# Blueprint Activity (Summary)

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# Blueprint Activity

- To develop and maintain the <span style="color:red">software vision</span> for the Institute.
  - These activities will be essential elements to building a common vision with other HEP and HL-LHC software and computing R&D efforts

# Kick-off Meeting Discussions

- Lots of good discussion about the role of the Blueprint activity, the process itself and topics
  - http://bit.ly/IRIS-HEP-BluePrint (live notes)

- BPA came up often in R&A Area talks

# Some Suggested Workshop Topics

- Coherence/Alignment with other funded projects, agency vision, Ops programs, national labs and international partners (true for especially for R&D activities, but also training and outreach)
- Tools/algorithms for accelerated computation on FPGAs/GPUs
- How to make and get the most out of Industry and Data Science connections
- Machine learning for trigger and reconstruction
- Process model
- Reproducibility infrastructure for software systems evaluations
  - a framework for curating reusable experimentation pipelines and a set of testbed services that provide statistics to inform experimenters; see CloudLab example)
- Distributed testbed for data-intensive systems (e.g. distributed storage systems)
- Analysis systems in the broader need for data analysis in HEP experiments
  - With examples of successful scientific software ecosystems, e.g. Astropy and LSST analysis
- Particle tracking and reconstruction
- Content delivery networks - state of the art (particularly in Industry)
- Management and access of open data
- Common needs and approaches for "event streaming" or data delivery

# Relationships outside of the Institute

- Blueprint area as a way to help establish, develop and maintain external relationships with the institute.
  - E.g. When someone sees something interesting that might alter the direction of R&D, etc., the Blueprint activity is a place to make first contact and start a virtual discussion.
- If someone wants to discuss or start a discussion about a certain topic, and wants to find people within IRIS-HEP, where do they go? Blueprint seems like a possibility as it is explicitly outward facing ([blueprint@iris-hep.org](mailto:blueprint@iris-hep.org)?).
- Would like to keep track of these relationships and contacts (e.g. for NSF reporting, visibility, internal checks that we are doing the right things)

# Next steps

- Organizational matters (email list, web area, calendar, etc.)
- Start to plan out workshops for Y1, looking for volunteers to host/organize them and opportunities for joint venues
  - first workshop? Maybe R&D Coherence/Alignment between IRIS-HEP / DOE / NSF / Labs / International