CCC visit point

R. Giachino BE/OP

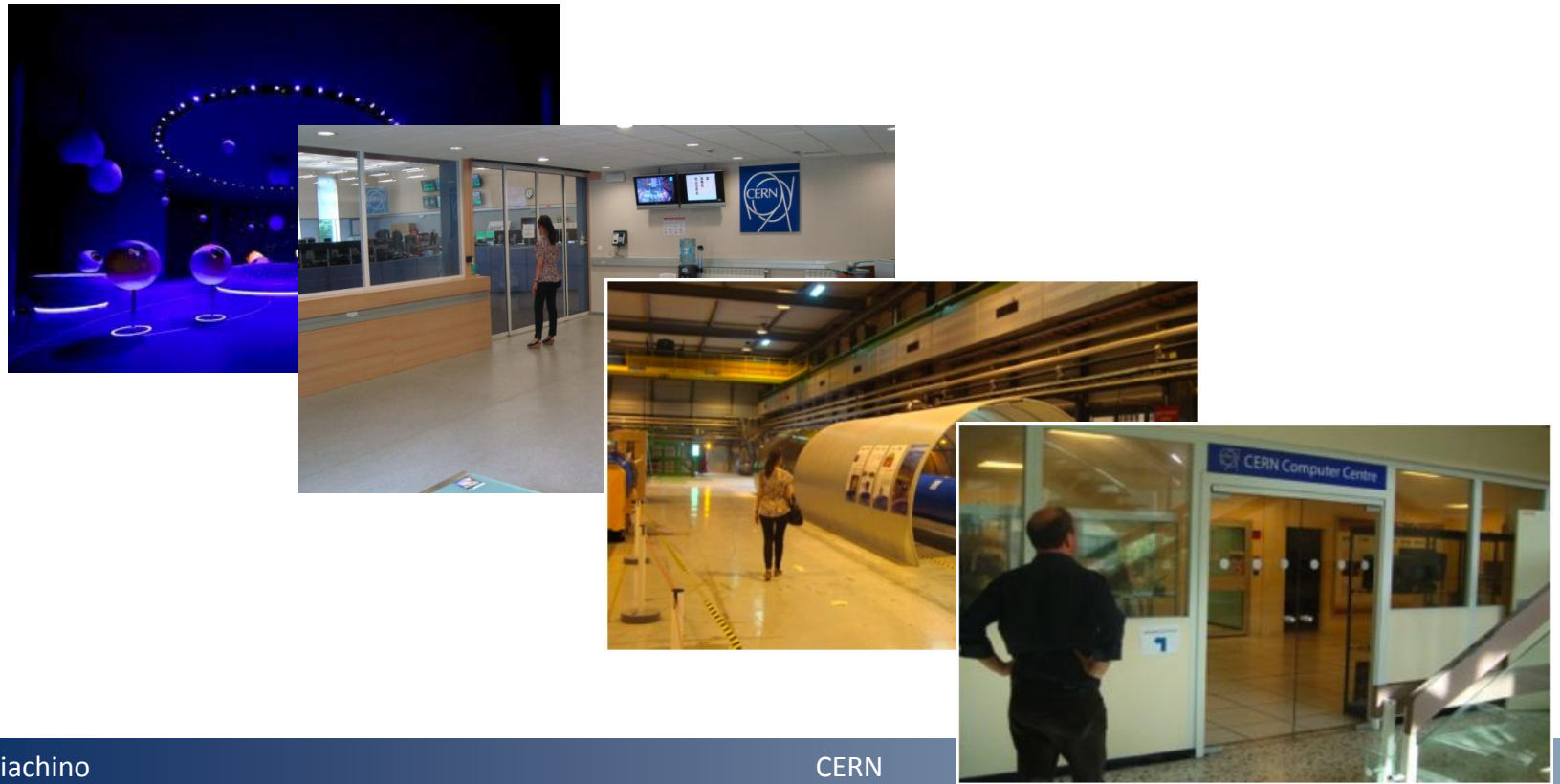
Acknowledgement: R.Landua, E.Sanders, B.Pellequer, M.Poehler, C.Colloca, M.Bajko, C.Noble, A.Mansuy

Cern visit points

The Universe of Particles exhibition is an excellent starting point for a visit, but the primary motivation for **visitors to CERN is to see science in action**, the reality of CERN's cutting-edge research.

CERN wishes to apply a **similar approach** to three of its most popular visit sites:

The CERN control centre **(CCC)**, the superconducting magnet test facility **(SM18)**, and the computer centre **(CC)** where all data is recorded and distributed world-wide for processing.



Cern visit points

CERN is seeking an **innovative exhibition design.**
The design team should combine **creative excellence with cost consciousness.**

Visit sites are working laboratories and this places **constraints on visitor flow.**
Visit flow shall not disrupt the normal work of the site, nor place visitors in a situation of danger (proximity to high voltage, overhead cranes etc.)

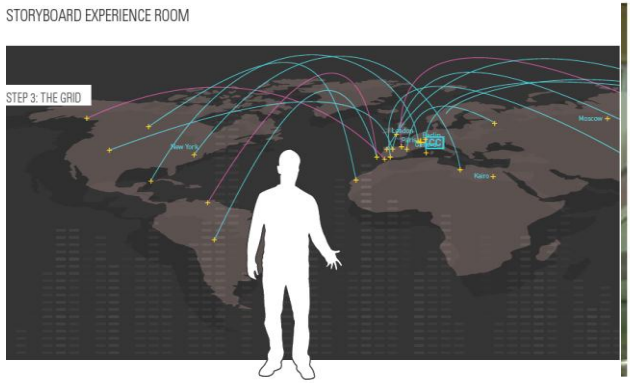
New content shall **include interactive technology** and also the display of **real objects** to reveal hidden parts of the equipment on show.
Audiovisual material shall be used to bring the technical explanations to life.

