

A new ATLAS Visitor Centre

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The ATLAS Visitor Centre at CERN is a guided exhibition space, located above the Point 1 of the LHC ring, that has been welcoming visitors from around the world since 2009. In a recent effort, ATLAS has refurbished the whole exhibition, replacing the original installation with a completely new exhibition. This contribution will highlight the basic concepts behind the new exhibition, introduce its main components along with details on their implementation and focus on the process of getting it from an idea. This contribution will also present some of the efforts to make the exhibition more inclusive and accessible to a wider and more diverse audience.

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1. Introduction

Located above the Point 1 of the LHC ring, where the ATLAS Detector [1] is placed, and adjacent to the ATLAS Control Room, the ATLAS Visitor Centre (AVC) welcomes visitors since 2009 [2]. It renews the original Visitor Centre and it was redesigned and reinstalled between 2018 and 2021. The AVC re-opened its doors again in April 2022.

The exhibition has been developed as a joint project between the ATLAS Collaboration and CERN, together with Point Prod, a design company established in Geneva.

The ATLAS Visitor Centre is one of the most-visited guided sites of all the CERN Visit programme, with thousands of visitors every year, mainly students, tourists and journalists. It also hosts ATLAS Virtual Visits [3] when the cavern is not accessible.

A description of the AVC features is provided in Section 2.

2. The ATLAS Visitor Centre

The new exhibition inside the AVC was designed using the existing space of the previous Visitor Centre, with five installations separated into as many sections (Figure 1). Visitors are guided through the different sections, where the installations highlight all the features of the ATLAS Experiment, focusing on its physics programme and goals as well as the Collaboration.

The AVC provides several optional contents in both installations and interfaces to enrich the visitors' tour, in order to have a wide variety of experiences.

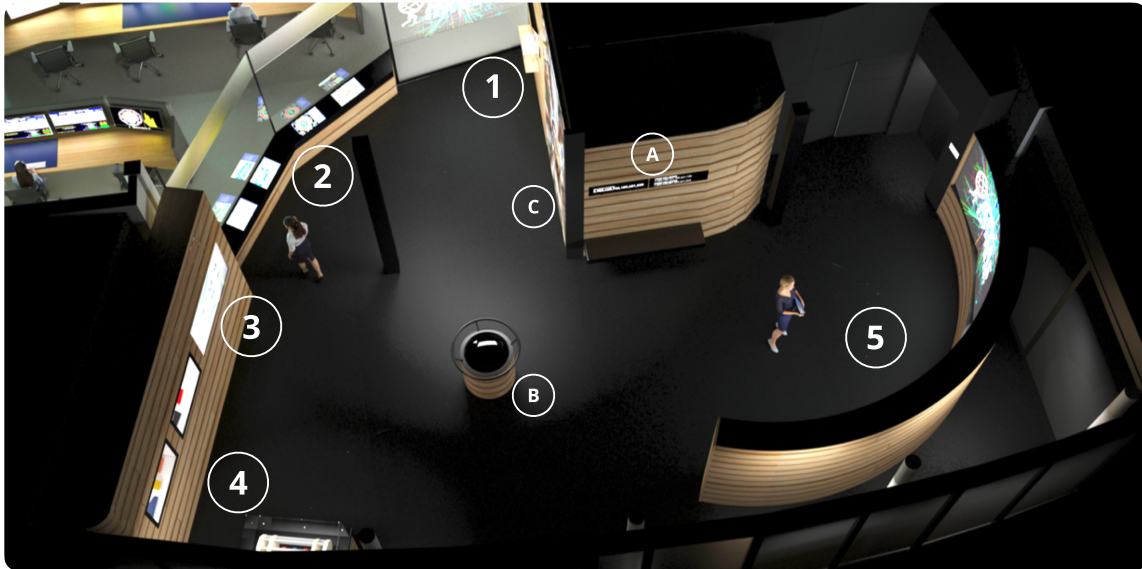


Figure 1: Photo of the ATLAS Visitor Centre. All the different sections are highlighted with the notation used in this document [2].

2.1 Virtual Visit Corner

When Virtual Visits cannot take place underground in the cavern, a dedicated separate area is available inside the AVC (see the Virtual Visit Corner in Figure 2), with improved equipment, connectivity and lighting for visit hosts. It is designed to give also an experience without coming to CERN, and allows to have virtual and in-person visits at the same time.

