

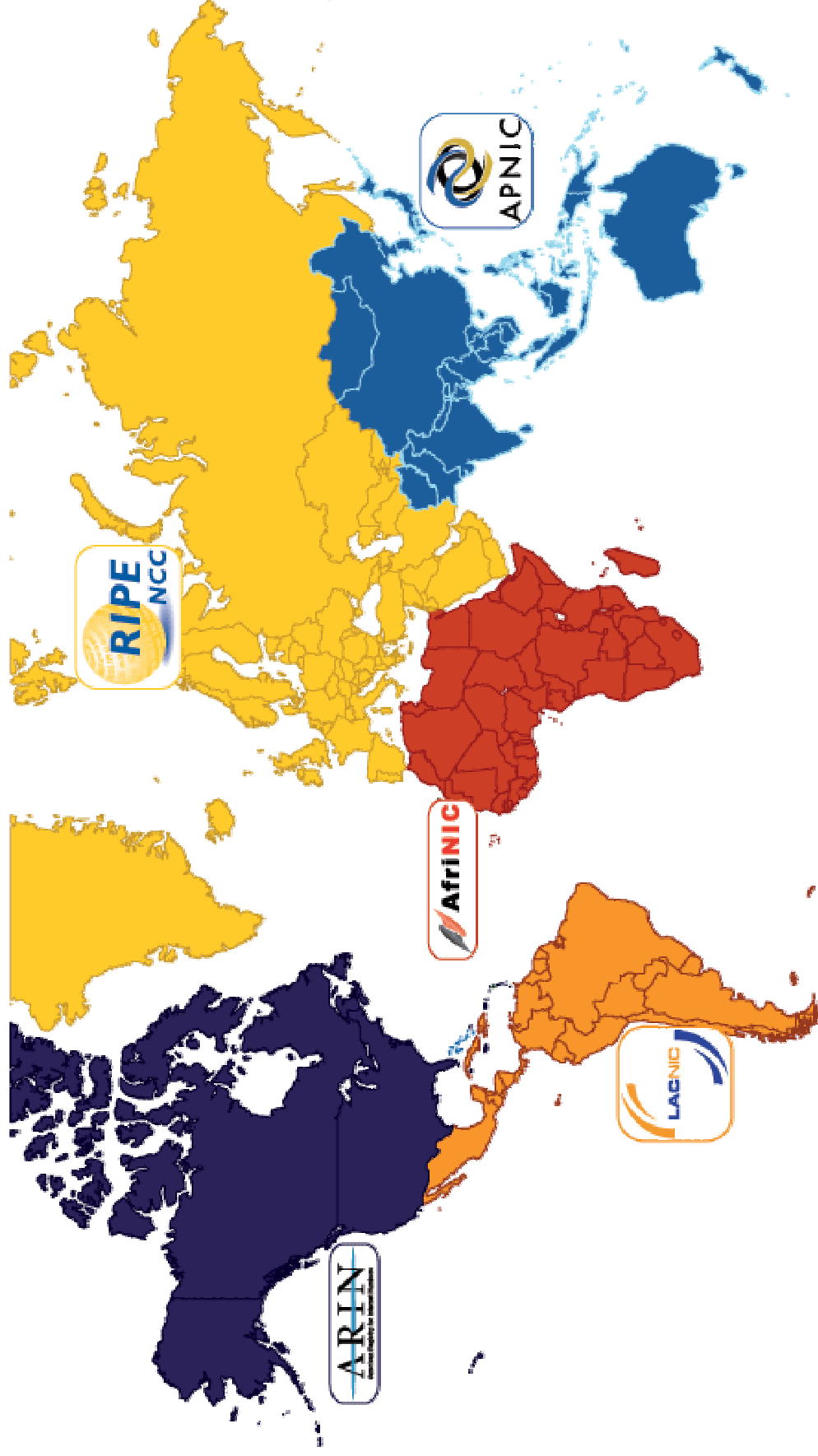
IPv6 In the RIPE region

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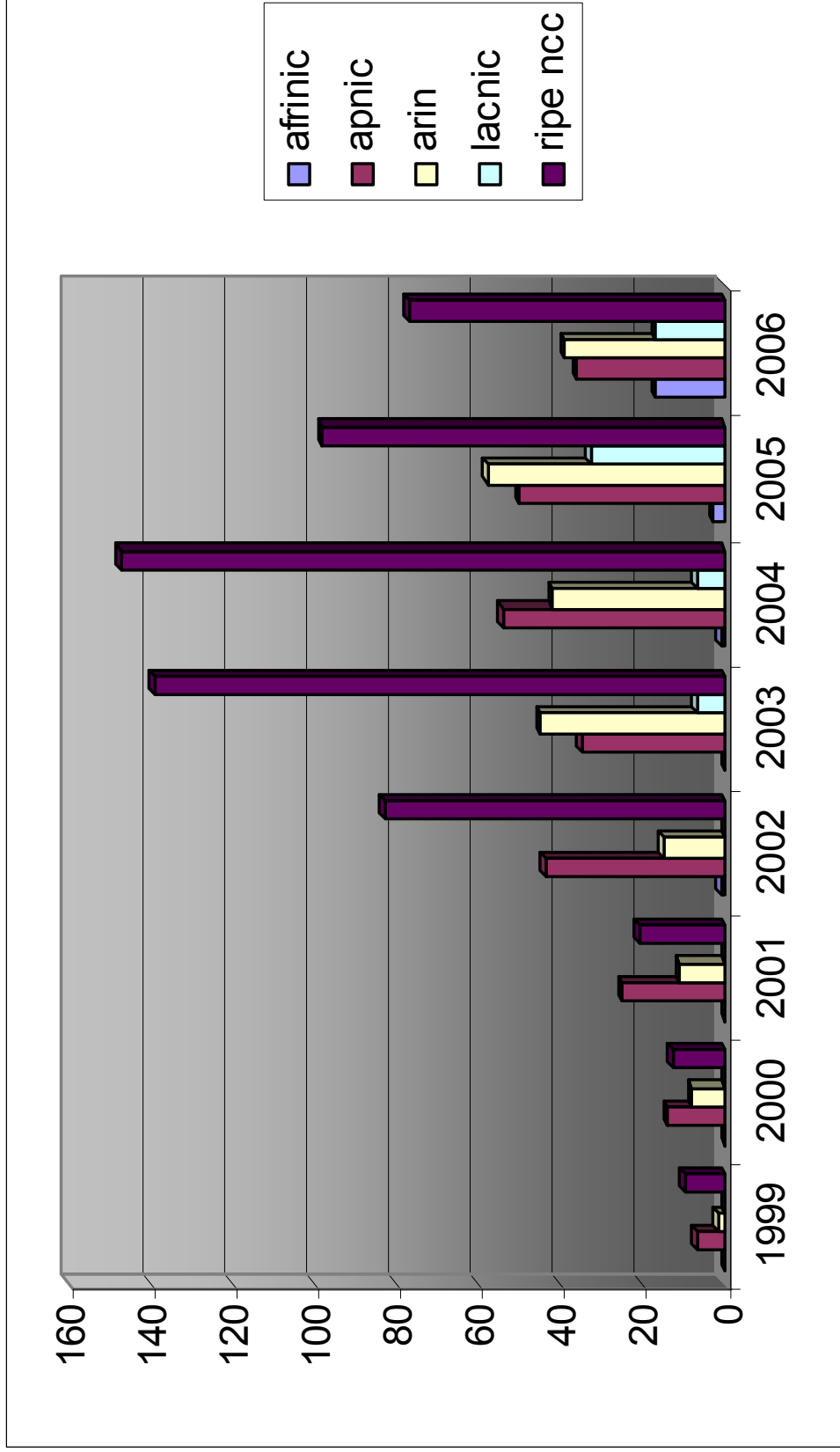
- Introducing RIPE NCC
- Numbers
- Allocation Principles
- Policy

- **Membership Association**
 - Established in Amsterdam in 1992
 - Over 4500 members
 - Open to everyone
- **Regional Internet Registry (RIR)**
 - Distributes IP address space, AS numbers
 - Reverse DNS delegations
 - Registration database

