



**RIPE  
NCC**

## **IPv6 Deployment in Europe**

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Mirjam Kühne, RIPE NCC

- Réseaux IP Européens Network Coordination Center
- Located in Amsterdam
- Not-for-profit membership association under Dutch law
- 11,000 members in 76 countries
- One of five Regional Internet Registries
- Independent, neutral, open



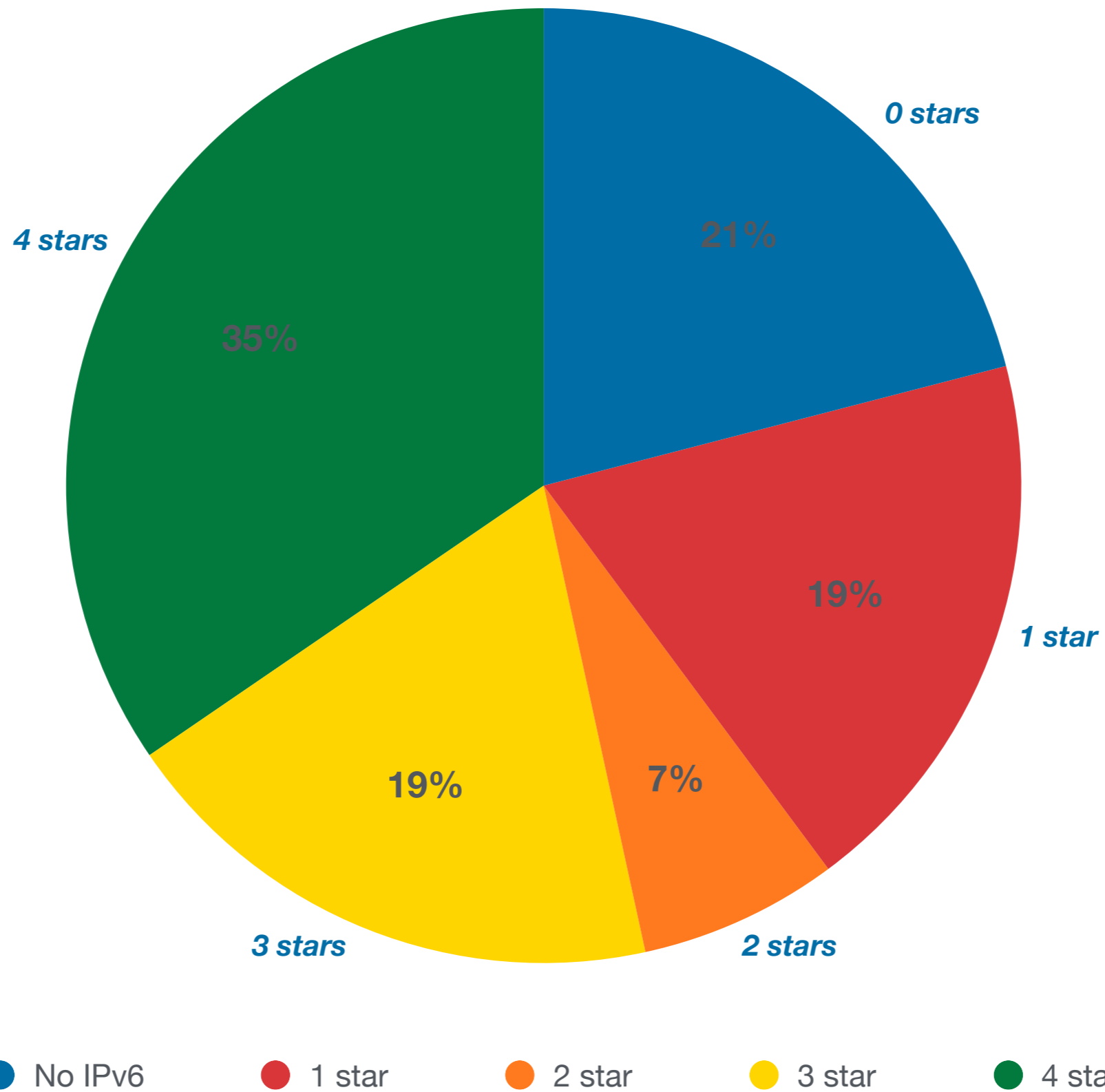
## Member Services

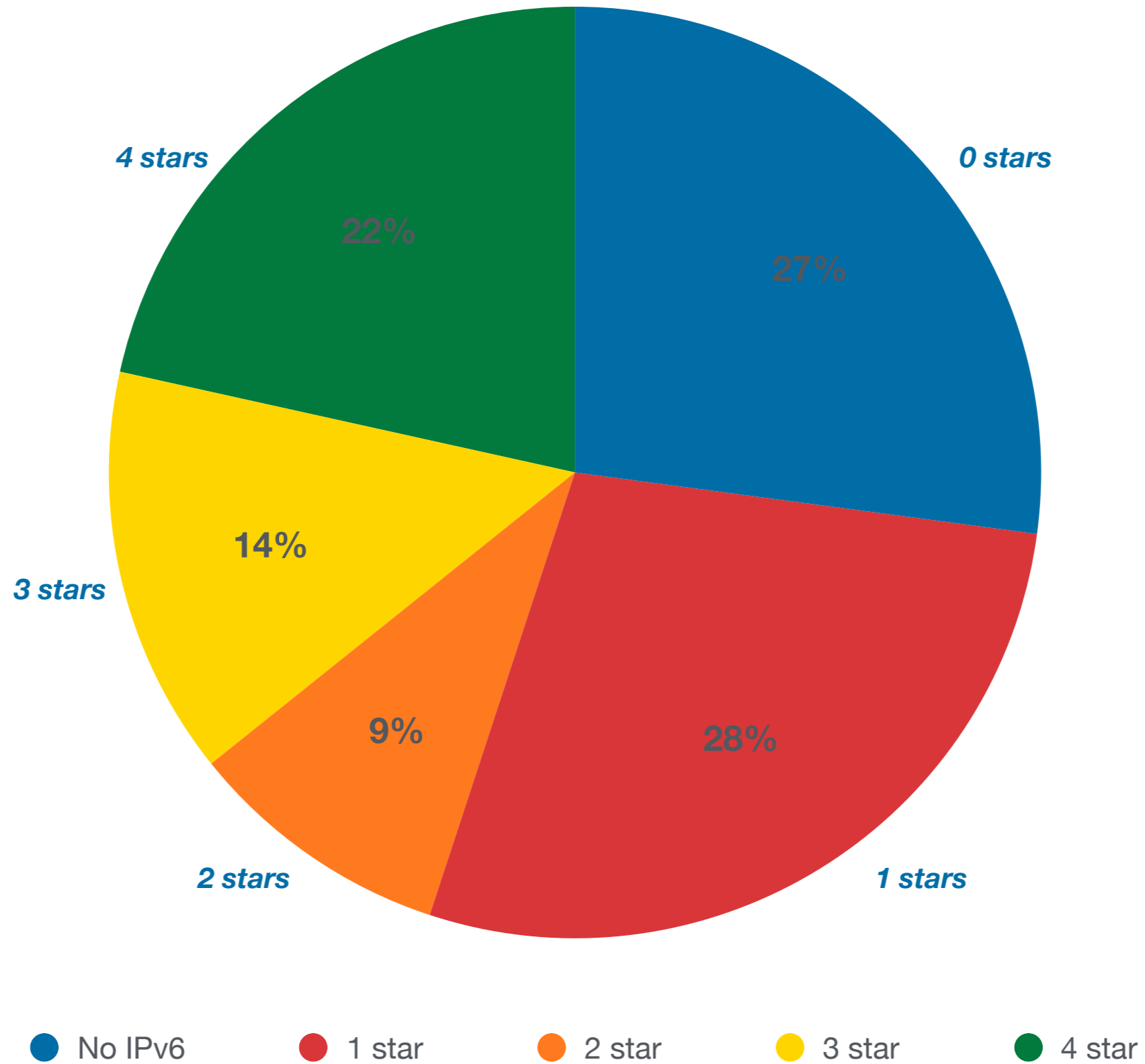
- Resource Distribution (IPv4, IPv6, ASNs)
- Resource Certification (RPKI)
- Training, Webinars

## Public Services

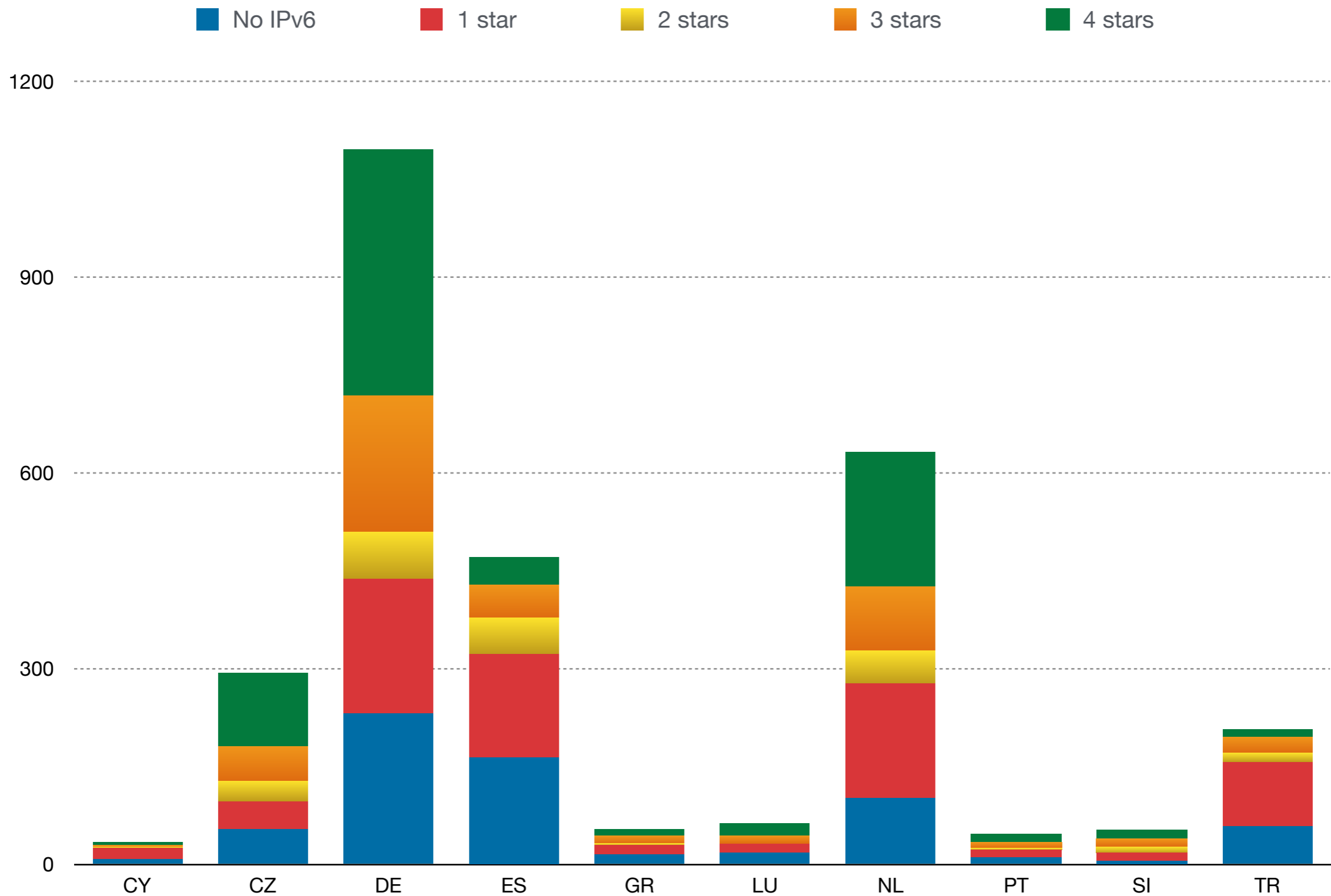
- RIPE Database
- K-root server
- Open community meetings
- Various operator tools (RIPE Atlas, RIPEstat, RIPE Labs, DNSmon)

