Obstacles in IPv6 Deployment

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RIPE NCC

Agenda

- Current state of affairs
- Observations
- What are the RIPE NCC and MENOG doing?

Statistics

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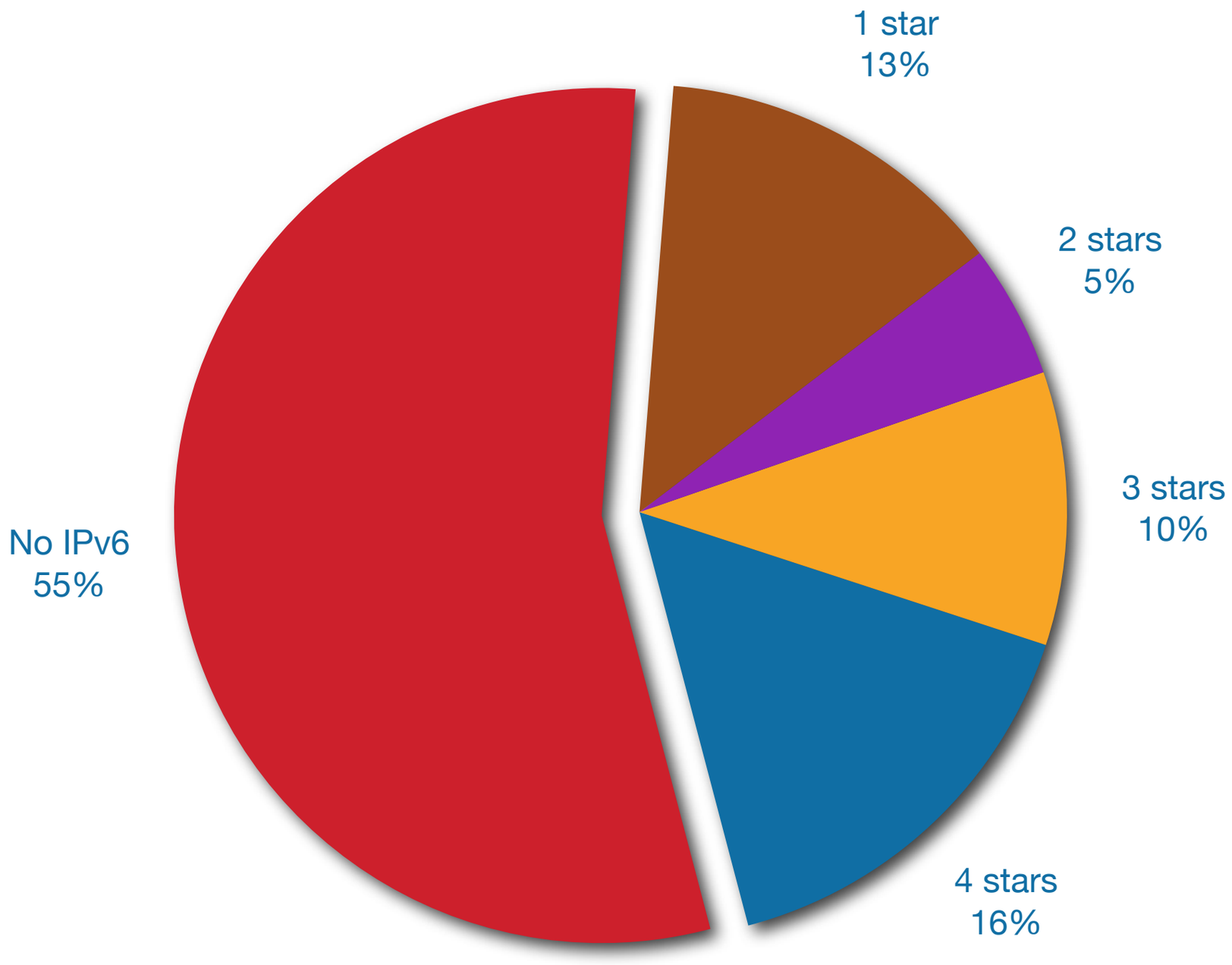
IPv6 RIPEness

