RIPE NCC Update

Axel Pawlik
Managing Director
RIPE NCC

What is the RIPE NCC?

- Secretariat for the RIPE community

- Distribute IP addresses and AS Numbers

- Maintain the RIPE Database

- RIPEstat, RIPE Atlas and other tools and services

- Funded by members, fully autonomous

- Open, transparent, neutral and impartial

Our Work in the Past Year

Annual Report 2018

- 4,401 additional members

- 4,610 /22 IPv4 allocations and 2,405 IPv6 allocations

- Over 2,000 attendees at RIPE NCC-organised events

- 98 training courses for 2,114 participants in 55 locations

- 2,628 ARCs completed (83 during RIPE Meetings)

- 10,400+ active RIPE Atlas probes

- 450+ RIPE Atlas anchors

Financial Report 2018

- Continuing to maintain strong and sustainable relations with our members as we approach IPv4 runout (Q4 2019)

- Focus on prudent cost management

- Sound capital and liquidity management

- Transparency in financial operations

# RIPE NCC General Meeting May 2019

- RIPE NCC Members voted to:

  - Adopt the Financial Report 2018

  - Discharge the Executive Board of its duties as they appear in the Annual Report 2018

  - Adopt the Charging Scheme 2020 (members voted for existing model from two options)

- Two candidates elected to the Executive Board:

