IPv6 Deployment Survey

Based on responses from the global RIR community during June 2010

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Why IPv6 Deployment Monitoring?

- The Internet has become a fundamental infrastructure, worldwide, for economic and social activity, and its usage continues to grow exponentially:
    - More users
    - New applications (eg mobile, RFID etc)

- The transition from IPv4 to IPv6 is the only sustainable option, in the long run.
- A smooth transition requires understanding the challenges, and a timely start.

The Global IPv6 Deployment Monitoring Survey

- Aim is to establish the best possible comprehensive view of present IPv6 penetration and future plans of IPv6 deployment
- Best way to establish this is to ask the Internet providers and users, basically: the RIR communities around the world
- ARIN carried out such a survey with its members in March 2008, a starting point for the currently proposed survey
- RIPE NCC and APNIC carried out this same survey in 2009. In 2010, all RIRs participated to the survey:
  - Survey was prepared and carried out by TNO/GNKS in close collaboration with RIPE NCC, APNIC, ARIN, AFRINIC and LACNIC
  - Survey was kept short, and focused on essentials
  - Privacy is guaranteed
- Results of 2010 will be compared with those of 2009 to get a good picture of progress

This presentation is the summary report on 2010 results

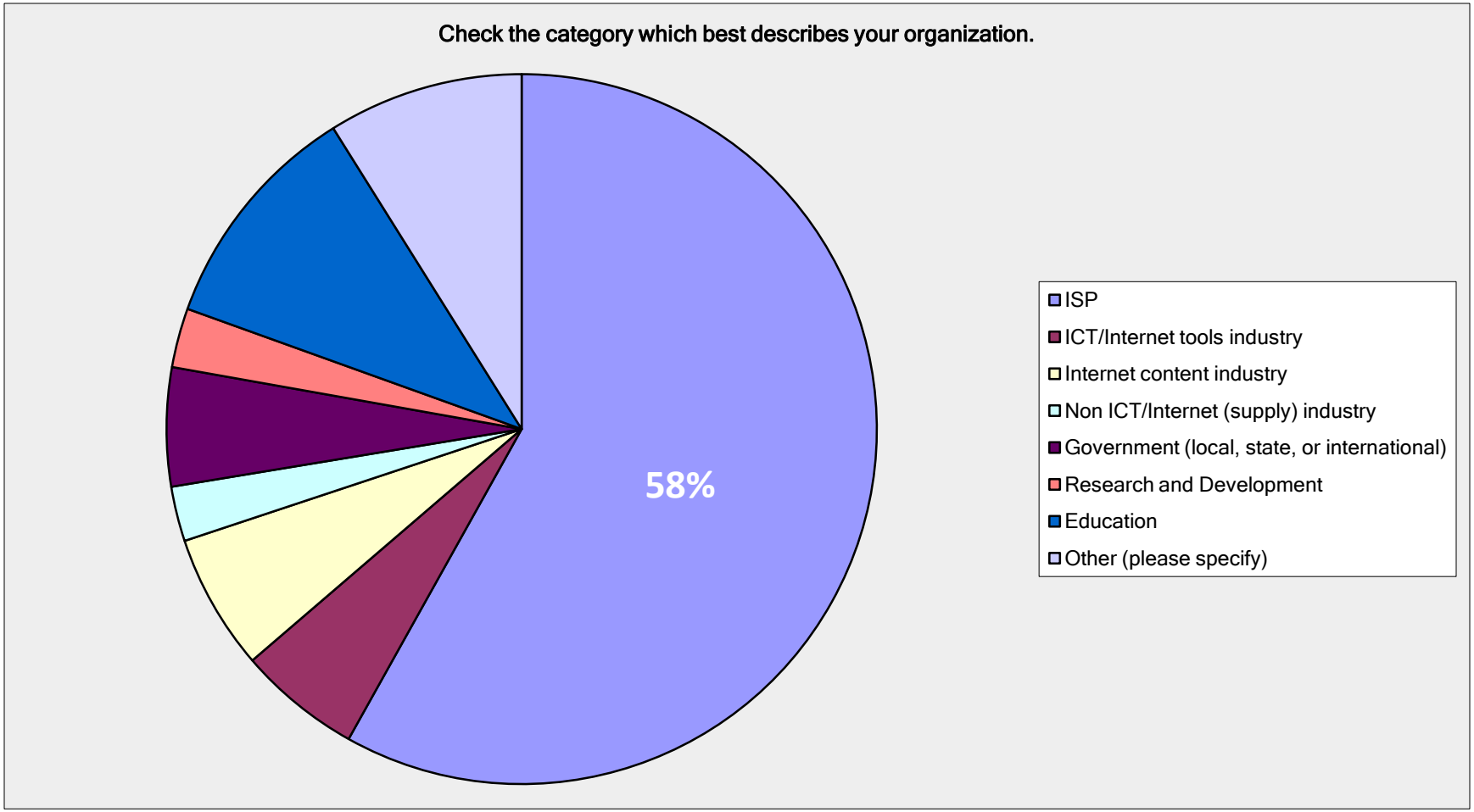
A comparison with 2009 survey results will be made available shortly, as well

Q1 - Response to questionnaire

- 1589 respondents from 140 countries/economies
  - 15 countries > 30 respondents = 919
  - 25 countries 7< x < 30 respondents = 395
  - 28 countries 3< x < 8 respondents = 158
  - 31 countries with 2 or 3 respondents =75
  - 42 countries with 1 respondent = 42
- Top 10 respondent countries

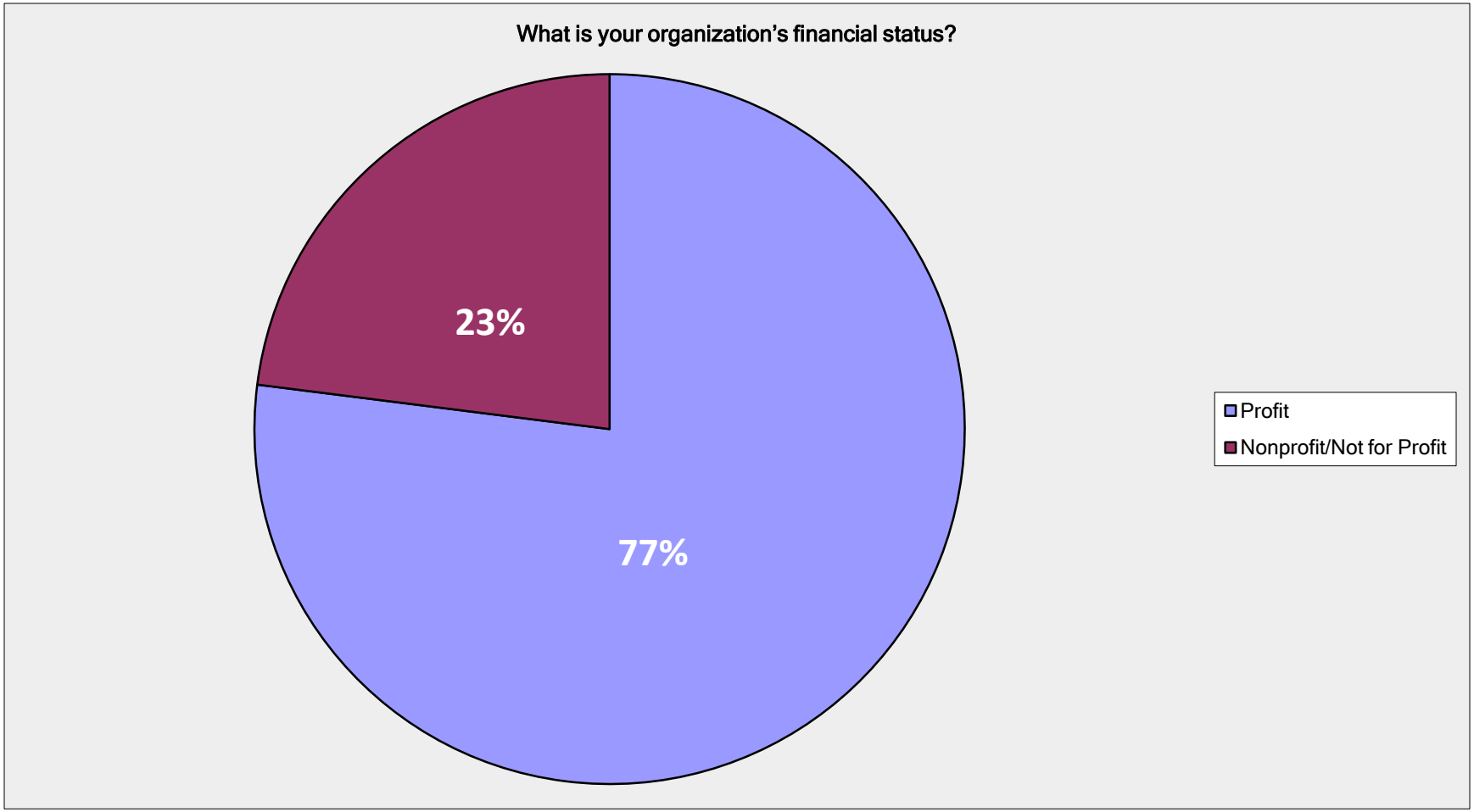
1. USA	214	6. Russia	68
2. Australia	89	7. Brazil	47
3. Germany	81	8. France	45
4. UK	74	9. New Zealand	45
5. Netherlands	71	10. Czech Rep.	42