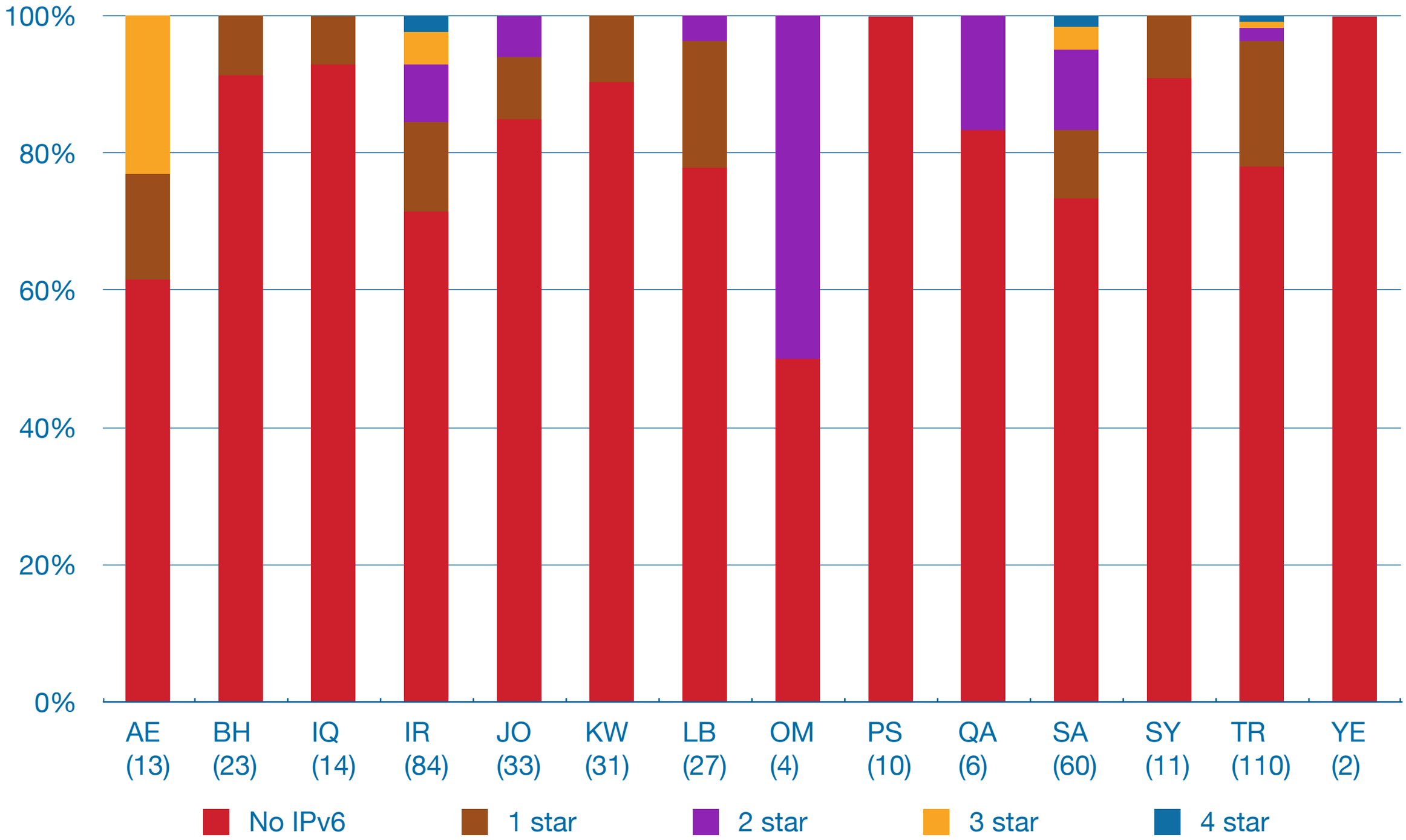
- Rating system designed to monitor progress in the deployment of IPv6
- Four “stars” to earn, based on the level of deployment:
  - First star for getting an IPv6 allocation
  - Subsequent stars awarded for visibility, route objects and reverse DNS
- Only lists RIPE NCC members

Total Membership (7711 LIRs)