  - Ondřej Filip

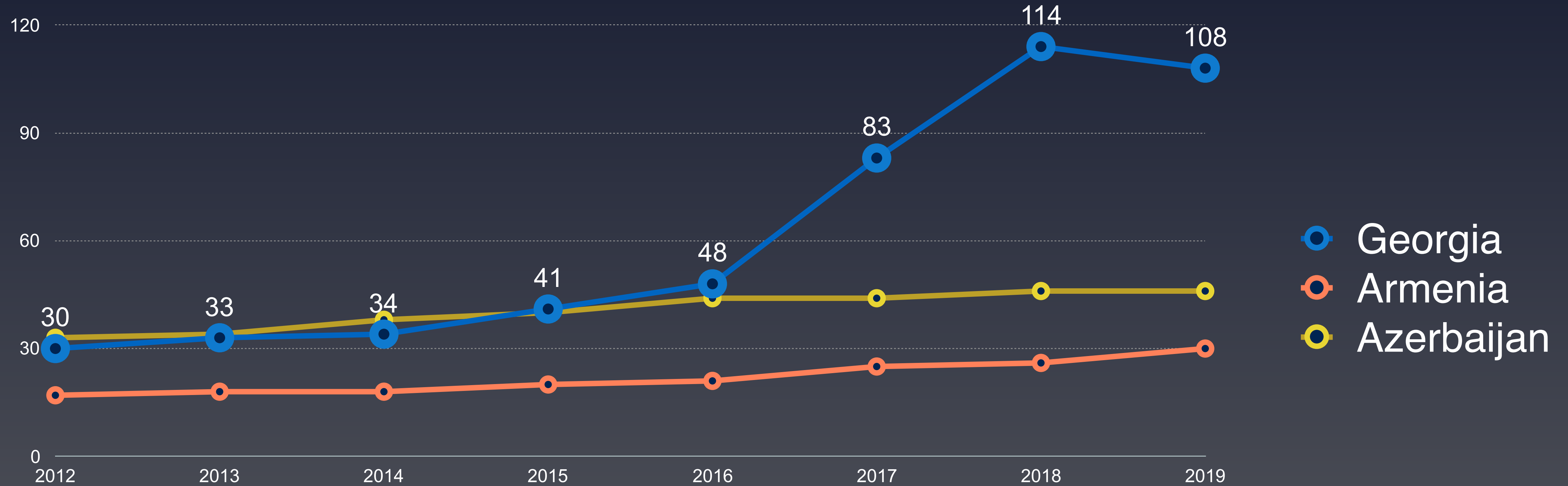 - Remco van Mook

Membership Growth

Membership Growth
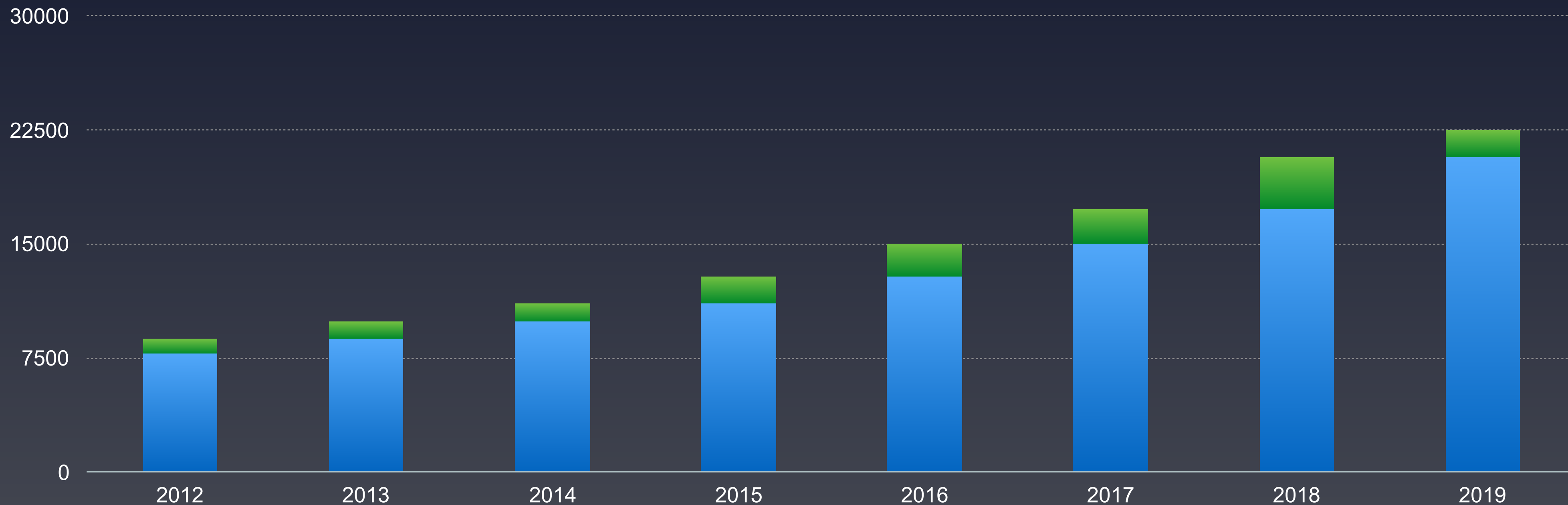
- 8% growth so far in 2019

