



KET JV 2016

Reports on:



- CERN Council activities
- European Strategy
- LHC performance and time plans

(- Maria Laach School news)



Report on CERN Council activities

- chair: Sijbrand de Jong
 - German delegates: B. Vierkorn-Rudolph (BMBF), S. Bethke (MPP)
-
- new CERN management
 - member state matters
 - decisions and other activities



1st Council Session, 1955



Report on CERN Council activities

new CERN management, as of January 1st, 2016:

- Sijbrand De Jong (NL), President of Council



- Fabiola Gianotti, Director General



- Eckhard Elsen (DE), Director for Research and Computing
- Frederick Bordry (F), Director for Accelerators and Technology
- Martin Steinacher (CH), Director for Finance and Human Resources
- Charlotte Warakaulle (DK), Director for International Relations
- Manfred Krammer (AT), Head of PHE Department
- Gian Francesco Giudice (IT), Head of PHT Department





Report on CERN Council activities

member state matters:

member states (22):

Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Netherlands, Norway, Poland, Portugal, **Romania**, Slovakia, Spain, Sweden, Switzerland, United Kingdom, Israel

associate members:

Pakistan, Turkey

in pre-stage to m.s.:

~~Romania~~, Serbia

accession stage:

Cyprus,

(assoc. in pre-stage to m.s.)

applicants for associate m.s.: Azerbaijan, Brazil, Croatia, **India**, Ireland, **Lithuania**, Russian Federation, Slovenia, Ukraine (* **admitted by Council, subject to signature**)

contacts for associate m.s.:

Australia, Bangladesh, Brazil, Canada, India, Ireland, Latvia

observer status:

JINR, USA, Japan, UNESCO, EU

cooperation agreement:

Albania, Mongolia, Bangladesh



Report on CERN Council activities

decisions and other activities:

- HL-LHC officially approved (June 2016)
- CERN management authorized to negotiate a credit agreement with European Investment Bank (EIB) covering cash shortfalls during peak years of HL-LHC construction (up to ~200 MChf)

(D and A abstain — D offers additional contribution of equivalent of German "share" of credit, as pre-payment in 2017)

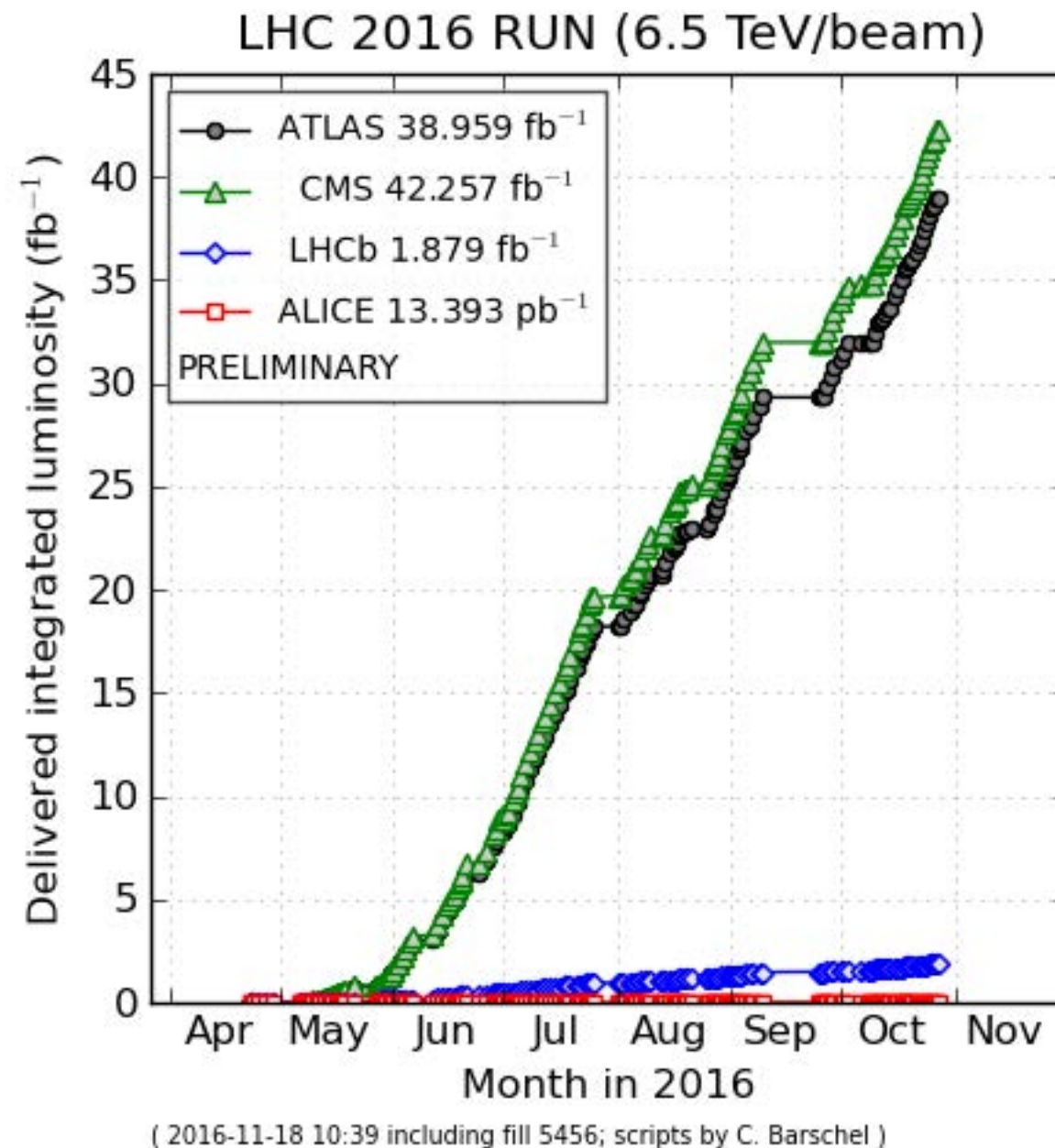
- (finances; pension fund; ...)



