



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

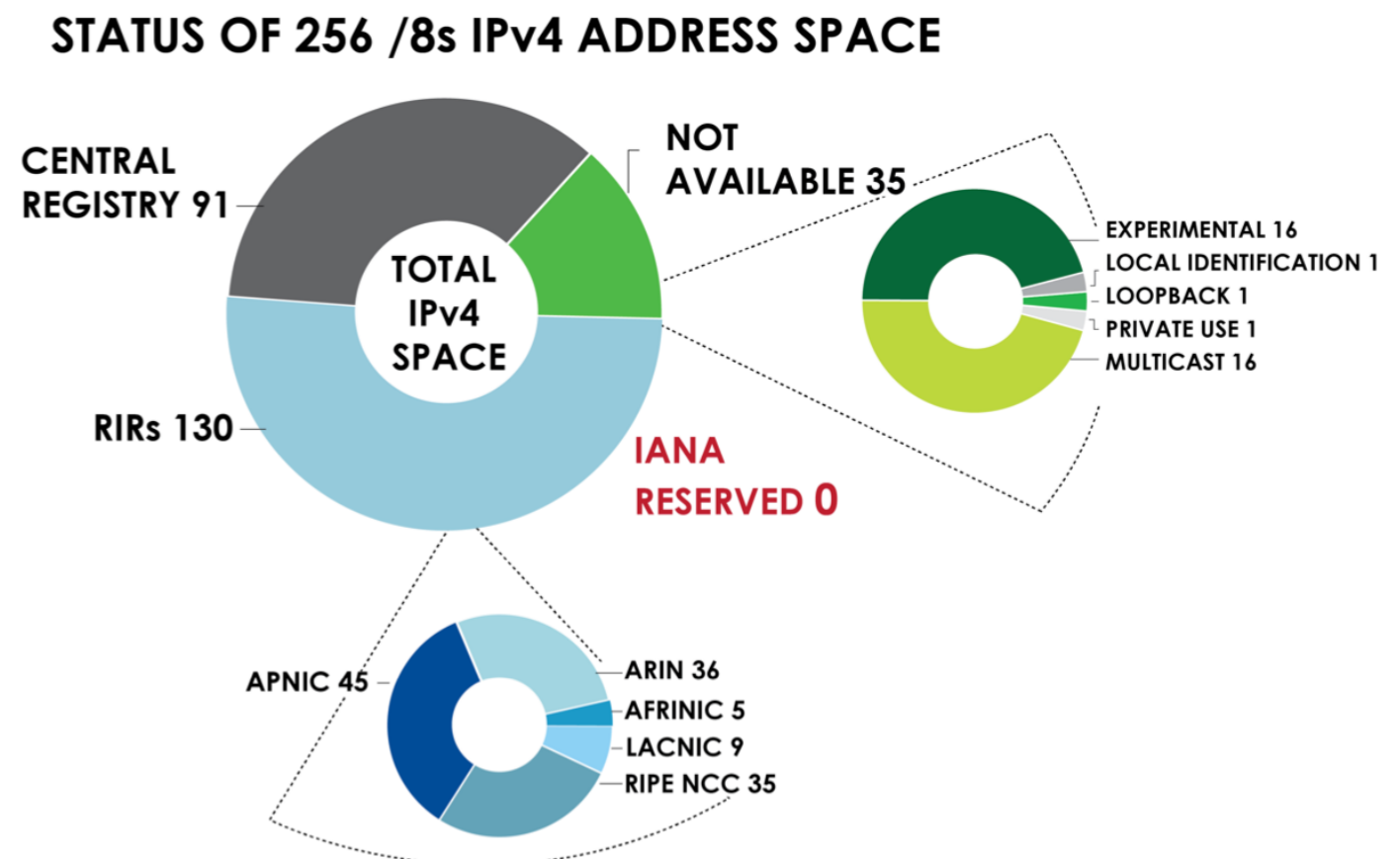
RIPE Registry Accuracy

Internet Security:
Beyond Incident Response

RIPE NCC Core Activities



