YANG Next Analysis

NETMOD WG

IETF 104 (Prague)

Meetings

3 Virtual Interims in two months:

- Feb 6
- Feb 20
- Mar 20

Focus on scoring the YANG Next issues

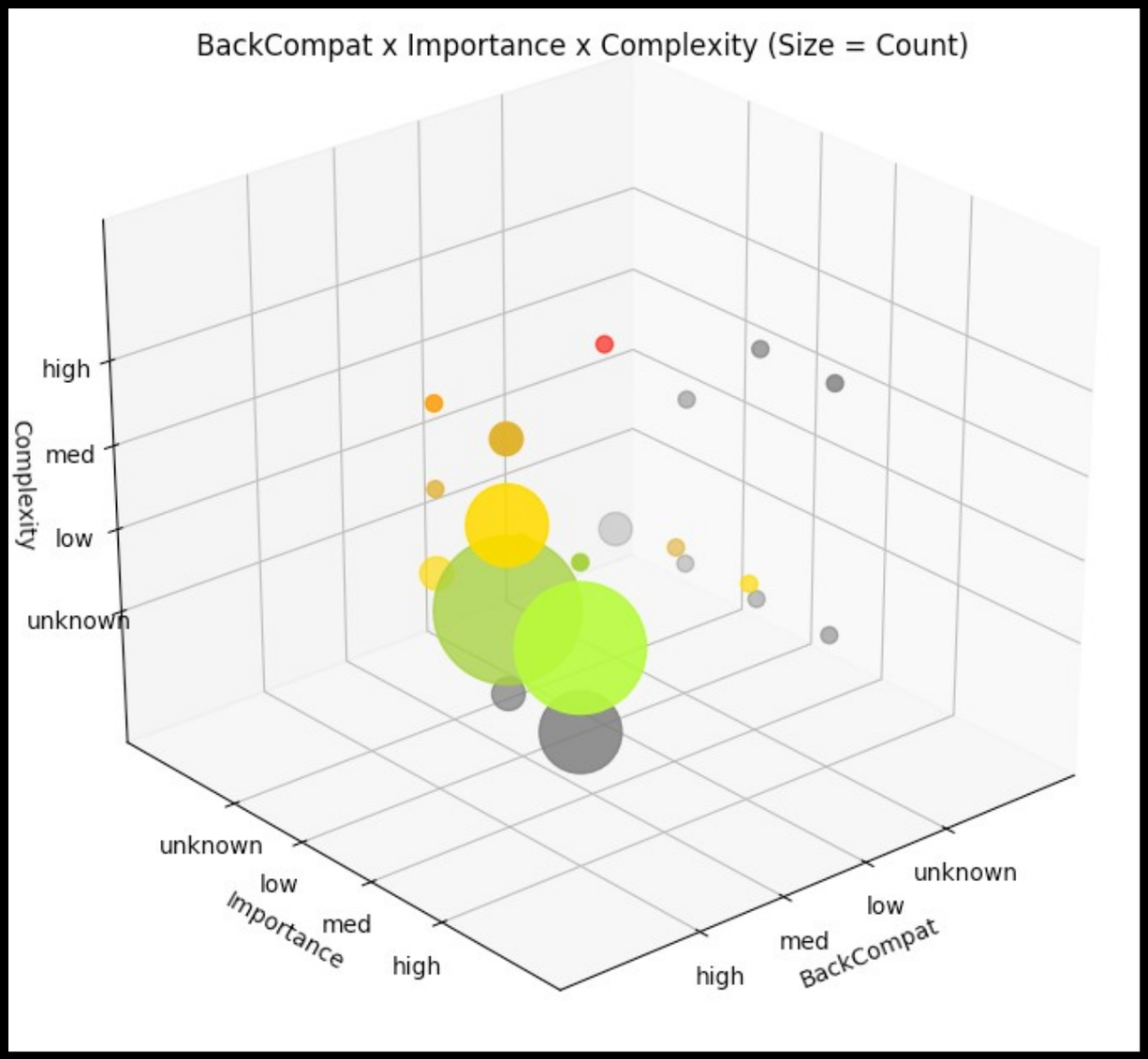
- 70 issues entered over the course of 3 years
  - repo created on Mar 11, 2016