RIR Service Regions



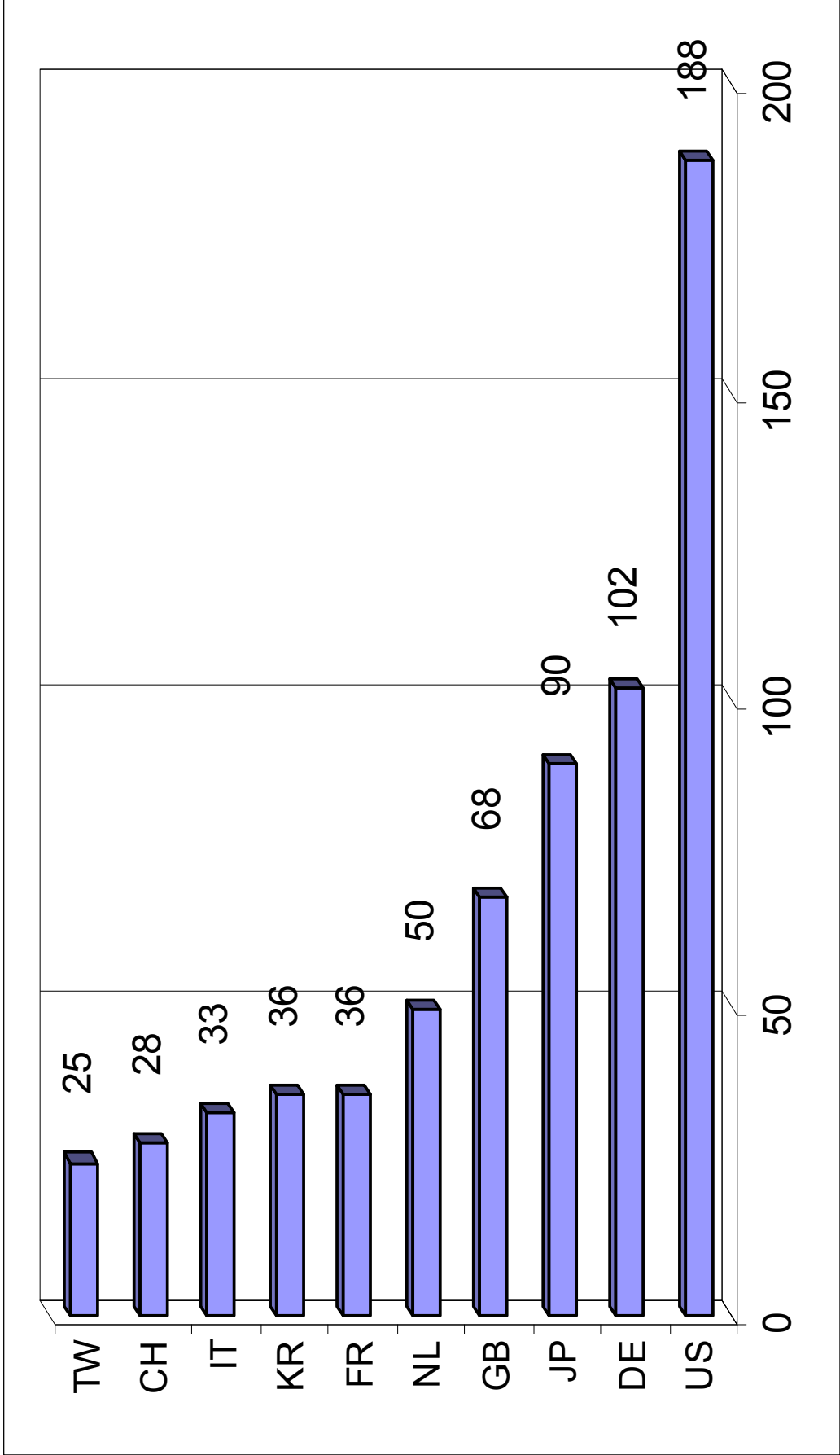
Global IPv6 Allocations (October 2006)



