The background of the slide is a complex, abstract network diagram. It consists of numerous nodes, represented by small circles, connected by thin, grey lines. Some nodes are highlighted with larger, thicker circles. The overall structure is dense and interconnected, suggesting a global or multi-scale network. The lines and nodes are rendered in shades of grey and black, creating a technical and futuristic aesthetic.

CERN openlab Phase 5 Preparation (Technical)

Alberto Di Meglio
CERN openlab CTO office



- The IT Challenges Whitepaper
- From Use Cases to openlab Projects
- Process and Timeline



The IT Challenges Whitepaper

What we expect to get out of it

- A comprehensive description of the major areas of investigation over the next few years
- A means to disseminate the activities and get feedback from scientific communities at large
- A base for agreement on the CERN openlab 5 directions and plans

Whitepaper status

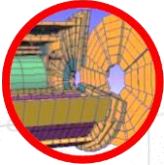
- Internal release first “work in progress” draft
- Sent to all December workshop participants
- Collecting feedback and more contributions
 - Still too CERN-centric, need input from other labs
- Need to revise for consistency, overall look and feel, etc.
- Next internal release: February 28th
- Final release date: March 28th

Challenges

CERNopenlab



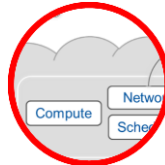
Online triggers and DAQ



Offline simulation and processing



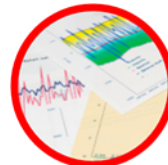
Data storage architectures



Resource management and provisioning



Networks and connectivity



Data analytics

- 28 use cases
 - Online triggers and DAQ: 3
 - Offline analysis and simulation: 3
 - Data storage architectures: 4
 - Compute management and provisioning: 4
 - Networks and connectivity: 5
 - Data analytics: 9

- So, openlab sponsors want to be mentioned?
 - How?
 - › As a generic “contributor” to the WP
 - › In specific use cases?
- Distribution channels
 - Openlab standard
 - Other labs channels
- Copyright: CERN (as for the annual reports)
- Licence: CC Attribution-NonCommercial-ShareAlike 4.0 International License.



From Use Cases to openlab Projects

CERN openlab projects

- The use cases represents high-level requirements or areas of investigation
- Next step is to define concrete projects out of most use cases
 - Possibly with priority levels over the openlab 5 duration
- Goal to have an initial set of project definitions (Statements of Work) by May 2014 (Board of Sponsors)

Representation and coordination

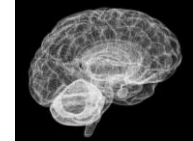
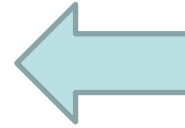
- The projects are the main units of technical activity within the broader challenge areas
 - As broad or as specific as the project participants require as long as cost, effort, contributions are clear
- Clear CERN groups and openlab sponsors representation still needed across all projects
 - The CERN groups will host the projects
 - Needed for coordination, monitoring, review, etc.
- Each project can be reviewed independently to be able to preserve confidentiality as necessary

Statements of Work

- Each project SoW should contain something like
 - Project title, overall description (state of the art, benefits for the participants, expected outcome, etc.)
 - Duration (from 1 to 3 years)
 - List of participants (openlab members)
 - List of activities and milestones
 - Estimated cost and effort and who contributes what
 - Any specific IPR provision beyond what stated in the general Collaboration Agreement
 - Description of previous work or background for IPR purposes (as required by the members)

Who is involved

New sponsors



Templates, supporting activities, logistics

- CERN openlab will provide a standard template for the SoW
 - Template to be available by the end of February
- Will provide support for the organization of meetings, discussions, etc.
- In close collaboration with use cases proposers and prospective members
- Will take most of March and April to complete

Training and education

- Some of the projects may not be R&D-focused
 - Training or educational activities
- Leverage existing training activities or facilities across openlab sponsors and research labs
- Relationship with
 - the Summer Student programme
 - Wider education/training activities (similar to the current ICE-DIP project)

