

## ALICE EXHIBITION AT POINT 2 – MANUAL FOR GUIDES

**SUMMARY:** this document describes the visit procedure of the ALICE exhibition at P2. It is organized as follow: i) shortlist of requirements; ii) description of the 3 main steps; iii) contact persons and safety procedure; iv) gallery with general information

The visit of the ALICE exhibition is guided by a person who validated the corresponding training (granting access to 2285-R-C04) and made a reservation with the ALICE Secrétariat ([Alice.Secretariat@cern.ch](mailto:Alice.Secretariat@cern.ch)). The duration is approximately 30 minutes. The exhibition room is limited to xx participants and the usual safety information should be provided.

The visit of the ALICE exhibition includes the following steps:

- Projection of a seven-minute introductory film
- Description of the main detectors (tracking, particle identification, calorimetry) and data acquisition (DAQ)
- Viewing of the cavern from the exhibition room (using underground webcams)

The control of the lights, screens and projectors is done with the help of a dedicated iPad which is fixed next to the entrance on the right wall. The iPad should display the information as in Fig.1 (if not already go to the troubleshooting Q/A section).

**[1 START]:** the visit of the exhibition starts in darkness with only the ALICE logo projected on the wall opposite the door (Fig. 2). The showcase screens are switched on and also provide a limited amount of light (if the ALICE logo is not projected, press “Reload” on the iPad then “[1 START]” again).

(Alternatively, the guide can enter alone, turn on the light using the switch on the wall, take the iPad etc..., switch off the light and press “START” before letting the visitors in.)

**[2 PROJECTION]:** The projection of the film can begin once all visitors are inside. Selection of the language should be made first (currently English or French) then press play [ ▶ ]. The duration of the movie is about 7 minutes. A progression bar with the elapsed time is visible on the iPad.

**[3 VITRINES]:** Once the projection is finished, pressing “[3 VITRINES]” on the iPad will simultaneously turn on the lights in the exhibition room, display the contents in the showcase touch screens on the right wall as well the content of the 3 screens dedicated to the periscope on the left of the entrance.

**[4 END]:** Once the guide is done with providing information about the detectors and using both the showcase touch screens and the periscope, pressing “[4 END]” on the iPad turns off the lights and makes the exhibition room in standby for the next visit.

### Additional iPad controls

**[LIGHTS ON/OFF]:** Switches on/off the lights (independent from the entrance switch).

**[MOCKUP ON/OFF]:** Projects on/off detector mapping on the mock-up (Figs. 5&6).

**[VITRINE ON/OFF]:** Switches on/off the showcase touch screens (Fig. 7).

## **Information of the detectors displayed with the mock-up, showcase, touch screens**

The guide can then explain (some of) the detectors.

Embedded in the mockup, shown in Figs. 5 & 6, are:

- pieces from the ITS (Inner Tracking System)
- readout chambers of the TPC (Time Projection Chamber)
- a module of the Transition Radiation Detector (TRD)
- a Multigap Resistive Plate Chamber strip plus front-end electronics card of the Time Of Flight (TOF)
- a lead tungstate crystal of the Photon Spectrometer (PHOS)
- a module of the Electromagnetic Calorimeter (EMCAL).

The exhibits inside the showcases, shown in Fig. 7, are:

- Silicon Drift Detector module (SDD)
- Silicon Strip Detector module (SSD)
- High Momentum Particle Identification Detector (HMPID) element with photocathodes
- Photon Multiplicity Detector (PMD) elements
- Part of a Time-Of-Flight (TOF) Multigap Resistive Plate Chamber (MRPC)
- Detector Data Link (DDL)

The screens can be used by the guide (optionally) to give information and explanations. Alternatively the visitors can be left to browse.

The contents of the screens can be accessed online as follows  
(left and right: when facing the showcases)

ALICE left screen.zip

<https://cernbox.cern.ch/index.php/s/fi3RPACScrOT1Tx>

ALICE middle screen.zip

<https://cernbox.cern.ch/index.php/s/D1smTT2jAWck5ng>

ALICE right screen.zip

<https://cernbox.cern.ch/index.php/s/VJHGfdGMNVUHoiA>

By clicking on the links, you download the contents; you can inspect them by clicking on index.html for each screen: a browser opens displaying information about:

Left screen: PHOS, EMCAL, DAQ

Middle screen: Particle Identification (TRD, TOF, HMPID, PMD)

Right screen: Tracking (ITS + animation on ITS upgrade, TPC + animation on TPC operation)

### **Viewing of the cavern (periscope)**

Two computer-controlled cameras are installed in the cavern, one on the front part of the solenoid, one on the muon spectrometer side.