- 13,700+ LIR accounts activated since last /8 reached in 2012
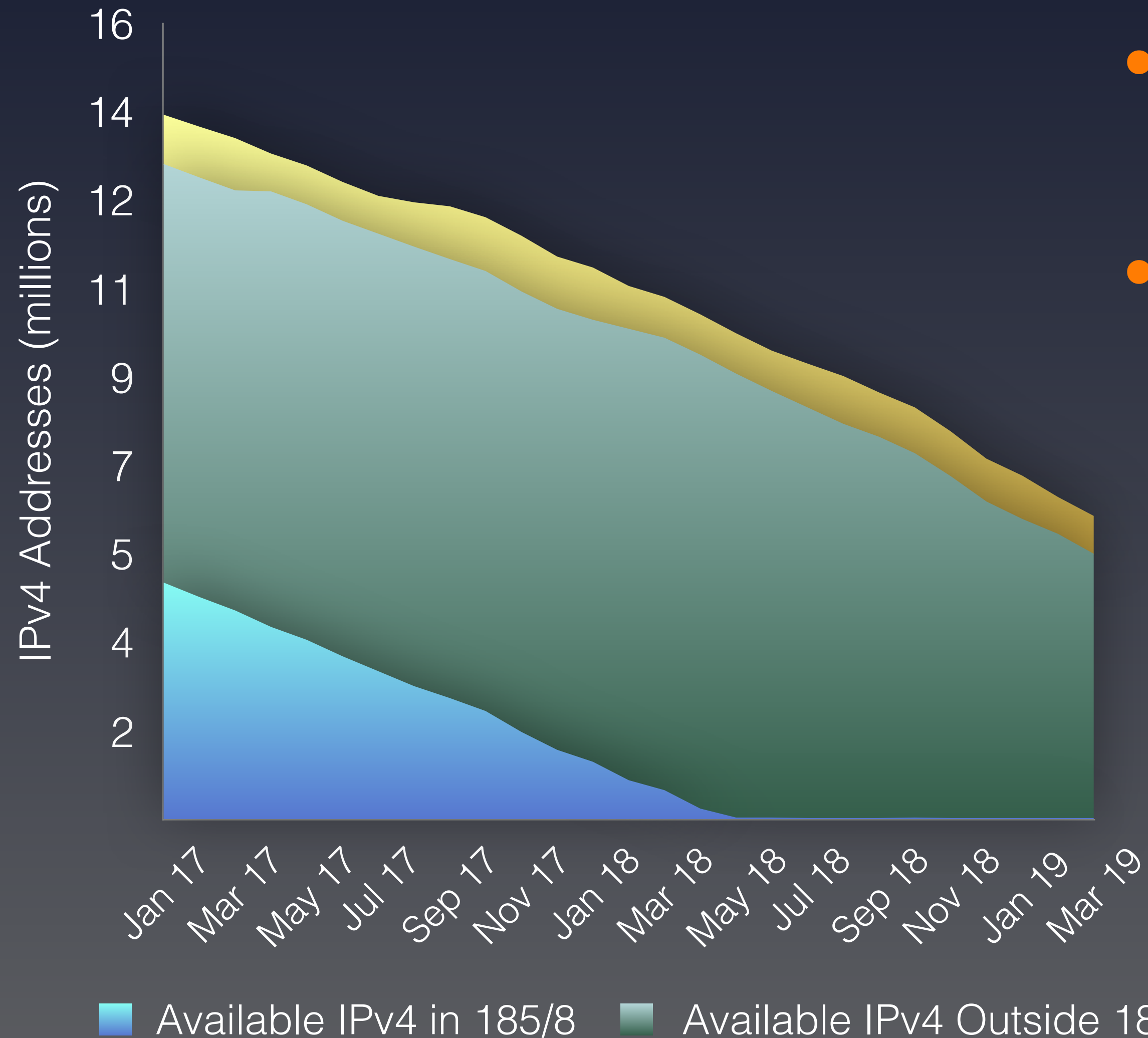
Membership Growth in Georgia

- Seventh highest number of LIR accounts per country in ENOG region (15 countries)

The Year Ahead

RIPE NCC's IPv4 Pool Exhaustion

IPv4 Addresses (millions)

16
14
12
11
9
7
5
4
2

Jan 17 Mar 17 May 17 Jul 17 Sep 17 Nov 17 Jan 18 Mar 18 May 18 Jul 18 Sep 18 Nov 18 Jan 19 Mar 19

■ Available IPv4 in 185/8   ■ Available IPv4 Outside 185/8   ■ Reserved IPv4

- Our current IPv4 pool will run-out by early 2020

- Our role:

  - Ensure run-out is handled fairly, efficiently, transparently

  - Make necessary changes to our processes and software ahead of time

  - Handle possible new challenges for our members - e.g. waiting lists

  - Keep members informed about run-out

Challenges

- Heavy increase in workload due to strong membership growth and increasing complexity of requests

- Preparing for drop in membership growth after IPv4 pool exhaustion

- Transfer market is as active as ever - maintaining an accurate RIPE Registry remains vital

- Ensuring existing infrastructure and processes remain robust enough to handle upcoming challenges

Our Strategic Focus in 2019

- Increase efficiency and agility to handle emerging challenges

- Ensure resilient infrastructure

- Maintain and further improve registry accuracy

- Increase accountability and due diligence

- Provide reliable data, be a neutral source of information on Internet resources

- Continue to develop engagement activities

99.25% of our Members

…and why they shouldn't worry

Talking About Closures… Better

- Massive increase in fraud has resulted in more closures

- Concerns raised at our RIPE NCC Day in Moscow - a sense that members in the ENOG region are being unfairly targeted

- We are undertaking to communicate better on this subject

  - RIPE Labs article: https://www.ripe.net/s/Rdc7

  - Due Diligence presentation at RIPE 78: https://www.ripe.net/s/0n8q

  - Want something else? Let us know!

