CMS Software Plans

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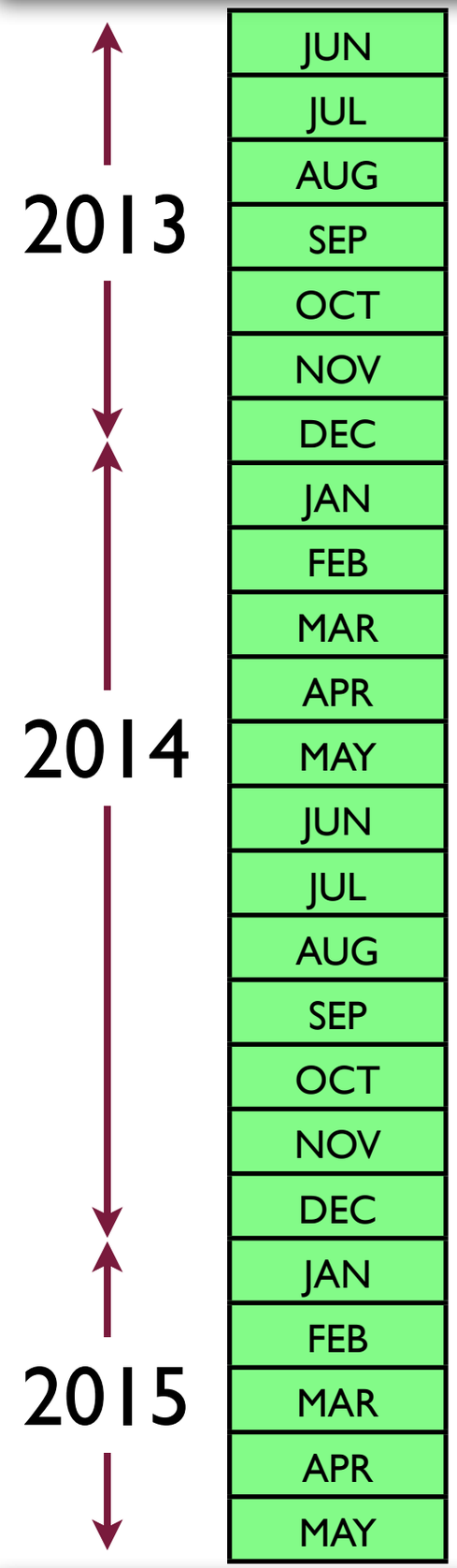
Strategy and Recent History

- Our development model continues to be make a full release every 6mo. - goals for the release are set by CMS
- The 5_X_Y series release started in Dec of 2012
  - Started with updates to G4, Root, the gcc4.7.2 compiler and other externals
  - This represents a successful alignment of schedules
- The production release for all of the 2012 data was 5_3_0. It was derived with very little modification from 6_0_0_pre4.
  - It contained improvements to the physics object reconstruction performance.
  - The needed technical performance was achieved in 5_2_0 plus
- 6_1_X_SLHCn releases for upgrade productions
- We are just now finishing up release 6_2_0 of CMSSW
  - It will be the last release to use gcc4.7.2 the production architecture for the next release will be gcc4.8.x

Timeline - Preparation for Run2



6_2_0 release ready to generate FullSim 13Tev data

6_3_0 release ready to Digitize+Reconstr 13Tev data

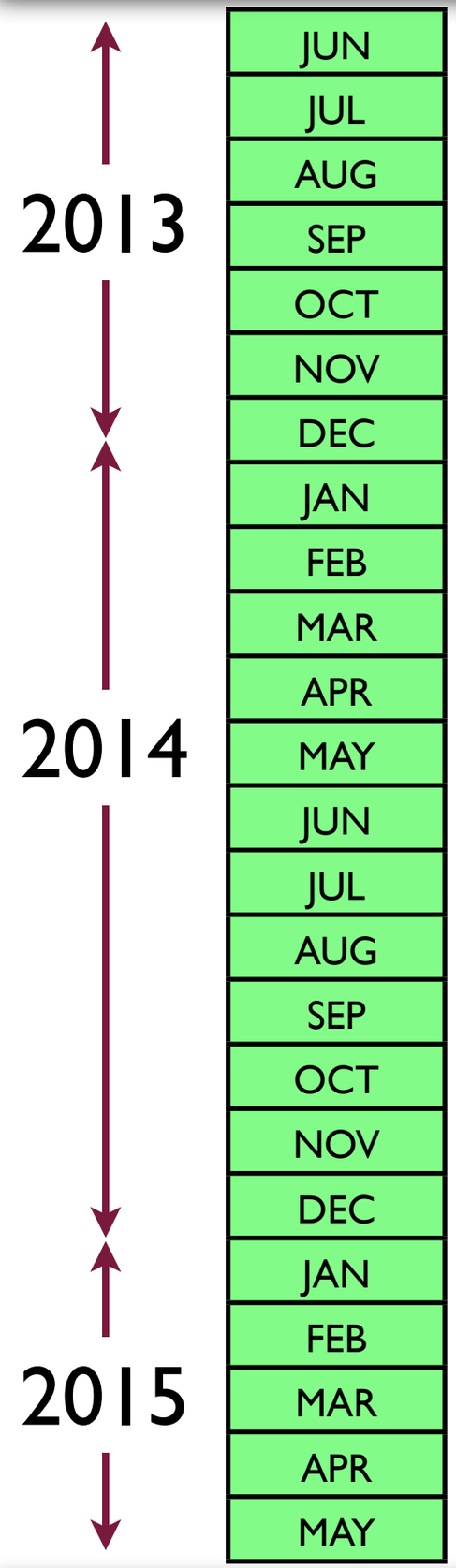
7_0_0 release for multithreaded FW deployment

