



Vision & Innovation
Awards 2021



TATA ELXSI



Tata Steel - Safety Leadership Development Centre

A state-of-the-art Digital Induction Training Centre to educate officers, employees and contract workers highlighting safety measures, Standard Operating Procedures (SOPs) and other related risk areas of working in a steel plant.

Conceptualize | Service, Space & Experience Design | Technology Integration
Immersive Content Development | Project Management | Fit-out Execution

Tata Steel is a multi-national Steel Manufacturing company, which is among the top steel producing companies in the world with an annual crude steel capacity of 34 million tonnes per annum. It's revenue is ₹1.812 trillion as on 2021.

Background and Challenge

The current training method at Tata Steel was laborious and strenuous. Training such large volume and diverse background of people who came with language barriers, had difficulty to convert theory to practice, was all the more challenging. Text based assessment effectiveness was thus limited. High volume of re-training was there due to lack of absorption of information.

Tata Steel was looking for an innovative experiential learning platform to make the training engaging, increase knowledge retention and give practical exposure to actual working environment in a safe way. And above all, the Safety Leadership Development Centre has to be in line with Tata Steel's safety vision of achieving 'zero harm.'

Desired Solution

Set up a state-of-the-art Safety Digital Training Centre at Tata Steel Jamshedpur, that would focus around highlighting Safety measures and other related risk areas of working in a steel plant educate officers, employees and contract workers highlighting safety measures, Standard Operating Procedures (SOPs) and other related risk areas of working in a steel plant.



64400 people undergo safety training each year.

Only 20% pass the training program successfully.



Expected Outcome

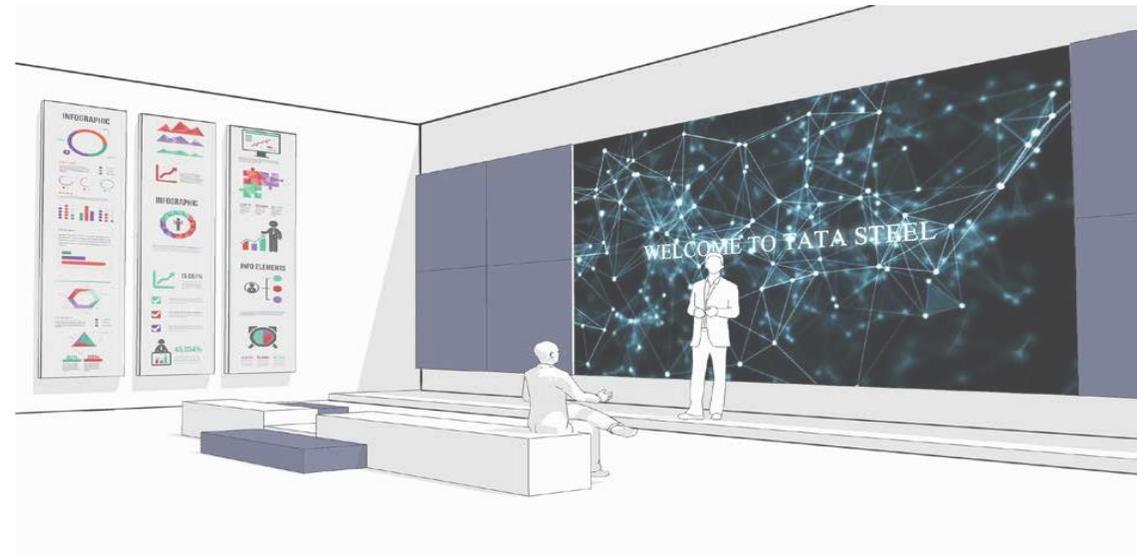
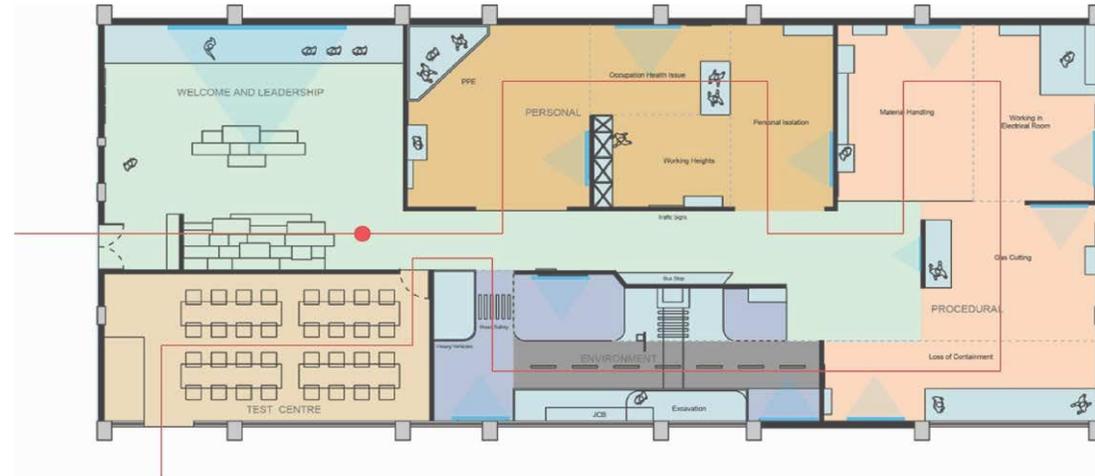
- Impactful and Immersive Training centre using Technological aid
- Props and Respective work space scenarios to give an Experiential Training platform
- Redesign an Interactive Test and Assessment set-up to evaluate employees on effectiveness of training received
- Ultimately, ensure a safe work place for Tata Steel employees with **zero fatality**.

