



IPv6 ripeness: rating the IPv6 readiness of Local Internet Registries

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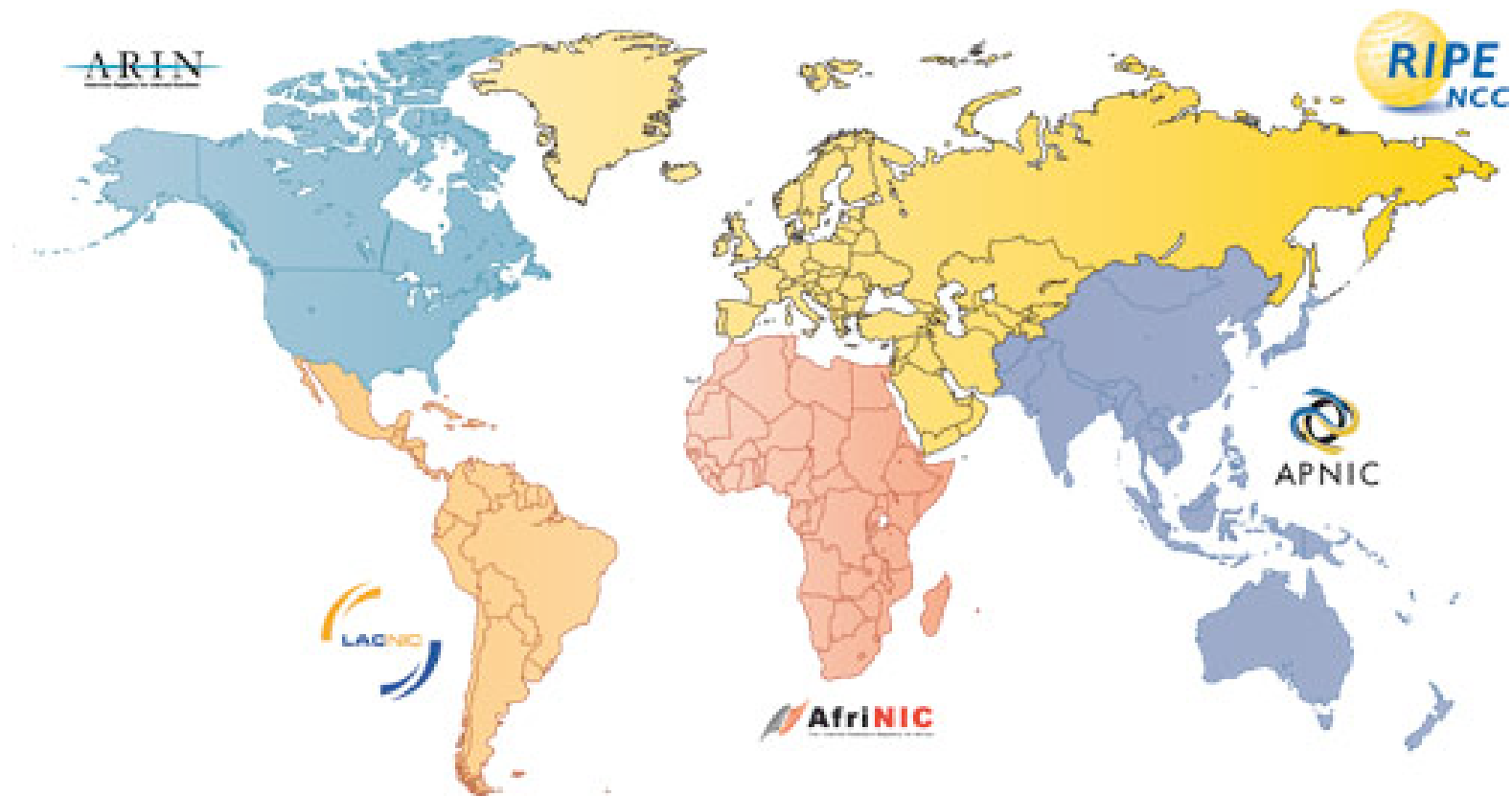
About the RIPE NCC

- Since 1992 in Amsterdam
- Independent not-for-profit organisation
- 6500+ members in 75 countries
- One of five Regional Internet Registries (RIRs)
- Does not make policies



