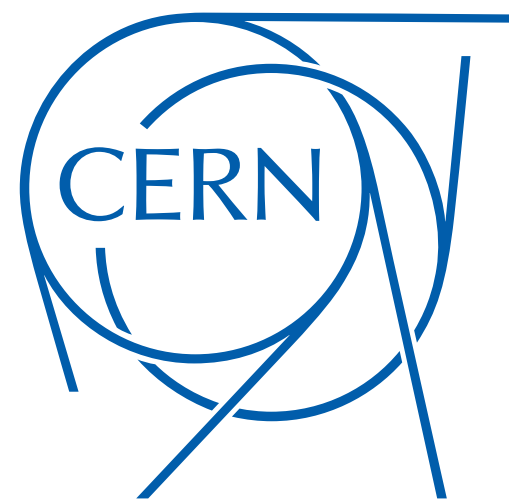


Status of CERN during gradual Re-start 2020

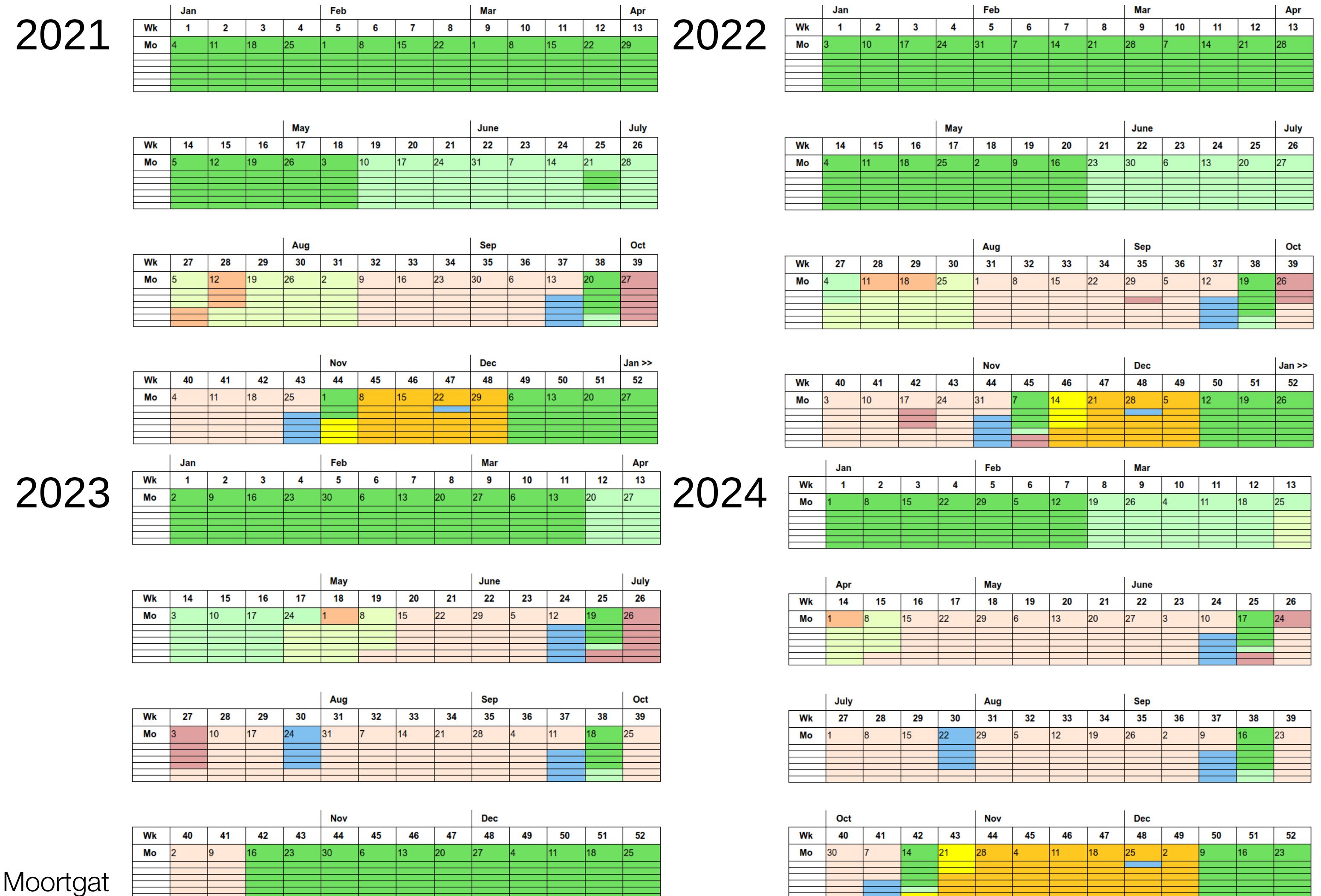
Eckhard Elsen

Director Research and Computing

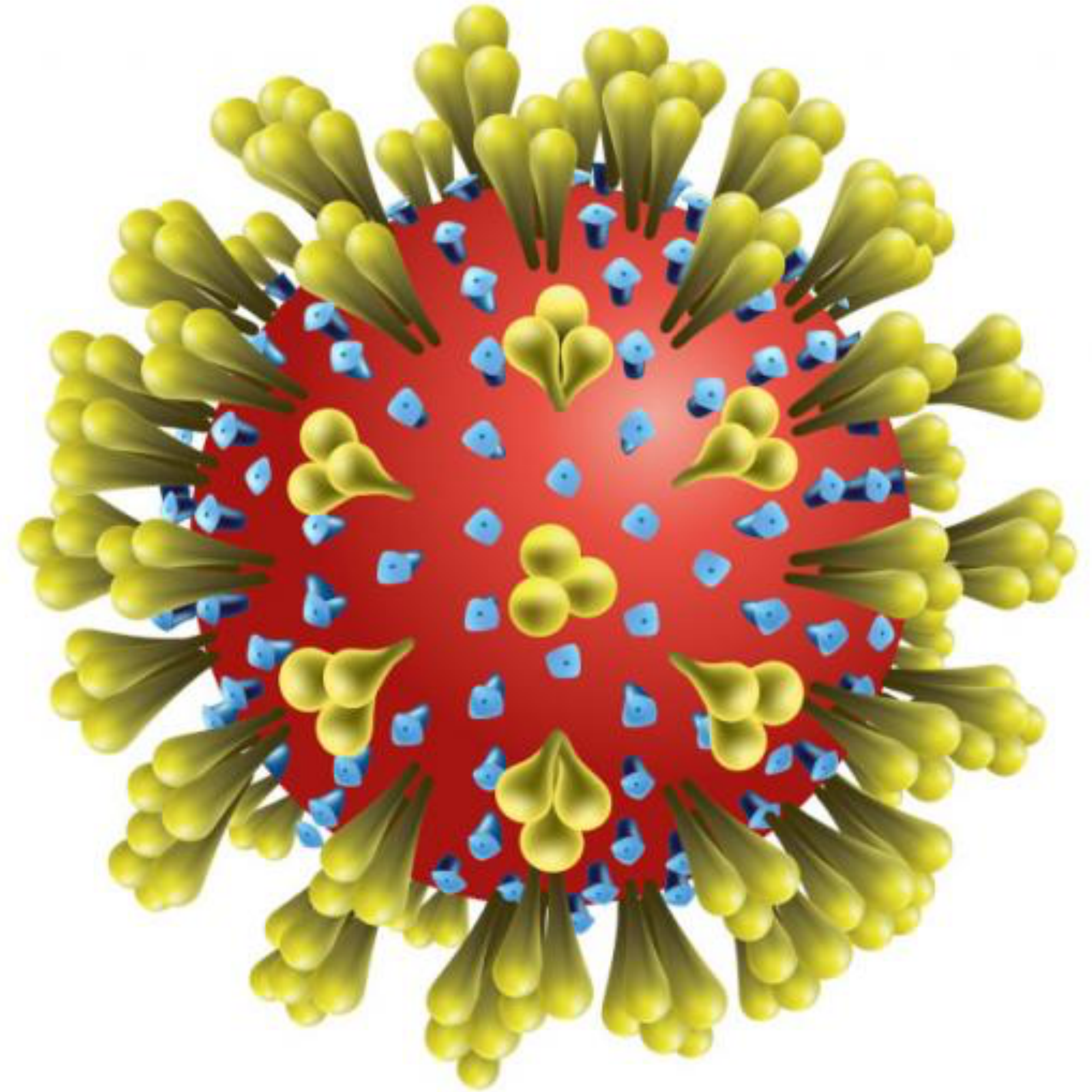


Reminder of Run 3 schedule as of November 2019

- Key conclusions at the time
- extend LS2 by 2(3.5) months
- delay LS3 by one year (to then start in 2025)
- planned to use meeting 8.6.2020 to settle schedule