Scope of work

Tata Elxsi had to execute the Safety Leadership Development centre as a **turnkey solution** in line with Tata Steel’s safety goals which included:

- Conceptualize
- Service, Space & Experience Design
- Technology Integration
- Immersive Content Development (HoloLens based AR experience)
- Project Management
- Fit-out Execution

Plan



Tata Steel Safety Leadership Development Centre

The site is located besides the **NTTF training center** which is **outside** the TATA steel plant area in Jamshedpur. The area of new training center is 39.5m X 16.5m

A benchmark in Safety Training aimed to boost Safety and Productivity

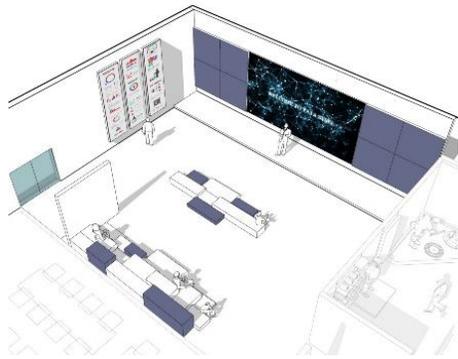
State-of-the-art Safety leadership Development Centre which is focused on **highlighting safety measures, Standard Operating Procedures (SOPs) and other related risk areas of working in a steel plant for its stakeholders – workers, contract workers.**

The scope of the project involved designing the **learning experience, touch points, and space.** Identifying the relevant products, developing AV content and integration of technology for all the clusters.

Tata Elxsi, had to also create an experiential training platform that uses immersive technologies to make the training engaging, increase knowledge retention and give practical exposure to actual working environment in a safe way. To address language and comprehension barriers, multi-lingual and instructor-led training support was also incorporated. This was backed with an interactive test and assessment set-up to confirm understanding and knowledge absorption.

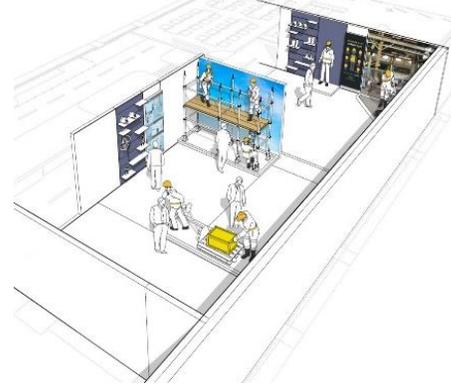


Implementation - Tata Steel Safety Leadership Development Centre



1 WELCOME

The **Welcome cluster** encompasses Leadership commitment zone serves as a congregating space before the training commencement. The visitors are briefed about the essentials of safety and split into 3 batches.



2 PERSONAL

The **Personal Cluster** contains information about equipment and measures an individual should be aware of for his personal safety.