Q2 - Respondent categories

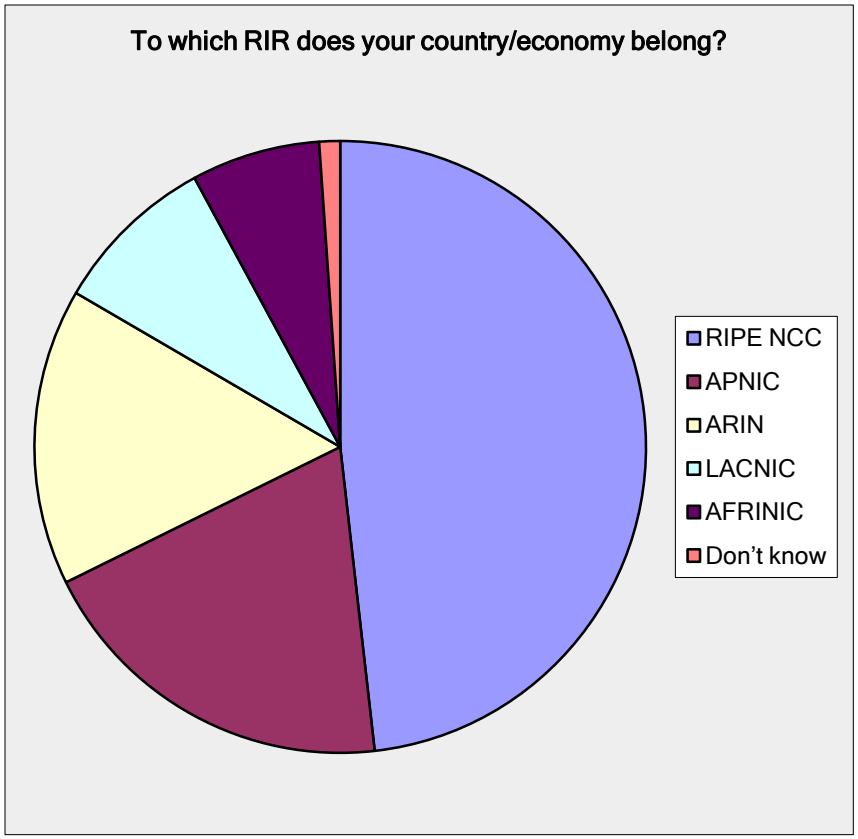


source: TNO/GNKS 2010

Q3 – Financial status



Q4 – To which RIR ...

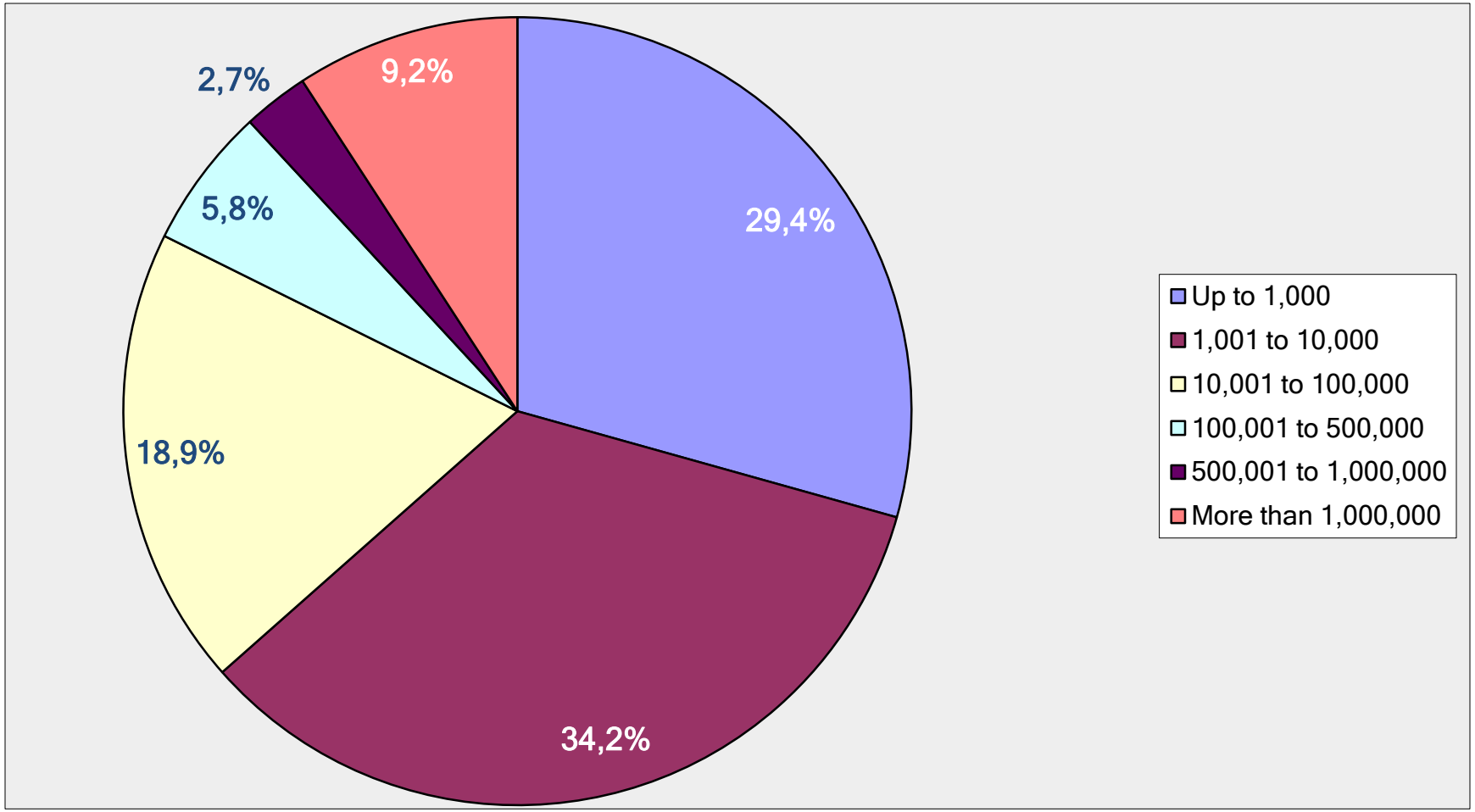


To which RIR does your country/economy belong?	Response Percent	Response Count
RIPE NCC	48,2%	766
APNIC	19,5%	310
ARIN	15,7%	249
LACNIC	8,7%	138
AFRINIC	6,8%	108
Don't know	1,1%	18