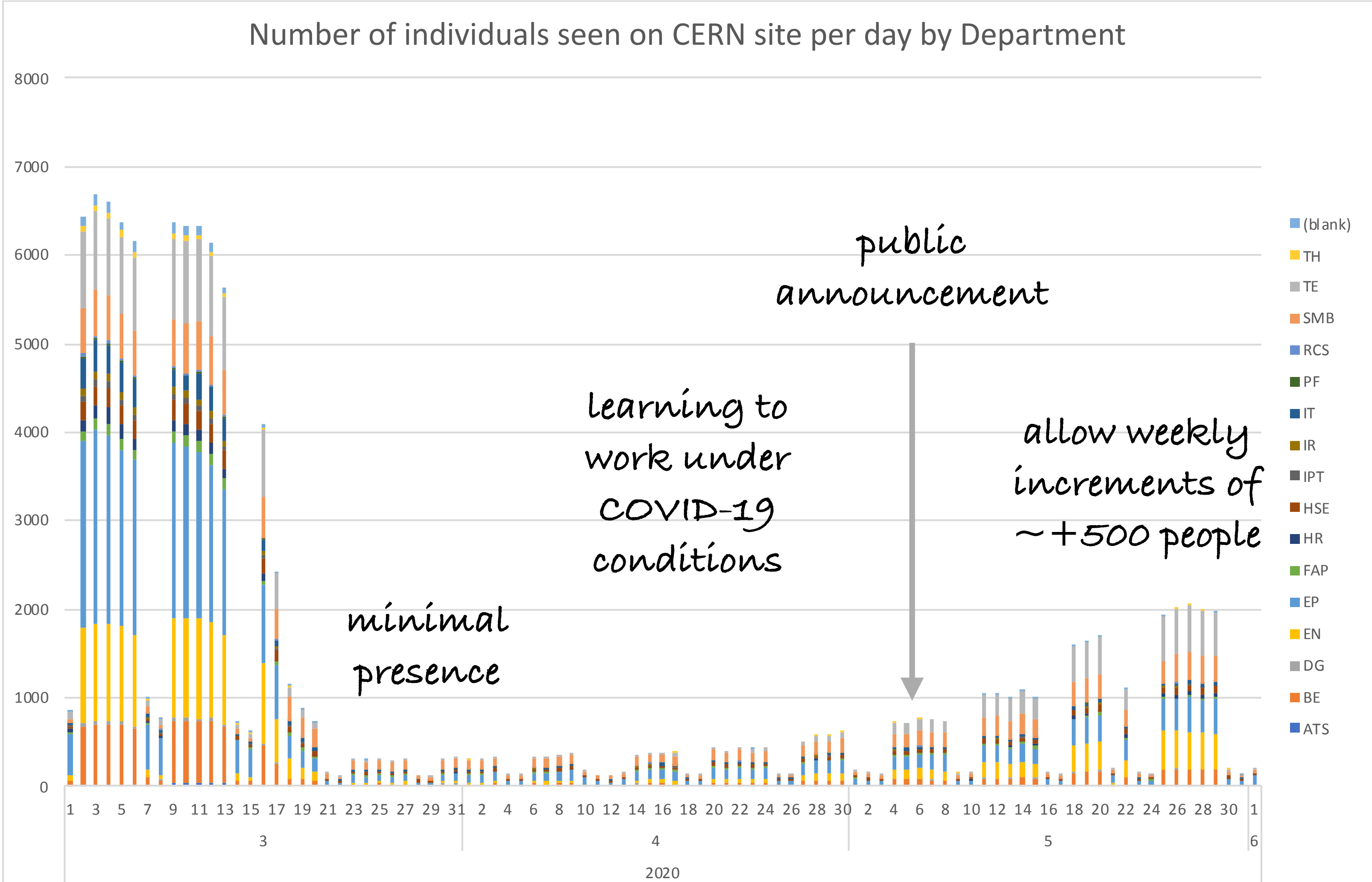


...and then



CERN in Safe Mode

- Typically ~6500/d people at CERN under normal conditions
- Safe-mode established 20.3.2020
- Gradual re-start began 18.5.2020