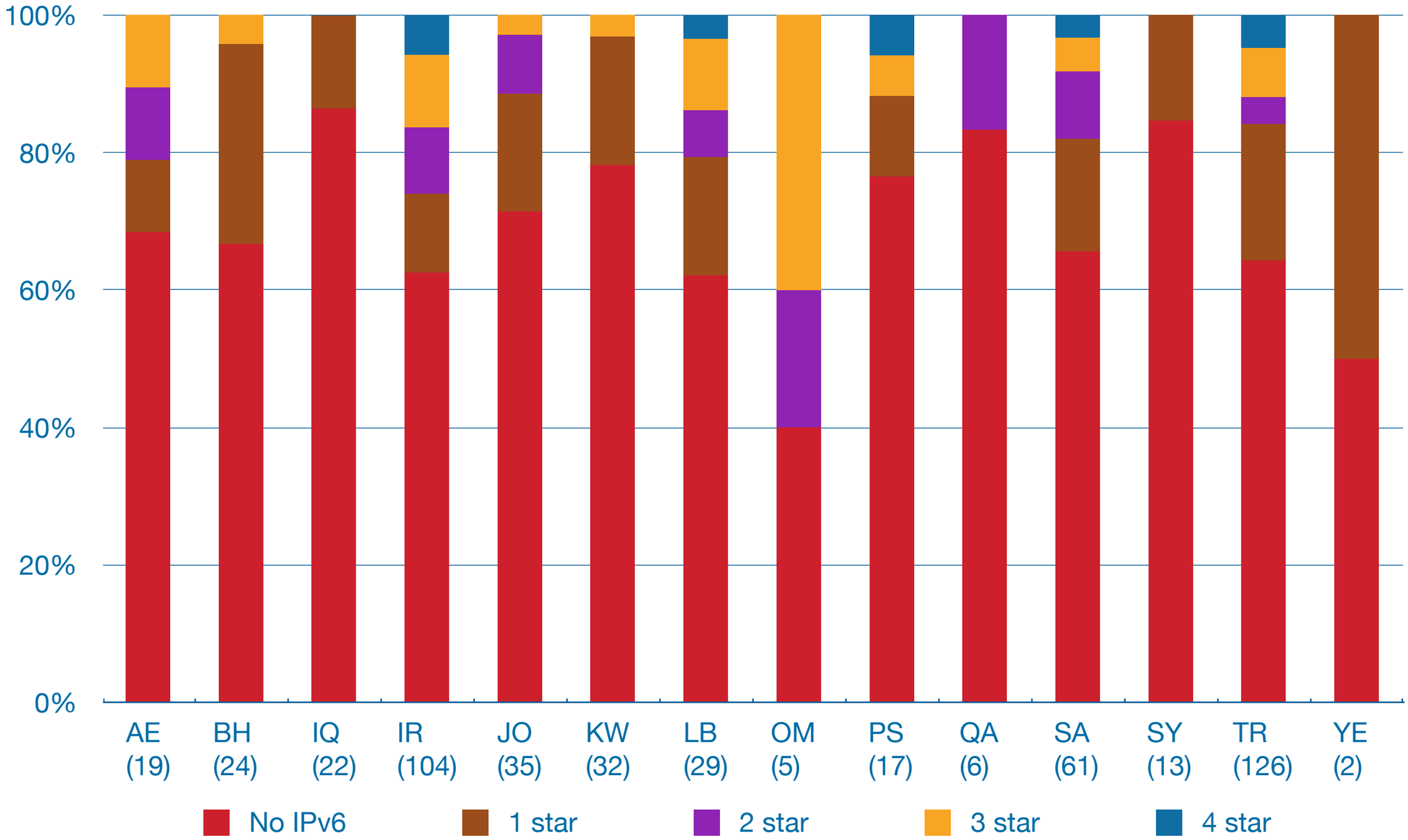


(1 September 2011)