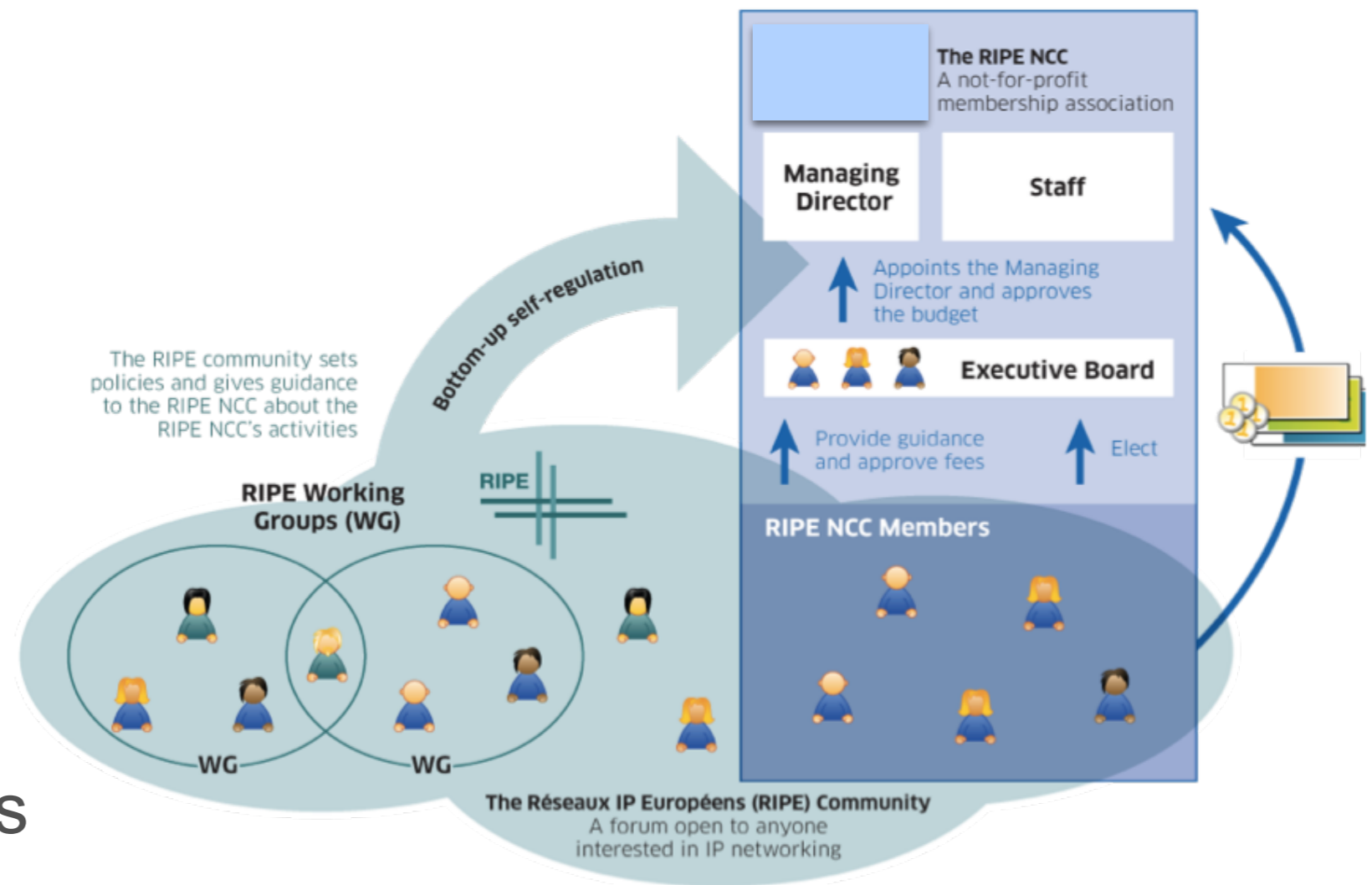
- Manage and maintain the Internet Number Resource lifecycle
- Ensure an accurate RIPE Registry
The Registry for Internet Number Resources managed and maintained by the RIPE NCC