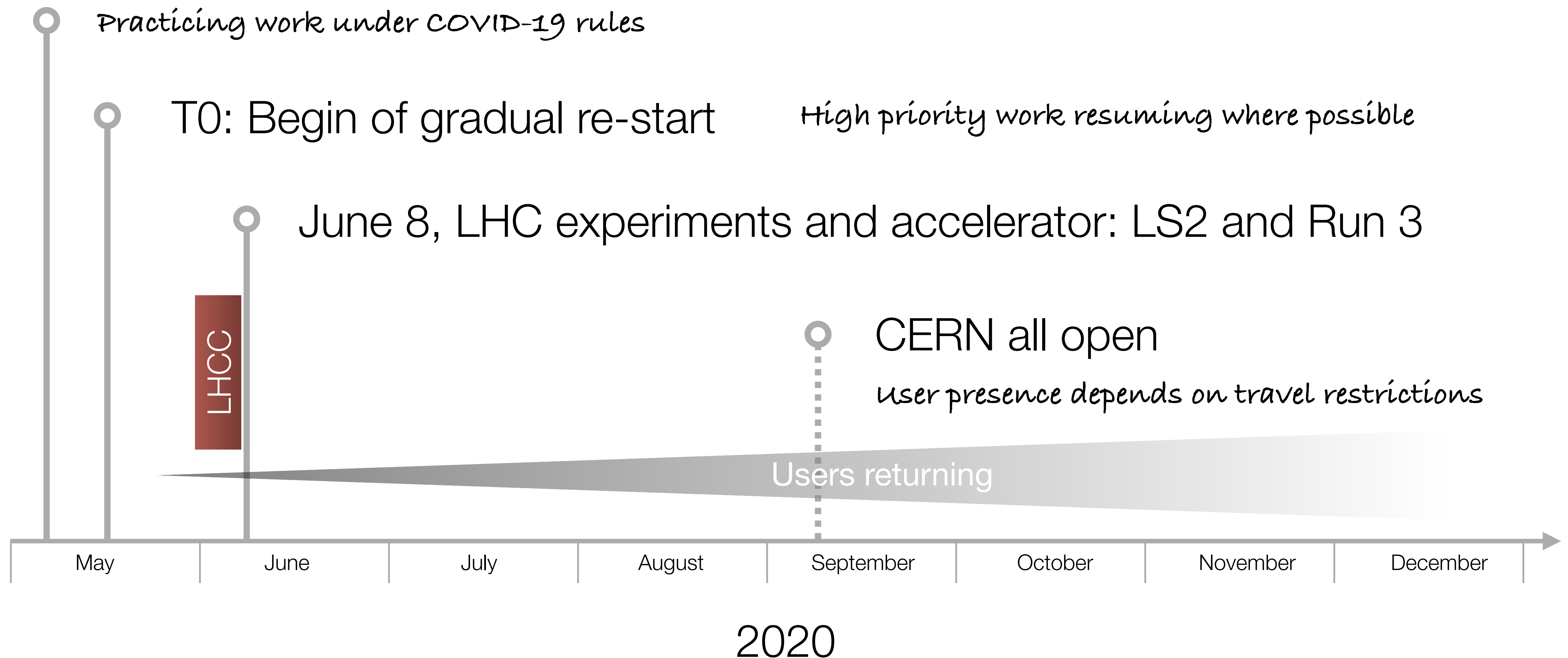
COVID-19 at CERN

Summary Covid-19 of 28/05/2020	
Total number of COVID-19 followed	112
Number of positive tests	15
Number of negative tests	21
Number of COVID-19 suspected	76
Contact persons in quarantine (CERN related)	0
Contact persons in quarantine (not CERN related)	1

Hospital	0
With symptoms	1
Recovered	111

- 112 cases followed so far (people with symptoms)
- 15 positive tests
- 76 suspected
- Cases will be followed

Re-start of Experiments depends on availability of users (experts)



Progress during lock-down

- Limited progress with sub-detectors wherever possible including in remote institutes
- Teleworking has been used everywhere
 - Analysis unhindered thanks to availability of IT infrastructure
 - Design – access to CAD software (incl. remote licence usage)
 - ASIC development
 - design requires access to licensed software

