# Community Release Update

May 10th 2022

Peter Jones, Whamcloud
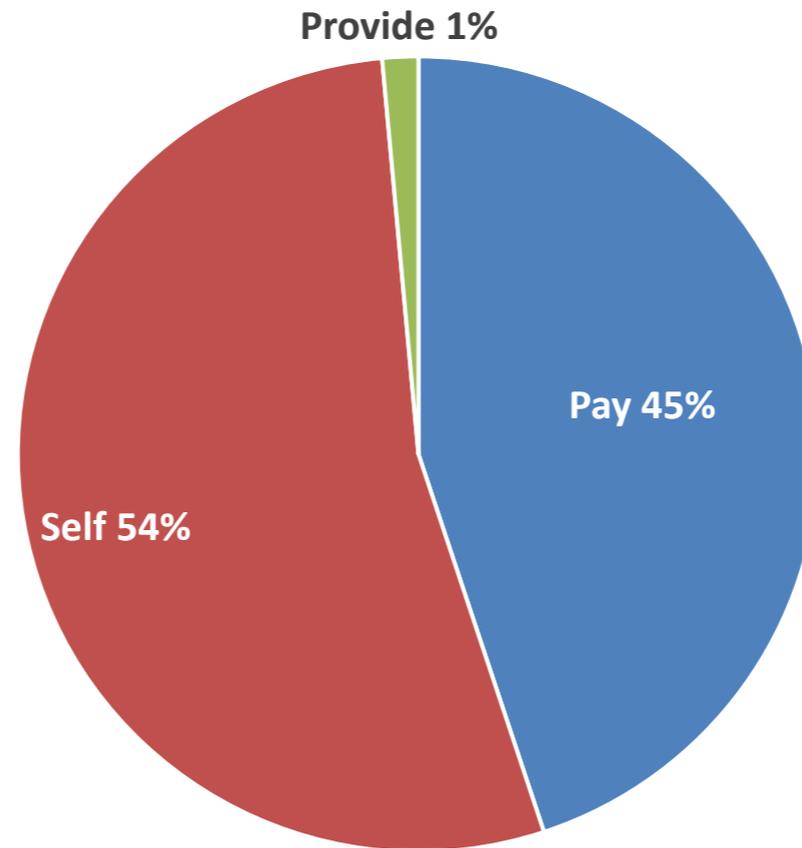
OpenSFS Lustre Working Group

OpenSFS Lustre Working Group

- Has been operating as the forum for collaboration on the community releases for over a decade
- Led by Peter Jones (Whamcloud) and Dustin Leverman (ORNL)
- All welcome to attend and/or join the mailing list
- For more information visit the wiki
- http://wiki.opensfs.org/Lustre_Working_Group

- LWG issues survey annually in March to track trends in Lustre usage
- Full details available at http://wiki.opensfs.org/Lustre_Community_Survey
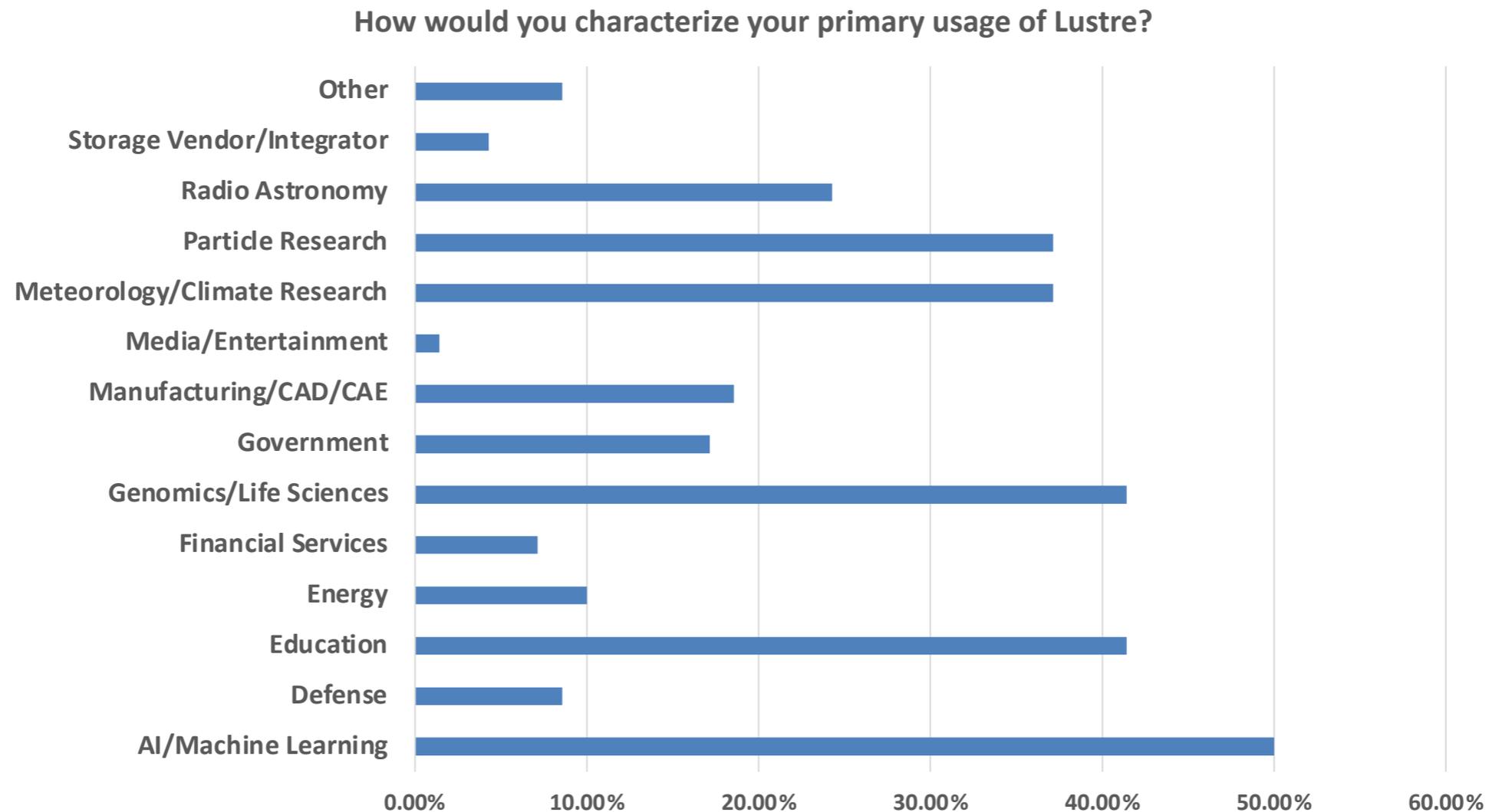
 # Respondents

