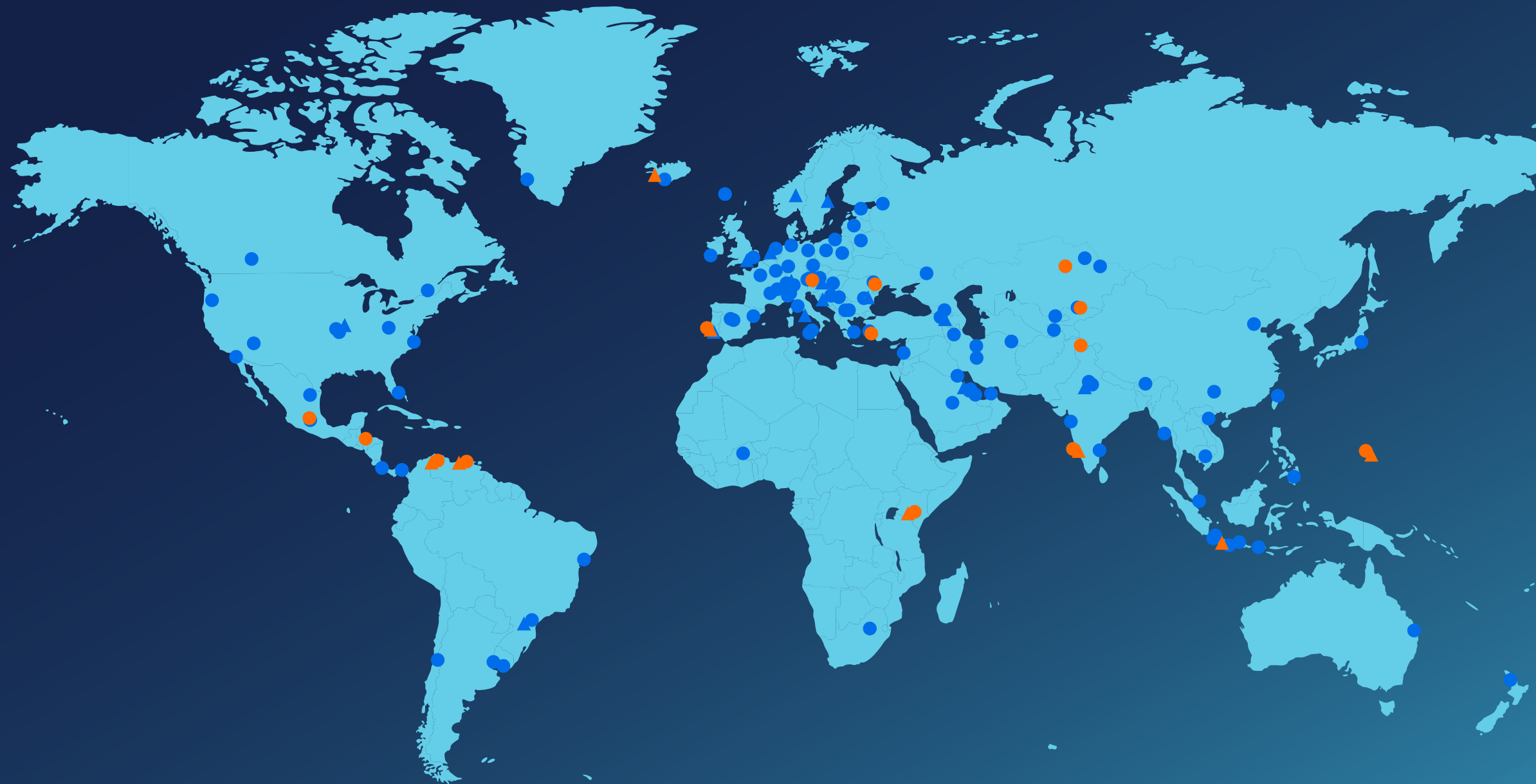
server software packages we run (ISC BIND, CZ.NIC's Knot DNS and NLnet Labs' NSD) are all open source software packages that we proudly support, and the software we use to connect our nameservers to the rest of the world through BGP is open source. Next to this, we use open source software to manage and monitor our systems (using SSH, Python, Salt, etc.).

RIPE Labs
Reaching AuthDNS - A RIPE Atlas Analysis by Region Read more

RIPE Labs
Retiring ns.ripe.net Read more

LEGEND

▲ AuthDNS
● K-Root
● Existing
● New

RIPEstat

RIPEstat provides users with essential information on IP address space and Autonomous System Numbers (ASNs) along with related statistics on specific hostnames and countries.

IN 2024

We initiated a review of the RIPEstat product vision and strategy to better align with our users' needs.

We conducted user research on our interfaces and translated our findings into changes in the RIPEstat product.

We planned our approach for the release of a new user interface in 2025.

We added automated testing to support the migration of RIPEstat datasets to a new environment, and increase release quality in the future.

RIPEstat data was used in multiple papers.

RIPEstat
Streamlining RIPEstat: Building an Interface for the Future Read more

READ MORE

RIS

Our Routing Information Service (RIS) uses a globally distributed set of Remote Route Collectors (RRCs), usually located at Internet Exchange Points, to collect and store Internet routing data.

IN 2024

To advance our peering strategy, we selectively added sessions with IXP routeservers and networks in under-covered regions.

We completed a migration that significantly reduced the data centre space used for RIS-derived data.

32 NEW RIS PEERS ADDED IN 2024 → ACROSS **25** COUNTRIES
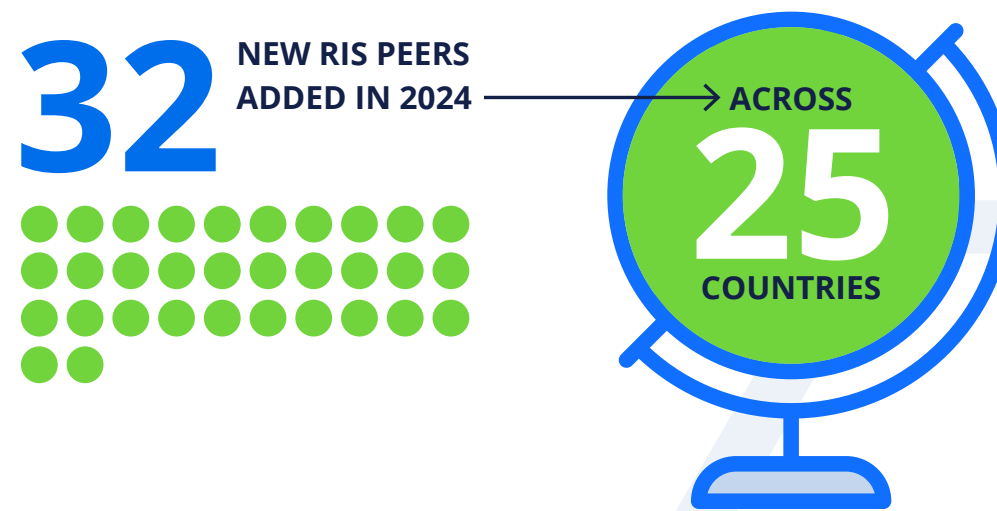
READ MORE

RIPE NCC TOOLS DEPLOYMENT PROJECT

At the beginning of 2024, Community Development launched an ambitious RIPE NCC Tools Deployment Project aimed at enhancing the efficiency and impact of our deployment efforts.

This initiative involved close collaboration between the product owners and the regional coordinators within the RIPE NCC, as well as partners from APNIC, LACNIC and numerous RIPE Atlas Ambassadors. By the end of the year, we had significantly streamlined our processes and provided the RIPE NCC with valuable insights, setting a strong foundation for future success. Our team participated in multiple events and hosted webinars to further these efforts.

For RIPE Atlas distribution, we focused on engaging the top 10 eyeball networks in 20 countries within our service region, as well as in 10 countries outside of it.

Out of the 30 countries we targeted in 2024, we saw a significant increase (between 15% and 58% increase of coverage) in 12: Bahrain, Bosnia and Herzegovina, Colombia, Guatemala, Iran, Kyrgyzstan, Malaysia, Moldova, Montenegro, Nepal, North Macedonia, Oman and a moderate increase (between 3% and 15%) in six more: Croatia, Malaysia, Nepal, Qatar, Uzbekistan, Vietnam.

DATA CENTRE REDUCTIONS

In 2024, we committed to drastically reduce our data centre footprint to save costs that on average amount to around one million euros per year, including housing and electricity costs and excluding equipment and engineering costs. We reduced our number of racks from 46 to 26 and plan to reduce further to 10 by the end of 2025.

RIPE Labs

Reducing the RIPE NCC's Data Centre Footprint [Read more](#)

Data Centre Reductions

Legend:
- ■ Network (orange)
- ■ GII (blue)
- ■ RIS/RIPE Atlas data (light blue)
- ■ IT (green)
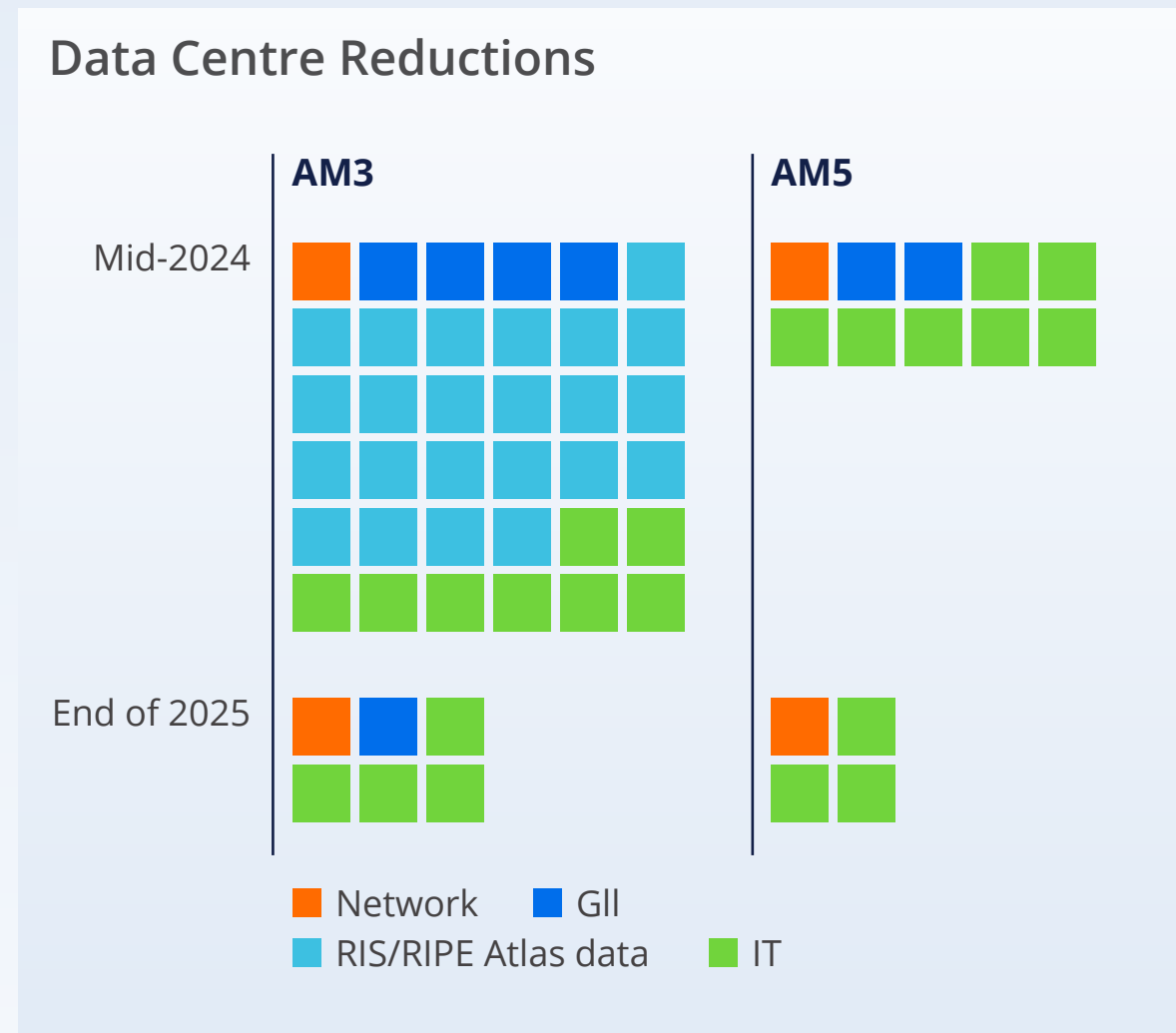
OUR DATA CENTRE AND CLOUD PROVIDERS

- AWS: RIPE Atlas (using S3 and EKS), SSO (EKS), Data warehousing (Redshift)
- Google Cloud: Used by researchers (BigQuery)
- Hetzner: RIPE Atlas storage (Hadoop Cluster)

External Engagement & Community

OUR IN-PERSON EVENTS IN 2024

- 🟡 Hackathon
- 🟣 Regional Meeting
- 🟠 RIPE Meeting
- 🔵 Training Course
- 🟢 Roundtable Meeting
- 🔴 Internet Measurement Day

IN-PERSON TRAINING AND WEBINARS

In 2024, we expanded our training efforts, increasing the number of course locations to 24 and number of courses to 54 across various topics.