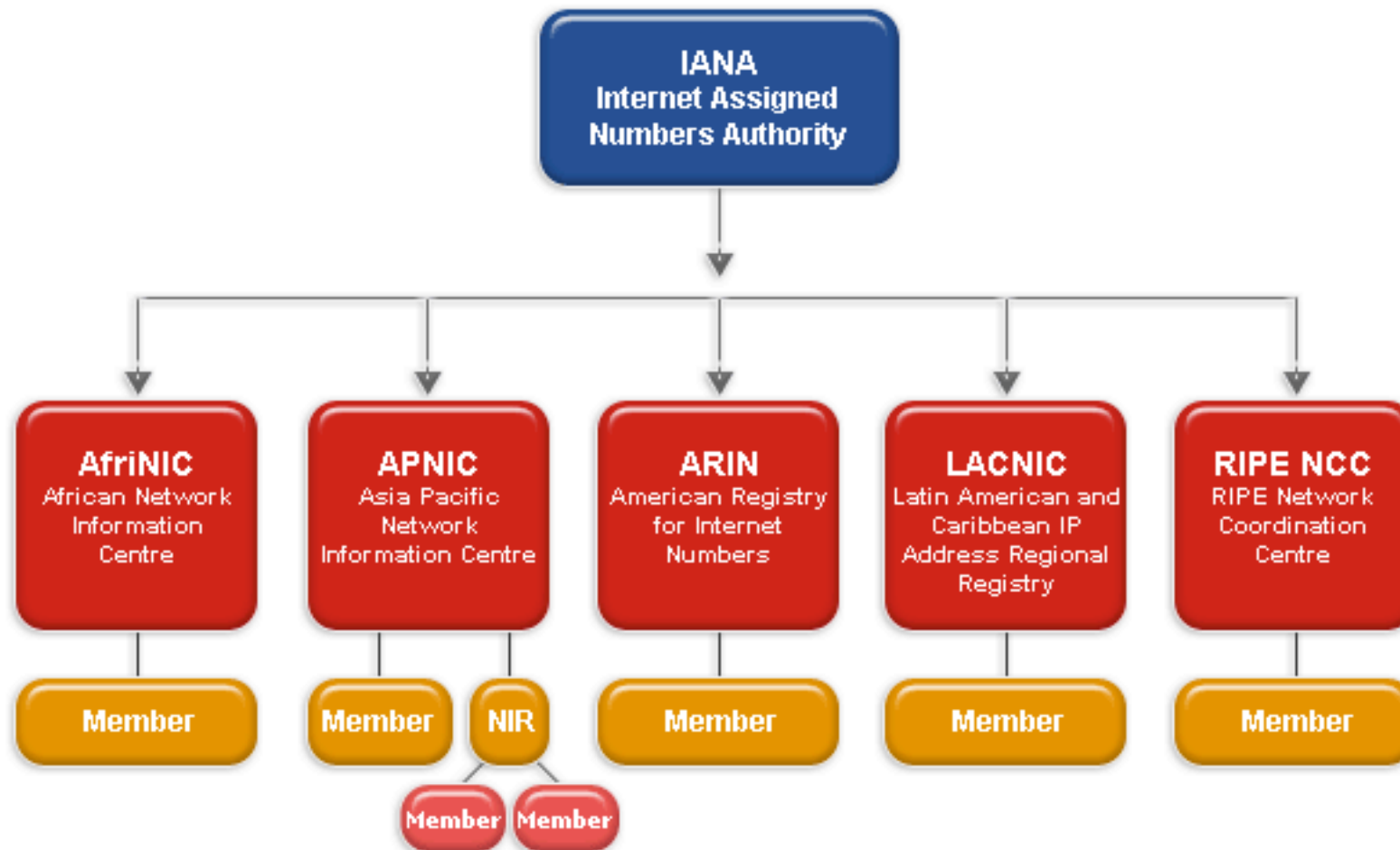
About the RIPE NCC

- Service region includes Europe, Middle East and parts of Asia





Internet resource allocation





Resource allocation

- Resources delegated to Members, aka. Local Internet Registries (LIRs)
- LIRs are typically ISPs and/or organisations with large networks
- 6500+ LIRs in RIPE region
- ASN, IPv4 and IPv6