Members Closed for Submitting Fake/Misleading Information

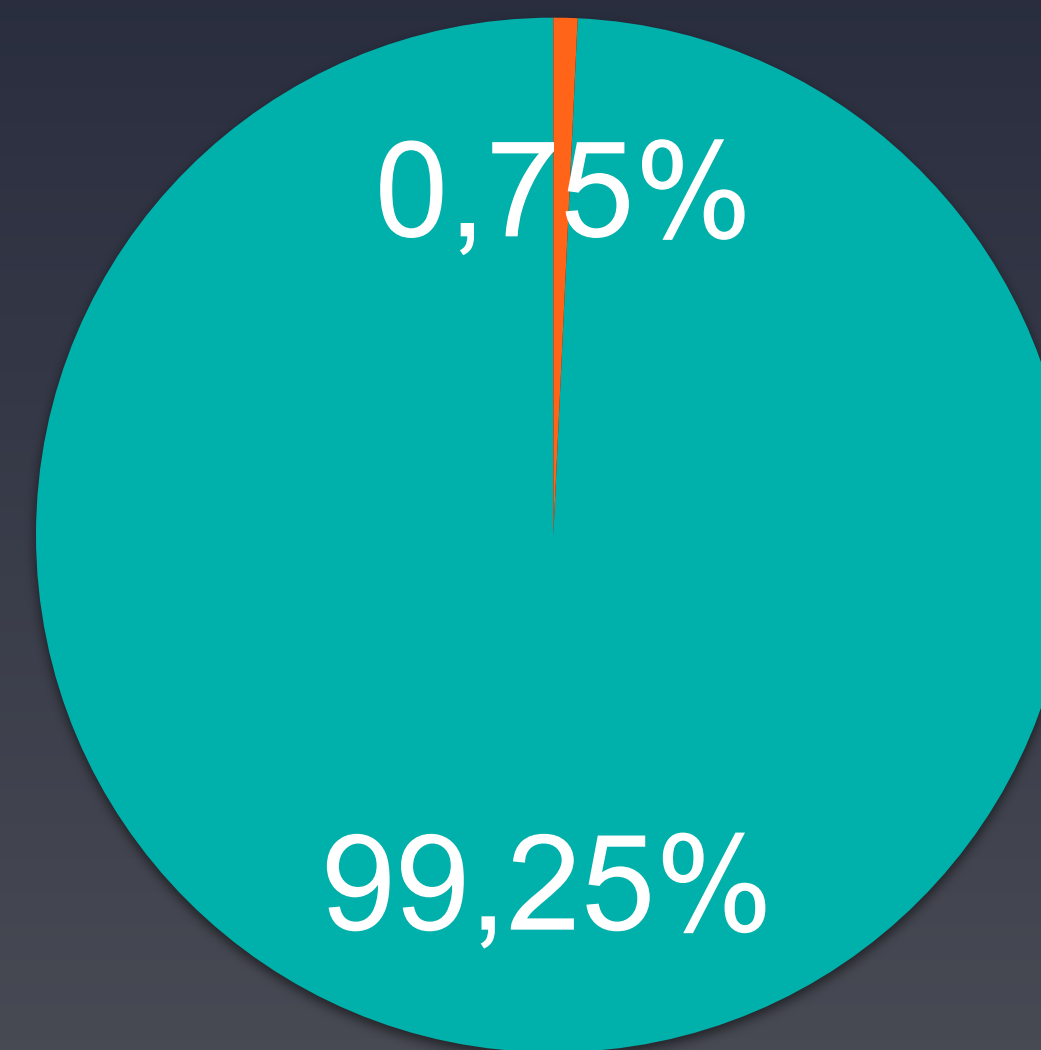| Year	Closures	By Country
2014	3	1 PL, 1 IR, 1 UA
2015	1	1 RU
2016	5	3 IR, 1 GR, 1 DM
2017	1	1 UK
2018	52	37 SC, 4 US, 3 UK, 3 HL, 2 CN, 2 RU, 1 AU
2019	7	4 RU, 1 HK, 1 KZ, 1 NL
Total	69	