2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
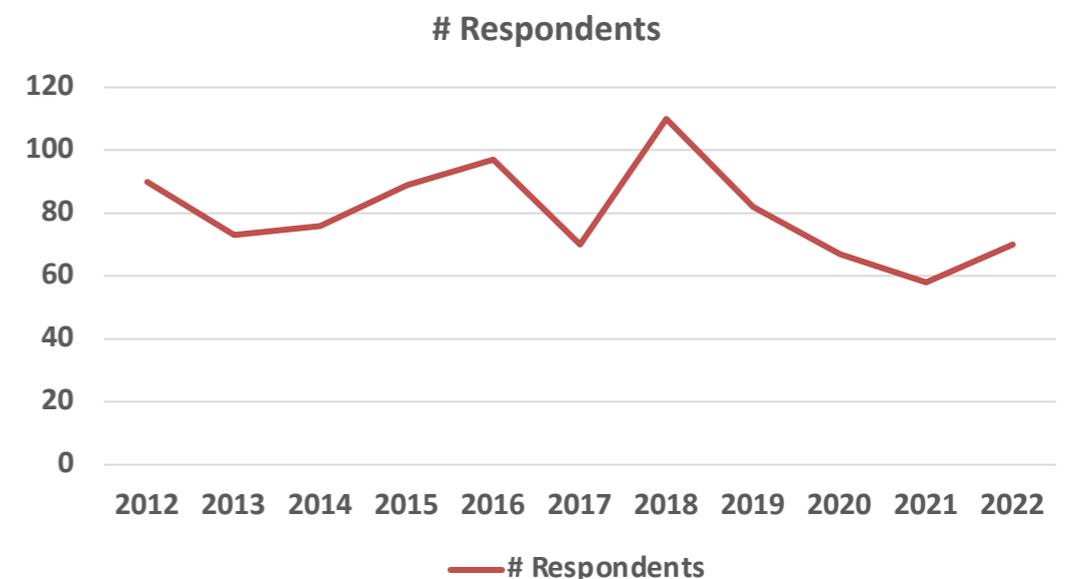
— # Respondents

Community Survey – Support

What best describes your Lustre support situation?

Provide 1%

Pay 45%

Self 54%

- The survey reaches across the Lustre community

Community Survey – Primary Usage

How would you characterize your primary usage of Lustre?

- Diverse usage reported by the respondents
- AL/ML now the most common selection