Visit experience shall reinforce the idea that CERN is a centre of excellence

CCC

SM18

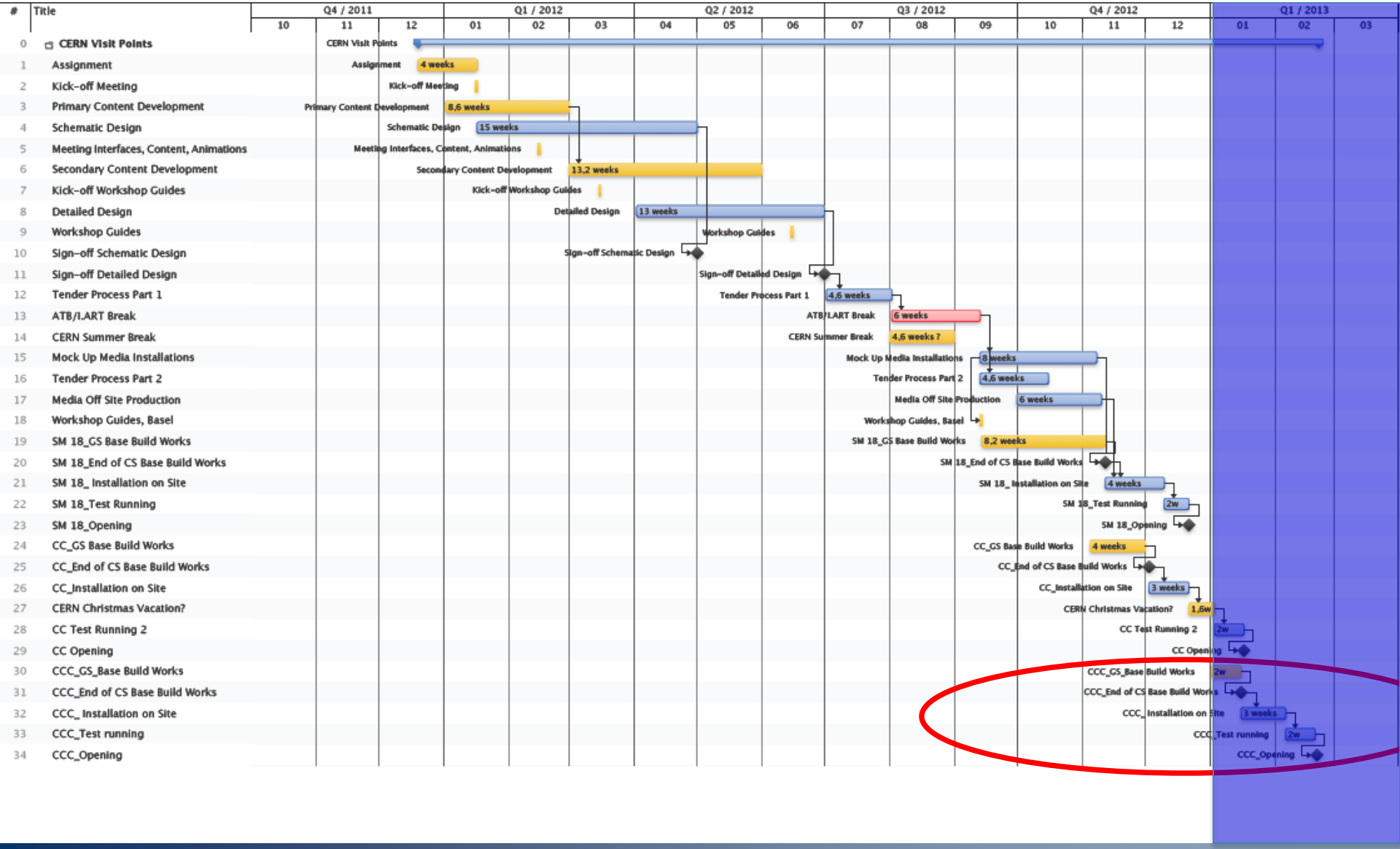
CC



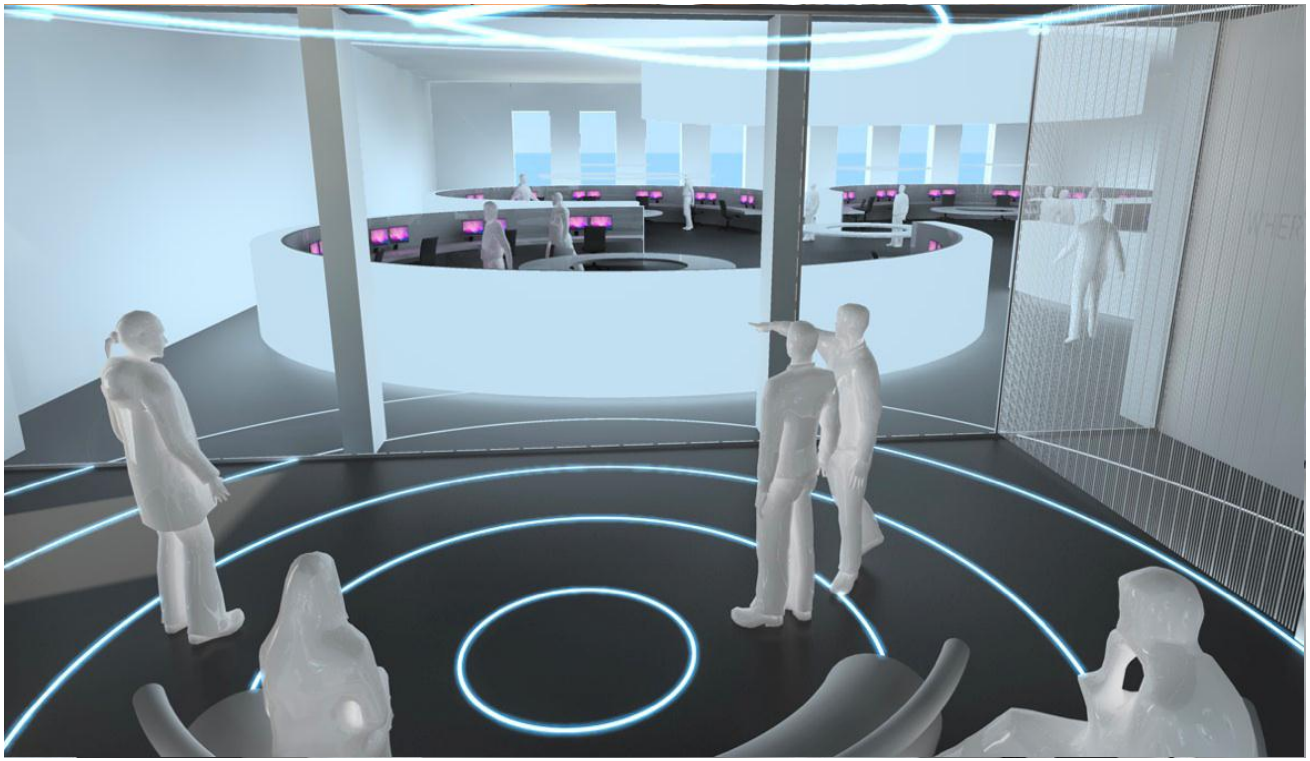
Project schedule

Project study launched	2010
Market Survey	July 2011
Invitation to tender	September 2011
Evaluation of tender reply	October 2011
• Assignment:	**December 2011**
• Delivery of primary content:	January - March 2012
• Schematic Design:	February - March 2012
• Delivery secondary content:	March -May 2012
• Detailed Design:	April - June 2012
• Base Built Works:	June - August 2012
• Sign off Detailed Design:	June - July 2012
• Final Content Delivery:	June - August 2012
• Production Mock ups:	July - August 2012
• Production off site:	August - October 2012
• Installation on site:	**Sept.-November 2012**
• Hand over / Tests:	**December 2012**

Schedule CERN Visit Points



Projection wall

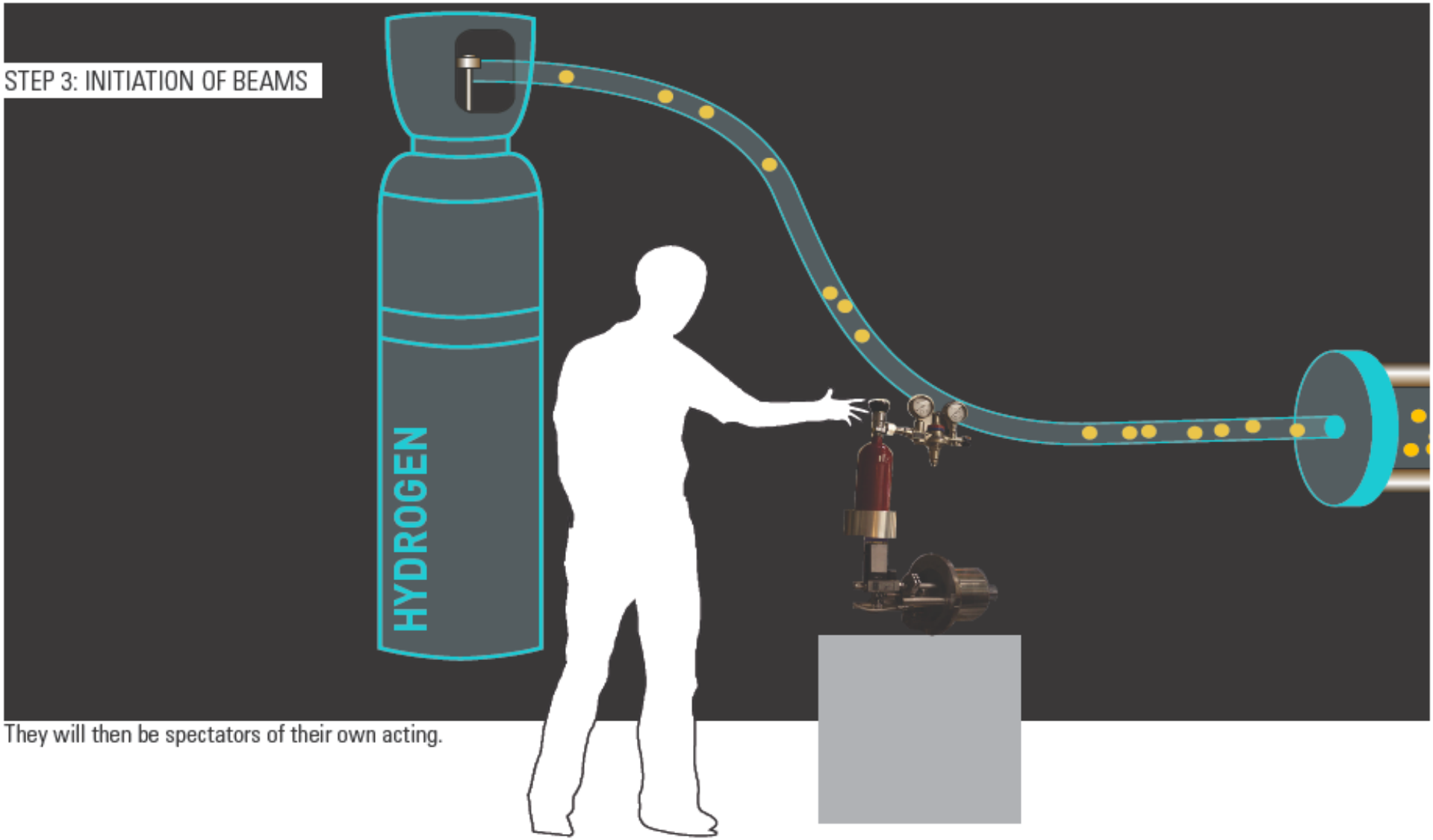


The main new features in the modified CCC entrance would be:
A **'projection wall'** made of **'intelligent glass'**, that would replace the wall between the entrance room and the CCC, except for the existing sliding door entrance of the CCC.

The 'intelligent glass' can be switched between two states: either opaque (during projection) or transparent (to show the CCC). Its surface is multi-touch sensitive allowing to move/enlarge/shrink objects, start/stop animations or videos, etc.