Three screens show what is seen by the cameras, as shown in Fig. 8.

The guide or visitor can choose the camera and then move it and un/zoom.

A 3D model of ALICE (done with a 3D printer), Fig. 9, can also be used for an overview of all detector systems.

A big photograph of the forward muon spectrometer, Fig. 10, completes the picture.

**If you have encountered problems during the visit please let us know**

- Contact : [despina.hatzifotiadou@cern.ch](mailto:despina.hatzifotiadou@cern.ch), 77765, 161183
- **In case of problems:** call Service Desk 77777
- e-group of ALICE exhibition guides: ALICE-EXHIB-GUIDES@cern.ch

- All information about ALICE visits can be found at:

[http://alice-collaboration.web.cern.ch/general/alice\\_visits.html](http://alice-collaboration.web.cern.ch/general/alice_visits.html)

**After the figures find a schematic showing the evacuation path in case of emergency**

## Figures

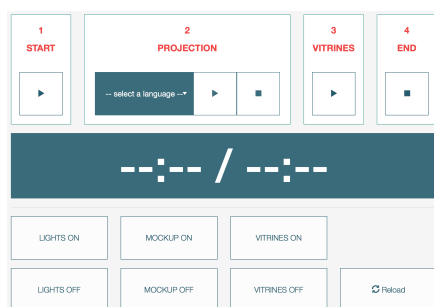


Fig.1: iPad for the control of the exhibition.



Fig.2: projected ALICE logo.

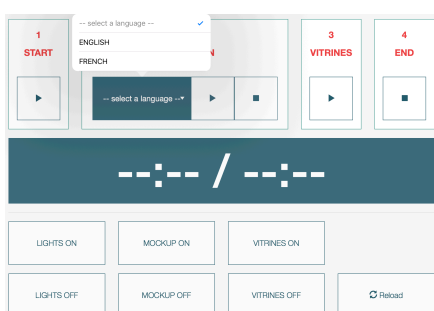


Fig.3: language selection with the iPad.

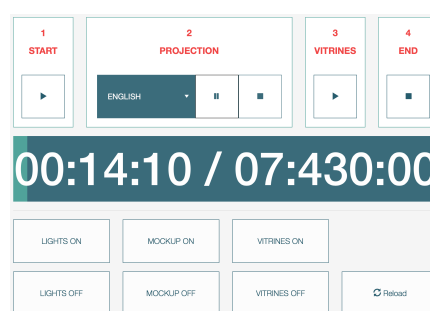


Fig.4: elapsed time for the movie.



Fig.5: ALICE mock-up with embedded detectors.



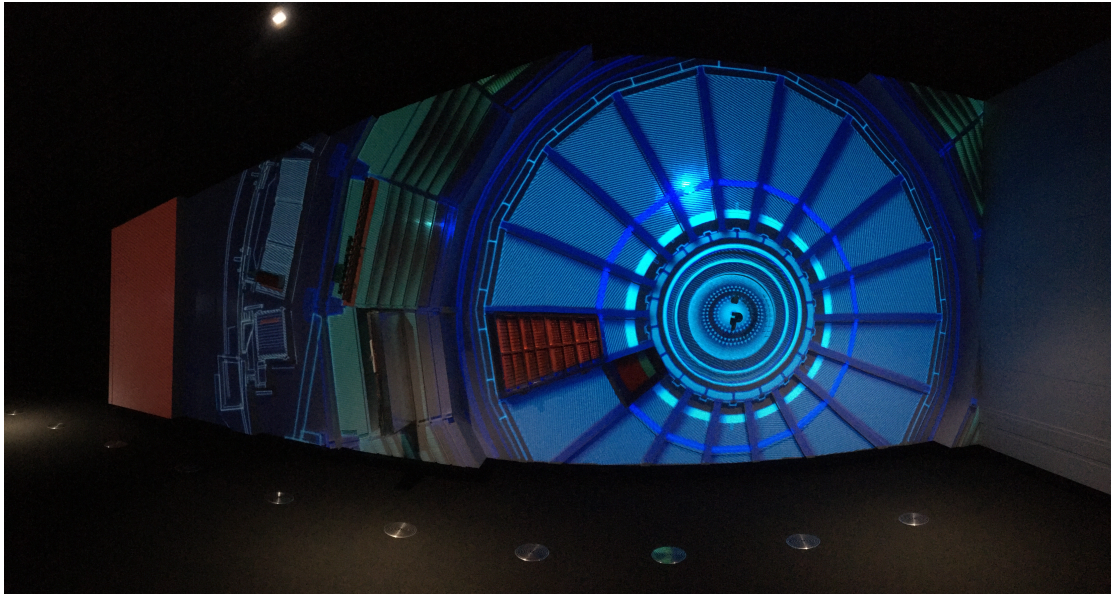


Fig. 6: Projection mapping on the mock-up.



