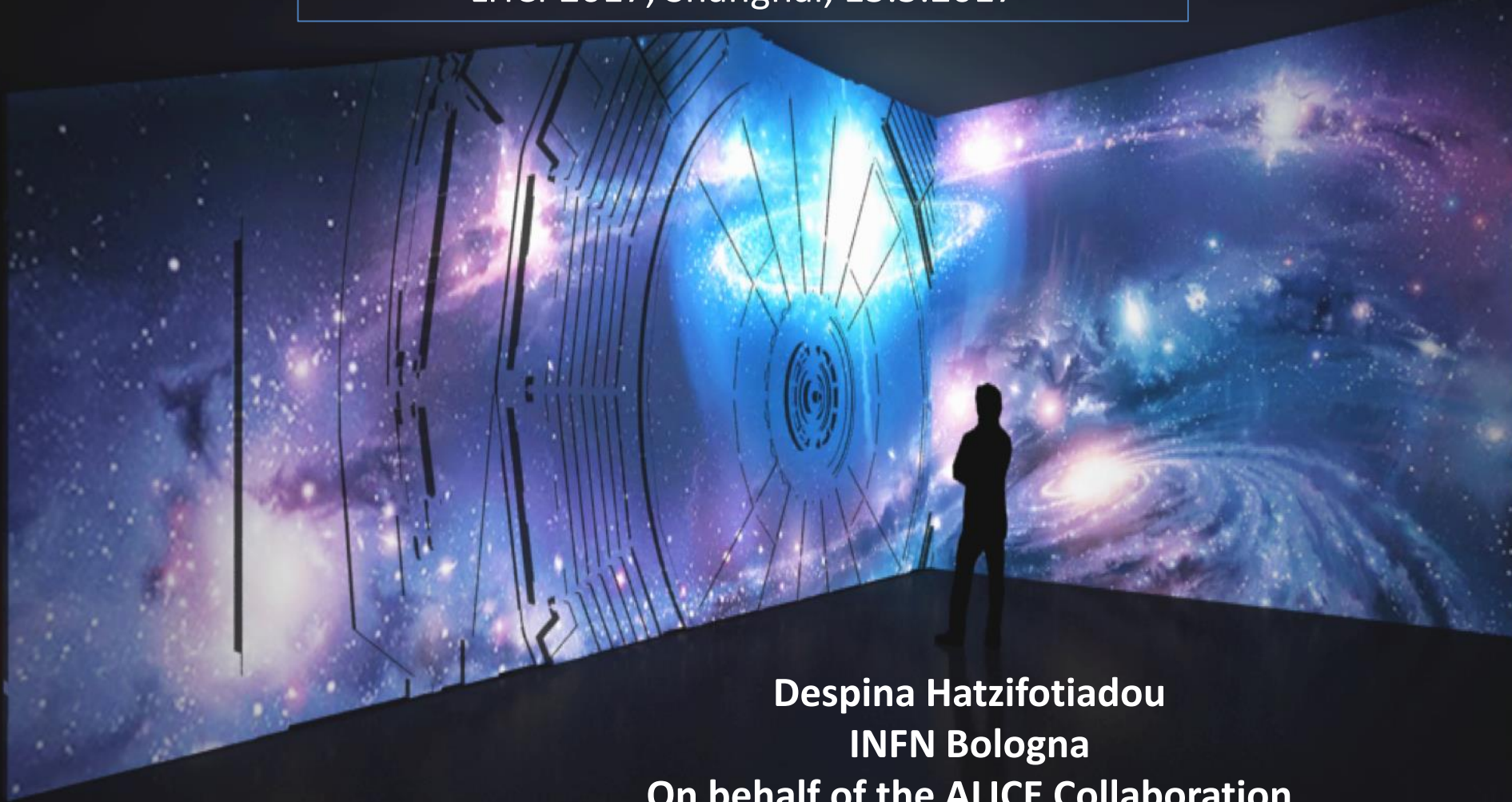
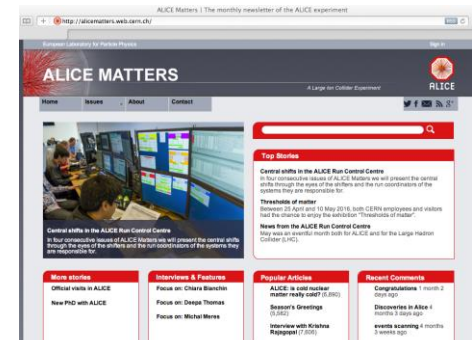