We also maintained a strong online presence, delivering 41 webinars. This was possible thanks to our efforts to increase efficiency and cost savings, as we had 14 hosted locations and delivered a total of 32 hosted courses.

With more in-person sessions, we reached 851 participants, while our webinars engaged 1,111 learners. IPv6 remained a key focus, with the highest number of courses and participants. We also continued to provide valuable insights into BGP, the Internet Registry and network security.

In addition to quantity, we also scored high in the quality metrics:
- Webinars - NPS: 53
- In-person courses - NPS: 82

Looking ahead, we will keep refining our training formats to ensure they are accessible, effective and relevant for our community.

READ MORE

	In-person courses per topic	Webinars per topic	In-person participants per topic	Webinar participants per topic
BGP	9	9	150	220
Internet Registry	17	14	246	239
IPv6	28	12	455	387
Measurements & Tools	0	3	0	45
Network Security	0	3	0	220
Total	**54**	**41**	**851**	**1,111**

RIPE NCC ACADEMY

The RIPE NCC Academy is our free online learning platform that offers self-paced e-learning courses to anyone who is interested. It now has over 100 e-learning modules on a diverse range of topics such as IPv6 Fundamentals, IPv6 Security, the RIPE Database, LIR Fundamentals, BGP Security and Internet Governance.

In 2024, we added two more courses to the RIPE NCC Academy's portfolio: the second part of a more niche RIPE Working Group Chair training for (potential) working group chairs as well as a new LIR Fundamentals course. In the LIR course, (new) RIPE NCC members can learn about what it means to operate a Local Internet Registry and how to become an active participant in the Internet community.

We also celebrated 10 years of the RIPE NCC Academy.

READ MORE

RIPE Labs
The RIPE NCC Academy - Ten years later Read more

Timeline:

- RIPE NCC Academy Launch!
- RIPE Database Expert
- Introduction to IPv6 — 2014
- Local Internet Registry — 2017
- Academy Redesigned *Rich content created with Articulate Rise*
- RIPE NCC Certified Professionals *Introduction of Certification*
- RIPE Database — 2020
- Microlearnings *(first releases)* — 2021
- IPv6 Fundamentals
- IPv6 Security
- Introduction of Virtual Labs
- BGP Security
- Internet Governance — 2022
- LIR Fundamentals
- RIPE WG — 2024
- Internet Measurements — 2025
- IPv6 Advanced

TOTAL REGISTERED LEARNERS
16,292

NEWLY REGISTERED LEARNERS
2,423

TOTAL ACTIVE LEARNERS
4,019

★★★★½
AVERAGE MODULE RATING
4.72/5

Module Completions per Course in 2024

TOTAL
22,501

8,864	IPv6 Fundamentals
5,941	RIPE Database
2,721	BGP Security
2,679	IPv6 Security
1,336	Microlearning
610	Internet Governance
282	LIR Fundamentals
68	RIPE Working Group Chair

RIPE NCC CERTIFIED PROFESSIONALS

A RIPE NCC certification validates expertise in the fields of IP address management, IPv6 technologies and network security.

RIPE NCC Certified Professionals earn a digital badge that can easily be verified by any third party, like your employer or customers. We currently offer four certifications:

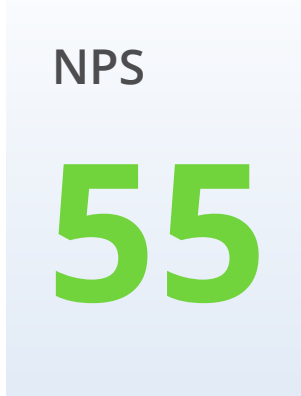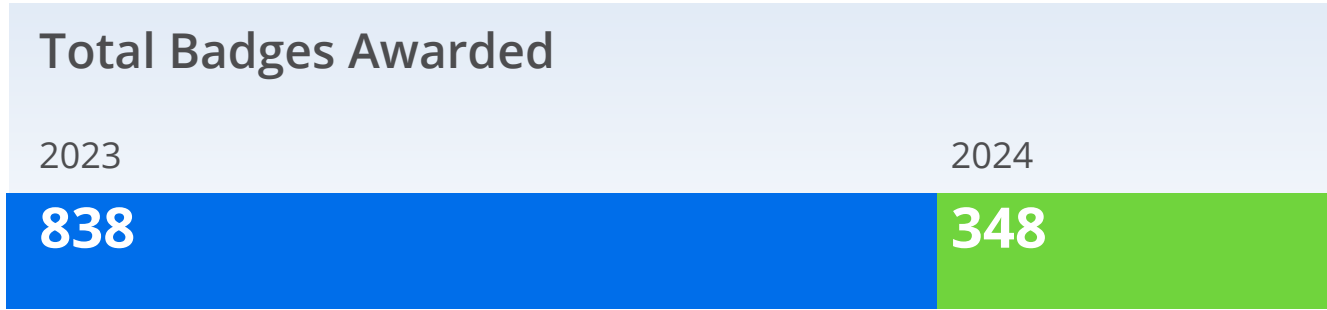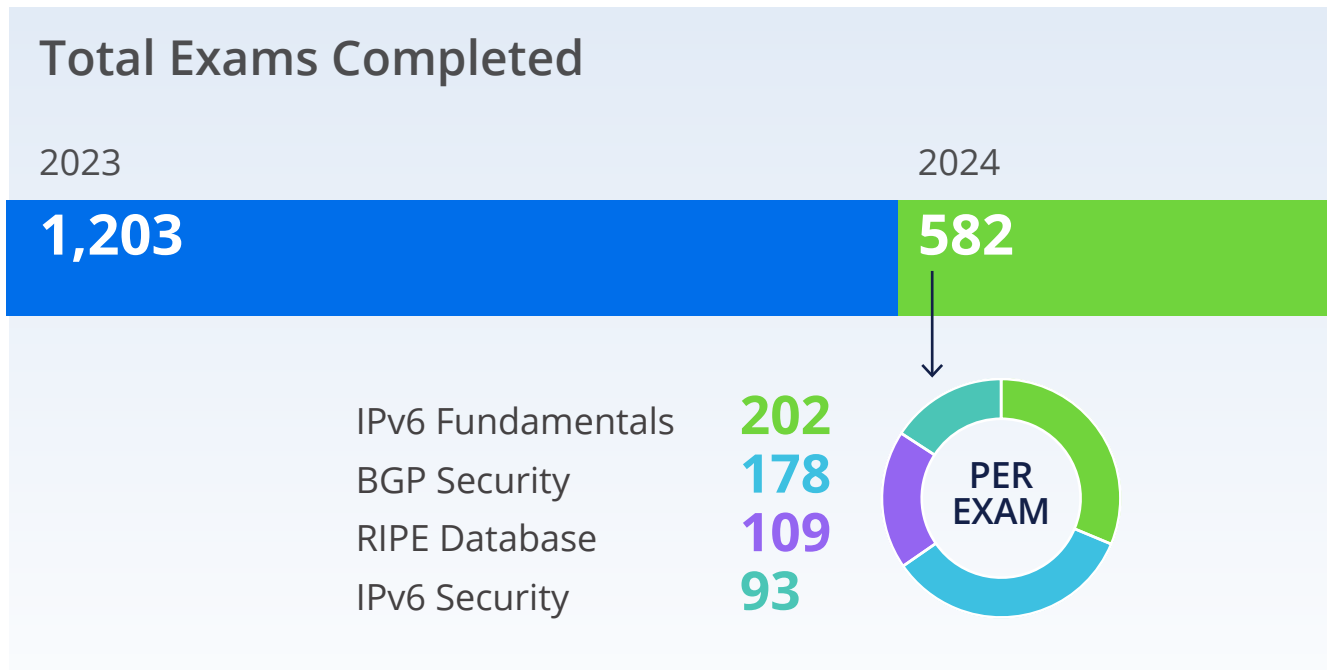| RIPE Database Associate	IPv6 Fundamentals Analyst	IPv6 Security Expert	BGP Security Associate
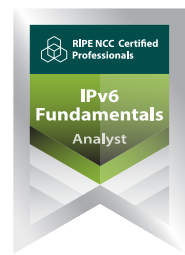
In 2024, we continued working on developing our new exam platform. We created a voucher management tool, implemented SSO integration and began development on a payment gateway. We started our biennial exam reviews for each of our exams, reviewing old content and writing new questions. We participated in several campaigns this year, including the "Summer School Campaign," which allowed hundreds of participating students across the globe to certify their skills with us for free. We also provided live testing at RIPE 88, CAPIF 3 and RIPE 89.

READ MORE

Total Exams Completed

2023	2024
1,203	**582**

IPv6 Fundamentals **202**
BGP Security **178**
RIPE Database **109**
IPv6 Security **93**

PER EXAM

Total Badges Awarded

2023	2024
838	**348**

NPS
55

Average Quality Rating

Better Examinations Exam Platform
3.5/4

Quality of Questions
3.4/4

POLICY DEVELOPMENT

Policies implemented by the RIPE NCC emerge from an open, transparent, community-led development process. Here is an overview of the policy proposals discussed in 2024. The data shown reflects the status of that proposal and participation as of 31 December 2024.

In 2024, one policy proposal was accepted following discussion:

- 2023-04: "Add AGGREGATED-BY-LIR status for IPv4 PA assignments," introduced the AGGREGATED-BY-LIR status for IPv4 PA assignment registration.

Two policy proposals were submitted and are still under discussion:

- 2024-01: "Revised IPv6 PI Assignment Policy," aims to define End Sites and requirements for "IPv6 PI Assignments" and "Assignments from IPv6 Allocations." It clarifies permitted use cases and introduces IPv6 PI issuance at the Nibble boundary and new principles for aggregation and registration.

- 2024-02: "IPv6 Initial Allocations /28," aims to change the initial IPv6 allocation size from /29 to /28.

