LS 1 from 16th Feb. 2013 to Dec. 2014

- LHC
- SPS
- PS
- PS Booster

Available for works:
- Physics
- Beam commissioning
- Shutdown
- Powering tests

16th Feb. 2013
11th April 2014

Welcome
Frédéric Bordry
LIU Day – 11th April 2014
c) Europe’s top priority should be the \textit{exploitation of the full potential of the LHC}, including the high-luminosity upgrade of the machine and detectors with a view to collecting \textit{ten times more data than in the initial design, by around 2030}. This upgrade programme will also provide further exciting opportunities for the study of flavour physics and the quark-gluon plasma.

\textbf{HL-LHC from a study to a PROJECT}

\[300 \text{ fb}^{-1} \rightarrow 3000 \text{ fb}^{-1}\]

including LHC injectors upgrade \textbf{LIU}

(Linac 4, Booster 2GeV, PS and SPS upgrade)
“...exploitation of the full potential high-luminosity upgrade of the LHC...”

=> High Luminosity LHC project

Kick-off meeting: 11th Nov. 2013 (Daresbury)

http://cern.ch/hilumilhc
LHC roadmap: schedule beyond LS1

LS2 starting in 2018 (July) => 18 months + 3 months BC
LS3 LHC: starting in 2023 => 30 months + 3 months BC
Injectors: in 2024 => 13 months + 3 months BC

(Extended) Year End Technical Stop: (E)YETS

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<td>Quarter</td>
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- **30 fb⁻¹**
  - **LHC Injectors**
    - Run 2
    - YETS
    - EYETS
    - YETS
    - LS 2
    - YETS
    - Run 3

**PHASE 1**

- **2022**
- **2023**
- **2024**
- **2025**
- **2026**
- **2027**
- **2028**

- **LHC Injectors**
  - YETS
  - LS 3
  - Run 4

- **300 fb⁻¹**
  - **LHC Injectors**
    - LS 4
    - Run 5
    - LS 5

**PHASE 2**

- **2029**
- **2030**
- **2031**
- **2032**
- **2033**
- **2034**
- **2035**

- **3’000 fb⁻¹**
  - **LHC Injectors**
    - Run 6