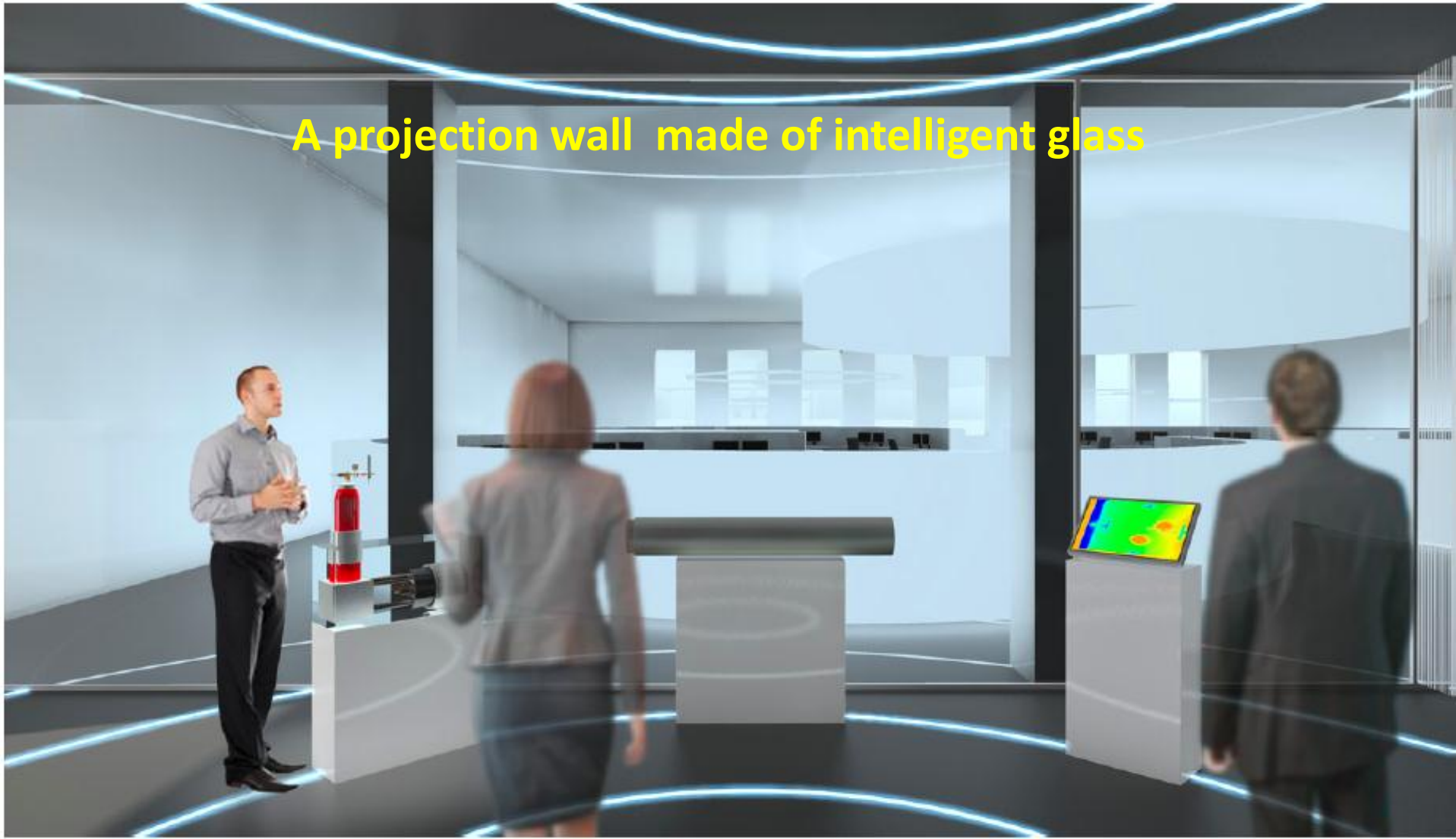
CCC visit point

STORYBOARD



CCC visit point

VISITOR'S VIEW

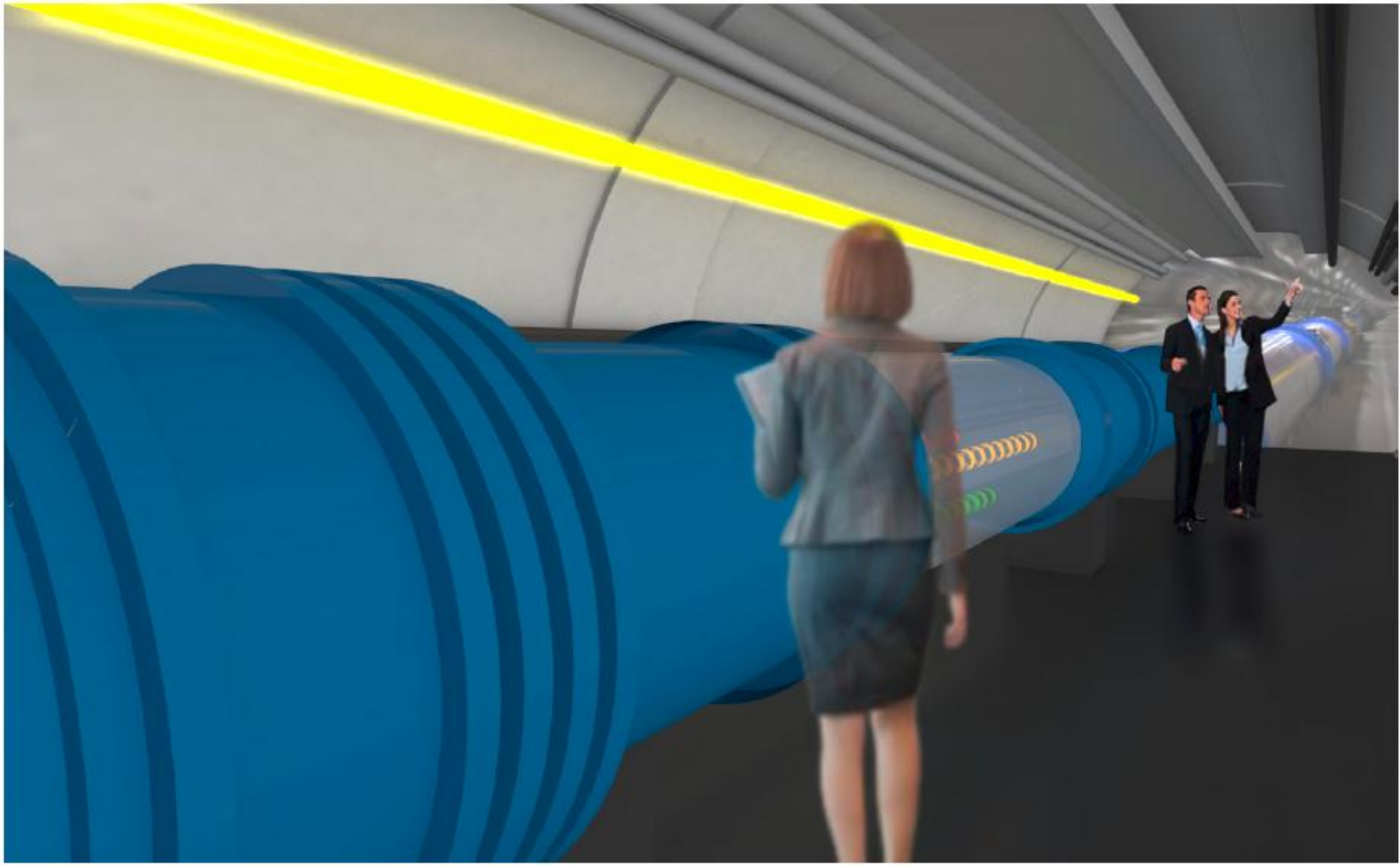


Architectural concept

An access corridor to reach the CCC during visits, plus sliding doors (or curtains) to separate and to darken the presentation room during visits.

SM 18 visit point

VISITOR'S VIEW LHC

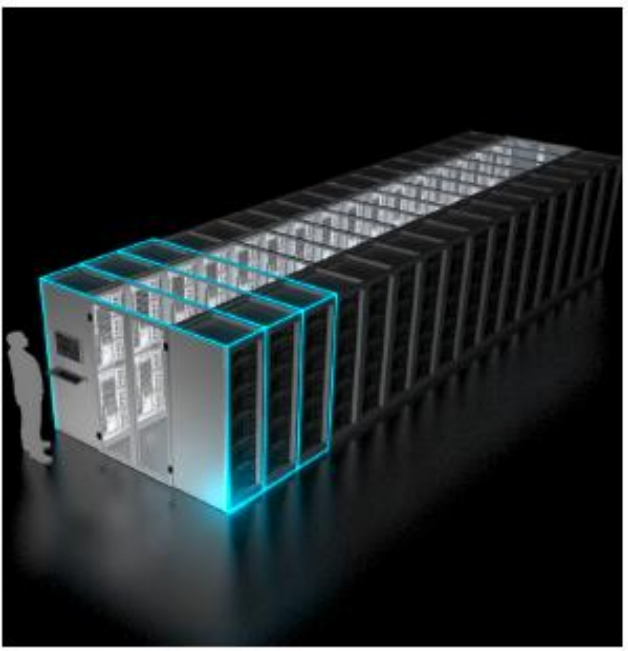


CC visit point

VISITOR'S VIEW

CC visit point

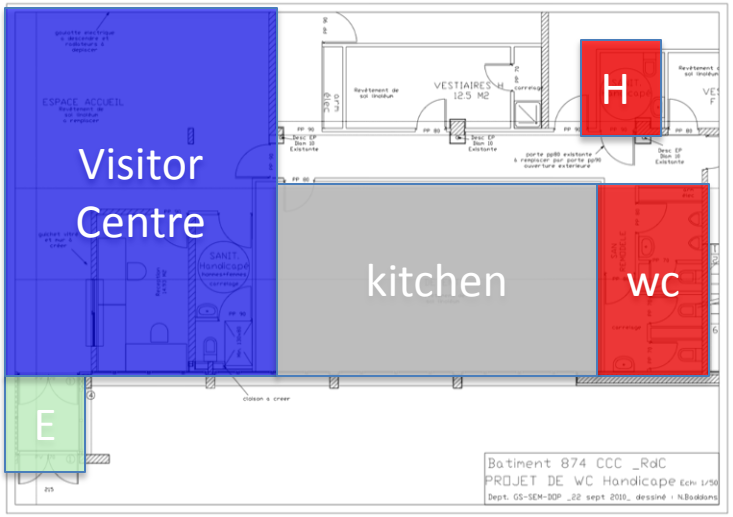
STEP 5: MAIN SHOW

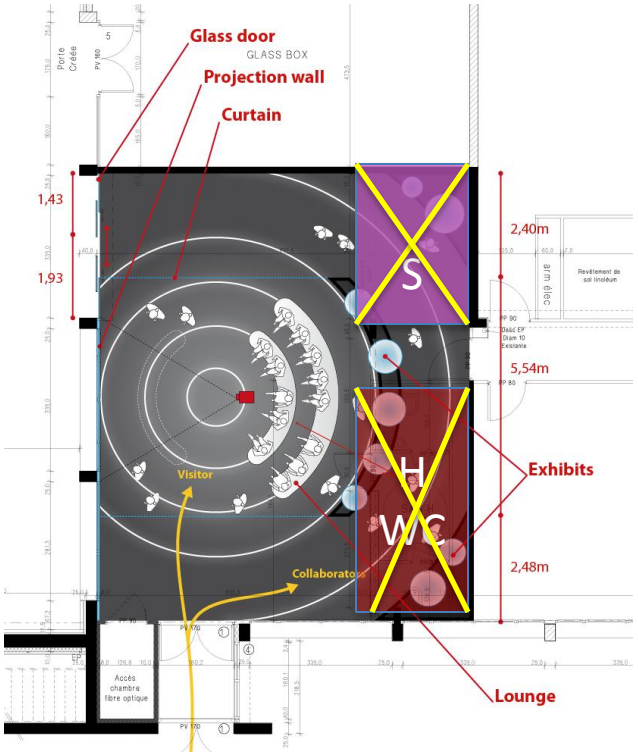


Real Time Data visualised by LEDs highlighting the different units in progress

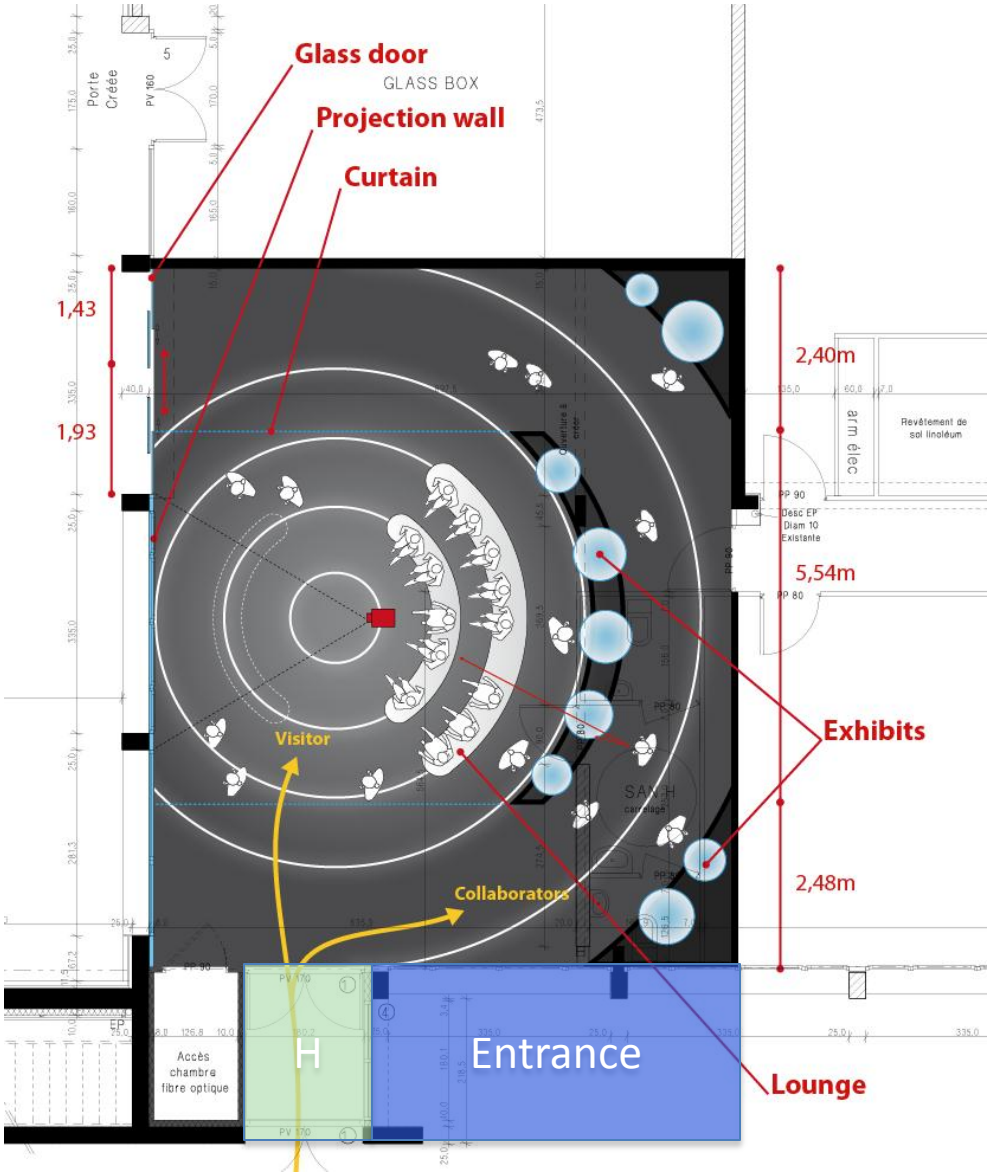
Modification needed

- The present toilet in the entrance will be dismantled. (GS/M.Poehler)
- The secretary place will be moved into the CCC. (OP)
- Handicap toilet will be moved into the corridor on the left side. (GS/M.Poehler)
- The main entrance door will be modified. GS/M.Poehler)