7_1_0 release for physics MC samples

7_2_0 release probably the HLT release

7_3_0 release urgent changes for data taking

Timeline - Supporting the Upgrades



6_1_X_SLHC5 - first post DESY milstone release

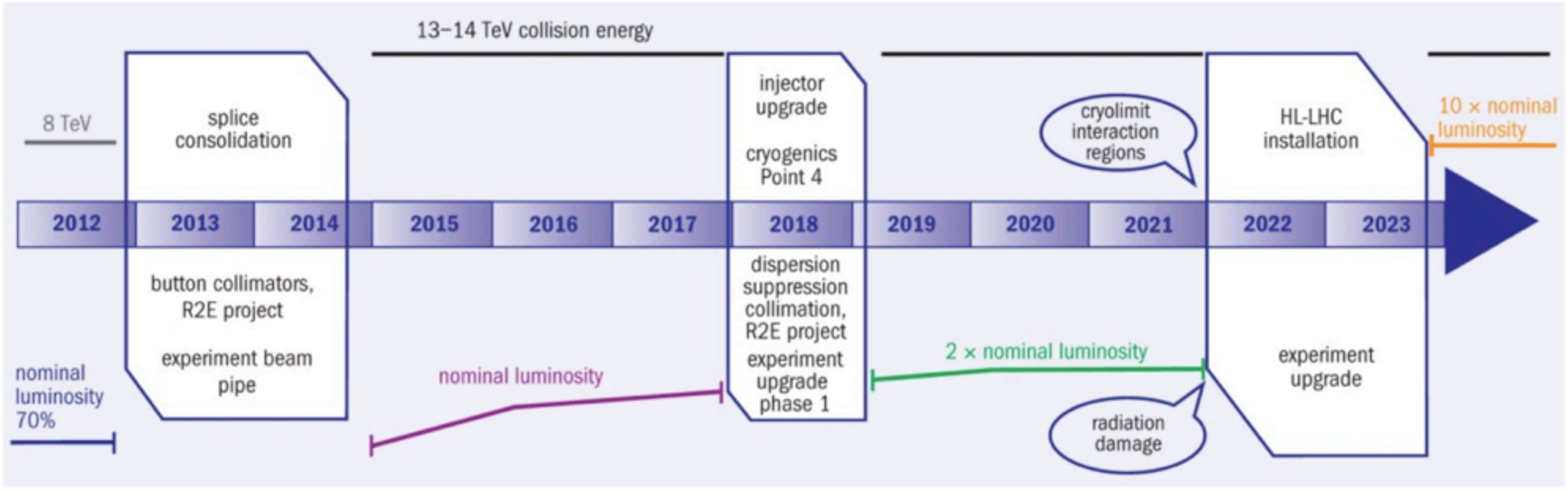
6_2_0_SLHCn - used for ECFA samples

7_0_0 release for multithreaded FW deployment

Why ROOT 6 ?

- My opinion is that it future proofs ROOT and is a first step towards a future of heterogenous architectures that require fine grain parallel applications.
- Yes, C++11 is interesting but it is not the driver.
- This first step is a big one and it should be made during this first long shutdown of the LHC

Long Term Timeline



LS1 is a target of opportunity we will not have another shutdown as long as this one until 2022 and maybe longer if schedules slip. The industry will not wait for us.

The time to get the root6 transition done, before the multicore wave hits, is now.