- Rating system to monitor IPv6 adoption rates amongst RIPE NCC Members
- Stars are awarded for various steps in IPv6 deployment:
  - Obtaining IPv6 addresses
  - Visibility in global routing table
  - Setting up routing registry entries
  - Setting up reverse DNS
- Per country statistics published daily
  - <http://ripeness.ripe.net/>

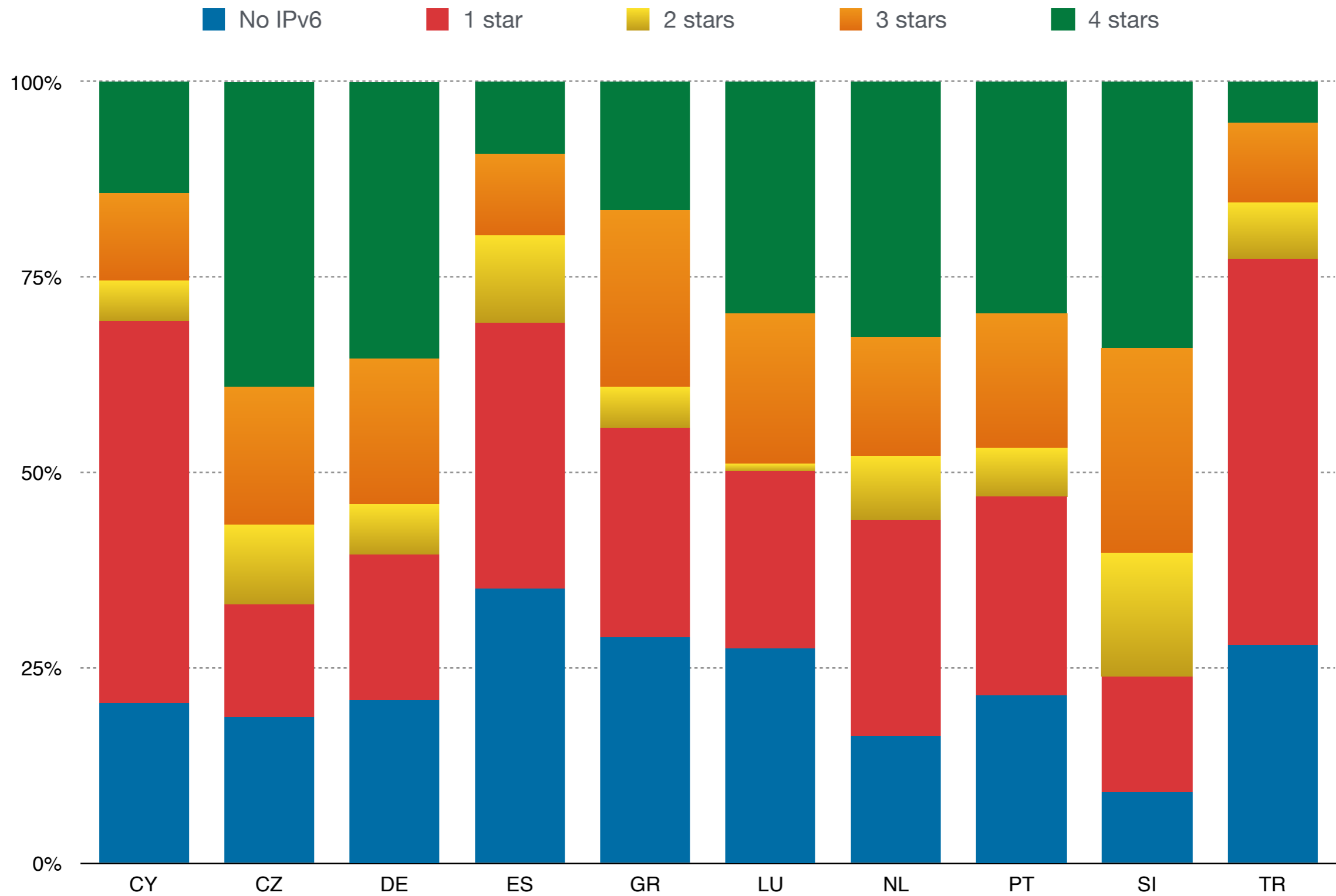




# IPv6 RIPEness GEN6 Countries