Mandate for Activities



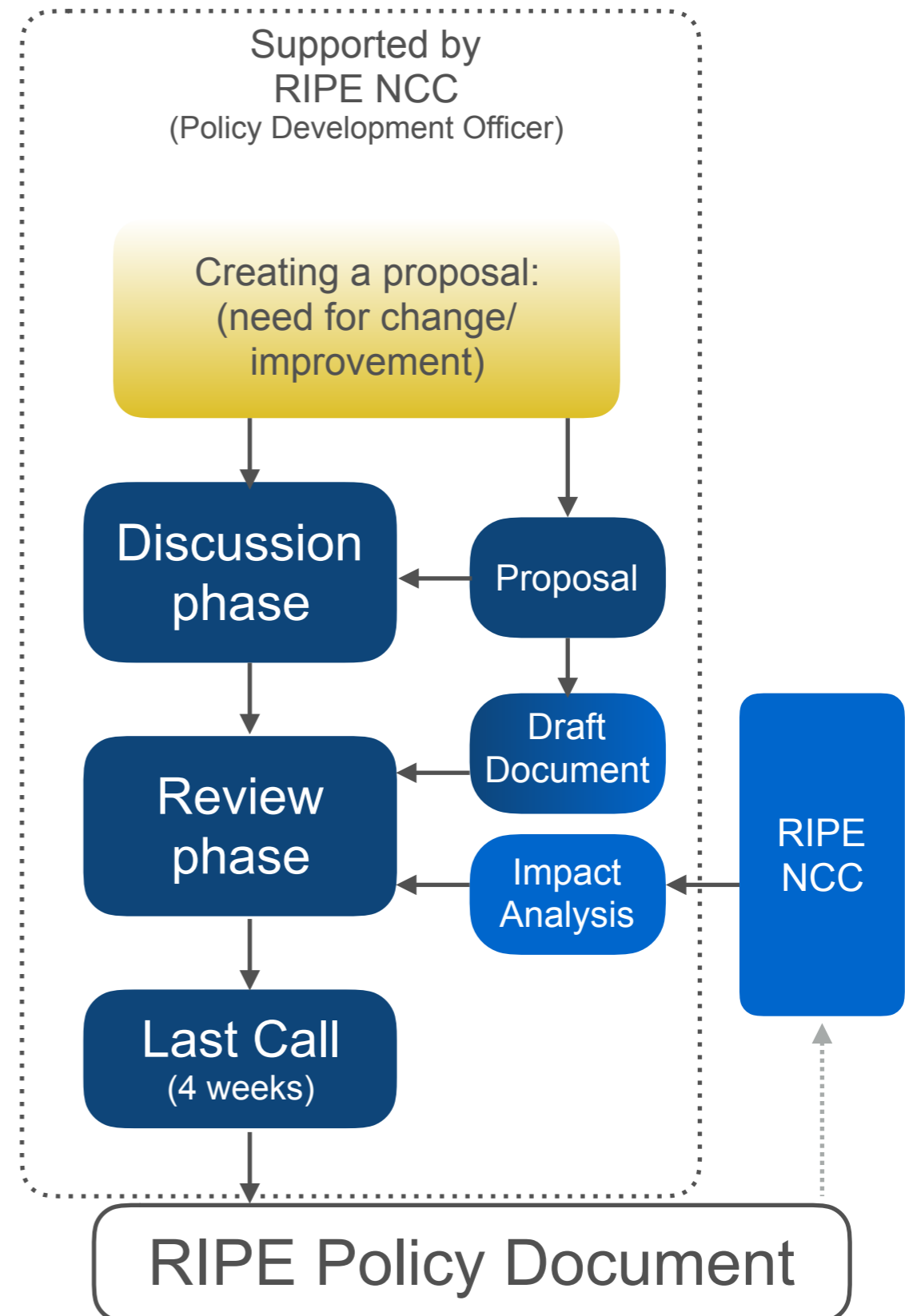
- By RIPE NCC Members
- By Internet Community, through Policy Development Process
 - Bottom-up process open to everyone