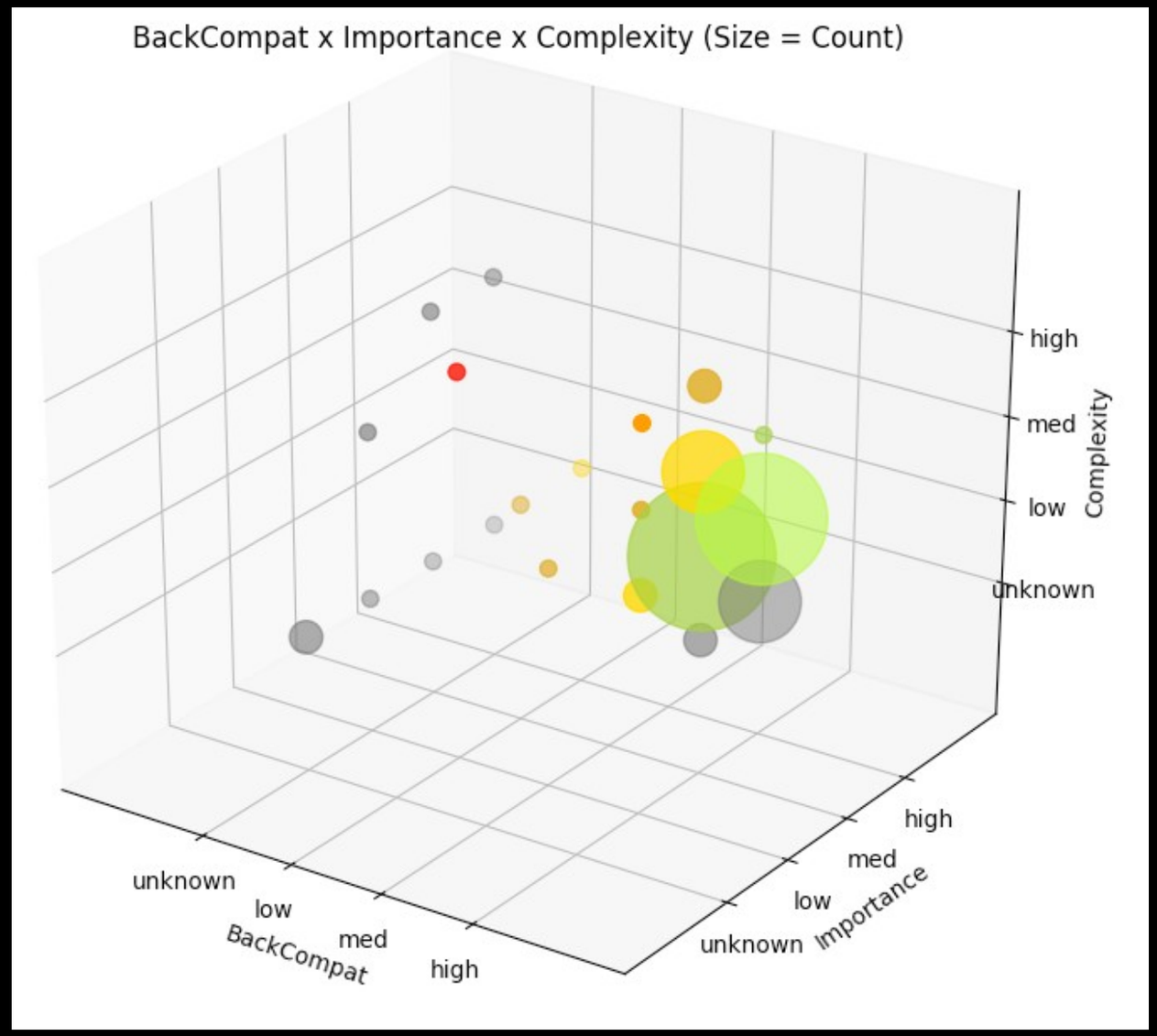
This presentation reviews the results of those meetings.

Deep dive meeting on Wednesday, Mar 27, 15:00-17:00 in Karlin 3 (seats 60)