What We Are Talking About

Members Closed for Fraud

Members Closed 2014-2019
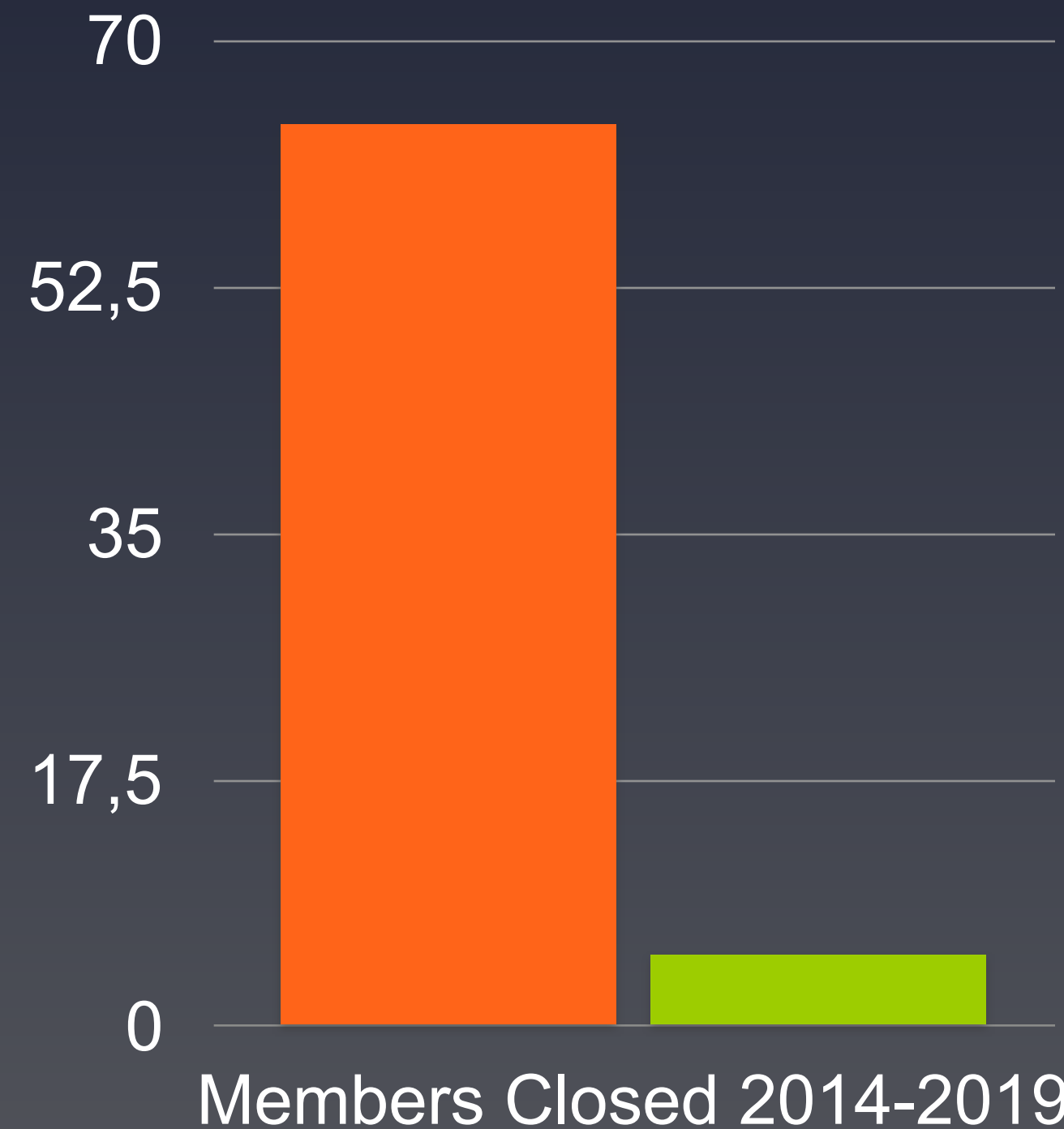
🟧 Untruthful information about themselves
🟩 Untruthful information about an End User