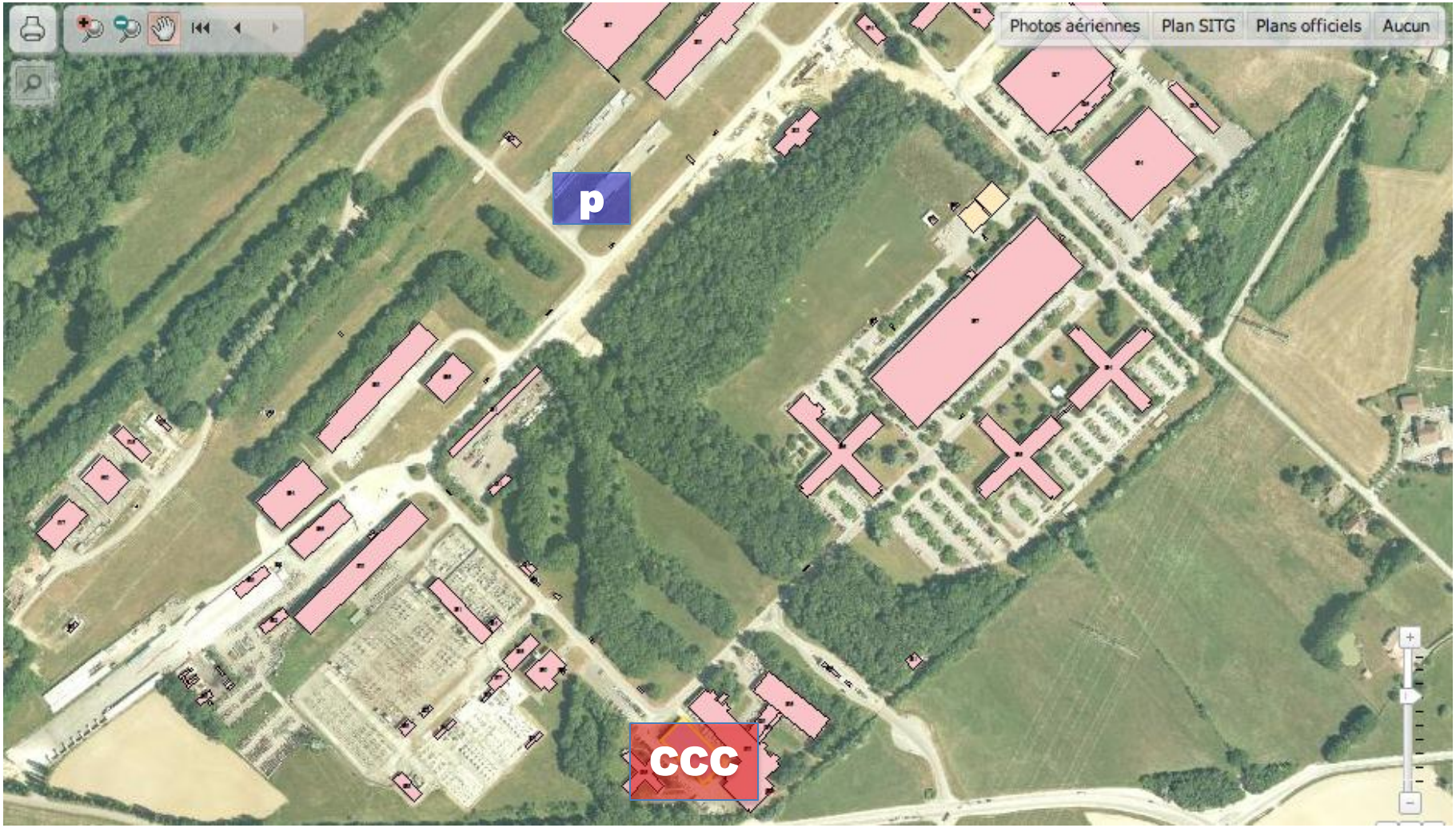




Civil engineering

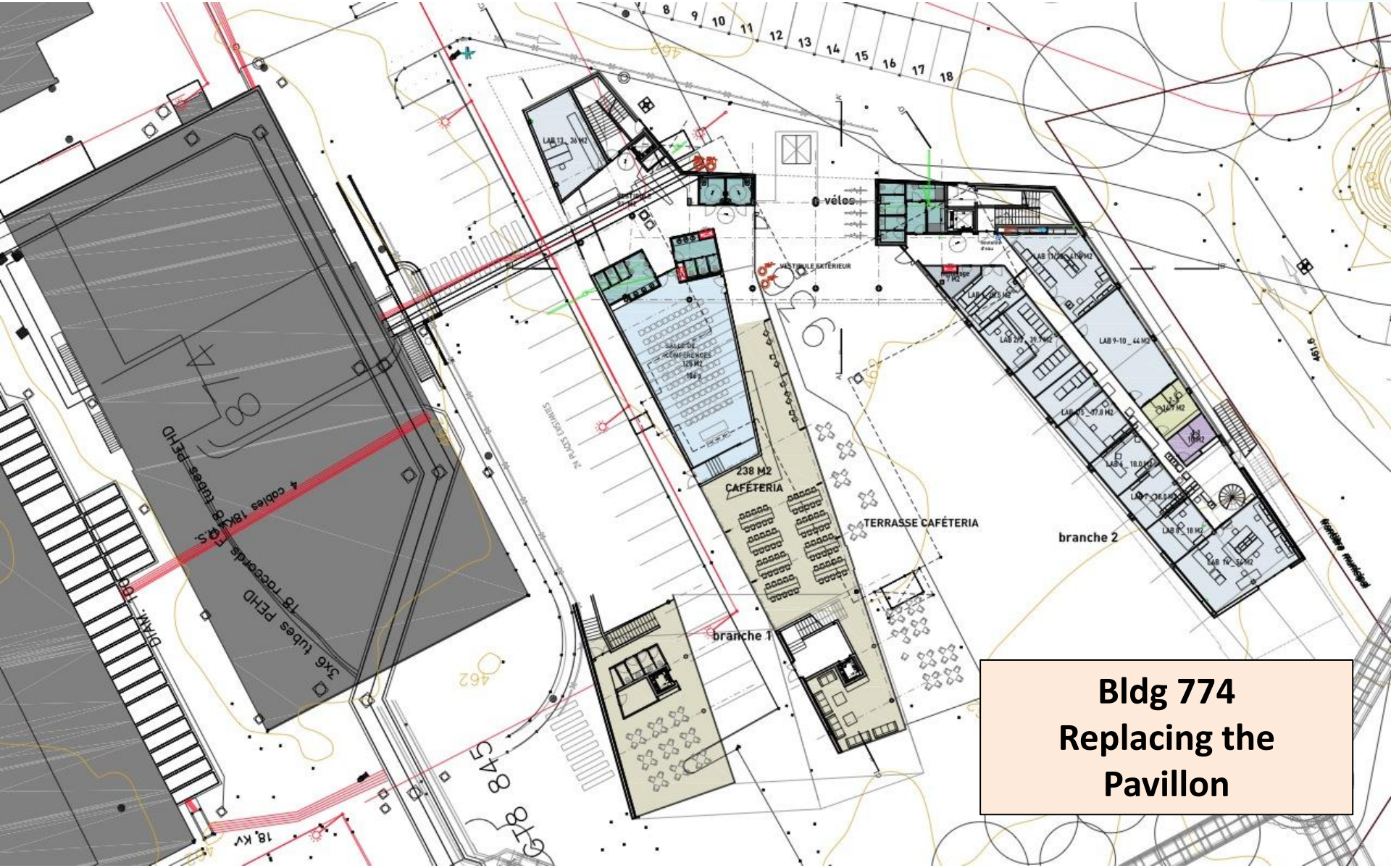


Bus parking



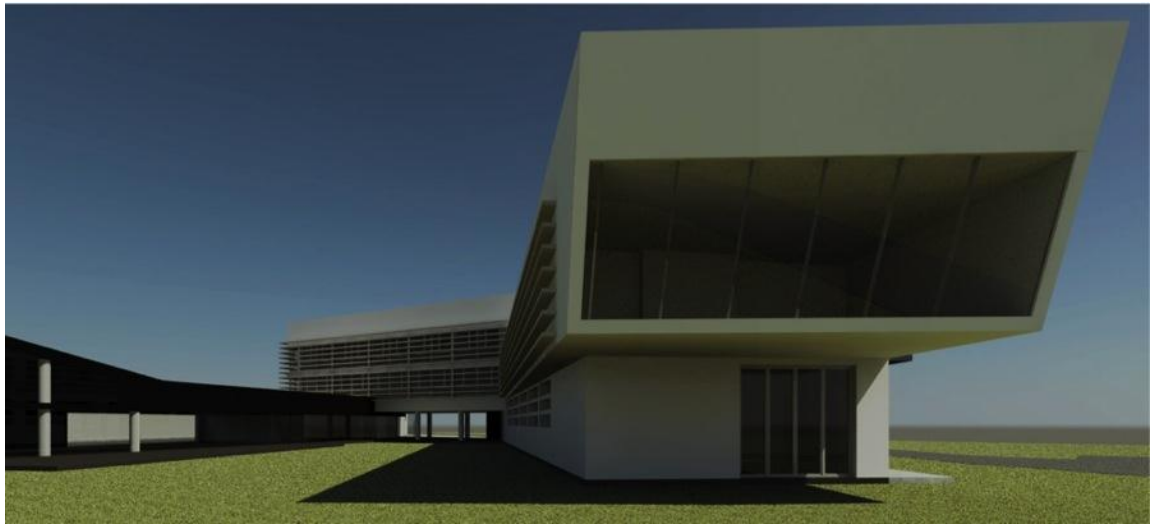
Possible solutions **without additional civil engineer**. Guided Visit's will arrive either with private Bus or Cern Bus, both could reach a parking area nearby and be called IN when the visit is finished.

BE is in the Building Business!



Bldg 774
Replacing the Pavillon

Building 774



Will contain:

- Cafeteria
- Visitors Facilities
- Auditorium
- All of BE-CO
- Parking ‘round the back’
- ‘Green’ technologies

Present Status:

- Directorate has given the green light for the market survey
- FC adjudication in June 2012
- Construction starts July 2012!
- Completed Nov. 2013