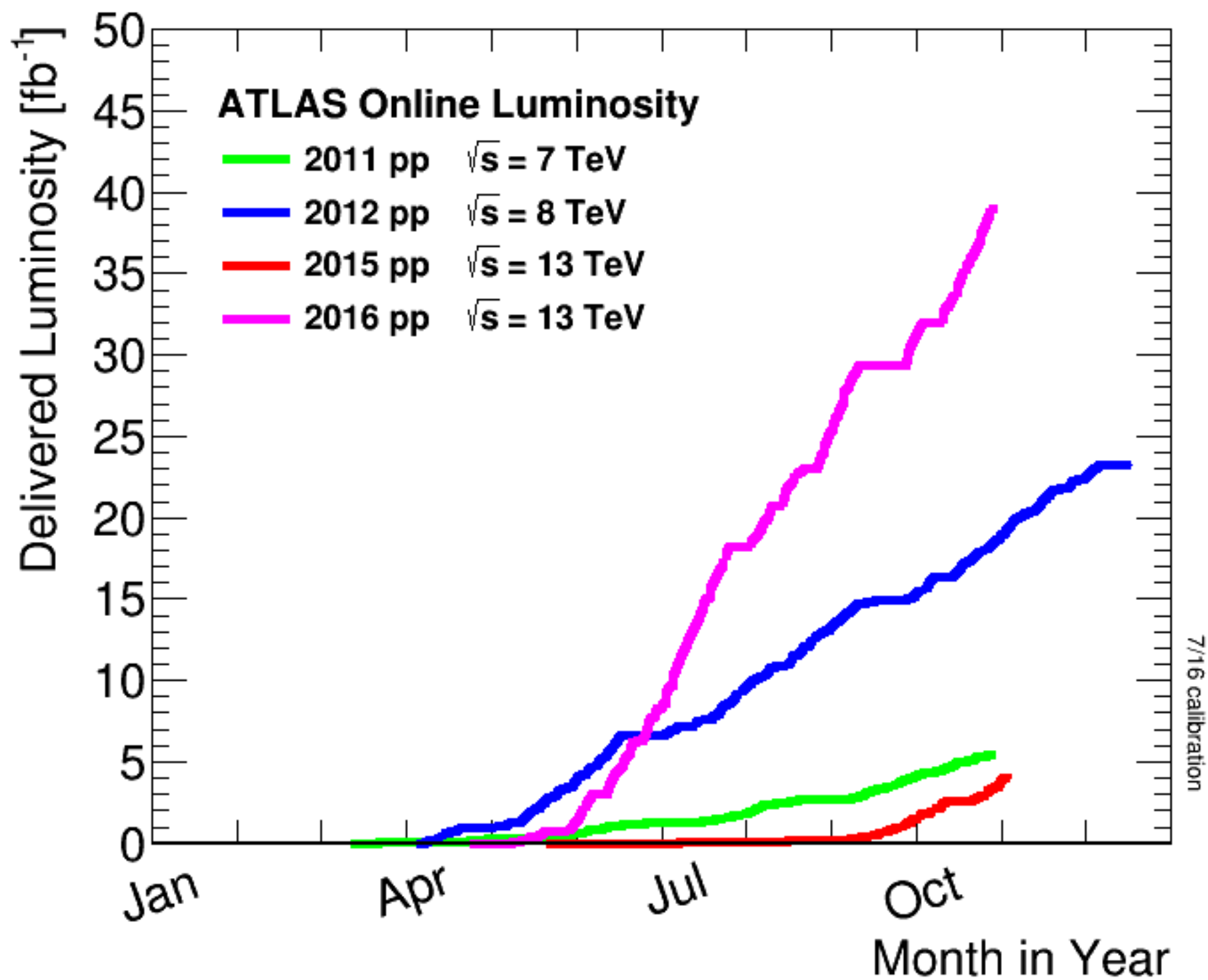
European Strategy

- dedicated sessions during September Council
- reports (ECFA, ICFA, IPPOG, EPPCN, implementation, techn.-transfer, ...)
-