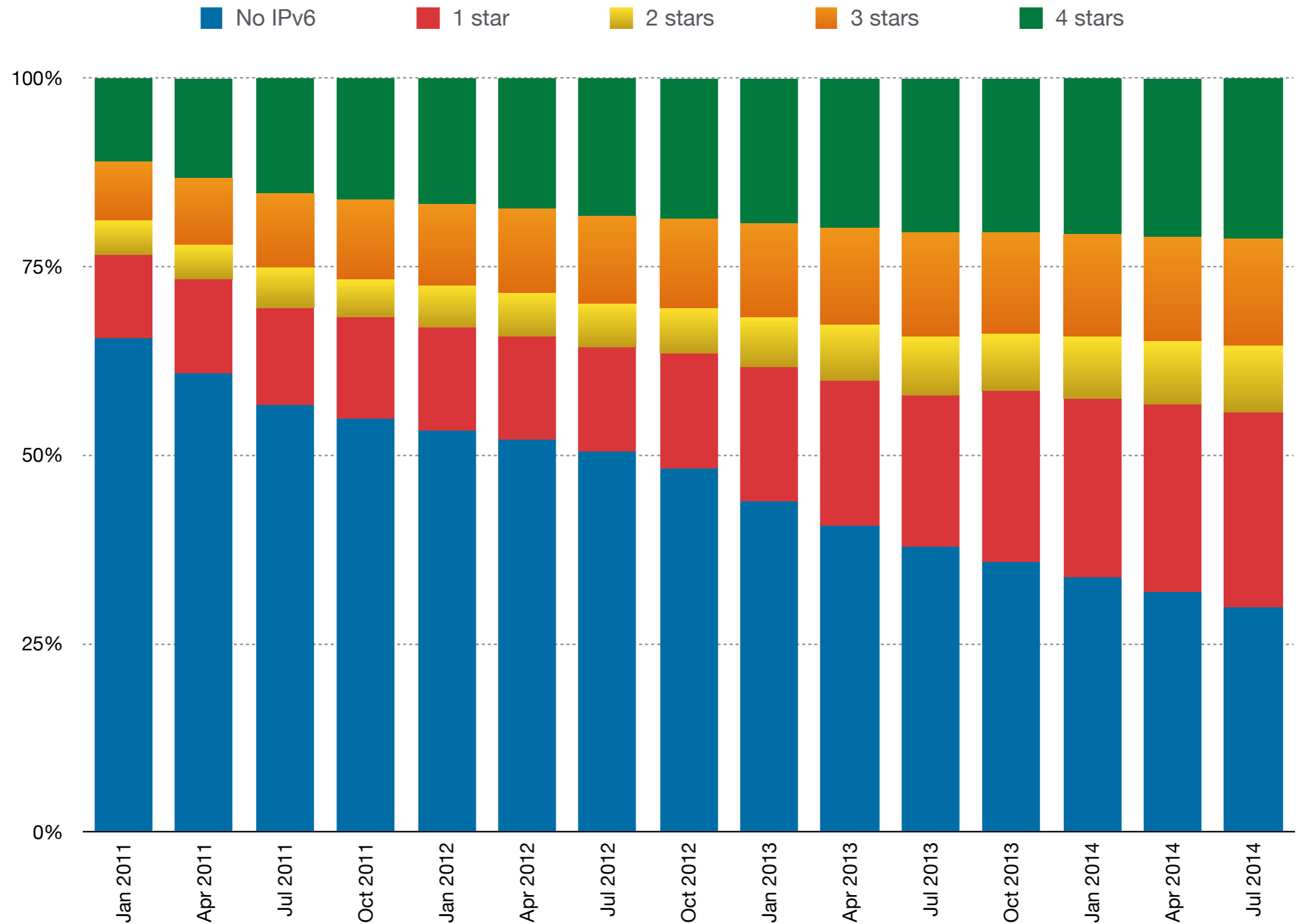


# IPv6 RIPEness GEN6 Countries (relative)

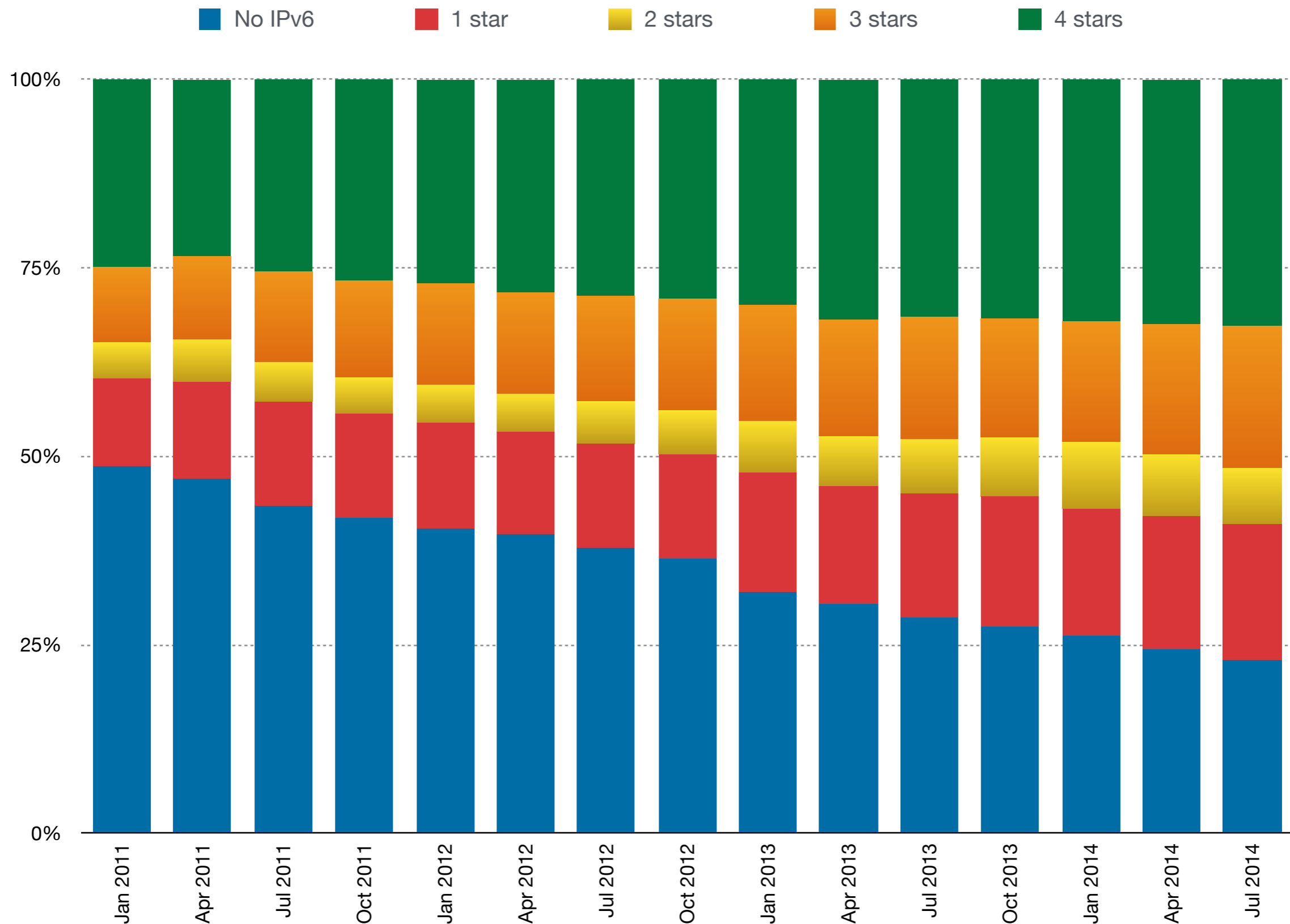




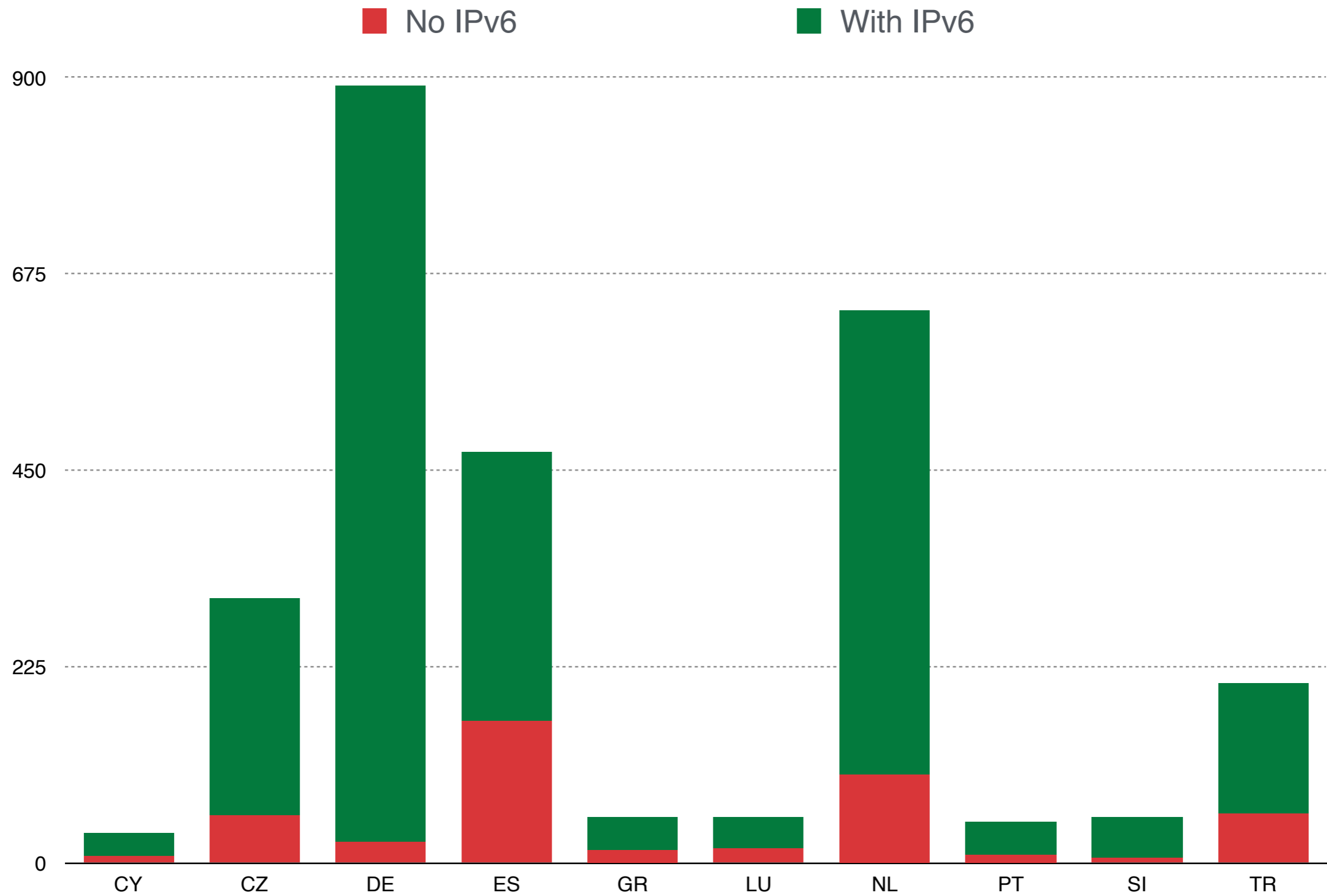
# IPv6 RIPEness Over Time (All)