LHCP2017, Shanghai, 15.5.2017

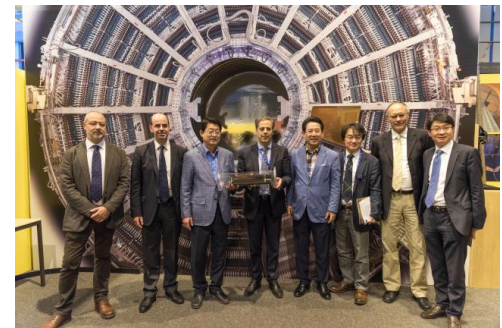


Despina Hatzifotiadou
INFN Bologna
On behalf of the ALICE Collaboration

- Events: Open Days, European Researchers Night
- Public talks
- Visits
- International Particle Physics Masterclasses
- <http://alicematters.web.cern.ch/>
- <https://twitter.com/ALICEexperiment>
- <https://www.facebook.com/ALICE.EXPERIMENT>
- Virtual visits



- Highlights : underground visits
 - During LS1 > 15000 visitors
 - >7000 first year of LS1
 - Open Days Sept. 2013 ~3500
 - Possible only during limited periods
- Surface visitors' centre a necessity
 - Also complementary to cavern visit



- Real-size poster of ALICE cross section
 - Explain basic ALICE components
- ARC (ALICE Run Control Centre)
 - Explain LHC operation, data taking
 - See physicists at work
- Interactive Window at ARC
 - Describe ALICE / its components
 - ALICE sociology
- VIEW OF SHAFT, PAD, MAD
- NEW ALICE EXHIBITION





ALICE

ALICE INTERACTIVE WINDOW





ALICE

ALICE INTERACTIVE WINDOW



ALICE Detectors

- Free View
- Size
- Weight
- Inner Detectors
- Outer Detectors
- Muon arm
- Technology



TPC TRD ITS MUON EMCAL PHOS PMD TOF AD ZDC ALL

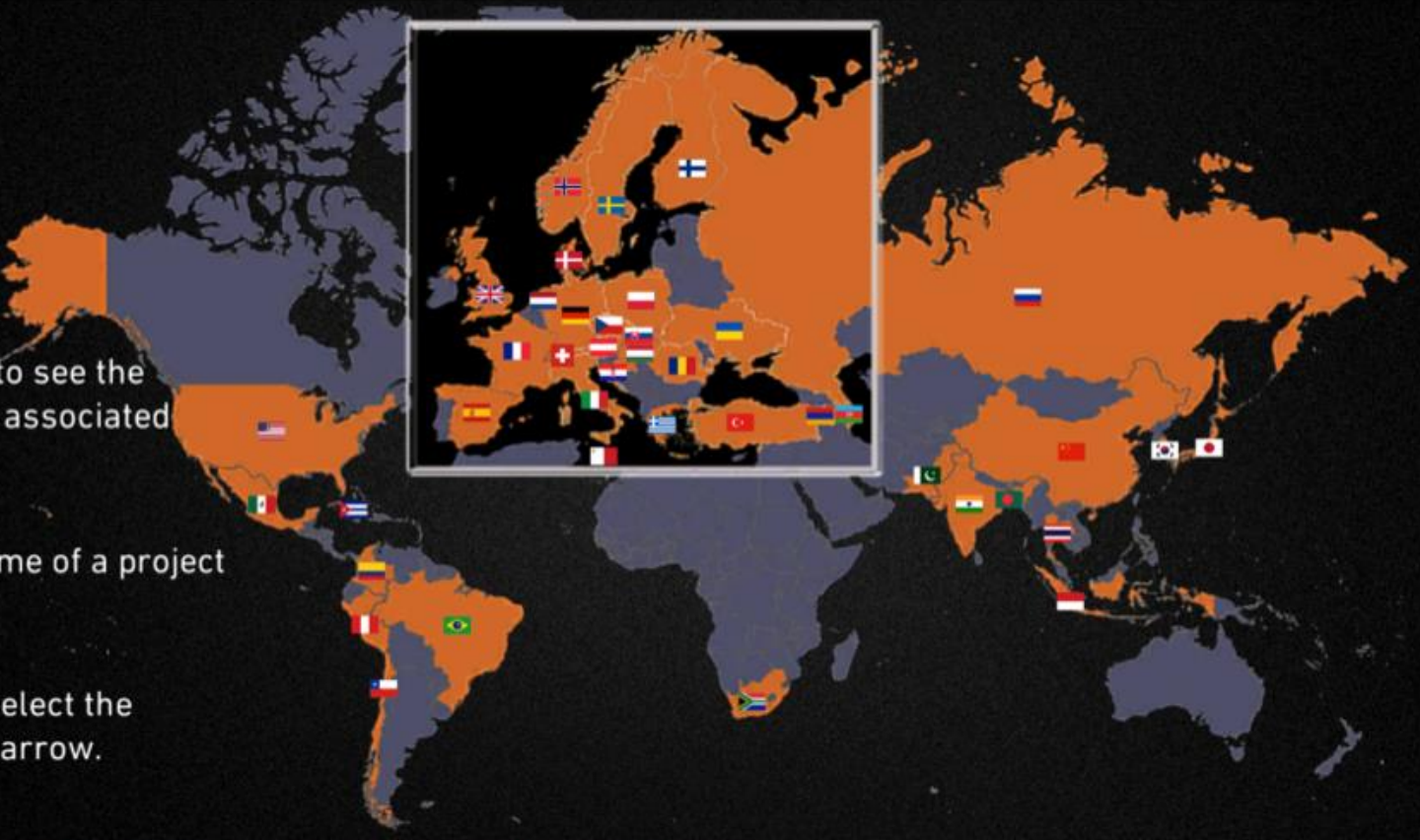


ALICE

ALICE INTERACTIVE WINDOW






 **Collaborators and Projects** 



Select a flag to see the details of the associated country.