Community Survey – Lustre Versions
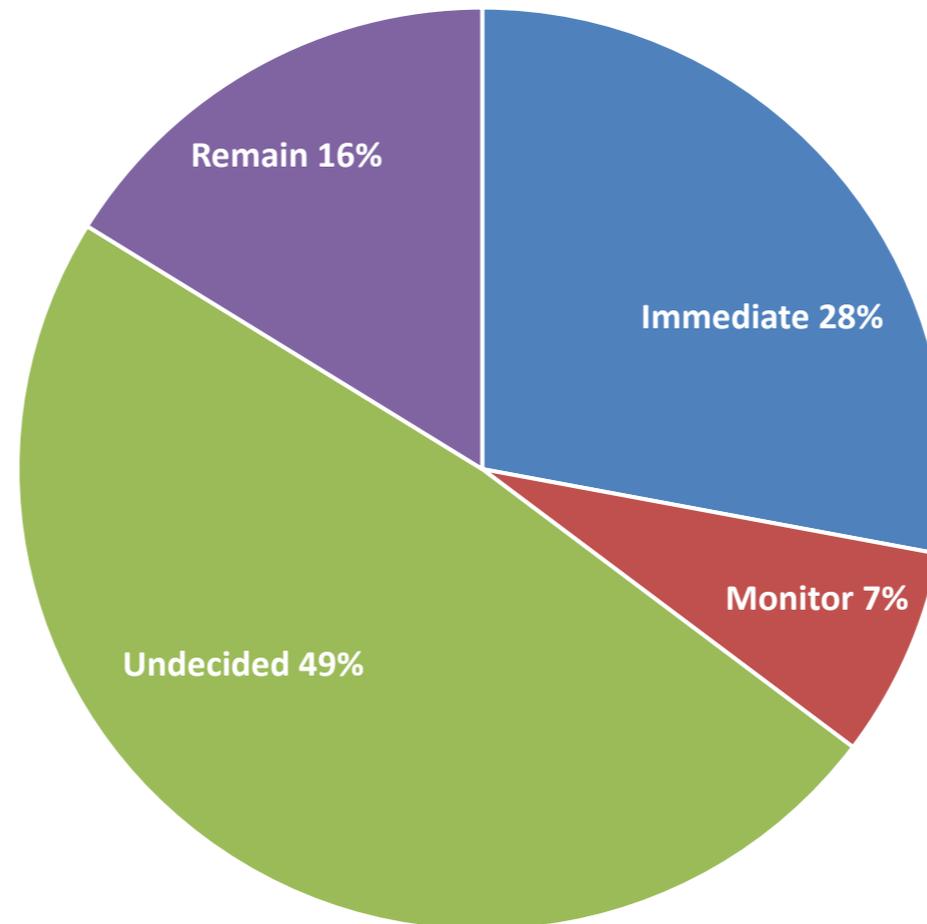
Which Lustre versions do you use in production? (select all that apply)
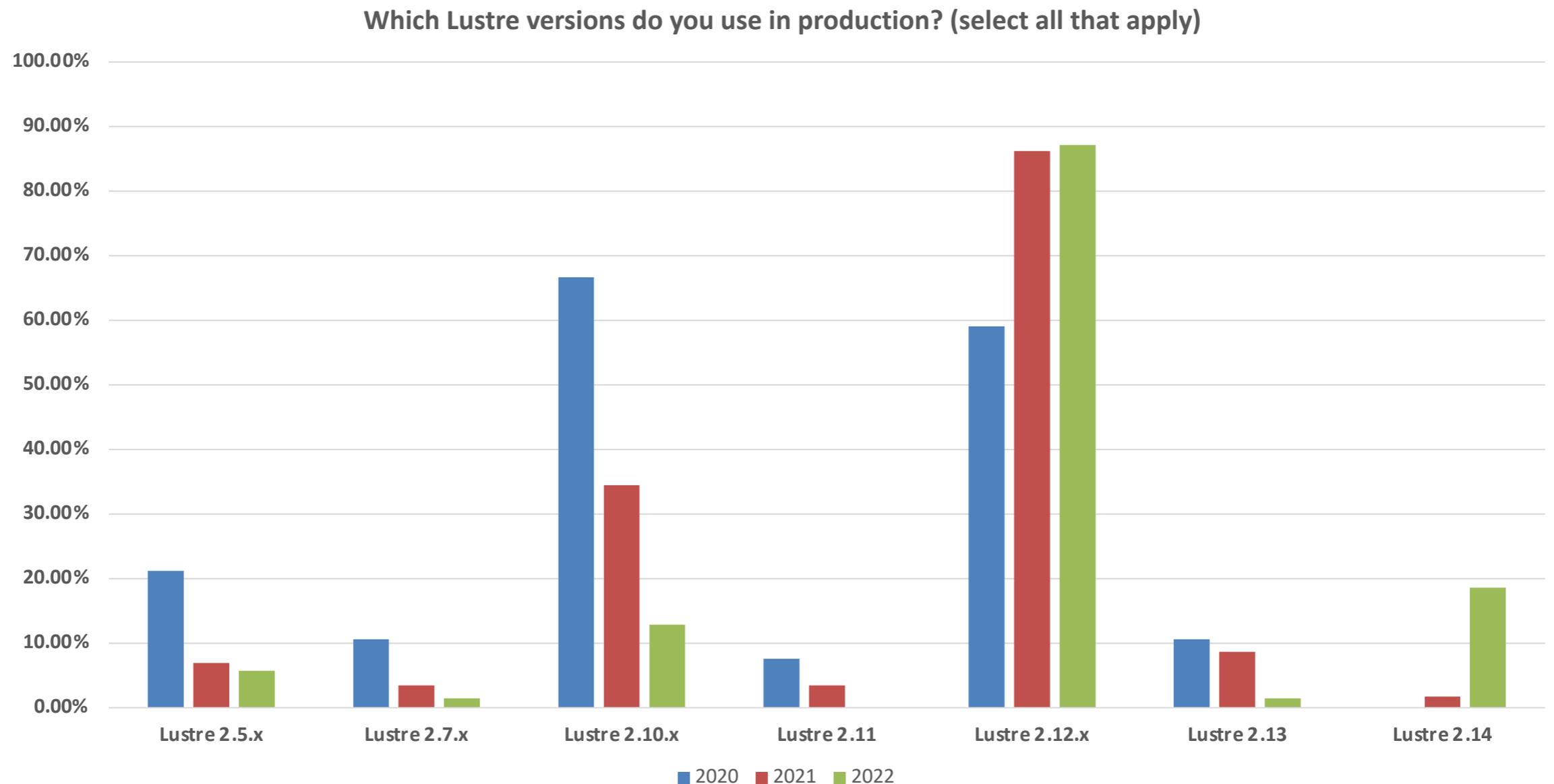