Complimentary to the CCC visitors project

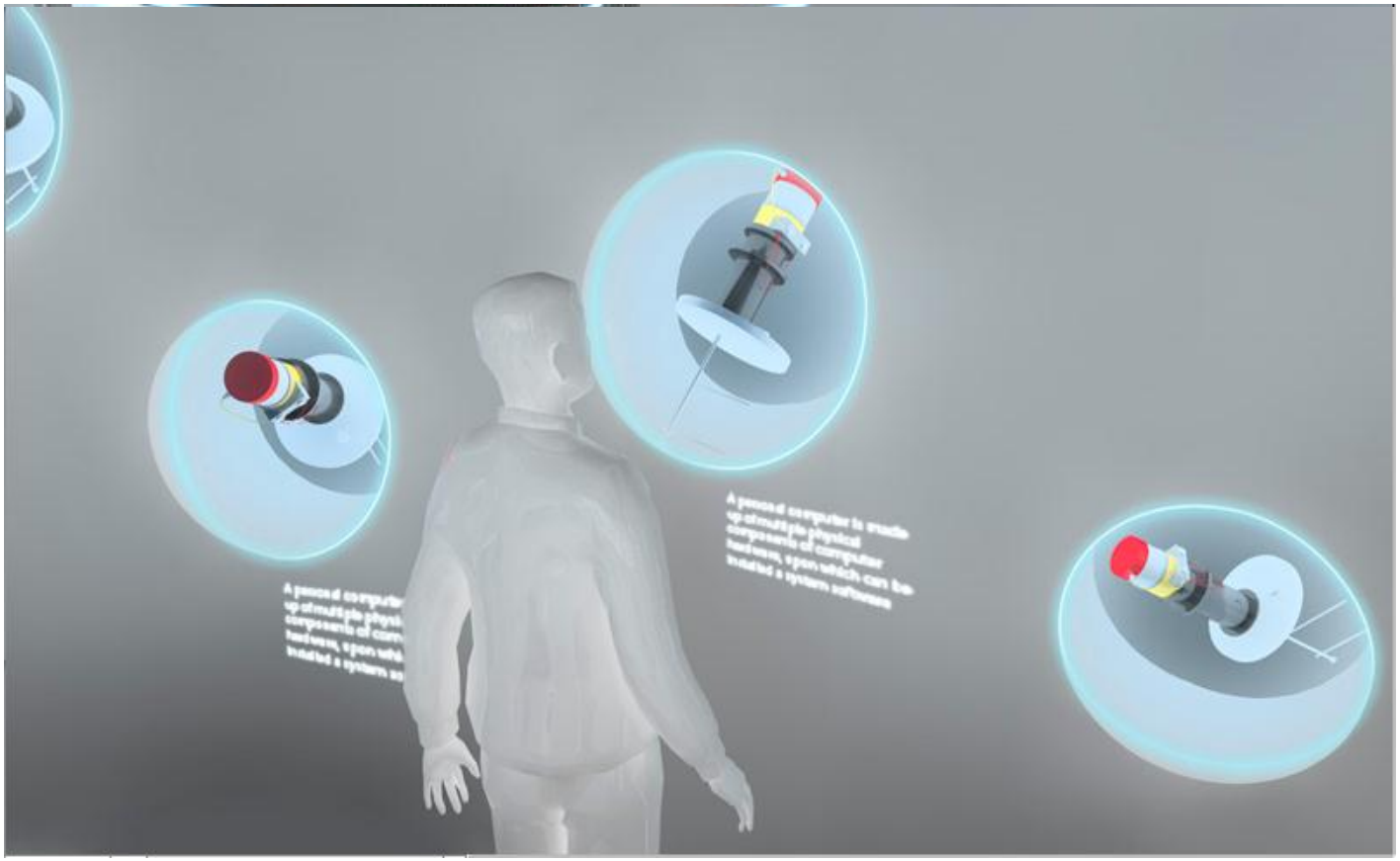
Building 774

Thank you

Functional concept

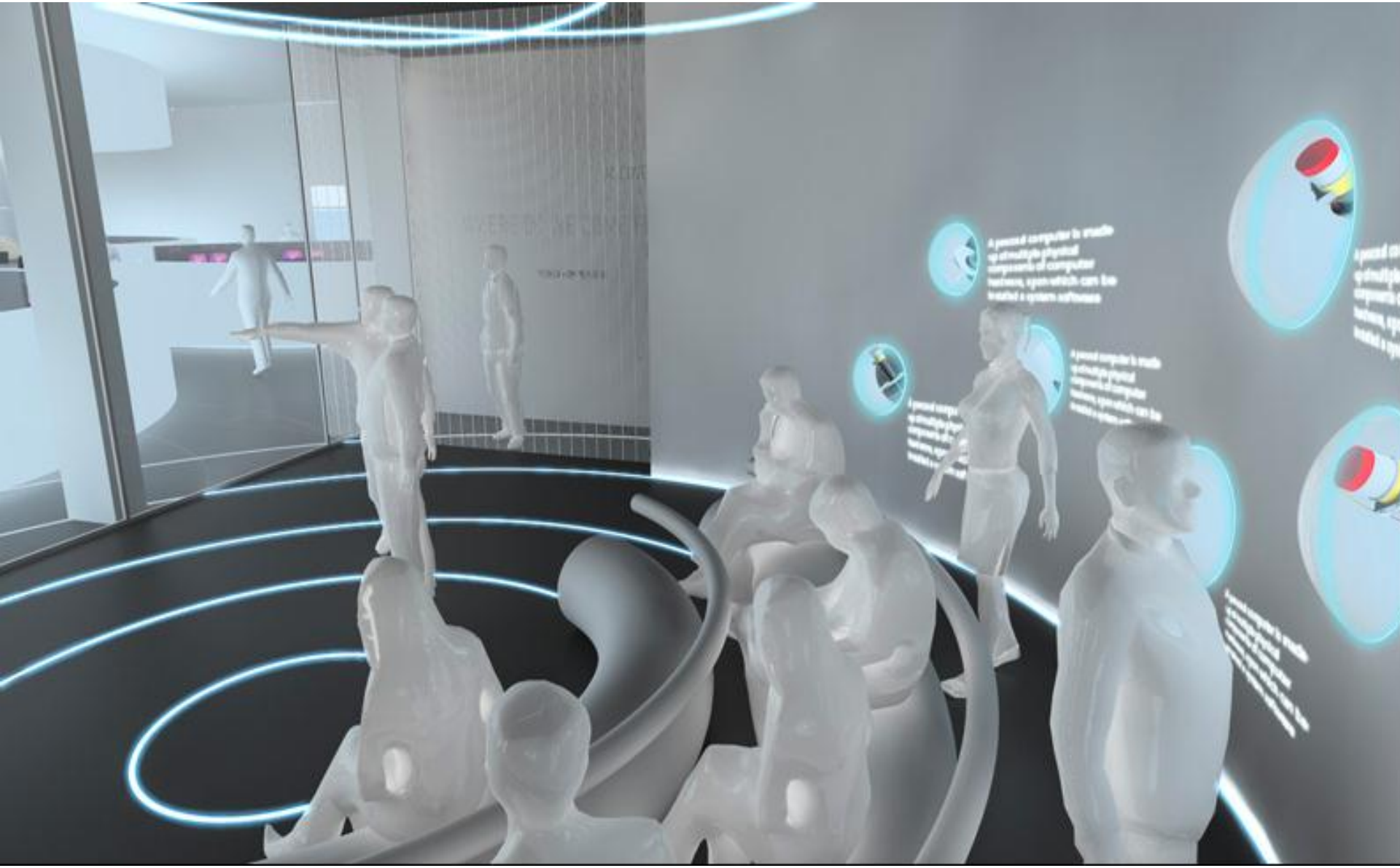
A cross section view to illustrate **the main passages** into the CCC outside visits time, and the **alternative passage** when **visit's occurs**.