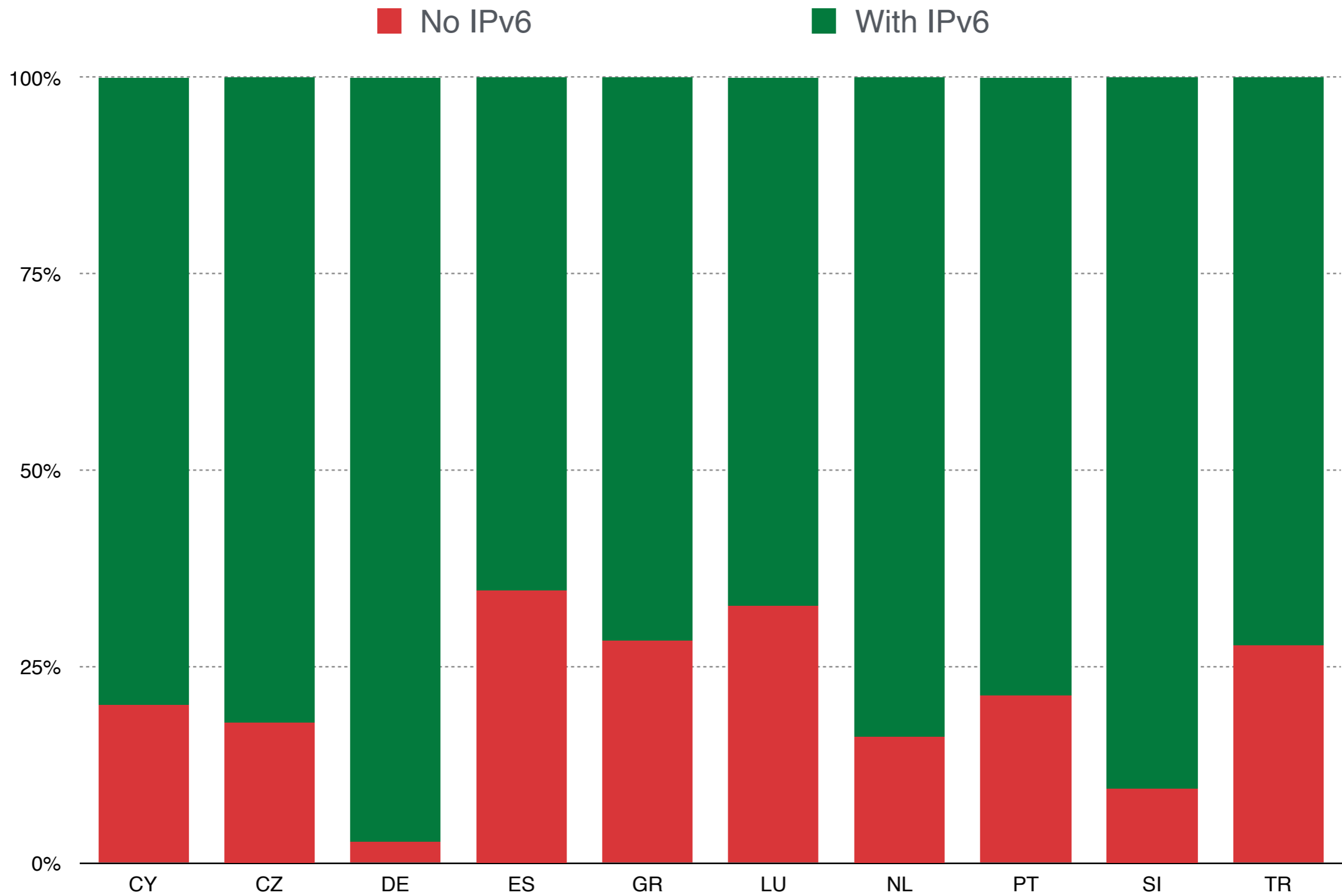
# IPv6 RIPEness Over Time (DE)