READ MORE

HIGHLIGHTS

2 Policy proposals submitted for discussion

50+ People who participated in discussions

15 From how many countries

1 Policy proposal accepted

0 Policy proposals withdrawn

2 Ongoing proposals

PUBLIC AUTHORITY ENGAGEMENT

Our Roundtable Meetings offer governments and regulators the opportunity to discuss governance issues relevant to the RIPE NCC and the RIPE community while gaining a deeper understanding of complex technical topics.

In 2024, we held three Roundtable Meetings:

- One in Western Europe, where attendees discussed major developments in Internet governance including the negotiations of the Global Digital Compact (GDC), preparation for the review of the World Summit on the Information Society (WSIS)+20 and how EU digital policymaking and diplomacy influence these processes globally.

- One in South East Europe, where a central discussion topic was "Shaping the Future of Internet Governance at the European and Global Levels." Participants discussed how the upcoming WSIS+20 review, the ITU WSIS Forum and the UNGA Summit of the Future might redefine Internet governance structures. Also addressed were network and cybersecurity policy development and Internet development in South East Europe.

- One in the Middle East, with the main theme "Enhancing Internet Infrastructure and Governance for a Resilient Digital Future in Arab Countries." The roundtable focused on the critical challenges of building a sustainable and secure Internet in the region.

The RIPE NCC team also contributed to multiple workshops and sessions at the 19th Internet Governance Forum (IGF) held in Riyadh, Saudi Arabia. And we supported or contributed to regional IGFs such as the Arab IGF and Central Asian IGF and to national IGFs in the Netherlands, Serbia, Armenia, Kazakhstan, Kyrgyzstan, Moldova and Ukraine.

PUBLIC POLICY CONSULTATIONS

In 2024, we worked on fostering dialogue and collaboration between stakeholders of Internet governance and technical communities. We shared our expertise in Internet policy and governance and provided insights into the operations and priorities of the RIPE NCC, building stronger bonds with policymakers and regulators and promoting Internet development.

Throughout our service region, we collaborated with partner organisations such as ICANN, ISOC and the ITU. In the EU specifically, we engaged with the European Commission, the Dutch MFA and other relevant governmental agencies, and we re-established direct channels of communication with law enforcement agencies, mainly through Europol. In Central Asia and the Caucasus, we participated in engagement activities with industry partners such as the ITU CIS, the RCC and local industry organisations. In the Middle East, we continued our engagements with the League of Arab States, AICTO, SAMENA, ARISPA, GSMA and ESCWA, ensuring our initiatives align with regional objectives.

In terms of regulatory developments, we paid close attention to significant EU legislative initiatives, including the Cyber Resilience Act (CRA), the Directive on measures for a high common level of cybersecurity across the Union (NIS2) and the Regulation on Electronic Identification and Trust Services for Electronic Transactions (eIDAS), among many others.

KEY SUCCESSES

- The RIPE NCC delivered on our pledges to the Partner2Connect Digital Coalition initiated by the ITU-D.

- We made significant contributions to the Arab Cyber-security Strategy, to the Arab Expert Group working on the Arab Digital Agenda, to the Arab working group on Internet-related issues and at Arab High-Level WSIS.

- At the 27th meeting of the Council of Arab Information and Communications Technology Ministers, the League of Arab States passed a resolution recognising the RIPE NCC's capacity-building efforts in the region.

- We created an initiative called "Breakfast with the Minister" that was organised alongside CAPIF 3 and the Internet Measurement Days in Romania and Uzbekistan. This allowed us to coordinate on future development, such as the opportunity for us to join in the formation of the IPv6 Council of Uzbekistan. The RIPE NCC also became a part of the effort to create the IPv6 Council of Kazakhstan.

- We organised an Open House to discuss the European Commission's White Paper on the future of telecom and digital infrastructure in Europe.

- We worked with the Dutch Internet Standards Platform to promote Internet standards and encourage collaboration between the Internet technical community and relevant Dutch ministries and standardisation bodies.

- In Montenegro, ahead of the founding meeting of the Montenegrin Network Operators Group, the RIPE NCC presented its work on RPKI at NOG4.ME. The RIPE NCC also joined with the Montenegrin regulator EKIP and the ITU EU office to organise a SEE Regulatory Policy Forum in Montenegro.

- The RIPE NCC played an active role in SEEDIG in Serbia, organising a panel focused on IPv6 uptake in the region.

- We signed a Memorandum of Understanding with the European Dialogue on Internet Governance (EuroDIG) to collaborate on Internet governance activities.

- We made contributions to UN open consultations on topics such as the IGF, the GDC, WSIS+20, and the Summit of the Future, and to EU and Dutch consultations on topics such as the NIS2 Implementation Act, the Cyberbeveiligingswet and initiatives on IPv6.

READ MORE

SUPPORTING THE COMMUNITY

RIPE FELLOWSHIP

Through the RIPE Fellowship, we aim to increase diversity in the RIPE community by supporting those from underrepresented regions, minority backgrounds or those who require funding to attend a RIPE Meeting. Fellowships are open to those living or working in the RIPE NCC service region, and studying or working in Internet technology or related topics of interest to the RIPE community.

Meeting	RIPE 88	RIPE 89	SEE 12	CAPIF 3	MENOG 24
Fellows	6	7	5	17	6

READ MORE

RACI

The RIPE Academic Cooperation Initiative helps members of the academic community connect with and present to the RIPE community at RIPE Meetings and RIPE NCC Regional Meetings*.

Meeting	RIPE 88	RIPE 89	SEE 12
RACI attendees	5	10	2

READ MORE

We do not send RACI attendees to CAPIF or MENOG as academic presentations are not suitable for these events.

LANGUAGES SUPPORT

To better serve our diverse membership, we have expanded our translation efforts and worked to make our translated content more visible. Now members can find translations on our main website in the RIPE NCC Language Centre. Currently, we support six languages – Russian, Arabic, Farsi, Turkish, Spanish and Italian – chosen based on demand and regional needs. We have also opened a call to the RIPE community and our members to volunteer to translate or review RIPE NCC content into any language from our service region.
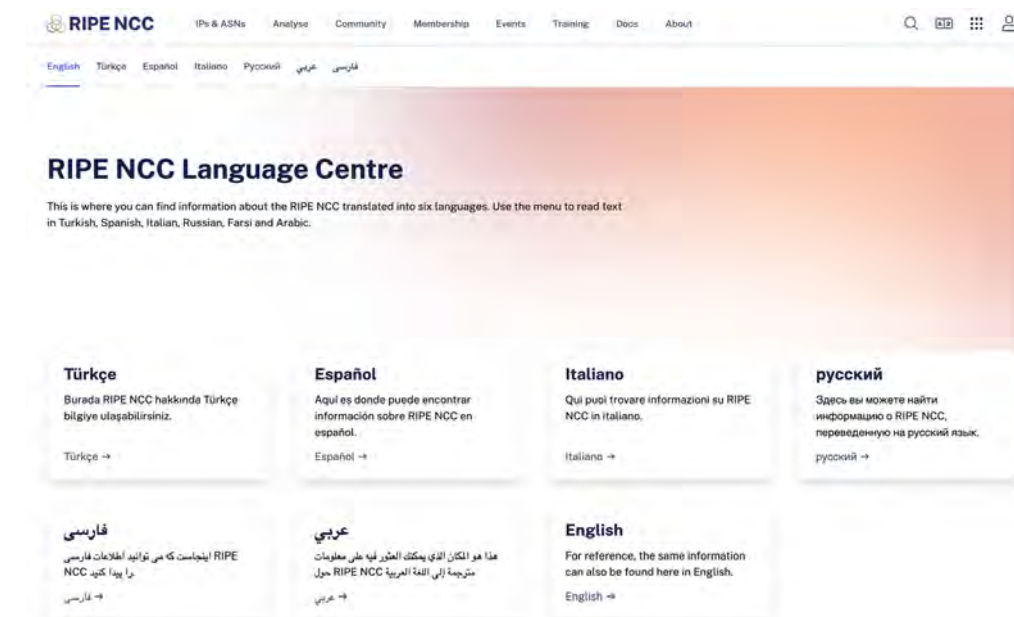
RIPE Labs
Language support and community sourced translations
Read more

REDESIGNED RIPE.NET

We also revamped our website for easier navigation, better accessibility and a more unified look with our other sites, such as RIPE Labs and the LIR Portal.

OPEN HOUSE EVENTS

A RIPE NCC Open House event features a diverse range of engaging formats, including presentations, panel discussions, expert Q&A sessions and open mic opportunities for participant interaction. True to their name, these events are free to attend and open to anyone interested.

Through a series of focused gatherings, we aim to provide in-depth insights into pressing topics. We dedicate space for discussions on policy changes, emerging challenges and community-driven initiatives. Additionally, our sessions served as a platform to dissect and debate our Activity Plan and Budget and Charging Scheme, ensuring transparency and community-driven refinement.

To ensure broader accessibility and future reference, all sessions are recorded and published online.

ADAPTING OUR APPROACH IN 2024

This year, we adjusted our approach to ensure our Open House events remain useful and accessible. Due to changes in how we need to send bulk mail, organising country-focused events became more challenging. In response, we took a more targeted approach by focusing on countries and topics with specific needs.

Notable examples include our events in Iran and Türkiye, where we offered live translation – a feature that proved to be a great success. Additionally, we placed greater emphasis on specific themes such as Green Tech and personal ASN policies. The session on personal ASNs, which evolved from discussions on RIPE Labs, provided a robust platform for community dialogue on this divisive topic. Lastly, we introduced a RIPE 89 Newcomers' Debrief, which proved to be an excellent way to engage with newcomers following the RIPE Meeting.

READ MORE

TOP 10 OPEN HOUSE SESSIONS OF 2024

Personal AS Numbers	▶
Meet the Executive Board Candidates	▶
Internet in Türkiye	▶
Internet in Iran	▶
RIPE NCC Charging Scheme 2025	▶
IXPs in the Middle East	▶
Green Tech and Sustainability in Internet Technologies	▶
Newcomers' Debrief Session	▶
Draft Activity Plan and Budget 2025	▶
RIPE NCC Community Projects Fund Recipients 2023	▶

NOGs AND REGIONAL EVENTS

In 2024, we presented at or attended the following NOGs:

HRNOG   GRNOG   ITNOG   INET   FRNOG   PLNOG   FINOG   KZNOG

NetUK   HUNOG   LUNOG   RONOG   ESNOG   RSNOG   ANIX

Out-of-Region NOGs   NANOG   TWNOG   SANOG   ThaiNOG   MyNOG   VNNIC   APRICOT

■ **Sponsored and Presented at/Attended**   ■ **Presented at/Attended**

SEE 12

SEE 12 took place in Athens, Greece from 22-23 April 2024. The meeting saw 195 attendees from 27 countries. 101 attendees were newcomers.

The meeting discussed the Internet in South East Europe and featured a panel on the dawn of the Internet thanks to several Internet pioneers joining straight after celebrating the 40th anniversary of the European Academic and Research Network (EARN).

Other topics highlighted were IXPs in the region, local IPv6 adoption and 30 years of security collaboration in Europe. The meeting scored an NPS of 80.

READ MORE

CAPIF 3

CAPIF 3 took place in Bishkek, Kyrgyzstan from 24-25 September 2024. There were 208 attendees from 18 countries, with 109 newcomers.

The meeting focused on the importance of peering and interconnection in Central Asia, covering both the technical and policy aspects of Internet interconnection and regional infrastructure development. There were also presentations on measuring the Internet's resilience in the region, its interconnectivity and the security of its infrastructure. Also emphasised at the meeting was the importance of IXPs and the need for enhanced network security. Attendees rated the meeting with an NPS of 89.