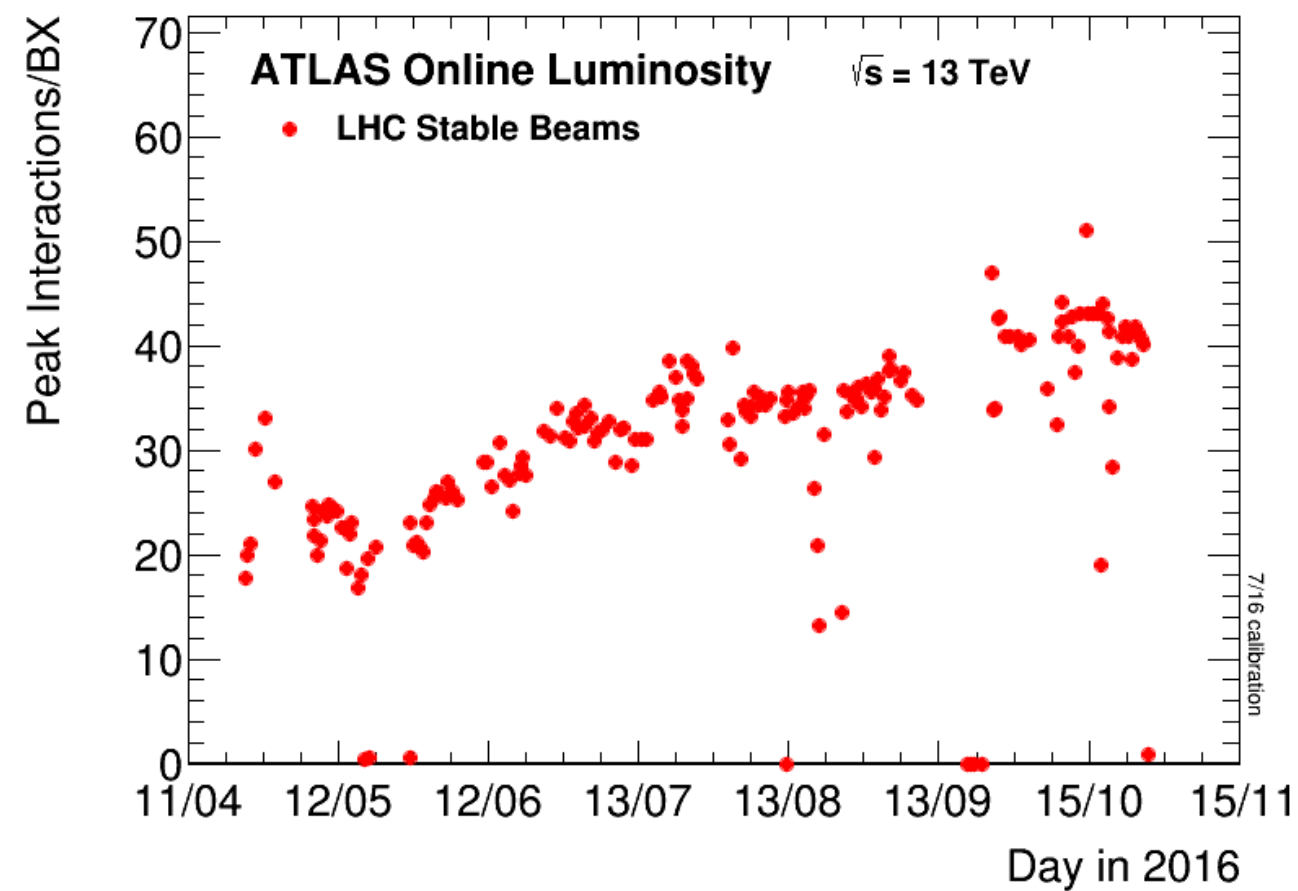