Fig. 7: Showcases with detectors and touch screens



Fig. 8: “Periscope” screens for viewing the cavern.



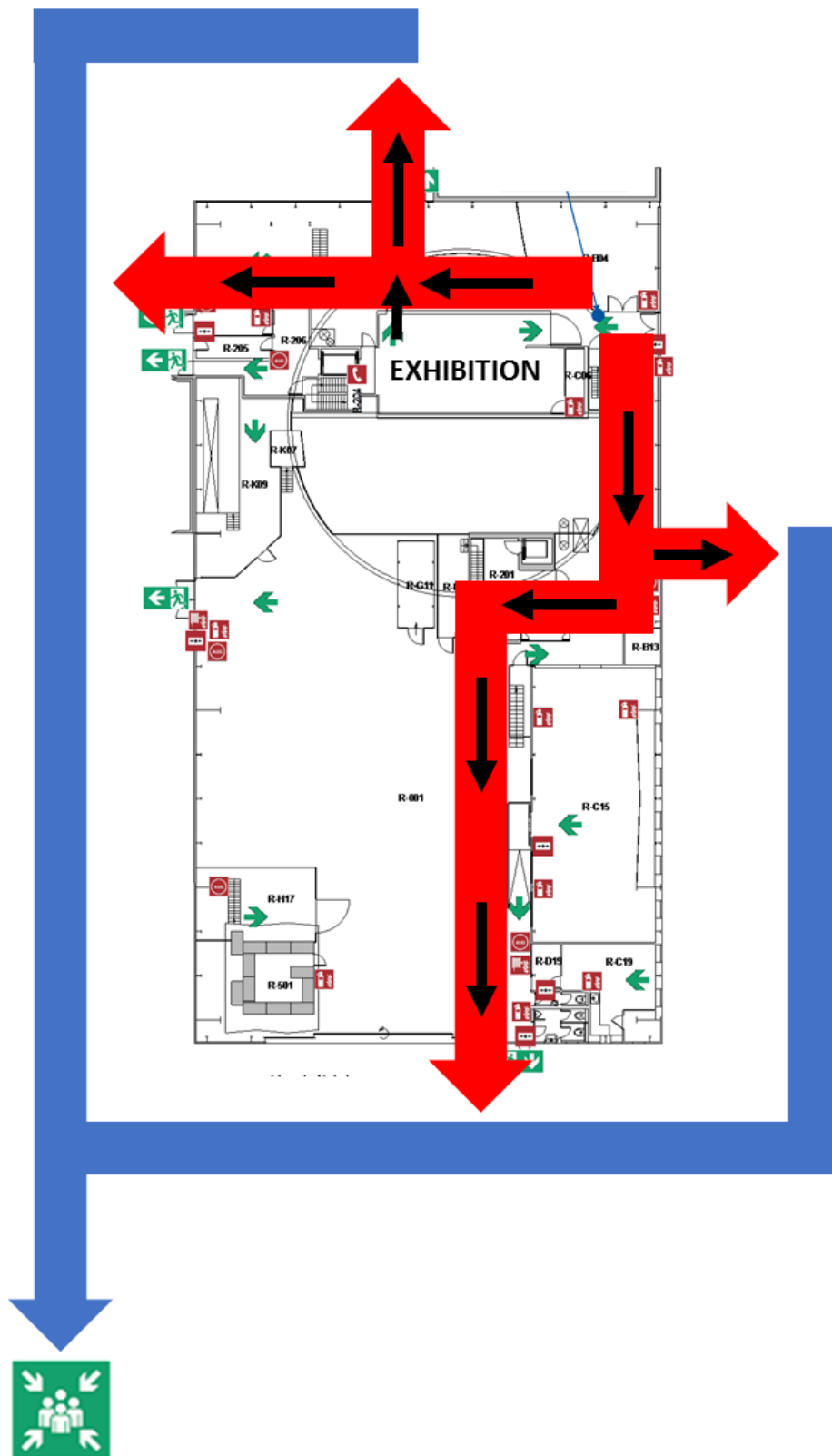


Fig. 9 ALICE 3D model



Fig.10 Photograph of the muon spectrometer

# ALICE EXHIBITION EMERGENCY EVACUATION PATHS

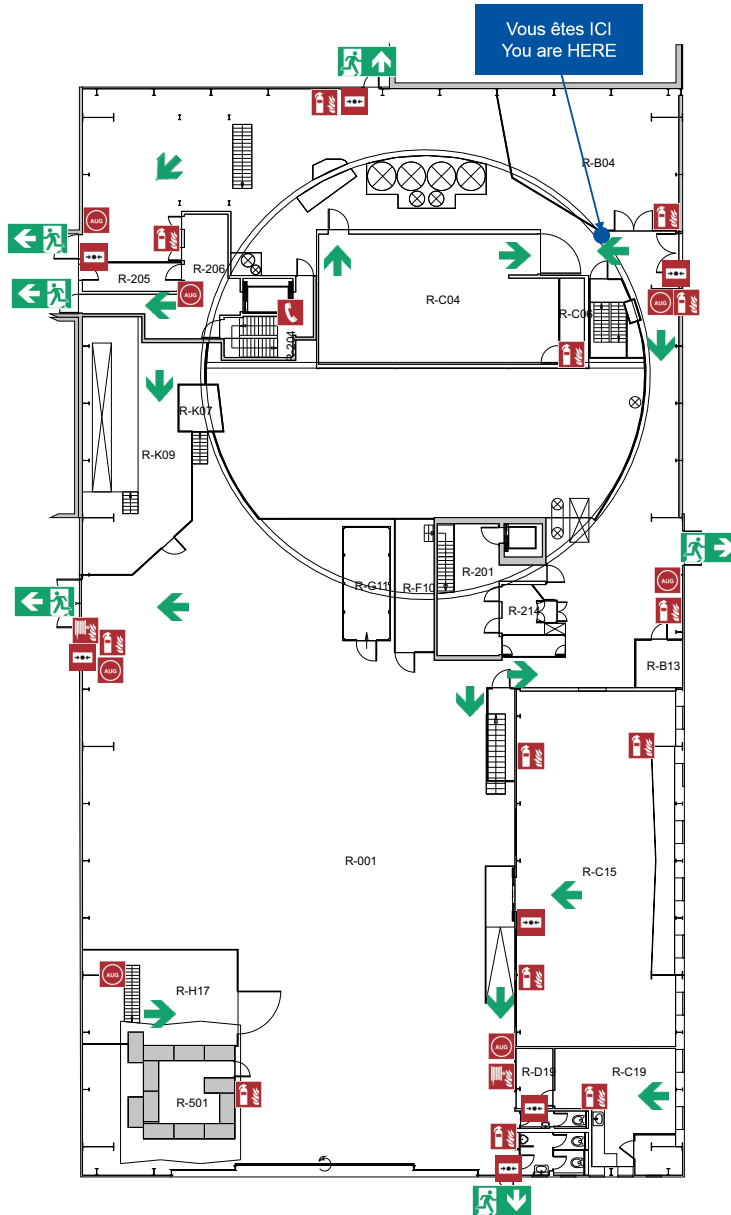






## CONSIGNE D'URGENCE / EMERGENCY PROCEDURE

### BATIMENT 2285 - Etage R / BUILDING 2285 - Floor R



Légende / Label :

	Arrêt d'urgence général General Emergency Stop		Sens d'évacuation Escape route
	Robinet Incendie Armé Fire Hose Reel		Alarme d'évacuation Evacuation Alarm
	Extincteur Fire Extinguisher		Sortie de secours Emergency exit

Date : 08/11/2017

#### INCENDIE/FIRE

	7 44 44 +41 22 76 74444
	Donnez l'alarme Set off the alarm
	Prévenez les autres personnes Inform the others
	Fermez portes et fenêtres Close doors and windows
	N'utilisez pas l'ascenseur Do not use the lift
	Si possible essayer d'éteindre le feu sans prendre de risques If possible try to extinguish the fire without taking risks

#### EVACUATION

	A l'audition du signal When the alarm rings
	Fermez portes et fenêtres Close doors and windows
	Suivez le balisage Follow the signs
	N'utilisez pas l'ascenseur Do not use the lift
	Rejoignez le point de rassemblement Report to the assembly point



EDMS : 1867596