READ MORE

MENOG 24

MENOG 24 took place in Muscat, Oman from 1-5 December 2024. There were 155 attendees from 33 countries, with 75 newcomers.

The event featured a panel discussion with representatives of IXPs sharing their experiences and insights to promote interconnection in the region. Other highlights were presentations on the impressive progress of routing security in the region, as well as the swift implementation of IPv6. The meeting's NPS was 56.
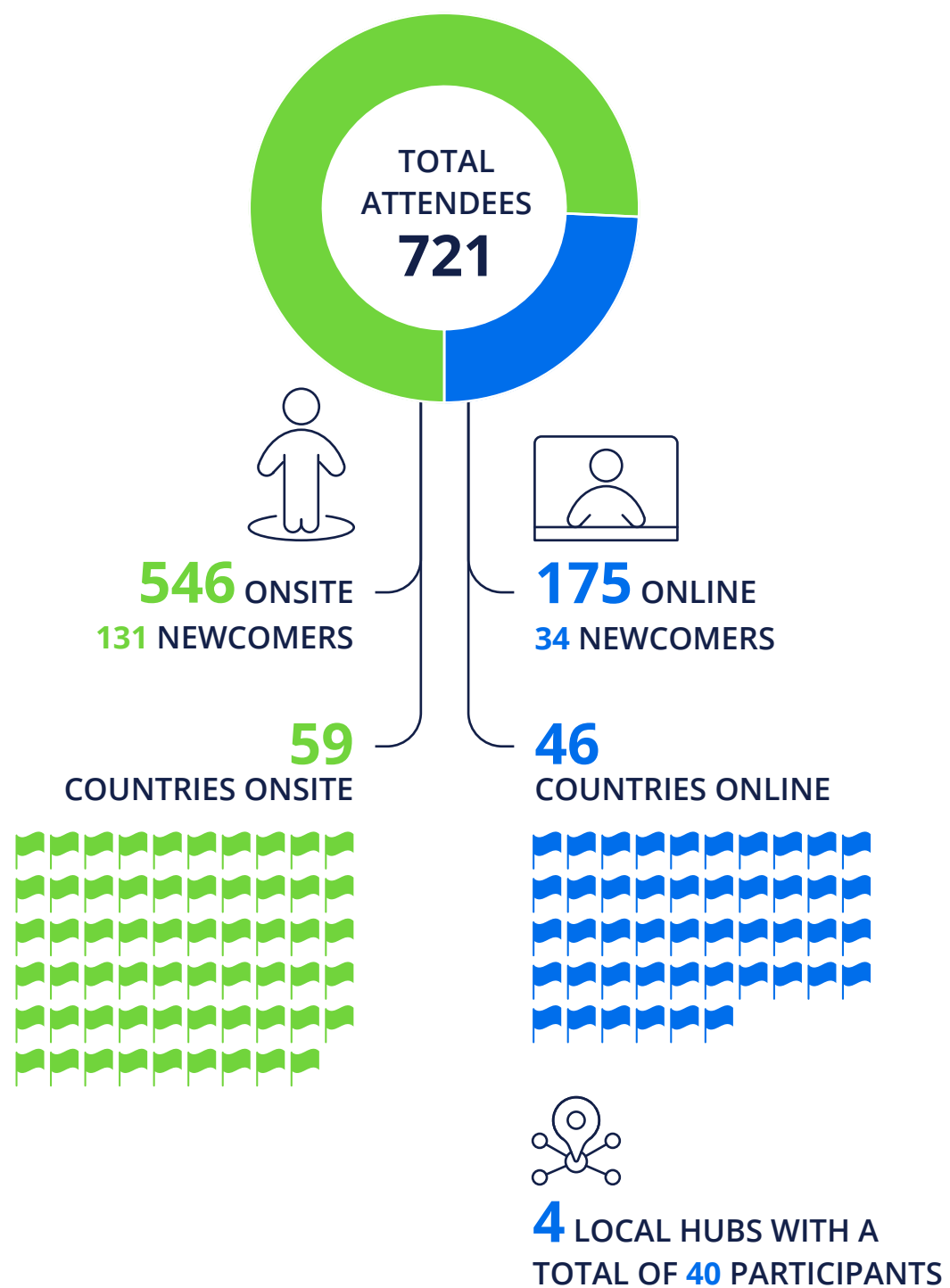
READ MORE

INTERNET MEASUREMENT DAYS

In 2024, we held three Internet Measurement Days. One took place in Tashkent, Uzbekistan on 29 May 2024, with 57 attendees. The next took place in Bucharest, Romania on 1 October 2024, with 50 attendees. The last of the three was held in Istanbul, Türkiye on 6 November 2024, with 125 attendees.

READ MORE

RIPE 88 - KRAKÓW, POLAND

TOTAL ATTENDEES
721

546 ONSITE
131 NEWCOMERS

175 ONLINE
34 NEWCOMERS

59
COUNTRIES ONSITE

46
COUNTRIES ONLINE

4 LOCAL HUBS WITH A
TOTAL OF **40** PARTICIPANTS

HIGHLIGHTS

Celebrating 35 years of RIPE

Diversity, Equity and Inclusion in Tech session focused on wellbeing and neurodiversity

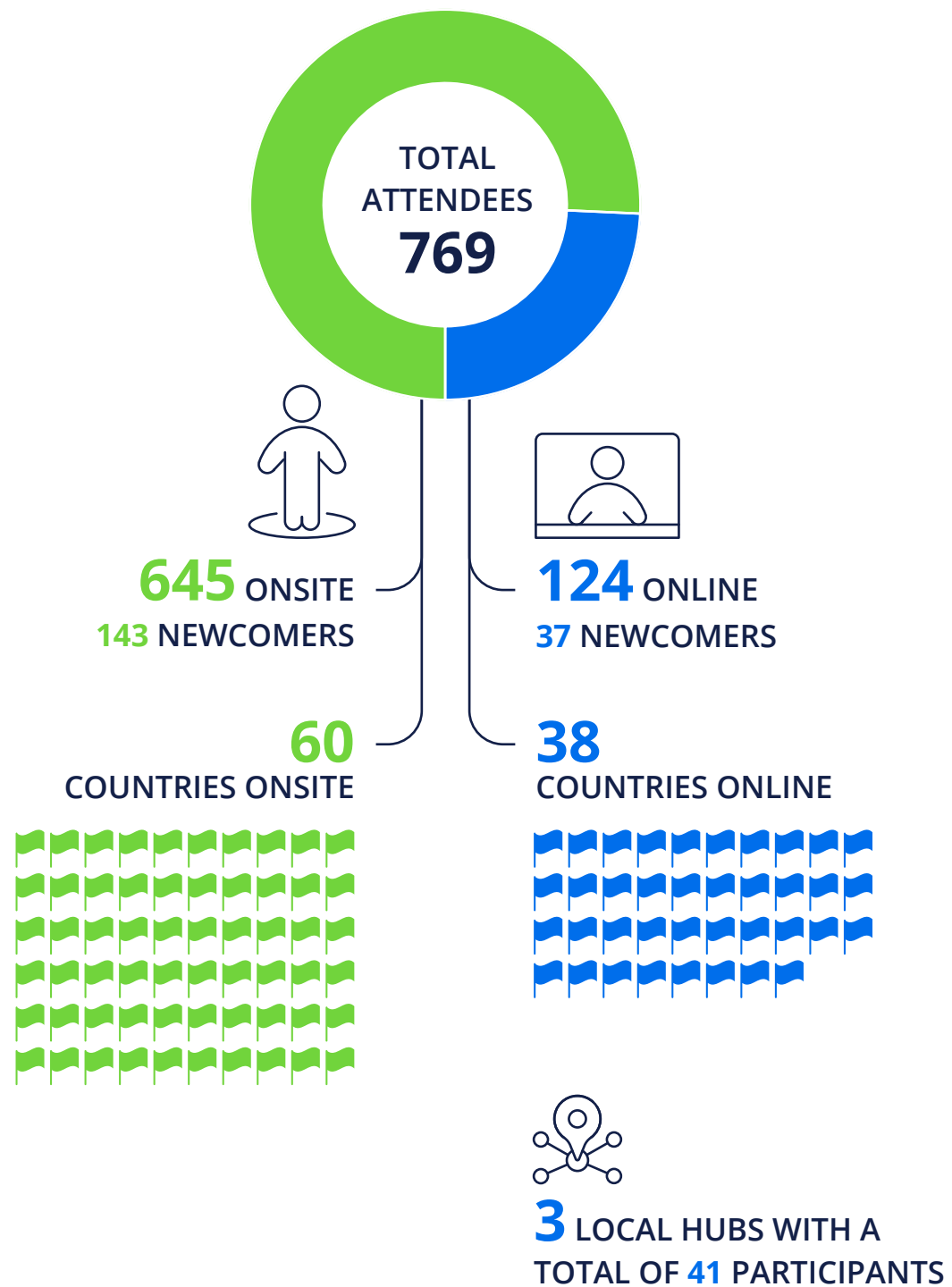BoF on building a stable future for the RIPE NCC

NPS: 74

READ MORE

RIPE 89 - PRAGUE, CZECHIA

TOTAL ATTENDEES
769

645 ONSITE
143 NEWCOMERS

124 ONLINE
37 NEWCOMERS

60
COUNTRIES ONSITE

38
COUNTRIES ONLINE

3 LOCAL HUBS WITH A
TOTAL OF **41** PARTICIPANTS

HIGHLIGHTS

A new charter for the Anti-Abuse WG –
now the Security WG

Lively panel discussion on
communication with IXPs

BoF for NOG organisers

NPS: 63

READ MORE

THE COMMUNITY PROJECTS FUND

Through the RIPE NCC Community Projects Fund, we aim to support projects that enhance the operation, resilience and sustainability of the Internet, with a particular focus on tools and services that benefit the technical community in our service region.

Our community is full of innovative ideas, and this fund gives creators and developers the opportunity to work on projects for the good of the Internet.

The 2024 call for applications opened in February and remained open for just over 16 weeks. A total of 40 applications from 19 countries were submitted to the Selection Committee.

READ MORE

PROJECT ADJUSTMENT

One of the initially selected projects had to be withdrawn. After discussions with the RIPE Atlas team, it was determined that the project was not feasible, as it relied on passive measurements, which RIPE Atlas was never designed to support.

TEMPORARY PAUSE OF THE FUND IN 2025

We have also announced a temporary pause of the Community Projects Fund for 2025. This will allow us to conduct a full review of the processes and assess whether the Fund remains suitable for the community and RIPE NCC membership.

| PROJECTS FUNDED IN 2024 | **Open Source Distributed Symmetric Key Exchange Implementation –** *Melchior Aelmans* | **OpenPenny – An open-source tool to identify non-spoofed traffic –** *Petros Gkigkis in collaboration with UCL* | **Policy Certification and Verification for Cybersecurity in the Internet of Things (IoT) –** *Mulini SRL* | **GuardXP: From Data Privacy to Improved Cybersecurity –** *Universitat Politècnica de Catalunya (UPC) / Consorci de Serveis Universitaris de Catalunya (CSUC)* | **Open Domain Rank – A community-developed measure for domain reputation ranking based on unique identifiers' relationships –** *Soroush Rafiee Rad* |

RIPE LABS

RIPE Labs is an open platform for network operators, researchers, developers and others to share case studies, best practices, deployment experiences, prototypes, research and more.

We also use RIPE Labs to share ideas and ask for feedback from the community, as well as trial prototypes for our tools.

THE RIPE LABS ARTICLE COMPETITION

We held two competitions in 2024, with a total of 14 entries from the community.

