

Virtual & Augmented Reality

Barco's quarterly "Quality Award," rewarding the teams with the best quality initiatives.



The integrated approach for turnkey immersive visualisation solutions

Creating a Virtual Reality "Environment" often involves budgetary considerations and various difficult technological decisions. The **choice of the visualization technology** to be used will impact the realism, the functionality, and finally, the return on investment of the total system.

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.

BARCO

Visibly yours

Unique capabilities for unique customer advantages

A solid technological foundation focused on customer needs, from product development to system integration and full service and maintenance

Proprietary projector development

With more than 1000 engineers worldwide, Barco invests in virtually all available projection display technologies, including: **CRT raster and raster/calligraphic, LCD and DLP light valve projection systems, and reflective plasma research.**

Application specific optimizations through R&D expertise in:

- optics and opto-electronics
- colorimetry
- electronics and image-processing
- embedded software
- customized precision mechanics

Proprietary screen technology

Barco evaluates and develops the **optimal screen technology for systems using polarized light and blended multi-channel displays.** Barco screens can be optimized for diffusion with different gain factors.



*External **motorized optical filters** allow the Barco Galaxy projector to automatically change from stereo to mono or from blended to unblended mode.*



*Excellent stereo separation with wide viewing angles is obtained with Barco's proprietary **PASCAD™** (passive) and **ACTCAD™** (active) screens.*

Mechanical engineering

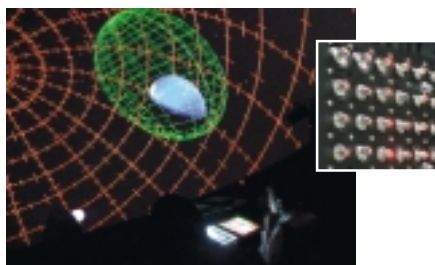
With a **wide range of versatile modular off-the-shelf structures** based on Barco's **proprietary** aluminum profile components, **state-of-the-art CAD-tools** allow to design new innovative concepts at even short notice. In-house mechanical engineering facilities include an advanced model shop and full-fledged **mechanics and plastics** departments.



Mechanical capabilities include air-cushion driven and motorized multi-purpose virtual environments for fast reconfiguration.

Installation and maintenance software

For accurate and fast alignment of complex multi-screen projection systems and tracking systems to their optimal capabilities, Barco has developed its own **proprietary laser system and dedicated software.**



*Barco's **Polaris software**, driven by multi-pipe, multi-channel image generators, is available on IRIX, Windows, HP, SUN and Linux platforms.*

Global market expertise

Barco designs, delivers, and installs a variety of turnkey systems for a wide range of demanding applications

Barco's worldwide base of installations ranges from multi-channel CADWalls, curved-screen analysis and decision centers, and motorized multi-purpose Virtual Environments to fully immersive cubic I-Spaces and dome-based immersive interactive theaters.

Typical applications

- Virtual prototyping
- Architecture, Engineering and Construction
- Molecular modeling
- Medical training: image guided surgery and surgical simulation
- Oil & gas exploration
- Analysis and decision centers
- Command and Control Centers for homeland security and defense
- Scientific research

Global capabilities, supported by local presence

Active on a worldwide scale --- with main offices in Xenia (Ohio, US), Shanghai (China) and Kuurne (Belgium) and with sales & support offices in Europe, North & South America, Asia and the Middle East --- Barco can meet any V&AR requirement and manage the most complex networked multi-site installations.



Automotive

Research - Center for Human Simulation - SGI - EDS - Boeing - AGIP - University of Vienna - Lancia -



Medical

FIAT - SAIC - Pininfarina - Adler Planetarium - Conoco - US Army - Brown University - Alfa Romeo - World Expo



Scientific Research

Osaka - Matsushita Sonatrach HMD - Digital Earth - University of Illinois - NASA Ames Research Center - BMW - Maui High Performance Computing Center - Brookhaven National Laboratory ...

