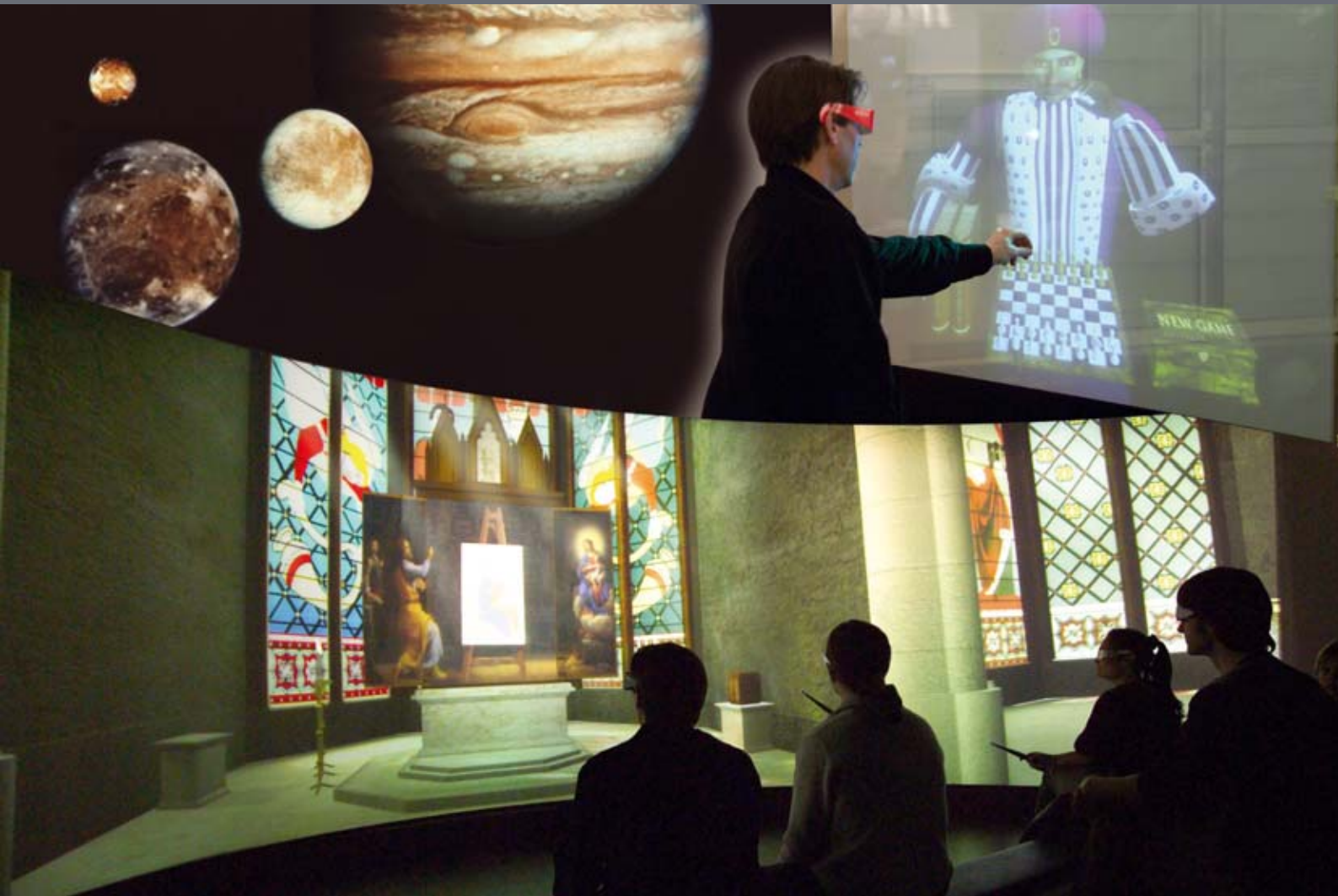


# Edutainment & Entertainment



Make your visitors travel through time... explore the universe... discover the invisible... interact with science

Barco's innovative immersive display solutions and stereoscopic visualizations create exciting group interactive experiences.

**BARCO**

Visibly yours

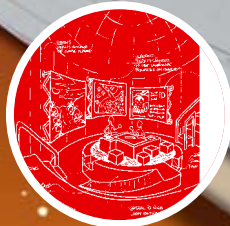
# BIP: Barco Innovation Partner program

## Analysis & brainstorming



- With a spirit of fostering innovation, Barco invites science museums and planetariums that are either in the process of creating a new exhibition area or undergoing a major renovation of their offer, to partner together to study possible avenues of collaboration.

