



CASE STUDY

## Breakthrough Immersive Installation in Bieszczady Using Panasonic Technology

Poland's groundbreaking immersive exhibition brings the rich cultural heritage of the Bieszczady Mountains to life. As highlighted by the county head, Marek Andruch, this exhibition tells a fascinating story that should be remembered.

**Client:** Bieszczadzkie Centrum Dziedzictwa Kulturowego „Fanto”

Location: Kolejowa 2, 38-700 Ustrzyki Dolne, Poland

Product(s) supplied:

PT-MZ14KL

ET-EMU100

PT-MZ780

PT-MZ880

## Challenge

The Bieszczady Cultural Heritage Center aimed to create an immersive exhibition that would transport visitors to historical events. Key challenges included the need for high-brightness, high-resolution projectors, realistic spatial sound systems, flexible and centralized control, reliability, and quiet operation to avoid distractions during the experience.

## Solution

Panasonic provided 18 PT-MZ14KLBEJ projectors with 13,000 lumens for the immersive room, ensuring high brightness and quiet operation at 42 dB. Additional projectors with WUXGA resolution were installed in other halls, featuring laser light sources for long-lasting, maintenance-free performance. The system allows for easy, centralized control, enabling a seamless and immersive experience for visitors.



**The multimedia space in the Bieszczady Cultural Heritage Center Fanto**, housed in a former refinery, was officially opened on August 19th 2024.

It was designed by the system integrator Group AV. It provides visitors with unforgettable immersive experiences that allow for full immersion in the fascinating history and culture of Bieszczady during a fifteen-minute show.

## The immersive space

The immersive space, where visitors are surrounded by images projected on all walls, the floor, and steam screens, along with sound played through 32 channels is powered by Panasonic projectors.



*"The entire story is projected using multimedia projectors. We have selected Panasonic equipment, which performs perfectly. These devices display very high-quality images and have parameters that allow them to be adapted to this demanding space"*

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**Agata Sitko**

CEO  
Group AV



## The exhibition is divided into three main zones:

- **The first is the immersive zone**, where visitors can experience history in an impactful way thanks to the surrounding images and sounds that tell the entire story.
- **The second zone is the VR and interactive space**, equipped with VR multimedia tables where visitors can watch animated scenes from history and 360° recorded materials, including various points of interest in Bieszczady.
- **The third zone is the standard exhibition space**, where traditional exhibitions of artworks, paintings, and historical artifacts can be organized.



## How to make history more attractive

A key element for the Bieszczady Cultural Heritage Center Fanto, and especially for its originator, Bieszczady County Head Marek Andruch, was to create a unique immersive exhibition for visitors that transports them to historical places and events.

To achieve this goal, it was necessary to use projectors with high brightness and resolution to provide clear and vivid images, even with large projection sizes. Equally important was the sound system, which had to enable playback from dozens of channels, creating realistic and spatial sound experiences.



*"This building and everything around is one big artifact, and our primary goal was to maximally recreate the original version of this place"*

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**Marek Andruch**

emphasized Bieszczady County Head

Flexibility and ease of integration were crucial aspects of this project. The system had to allow for easy programming and control of projections from a central location, enabling a single operator to manage all projectors and sound systems. This would make the control process simple and intuitive. Reliability and performance of the equipment were also important to ensure uninterrupted operation without downtime or disruptions. Moreover, quiet operation of the devices was necessary so as not to interfere with the reception of sounds and narration during the visit.

It was also essential to simplify interfaces and control elements to the maximum. Although they control advanced systems, the graphical interface responsible for turning the system on and off had to be extremely simple. The control system starts all devices and prepares them for operation, and upon request of visiting groups, we can launch the immersive multimedia show at any time.



## Technical solution

**18 smallest, lightest, and quietest projectors in their class, Panasonic PT-MZ14KLBEJ with 18 ET-EMU100 lenses** were used in the immersive room. These devices operate at a noise level of 42 dB, ensuring minimal sound disturbances. This helps create an environment where all viewers can focus on the presentation. Despite their compact size and quiet operation, they generate an impressive light output of 13,000 ANSI lumens. An additional advantage of the projectors is their laser light source and filter, which do not require replacement for 20,000 hours significantly reducing the use of consumables and waste.

In the additional exhibition hall, **3 Panasonic PT-MZ780BEJ projectors and 3 Panasonic ET-ELU20 lenses** were used, offering a brightness of 7,000 lumens and high WUXGA resolution (1920x1200).

Meanwhile, in the remaining halls, **4 Panasonic PT-MZ880BEJ projectors and 4 Panasonic ET-ELW20 lenses** were installed, allowing for various presentations on smaller surfaces with a brightness of 8,000 lumens and WUXGA resolution. Both projectors, thanks to their laser light source, also ensure long-lasting and reliable operation, minimizing maintenance.

*"In Poland, we have already completed several immersive installations and exhibitions that project onto walls. We also have an installation that covers both the wall and ceiling. However, this exhibition is incredibly unique because it surrounds us from all sides."*

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**Magdalena Przasnyska**

Senior Sales and Marketing Manager  
Panasonic Connect Europe

## Key Features of the System

- **Full Immersion:** Projection covers all walls, the floor, and the ceiling, allowing for complete immersion in images and sound, creating a realistic and engaging experience for visitors.
- **High-Quality Image and Sound:** Utilization of Panasonic PT-MZ14KLBEJ projectors with a brightness of 13,000 ANSI lumens and a 32-channel sound system ensures clear, vivid images and spatial sound experiences.
- **Ease of Integration and Control:** The ability to easily program and manage projections from a single location by one operator makes the system flexible and efficient, while also saving on operational costs.



## Conclusion

The Bieszczady immersive installation, powered by Panasonic technology, has successfully brought the region's rich cultural heritage to life in an unforgettable way. Through advanced projection and sound systems, visitors can fully experience the history and beauty of the Bieszczady Mountains. This project not only showcases the power of modern multimedia but also highlights the seamless integration of innovative technology with historical storytelling. It sets a new standard for immersive exhibitions, offering a unique and engaging experience that will inspire and educate for years to come.