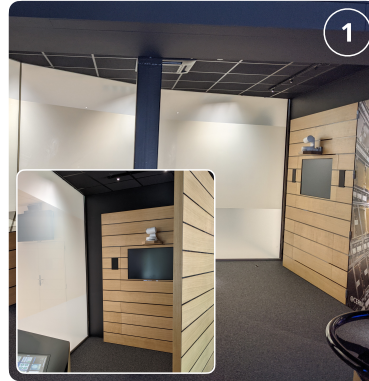


Figure 2: Photo of the Virtual Visit Corner, where the video-conference system is visible [2].

2.2 ATLAS Control Room

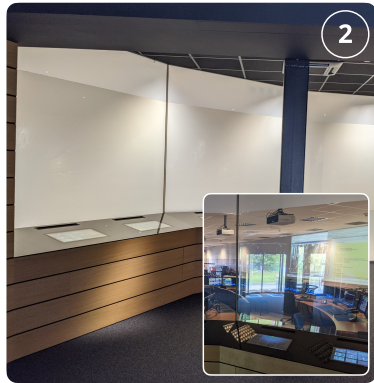


Figure 3: Windows on the ATLAS Control Room. When transparent, the ATLAS shift crew is visible from the AVC [2].

The ATLAS Control Room is the neighbour of the AVC, and it can be revealed by the guide via windows turned from opaque to transparent, giving an element of surprise (Figure 3).

People working inside the ATLAS Control Room, the so-called *shift-crew*, play a fundamental role during the data-taking since they monitor the detector status via several panels and monitors. Their work is explained to the visitors via four touch-screens that also explore the main tasks of the crew.

2.3 Detector Overview

Visitors can appreciate the ATLAS Experiment composition via a 65" touch-screen (Figure 4), where all the different sub-detectors are highlighted. Detailed information, images and video are accessible by clicking through the screen. All the main systems are shown individually and separately to better explain their functioning.

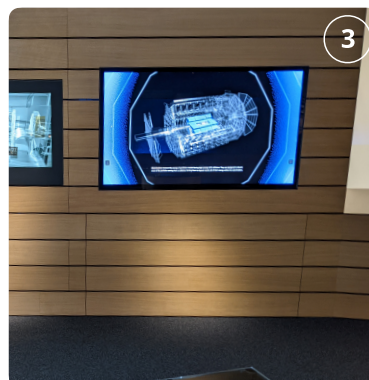


Figure 4: Touch-screen inside the AVC which provides an overview of the ATLAS Experiment. In this photo, the calorimeters are highlighted during the visit [2].

2.4 Exhibits & Models



Figure 5: Photo of the Exhibits & Models corner, with the Lego model (left), touch-screens (center), underground exhibit (bottom) [2].

2.5 Video Wall

A video wall made of 12 large FullHD monitors (Figure 6) was designed to show a newly produced movie introducing the visit. It can be also used by guides to show presentations and materials during their visit tours. An audio induction loop system is installed to support visitors with hearing aids.



Figure 6: Photo of the video wall system showing a collision inside the detector [2].

2.6 Additional Features

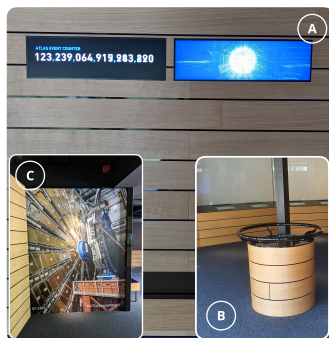


Figure 7: Photo of the live event counter and other additional features [2].

Other additional features inside the AVC are installed (Figure 7), such as the live event and Higgs counter along with ATLAS and LHC information (A), a periscope to look into the cavern and explore the underground experiment (B) and a selfie wall for visitors to create their own picture with the detector (C).

References

- [1] ATLAS Collaboration, JINST **3** (2008) S08003, [10.1088/1748-0221/3/08/S08003](https://doi.org/10.1088/1748-0221/3/08/S08003)
- [2] S. Mehlhase, ATL-OREACH-SLIDE-2021-760 (2022), <https://cds.cern.ch/record/2800126>
- [3] M. Alhroob, PoS **LHCP2020** (2021), 230, [10.22323/1.382.0230](https://doi.org/10.22323/1.382.0230)