IPv6 ripeness

- You may have heard the free IPv4 pool is running dangerously low:
 - IANA Free Pool exhaustion predicted sometime May/July 2011
- Rating IPv6 preparedness at LIRs
- Idea by my colleague Vesna Manojlovic
- Only looking at indicators that we can measure at the RIPE NCC

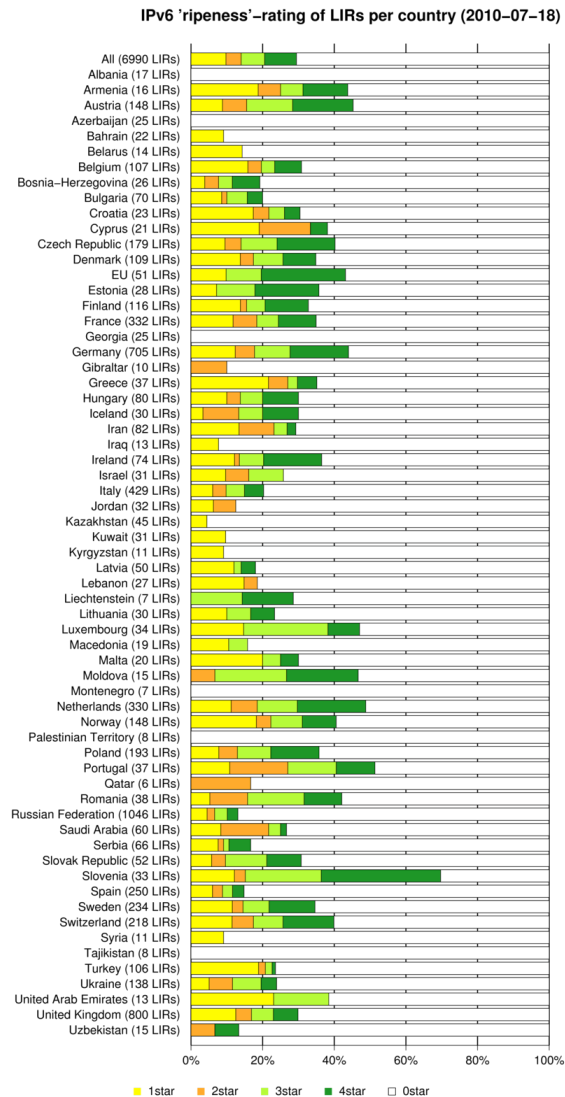


IPv6 ripeness rating

- An LIR can get a 'star' for
 - 1) Having received IPv6 address space
 - 2) Having it's address space visible in RIS (~ globally routed)
 - 3) Having a route6 object in the RIPE Database (whois)
 - 4) Having it's IPv6 reverse DNS set up
- Having all of these doesn't necessarily mean you 'do' IPv6 ...
- ... but together they are indicative of IPv6 readiness at an LIR level