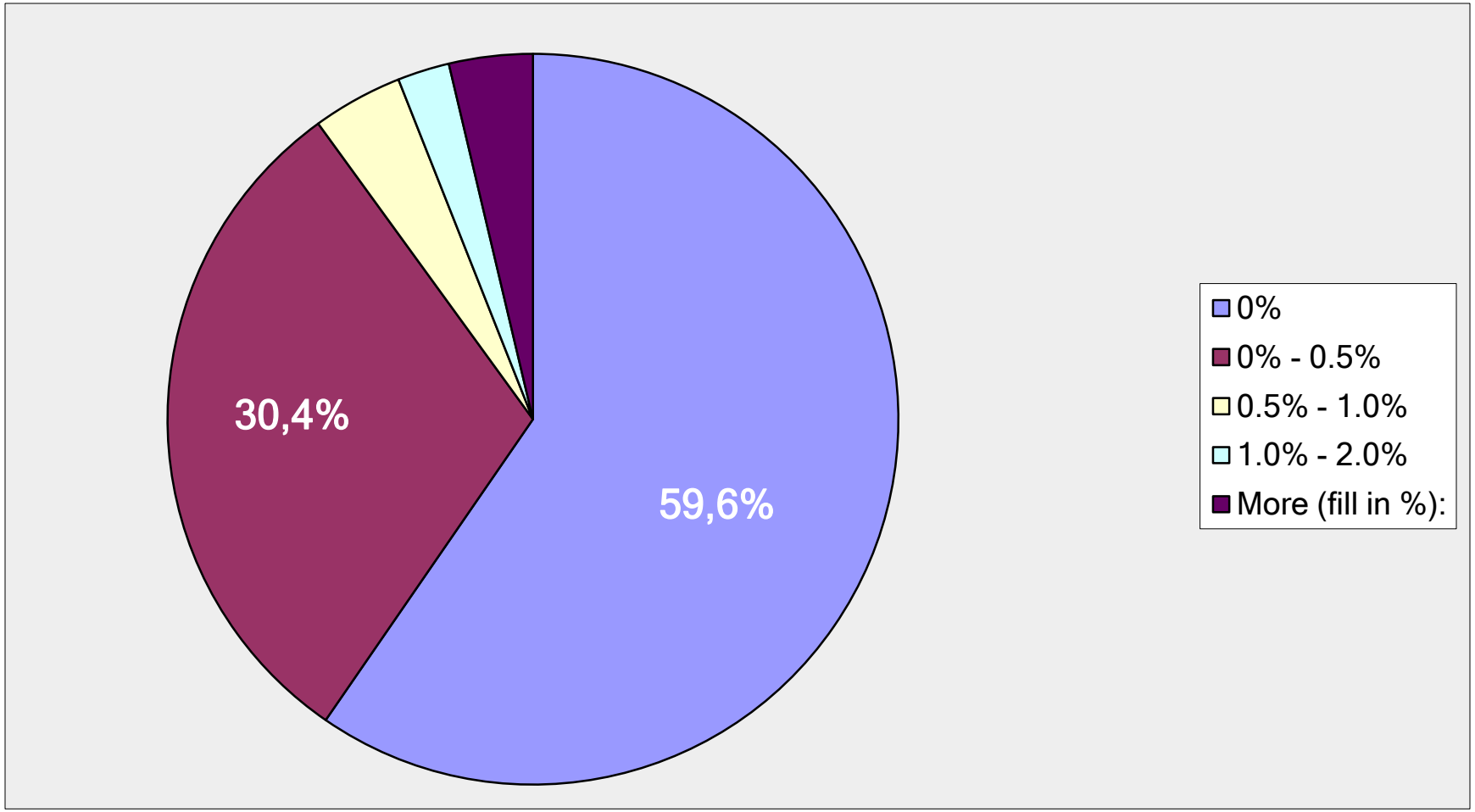
Q5 - Has your organization signed a Registration Services Agreement with your RIR?

Q 5 Service Agreement with RIR?	Response Percent	Response Count
Yes	56,6%	899
No	10,8%	171
Don't know	32,7%	519

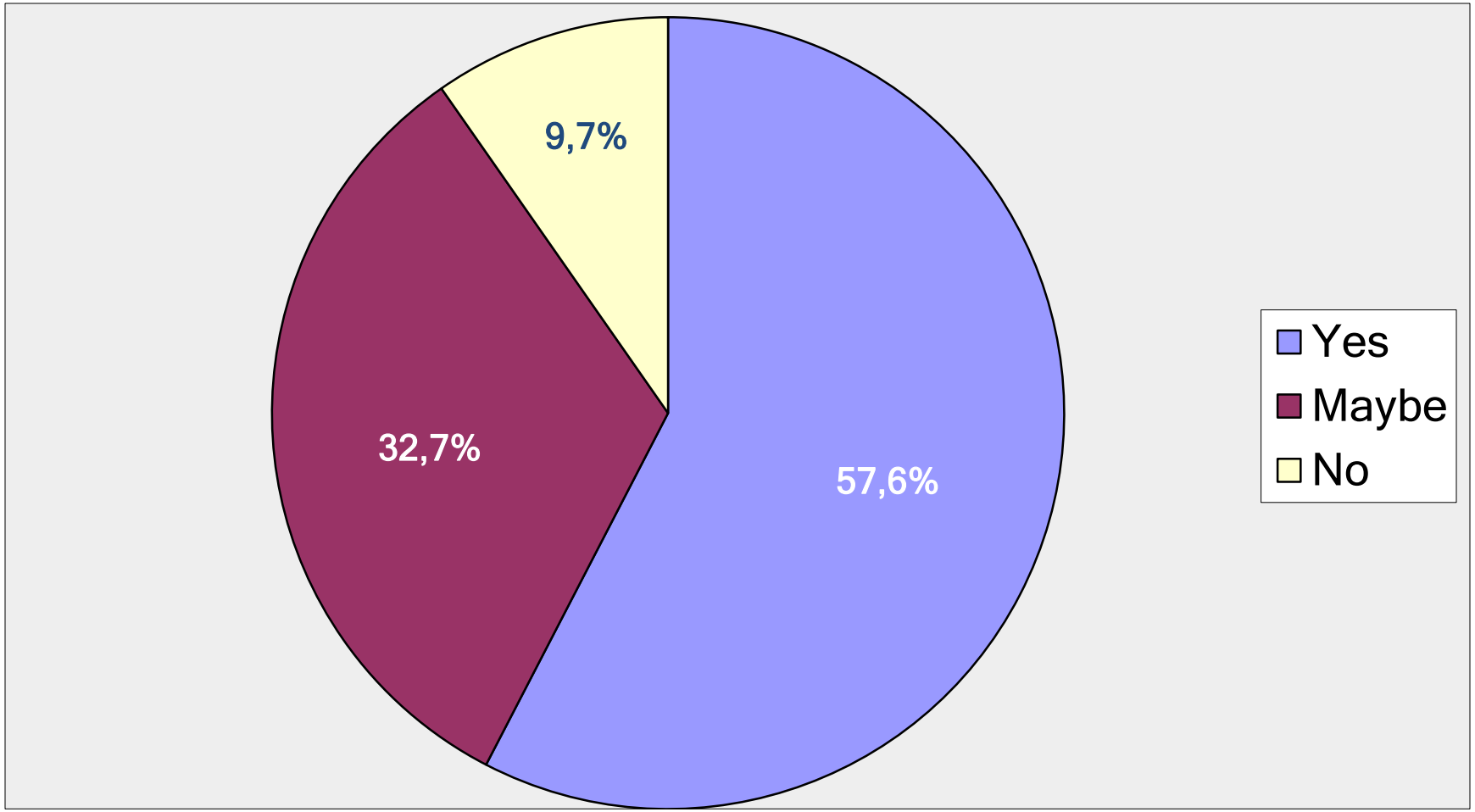
Q6 – How large is your customer base



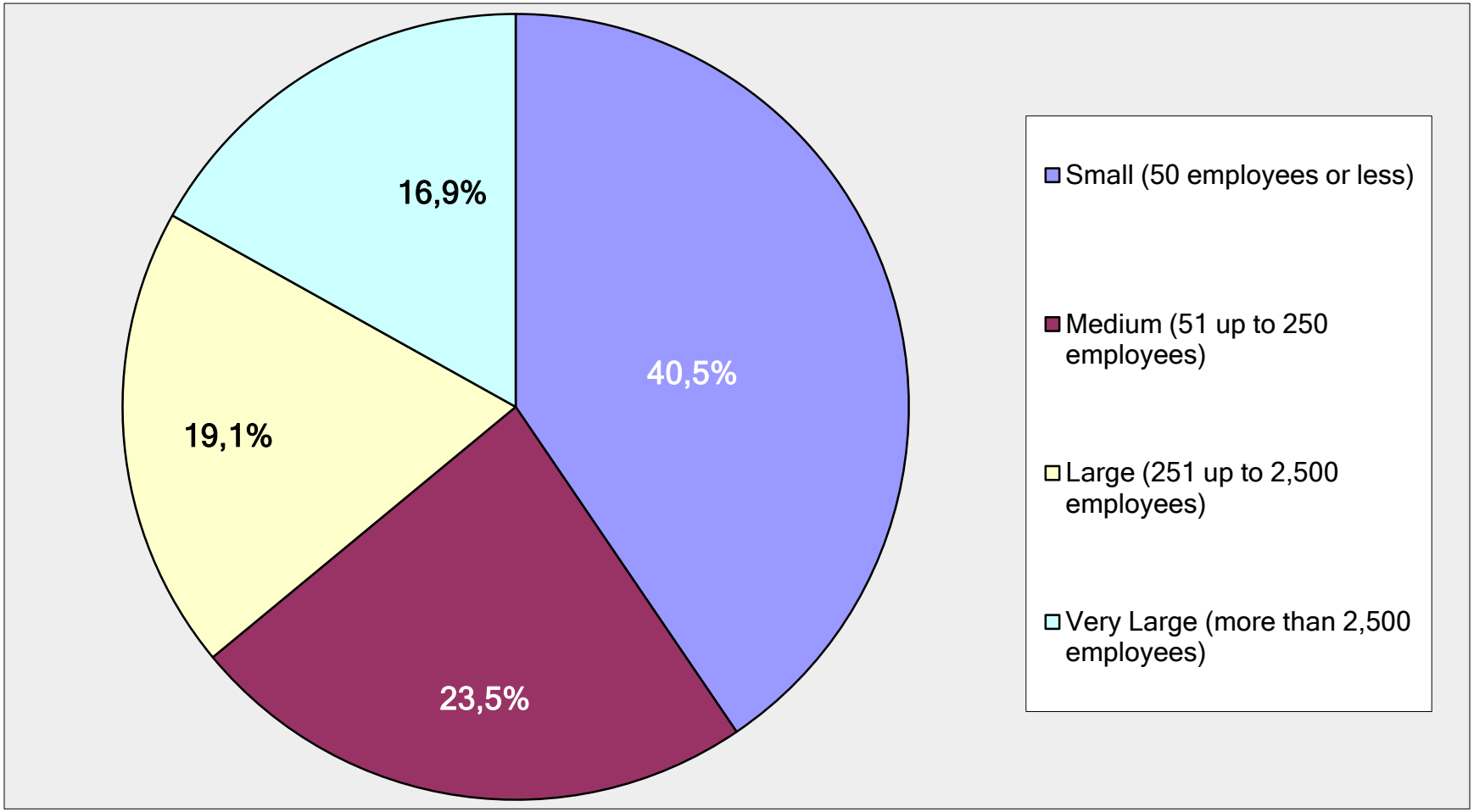
Q7 - What percentage of your customer base uses IPv6 connectivity?