- **RIPE 88 competition winner**
  Measuring NAT64 Usage in the Wild
  Elizabeth Boswell

- **RIPE 89 competition winner**
  IXP-from-Scratch: Building a New IX
  Thomas Liske

THREE MOST-READ RIPE LABS ARTICLES FROM 2024

Does the Internet Route Around Damage? - Baltic Sea Cable Cuts
Emile Aben

👁 **15,191** VIEWS*

READ MORE

The LLM Misinformation Problem I Was Not Expecting
Kathleen Moriarty

👁 **9,768** VIEWS

READ MORE

Schrödinger's IPv6 Cat
Hisham Ibrahim

👁 **3,025** VIEWS

READ MORE

121 Articles

10 Podcasts

60 Articles (by non-staff)

32,986 Unique pageviews per month (average)

Views here refers to average unique pageviews per month.

DATA STORYTELLING

We support the RIPE community and our members by providing valuable data and insights that foster technical growth, promote best practices in network operations and routing security, and inform policymakers and governments as they shape regulations that could impact the Internet's technical foundations. In 2024, we continued refining our approach to extracting actionable insights from our datasets, helping us to deliver comprehensive reports on key Internet developments.

Our regional analyses on RIPE Labs continued to draw together data from RIPE Atlas and RIS with other sources of information to uncover important insights into the adoption of Internet technologies and drive discussion at RIPE NCC regional events.

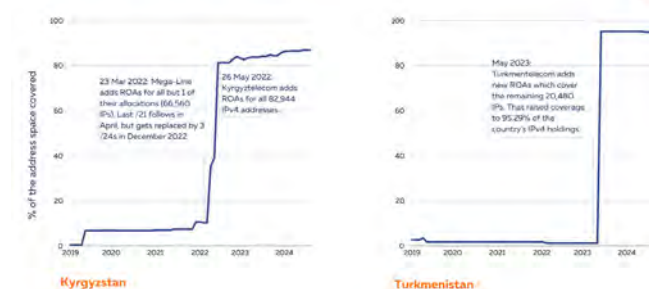## Advancing Internet Technologies in South East Europe

▸ **READ MORE**

Securing Internet Infrastructure in Central Asia

▸ **READ MORE**

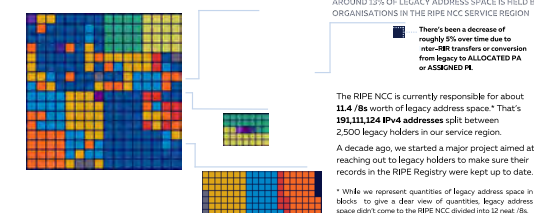## The Internet Landscape in the Middle East
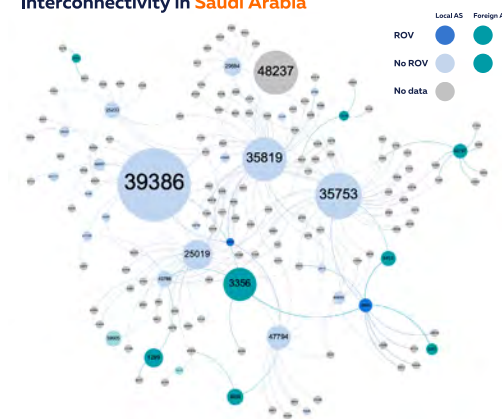
▸ **READ MORE**

Other articles in 2024 focused on key policy-related matters around Internet number resources, such as the 10-year anniversary of the legacy address space policy and the trend toward IPv6 stockpiling.

IPv6 Stockpiling: A Trojan Horse in Our Midst?

▸ **READ MORE**

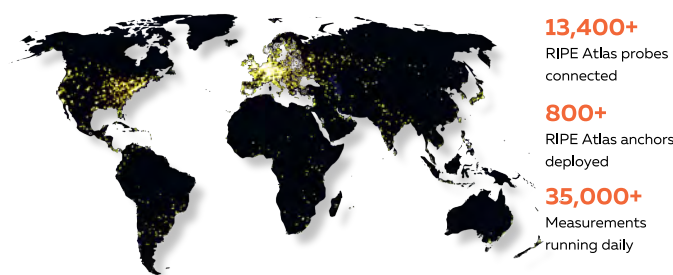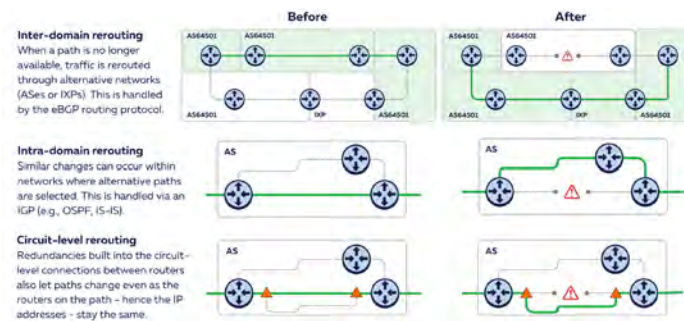## 10 Years of Legacy Policy

▸ **READ MORE**

We continued to monitor the resilience of the Internet in our service region, yielding insights derived from RIPE Atlas measurement data to provide in-depth analysis of recent Baltic Sea cable cuts.

The year also saw two standalone reports published: *How to Get IP Addresses for your Network* (available in English, Russian, Turkish, and Arabic) gives network operators and businesses an overview of the various options available for acquiring IP addresses today.

Unlocking Digital Growth: The Role of IXPs in the Middle East (available in English and Arabic) explored the unique Internet landscape in the Arabic-speaking countries of the Middle East and the role that Internet Exchange Points play in improving connectivity in the region.

Does the Internet Route Around Damage? - Baltic Sea Cable Cuts

📄 **READ MORE**

A Deep Dive Into the Baltic Sea Cable Cuts

📄 **READ MORE**

How to Get IP Addresses for your Network

📄 **READ MORE**

Unlocking Digital Growth: The Role of IXPs in the Middle East

📄 **READ MORE**

Organisational Sustainability

AT THE HEART OF THE RIPE NCC

Employee Numbers

FTEs
182.9
AVERAGE OVER 2024

181.1 AT THE END OF 2024

FTE CONSULTANT VIA EMPLOYER OF RECORD
3.8
AVERAGE OVER 2024

3.8 AT THE END OF 2024

STAFF FEMALE | **STAFF MALE**

38% | **62%**

NUMBER OF STAFF NATIONALITIES **45**

NUMBER OF LANGUAGES **38**

TURNOVER **6.6%**

GENDER PER FUNCTIONAL AREA*

	Female	Male
RIPE Chair	1	
Managing Director		1
Registry	18	26
Technology	14	53
Community & Engagement	20	26
Organisational Sustainability	19	12

AGE GROUPS*

20-30	13
30-40	66
40-50	73
50-60	31
60-65	7
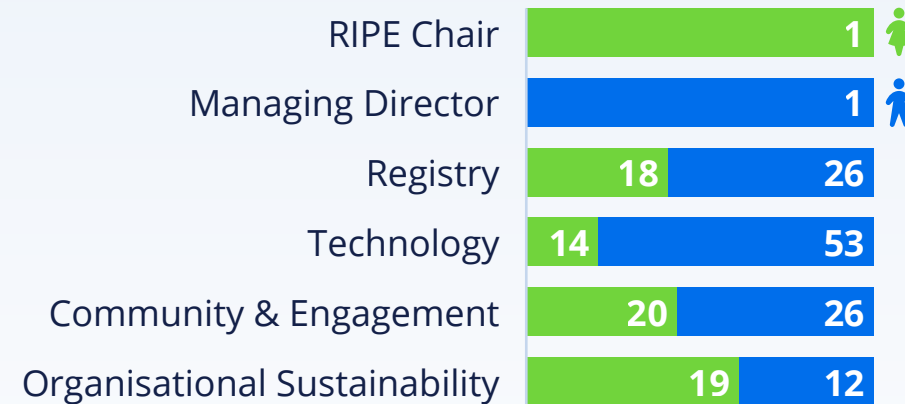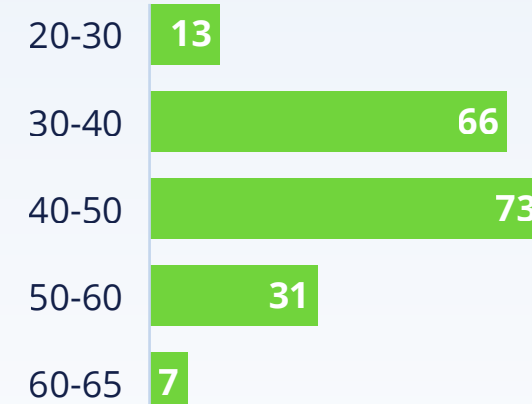
*per headcount

INCREASING DIVERSITY

We have been researching how best to increase diversity at our organisation. These efforts have included conducting workshops for our hiring teams and managers about potential biases in the recruitment process.

READ MORE

RIPE NCC MANAGEMENT

The RIPE NCC's Executive Team collectively take on the role of day-to-day management of the organisation by providing strategic and operational leadership and setting and reviewing Objectives and Key Results in line with the RIPE NCC Strategy and Activity Plan and Budget.

A key function of the team is to ensure consistency in activities across the organisation, assessing the risks of the organisation and ensuring that these are being managed.

In September 2024, James Kennedy stepped down from his position as Chief Registry Officer, leading the registry operations at the RIPE NCC. Hans Petter Holen, Managing Director, replaced him for the remainder of 2024.

HANS PETTER HOLEN
MANAGING DIRECTOR

Hans Petter is responsible for the day-to-day operation of the organisation in line with the strategy approved by the Executive Board. He attends meetings of the Executive Board as set out in the Articles of Association. He also serves on the Executive Council of the Number Resource Organization (NRO), which is the coordinating body for the world's Regional Internet Registries (RIRs).

DANIELLA COUTINHO
SENIOR EXECUTIVE ASSISTANT TO THE MANAGING DIRECTOR

Daniella is the Senior Executive Assistant to the Managing Director and is also responsible for supporting the Executive Board. This includes managing the high-level administrative and strategic activities of the Managing Director and Executive Board, handling meeting logistics, preparing documentation and ensuring efficient communication between the RIPE NCC's management team, Executive Board and stakeholders.

ATHINA FRAGKOULI
CHIEF LEGAL OFFICER

Athina is responsible for the RIPE NCC's legal affairs and relevant risks to the organisation, including:

- Legal and regulatory compliance
- Corporate governance
- Legal matters related to Internet governance, public policy, national authorities and law enforcement agencies (LEAs)
- Legal impact analysis as part of the RIPE Policy Development Process (PDP) and technical discussions
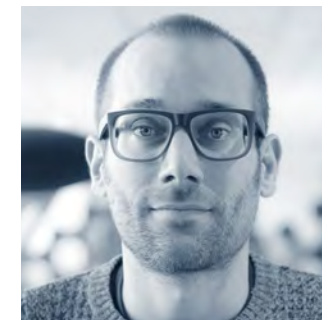
SIMON-JAN HAYTINK
CHIEF FINANCIAL OFFICER

Simon-Jan is responsible for controlling and managing the RIPE NCC's financial resources within its risk appetite. This includes ensuring that all financial transactions, systems and procedures comply with regulations, accounting principles and standards.