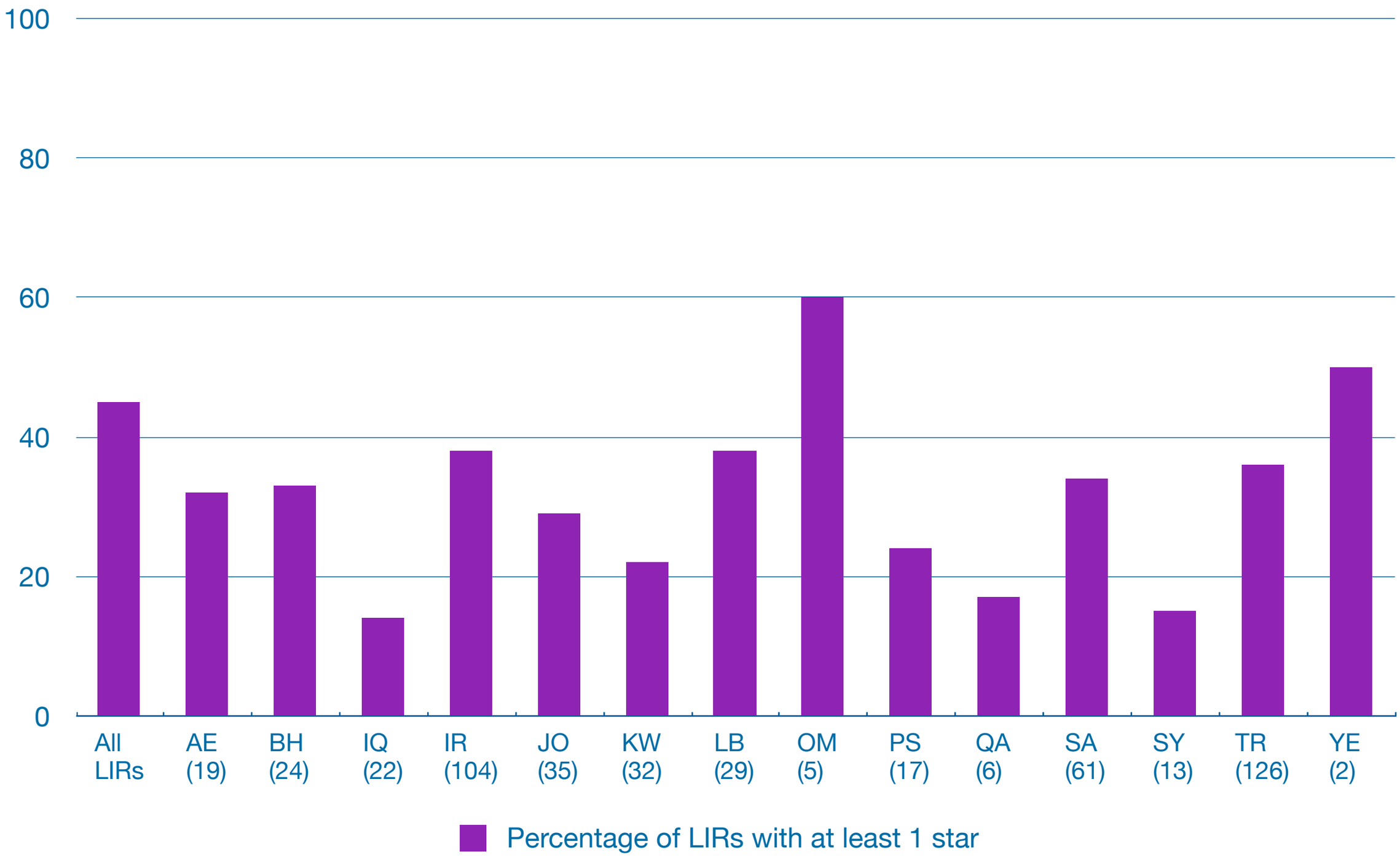
Middle East Region (September 2010)