Select the name of a project to explore it.

To proceed, select the bottom-right arrow.

 **DATA ACQUISITION** Upgrade 02  



ALICE

ALICE INTERACTIVE WINDOW



The ALICE Data Acquisition in numbers

- 500 optical links from the ALICE detectors
 - 250 computers
 - 900'000 GB (0.9 PB) of disks
 - Online monitoring and preprocessing capabilities
 - 3500 events per second
 - 17 GB/s from the ALICE detectors
 - 6 GB/s to the Grid
 - In 2015: 40'000 runs, 3428 hours of PHYSICS, 7.2 PB sent to the Grid
- That makes 290'000 BluRay disks...



- INCLUDE ALICE IN CERN OFFICIAL VISITS
 - School and University students
 - General public

- USE FOR “PRIVATE” ALICE VISITS
 - Show countries contribution to stakeholders (funding agencies)

- WHAT WE WANT TO COMMUNICATE
 - Physics of relativistic heavy ion collisions (QGP) and its relevance for understanding the early universe
 - The tools and methods used by ALICE

- HOW TO COMMUNICATE OUR “MESSAGE”
 - Use modern technology to fascinate visitors (“wow” effect)
 - Show “the real thing”

- WORKING GROUP (ALICE MEMBERS)
 - Brainstorming
 - Discussions, meetings, many ideas

- DEFINED MAIN QUESTIONS TO ADDRESS
 - Why ALICE (the physics)
 - What ALICE does (HI collisions, accelerators..)
 - How (detectors)
 - What is has observed (results?)

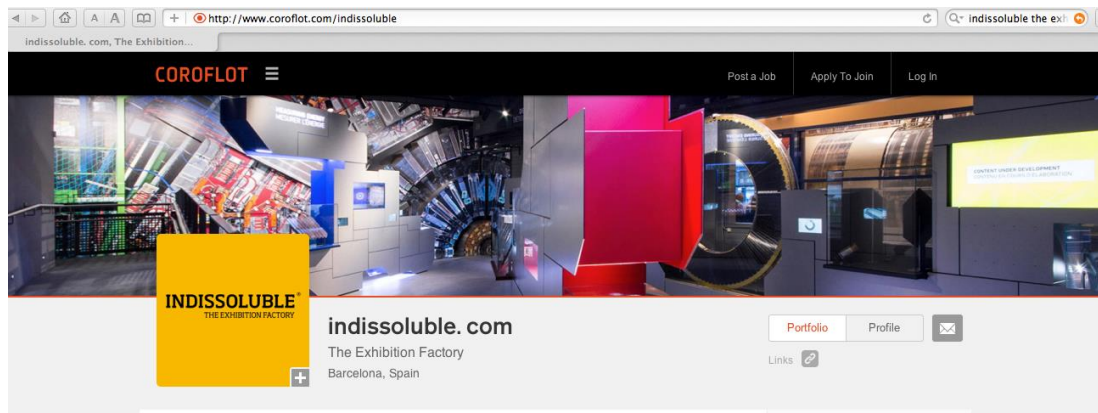
- AGREED ON:
 - Introductory video (short; general introduction to CERN done before)
 - Contents : keep as many detector objects as possible
 - To be shown or not, depending on the guide(s) and the public

- ALICE TECHNICAL COORDINATION
 - New ideas

- STUDIED ALL CERN EXHIBITIONS AND VISITS POINTS
 - Valuable source of inspiration

- CERN EDUCATION, COMMUNICATION & OUTREACH
 - Discussions with Emma Sanders & Rolf Landua