% of LIRs Being Investigated

0,75%

99,25%

Priority is supporting these members and protecting their resources

What We Are Hearing

- "The RIPE NCC's approach has changed"

- "How can we avoid mistakes? (as sponsoring LIRs)"

- "Uncertainty is what worries us most"

  - Members not sure what is expected of them

  - Asking for about details of cases

  - Asking for guidance about our procedures and how many times are considered 'multiple'

"The RIPE NCC's Approach Has Changed"

- We're still here for our members and our primary concern is an accurate registry:

    - We give warnings and offer guidance when we find a problem (depending on the seriousness of case)

    - Innocent mistakes will not result in the closure of a network… though serious negligence will

    - In most cases we're looking for a <u>pattern</u> of untruthful or negligent behaviour before we close a member

- What *has* changed is that an increase in fraud has caused us to increase our due diligence

"How Can We Avoid Mistakes?"

- We have seen sophisticated forgeries - but this is not about forensic investigations:

  - When we called an End User's office, no one answered…

  - …or a *different company* answered

  - Their contact email bounced

  - The person who signed the agreement had no obvious relationship to the company

  - Etc, etc, etc.

- This is what we're talking about when we say <u>due diligence</u>

- And if we look closer and find a pattern of this - we will want an explanation

- Schedule an Assisted Registry Check (ARCs) or get in contact - we are here to help!

"Uncertainty is What Worries Us"

- Confidentiality obligation to our members, even when trust of our wider membership is being affected

  - Difficult to counter untrue statements made in public

  - However, arbiters reports are public, including two recent cases: [1], [2]

- Details about our procedures helps people get around them

- Defining how many "mistakes" (fraud) we will tolerate sends the wrong message and sets expectations

  - "But I get one warning, right?" - Reply from a member after deliberately submitting fraudulent documents

Some Points to Consider

- Trust is <u>crucial</u> to our role as an authoritative registry

- An accountable system supports trust (Executive Board oversight, independent arbiters, RIPE NCC transparency)