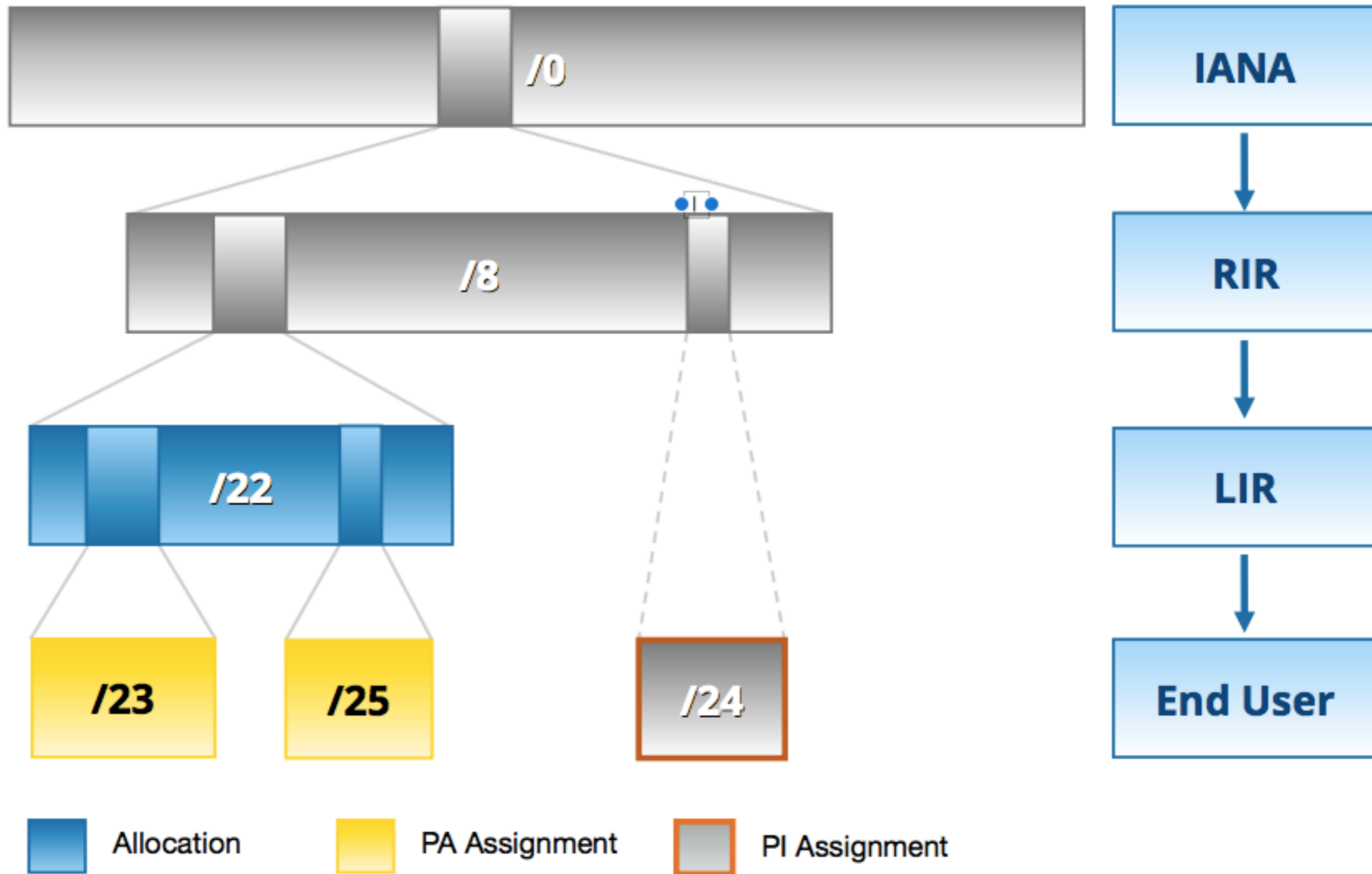
Policy Development Process



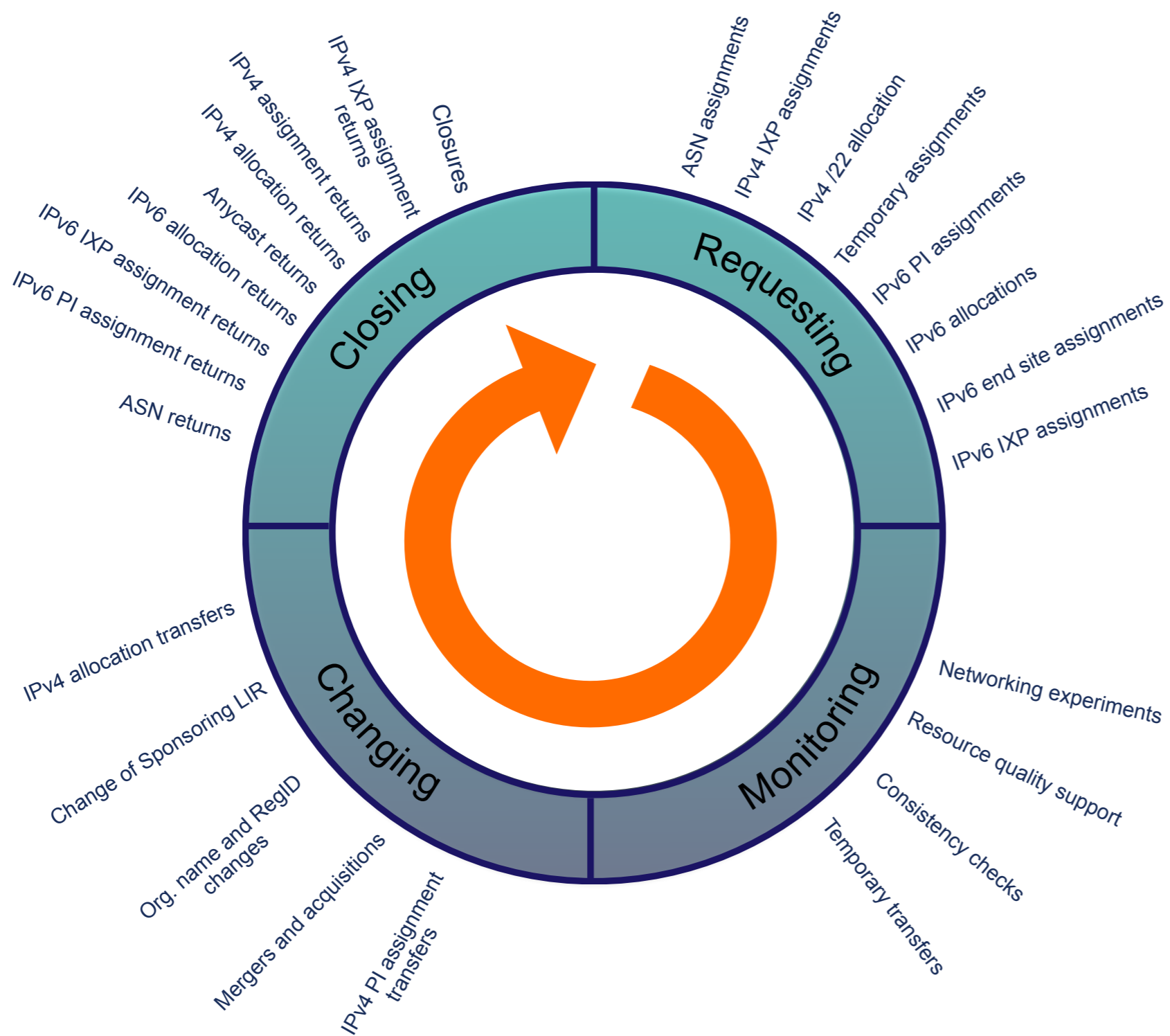
- Decisions based on mailing list discussion
 - Face to face meetings help
- Rough Consensus
 - Properly address all concerns and objections
 - Work out differences
 - No voting or counting



RIR Delegation Flow



Internet Number Resource Lifecycle



- > 100K Internet Number Resources (blocks) managed
- > 8K new Internet Number Resources issued in 2016
- > 6K changes of holdership processed in 2016

RIPE Registry



- Authoritative registration data for all Internet Number Resources administered by the RIPE NCC
- Multiple parties rely on its data
 - Operators, for daily operations
 - Academics, for research
 - Brokers, supporting legitimate holders
 - LEAs, for investigations

