

A realization of 1Point2

Designation: **Improving OEE in food Industry**

Client: Kellogg's, Jim Plested

Date: 2017

Brief description of the project:

To measure performance, this company cultivates the Overall Equipment Effectiveness (OEE). It is the ratio between the actual production and the theoretical maximum production. The OEE also makes it possible to know the potential sources of productivity, based on three measures: Availability (increase the planned production time of equipment by avoiding breakdowns and tool changes), Performance (increase the operating time of machines by avoiding micro-stops and slowed down rates), Quality (increase useful production by avoiding rejects and defects).

The dynamic simulation of this packing line makes it possible to measure everything related to the wasted capacity. Finely tuned conveyors act as buffers between machines in the various packing phases, preventing unavoidable stops on one machine from disrupting other machines. The number and position of the sensors of each conveyor are calculated for each phase.

Data related to products and production plans are taken from MS Excel, then integrated into the simulator database and in the end sent back to Excel for post-simulation analysis, with personalized charts automatically generated.

Users are testing new products, new production lines or new settings, finding here that one machine had to slow down due to lack of space on the next conveyor, or that another one remains stopped while the cleaning time is over. They identify several times 1% or 2% which allow to understand the fragility of certain phases, and to gain in performance