Renault - Italdesign - Pharmacia - Cineca - ELF - Volvo - General Motors - Italdesign - National Center for Atmospheric



Architecture, Engineering, Construction

Schlumberger - Volkswagen - PSA - University of Munster - Fraunhofer Institut - Skoda - Cineca - University of Tokyo -



Oil & Gas

Hannover 2000 - University of Tübingen - Sanofi - University of Mississippi - Avantis Pharma - Stola Group - University of



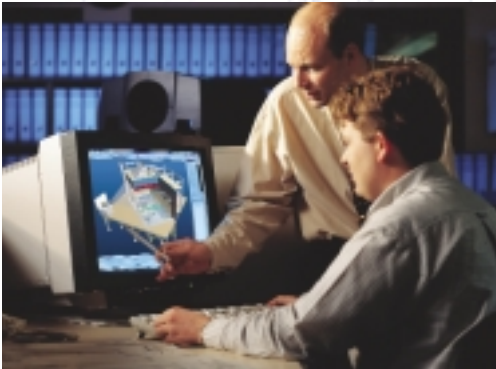
Dome-based Theaters



Intensive customer involvement throughout your project

Concept engineering and design

Sales people, application engineers and the lab (**application specific optimizations**) work as a team towards a dedicated proposition, covering a customer's complete requirements.



The audio, switching, cabling, and automation & control components of a display system can also be included.

Project management

A certified project manager works with the customer and oversees the production, final installation and on-site training for a project. No detail is left to chance to reach Barco's **high benchmark for quality in outstanding individual turnkey solutions**.



Global market expertise

Proprietary technologies

Concept engineering & design

Analysis

Pre sales

Unique capabilities

Project management



Contract

Analysis

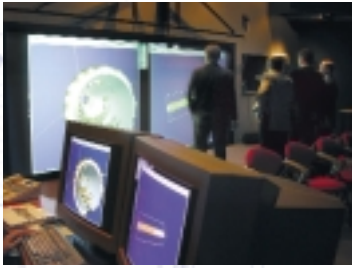
Application engineers work out customized solutions, analyzing all parameters of an application including **technological, architectural, environmental and ergonomic factors**.



Pre-sales

Whether you're located in Korea, Japan, China, France, Germany, U.K, Italy, Spain, Sweden, U.S.A. or Brazil, Barco has a **local team to assess your needs**. Headquarters in the U.S.A., Europe and China offer a **global backup with specialized assistance**.





Factory acceptance test

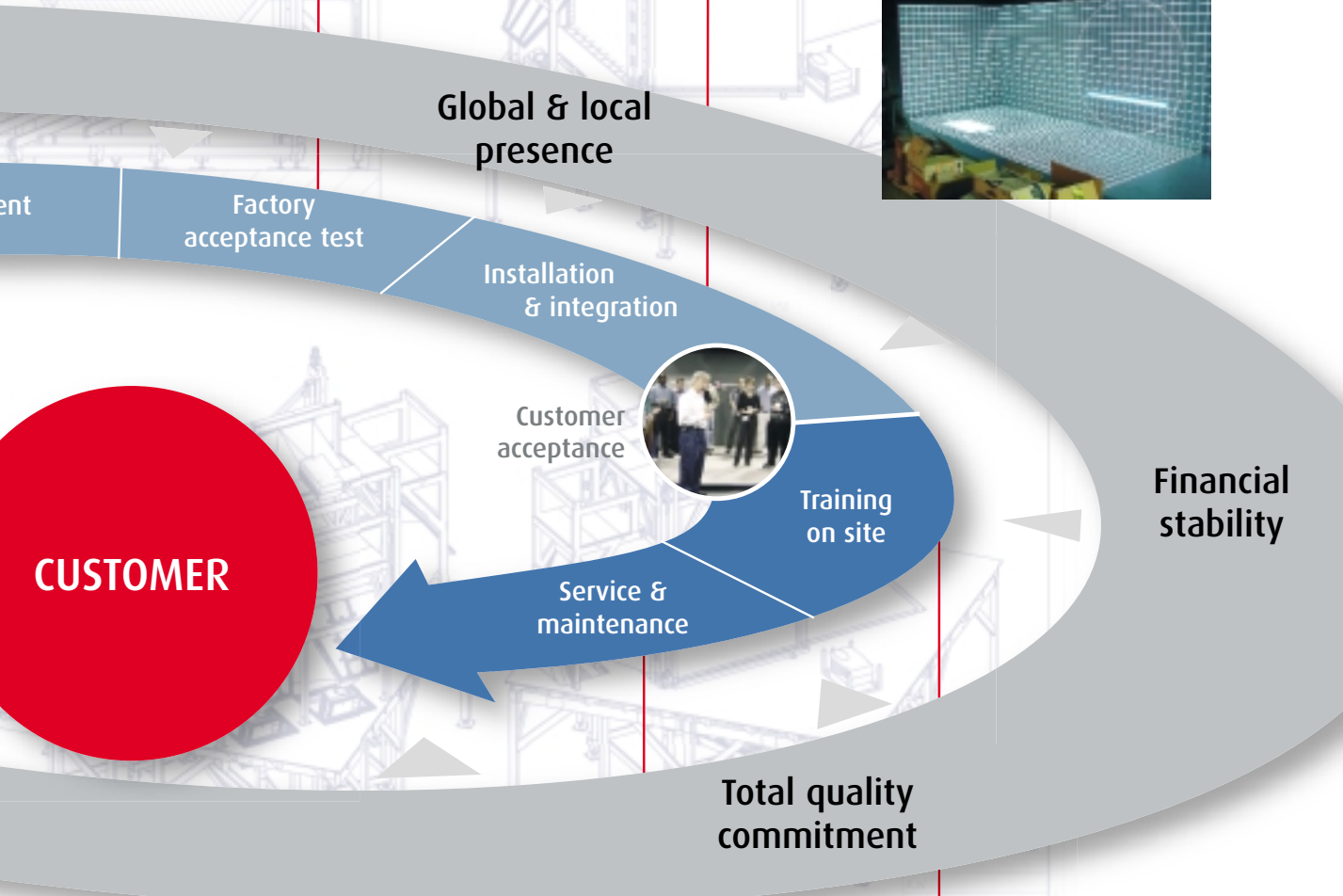
Customer evaluation of the implemented system at the Barco premises.