Majority of respondents using Lustre 2.12.x LTS in production
Lustre 2.14 usage exceeds that of the former LTS release 2.10.x
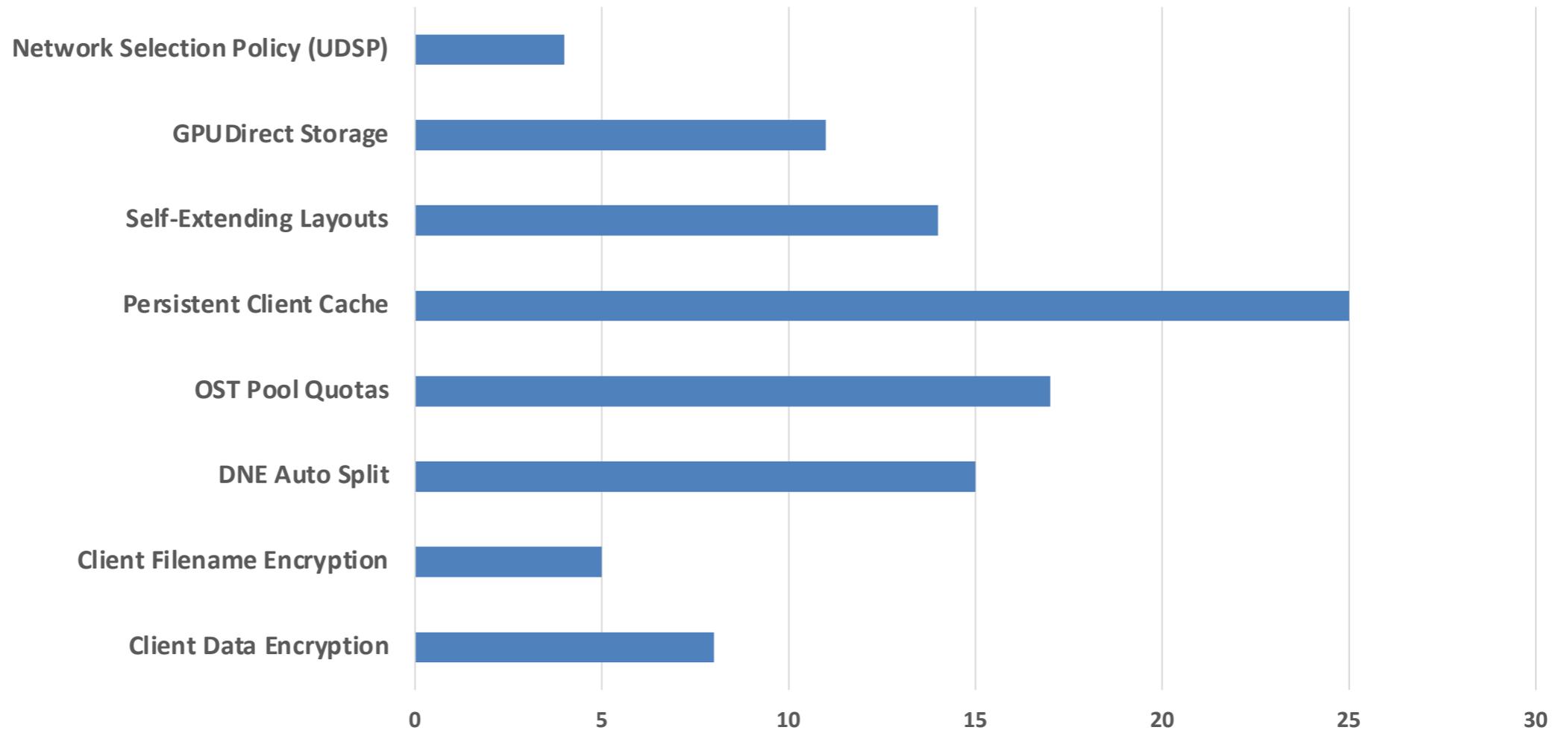
Community Survey – LTS Transition