3-D Views

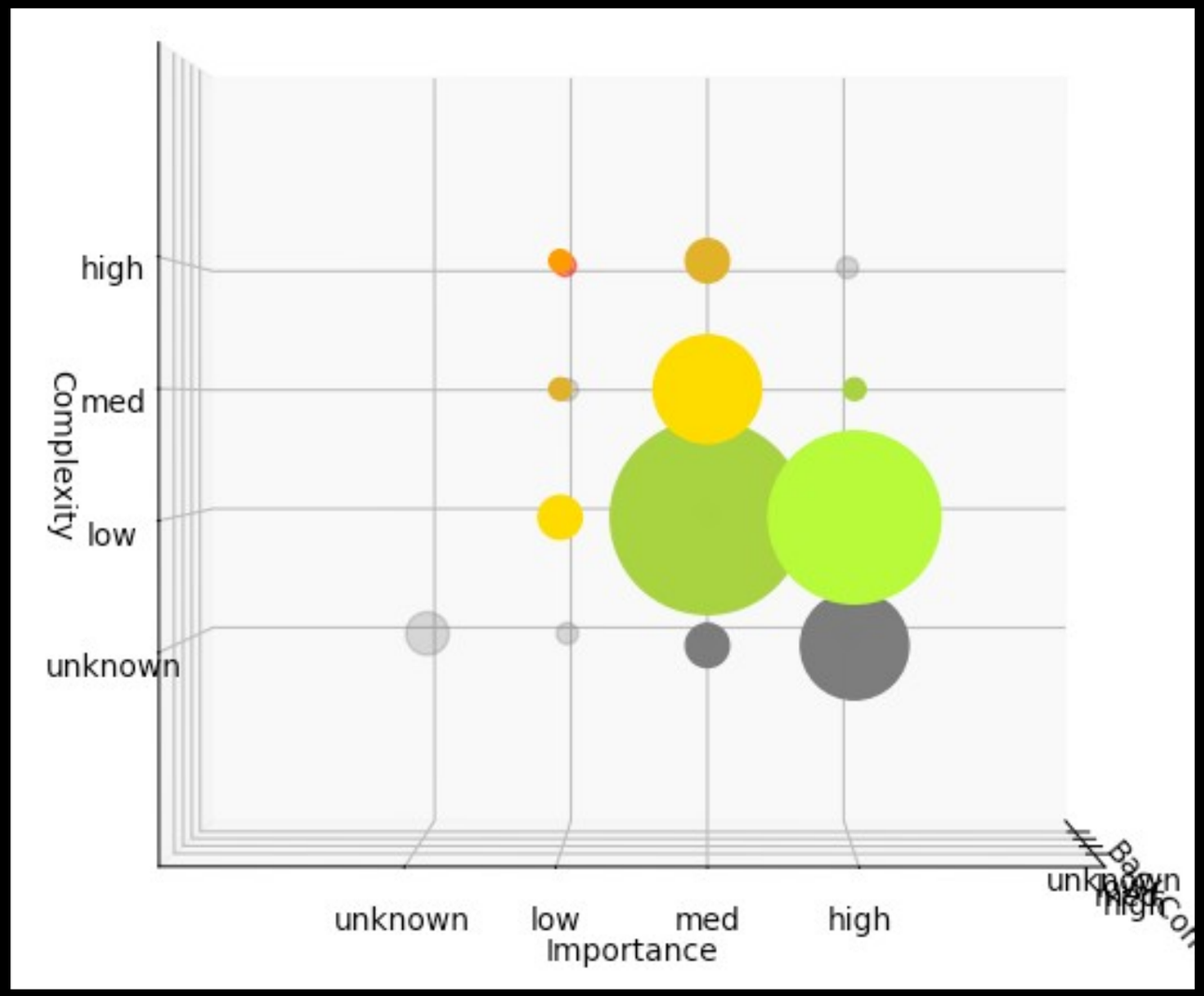
Issues: 48 Open (22 Closed, not displayed)