RIPE Registry



RIPE Registry

Non-Public Data

- Contracts
- Membership contacts
- Billing data

Public Registry Data

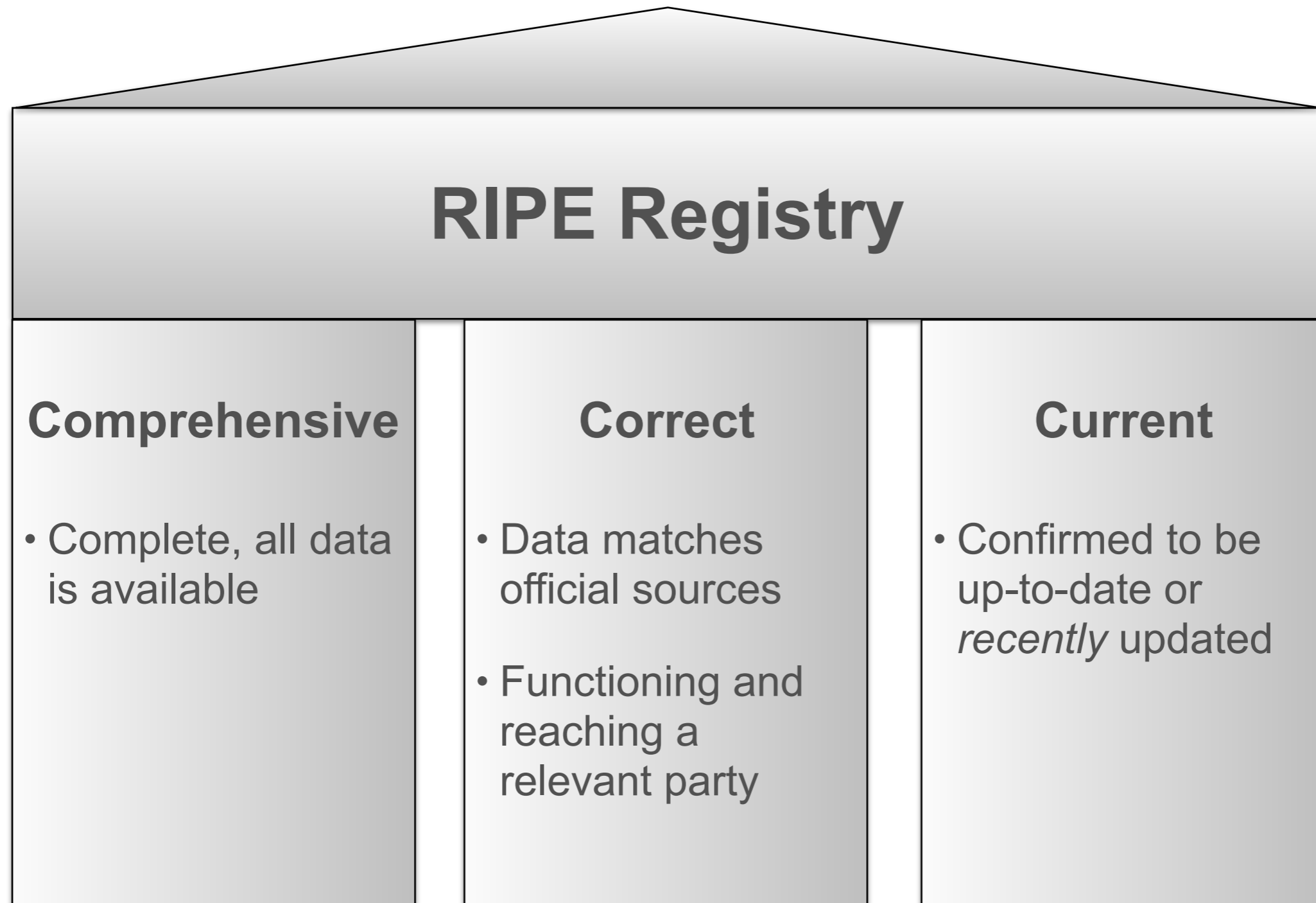
- Internet Number Resource
- Legal organisation name holder
- Contact Information

RIPE Whois

Public data (managed by users)