- We're not talking about "mistakes" - we're talking about **fraud**

  - To steal resources from other networks

  - To evade RIPE policies

  - To obtain resources under fake identities

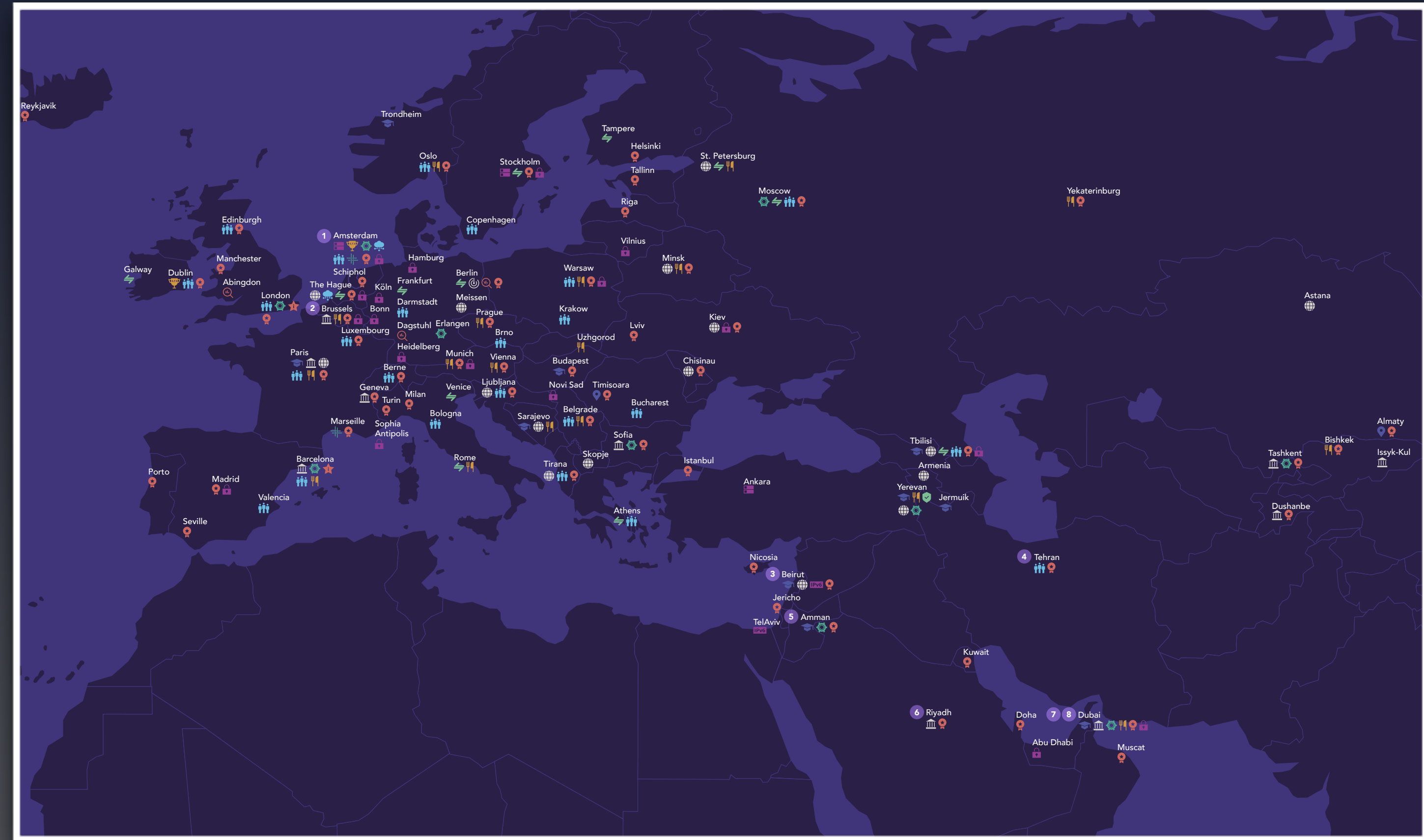- Open to suggestions - but they have to be realistic

Our Services

Engagement and Outreach

- RIPE Meetings and Regional Meetings

- Member Lunches

- Support for NOGs, national IGFs, technical community events

- Face-to-face training courses

- Community building on RIPE Labs

- Academic cooperation

- Hackathons

- Government roundtable meetings

Call for RIPE NCC Community Projects Fund Selection Committee

- Fund providing EUR 250,000 per year for projects supporting resilience and operation of the Internet

- Current Selection Committee:

  - Andreas Larson, Nuno Garcia, Mieke van Heesewijk, Salam Yamout

- Two seats open on the Selection Committee

- Please nominate yourself by 16 June 2019:

