

D2.4 Validated setup of measures – Executive Summary (March 2018)

This deliverable describes the developments of Task 2.4, *Validation of the user model*, and presents a set of measures that are validated in an industry similar laboratory environment as well as the experiments conducted in the scope of T2.4. The deliverable consists of an online demonstration of the use of selected measures. It includes measures to assess the parameters of the user model and technical setups, which have been tested.

In the first part of the demonstration, two separate experimental investigations are presented concerning the evaluation of two different wearable devices and the detection of the body posture (sitting, standing, and walking) of a person.

Afterwards, two pre-studies for assessing workload via smartwatch are presented. The first study utilised the possibility to assess workload via sensor data and the other study used the possibility to present short questionnaires on the smartwatch.

In the main experiment, which was conducted in a production near environment, participants were asked to produce several parts on two 3D-printers. Production data, as well as worker related data, was assessed through a technical measurement setup consisting of a Raspberry Pi and a Samsung Gear S3. It was demonstrated that the data can be collected and stored combined. In addition, the combined data was displayed on a separately developed dashboard.

The last section of this description presents the limitations and further actions within T2.4 and provides implications for the industrial pilots that are planned in the Factory2Fit project.