How quickly do you plan to move to a Lustre 2.15.x LTS release?

Remain 16%

Immediate 28%

Monitor 7%

Undecided 49%

Significant numbers intend to be earlier adopters but most waiting for more data first

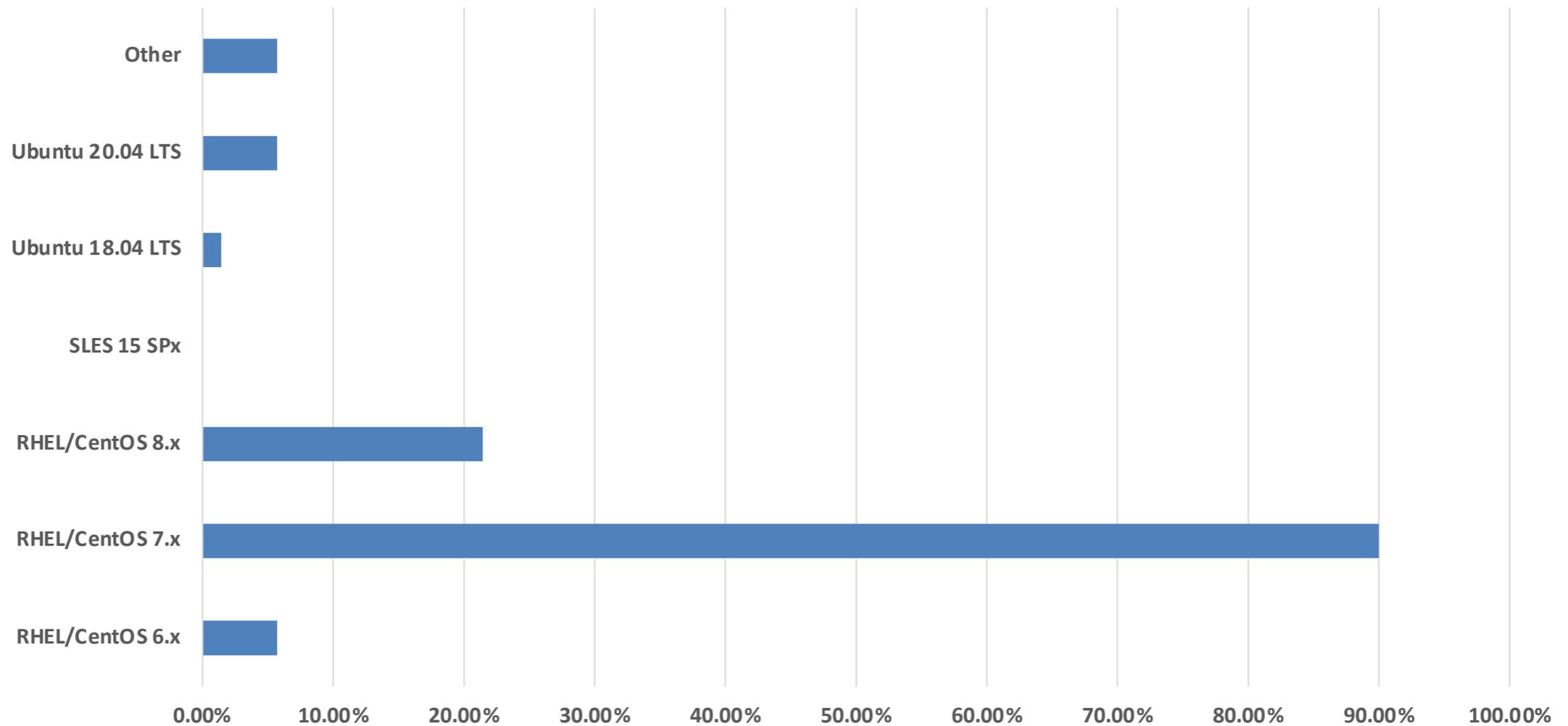# Community Survey – Feature Usage

Which of the following recent Lustre features do you plan to use in production within the coming year?

Strong interest in PCC

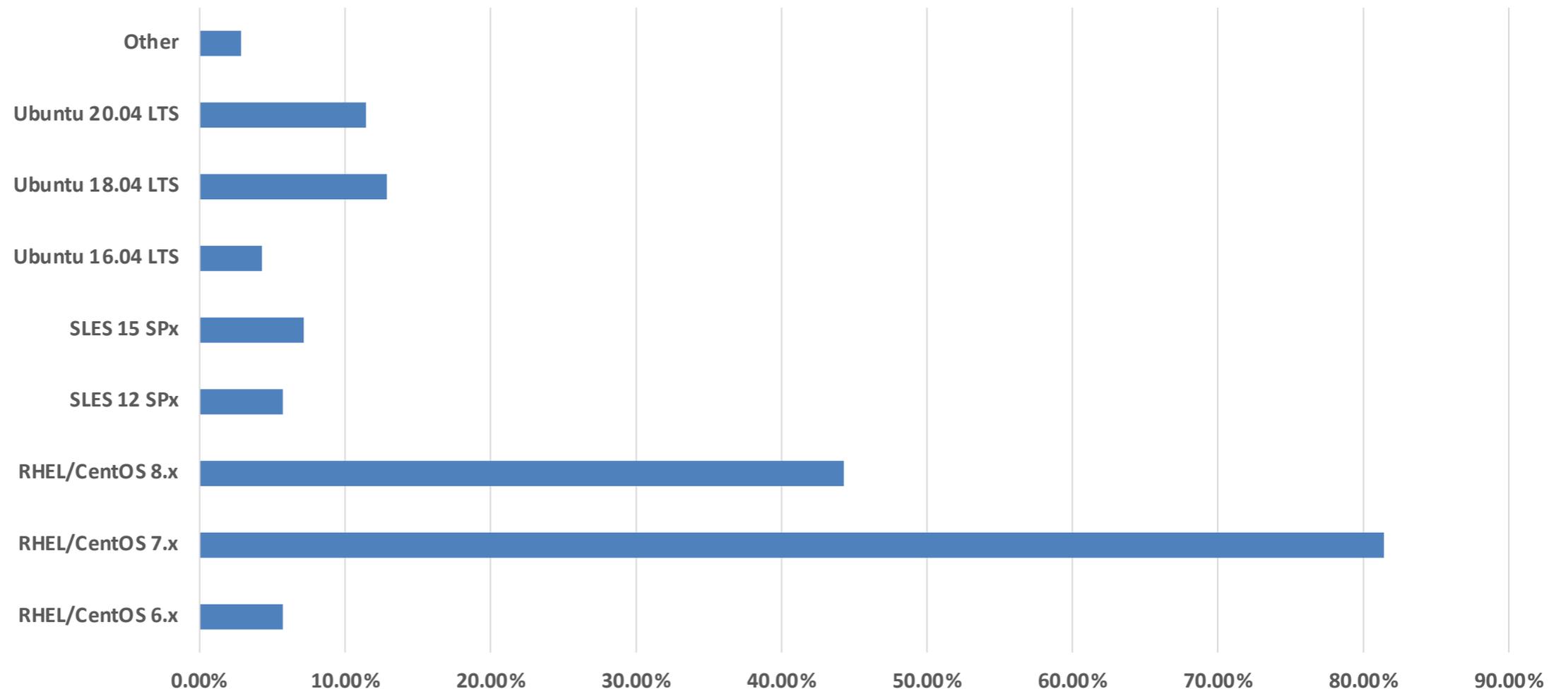# Community Survey - Linux distros (servers)

