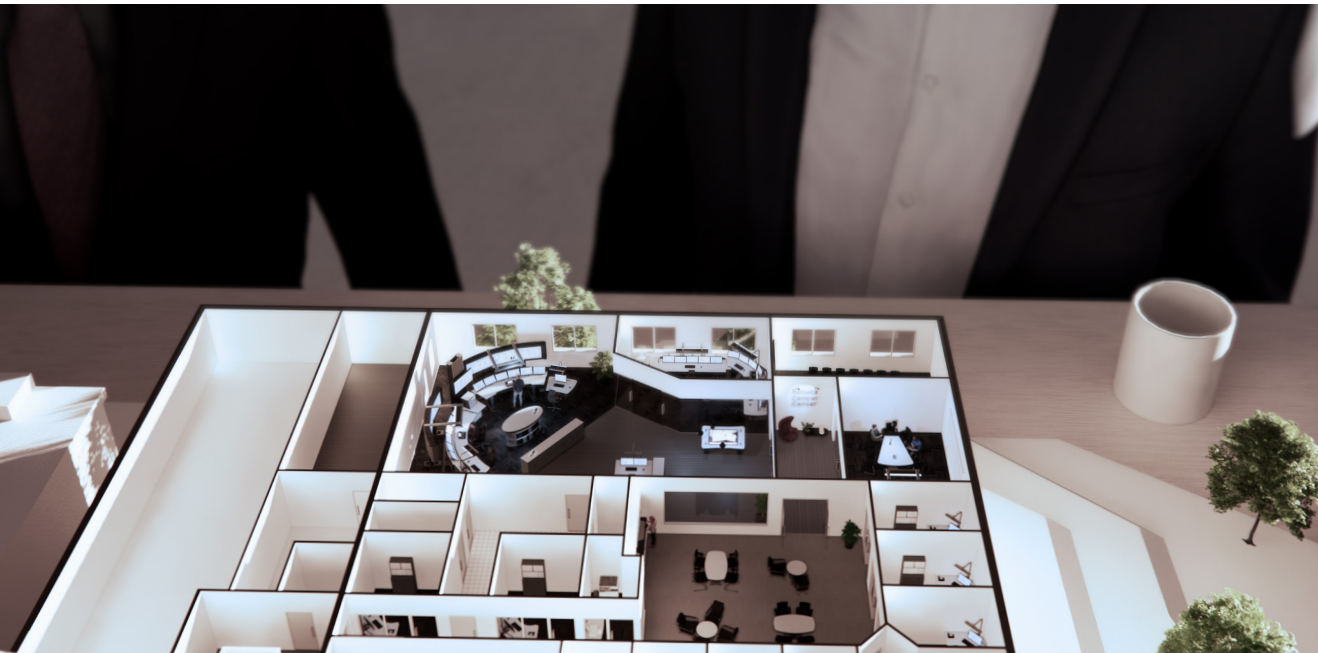


# Control Room Design Studies




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## 20 years of design experience and hundreds of control rooms.

Based on our long experience we are able to convert footprint and process information into conceptual sketches and proposals. We consider every aspect of human factors to optimize operator well-being, collaboration, production, quality, and safety.

Early involvement with our design avoids many common errors. Take advantage of possibilities with new technology enhancements and equipment.

### The challenge

The control room is the centre for all technology in an industrial environment. A poorly planned and designed control room can lead to costly mistakes that can be related directly to human error.

A control room design must consider both the human and the workflow, as well as the technology. Proper design will ensure optimal operational efficiency not just today, but in the future. Professional design and planning creates a solution where nothing is overlooked.

### The process

Our design process is divided into 3 different phases:

- **Data Collection**
- **Analysis**
- **Iterative design**

It starts with a collaborative effort where we gather existing control room plans and relevant operational data together with the client.

We then use this material as a basis for the iterative process where we develop designs that improve operator alertness, promote collaboration and teamwork, mitigate information load with more efficient handling, as well as cutting cost and optimizing footprint.

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To simplify the process ABB offers three different control room design packages.



### **Deliverables**

The main delivery from our Design Services is a layout optimized for the customer's processes and workflow. This is presented in 3D and photo-realistic rendering. Depending on the demands of the project we can also supply more free-standing interactive models in 3D, and even VR is an option.

More complex projects can also include a Human factors report that analyzes and verifies the specifications in accordance with ISO 11064.

We also supply recommendations in the form of materials, equipment, and colors.

To simplify the process ABB offers three different control room design packages:

### **Essential**

Based on general information in existing plans and photos. Operational information is collected through a questionnaire and remote interviews. Includes 3 design iterations. Generally suitable for small control rooms or projects with a tight deadline.

### **Standard**

Based on a larger amount of customer data needed to be analyzed before the iterative design can start. Highly recommended for any brownfield projects. Includes 4 design iterations. Generally suitable for mid-size or small but complex control rooms.

### **Extended**

Similar to the Standard package above, but enhanced with a human factor analysis. Includes 5 design iterations, and more advanced visualizations. Generally suitable for larger, more complex control rooms/ centers or projects with specific needs regarding documentation.