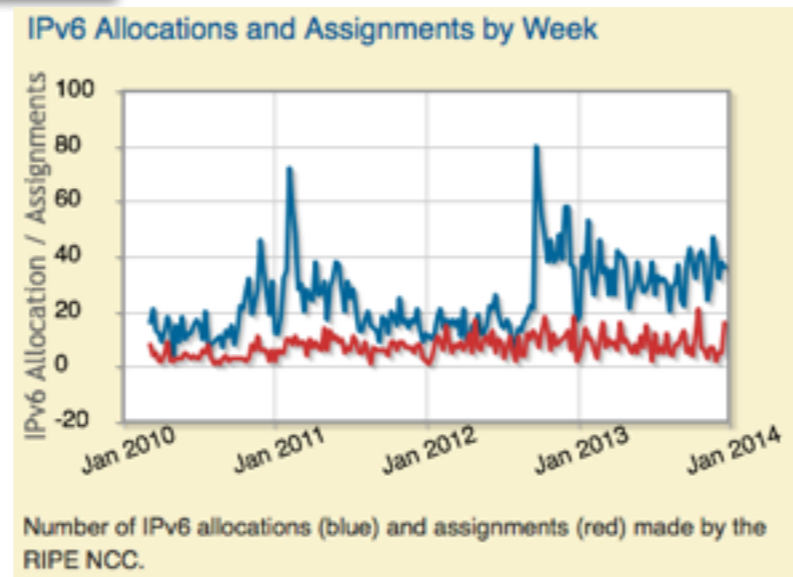
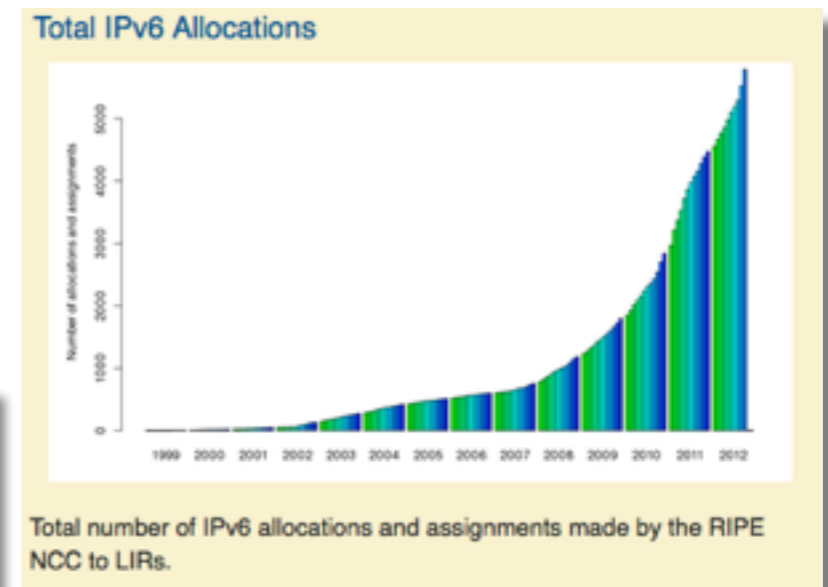
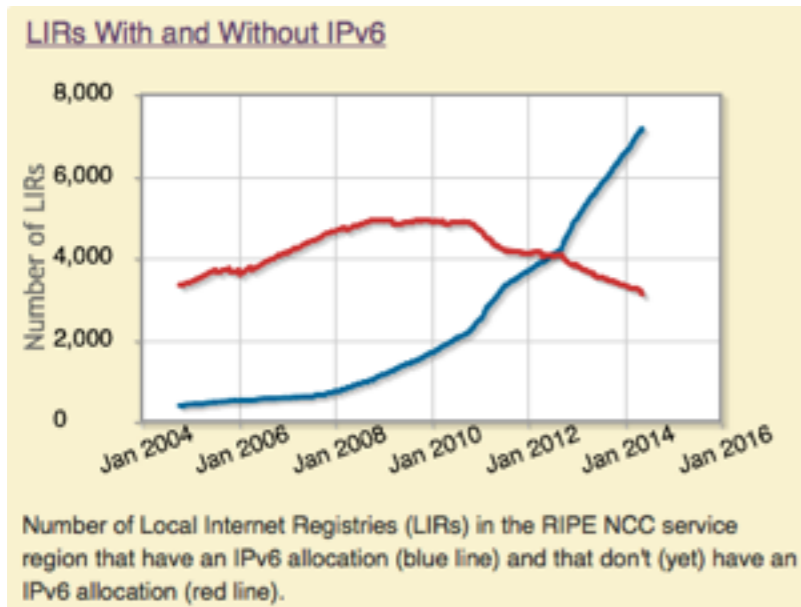
# Members With and Without IPv6