HISHAM IBRAHIM
CHIEF COMMUNITY OFFICER
Hisham is responsible for managing and leading the External Engagement & Community budget and activities. External Engagement & Community consists of:

- Community Building and Member Engagement
- Community Learning and Development
- Community Coordination and Collaboration
- Research

FELIPE VICTOLLA SILVEIRA
CHIEF TECHNOLOGY OFFICER
Felipe is responsible for managing and leading the Technology and Information Services budget and activities. Information Services consists of:

- LIR Portal
- RPKI
- RIPE Database
- DNS and K-Root
- RIPE Atlas
- RIPEstat
- RIS
- IT Support

CAROLIEN VOS
CHIEF HUMAN RESOURCES OFFICER
Carolien is the head of HR and Administration and leads the two teams in these domains. She is responsible for developing and implementing the organisation's human resources strategy to attract, develop and retain talented employees to achieve current and future business objectives with a healthy company culture in line with our values. She is also responsible for maintaining and improving office facilities and ensuring the delivery of organisational (administrative) support.

ELEONORA PETRIDOU
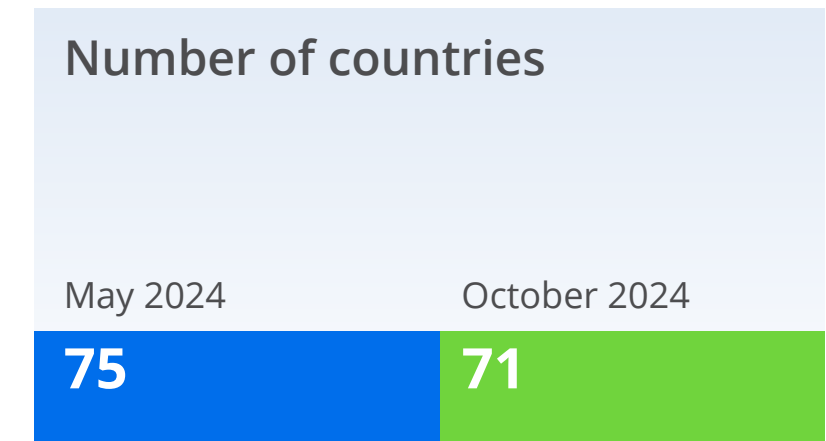### CHIEF INFORMATION SECURITY OFFICER
Eleonora is responsible for ensuring that the RIPE NCC maintains necessary levels of information security and compliance with best practices and applicable regulations.

GENERAL MEETING

The RIPE NCC holds a General Meeting (GM) twice a year - in spring and in autumn. The GM is the forum at which members can discuss the operations and activities of the RIPE NCC and share their feedback. Members also vote on the Charging Scheme for the following year, elect representatives on the RIPE NCC Executive Board and give their feedback on our Activity Plan and Budget.

At the May 2024 General Meeting, the membership adopted a new Charging Scheme. For 2025, the annual contribution per LIR account increased by EUR 250, and the separate charge per independent Internet number resource assignment increased to EUR 75. This Charging Scheme also introduced an additional fee of EUR 50 per ASN assignment. At this same General Meeting, Sander Steffann was elected to the Board and Piotr Strzyżewski was re-elected.

At the October 2024 General Meeting, members approved the redistribution of the excess contribution/deficit paid in the financial year 2024.

Eligible member turnout	
May 2024	October 2024
8.5%	6.2%

Registered votes	
May 2024	October 2024
2,002	1,464

Cast votes	
May 2024	October 2024
1,682	1,226

Number of countries	
May 2024	October 2024
75	71
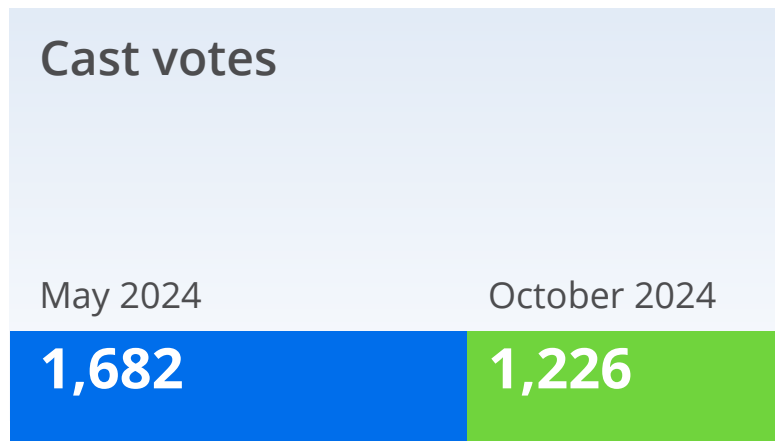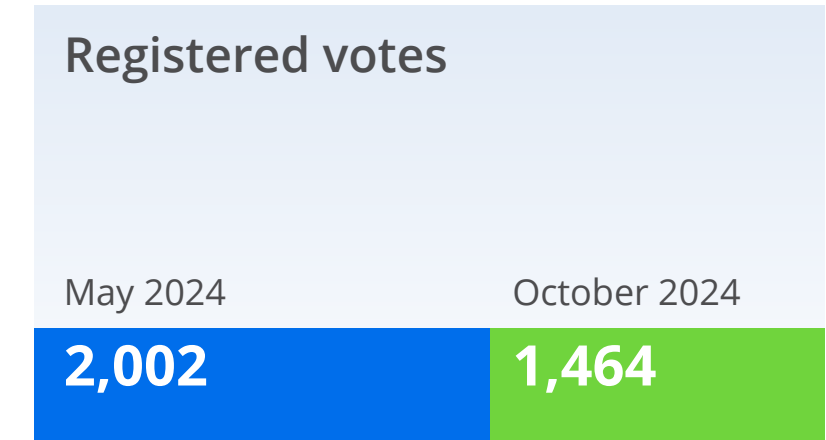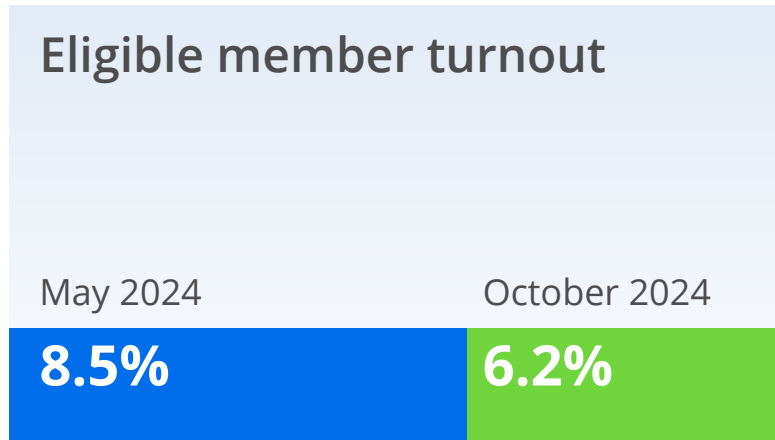
RIPE Labs
Analysing Turnout at the October 2024 GM Read more

READ MORE

LEGAL FRAMEWORK, LEGAL COMPLIANCE AND TRANSPARENCY

We aim to constantly enhance our legal framework. We also aim to be transparent with regards to requests we receive in compliance with the applicable legislation and with the RIPE NCC legal framework.

LEGAL FRAMEWORK

In 2024, we amended the following RIPE NCC legal documents:

- Closure of Members, Deregistration of Internet Resources and Legacy Internet Resources
- RIPE NCC Services for Legacy Internet Resources of RIPE NCC Members Terms and Conditions
- RIPE NCC Services for Legacy Internet Resources Agreement (Legacy Agreement)
- Transfer of Internet Number Resources and Change of a Member's Official Legal Name
- RIPE Database Acceptable Use Policy
- Meeting Registration Terms and Conditions
- Virtual Meeting Registration Terms and Conditions
- RIPE NCC Privacy Statement
- Handling Requests for Information, Orders and Investigations from Law Enforcement Agencies

All of these documents and their previous versions are available on our website.

READ MORE

LEGAL COMPLIANCE

GDPR Compliance

In 2024, we received 86 GDPR requests in total. Upon receipt of any GDPR request and before we take any action, we ask to verify that the requester is the data subject of whom the request is about.

85 requests were from individuals requesting to delete their personal data. We complied with 52 requests to delete the personal data of the individuals that contacted us. We could not comply with 32 requests as the personal data in question belonged to a third party and was managed by a third-party account.

One request asked us to confirm whether we are processing any personal data concerning the requester. We complied with the request.

We also had four data breach incidents involving: a single instance of unauthorised access to 14 SSO accounts; the unauthorised disclosure of a number of email addresses; an email containing invoices sent to the wrong recipient; and unauthorised access to the servers of a third party that processes data on our behalf for our Dubai office. Only the latter incident required disclosure to the Data Protection Authorities, which we complied with.

DSA Compliance

Per the obligations of Article 16 of Regulation (EU) 2022/2065, otherwise known as the Digital Services Act (DSA), the RIPE NCC introduced a notification mechanism on the RIPE NCC website in 2024 that allows an individual or entity to notify the RIPE NCC of the presence of content that they consider to be illegal on any of the webpages hosted by the RIPE NCC.

In 2024, the RIPE NCC received 146 such DSA notices.

- 144 DSA notices related to content which was not on any of the webpages hosted by the RIPE NCC. The RIPE NCC therefore did not take any action.
- One DSA notice requesting the removal of personal information contained within the requester's own signature field in an email published as part of a RIPE mailing list archive. The RIPE NCC complied with

this request and removed the requester's personal information as requested.

- 1 DSA notice requesting the removal of an email published as part of a RIPE mailing list archive that was alleged to contain defamatory information about the requester. The analysis performed by the RIPE NCC concluded that the content of the email could not be considered as illegal and therefore did not take action under the DSA. However, the content was considered to have infringed the RIPE Code of Conduct, and thus this content was removed by the moderators for this reason.

TRANSPARENCY
Arbitration Cases
In 2024, we did not have any arbitration cases.

LEA Transparency Report
The RIPE NCC receives information requests from Law Enforcement Agencies (LEAs) and tries to facilitate the provision of any required publicly available information. We do not provide confidential or private information to LEAs without a court order or other legally enforceable order or request under Dutch law.

READ MORE

Revising ICP-2
We have carried out a significant amount of work this year in order to fortify the accountability of the RIR system. The ICP-2 document (ICP-2: "Criteria for the Accreditation of Regional Internet Registries") was originally published in 2001 and lays out the process for establishing new RIRs. In 2024, we worked on establishing implementation procedures for ICP-2, which are now adopted by the NRO EC and ICANN. Additionally, we've been supporting the NRO NC in revising the ICP-2 document with input from RIR communities. The NRO NC shared a questionnaire asking for community feedback on the principles that should guide the document and received nearly 300 responses. Our goal is to ultimately produce a document that strengthens the accountability and resilience of the RIR system.

RIPE Labs
Criteria for the Accreditation of Region Internet Registries Read more

RIPE Labs
Revising the Criteria for the Accreditation of Region Internet Registries Read more

SANCTIONS AND MEMBER RESOURCES

In 2024, we kept investing time and effort in screening potentially sanctioned members or End Users. This included reviewing whether non-sanctioned members or End Users were owned or controlled by sanctioned parties.

To ensure compliance, we have invested in a third-party sanctions screening tool to automate this process; however, our manual follow-up due diligence checks still required substantial effort from us. In cases where a member or End User is found to be subject to sanctions, we are required to freeze their registered resources in the RIPE Database. However, we do not have to deregister these resources or terminate memberships.

After the introduction of an exemption applicable to Internet number resources in the EU Sanctions Regulation against Russian entities and individuals, we were investigating the possibility of a blanket exemption from all EU sanctions for Internet number resources. However, the geopolitical situation in our service region has not helped these efforts.

Since 2021, we have also been dealing with ongoing banking issues as many banks are hesitant to accept payments from individuals or entities in Iran and Syria. This has prevented many of our Iranian and Syrian members from being able to fulfil their financial payment

obligations to us. We have therefore offered payment extensions to these members until we resolve the issues with our banks and are seeking a long-term solution to this situation.