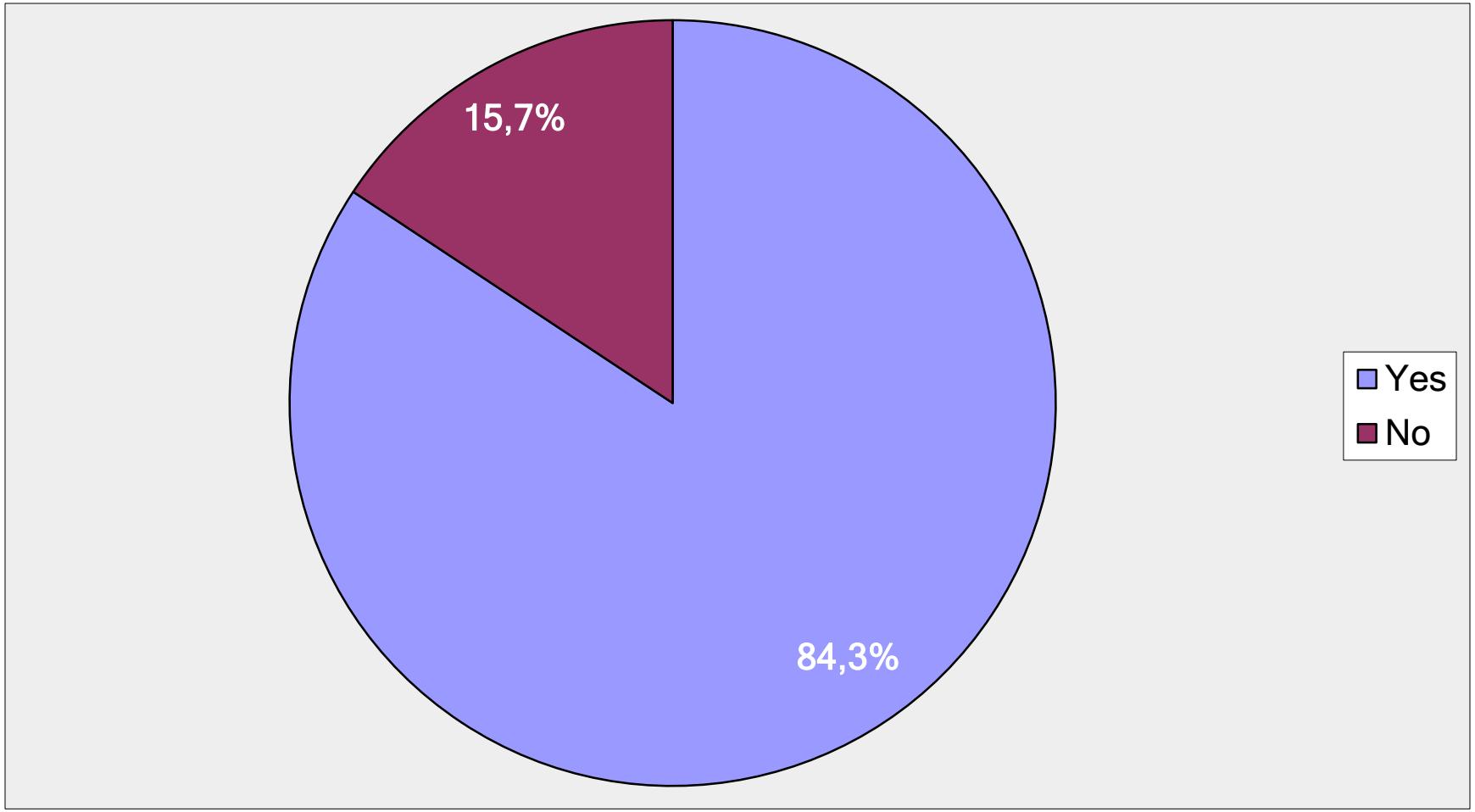
Q8 - Do you consider promoting IPv6 uptake to your customers?



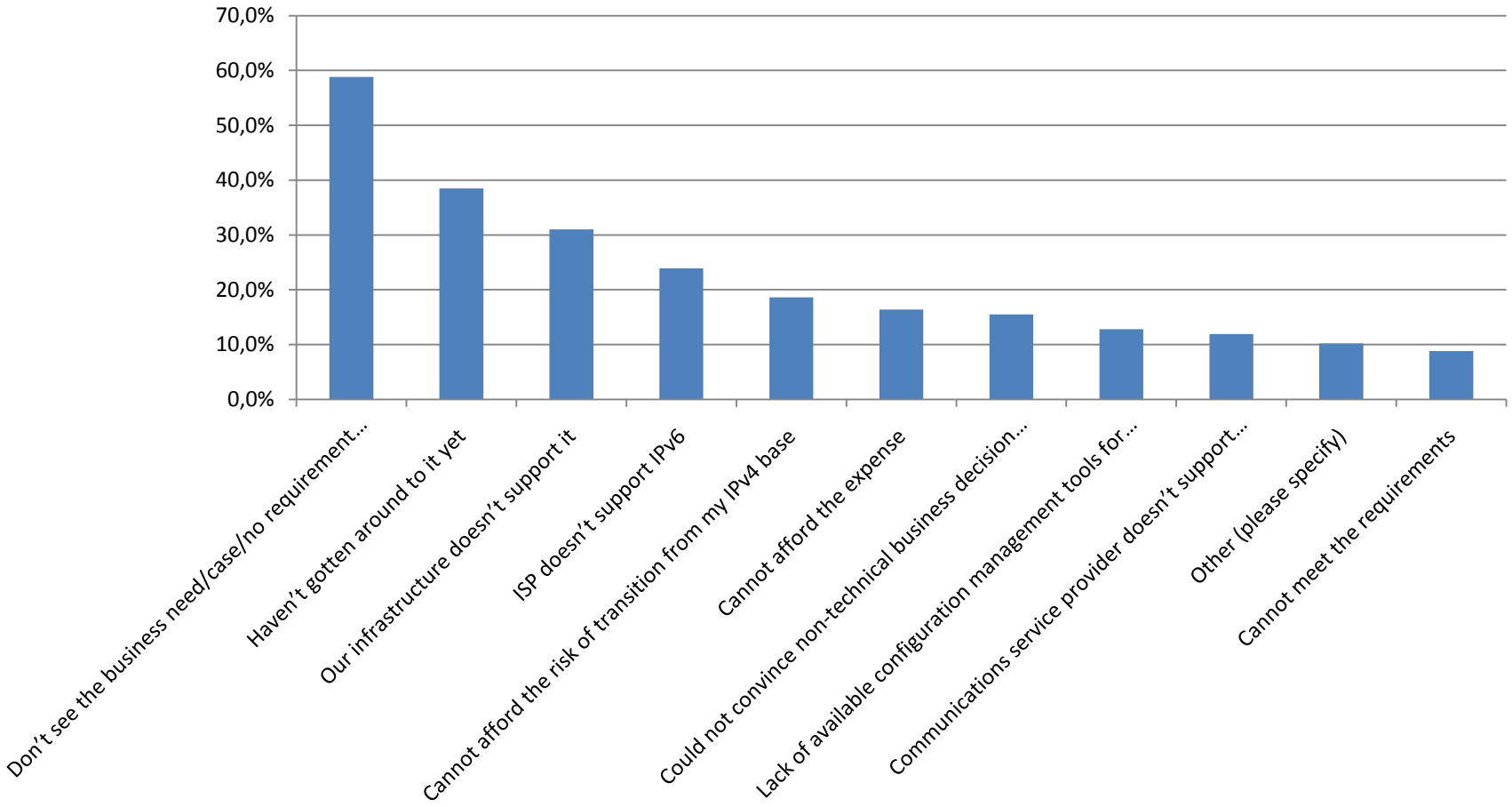
Q9 - What is the size of your organization?