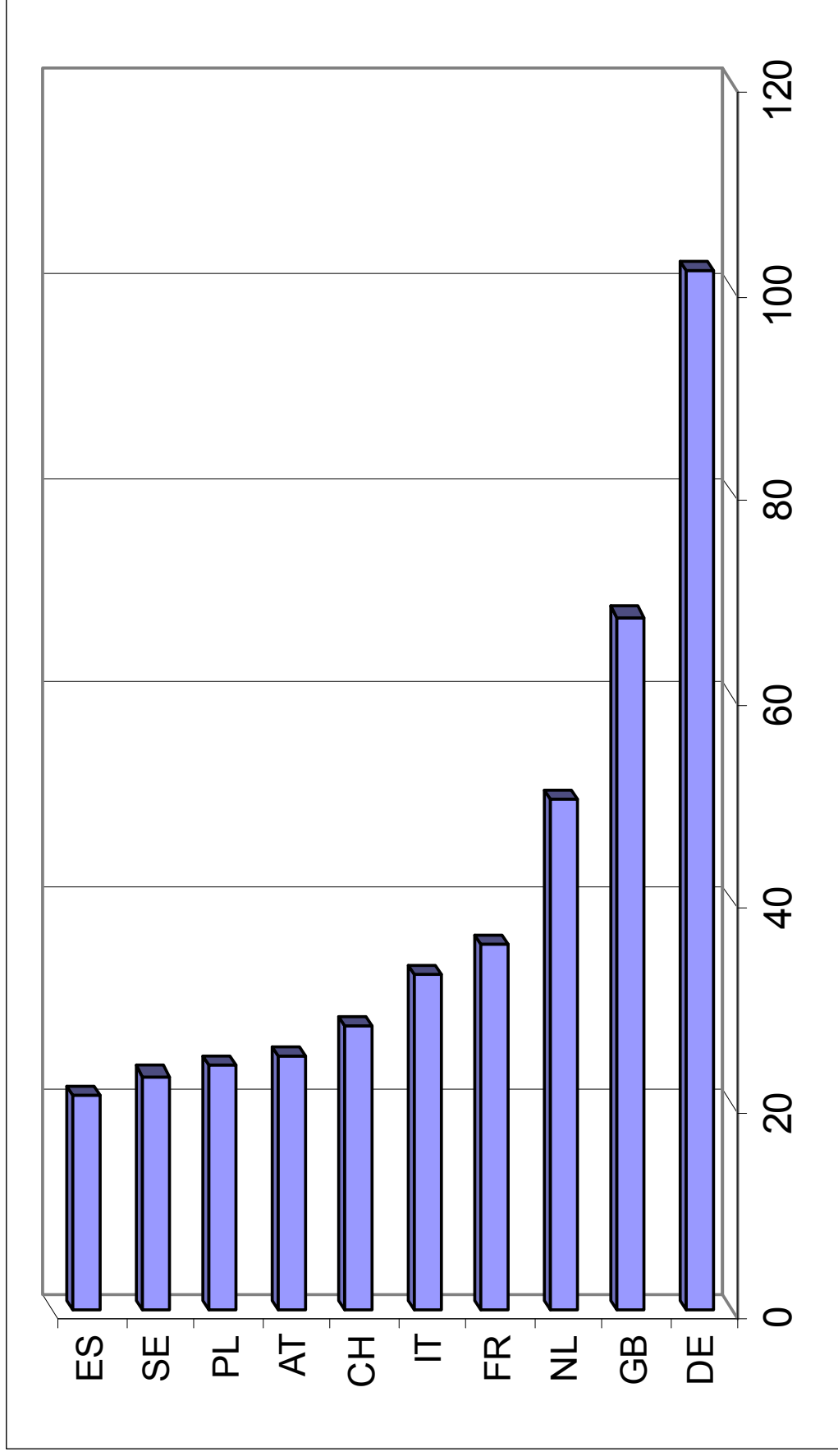
IPv6 Allocations to RIPE NCC

- 17 blocks from the IANA
 - Equal to /12, /17, /22
- 588 allocations
- 58 IXP assignments
- 3 ccTLD anycast assignments

IPv6 Allocations per Country (top 10) (October 2006)