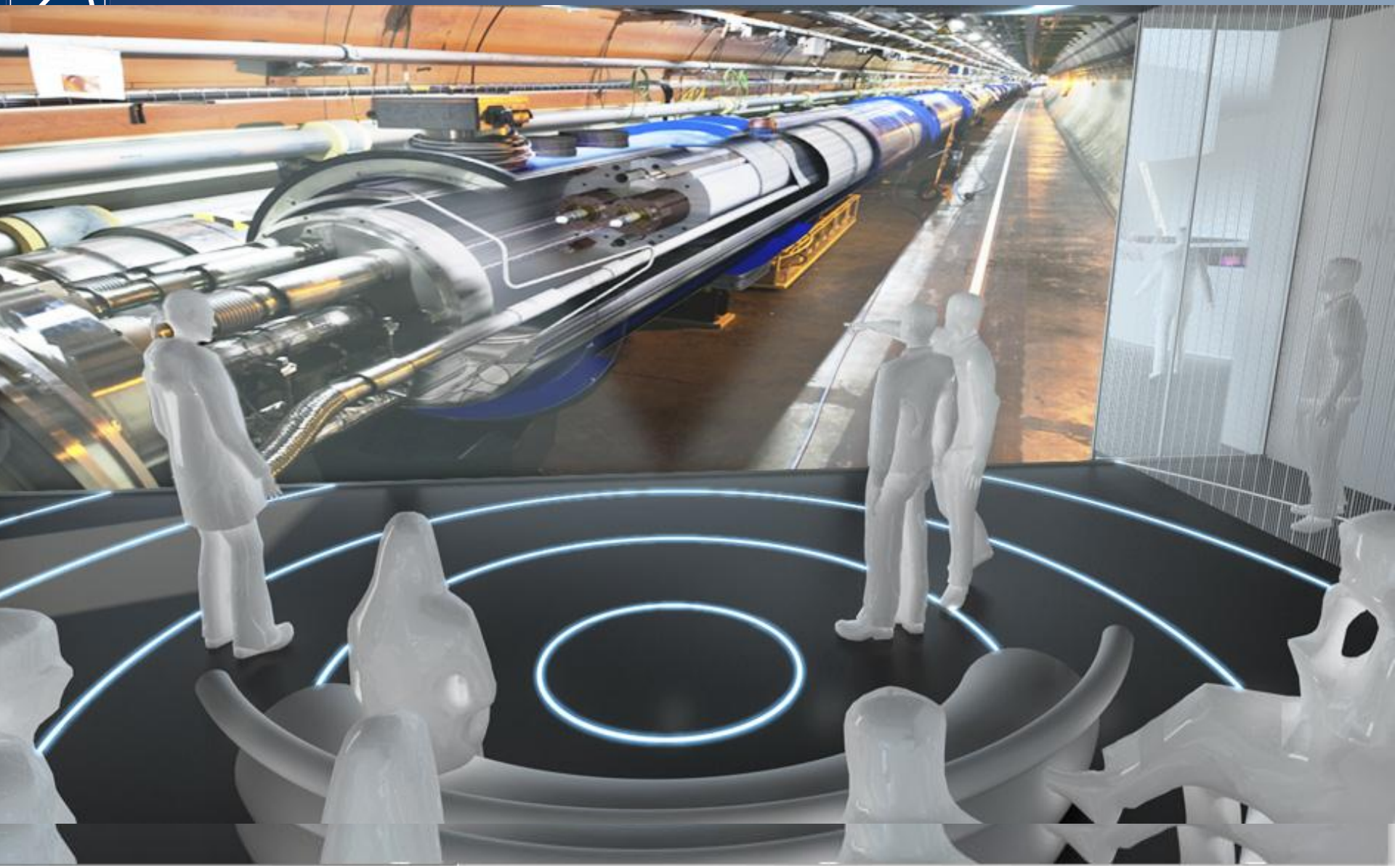
Accelerator hardware tool



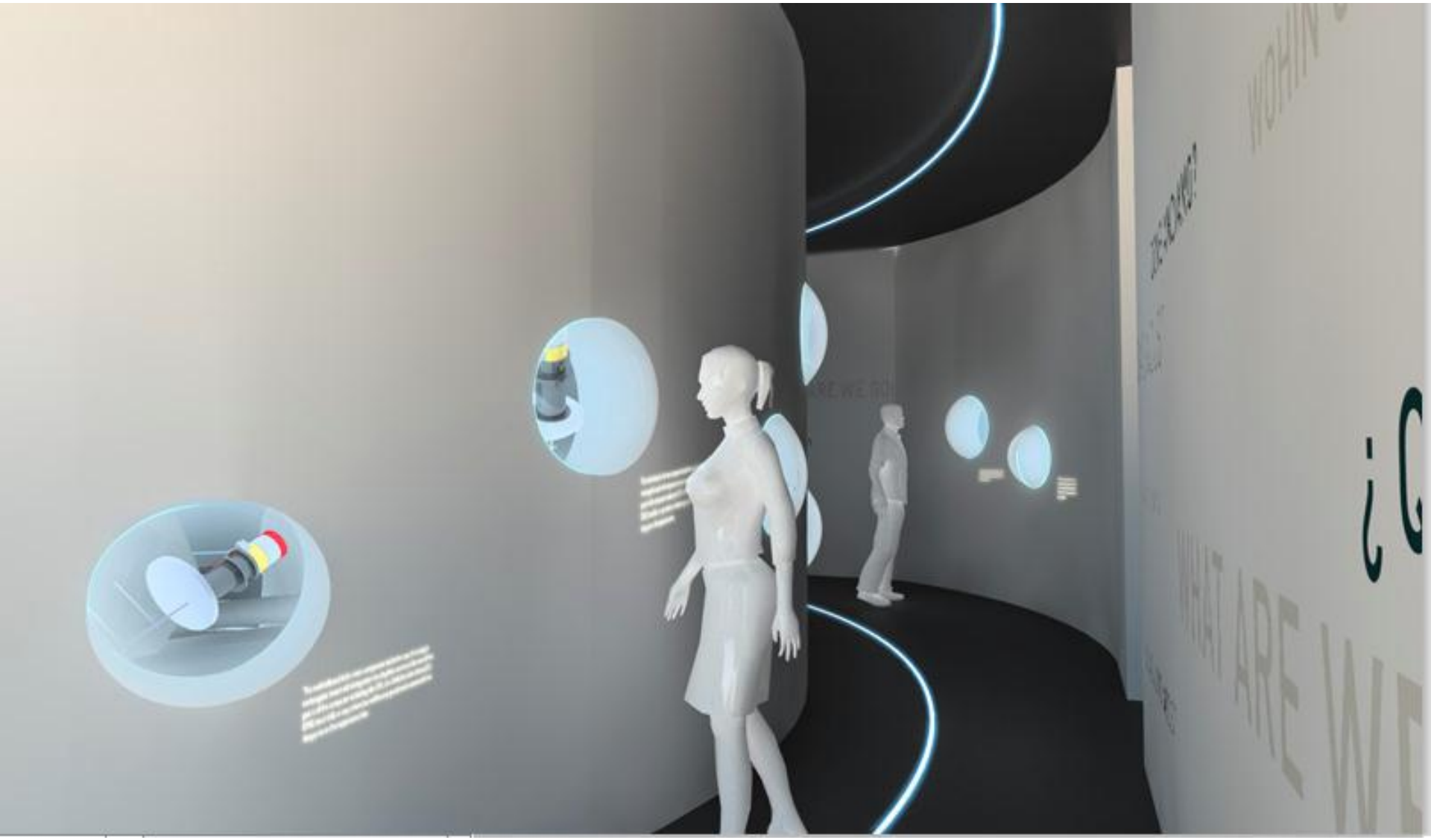
Exhibition spheres integrated into separation wall - they contain real objects that are connected to the CCC (e.g. beam diagnostics, extraction elements, etc). For each of these objects, a short animation exists that guides can show when they talk about it.

Hardware description





Entrance and passage to services



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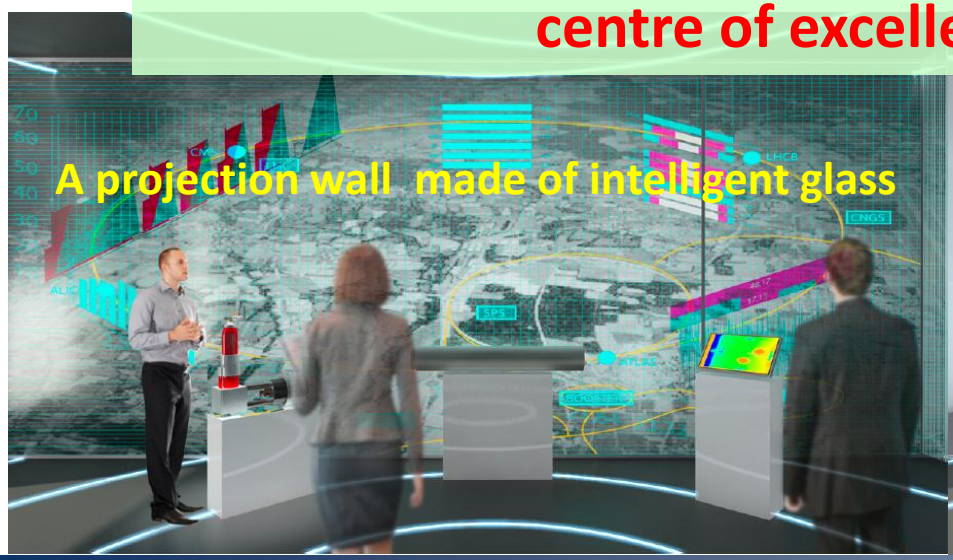