Q10 - Does your organization have, or consider having an IPv6 allocation and/or assignment?

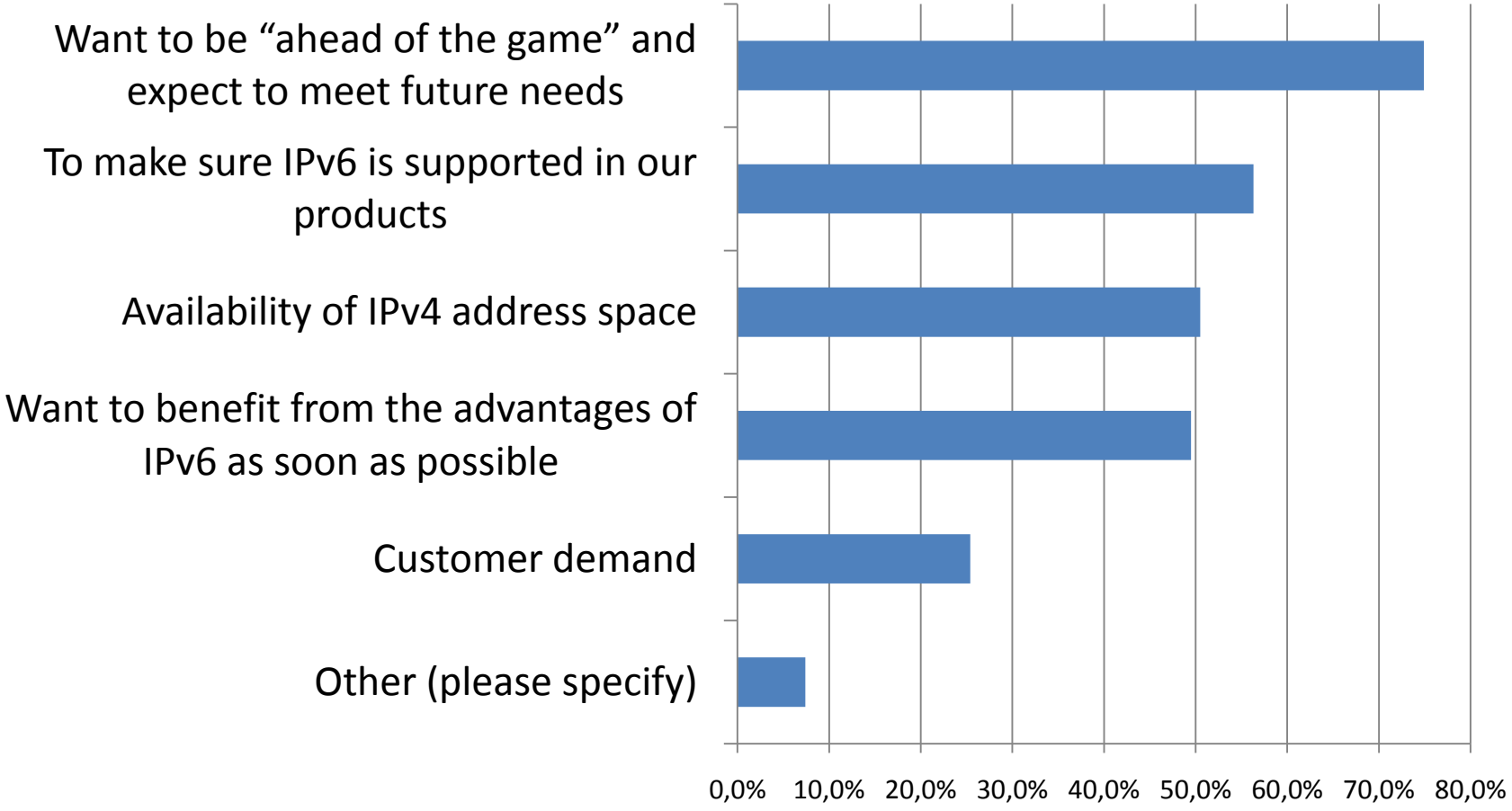


Q11 - Why doesn’t your organization consider having an IPv6 allocation/assignment?



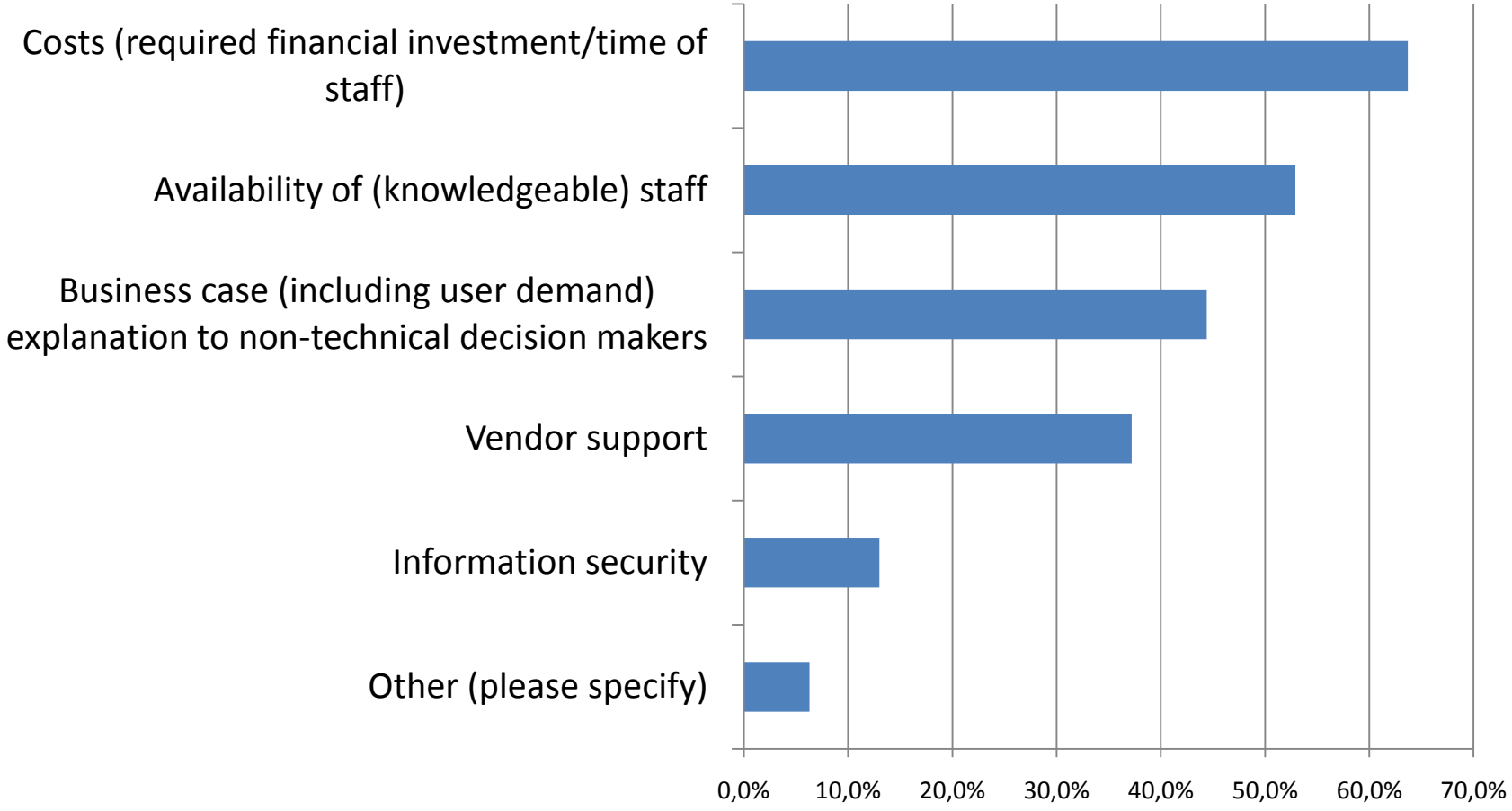
Please note these are responses from the 16% indicated to not consider having an IPv6 allocation/assignment

Q13 - What motivated your organization to consider having an IPv6 allocation/assignment?