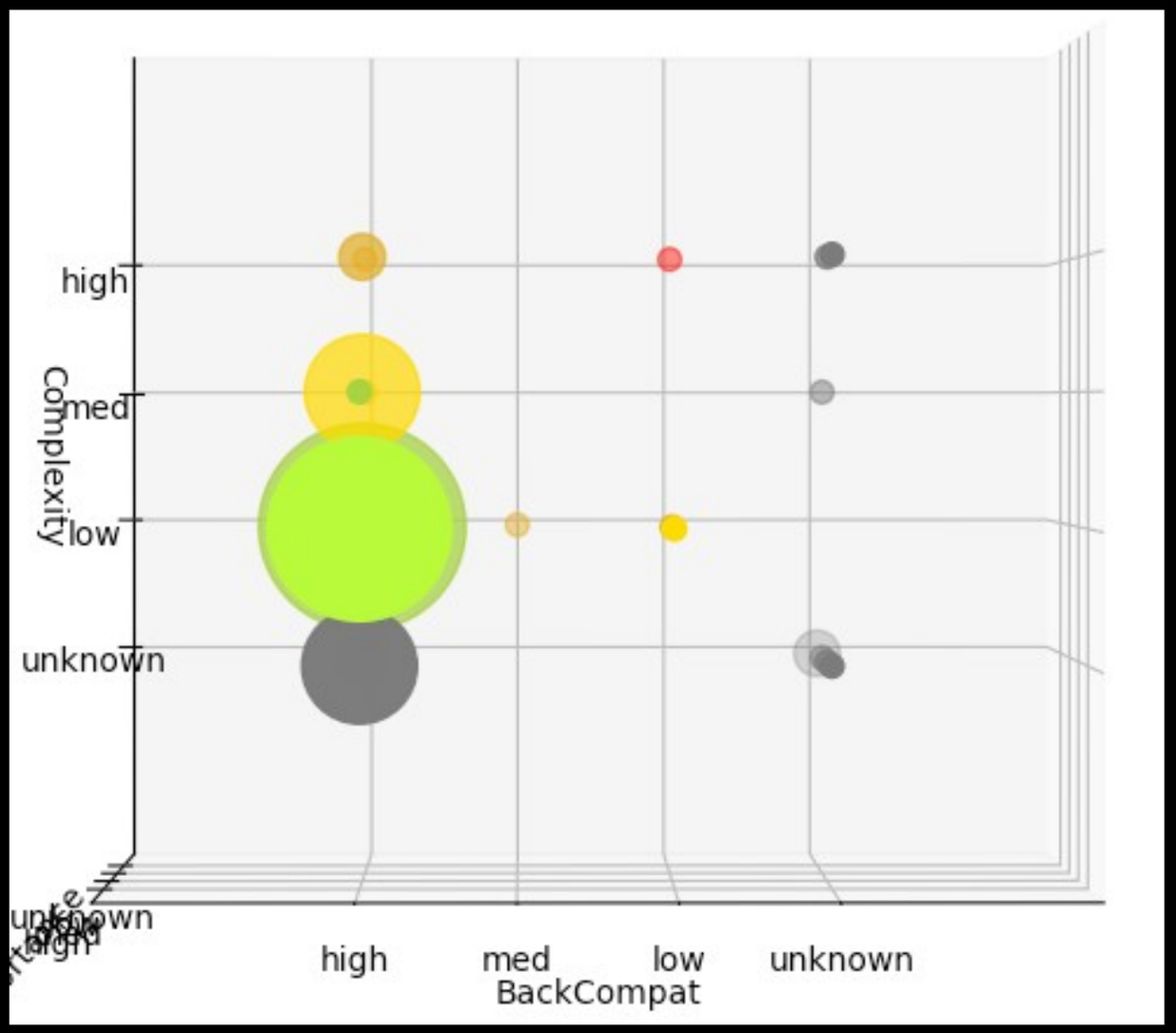


3-D Views Showing Complexity

Complexity: Mostly low, with fair amounts medium and unknown



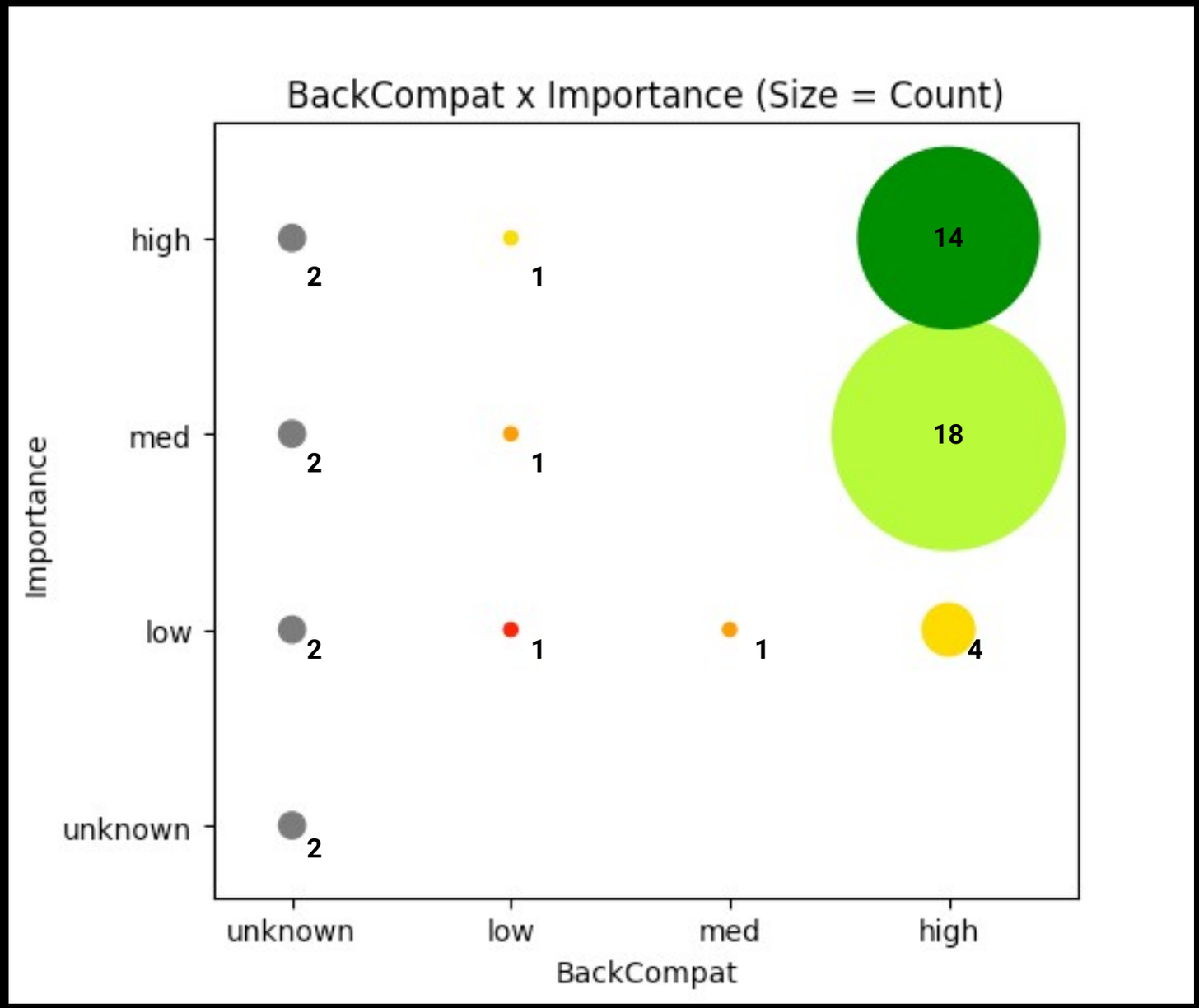