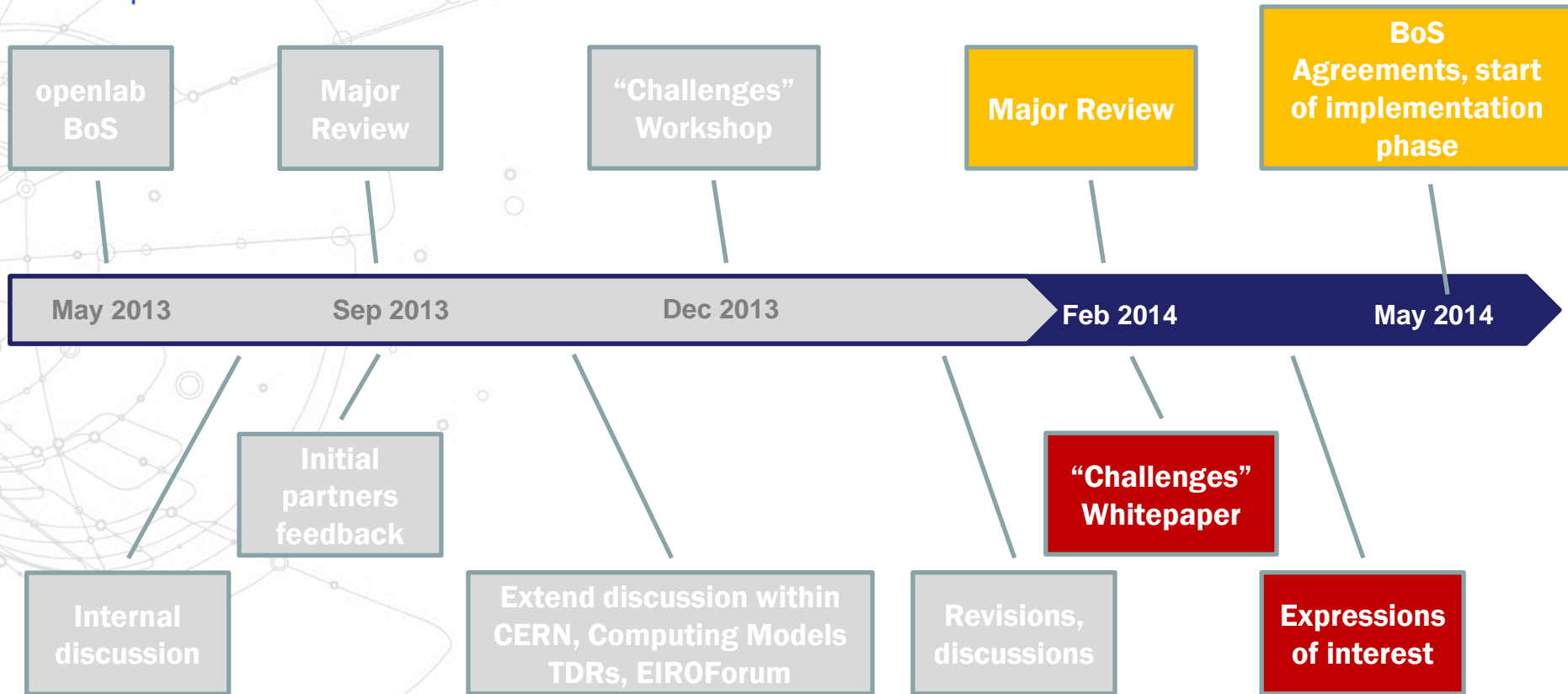
Projects starting date

- Formally, January 1st, 2015
- New projects can be defined during P5
 - if activities do not fit in current projects
 - when new openlab members join
- Projects can start earlier than January 2015
 - openlab 5 Collaboration Agreement in place
 - project Statement of Work defined

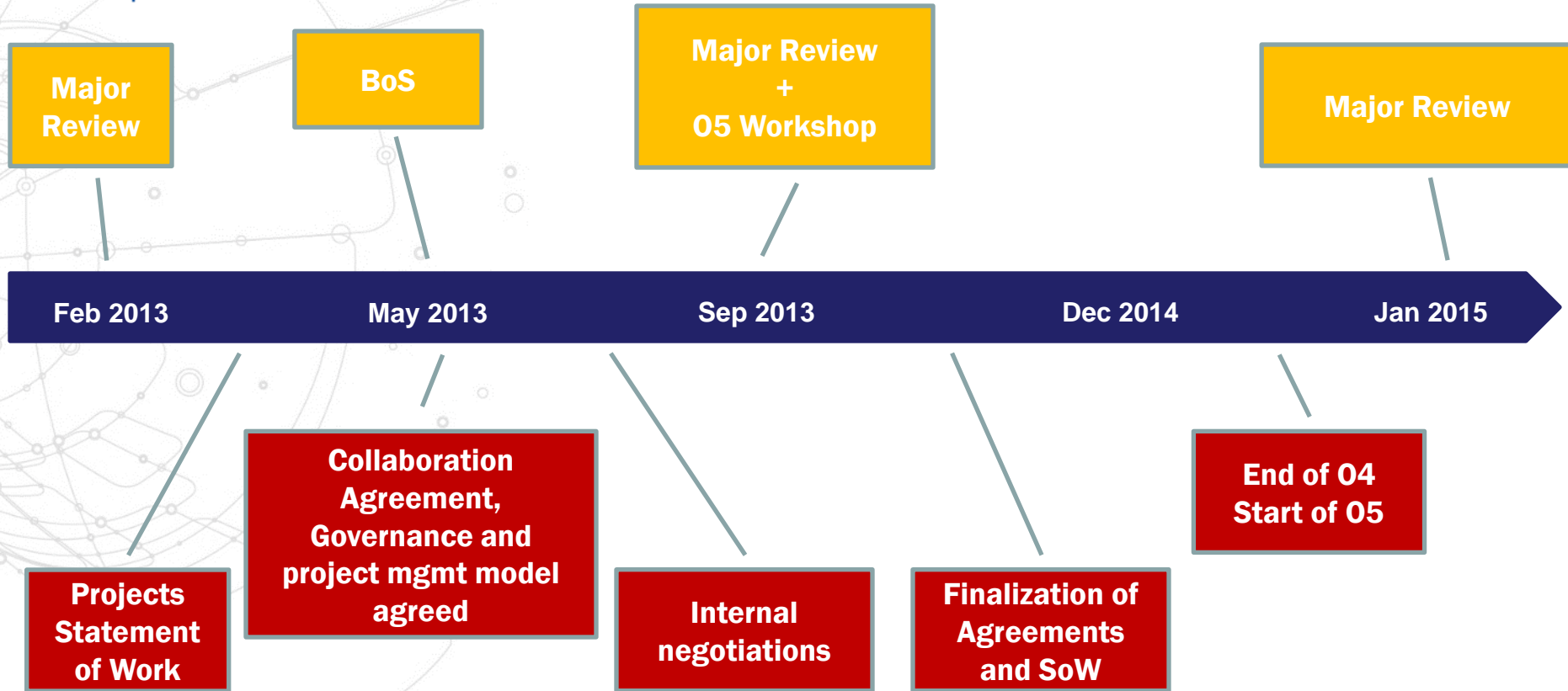


Process and Timeline

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Process and Timeline





GET IN TOUCH www.cern.ch/openlab

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