ASICs have been a major concern of upgrades

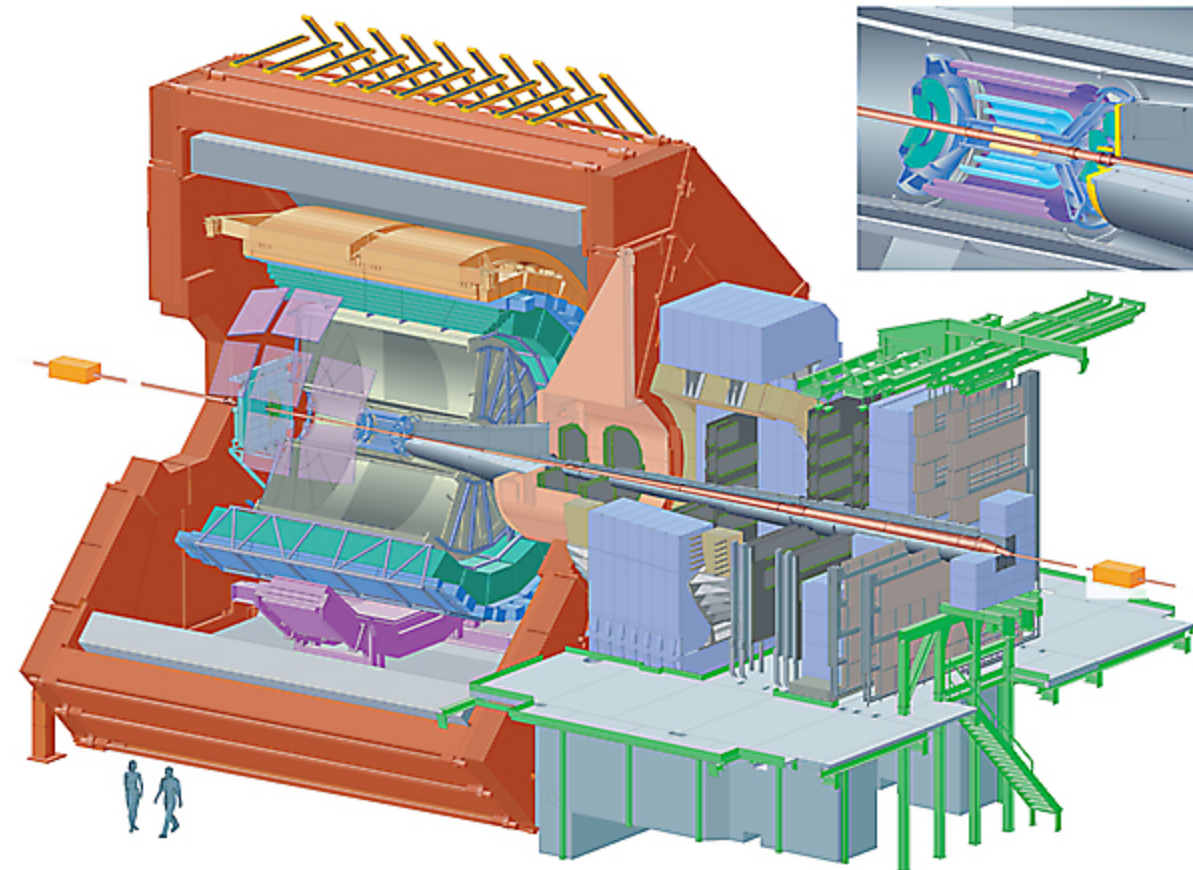
Logistics is a challenge

- Delivery of components from other institutes (or companies)
 - Production halted
 - Delivery chain broken
- Availability of foreign experts is a major uncertainty
 - Varying travel restrictions
 - entry to France and Switzerland
 - Switzerland opening 15.6.2020 for AT, DE, FR and 6.7.2020 for Schengen
 - departure from home country and uncertainty of returning home (quarantine)
 - permission from some countries for work at CERN still needs to be granted