## Concept storyboard whitepaper



## From brainstorming to development, coordination and on-site installation

Barco E&E - together with dedicated content and software development partners - offers innovative solutions to the Science Center Community. These concepts and realizations empower science centers to excel in their important role of providing a fun environment for informal science learning.

- Members of the Barco BIP program benefit from a matching fund scheme to finance the innovative part of their projects.
- Projects must exhibit 30 percent investment on innovation and prototyping for each dollar or euro invested on product line systems from Barco or Barco consortium vendors.
- The "Barco Innovation Partner" (BIP) program shifts the focus from mere "showing" to memorable "immersing" and facilitates group interaction among visitors.
- The BIP program is open to all members of the Science Museum and Planetarium community worldwide, with a limit to a maximum of 20 organizations.



## 3D Concept design for in depth evaluation

*Photo courtesy of AlterFace, Belgium*

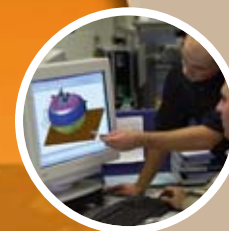


## BIP contract agreement

*Photo courtesy of Technisches Museum Wien*

## BeepMe: Barco E&E Project Management Methodology

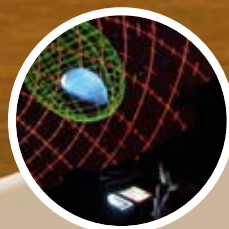
With a strong technological foundation focused on customer needs, Barco has developed a dedicated methodology, a strong quality management program and a global service organization to partner with you from consulting through manufacturing, implementation and full service and maintenance.



## Concept engineering and technical design



## Project management



## On-site installation and integration

*Photo courtesy of l'Astronof (Guy Dubreuil)*



## After-sales service & maintenance

Barco is member of:

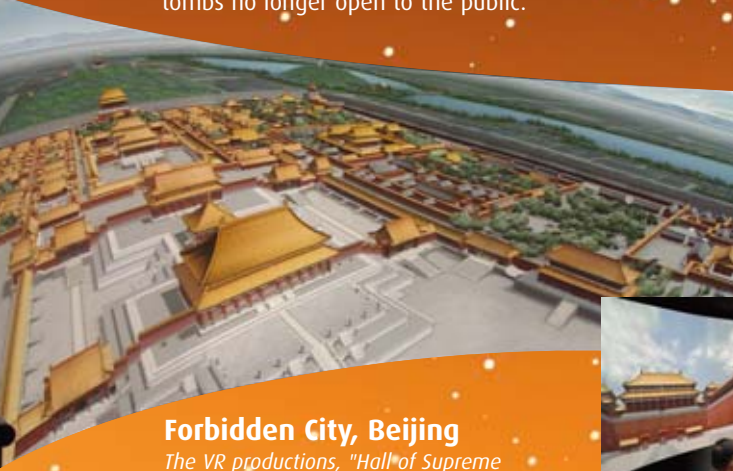
INTERNATIONAL PLANETARIUM SOCIETY INC. **IPS**



# Make your visitors travel through time...

## Immersive display solutions for cultural heritage and museums

Digital display technology helps to protect the ancient architecture and relics, while enabling museums to show far more parts of their collection to a larger audience. They allow a virtual tour in ancient, no-longer-existing palaces or tombs no longer open to the public.



### Forbidden City, Beijing

The VR productions, "Hall of Supreme Harmony" and "Forbidden City: The Emperor's Palace", reproduce the palace estate during the reigns of Emperors Kangxi and Qianlong and are shown on a huge 4.2 x 13.5 m (13.8 x 44.3 feet) wide custom-made, curved Barco screen powered by three blended and color-matched Barco GALAXY WARP™ DLP™ projectors.



Photo courtesy of Toppan

### Papalote Museo del Niño, Mexico

The Barco Virtual Reality Center is mainly the educational part while the Dome is the WOW side of the experience. The Barco I-DOME™ uses nine blended Barco GALAXY WARP high-resolution three-chip DLP™ projectors to create a seamless image, totaling a light output of over 90,000 lumens with a combined resolution of 11 million pixels to immerse 280 visitors in spectacular moving images.



Some recent references:

Papalote Museo del Niño, Mexico

Technisches Museum Wien

Planetarium l'Astronef



© D. Finnin / AMNH



© D. Finnin / AMNH

### American Museum of National History

The ocean wall, presented on a 5.5 x 2.5 m (18 x 8 feet) screen, powered by a two-channel, blended SIM6 LCD projection system, transforms the space into an immersive experience.