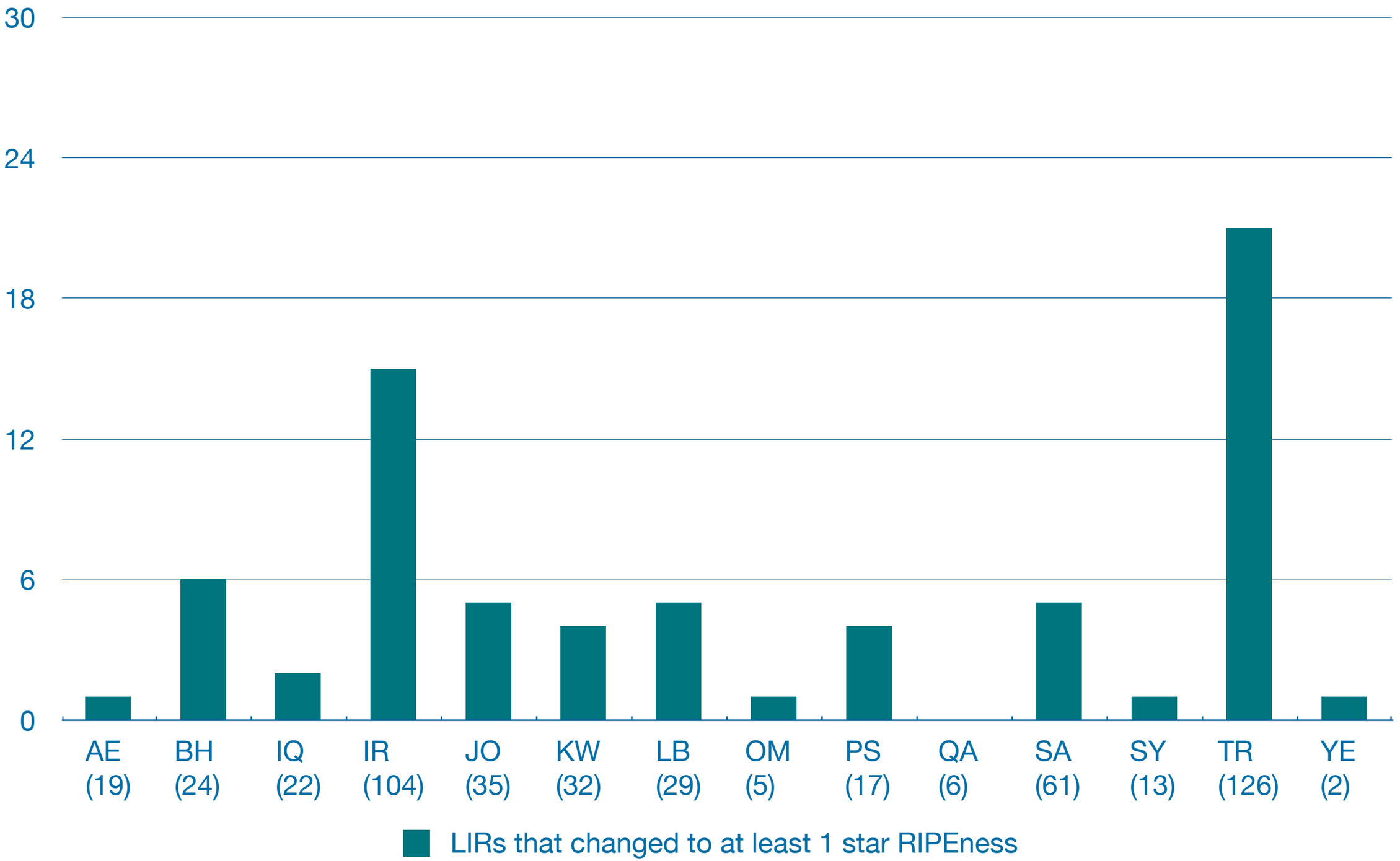
Middle East Region (September 2011)