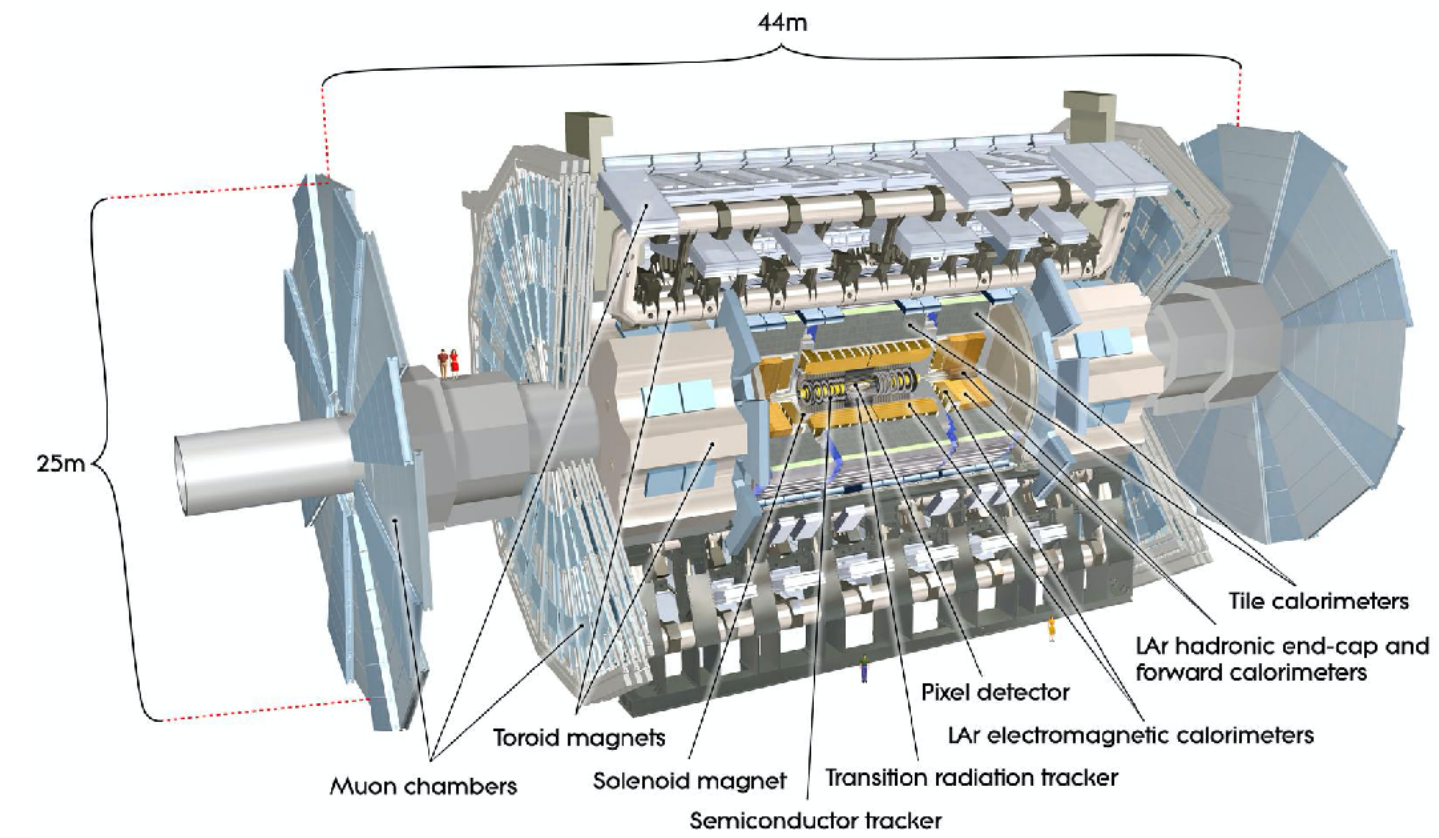
*Progress is very
difficult to predict*

Priority: completion of Phase 1 and preparation of Phase 2 upgrades

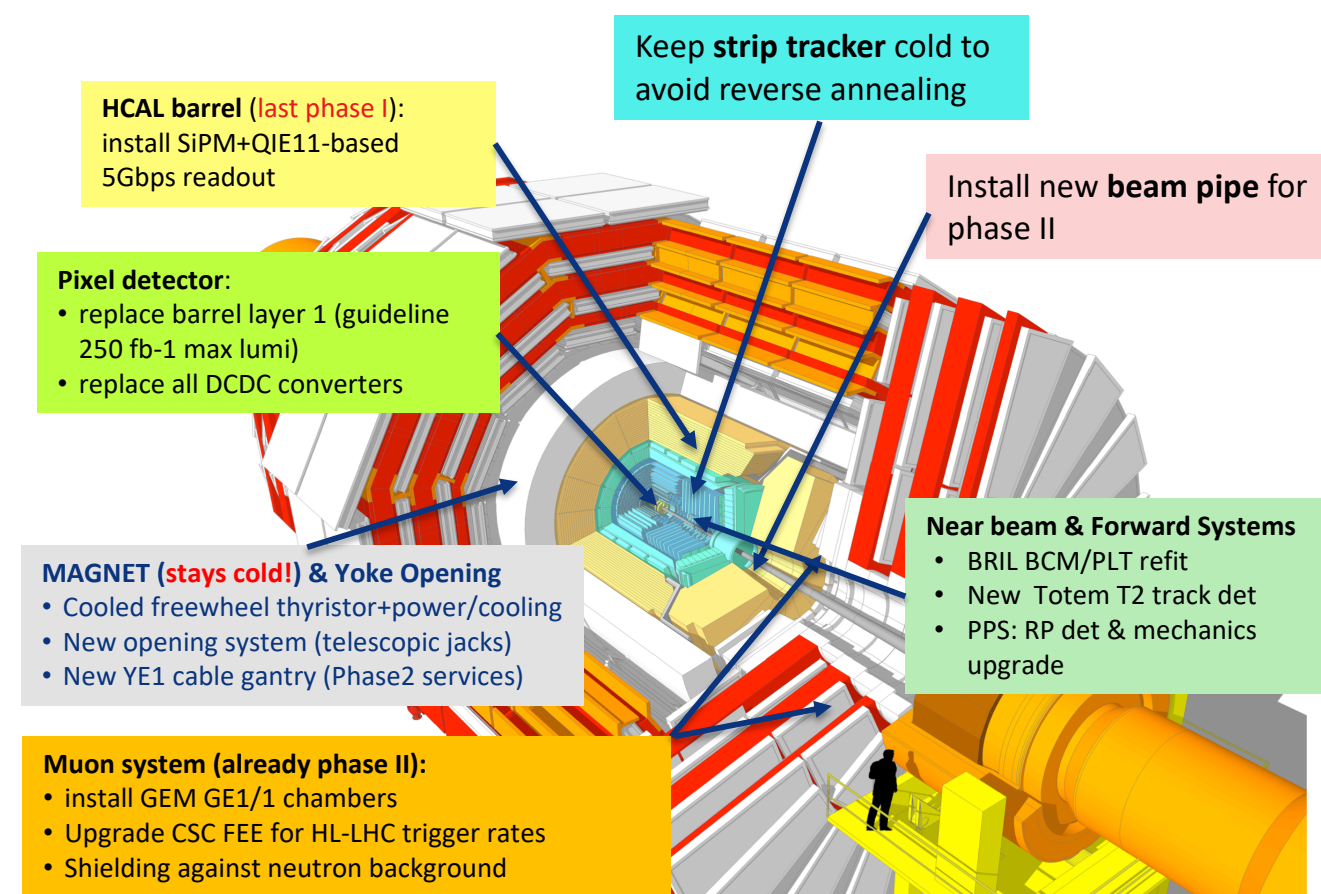
ALICE



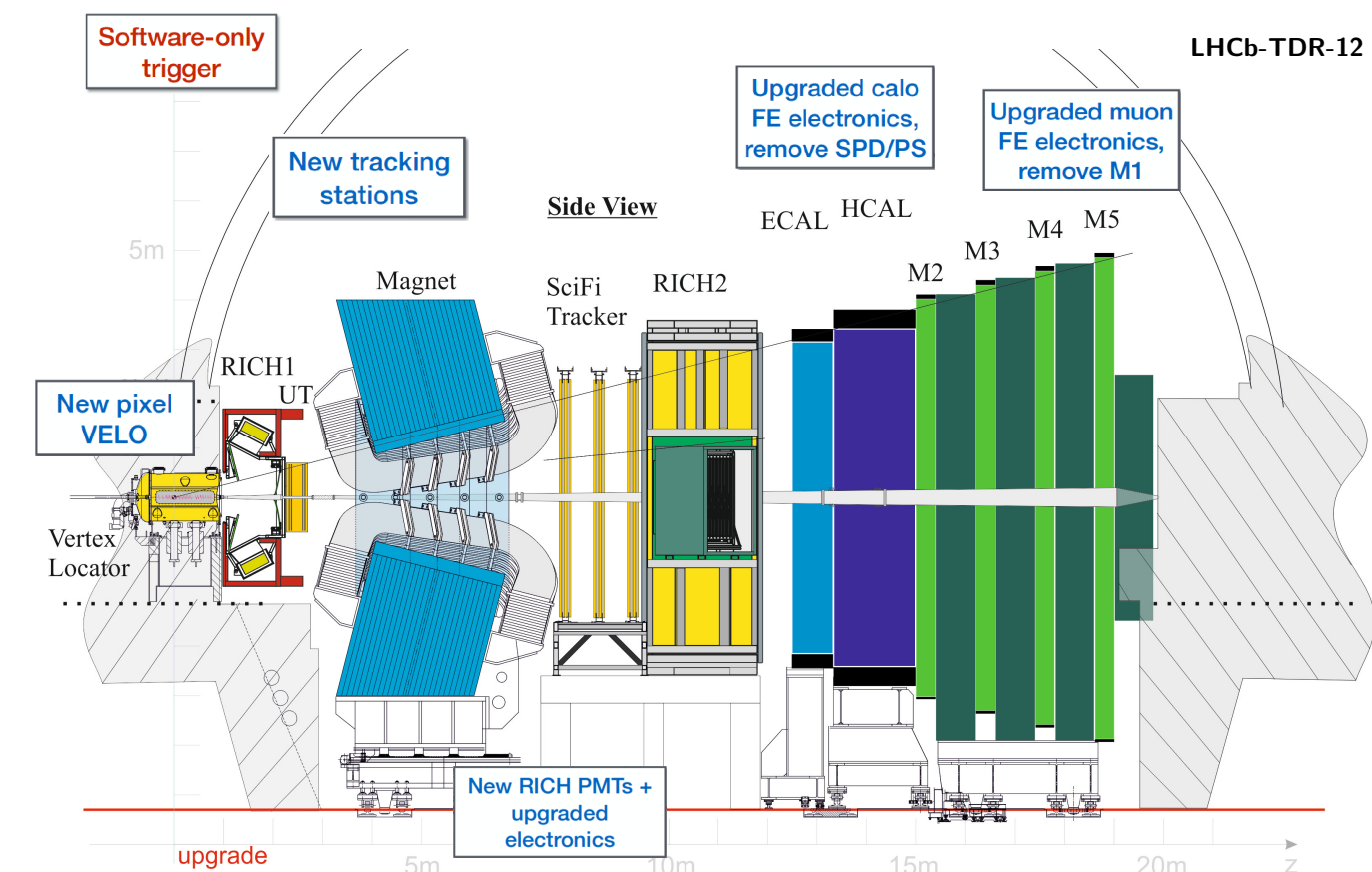
ATLAS



CMS



LHCb



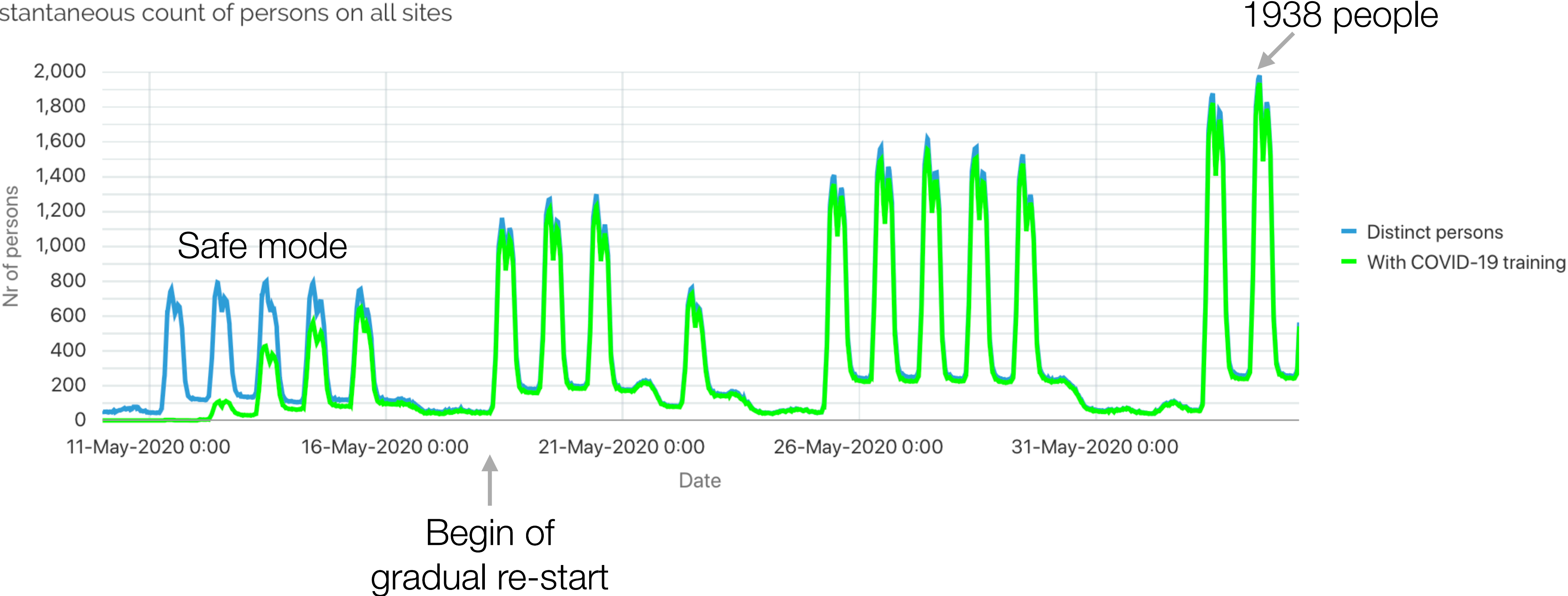
CERN gradually opening

COVID-19 Dashboard

Start date 

End date 

Instantaneous count of persons on all sites



Impact on Schedule (preliminary)

- LHC faces a linear delay of 3-4 months (see presentation of M Jiminez)
 - extended training of dipole magnets for operation at the highest energy (14 TeV?) conceivable
