



Virtual Reality Evaluation of Factory Changes

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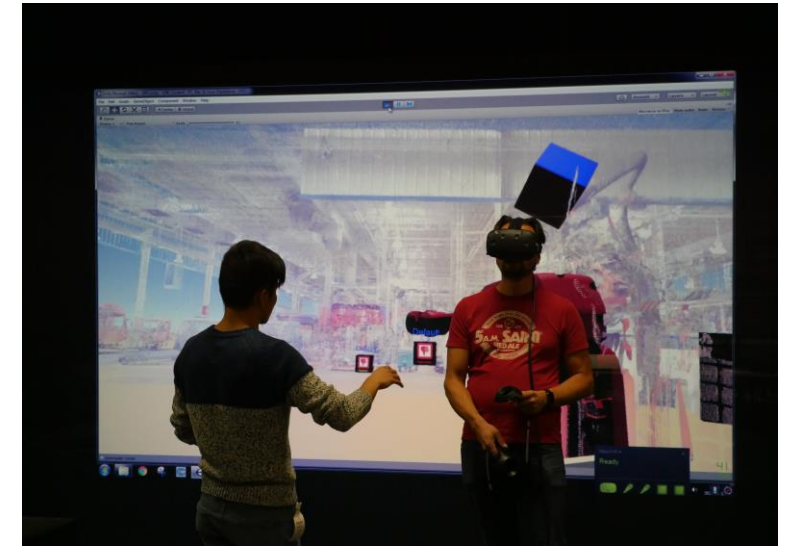
1 Change processes

Volvo is a global manufacturing company with assets all over the world. When the product changes the production systems has to change with it. These changes are complex and require a lot of planning, especially if they are to be introduced in more than one factory.

A combination of 3D laser scanning and Virtual Reality equipment was implemented to create a digital factory which can be used by several actors to collaborate and access/change the data and layout. It can be used to visualize and analyze changes in order to collect important input from several actors such as operators, design engineers, maintenance engineers, logistics, facilities engineering, building end management, i.e. the personnel that interact with the production system.



Visualizing a factory in 3D pointcloud environment

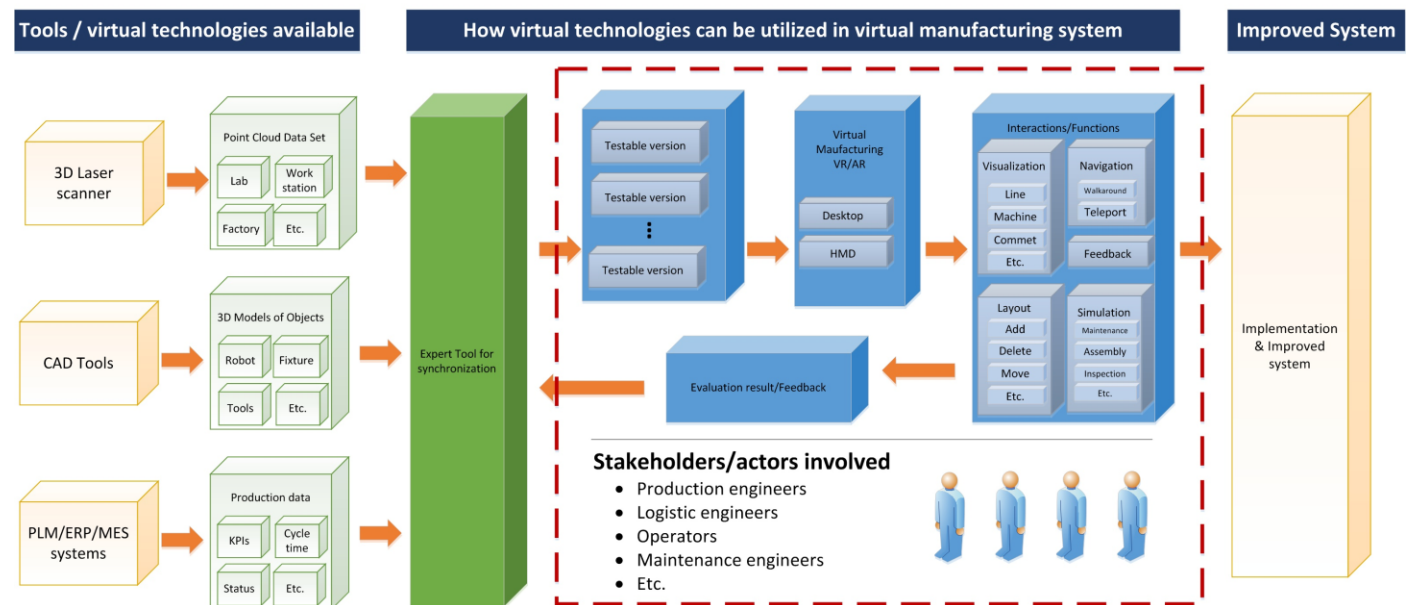


Change planning in a factory using 3D pointcloud environment

2 Interaction in 3D scans

The Use-it-Wisely project presents among other things a demonstrator used to collect feedback from these actors. Collection of feedback from the system shows that both positive benefits such as easy to use, visually representing the real factory, accurate and “near” life experiences are common from the test groups. Some obstacles are dizziness when using the head mounted displays, as well as not used to the tool as such/interfaces.

Planning process using virtual technologies for manufacturing process change



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