

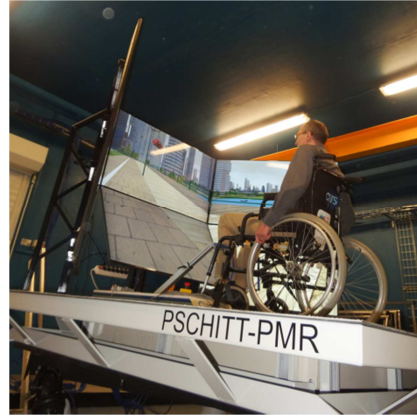
PSCHITT platform

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Financed by the Contract Plan State Region « Haut de France », PSCHITT LAMIH platform (French acronym for: Collaborative Simulation Platform, Hybrid, Intermodal in Land Transport) is a versatile simulator that can be fitted with different cabins (PMR, Rail ...) according to the scientific objectives and experimental needs.



PSCHITT-Rail



PSCHITT-PMR

PSCHITT-Rail modality

In the field of railways, a great deal of research is being carried out to evaluate the integration of new equipment in the train, or to study the behavior of drivers faced with situations at risk of accidents for example. The PSCHITT-Rail Simulator is a tool to conduct such studies in safely condition.

The PSCHITT-Rail simulator has been operational since April 2016 and has been used in the ECOVIGIDRIV project during experiments involving 80 professional drivers.

PSCHITT-PMR modality

The displacement of People with Reduced Mobility (PMR) appears to be highly dependent on the environment in which they operate. The urban environment often proves to be poorly adapted to this type of population and has characteristics that are defined in a generic way, while the handicaps can be very varied. The PSCHITT-PMR platform is a means of studying and improving the mobility and safety of PMR.

Functionality

- PSCHITT-Rail
 - Immersion sound and visual (driving view and rear view of the docks during stops in station),
 - Integration of real components in the simulated environment (hardware-in-the-loop),
 - Scripting,
 - Capture of environment and driver informations (actions, direction of gaze, behavior),
- PSCHITT-PMR
 - Visual and sound immersion,
 - Haptic return according to the context (displacement, slope, climb, ...)
 - Real-time calculation of the kinematic characteristics of the wheelchair (function of the PMR actions and of the environment).

PSCHITT is a dynamic platform (6 degrees of freedom motion system, 2t7capacity) and provide a set of means of measurements, such as a system of capture of the movement, eyes trackers, physiological measurement sensors, and so on.