### Exciting virtual worlds for aquariums and theme parks



Photo courtesy of DePinxi

Large stereoscopic visualization immerses participants in a virtual world where they interact with challenging situations.

### Planetarium l'Astronef, St-Etienne

To complement its completely graphical planetarium solution at l'Astronef, St-Etienne, R.S.A. Cosmos selected Barco's I-DOME™ system with six BARCOREALITY 909 projectors and laser array alignment units.

# explore the universe...

## I-Dome versatility for planetariums

**Partnering with leading digital planetarium integrators**, Barco became the benchmark for innovative projector solutions. Barco's proprietary technologies offer unique image blend quality and true black levels for immersive starry sky projection. A wide portfolio of projection technologies can display all types of content with breath-taking fidelity.

### Barco's I-Dome innovative display solution

incorporates predistortion and blending inside the projectors, saving on computational power and budget while making the installation scalable and versatile.

"Group interaction and VR storytelling lead to intuitive understanding, stimulate social learning, and develop technology skills."

**Barco's immersive, high-resolution stereoscopic projection systems** allow youngsters and students to experience and interact with the world's scientific discoveries in a full immersive theater facility.

# discover the invi

## Stereoscopic 3D environments



### < Sci-Quest Science Center, Huntsville-Alabama

Students from fourth grade to college level at Sci-Quest can create their own planet by selecting the temperature, water content, vegetation, and other data. The theater features full-immersive stereoscopic viewing on an impressive 8.1 x 3.6 m (26.6 x 12 feet) Barco screen, supported with 6.2 surround sound in a 56-seat stadium-like interactive 3D environment. Barco designed, delivered, and installed the state-of-the-art turnkey stereoscopic projection system including audio, automated control, cabling and four passive stereo-optimized, edge-blended and color-matched BARCOREALITY SIM6 projectors.



Photo courtesy of Sky-Skan  
Sonic-Vision image - courtesy of AMNH, NY ©2003

Photo courtesy of Sci-Quest / SGI

### Planetarium on board Queen Mary 2

Six Barco SIM4 DLP projectors were chosen by Sky-Skan, the main contractor for the planetarium, to equip its SkyVision high-definition video and DigitalSky planetarium system, that also takes care of the splitting up of the main images and the distortion and soft-edge blending.

### Planetarium Hamburg

Evans & Sutherland chose Barco's I-DOME for the full-dome video and data projection on the 21-meter diameter Spitz hemispherical screen. To achieve the true black levels needed to project a starry sky, seven BARCOREALITY 909 CRT projectors deliver the absolute highest standard. For bright video show scenes, seven SIM 4s provide the brightest images with breathtaking visual fidelity.



Planetarium St-Etienne, France

Planetarium Brisbane

Planetarium Hamburg

American Museum of National History

# possible... interact with science...

for group interaction in science centers



## Technisches Museum Wien

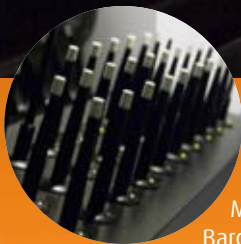
< *The Virtual Reality Theater allows a group of 30 visitors to experience and interact cooperatively in a virtual world.*



*Global data networks offer worldwide access to stored data and open multiple communication channels. Visitors select targets and multimedia elements using the Magic-Y™ interface device.*



*The user interacts with the virtual **Turkish Chess Player** without physically making contact. The user is able to grab, move and release virtual chess pieces through natural gestures. The fact that the user's hand is not represented by a virtual hand makes chess interaction even more natural. The virtual showcase was realized for the Technisches Museum Wien by Barco (display technology and installation) in cooperation with Imagination (interaction integration and software development).*



## Magic-Y™

Magic-Y™ is a result of Barco collaborating with the Technisches Museum Wien and Imagination Computer Services GesmbH as part of the "Barco Innovation Partner" program. Small groups of visitors engage in challenging activities in a setting intended to promote creativity and cooperation. Using a wand, the Magic-Y™ allows participants to grab objects floating in space and move them across different digital display setups in the museum.