READ MORE

QUARTERLY SANCTIONS TRANSPARENCY REPORTS

To keep members informed, we publish quarterly sanctions transparency reports on how RIPE NCC members, End Users and legacy resource holders are affected by sanctions. In 2024, we published four reports:

ripe-817
Q1 2024

READ MORE

ripe-825
Q2 2024

READ MORE

ripe-827
Q3 2024

READ MORE

ripe-830
Q4 2024

READ MORE

COMPLIANCE EFFORTS

ISO 27001 Annex A Control Themes - Under Implementation

Information security policies, governance, risk management, roles, procedures, compliance.

Organisational
(37 Controls)

Training, awareness, user access, background checks, responsibilities, behavioral guidelines.

People
(8 Controls)

Technological
(34 Controls)

Encryption, firewalls, intrusion detection, authentication, access management, monitoring systems.

Physical
(14 Controls)

Secure access, surveillance, environmental protection, equipment security, facility access.

SOC 2 Control Framework Controls - Implemented

Ensures system uptime, failover readiness, disaster recovery, redundancy, backup reliability, and continuous performance monitoring.

Availability
(Implemented 9 Controls)

Protects sensitive data through access controls, encryption, secure storage, data classification, policies and procedures.

Processing Integrity
(Implemented 10 Controls)

SOC 2 Control Framework

Confidentiality
(Implemented 2 Controls)

Maintains system accuracy, completeness, and reliability through data validation, process monitoring, error detection, and audit trails.

Security
(Implemented 55 Controls)

Safeguards systems from threats via access controls, vulnerability management, intrusion detection, threat monitoring, and incident response.

We have been working on establishing compliance with ISO 27001 and acquiring SOC 2 Type I / II assurance reporting (for the RPKI service) for improved information security and risk management. As part of these efforts, we have implemented and are continuing to implement a number of controls in different areas of our organisation.

OVERVIEW OF COSTS PER ACTIVITY IN 2024 (in kEUR)

These figures are not part of the Financial Report and as such have not been audited by an external third party. These figures serve only as indications of the costs relating to these activities.

	Budget Operational Expense 2024	Actual Operational Expense 2024	Variance 2024	Actual Operational Expense 2023
The Registry	**9,600**	**9,509**	**(91)**	**10,146**
Registration Services	2,300	2,306	6	2,436
Member Services	1,350	1,473	123	1,474
Registry Monitoring	1,350	1,284	(66)	1,298
LIR Portal	2,350	2,367	17	2,590
RPKI	1,550	1,445	(105)	1,662
RIPE Database	700	634	(66)	686
Information Services	**7,400**	**7,851**	**451**	**7,343**
DNS and K-Root	850	1,030	180	929
RIPE Atlas	1,350	1,464	114	1,336
RIPEstat	550	528	(22)	454
RIS	900	630	(270)	629
IT Support	3,750	4,199	449	3,995
External Engagement & Community	**9,600**	**8,276**	**(1,324)**	**9,160**
Community Building and Member Engagement	5,750	4,974	(776)	5,543
Community Learning and Development	1,800	1,727	(73)	1,855
Community Coordination and Collaboration	2,050	1,575	(475)	1,762
Organisational Sustainability	**10,500**	**9,637**	**(863)**	**9,493**
Facilities	2,150	2,157	7	1,971
HR	1,100	1,059	(41)	1,324
Legal	1,100	1,068	(32)	957
Finance	1,650	1,590	(60)	1,515
Information Security, Risk and Compliance	2,000	1,478	(522)	1,414
Office of the Managing Director	2,200	2,018	(182)	2,048
RIPE Chair	300	267	(33)	264
RIPE NCC	**37,100**	**35,273**	**(1,827)**	**36,142**
Bad Debts	350	356	6	385
Depreciation	750	621	(129)	732
RIPE NCC TOTAL	**38,200**	**36,250**	**(1,950)**	**37,259**

OVERVIEW OF COSTS PER ACTIVITY IN 2024

For 2024, the RIPE NCC's operating expenses are under budget by 1.9M EUR.

- **The Registry:**
  91 kEUR under budget (-0.9%)
- **Information Services:**
  451 kEUR over budget (6.1%)
- **External Engagement & Community:**
  1,324 kEUR under budget (-13.8%)
- **Organisational Sustainability:**
  863 kEUR under budget (-8.2%)
- **Bad Debts and Depreciation:**
  123 kEUR under budget (-11.2%)

In 2024, we budgeted for 21,500 active LIR accounts. This incorporated the expected consolidation of multiple LIR accounts, as we ended 2023 with 21,570 active LIR accounts. The 2024 income budget also included our members from Ultra High-Risk Countries and 1,600 new LIR accounts. This meant we anticipated a lower-than-budgeted income over 2024, which turned out to be the case. To account for this, we continued our focus on finding cost efficiencies, while balancing the effectiveness of our spending and ensuring we maintained our high level of service. We have increased the focus on finding sponsors, resulting in being only 3 kEUR under budget on budgeted sponsorship income, a very good result we can be proud of. We also reduced and consolidated our data centre presence, which, despite delays in 2024, will lead to long-term savings.

As documented in the RIPE NCC Activity Plan and Budget 2025 on page 11, from 2025 onwards we have changed the way we report our activities. In 2025, we reported the Registry-related Technology activities (LIR Portal, RPKI and RIPE Database) under Information Services. However, this Annual Report follows the structure on page 11 of the RIPE NCC Activity Plan and Budget 2024, in which these activities are under the Registry.

THE REGISTRY

The Registry was just slightly under budget by 91kEUR, or 0.9%. The first three activities under the responsibility of the CRO came in slightly over budget by 63 kEUR, or 1.3%. The 2024 FTE budget was on the low side, and this has been corrected in the 2025 budget. The LIR Portal, RPKI and RIPE Database came in under budget by 153k EUR, or 3.3%. For more information, see Information Services.

INFORMATION SERVICES

Information Services was over budget due to delays in the downsizing of our data centre footprint, resulting in additional costs. These costs were significantly offset by cost savings in the other activities falling under the responsibility of the CTO, specifically in software costs. Overall, Information Services came in over budget by 451 kEUR, or 6.1%. This was further offset by budget savings in the LIR Portal, RPKI and RIPE Database, resulting in an overall budget overspend of 2.5%, or 297 kEUR. Looking at the delays, this is still a respectable result overall. Additionally, these delays required postponing investment in hardware for the data centre.

EXTERNAL ENGAGEMENT & COMMUNITY

This area was significantly under budget, by 13.8%. Both RIPE Meetings in 2024 were a lot cheaper than we anticipated in the 2024 budget process. This, combined with very conservative spending and under-utilisation of the FTE budget, resulted in significant budget savings of 1.3M EUR. For 2025, no additions to this budget were made other than to account for inflation and salary increases.

ORGANISATIONAL SUSTAINABILITY

This area was under budget by 8.3%, or 863 kEUR. All activities within this area were on budget or slightly under, except for Information Security, Risk and Compliance, the Office of the Managing Director and the RIPE Chair, which were all considerably under budget.

The Information Security, Risk and Compliance department operated 26.1% below budget due to challenges in attracting qualified personnel, leading to an underutilisation of the FTE budget by 1.8 FTEs. This staffing shortfall impacted the department's ability to fully allocate resources, limiting spending capacity for planned initiatives. The Office of the Managing Director was 8.2% or 182 kEUR under budget, mainly due to underspending for the RIR-shared NRO budget. Finally, the RIPE Chair was 10.8% under budget, which in fact means only a 33 kEUR underspend on a 300 kEUR budget.

BAD DEBTS AND DEPRECIATION

Bad debts were slightly over budget due to the continued uncertainty from payment extensions offered to members in areas in distress. Depreciation was significantly under budget as a result of the delay in the data centre reduction, which led to less capital expenditure compared to the budget.

OVERVIEW OF THE RIPE NCC BUDGET AND EXPENSES 2024

Budget and Expenses (in kEUR)

	The Registry	Information Services	External Engagement & Community	Organisational Sustainability	Bad Debts and Depreciation
Total budget 38,200	9,600 ↓	7,400 ↑	9,600 ↓	10,500 ↓	1,100 ↓
Actual expenses 36,251	9,509	7,851	8,276	9,637	977

The Registry

	Registration Services	Member Services	Registry Monitoring	LIR Portal	RPKI	RIPE Database
Total budget 9,600	2,300 ↑	1,350 ↑	1,350 ↓	2,350 ↑	1,550 ↓	700 ↓
Actual expenses 9,509	2,306	1,473	1,284	2,367	1,445	634

Information Services

	DNS and K-Root	RIPE Atlas	RIPE-stat	RIS	IT Support
Total budget 7,400	850 ↑	1,350 ↑	550 ↓	900 ↓	3,750 ↑
Actual expenses 7,851	1,030	1,464	528	630	4,199

External Engagement & Community

	Community Building and Member Engagement	Community Learning and Development	Community Coordination and Collaboration
Total budget 9,600	5,750 ↓	1,800 ↓	2,050 ↓
Actual expenses 8,276	4,974	1,727	1,575

Organisational Sustainability

	Facilities	HR	Legal	Finance	Information Security, Risk and Compliance	Office of the Managing Director	RIPE Chair
Total budget 10,500	2,150 ↑	1,100 ↓	1,100 ↓	1,650 ↓	2,000 ↓	2,200 ↓	300 ↓
Actual expenses 9,637	2,157	1,059	1,068	1,590	1,478	2,018	267

ACTIVITY PLAN AND BUDGET 2024 COMMITMENTS

In the table below, we list the commitments we made in our Activity Plan and Budget 2024 and how we lived up to those commitments. We do not include those commitments that are business as usual or that can be considered as continuing to carry out a high level of service in a certain area.

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
1	Achieve a 100% verification rate for our members and independent resource holders	1.1 Registration Services	Registry	*In progress* 98.7% of all members and 99.8% of all independent resource holders were verified within the last five years.
2	Conduct an external audit of our Registry accuracy and implement any necessary improvements	1.1 Registration Services	Registry	*Completed*
3	Sustain an NPS exceeding 80 and a CES of at least 6.5	1.1 Registration Services	Registry	*Completed* The NPS was 88, and the CES was 6.7.
4	Reduce the number of outstanding invoices while increasing our quality of service	1.2 Member Services	Registry	*Completed* We made a reduction of around 20%.
5	Achieve an NPS of 80 and a CES of 6.5	1.2 Member Services	Registry	*Completed* The NPS was 81, and the CES 6.5
6	Consult with members and the community on what role, if any, the RIPE NCC should play in the IPv4 transfer market	1.2 Member Services	Registry	*On hold* This effort is still in the initial phase to analyse its feasibility and benefits.
7	Fully clear the backlog of sanctions investigations and prioritise Registry-focused auditing	1.3 Registry Monitoring	Registry	*In progress* Around 100 cases remain under investigation.
8	Implement notifications of changes to company information for sponsored End Users holding PI space and ASNs	1.3 Registry Monitoring	Registry	*On hold* Monitoring Registry Accuracy project for End Users not yet initiated due to the delay of two other projects: ARC automation and Data Warehousing. Now scheduled for 2025.
9	Complete a total of 2,400 ARCs	1.3 Registry Monitoring	Registry	*Completed*
10	Sustain an NPS exceeding 80 and a CES of at least 6.5	1.3 Registry Monitoring	Registry	*Completed* The NPS was 87, and the CES was 6.8.

