

MAVIMPLANT, AN ONLINE TOOL FOR BUILDING A 3D

MOCKUP WORKPLACE

In view to addressing small to medium-sized enterprises (SMEs), the INRS (National Research Institute for Safety and Health) has developed an online tool called MAVImplant, dedicated to the design of specific workplaces. SMEs are targeted by proposing an autonomous tool for SME managers that will help them at a critical juncture, when they are involved in major investments in their new workplaces and production tools.

Users log on to the Web application free of charge and can start building their prospective workplace. They are guided by the software through the main design steps: the building or the workshop itself, spatial organization, equipment layout, workers' positions, flows and circulation drawings. Information and guidelines on Occupational Health and Safety (OHS) requirements and Workplace Design "good practices" are given by the software at each step of the user's project. The tool is interactive: the user keys in information or places 3D objects in the mockup. These actions trigger alert messages which help the user to progress.

The software draws a 3D mockup with various visualization tools derived from virtual reality concepts. A report is edited; it contains the project description, its requirements and the selected mockup views. This online tool provides the SME owner with an appropriate means of exchanging on their project designs with various actors, such as the future users, the architect, project manager, or the specialists concerned. The tool will be especially useful in cases where SME owners feel at a loss in their new capacity of Contracting Authority. It allows introducing OHS issues upstream in the project, making it possible to implement preventive actions "at source".

In order to reach its target SMEs, the tool is adapted to match various sectorial applications, putting into action specific trade rules. These specific aids and rules have been formulated by expert groups including representatives from the different sectors and OHS experts. The guidelines are simple and non-restrictive. Practical examples and references are given.

MAVImplant has been launched with two pilot sectors: "Baking and Pastry making" and "Car Maintenance and Repairs". Feedback from the users will be collected after which new applications for other professional sectors will be proposed.