IPv6 ripeness per country

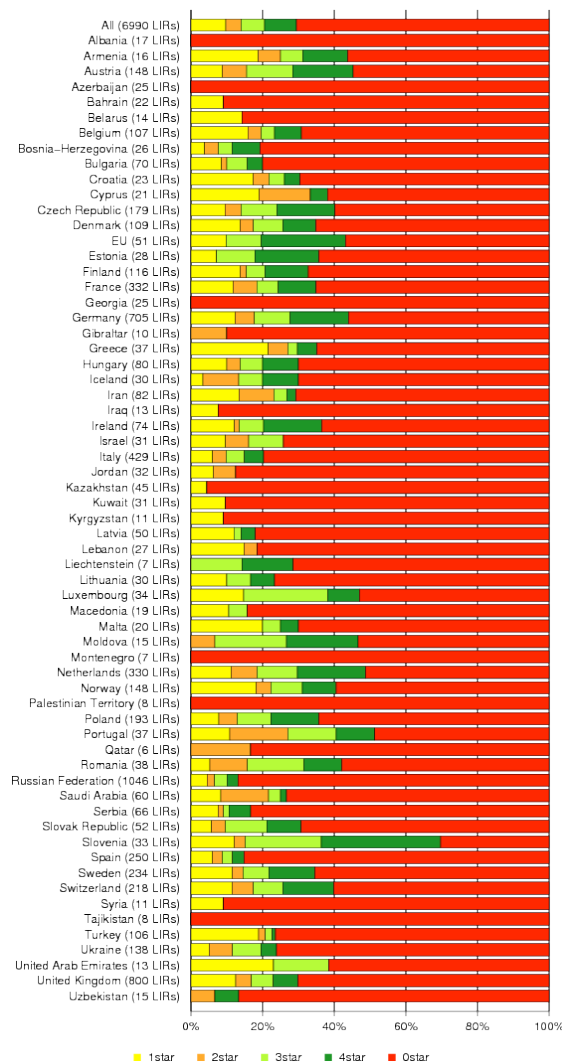


- <http://labs.ripe.net>
- Only listing countries with 5+ LIRs
- Large variation between countries
- Slovenia doing well
 - 67% at least 1 star
 - 25% 4 stars
- Overall
 - 73% 0 stars



IPv6 ripeness per country

IPv6 'ripeness' - rating of LIRs per country (2010-07-18)