- BRING IN PROFESSIONALS IN EXHIBITION DESIGN : **INDISSOLUBLE**



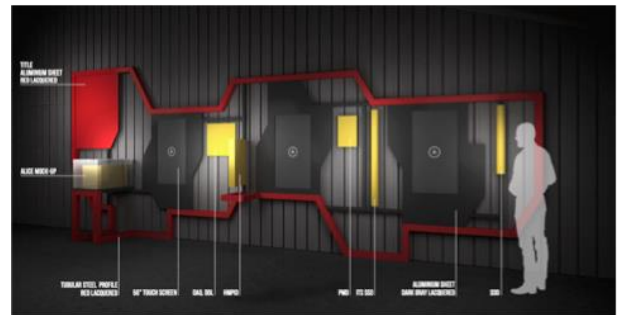
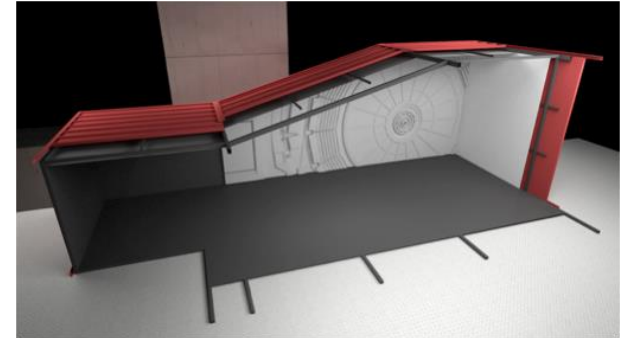
- INSTALL INSIDE CLOSED STRUCTURE
 - Ensure acoustic insulation
 - Illuminate objects

- REAL SIZE MOCKUP OF ALICE CROSS SECTION
 - Video mapping projection
 - Embed detector items in their real position

- INTRODUCTORY VIDEO
 - Brief description of physics & experiment

- ADDITIONAL EXHIBITS INSIDE SHOWCASES
 - detector and DAQ items (+screens)

- EXPLORE ALICE IN REAL TIME
 - Periscope connected with 2 cameras in the cavern and screen