Please note these are responses from the 84% indicated to have or consider having an IPv6 allocation/assignment

Q12 - what you expect to be the biggest hurdle(s) to your organization if you were to deploy IPv6?

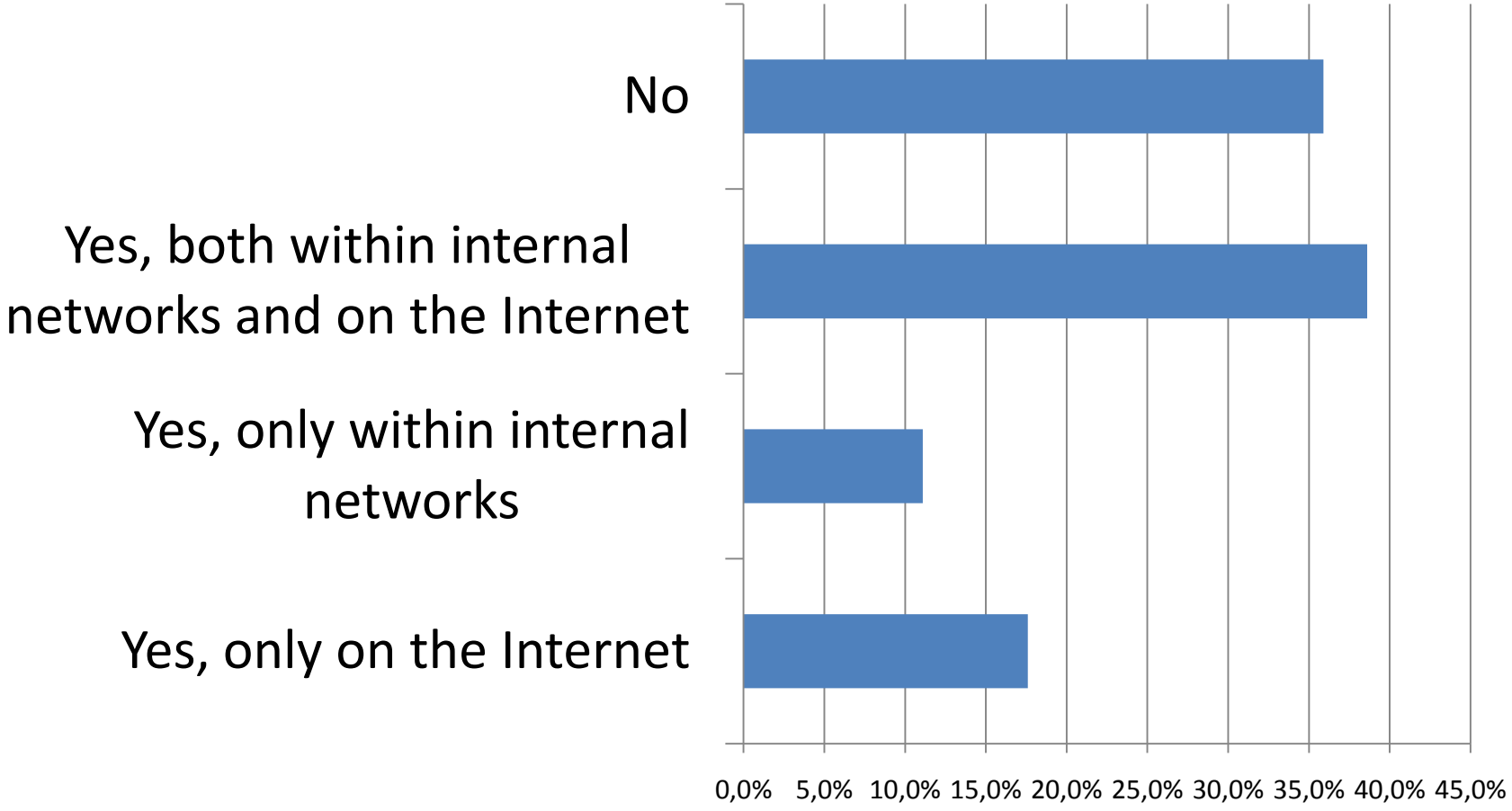


Please note these are responses from the 14% indicated to not consider having an IPv6 allocation/assignment

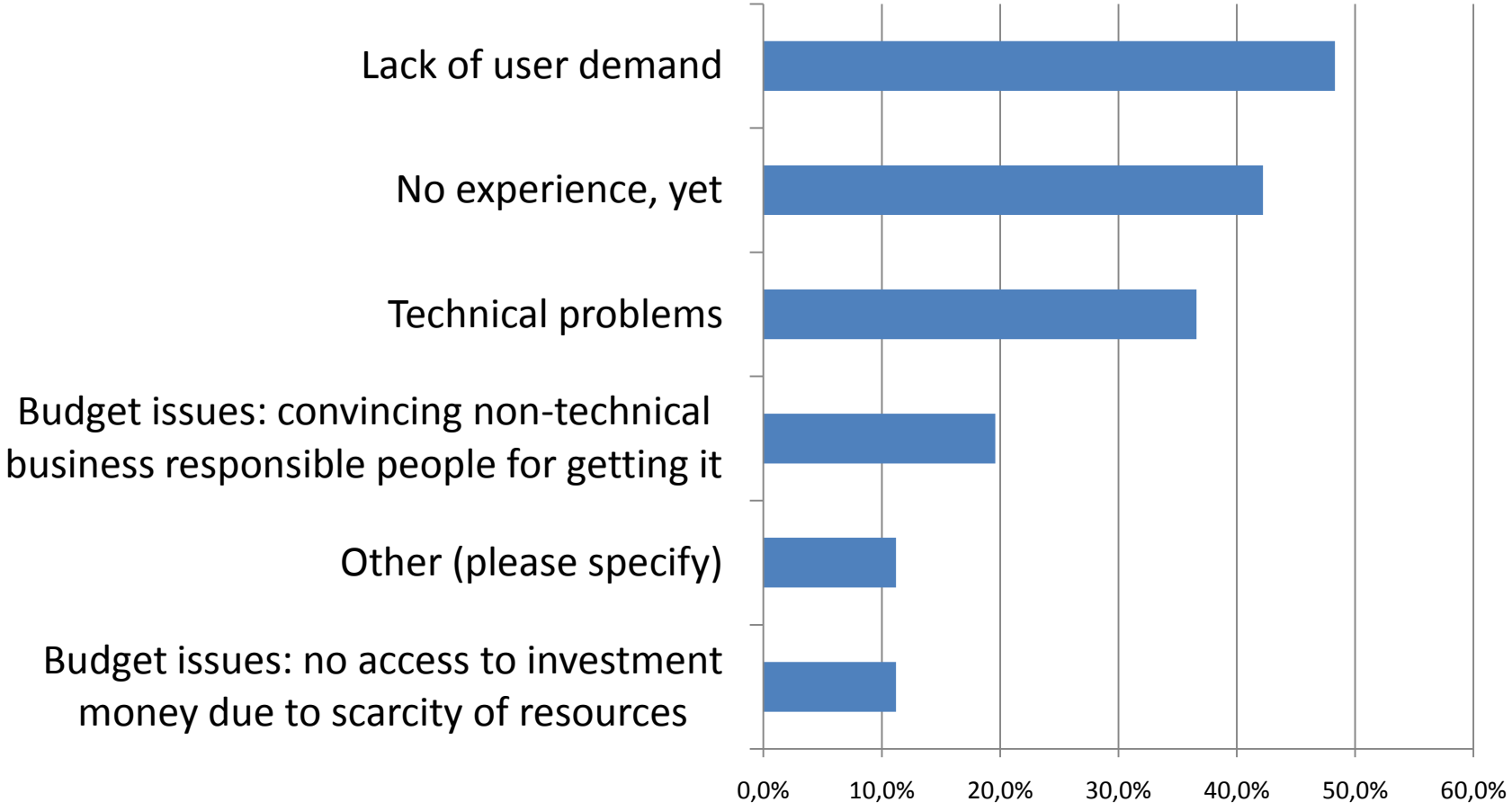
Q16 - What are likely to be the biggest hurdle(s) when deploying IPv6?