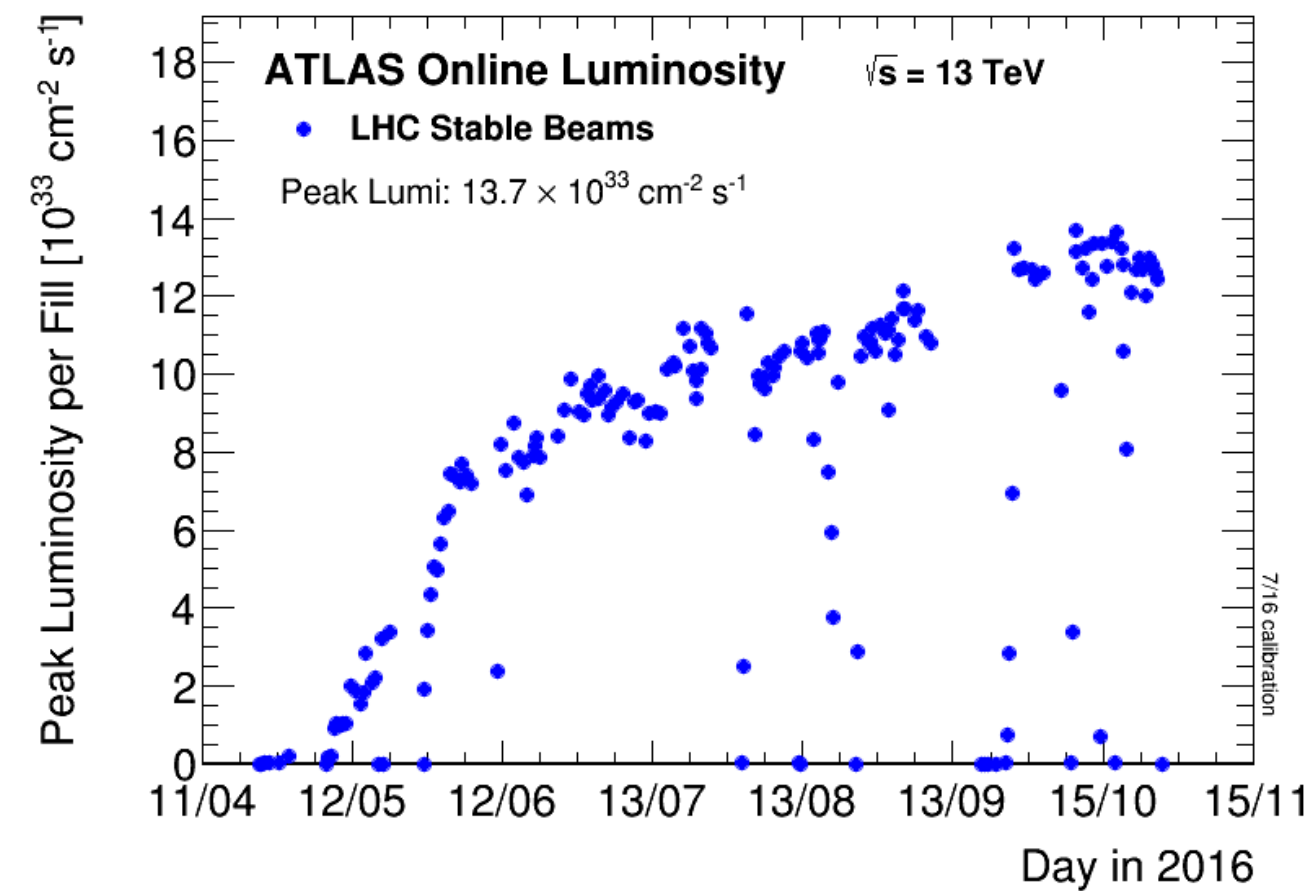
LHC performance