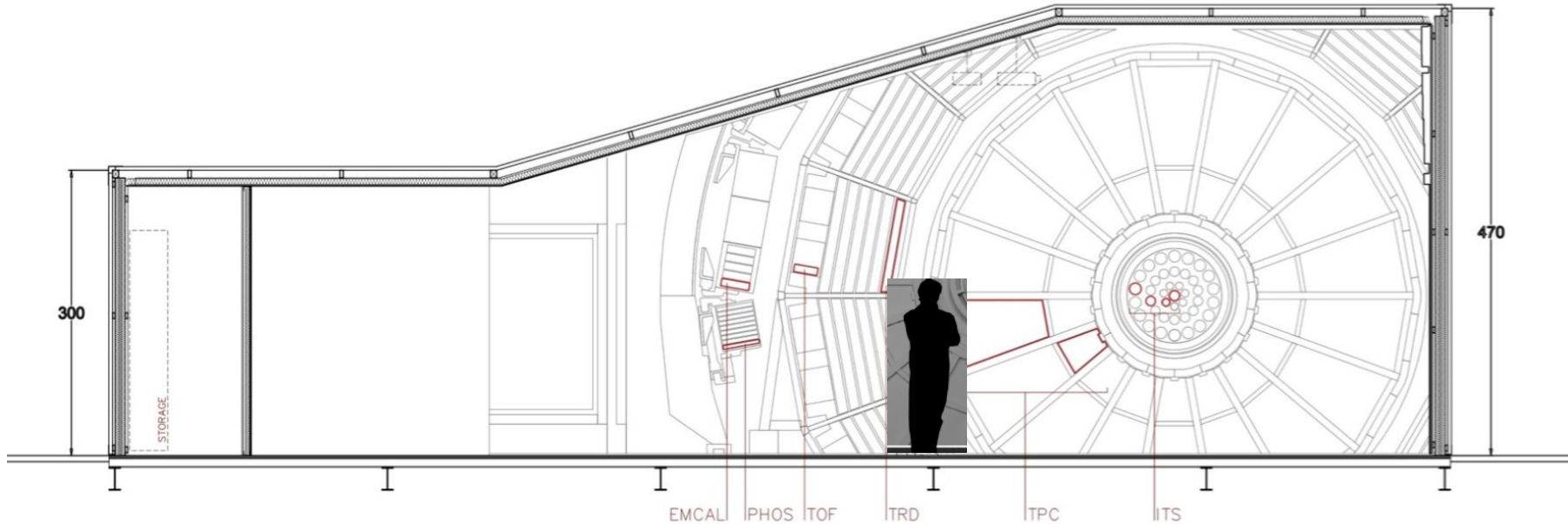


...and other CERN visit sites
such as the data centre





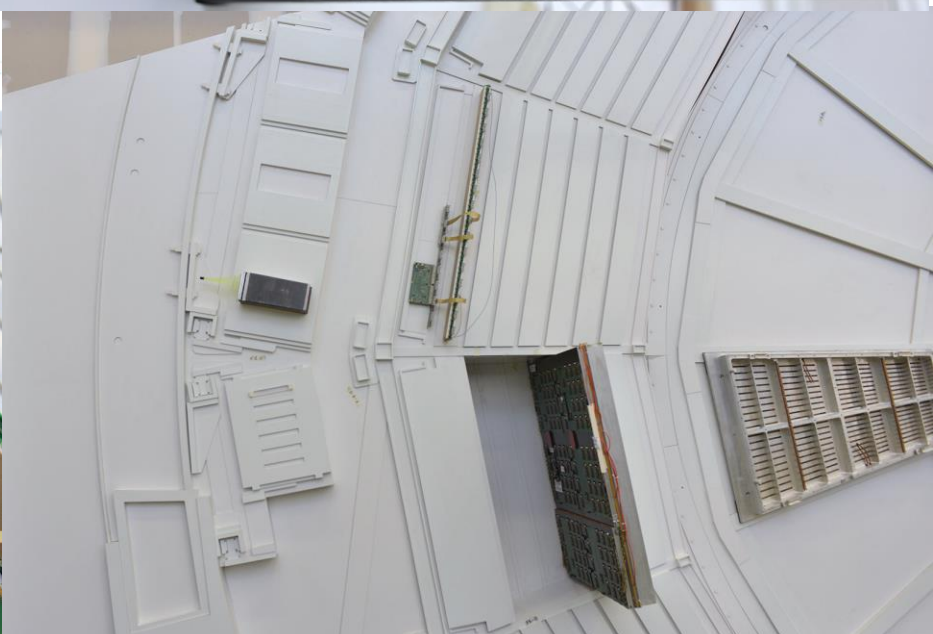
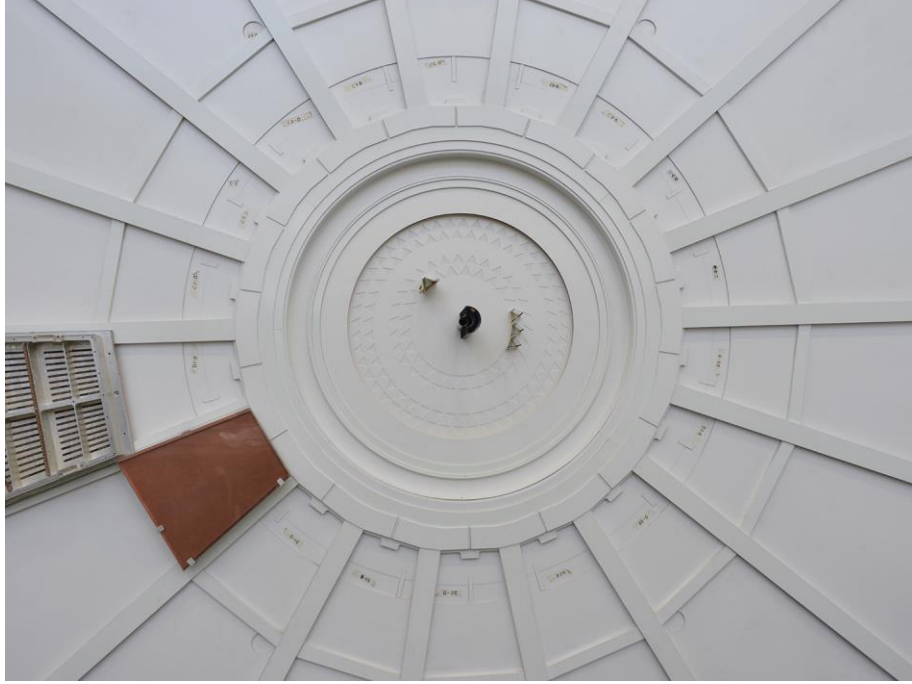
~ 100 m² installed above Counting Rooms in SX2