- Delays for experiments less well predictable e.g. because of travel restrictions for experts
 - Opportunities to advance some activities to allow for more efficient Run 3?
 - CMS neutron shielding
 - ATLAS NSW-C
 - ...

*Discussion has started;
meeting June 8 to decide on a
plan*

Preliminary Observations for Run 3

- LS2 will have to be extended
- Machine expected to be commissioned at the highest energy
- Aim for shorter interruptions than originally planned during Run 3
 - Position of LS3 will not be affected
 - Integrated luminosity for Run 3 essentially maintained (double Run 1 and 2 statistics)
- Luminosity in 2021 will be small or zero; time profile of Run 3 will change

CERN Against COVID-19



- Medical applications
- Computing and Data analysis
- Help to Society
 - Masks
 - Shields
 - CERN Fire and Rescue Service

<https://againstcovid19.cern/actions>

Many community contributions



Update of European Strategy for Particle Physics 2020 scheduled to be released during June 2020 Council Session

Summary

- Considerable impact of COVID-19 measures
 - physics output has not slowed down
 - schedules need to be adapted to consider the many new boundary conditions during gradual re-start
 - HEP community creative in combatting virus
- European Strategy for Particle Physics about to be released
 - LHC and HL-LHC will clearly figure for a long time
 - ...