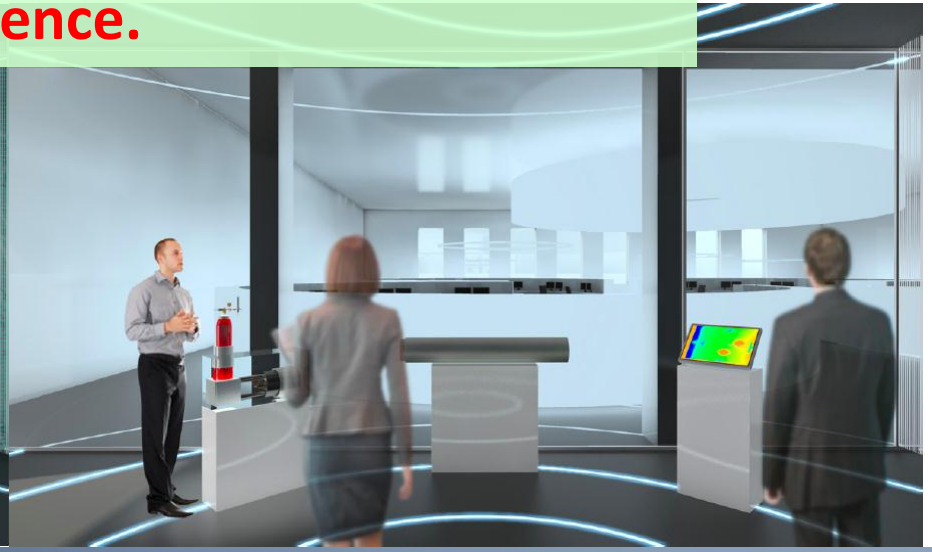

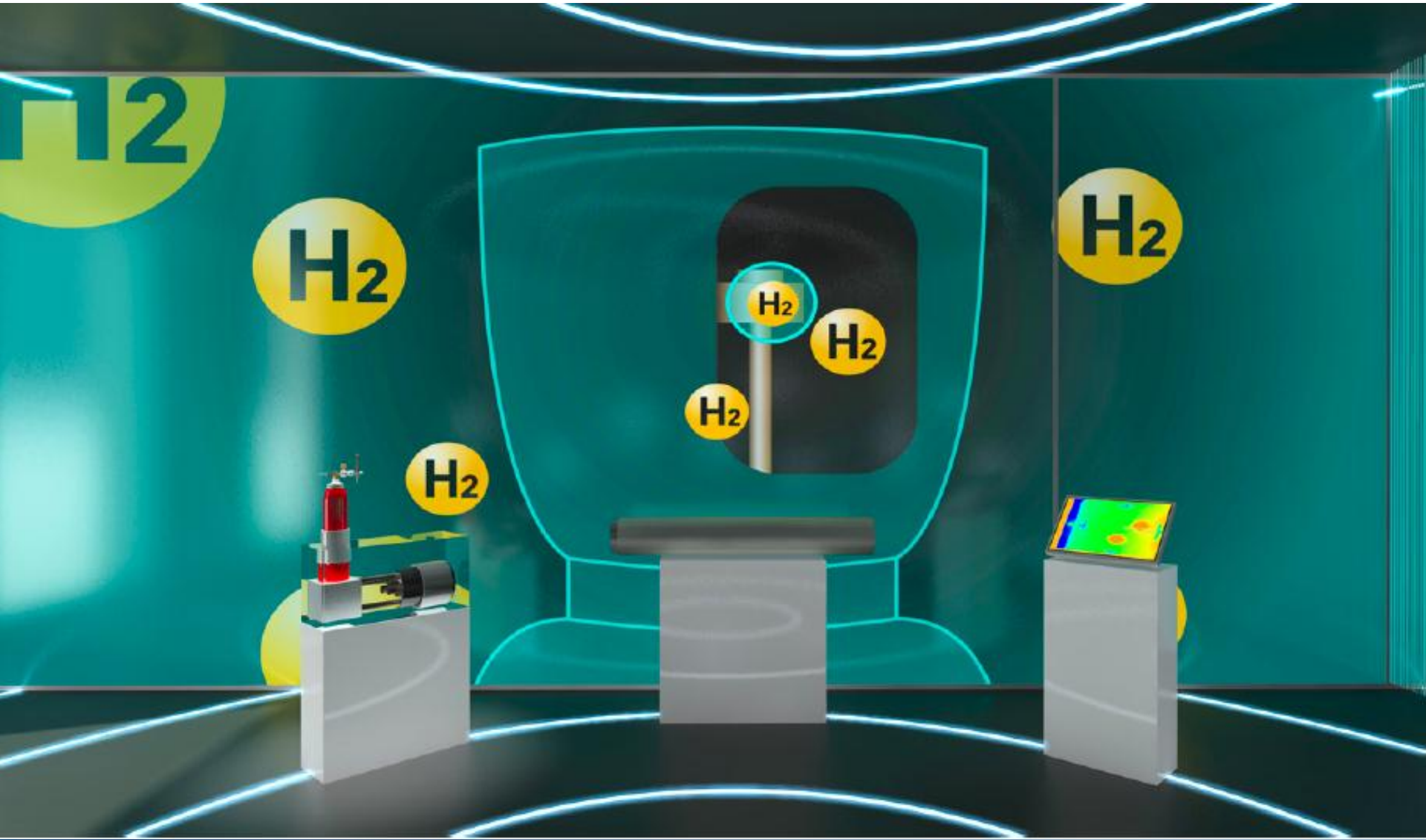
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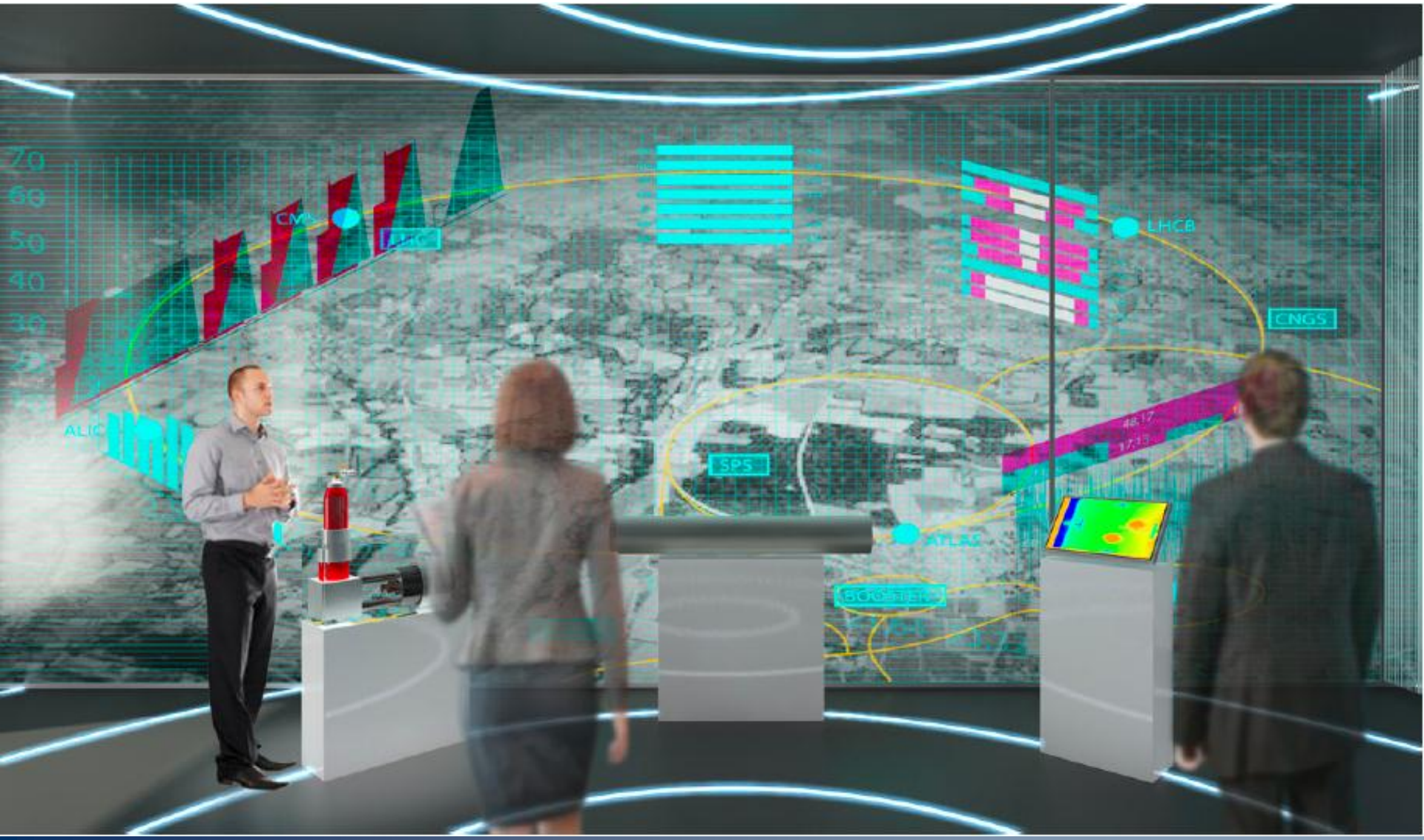
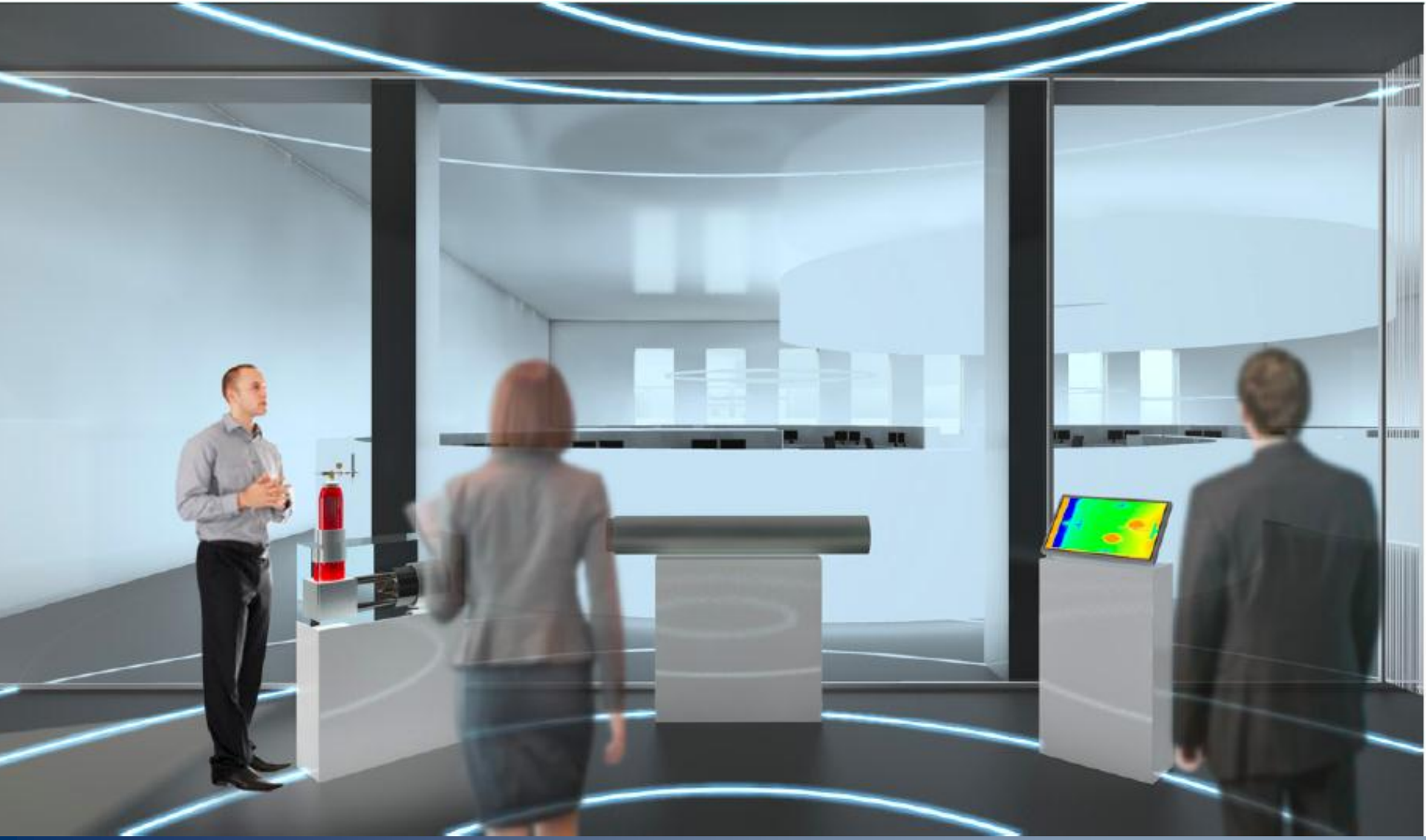
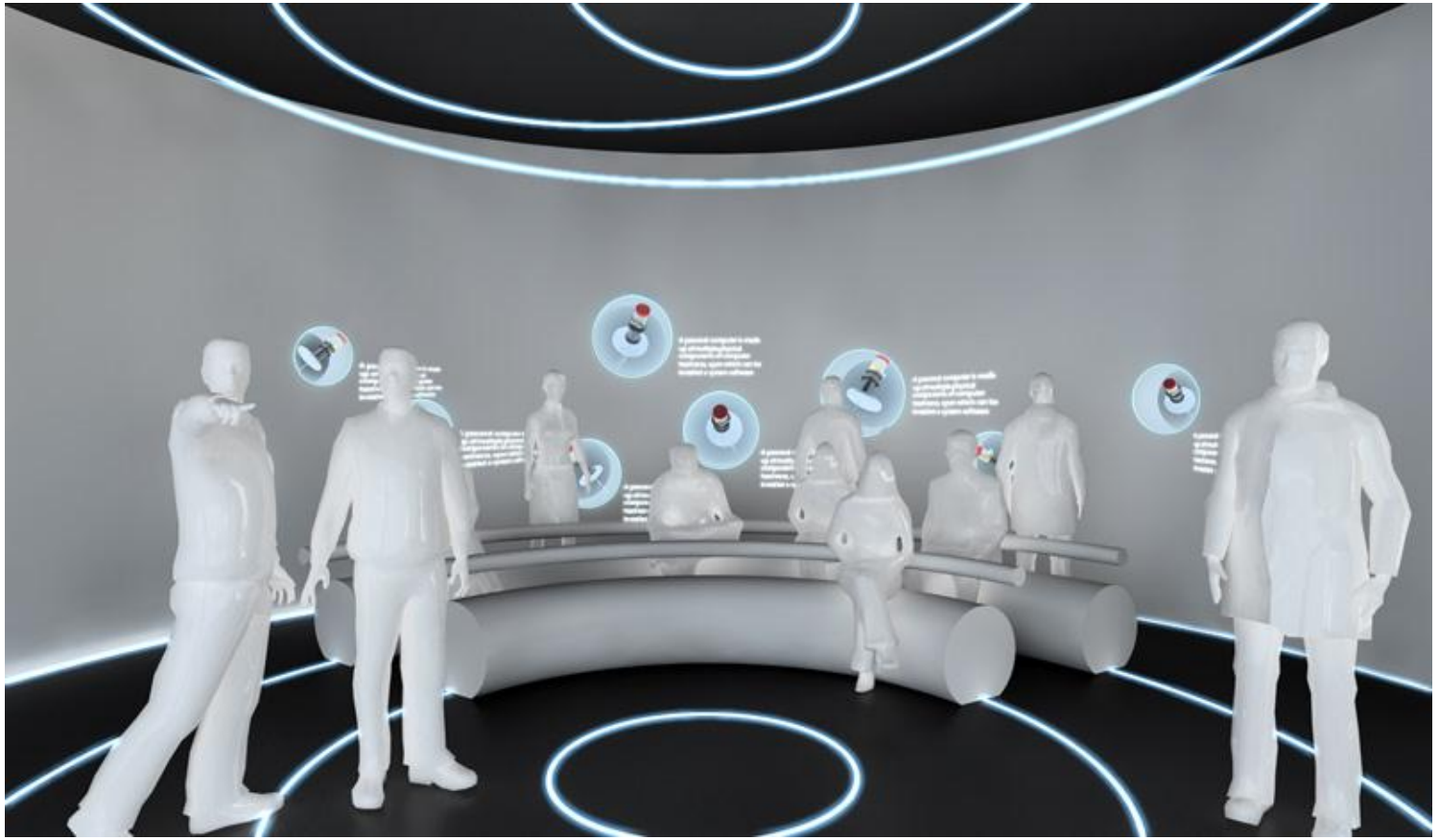