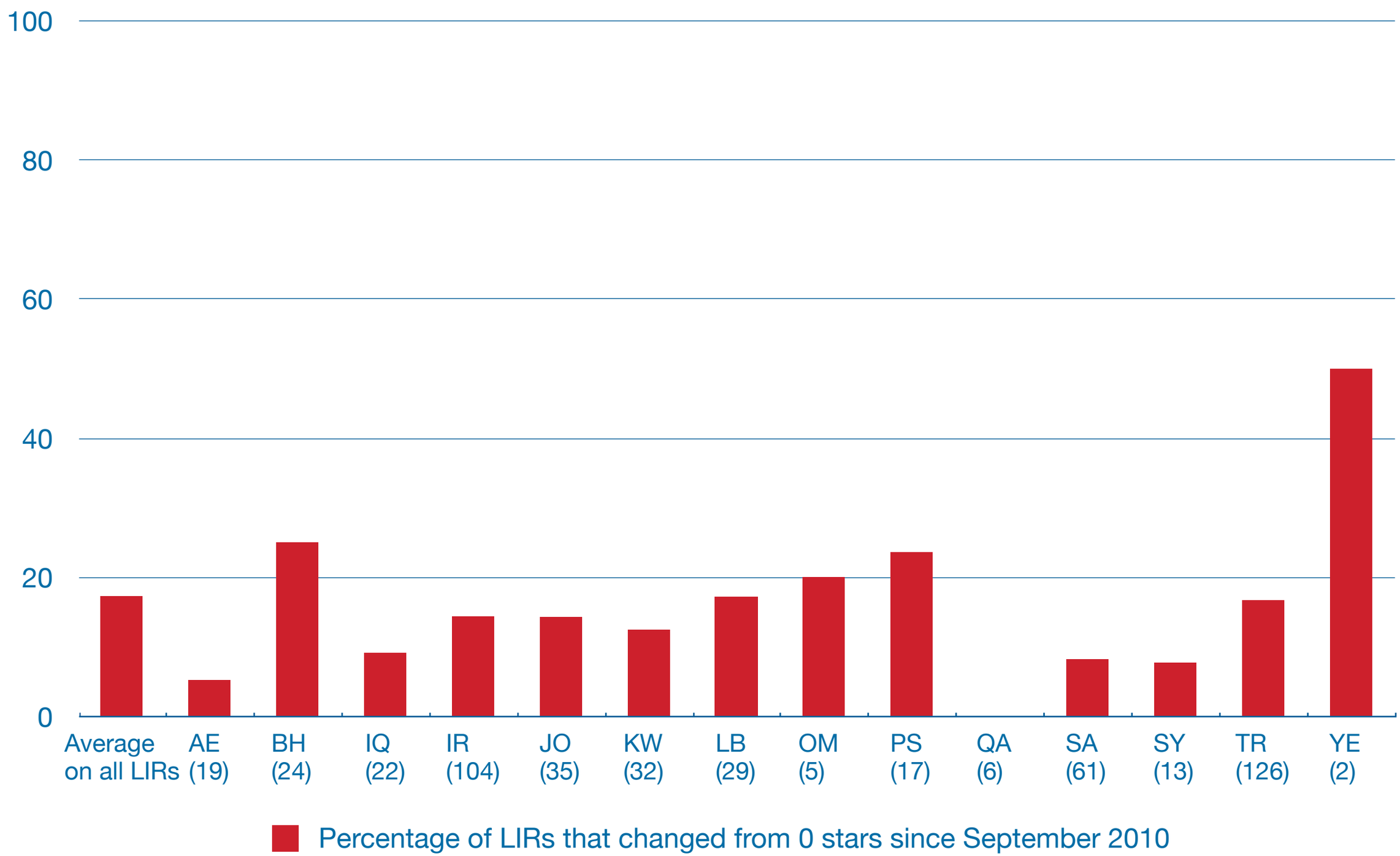
At Least 1 Star



Changes Between 2010 and 2011



Relative Changes (2010 - 2011)



Conclusions

- Keep in mind sample size is relatively small
- 32.5% of the LIRs from this region have at least an IPv6 Allocation
- 16% is beyond that point and has at least 2 stars
- For the full membership these numbers are 45 and 31.3 percent
- Growth is roughly the same

Observations

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Feedback From Training Courses

- The RIPE NCC IPv6 course contains an exercise about “IPv6 deployment challenges”
- Often heard arguments are:
  - Lack of general knowledge about IPv6
  - Legacy hardware and software
  - Support by transit or upstream carrier
  - Content vs eyeballs
  - Accounting and billing
  - Security concerns

RIPE Working Groups

- Policy restrictions have been raised
  - Multihoming in IPv6
  - Allocation size and additional allocations
- Addressing plan troubles
  - How much do you assign to an End User?
  - Static or dynamic assignments to residential user?

Other Sources

- Specific needs regarding security, such as user separation in FTTx environments
- Performance issues and bugs
- Customer experience during transitioning

Obstacles

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The biggest challenge in transitioning to IPv6 is non-technical

Lack Of Experience and Knowledge

- For many people, IPv6 is a theoretical solution to a theoretical problem
- You can explain the most likely scenarios, but everyone's situation and business case is different
- Expertise can only come from hands-on experience
- To be successful with IPv6, you need to work with IPv6

What Are We Doing

RIPE NCC

Promotion of IPv6

- Publications, presentations and press releases regarding the depletion of the IPv4 free pool
- Dedicated platforms like IPv6actnow.org
- Social media such as twitter
- World IPv6 Day