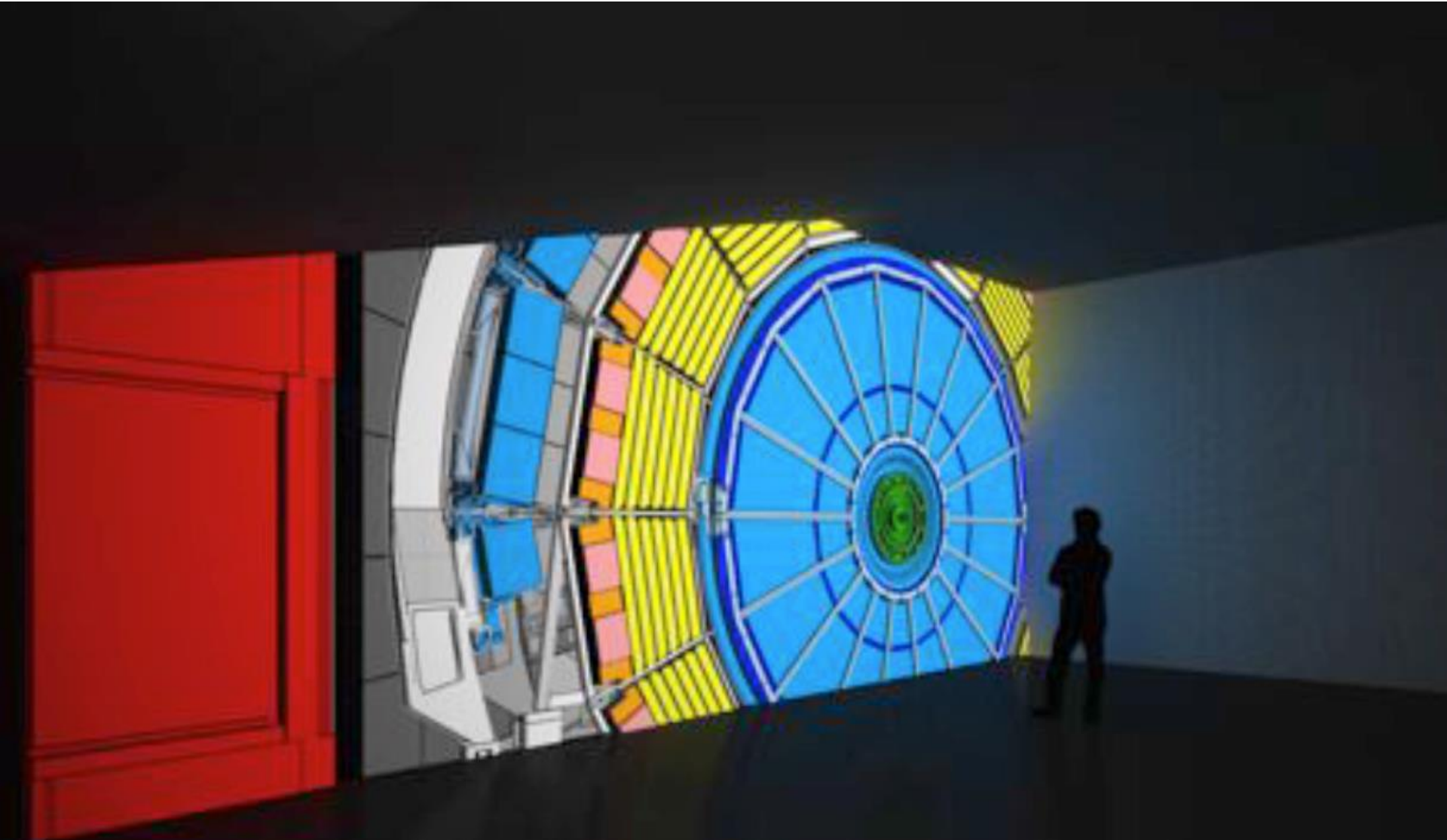
11 m x 5 m wooden mockup
detector objects embedded in
their true position and
orientation

Inner Tracking System (ITS)
Time Projection Chamber readout chambers (TPC)
Transition Radiation Detector (TRD)
Time Of Flight MRPC (TOF)
Photon Spectrometer PbWO₄ crystal (PHOS)
Electromagnetic Calorimeter (EMCal)