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
11	Standardise RIPE NCC Access sign-on from different applications and provide multi-factor authentication	1.4 LIR Portal	Registry	***On hold*** Standardise RIPE NCC Access sign-on from different applications ***Completed*** Provide Two-Factor Authentication
12	Improve the security of our external APIs	1.4 LIR Portal	Registry	***In progress*** We worked on an API solution for the RIPE Database to be delivered in January 2025. Then we will improve the API keys in the LIR Portal with the same solution.
13	Finalise changes in relation to End Users and how we store their information	1.4 LIR Portal	Registry	***In progress***
14	Finalise automation of the Assisted Registry Check process	1.4 LIR Portal	Registry	***Completed***
15	Provide a UI to make the Assisted Registry Checks easier	1.4 LIR Portal	Registry	***On hold***
16	Make UI improvements in the LIR Portal, especially in the billing section	1.4 LIR Portal	Registry	***On hold***
17	Improve our infrastructure in regard to containerisation of our applications, observability and feedback	1.4 LIR Portal	Registry	***In progress***
18	Update our internal software to increase automation and efficiency in processing requests from the LIR Portal	1.4 LIR Portal	Registry	***On hold***

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
19	Improve the user experience of the RPKI Dashboard	1.5 RPKI	Registry	***Completed*** A new dashboard was released mid-October 2024.
20	Launch a more aligned API between RIRs	1.5 RPKI	Registry	***On hold*** As decided in the NRO RPKI Program, this is not a high priority.
21	Implement missing IETF standards like RSCs and BGPsec, initially through an API and later integrated with our RPKI Dashboard	1.5 RPKI	Registry	***On hold*** BGPSec, ASPA and RSC are planned to be implemented in 2025.
22	Work with the other RIRs, in coordination with the NRO RPKI Program Manager, to further align the RPKI service	1.5 RPKI	Registry	***In progress***
23	Complete a type 1 and type 2 ISAE 3000 audit	1.5 RPKI	Registry	***Completed*** Type 1 ***In progress*** Type 2
24	Execute a security assessment	1.5 RPKI	Registry	***Completed***
25	Have a consultation with the community about possible cloud migration and implement decision	1.6 RIPE Database	Registry	***Completed***
26	Continue implementation efforts on current and upcoming NWIs	1.6 RIPE Database	Registry	***In progress*** We implemented NWI-4, 2023-04 and NWI-12.

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
27	Continue work on RDAP features	1.6 RIPE Database	Registry	*In progress* We implemented RDAP features: Extension for geofeed data, RIR search (basic search features) and the RDAP transparency report.
28	Review and improve query and update authentication, including the use of SSO access tokens and the deprecation of MD5 password hashes	1.6 RIPE Database	Registry	*In progress* We published an updated migration plan to phase out MD5 hashed passwords by the end of 2025.
29	Begin operations for fourth AuthDNS core site	2.1 DNS and K-Root	Information Services	*Completed*
30	Keep growing the Hosted DNS footprint for both K-root and AuthDNS	2.1 DNS and K-Root	Information Services	*Completed*
31	Continue work to upgrade our name servers to newer versions of operating systems	2.1 DNS and K-Root	Information Services	*Completed*
32	Ask the members and the community about the decommissioning of the secondary DNS service for LIRs	2.1 DNS and K-Root	Information Services	*Completed*
33	Work on unifying the probe firmware to be easily installed on popular Linux distributions as a software package while remaining the basis for our hardware probes	2.2 RIPE Atlas	Information Services	*In progress* The release for the Debian and RedHat versions are done, while work on OpenWRT/internal use is ongoing.

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
34	Continue with the renewal of the data backend, making it more scalable and sustainable, with optimised storage costs and minimal impact on users	2.2 RIPE Atlas	Information Services	*Completed*
35	Work on renewing the supporting infrastructure, taking advantage of cloud technologies where beneficial	2.2 RIPE Atlas	Information Services	*In progress*
36	Improve service quality by using containers in our infrastructure and enhancing our measuring and monitoring efforts	2.3 RIPEstat	Information Services	*In progress* We improved our monitoring and migrated to a new VM-based infrastructure.
37	Measure the recency of the data on the backend and share this information in the Data API	2.3 RIPEstat	Information Services	*Completed* Decided to use the information as internal metrics and not include it in the API for now due to the difficulty in interpreting the data.
38	Reach a decision on which UI to use	2.3 RIPEstat	Information Services	*Completed* We have chosen to use the old UI with some improvements.
39	Adjust our peering strategy so that we collect more useful data	2.4 RIS	Information Services	*Completed*
40	Improve the quality of the data and infrastructure, e.g. by migrating tasks to newer servers	2.4 RIS	Information Services	*In progress*
41	Continue containerising our applications and deploying them in Kubernetes clusters	2.5 IT Support	Information Services	*In progress* We are focusing on the on-premises Kubernetes clusters.

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
42	Adopt a hybrid two-tier architecture	2.5 IT Support	Information Services	*In progress*
43	Reduce our data centre footprint in the backend for RIPE Atlas and RIS and migrate applications to the cloud or rented metal, as well as replace old hardware	2.5 IT Support	Information Services	*In progress* The first stage of reducing the physical footprint has been completed (for RIPE Atlas). We are currently focusing on reducing costs by consolidating services from ten to four racks in a new data centre outside of Amsterdam.
44	Deliver two RIPE Meetings and our regional events: SEE, MENOG and CAPIF	3.1 Community Building and Member Engagement	External Engagement & Community	*Completed*
45	Support NOGs in our service region by providing financial assistance and speakers	3.1 Community Building and Member Engagement	External Engagement & Community	*Completed*
46	Focus on our online engagements by delivering Open Houses, facilitating virtual presentations at events and supporting RIPE Meeting local hubs	3.1 Community Building and Member Engagement	External Engagement & Community	*Completed*
47	Increase the number of academic sessions that we host for students and maintain the number of other academic sessions	3.1 Community Building and Member Engagement	External Engagement & Community	*Completed*
48	Offer diversity initiatives such as RACI, RIPE Fellowships, childcare at events and inviting more diverse meeting speakers and attendees	3.1 Community Building and Member Engagement	External Engagement & Community	*Completed*

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
49	Increase efforts to get sponsorships	3.1 Community Building and Member Engagement	External Engagement & Community	*Completed*
50	Complete phase two of redesigning ripe.net	3.1 Community Building and Member Engagement	External Engagement & Community	*Completed*
51	Work on an improved company intranet and review the communications tools we use	3.1 Community Building and Member Engagement	External Engagement & Community	*In progress*
52	Move our translations wiki onto the redeveloped www.ripe.net and see if we can involve the community in some of this translation work	3.1 Community Building and Member Engagement	External Engagement & Community	*In progress* We have moved the translations platform to our website and are working on getting the community involved.
53	Make adjustments based on the RIPE NCC Survey 2023 and communicate these outcomes to members	3.1 Community Building and Member Engagement	External Engagement & Community	*In progress* We have published our key findings and will work on sharing outcomes in 2025.
54	Conduct 40 in-person workshops in 23 locations in our service region	3.2 Community Learning and Development	External Engagement & Community	*Completed* We delivered 54 in-person courses in 24 locations.
55	Deliver the same number of webinars and the same number of or fewer training courses as in 2023	3.2 Community Learning and Development	External Engagement & Community	*Completed*

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
56	Improve the user experience, such as by making more information available about our learning paths	3.2 Community Learning and Development	External Engagement & Community	*In progress* The final implementation, including learning paths, will be done in 2025.
57	Develop several new learning experiences with a focus on three topics: LIR/RIPE NCC membership, IPv6 and measurements and tools	3.2 Community Learning and Development	External Engagement & Community	*Completed* We finished the LIR Fundamentals e-learning, IPv6 Advanced in-person course, and two measurement and tools webinars.
58	Improve the administrative side of the Certified Professionals exam platform and improve exam quality	3.2 Community Learning and Development	External Engagement & Community	*Completed* We added the voucher management functionality, improved questions metrics, SSO integration and IPv6 access.
59	Improve engagement and user experience in the RIPE NCC Academy and better align e-learning and exams	3.2 Community Learning and Development	External Engagement & Community	*Completed*
60	Carry out RIPE NCC Roundtable Meetings	3.3 Community Coordination and Collaboration	External Engagement & Community	*Completed*
61	Implement additional office security measures and increase staff awareness of security procedures	4.1 Facilities	Organisational Sustainability	*Completed*

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
62	Implement findings of the 2023 Risk Inventory & Evaluation (RI&E) assessment	4.1 Facilities	Organisational Sustainability	*In progress* Many risks have been mitigated. Some risks identified will be mitigated by future office renovations.
63	Change our business travel insurance provider	4.1 Facilities	Organisational Sustainability	*Completed*
64	Update our travel policy	4.1 Facilities	Organisational Sustainability	*Completed* A new policy on staff travel, health, safety and information security was introduced.
65	Enhance staff engagement and leadership development	4.2 Human Resources	Organisational Sustainability	*In progress* Staff development programme was published. Workshops on feedback and personal resilience took place. RIPE NCC Leadership philosophy introduced. We also created a policy for addressing unwanted behaviour from third parties. Mediation in conflict situations has been professionalised.

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
66	Create an EoR handbook and document the process	4.2 Human Resources	Organisational Sustainability	*Completed*
67	Conduct periodic staff engagement surveys	4.2 Human Resources	Organisational Sustainability	*Completed*
68	Support the work of the NRO, particularly with the revision of the ICP-2 "Criteria for Establishment of New Regional Internet Registries" document	4.3 Legal	Organisational Sustainability	*In progress*
69	Seek a permanent solution for sanctions	4.3 Legal	Organisational Sustainability	*On hold*
70	Establish and maintain ISO 27001 compliance	4.5 Information Security, Risk and Compliance	Organisational Sustainability	*In progress* Established the Information Security Management System (to ISO 27001 standard).
71	Roll out the digital components of our security awareness training	4.5 Information Security, Risk and Compliance	Organisational Sustainability	*Completed* Onboarded a security awareness training platform.
72	Implement on-demand and/or automated security assessments in the development pipeline	4.5 Information Security, Risk and Compliance	Organisational Sustainability	*On hold* This was postponed to 2025.
73	Increase the percentage of detected threats by expanding security tooling coverage and enhancing our tooling maturity	4.5 Information Security, Risk and Compliance	Organisational Sustainability	*In progress* Expanding our security tooling coverage and capabilities for RIPE NCC access accounts.

#	Commitment from 2024 Activity Plan	Section	Pillar	Status
74	Introduce continuous risk monitoring via Key Risk Indicators (KRIs) and raise awareness through periodic reporting	4.5 Information Security, Risk and Compliance	Organisational Sustainability	*In progress* Established risk reporting for the Governance Committee and the Executive Board.
75	Establish a thorough control testing and monitoring initiative to detect and rectify potential gaps in alignment with our assurance controls for RPKI	4.5 Information Security, Risk and Compliance	Organisational Sustainability	*Completed* Established Control testing methodology and tooling for the RPKI SOC 2 control framework.
76	Ensure all relevant staff members receive comprehensive training on compliance control implementation, control testing and audit preparations	4.5 Information Security, Risk and Compliance	Organisational Sustainability	*Completed* All control owners for the RPKI SOC 2 control framework have received relevant training and guidance.
77	Evaluate and refresh our business continuity planning and processes	4.5 Information Security, Risk and Compliance	Organisational Sustainability	*In progress* Established business continuity planning for RPKI. This is ongoing for key Registry processes and other RIPE NCC services.
78	Hold at least four regularly scheduled Executive Board meetings and two General Meetings	4.6 Office of the Managing Director	Organisational Sustainability	*Completed*
79	Fully move beyond Holacracy by introducing a fit-for-putpose holistic management system	4.6 Office of the Managing Director	Organisational Sustainability	*Completed*