Most of the important issues have low complexity.



Most of the backwards compatible issues have low complexity

Backwards Compatibility x Importance

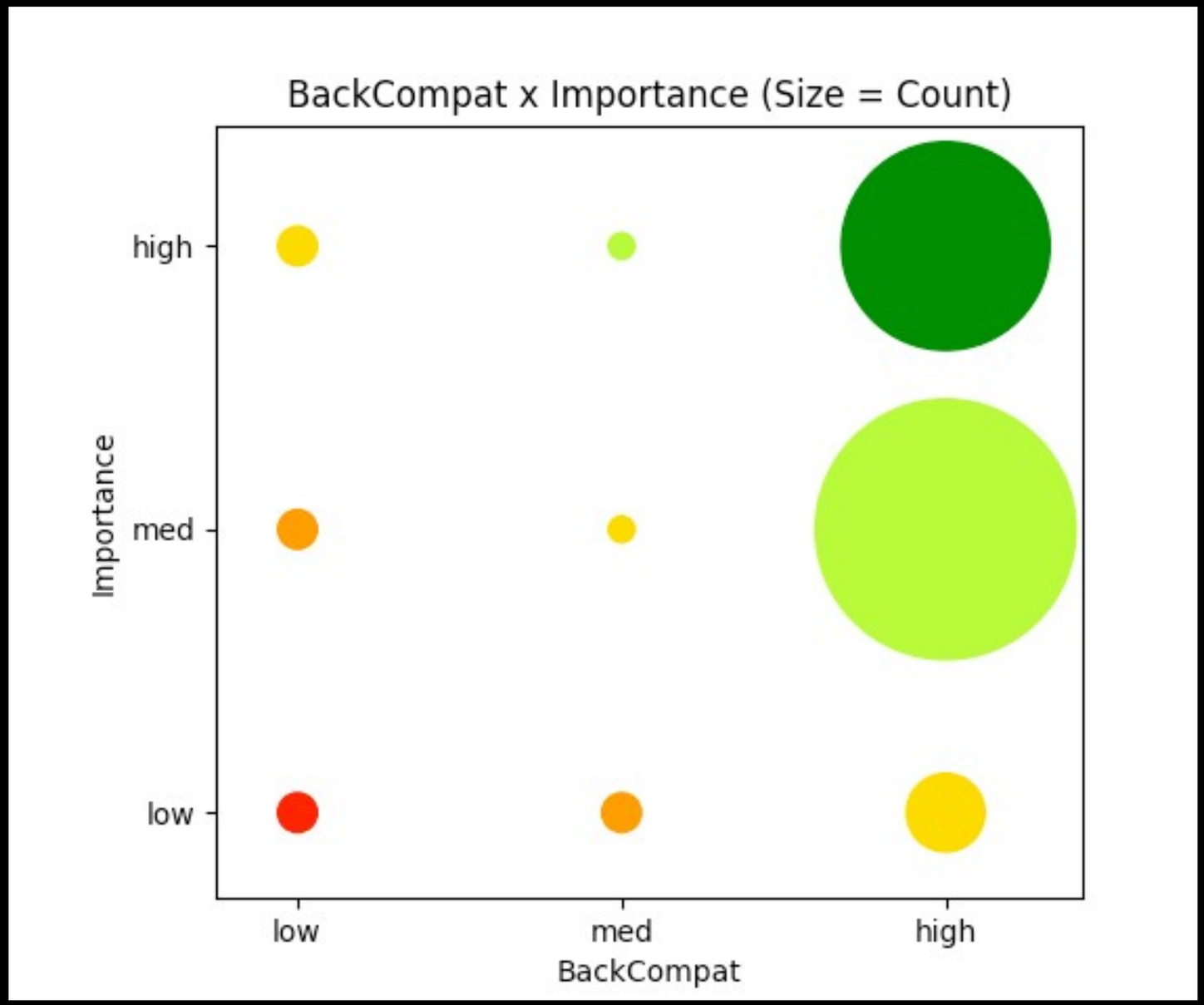
(Pay attention to the Unknowns)