Guidance On Purchasing

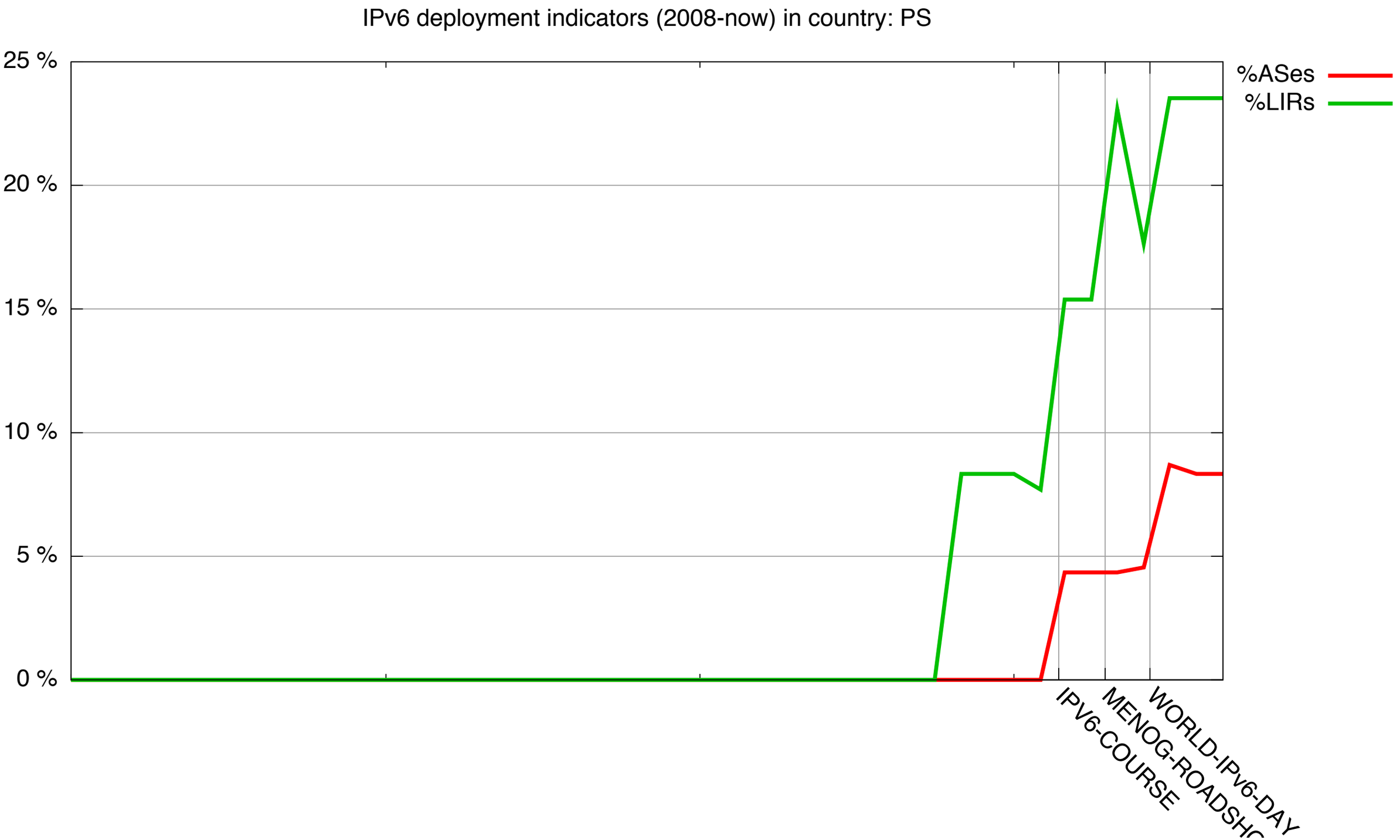
- Publications on IPv6 capable customer premises equipments (CPE)
- Ripe-501 document on IPv6 requirements in tenders