Please note these are responses from the 84% indicated to have or consider having an IPv6 allocation/assignment

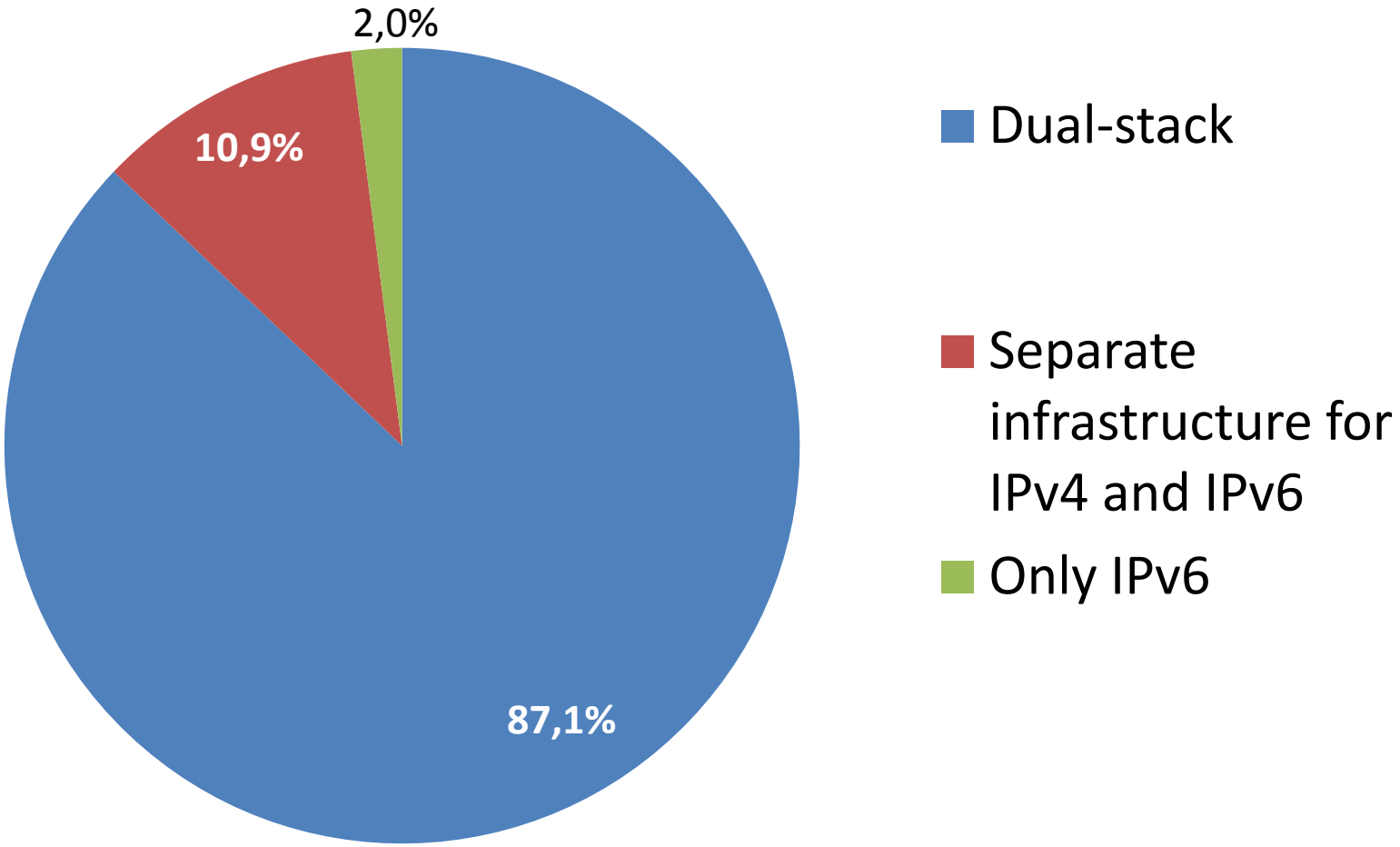
Q15 - Does your organization have an IPv6 presence ?



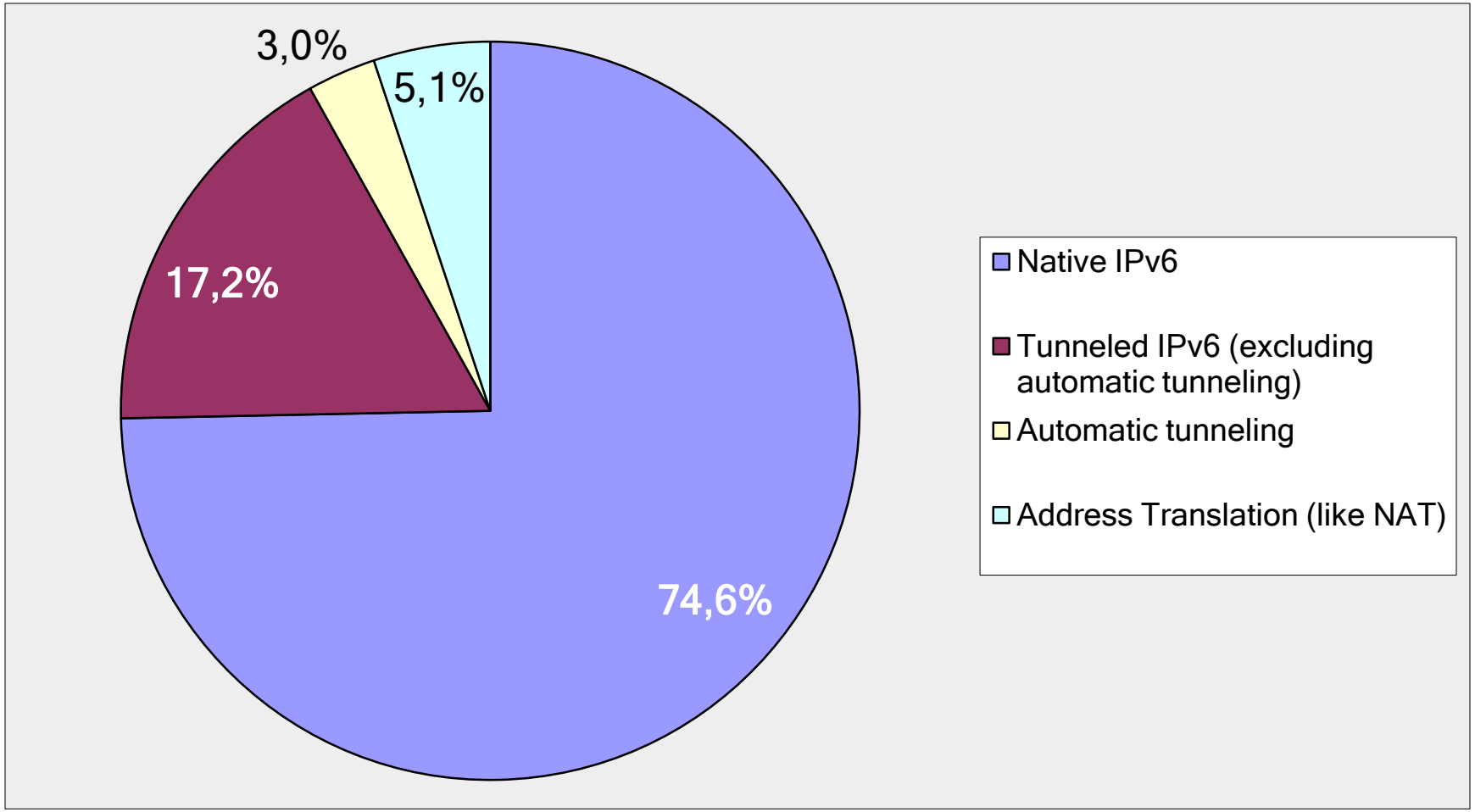
Q17 - What are the biggest problems with IPv6 in production?