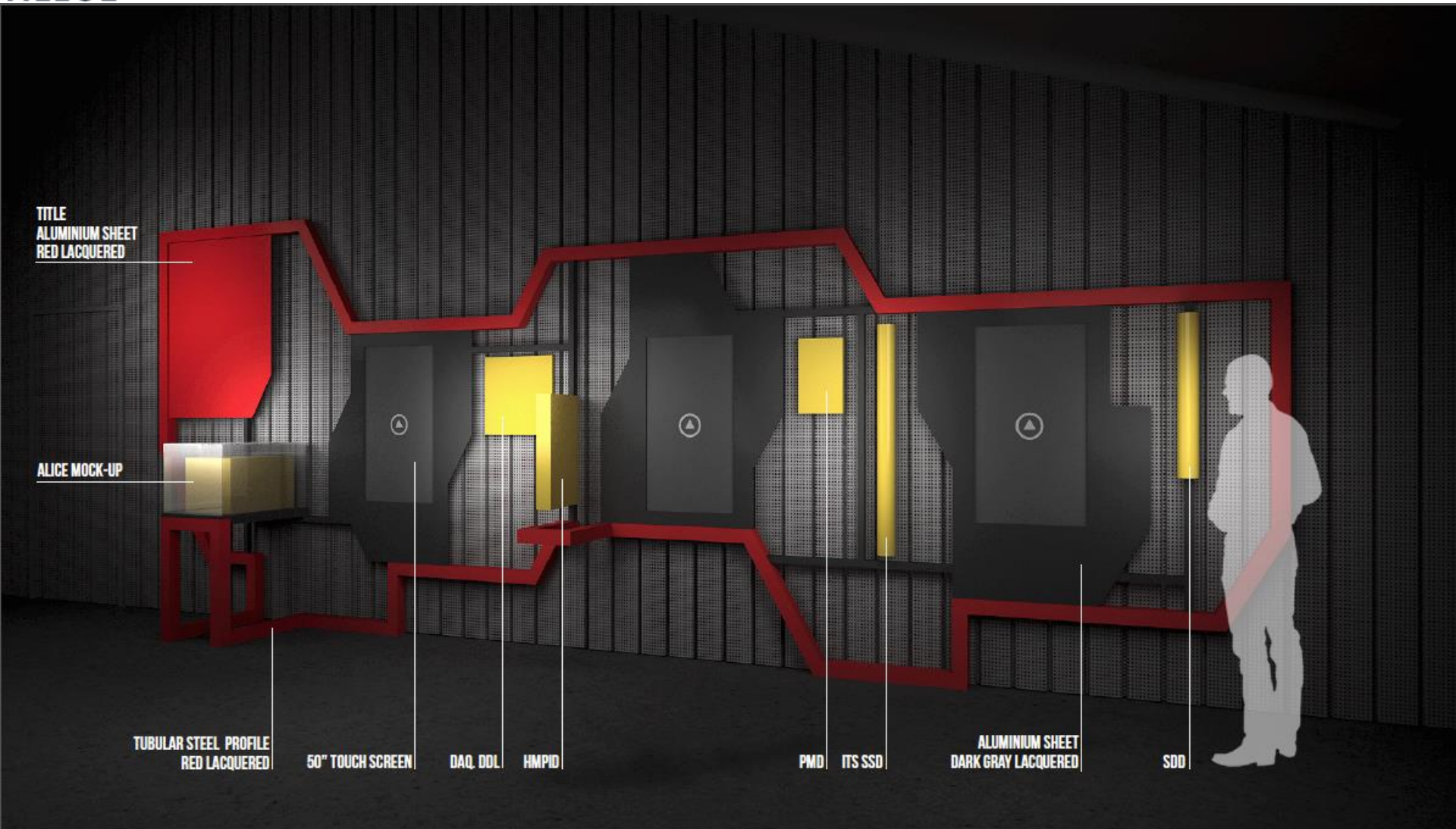






ALICE

SHOWCASES





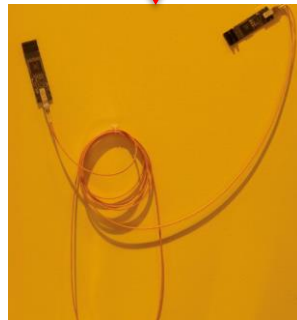
Inner
Tracking
System

SDD

SSD

Readout
and DAQ

DDL and
optical
fibres

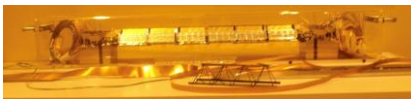
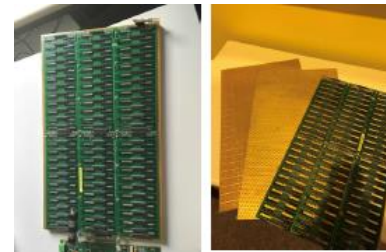
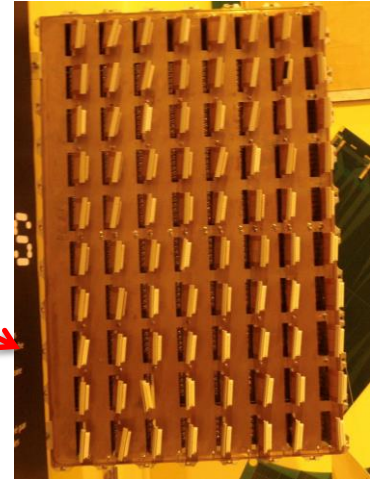


particle
identification

HMPID (RICH)

TOF (MRPC)