What Linux distribution(s) do you use for servers today?

RHEL/CentOS 7.x remains most widely-used Linux distribution for servers
Starting to see some traction with RHEL 8.x

Community Survey - Linux distros (clients)

What Linux distribution(s) do you use for clients today?

RHEL/CentOS 7.x remain most widely-used Linux distribution for clients
Starting to see some traction with RHEL 8.x

Community Survey - Analysis

- Expect to see strong adoption of Lustre 2.15.x in 2023 survey
  - Lustre 2.15.x LTS means that features in 2.13/14/15 will get more usage
- Responses about LWG/Lustre improvements discussed
  - Limited suggestions for LWG improvements
  - More feedback relating to Lustre improvements
    - Stability mentioned several times (mature feature set)
    - Support for newer ZFS versions on LTS branch
    - Adding/Removing Storage
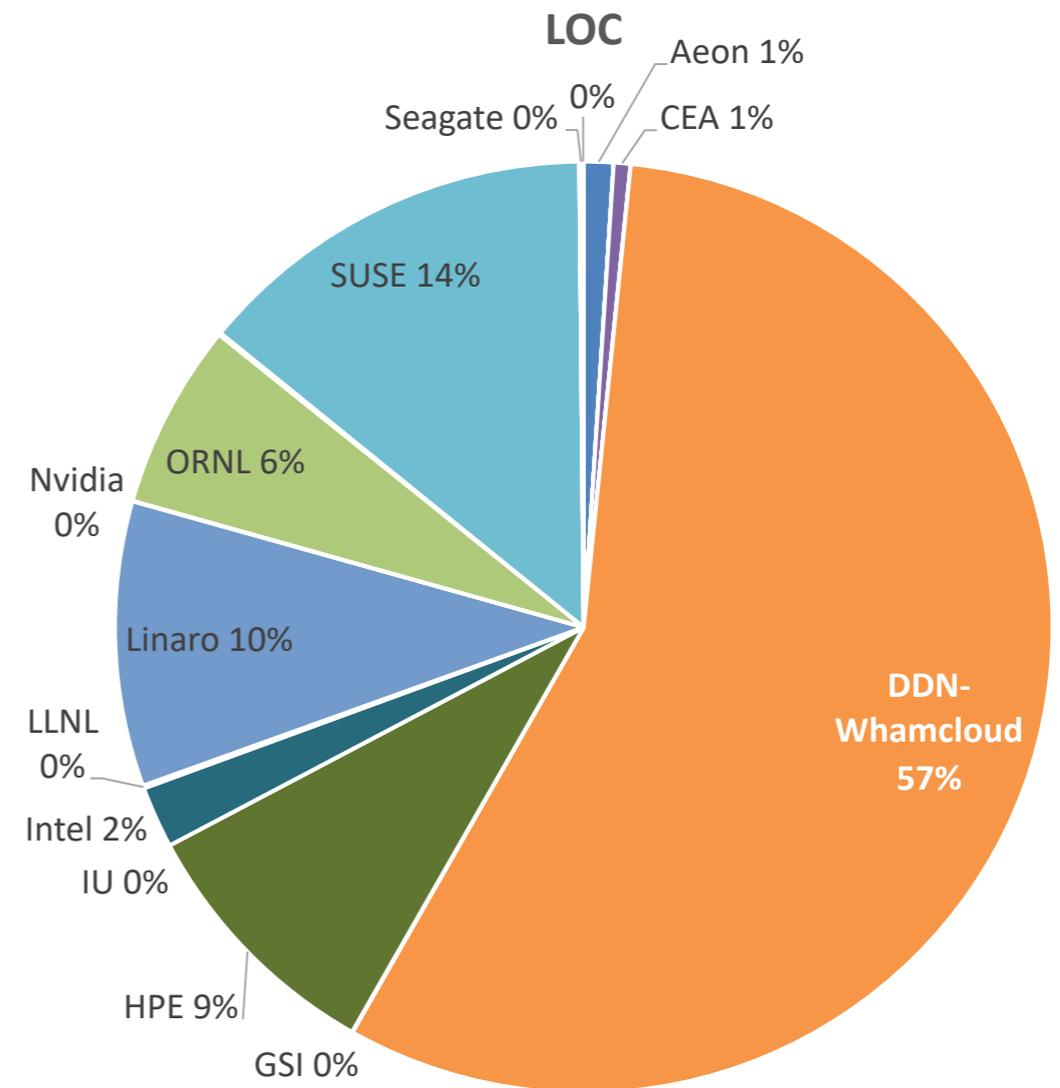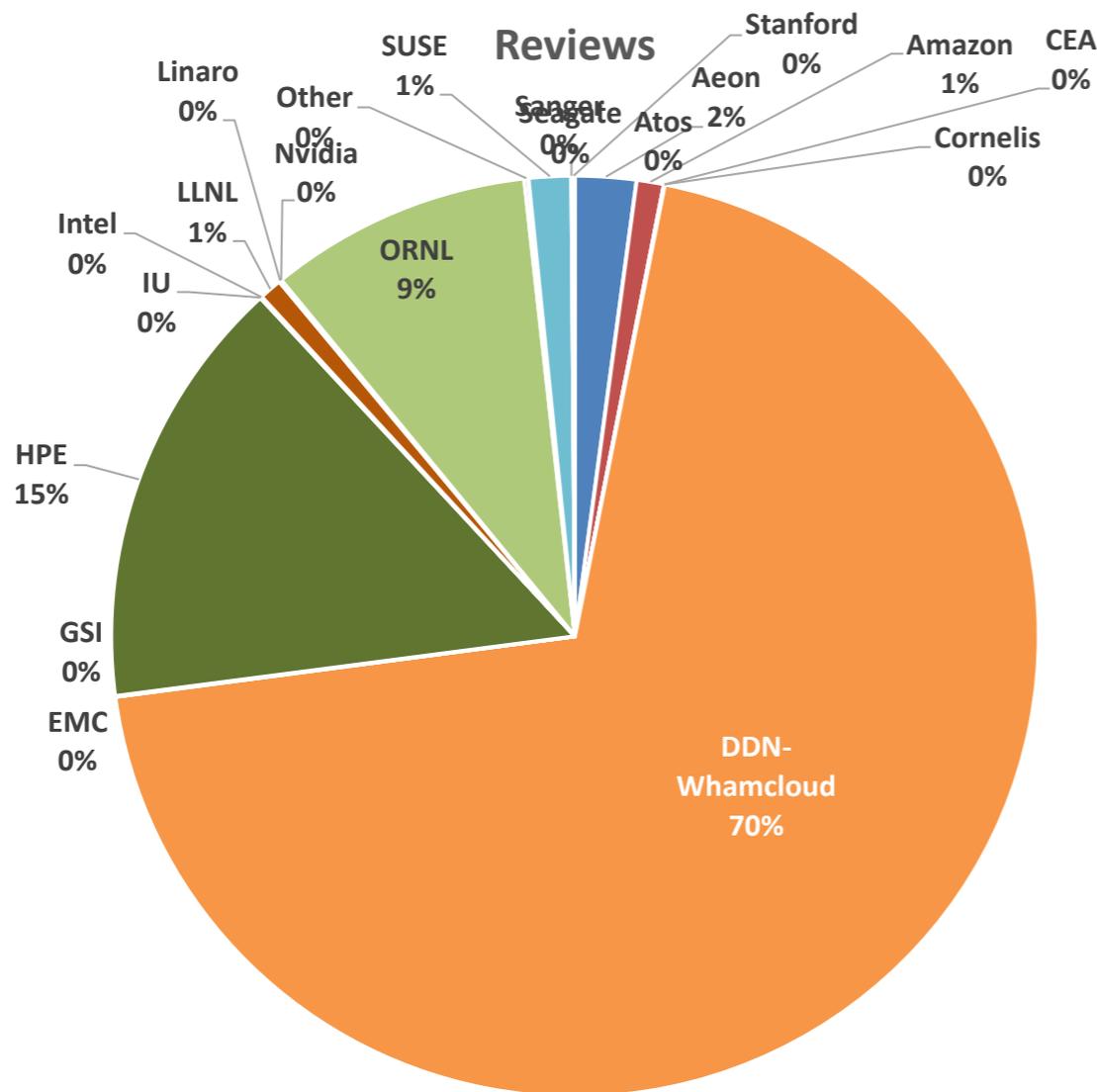   - Several comments about kernel patches / distro support