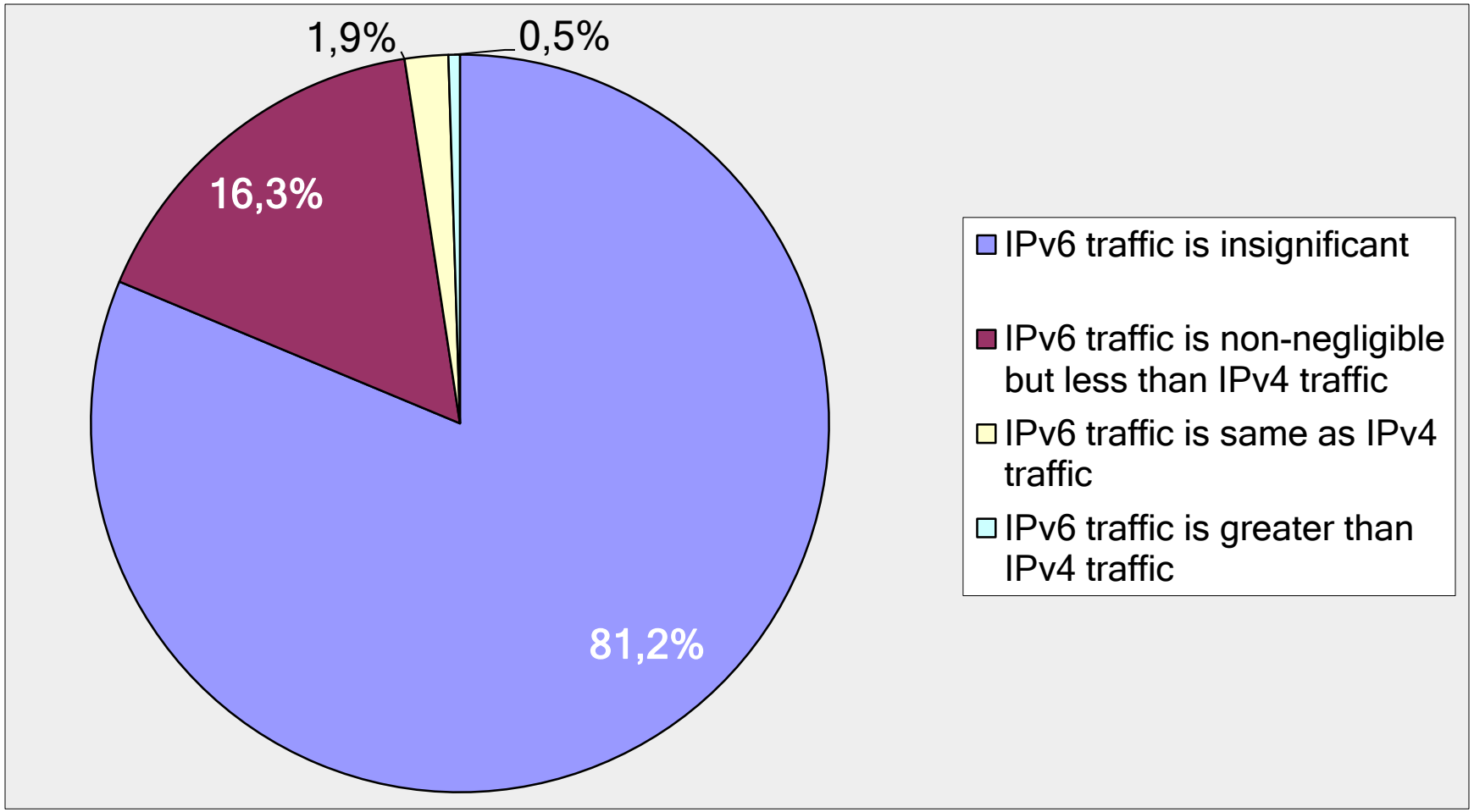
Q18 - your organization's IPv6 setup



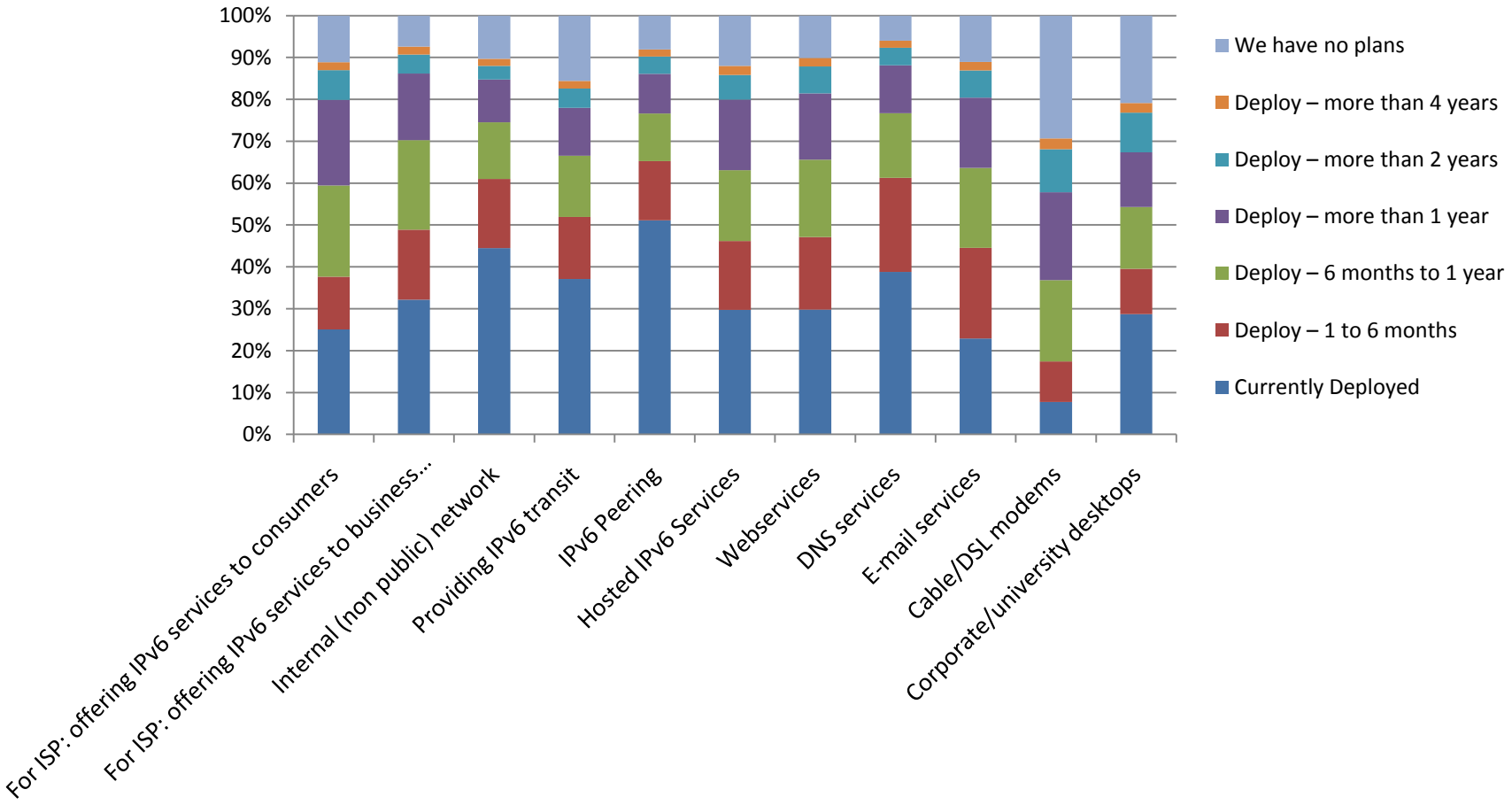
Q19 - nature of your organization's IPv6 production services



Q20 - If your organization has IPv6 in production, how does the amount of IPv6 traffic compare to your IPv4 traffic?



Q22 - Which best describes your organization's IPv6 implementation (plans)?



Main preliminary conclusion

- More respondents do or plan to do IPv6 as compared to 2009, as is clear from the responses on multiple questions
- User demand and experience have gone up, still similar amount of technical problems with implementation
- Main hurdles for those who implement is still vendor support, for those who don’t implement the expectations of costs.
- Overall: more implementation, planning of implementation, awareness of the necessity and experience – not yet much more traffic

We thank all respondents for their contributions !

- 69% indicated their willingness to collaborate to further follow up questions
- 95% indicated their willingness to respond again, next year

This survey could not have been done without the help of RIPE NCC, APNIC, ARIN, AfriNIC and LACNIC

Thanks to the European Commission who has made this possible by granting GNKS Consult and TNO a study contract on IPv6 Deployment, in line with the EU IPv6 Action Plan

Thanks to all RIPE members that helped improve the survey instrument, before it was launched, in 2009.

Thanks to RIPE NCC and APNIC staff for support and help, and all RIRs for sending out the survey to their mailing lists.

Special thanks to KC Claffy (CAIDA), Karine Perset (OECD), Leslie Daigle (ISOC), Paul Rendek and Nick Hyrka (RIPE NCC), Miwa Fujii and Paul Wilson (APNIC) for their feedback, advice and support.

http://www.ipv6monitoring.eu/

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The European IPv6 Web Site

http://ec.europa.eu/information_society/policy/ipv6

Questions regarding the Action Plan to the European Commission:

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