3 PROCEDURAL

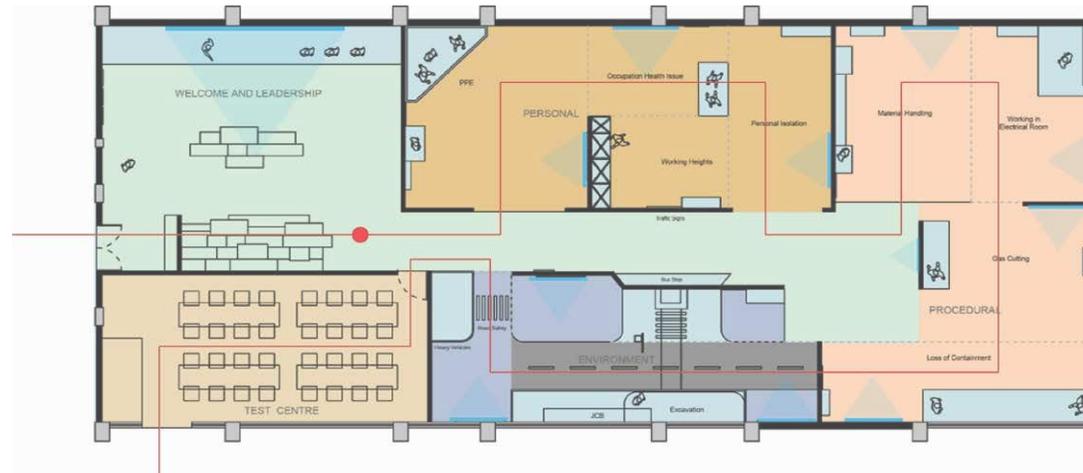
The **Procedural cluster** houses information about safety protocols that need to be methodically followed for a particular circumstance.



4 ENVIRONMENTAL

The **Environmental cluster** talks about safety features, symbols and measures that a person should be aware of while engaging with the surrounding and working within Tata Steel Campus.

A batch of **30 people** are taken into the welcome area of the training centre. The batch splits after the leadership video into **3 groups**.



Tata Steel Safety Leadership Development Centre

The association of information with the **unique space and props** raises the bar for recollection by several folds.

The design leverages this phenomenon by clustering the space and breaking the **linear monotony**.

The vivid props and posters coherently linked with the information compound to increase the **retention level** of the user.



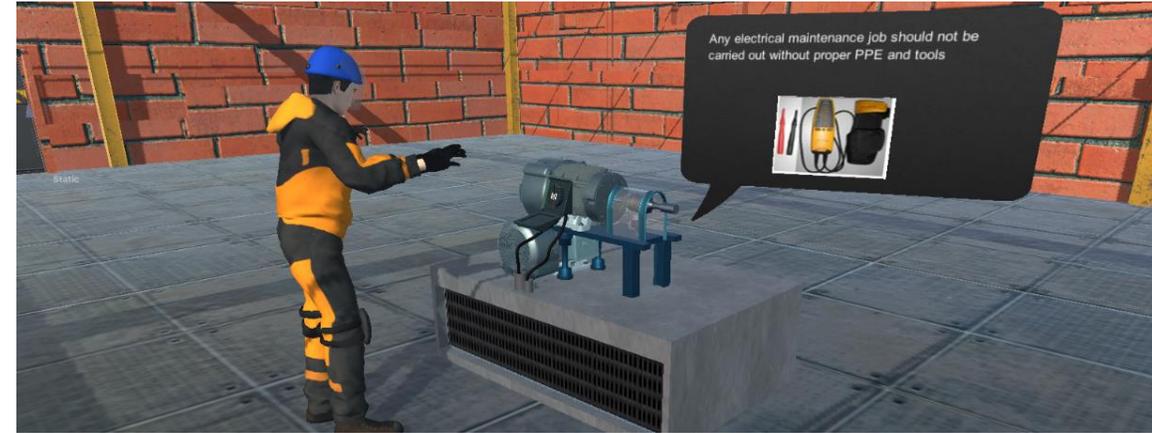
The **tactility** involved in the interaction with these physical objects resulted in an immersive learning experience.



Safety Training using HoloLens

Extended Reality (AR, MR & VR), Script, Storyboard, Voice Over, AR Content & Application with Training Notes

- Additionally, a unique immersive experience was also developed using AR Glasses in order to help orient the semi-skilled and unskilled workforce through new age technology, enable enhanced learning and ease in usability , assist visitors on precautionary measures to ensure safety on shop floor / workshop
- 50+ videos under process of creation were done in batches
- The immersive AR experience using HoloLens gives information to machinists - where the gas leaks can happen, where they can get an electric shock if safety guidelines are not followed etc.
- This helped users to understand the process thoroughly, by superimposing machine layout on actual machine



Inauguration of Tata Steel Safety Leadership Development Centre by N. Chandrasekharan – Chairman Tata Group



Impact

Since the launch in March 2020, Tata Steel was able to achieve **zero harm** through this Safety centre. About **27,000 workers** have successfully passed the safety training module till now. Every year about 45,000 workers are expected to undergo this experiential training **module** which would result in a **safe work place and higher retention**.

Tata Elxsi and Tata Steel recently won the 'L&D Vision and Innovation Award 2021' for 'L&D Innovation in Training and Development Programme' category organized by Transformance Business Forums.