CMS
LHCB
CNGS
SPS
ATLAS

CCC visit point



Possible ergonomics

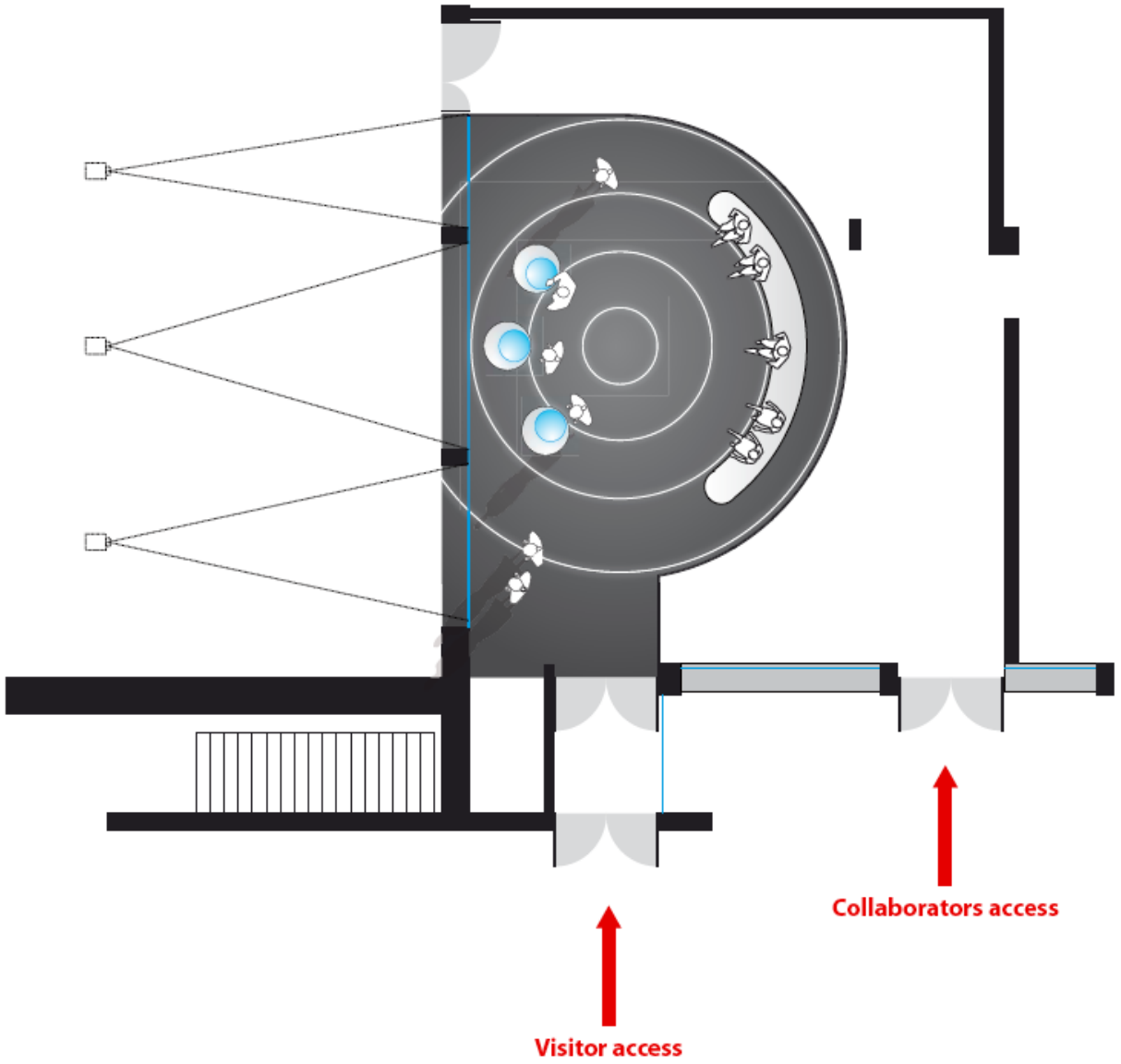


Seating area for 15-20 people. Seating the visitors would avoid the well-known ‘by-stander’effect: in a group of e.g. 25 people, the most interested 3-4 people cluster around the guide and block the sight/sound for the others, who wander off and miss most of the explanations.

CCC visitor centre

2

As soon as the visitors are touching the information terminals, the glass pane - made of a privalite glass (with a liquid-crystal surface) - will turn into an opaque surface and the room gets darker. At the same time a big projection on the opaque glass surface will appear and act like a big interactive screen which is connected to the information terminals.



Key guideline

BRINGING REALITY TO THE FORE

INTEGRATION OF OBJECTS

HIGH TECH

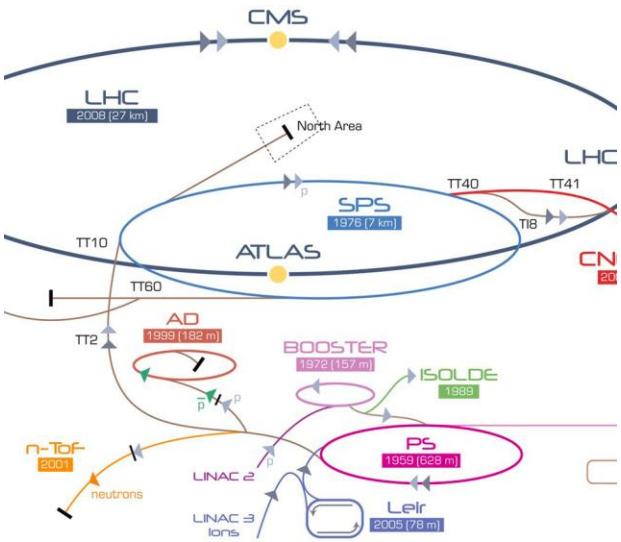
TAILORED TO GUIDES

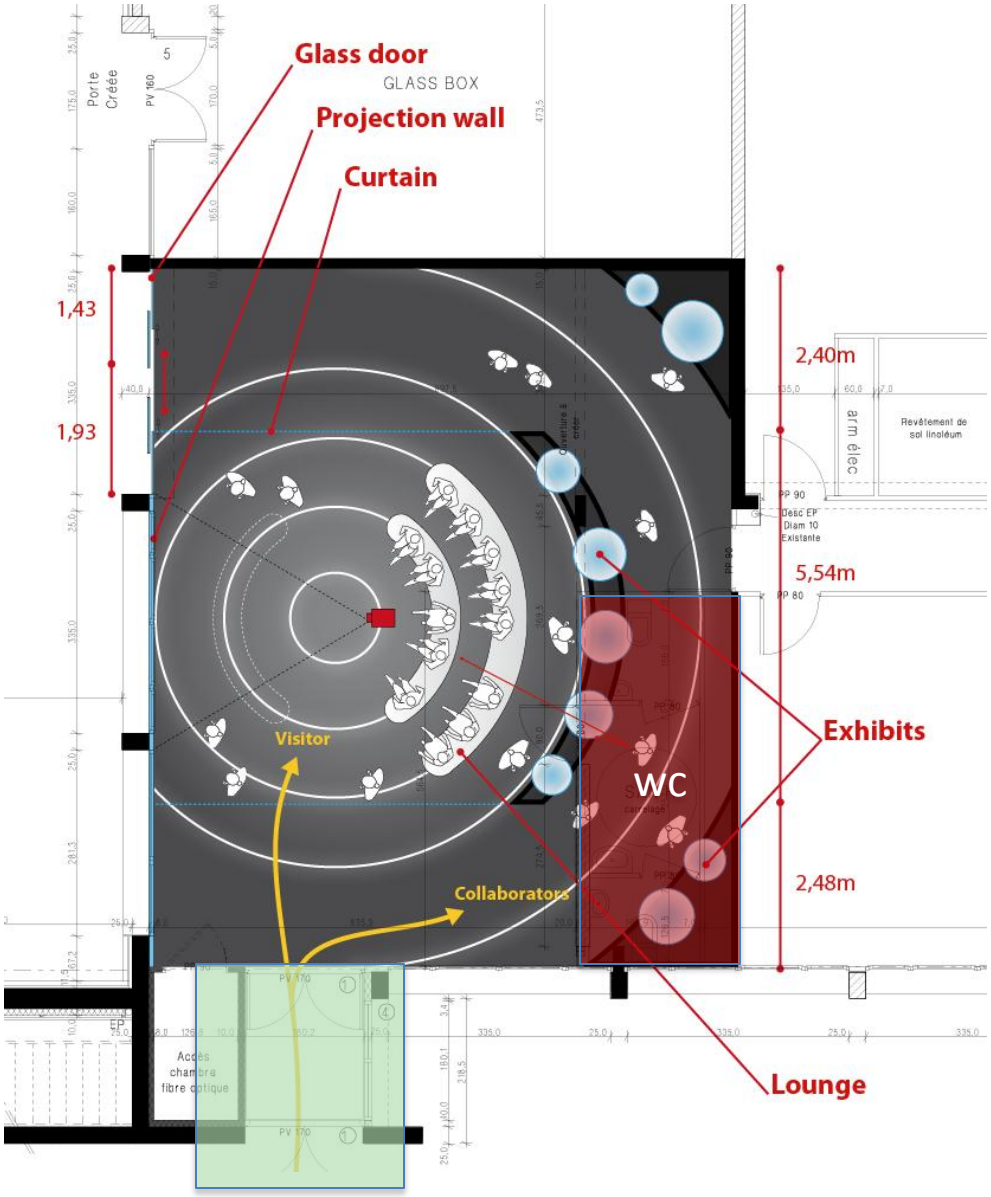
REDUNDANCY

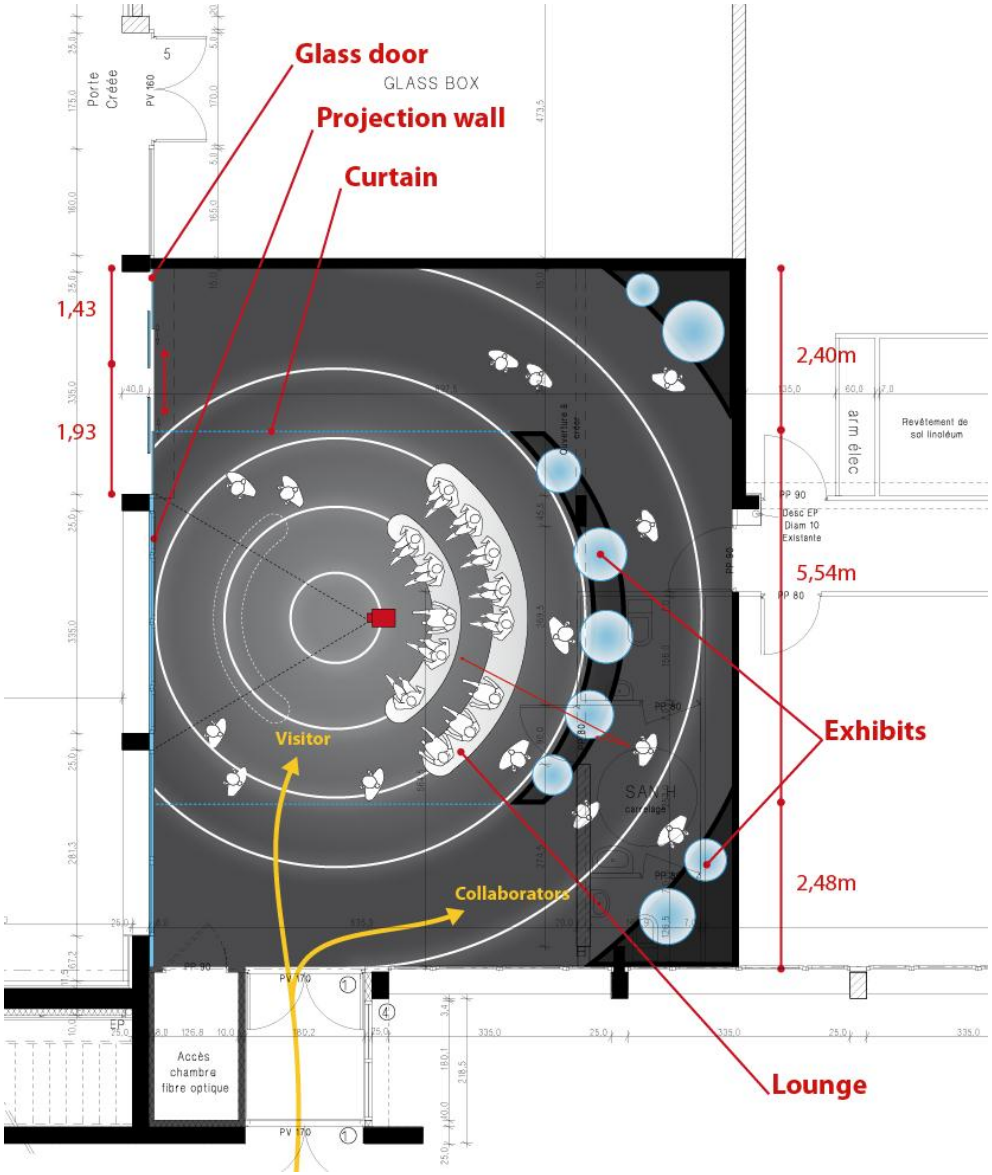
INTERACTIVE PRESENTATIONS

ILLUSTRATIONS / GRAPHICS

LIFE TIME




Glass door
GLASS BOX
Projection wall
Curtain
1,43
1,93
2,40m
5,54m
2,48m
Exhibits
WC
Visitor
Collaborators
Lounge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Porte Créée
arm élec
Revêtement de sol linoléum
Accès chambre fibre optique