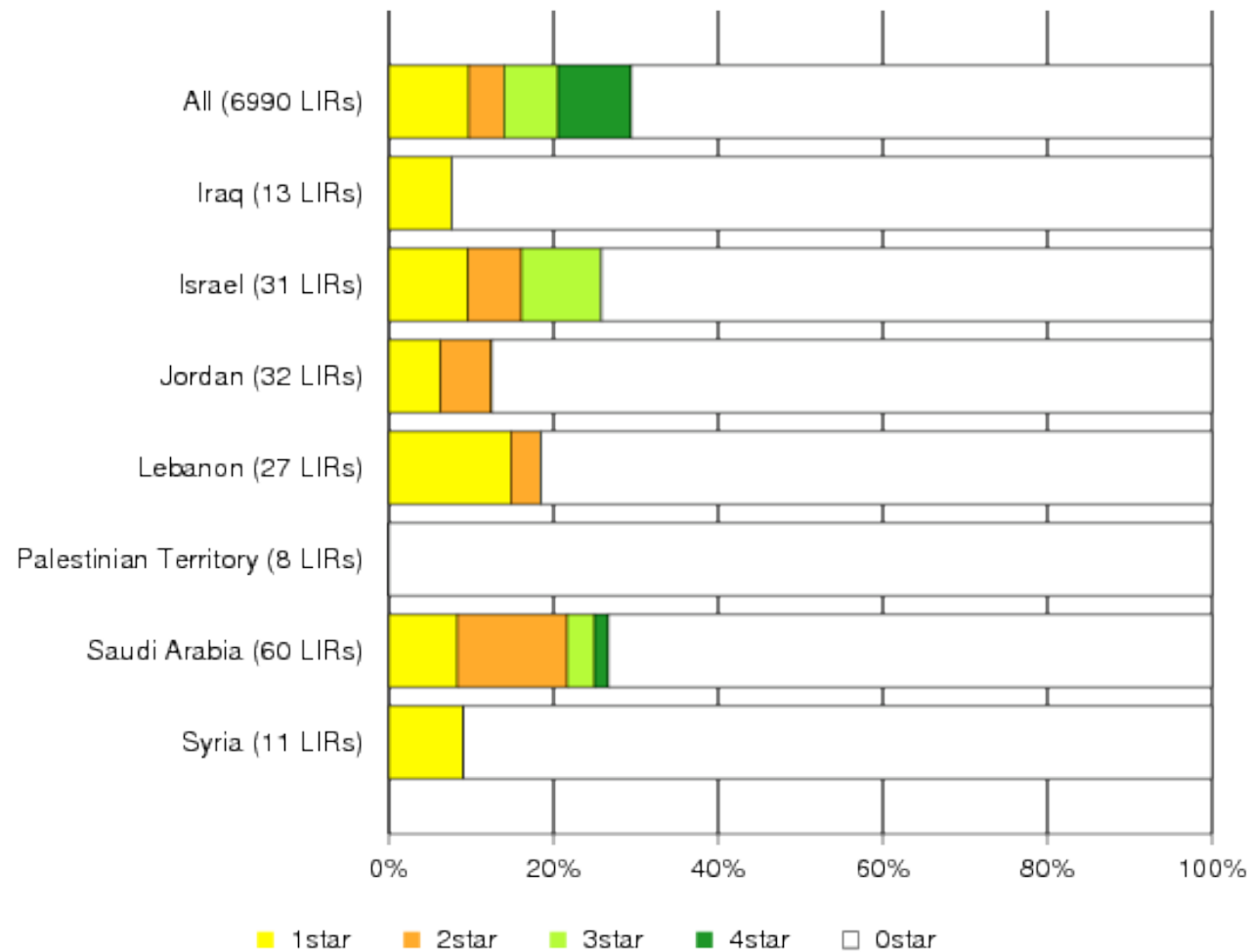


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IPv6 ripeness around Jordan

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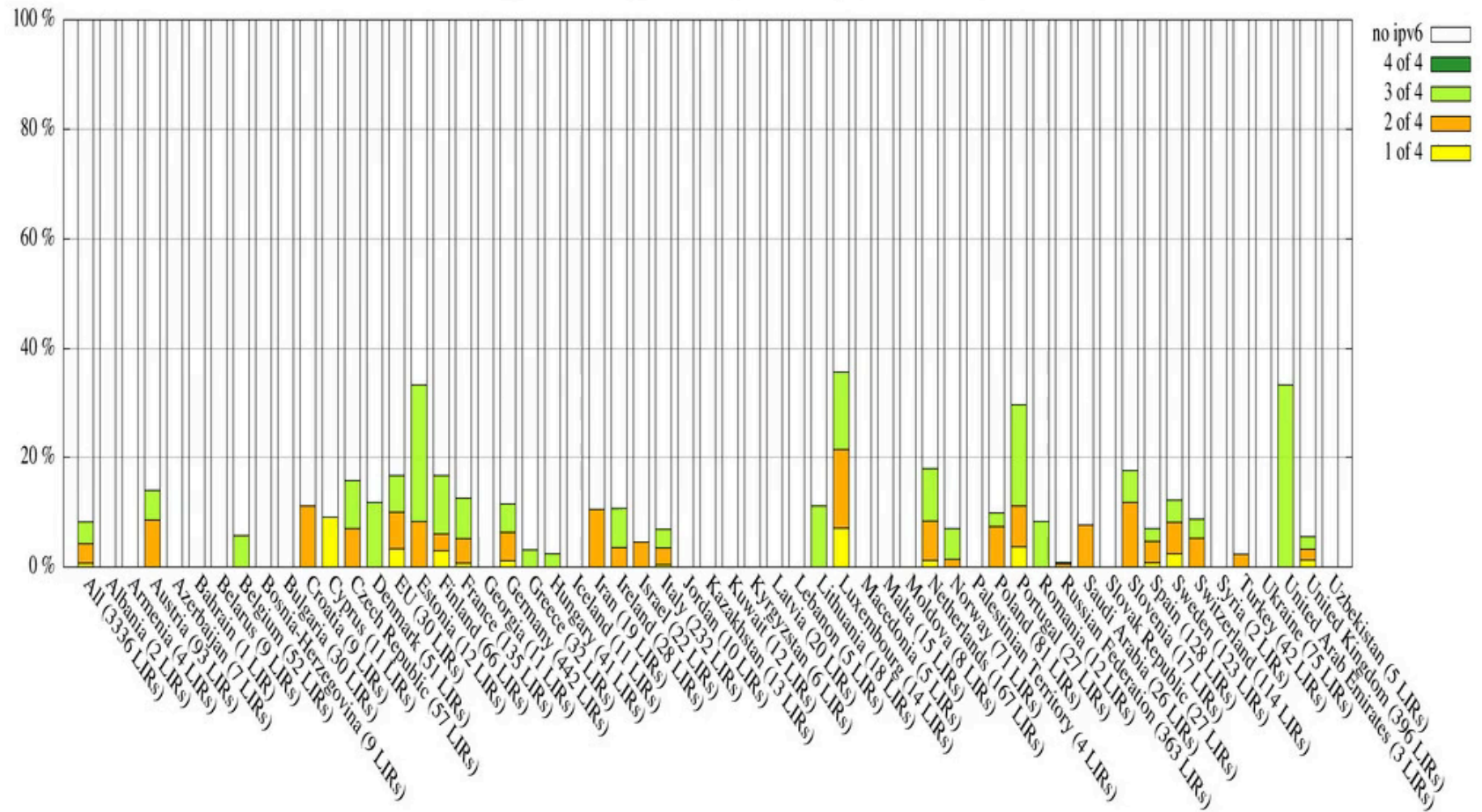