- rDNS
- Routing
- External Address Management
- Further resource delegation

RIPE Registry Accuracy

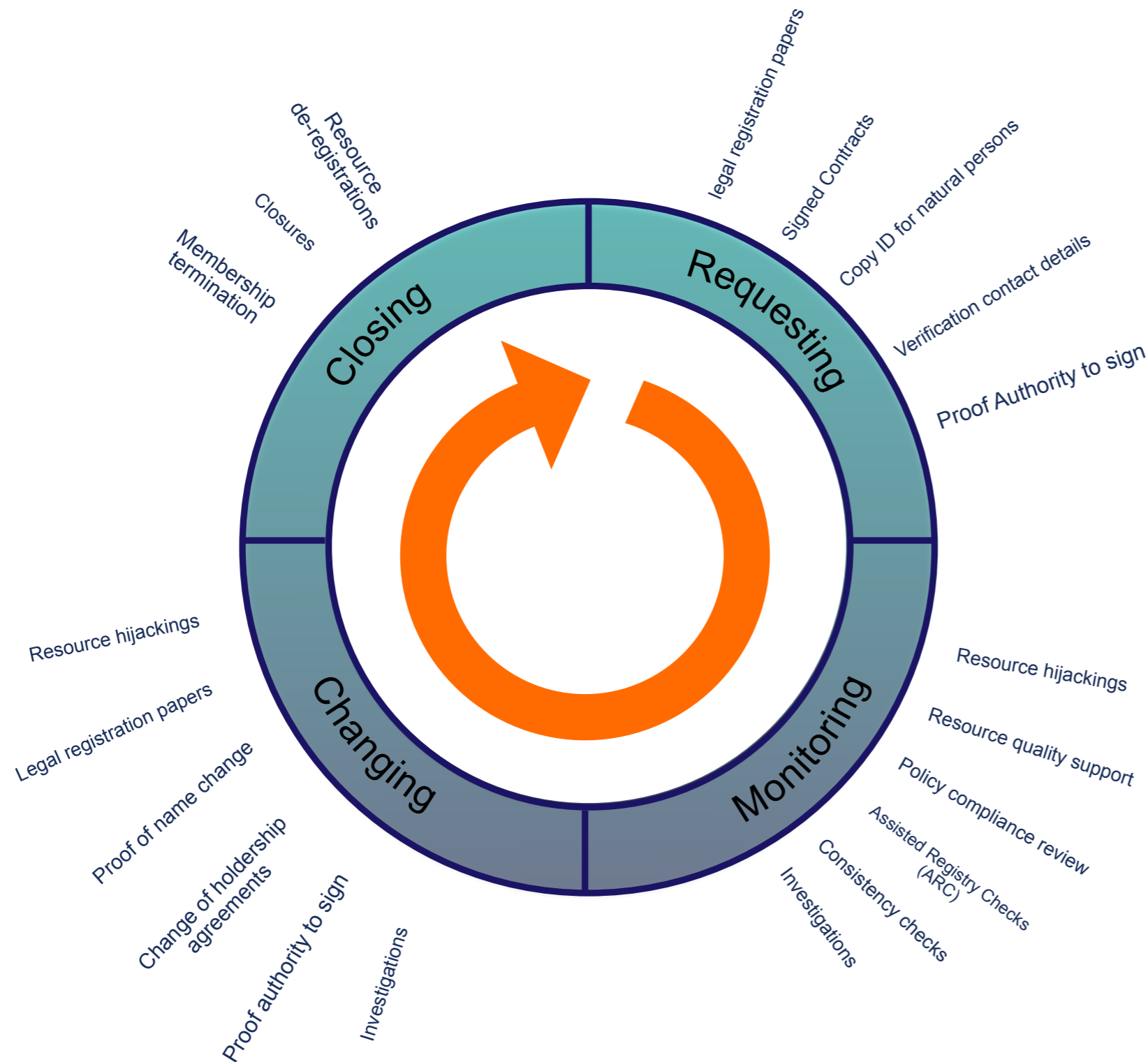


Accuracy Expectations



- What we expect from RIPE NCC members
 - Appoint contacts
 - Be responsive
 - Comply with RIPE Policy
 - Provide requested documentation
 - Cooperate with audit and ARC activities
 - Provide accurate, valid and truthful information
 - Act in good faith
 - **Maintain accurate Registry data**

Accuracy Assurance



- **>3K ARCs in 2016**
- **>80 hijack investigations started, 65 concluded in 2016**
- **>200 investigations via reporting form - incorrect data registrations**
- **1K Internet Number Resources returned to the available pool**

Developments



- Ecosystem developments
 - The most widely used Internet Number Resources are scarce
 - Hijacks for resale of valuable resources
 - Internet number resources used for malicious activities
- Developments resulting into further scrutiny of the Registry and its governance
 - Global law enforcement interest in IP WHOIS accuracy
 - ICANN health indicators
 - Public opinion

Further Data Accuracy Efforts



- Development result in the need of
 - Fortifying RIR processes
 - Increase engagement with governments, LEAs
 - Increase community involvement in policy making



Questions

