

Building Concurrent Design Facilities with standardization

Concurrent Design Facility (CDF) is an environment where engineers of different specialties come together to perform conceptual design for a project. It is designed as a workspace and information system allowing multidisciplinary experts to co-exist and collaborate within a focused environment. CDF has proved to be an effective and efficient manner to implement Concurrent Engineering methodology.



Improving efficiency with high-performance visualization

Concurrent engineering aims at providing a collaborative and simultaneous engineering work environment to perform multidisciplinary studies. It aims to facilitate faster and more effective interaction between all disciplines involved, ensuring consistent and high-quality results. To solve complex problems and take informed decisions, engineers and specialists need to visualize information, best done with an ultra-wide canvas at a superior resolution. The room's layout, the wall space and the required number of inputs and content sources will need to be considered when designing the most suitable concurrent design environment. Equally, knowing the aspect ratio, pixel density, resolution requirements and light restrictions for the concurrent design room is crucial at the initial stages of space design.

Promoting collaboration with multidisciplinary rooms

True collaboration requires flexibility and quick transitions between content sources. Zooming in and out, switching between different content sources and progressing the project as a team. Sharing multiple sources simultaneously is vital. Experts from different engineering teams will often join from remote locations in a collaboration session. Cyviz enables multiple video calls for full team participation and dynamic collaboration.

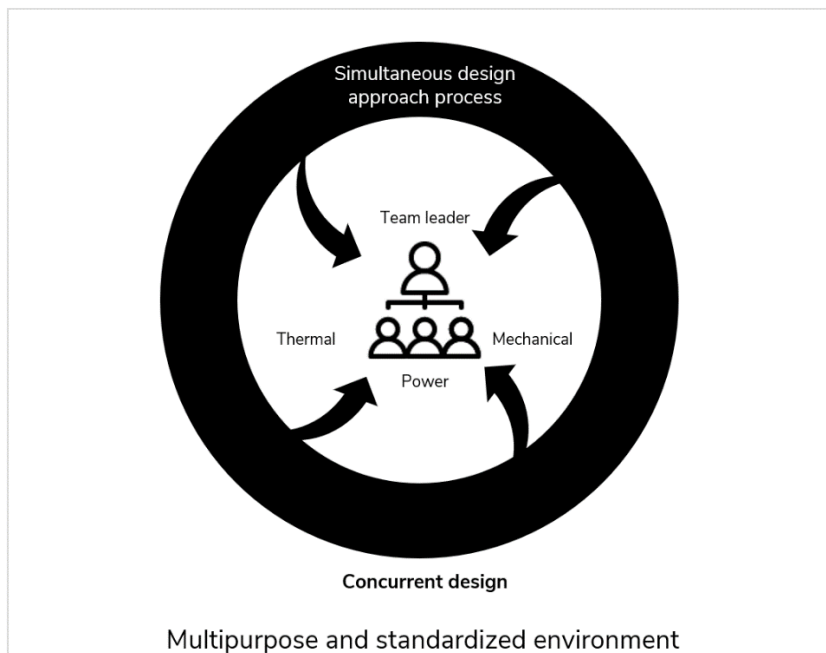
When third parties join a meeting there should be a seamless experience, regardless of what technology they use.

Cyviz' solutions include the ability to provide a large enough seamless display with full-in-room viewing capability and sufficient resolution. It allows for several content sources from various feeds to be displayed on a screen at the same time, together with video-conferencing. For example, during a collaboration session, a project drawing can be displayed in one window, a timeline for a project in another and test results in a third. Engineers can then move easily from one window to the next, stretching and zooming images at the touch of a button without having to manage different feeds.

The set-up renders itself perfectly for multi-disciplinary teams with participants from different disciplines to bring their views and expertise to the table.

Reducing time with standardization

Standardization offers a consistent user experience across rooms, offices and facilities. It helps bringing different parties together without losing time on set-up. Standardization across offices makes collaboration easier and saves time and money, as it gives experts confidence to get the job done without system failures. The system can be fully supported internally without using external resources.



An innovative Onshore Collaboration Centre (OCC) for Aker BP

Aker BP's OCC was designed to bridge onshore and offshore operations, to create a share situational awareness and increase productivity by having all experts and disciplines in the same rooms. The 4 collaborations rooms of the OCC are multipurpose in their design and can adapt quickly to different user scenarios, such as traditional meetings, video conferences, multidisciplinary workshops, or trainings. They are also equipped with large seamless displays that provide a large canvas to share and interact with different applications and content sources. The OCC and the control rooms were equipped with seamless displays for greater image quality. Paired with unique video processing capabilities for Picture in Picture (PiP), this solution created the perfect canvas for dynamically organizing sources and digital assets to support different operations scenarios.



Image: The atrium is part of the 13 rooms of the OCC. Designed as a modern space for town-hall meetings and multidisciplinary collaborative sessions for larger groups.

A multidisciplinary BIM room for Arup

Arup, the global engineering and consulting firm, was on the look-out for a new multipurpose room in their Boston office. A room that would become an immersive and multidisciplinary collaboration room for their engineering projects and BIM (Building Information Modelling) applications. Cyviz stood out with its standardization offering as it allowed for a consistent user experience and centralized IT support. As a result, Arup could bring their resources together and use digital tools and drawings in collaboration sessions to improve decision-making. Effective collaboration is key at Arup and allows the expertise of each member of its multidisciplinary project teams to be combined. The standardized turnkey solution Cyviz proposed for Arup's Boston office consisted of a display solution with three projectors, blended to create one large seamless image together with a control and management system, supported through a centralized server.



Image: The multipurpose room in Arup Boston office with its blended projection solution creates the perfect canvas for cross-functional design, project management and decision-making.