Training and Education

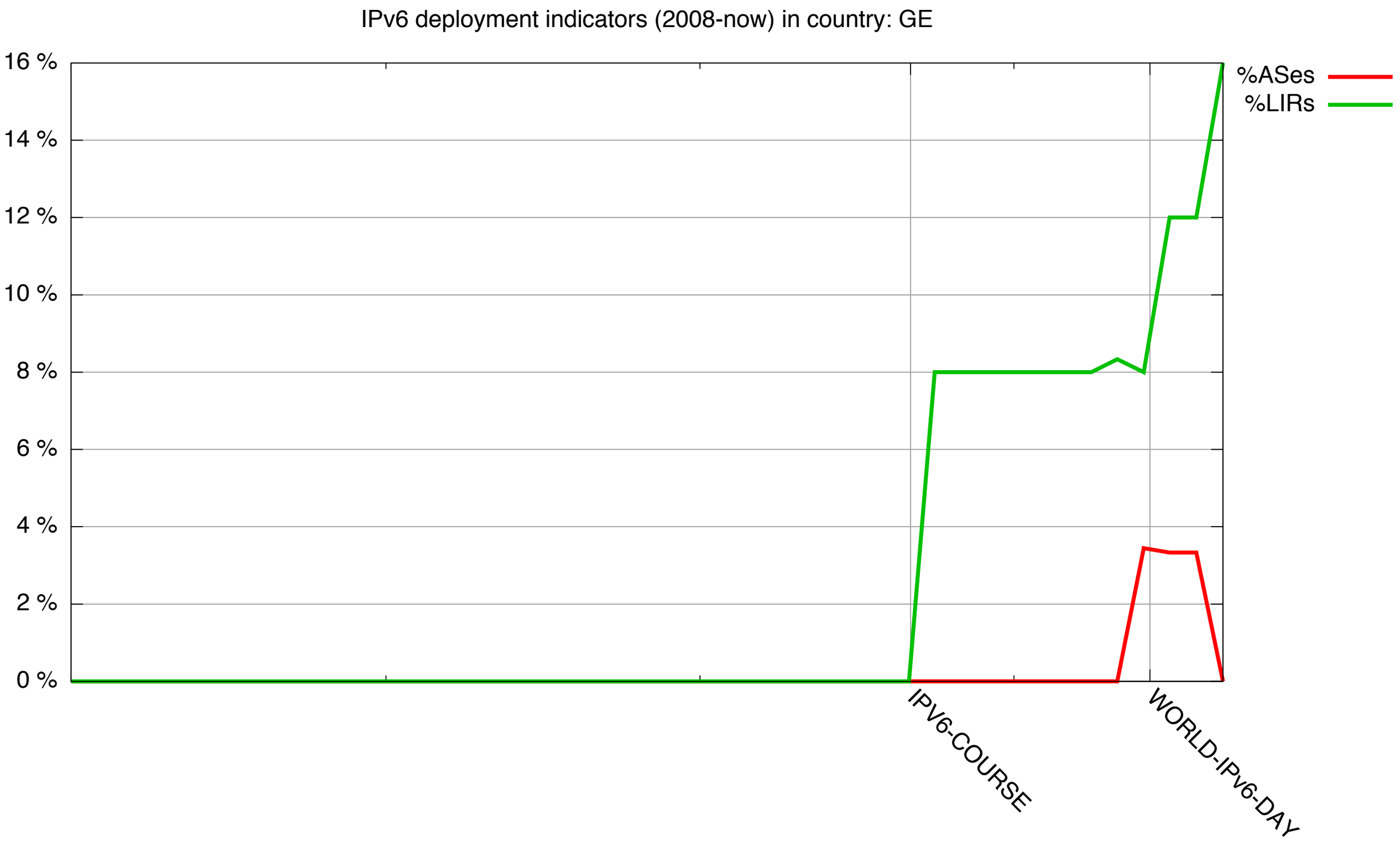
- “IPv6 for LIRs” training course
- IPv6 Roadshow together with MENOG
- E-learning
- Publications

Training Locations in 2010/2011

Effects of training



Effects of training



Providing a Platform

- The RIPE NCC and MENOG provide a platform to exchange experiences and ideas
- Although every network is different, the building blocks are usually the same
- You are not the only one facing the challenges of deploying IPv6

Future Developments

- Dedicated staff focusing on Middle East and Central Asia, working from Dubai
- Full rewrite of the IPv6 Roadshow training material
- RIPE NCC training courses continue to develop, with more focus on practical tasks
- And much more...

How can we help you?