IPv6 ripeness movie

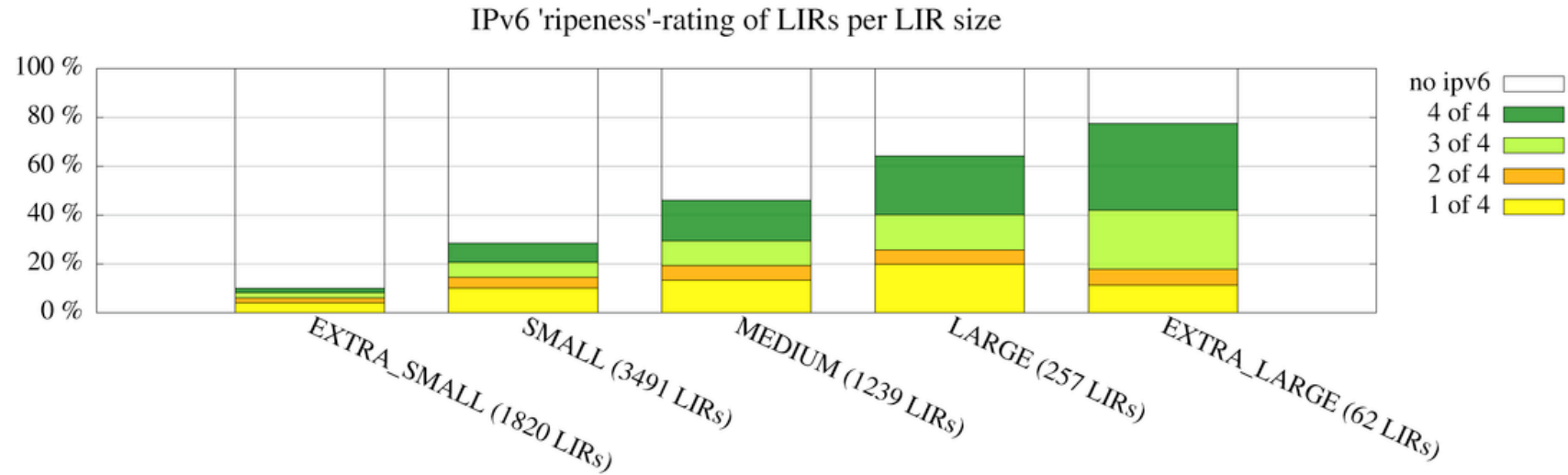
<https://labs.ripe.net/Members/emileaben/content-interesting-graph-ipv6-ripeness-movie>

IPv6 'ripeness'-rating of LIRs per country (2004-01-01)