On site installation and integration

Specialized technicians with global experience in the application field are supported with **dedicated alignment tools and software** to carry out the implementation in a minimum of time with highest accuracy.



Global & local presence



Financial stability

Total quality commitment



Service & maintenance

- Local service teams assist the customer worldwide for urgent problem solving.
- Different levels of service can be covered with **dedicated maintenance contracts**.

Training on site

The staff operating the system receives a comprehensive training that enables them to **use the system at its full potential**. Barco offers a choice from simple to extensive training programs.

From standard V&AR products to complex custom installations



Dedicated V&AR projectors and products

CRT, LCD and DLP™ projectors for active or passive stereo, often including application specific optimizations, active-to-passive stereo converters and a range of peripheral equipment.



Dedicated V&AR systems

From stereoscopic projection tables, stand-alone rear-projection units, and L-shaped consoles to transportable Mini-CADWalls, to multi-channel CADWalls and flat or curved-screen analysis and decision centers.



Customized systems

All of the standard V&AR systems can be adapted to specific customer requirements. Application engineers assist the customer for optimal results.



Complex custom designed installations

Barco can respond with a turnkey solution, focused on your needs from technology and product development onwards.

Barco nv

(Euronext: BAR; Reuters: BARbt.BR; Bloomberg: BAR BB)

Key figures 2002 (in million euro)

Sales	669.0
EBITA	71.2
(in %)	11%
Net Equity	382.8
Net Cash	88.1

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Barco Simulation is an ISO 9001 registered company. The information and data given are typical for the equipment described. However any individual item is subject to change without any notice. The latest version of this product sheet can be found on www.simulation.barco.com.

What customers say...

"Our lab bought your Barco 808s VR Center system last year. In the process of system installation and user training, your service was very good. The projection system didn't give any trouble this year of operation. The Barco Shanghai Branch also has very good service. We are very satisfied."

*Bao Jinsong, VR Lab,
Shanghai Jiaotong University, China*

"We explored a number of different passive stereo projection technologies, and it was obvious that Barco's Sim6 LCD projectors were the best suited for our needs, scoring very high with regard to light efficiency and stereo separation capabilities. The internally polarized projectors clearly minimized the extensive light loss that we've seen with other solutions. Even with very high light output off-axis viewing is quite good, due primarily to the match between the projection screen and the Barco eyewear, which are integral parts of the display system."

*John Clyne, Lead Engineer
NCAR Visualization Lab, USA*

"Jorge, I just wanted to say a big "THANK YOU" for getting us back up and running.

Guy was here and worked very late last night to replace the board. I am so thankful to have that behind us and to be back up and running for high level reviews this morning. I know it sometimes seems like a thankless job, but this "above and beyond" service is very visible and does not go unnoticed. It certainly turns some heads and shows the effort that Barco is making in our long-term relationship. Thanks again."

*Visualization Hardware Specialist
Major Oil&Gas company, USA*

"We are very pleased with the installation and the excellent performance of the Barco projection system. Our co-operation with the Barco-team has been very fluent and the system operates exactly as planned."

*Timo Rahunen,
Head of the Särkänniemi Planetarium, Finland*

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