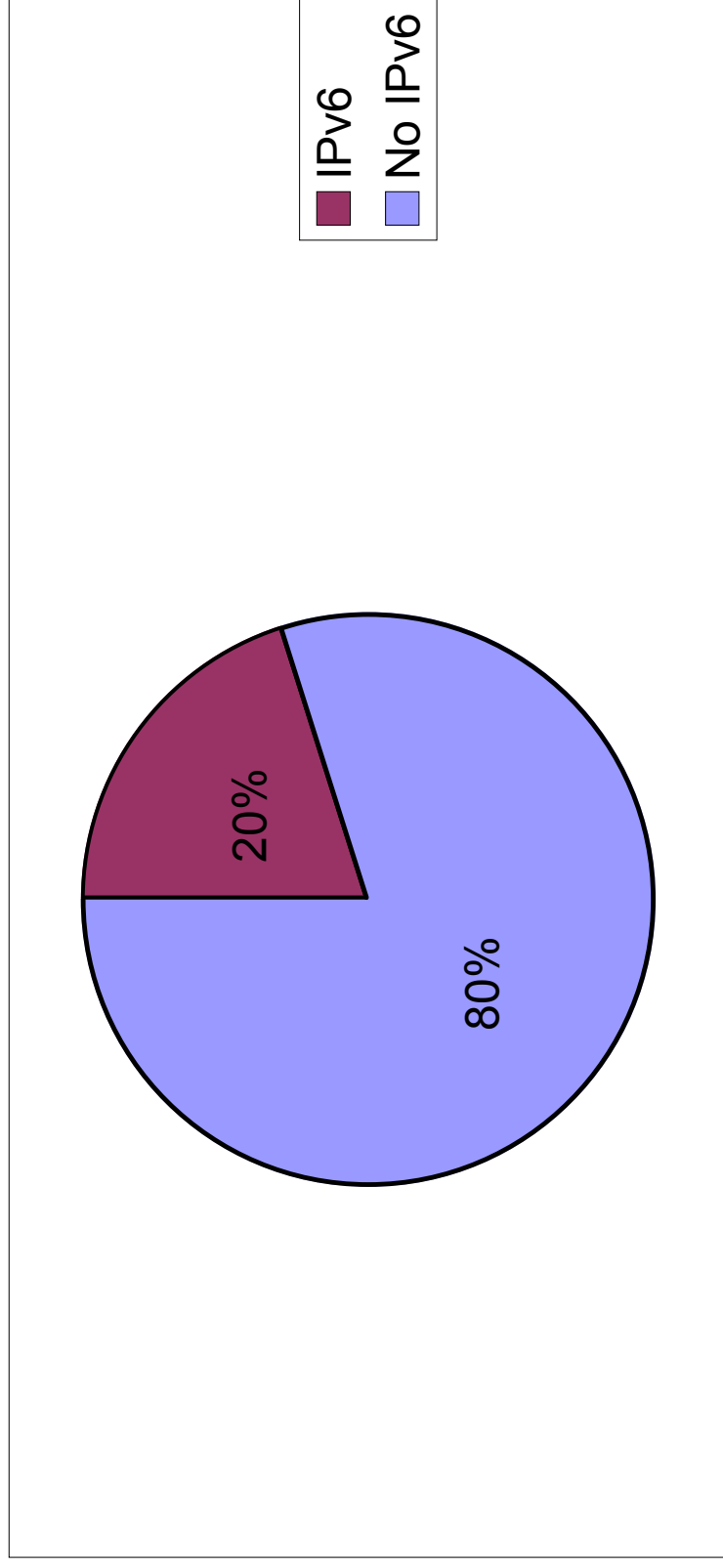


IPv6 Allocations per Country (top 10 RIPE Region) (October 2006)



IPv6 allocations in France

- 36 out of 181 active LIRs have an IPv6 allocation



Allocation Principles

- **Aggregation**
 - Routing table size
- **Conservation**
 - Less important with IPv6
- **Registration**
 - Uniqueness important
 - Troubleshooting for network operators
- **Address space not considered property**

Policy

- Common policy agreed May 2002
- Initial Allocation
 - be an LIR and not an End Site;
 - plan to provide IPv6 connectivity & assign /48s by aggregating the single allocation;
 - plan to assign 200 /48s to other organisations within 2 years.
- Minimum Allocation /32
- Additional Allocation: Default – same again

Regional Variations Over Time.. (1)

- **RIPE**
 - ccTLD and gTLD Anycast Assignments
- **LACNIC**
 - Removed 200 /48 assignments
 - Added time restriction
 - Start announcing in 1 year
 - Offer IPv6 services to clients in 2 years

Regional Variations Over Time.. (2)

- **AfriNIC**
 - “show a reasonable plan for making /48 IPv6 assignments to end sites in the AfriNIC region within 12 months”
 - Start announcing in 1 year
- **ARIN**
 - “Be an existing, known ISP in the ARIN region” or
 - plan to make 200 /48 assignments in 5 years
 - Direct Assignment policy, not be an LIR and qualify for an IPv4 assignment or allocation

Current Policy Discussions RIPE Region (1)

- Proposal to change IPv6 Allocation and Assignment Policy
 - set the definition of an End Site for the purposes of the calculation of ISP or LIR End Site allocation efficiency to a /56 size.
 - set the IPv6 threshold End Site allocation utilisation level relating to assessment of utilisation of End Site allocation efficiency to that matching an HD Ratio value of 0.94.
- Proposal to introduce IPv6 Provider Independent (PI) assignments

Current Policy Discussions RIPE Region (2)

- Proposal to replace the “200 /48s” criteria in IPv6 Allocation policy with “a reasonable number of /48s”

Policy Development

- Driven by the RIPE Community
- The RIPE Community is open to everyone, not just members
- Discussions are on public mailing lists and during RIPE Meetings
- Decisions are made by consensus
- Policy Development Website:
 - <http://www.ripe.net/ripe/policies/>

Questions?