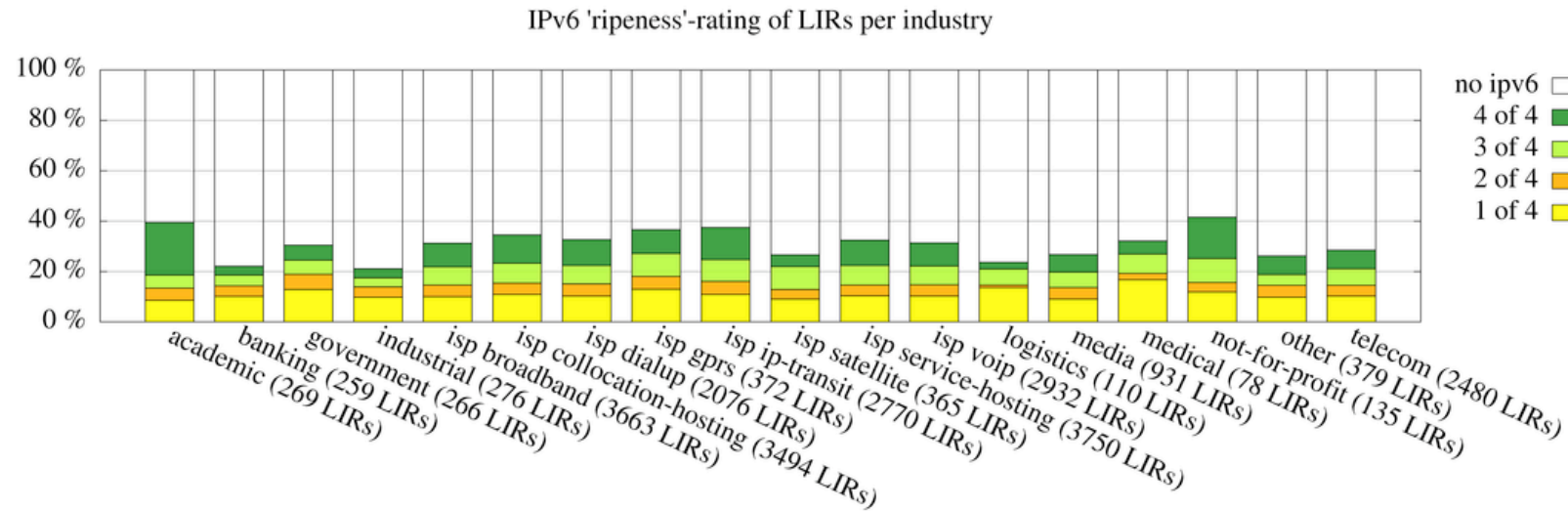
IPv6 ripeness by size



- Large organisations seem to have IPv6 on their radars



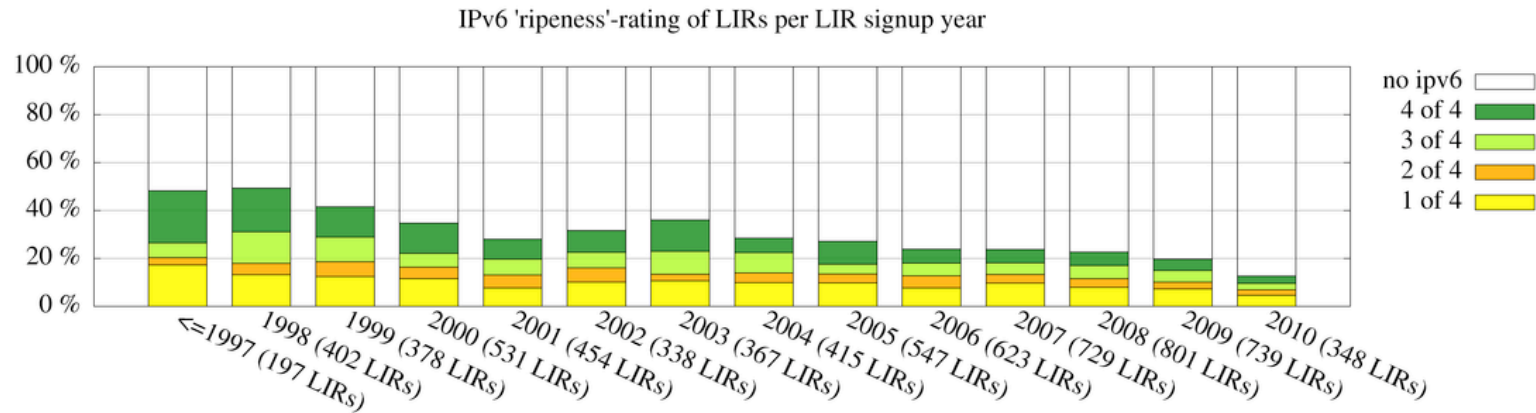
IPv6 ripeness by industry



- Academia/non-for-profit leading
- ISPs on average (is biggest part of LIRs)
- Banking/industrial lagging



IPv6 ripeness by LIR age



- Older = more IPv6 ripe
 - Had more time to act?
 - More focus on business continuity?
 - Correlation size/age causing this?



4star LIRs

- Generally an indication of having your act together with regards to IPv6
 - Deserves recognition
- We want to have the list of 4star LIRs public
 - Indication of IPv6 ripeness in our public listing of LIRs
- Also mark 4star LIRs in our upcoming LIR locator tool



5th star

- We asked the community feedback
- Feedback received:
 - 5th star should be based on traffic:
 - HTTP
 - SMTP
 - DNS
- Looking into fairness of these
 - They shouldn't force work to LIRs
- Your opinion?



Questions?