# Members With and Without IPv6

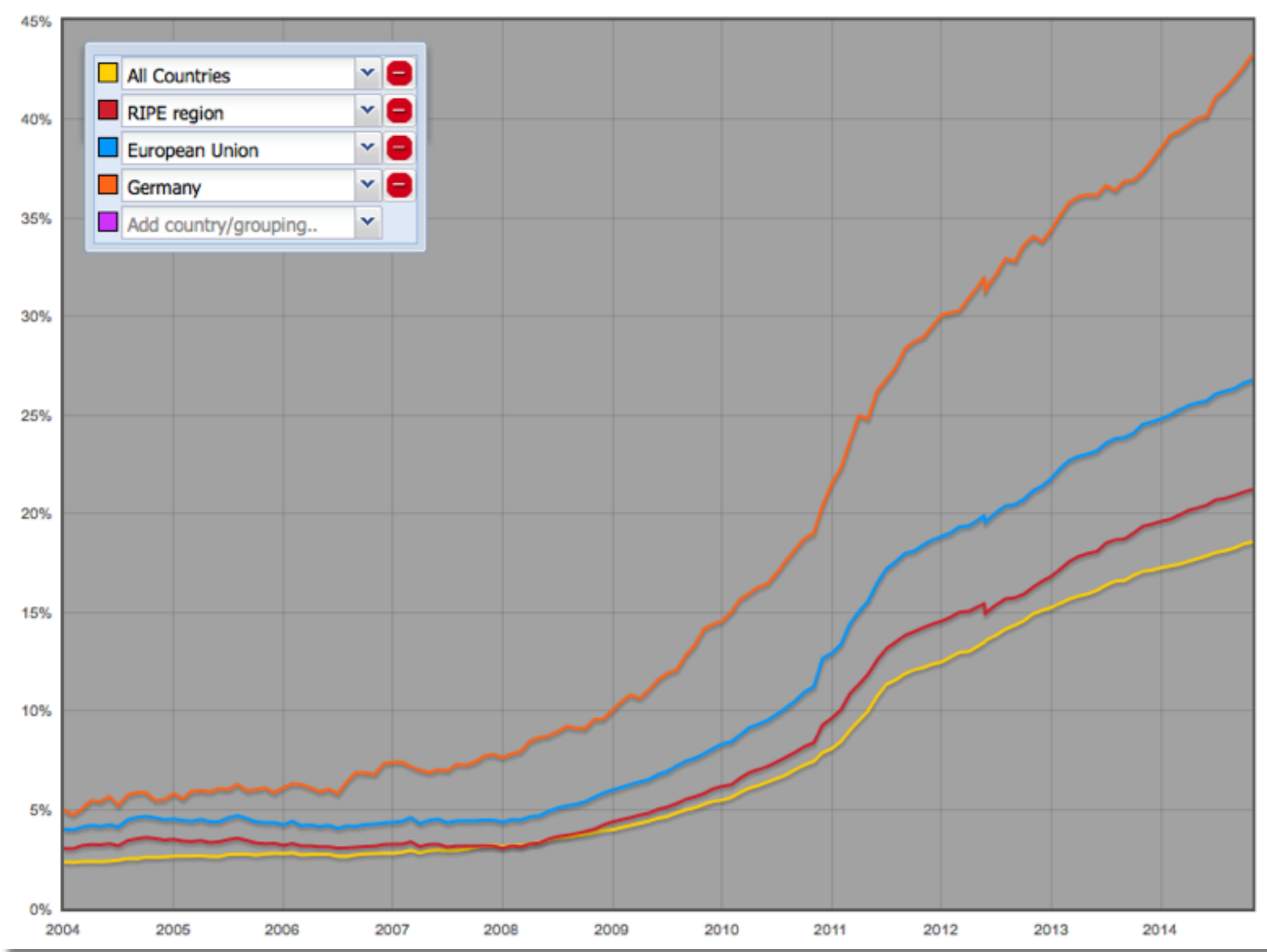


- Statistics Dashboard on RIPE Labs
  - <https://labs.ripe.net/statistics/?tags=ipv6>

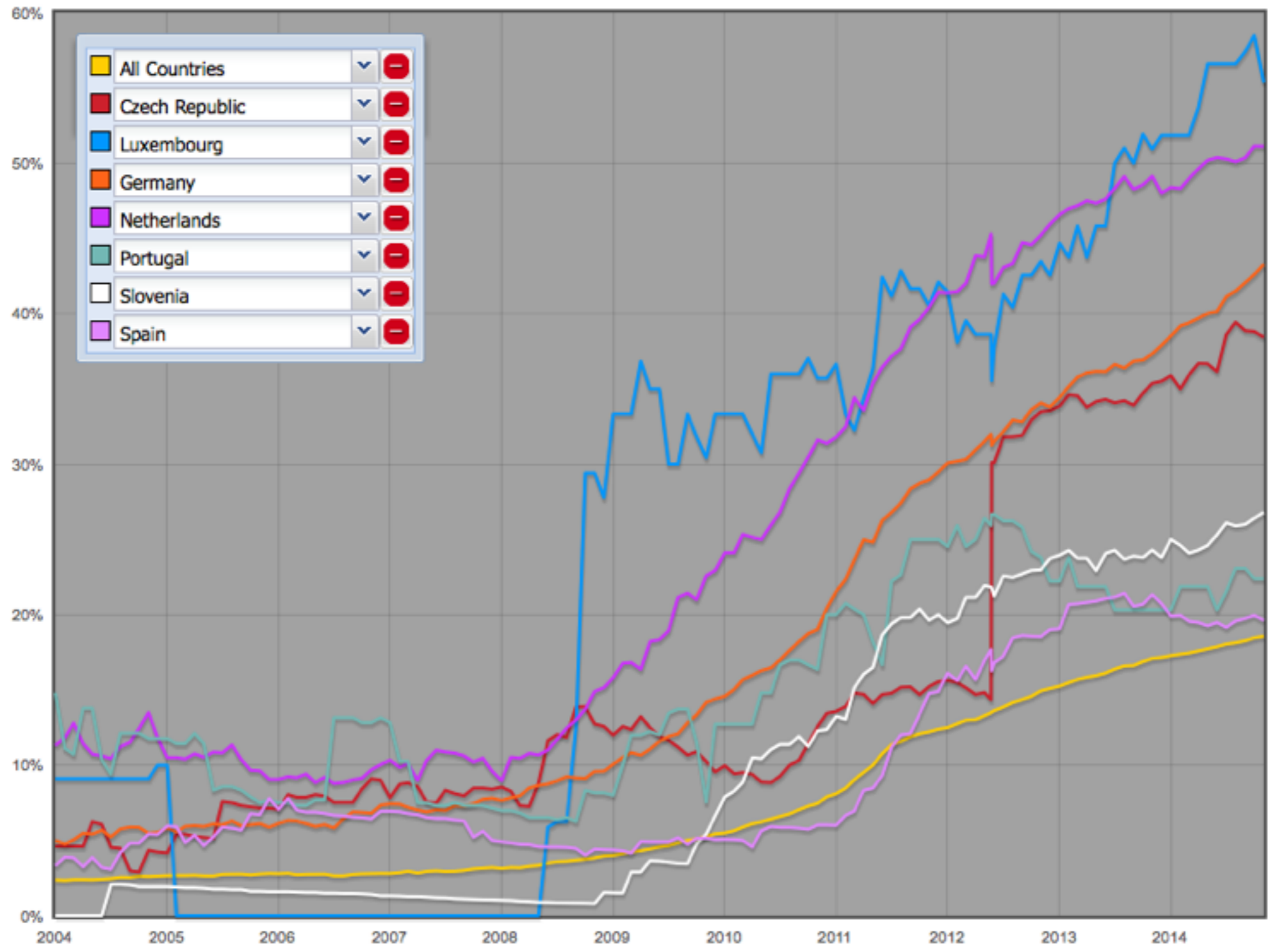


- RIPE NCC monitors global routing table for statistical analysis
  - Data available via RIPEstat (<http://stat.ripe.net>)
- Dedicated interactive tool for IPv6
  - Measures number of networks that originate routes for IPv6 address blocks
  - Grouped by country and regions
  - <http://v6asns.ripe.net>

# Networks Originating IPv6 Routes



# Networks Originating IPv6 Routes



Try it yourself at <http://v6asns.ripe.net>





- RIPEstat also takes ISO code as input
  - Shows statistics on number of resources and bandwidth
  - Try it yourself at <http://stat.ripe.net>