Lustre 2.12.x LTS

- Lustre 2.12.8 went GA late Dec
  - http://wiki.lustre.org/Lustre_2.12.8_Changelog
- Lustre 2.12.9 will come out shortly to add support for RHEL 8.6

Lustre 2.15.x

- Trying to find fixes for the last couple of blockers; RC4 expected in coming days and hopefully will be the GA version
  - http://wiki.lustre.org/Release_2.15.0
  - RHEL 8.5 servers/clients
  - RHEL 8.5/SLES15 SP3/Ubuntu 20.04 clients
- Interop/upgrades from 2.14 and latest Lustre 2.12.x
- Features in the release
  - Network Selection Policy (UDSP) (LU-9121)
  - Client Filename Encryption (LU-13717)
  - GPU Direct Storage (LU-14798)
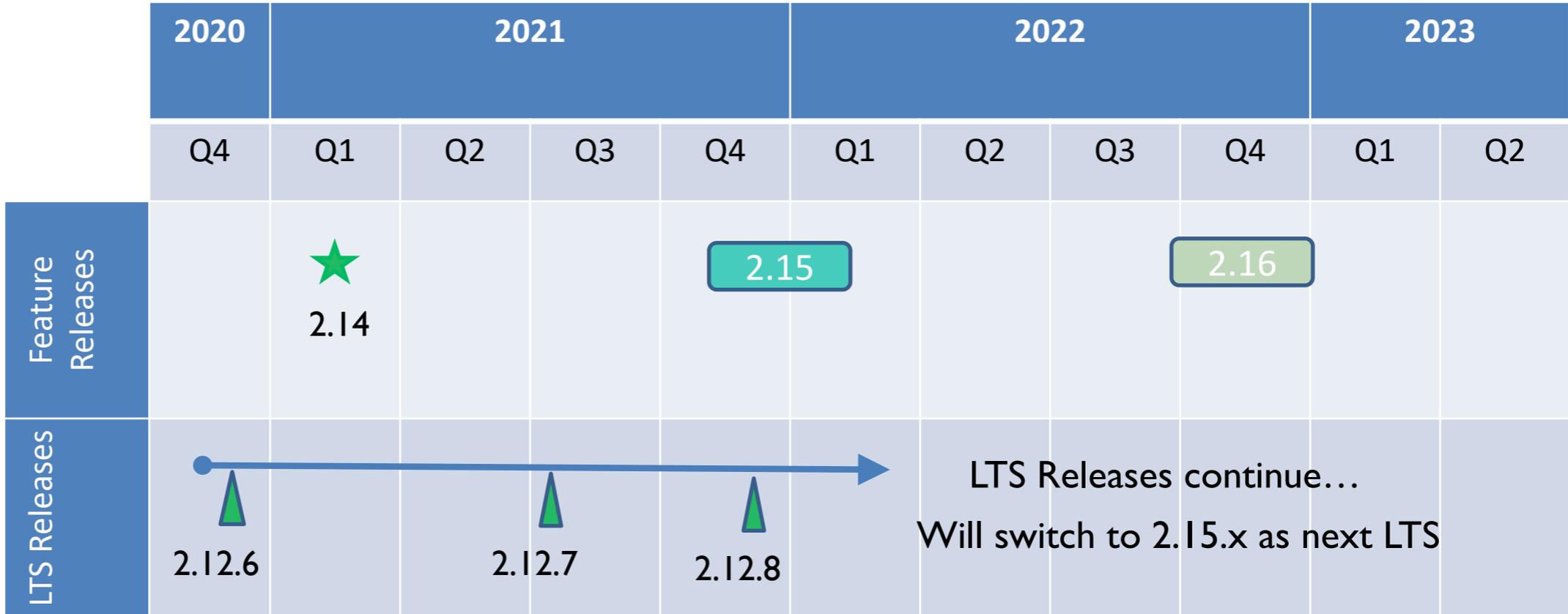- B2_15 branch created and will be used for future 2.15.x releases

Lustre 2.15 Contribution Statistics

Data courtesy of Dustin Leverman (ORNL)

Source: https://git.whamcloud.com 2.14.0 to 2.15.0-RC3

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Lustre Community Roadmap

2020	2021				2022				2023	
Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2

Feature Releases

★ 2.14 (Q1 2021)   2.15 (Q4 2021)   2.16 (Q4 2022)

LTS Releases

2.12.6   2.12.7   2.12.8

LTS Releases continue…

Will switch to 2.15.x as next LTS

LEGEND: ▢ Completed   ▢ Expected Timeline   ▢ Timeline TBD   ●→ LTS Branch

2.14
- Client Data Encryption
- OST Pool Quotas
- DNE Auto Restriping

2.15
- Client Directory Encryption
- GPUDirect Storage
- Network Selection Policy

2.16
- FLR Erasure Coding
- FLR Immediate Mirror
- Metadata Writeback Cache

* Estimates are not commitments and are provided for informational purposes only
* Fuller details of features in development are available at http://wiki.lustre.org/Projects

Summary

- Lustre 2.15.0 in final stages
- Lustre 2.12.9/2.15.1 soon to provide RHEL 8.6 support
- LWG http://wiki.opensfs.org/Lustre_Working_Group

Thank you

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