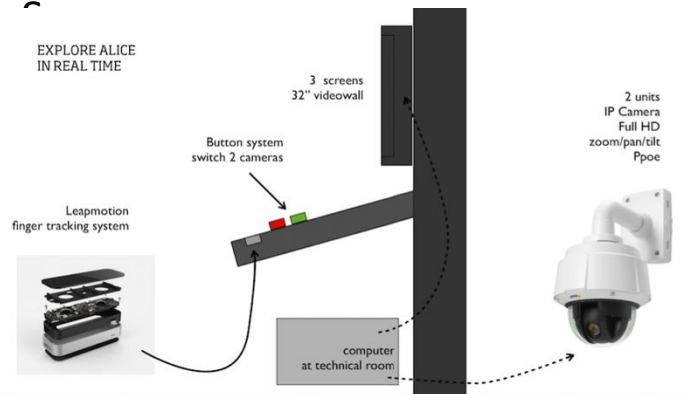
PMD



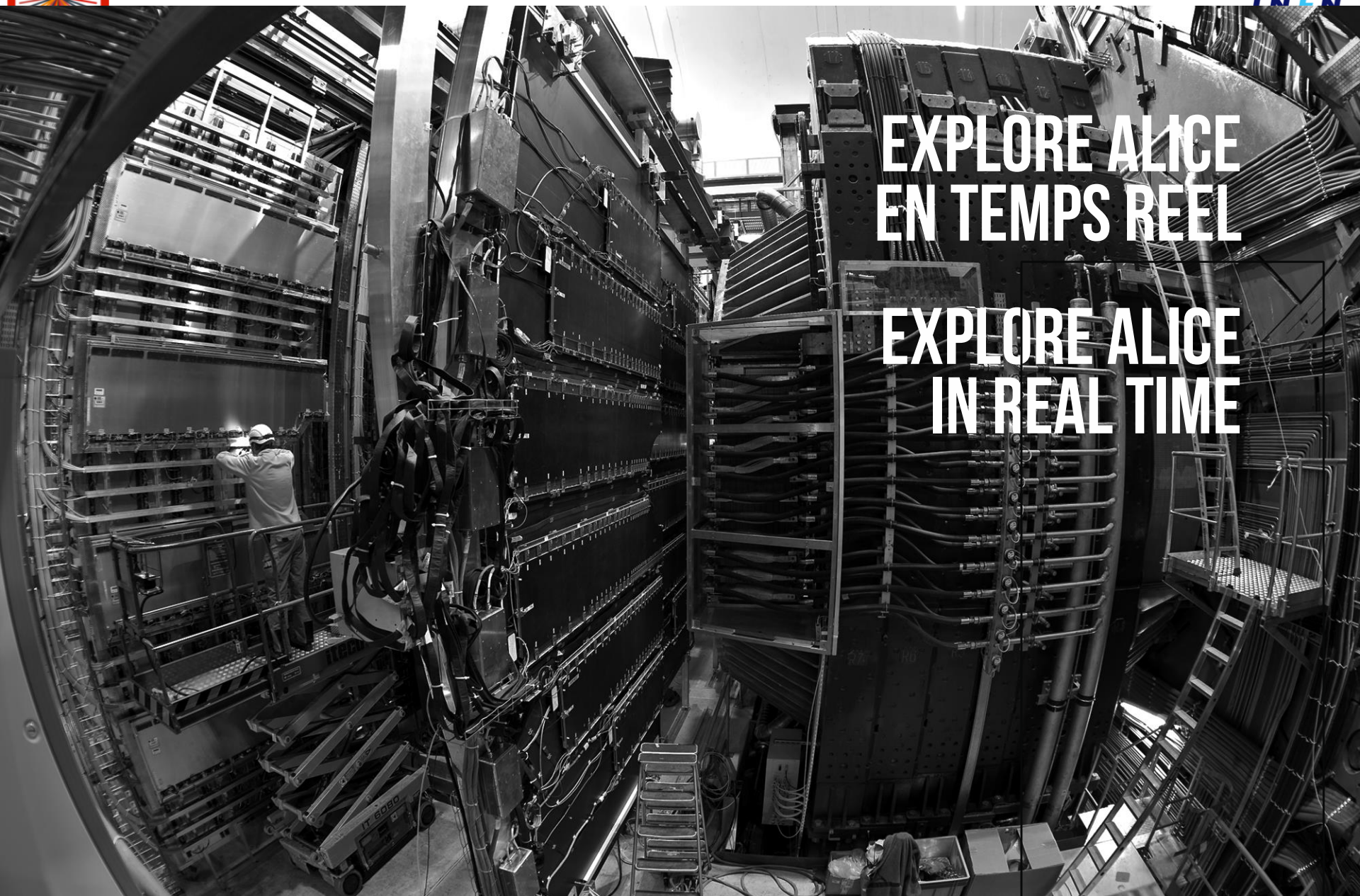


ALICE

EXPLORE ALICE IN REAL TIME



Camera controlled by periscope – sends live images to screen + periscope display



**EXPLORE ALICE
EN TEMPS REEL**

**EXPLORE ALICE
IN REAL TIME**

- Developed storyboard over many meetings and discussions
- aim for duration ~ 7 minutes
- animation with narration in English (to be translated in French, ...)

- It consists of seven chapters
 - Introduction
 - Matter
 - Big Bang Cosmology
 - How to produce QGP
 - How to observe the debris of the QGP
 - How it works : from data collection to publication
 - Collaboration, Results, Conclusion

- Developed by Indissoluble and CERN Media Lab - constant interaction with ALICE & CERN IR-ECO (Rolf)

CURRENT STATUS OF ALICE EXHIBITION

- video being finalised
- Mockup & showcases at Indissoluble, Barcelona – to be installed at Point 2
- It will offer to the public a glimpse to one more of the CERN research topics : the fascinating world of relativistic heavy ion collisions
- It will also make possible for us (ALICE) to demonstrate our objectives and how we pursue them
- We will invite you for a visit in the summer

ACKNOWLEDGEMENTS

- [Rolf Landua](#) (CERN-IR-ECO) for his invaluable contribution to all stages of this project, and in particular the development of the introductory video.
- [Emma Sanders](#) (CERN-IR-ECO) for ideas and discussions
- [Daniel Dominguez](#) (CERN-IR-ECO) for the animations of QGP and many more..



THANKS FOR YOUR ATTENTION!