Most issues are highly backwards compatible.

Backwards Compatibility x Importance

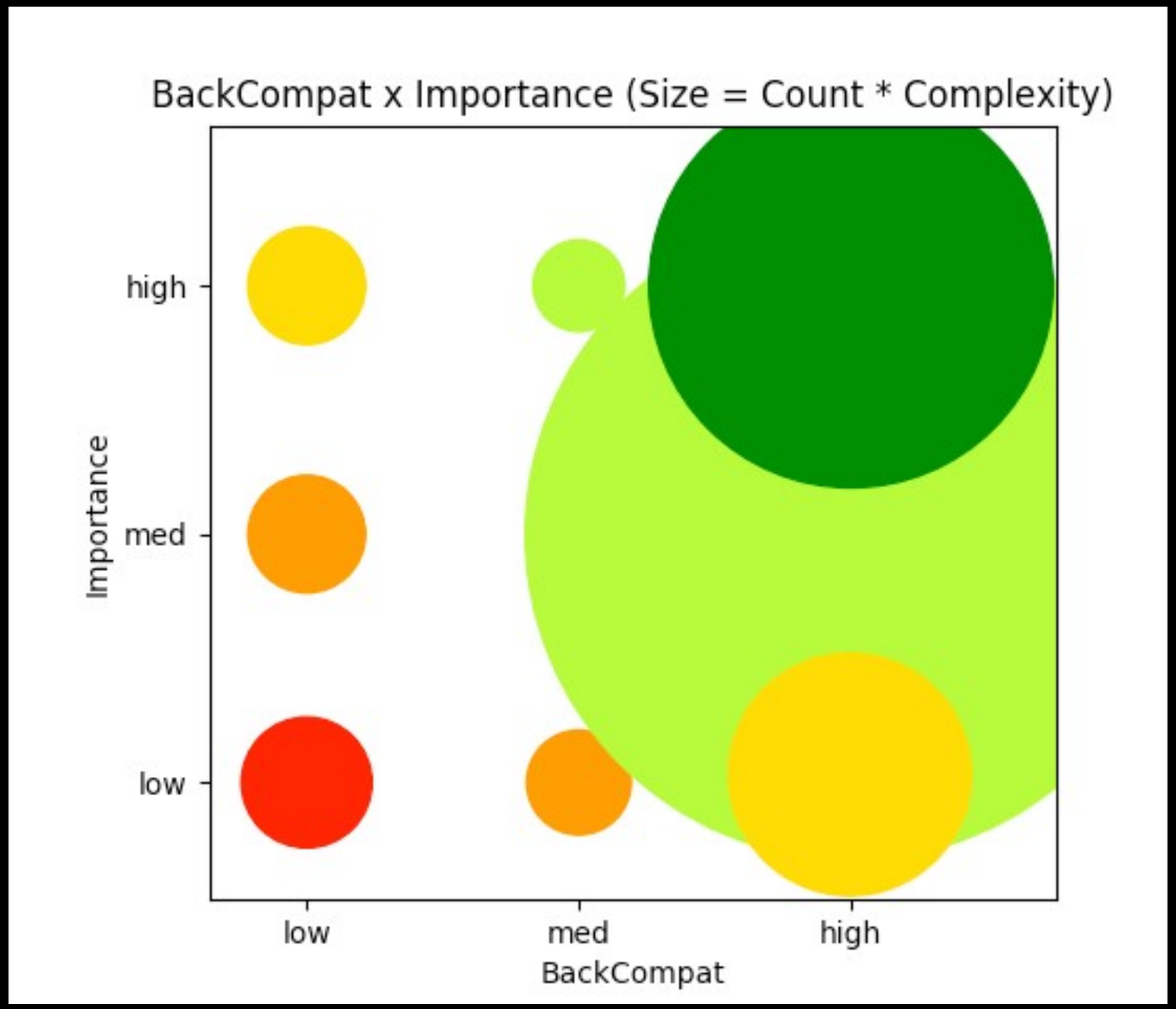
(with Unknowns distributed *equally* into other values)