superb performance - expectation was 25 fb⁻¹
(for ATLAS,CMS)



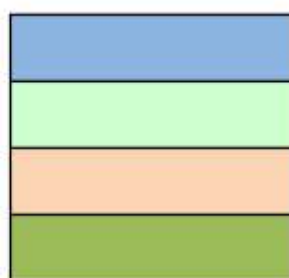
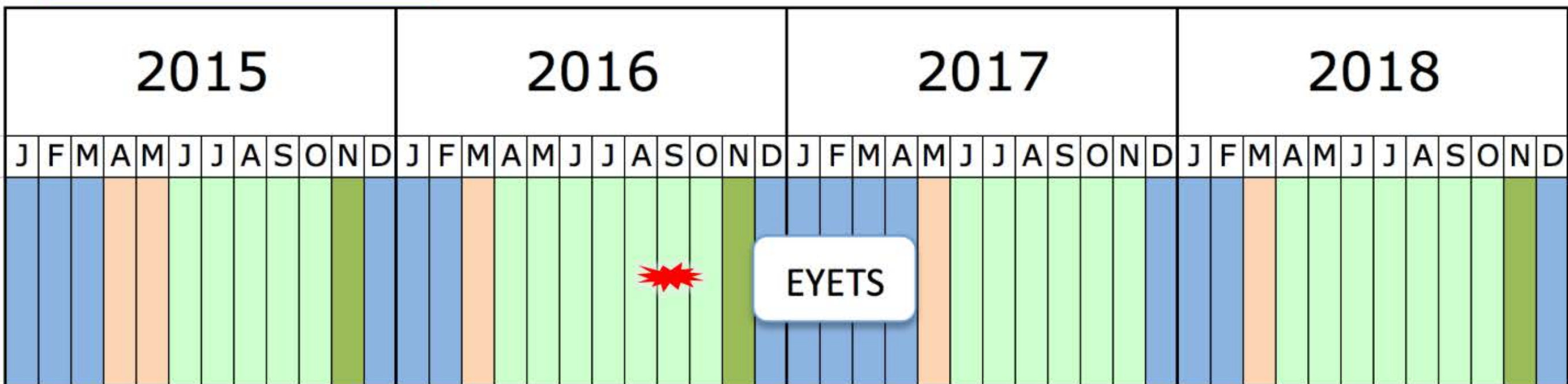
goal for run-II (2015-18): 100 fb^{-1}



surpassed LHC luminosity design value of $10^{34} \text{ cm}^{-2} \text{ s}^{-1}$

Run 2

Ion runs in 2016 (p-Pb) and 2018 (Pb-Pb)



Shutdown/Technical stop
Protons physics
Commissioning
Ions

Push 2 sectors towards 7 TeV

Extended Year End Technical Stop – 20 weeks

General maintenance: LHC and injectors
and CMS pixel upgrade;

- **Peak luminosity to $\sim 1.7 \cdot 10^{34}$ (limited by inner triplets)**
- **$\sim 40\text{-}45 \text{ fb}^{-1}/\text{year}$ in 2017 and 2018 (goals will be fixed at Chamonix 2017)**
- **Prepare for HL-LHC and post-LS2 LIU era**
- **Prepare for 7 TeV operation**

LHC schedule

LHC roadmap: according to MTP 2016-2020 V2

LS2 starting in **2019** \Rightarrow **24** months + 3 months BC
 LS3 LHC: starting in 2024 \Rightarrow **30** months + 3 months BC
 Injectors: in 2025 \Rightarrow **13** months + 3 months BC