  www.ripe.net/s/sZWB

RIPE Atlas

- Developing non-hardware solutions

  - RIPE Atlas VM anchors now available

  - In development: RIPE Atlas software probes

- RIPE Atlas tools and data

  - Supporting new tools and visualisations for network operators

  - Research and analysis based on RIPE Atlas

- Get involved

  - We aim to cover as many ASNs as possible
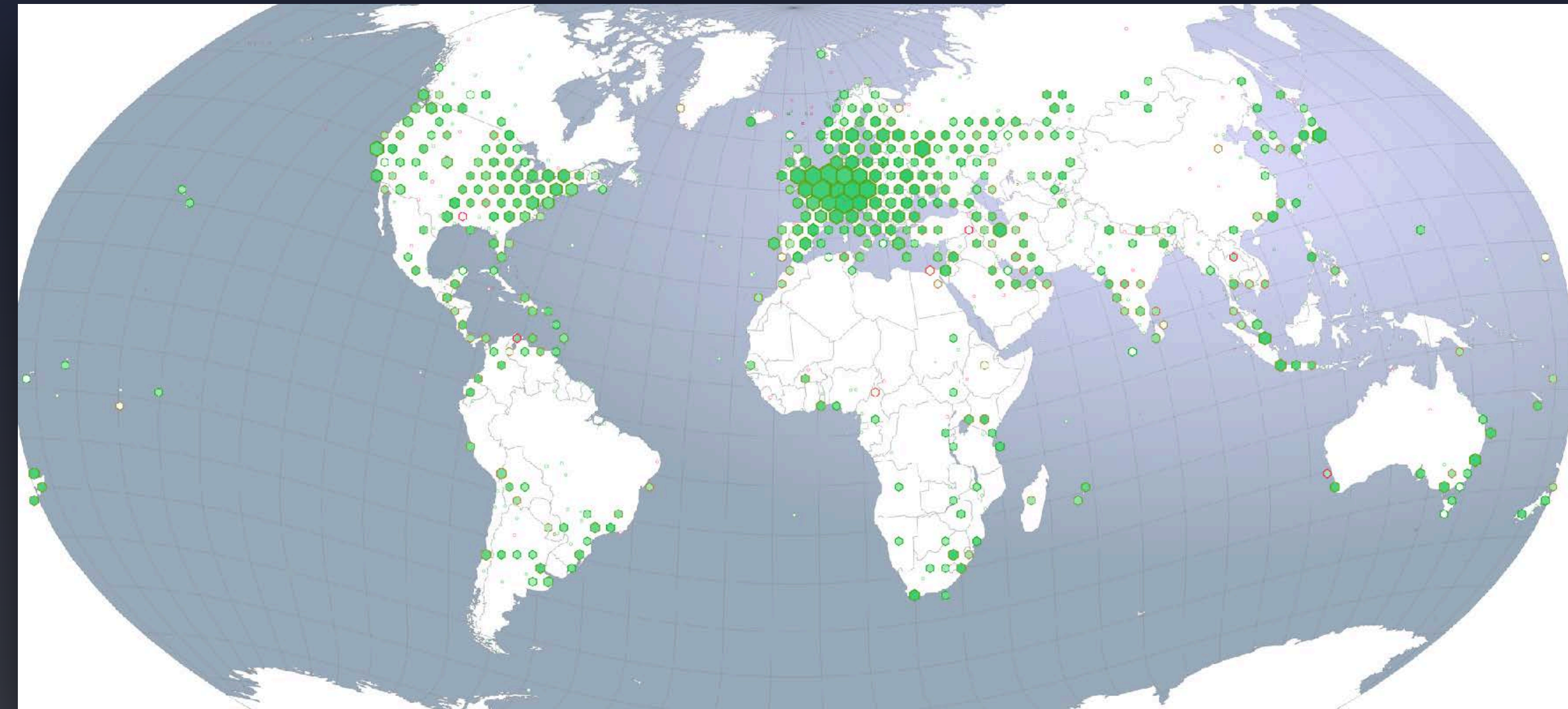
We are looking for sponsors for RIPE Atlas!

atlas.ripe.net/get-involved/become-a-sponsor/

RIPE NCC Certified Professionals

- Pilot exam testing for RIPE Database badge launching soon

- Apply to participate in the pilot testing round!

www.ripe.net/certified-professionals

RIPE NCC Survey 2019

- Previous survey took place in 2016 (4,400 participants)

- This will be our last survey before IPv4 exhaustion

- Available in 8 languages including Russian

- Please participate!

http://www.ripe.net/survey

3. Is your organisation a RIPE NCC Member?

Yes   No   Don't know

4. From a personal perspective, how long have you been interacting with the RIPE NCC

Less than 2 years   2-4 years

5-10 years   More than 10 years

Don't know / can't remember

Previous   Next

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survey matters.

Questions ❓

axel@ripe.net