Effect of Unknowns is approximated...

Backwards Compatibility x Importance

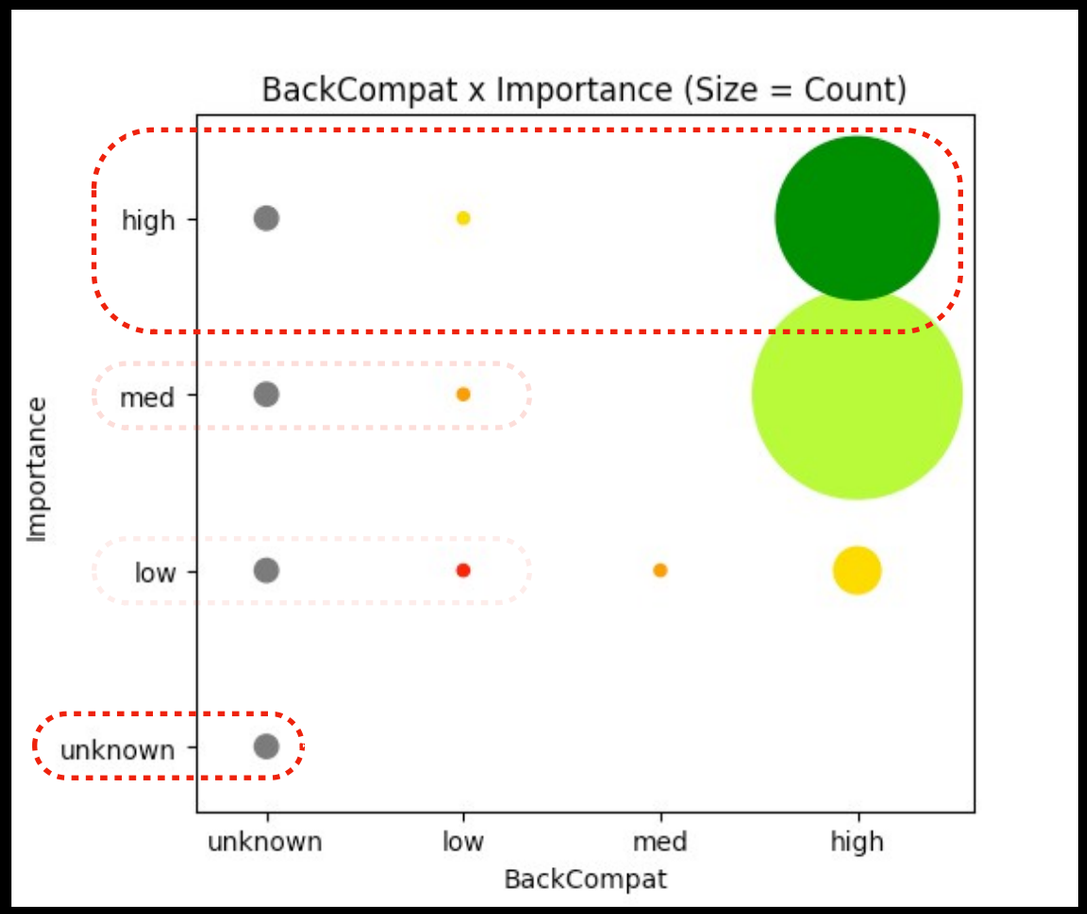
(with Complexity factored in as well)