*Stereoscopic exploration of the DNA chain*



*The installation "Gläserner Mensch" focuses on the museum visitor and presents the loss of confidentiality of personal data in the digital age. On a transparent screen, visitors recognize their digital reflection while personal data is being displayed around it.*

## New Technology Museum and Science Center Tessaloniki

*Motion simulator: 18 visitors seated on three motion-based platforms are projected into a fantastic voyage of discovery in yet unknown virtual worlds. Four Barco SIM 6 LCD projectors produce impressive high-definition stereoscopic images on a 10 x 3.60 m (33 x 12 feet) screen.*

## New Technology Museum and Science Center Tessaloniki

*Barco's I-Dome allows planetariums to be used not only for the re-enactment of celestial data but also to project whatever content is provided by the computers. The planetarium can also be used as a virtual reality simulator, e.g. for academic purposes, giving medical students the chance to observe surgical procedures in full detail in virtual reality.*



Queen Mary 2



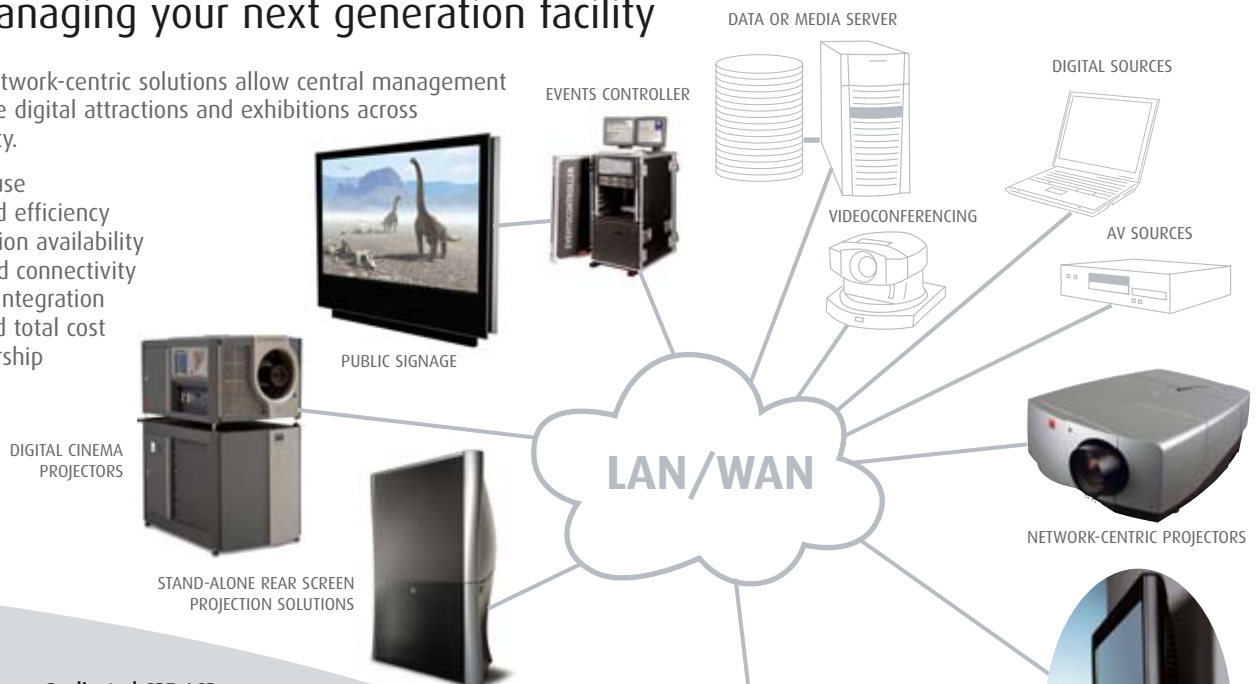
New Technology Museum and Science Center, Tessaloniki



# Step into the network centric, multi-media future for managing your next generation facility

Barco's network-centric solutions allow central management of multiple digital attractions and exhibitions across your facility.

- Ease of use
- Increased efficiency & attraction availability
- Unlimited connectivity
- Flexible integration
- Unrivalled total cost of ownership



Dedicated CRT, LCD and DLP™ projectors for immersive and stereoscopic applications.

R&D expertise in optics, opto-electronics, and colorimetry allow for application-specific optimizations

Proprietary developed aluminum profile structures and state-of-the-art CAD-tools help design new innovative concepts at short notice.

Barco front- or rear-projection screens for systems using polarized light and blended multi-channel display.

State of the art tracking technologies for wireless interaction with the virtual environment

xRACU user-interface offers multi-system remote alignment and control

Dedicated software and a versatile laser array system ensure fast, accurate alignment and easy maintenance of complex, multi-screen projection systems.

Ref n° R599789 December 2006



Barco's Presentation & Simulation division is ISO 9001 certified

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