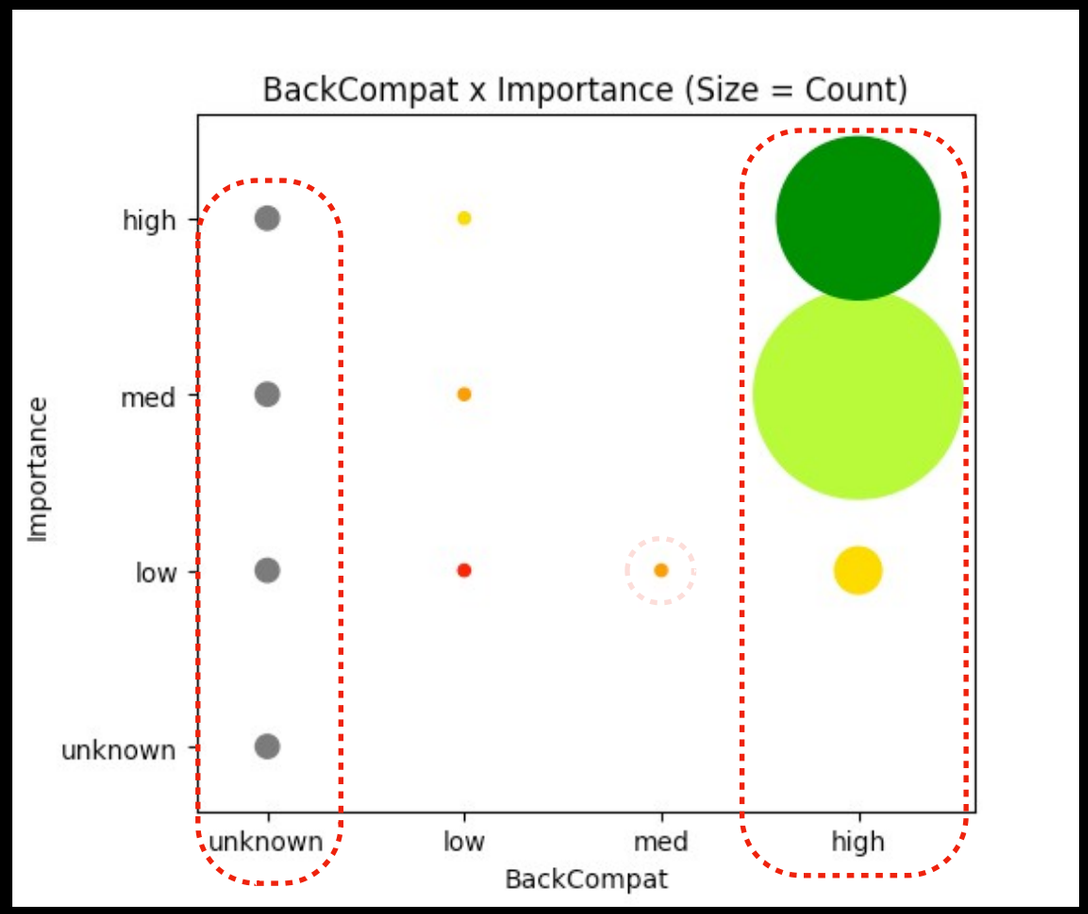
Most time spent on the desirable green quadrant.

Where to Focus?

(This is what Wednesday's meeting is about)



Focus on **Importance**



Focus on **Backwards Compatibility**

Comments?

The 8 Issues Behind a Possible 2.0

	Backwards Compatibility Low	Backwards Compatibility Unknown
Importance High	1. Context-independent encoding of instance-identifiers and identityrefs	3. Introduce critical extensions 4. Refine YANG versioning
Importance Medium	2. Consider removing support for sub modules from YANG	5. Allow some references to from config-true to config-false 6. Add an “inactive” metadata annotation
Importance Unknown	N/A	7. Introduce critical annotations 8. Clarify 'deviation' substatements to match ABNF grammar

The 8 Issues with Importance == Low

(Unlikely to be supported under any circumstance)

1. Add if-feature on "must" statement
2. Introduce XPath function datastore()
3. Create a way for a statement to tie-in with augment/deviation
4. add 'conformance-type' leaf to 'import' statement
5. Restrict usage to a subset of XPATH
6. Restrict regex to a subset of XML regex specification
7. Replace 'encoding' with 'representation'?
8. Default to namespace urn:yang:<module-name> ?