

Smart Weighing System - SWS

- **Innovation name** : Smart Weighing System - SWS
- **Category**: Arable Innovation / Feeding innovation / Future farming innovation
- **Brand**: MANITOU
- **Type** : Weighing system for agricultural telescopic handler
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- **From idea to the first working prototype, how long did this innovation take to develop?**

It took 12 months to reach the first working prototype of the Manitou Smart Weighing System - SWS innovation through a short cycle with an iterative process involving a group of selected end-users from day 1.

- **If the innovation is yet to go into production, what is the target in regards to sales numbers and which markets to target?**

The Manitou Smart Weighing System - SWS has already been tested during more than 950 hours with real machines & applications by 25 different selected end-users in 5 different countries (dairy farmers, beef farmers, AG cooperatives & grain stocks, AG contractors, AG nutritionists).

Sales target is confidential but we expect between 5 to 15% of our eligible telehandlers to be equipped with the SWS option when it will become available on the market, depending on countries, applications and telehandler models.

- **Has the development of this innovation included any thought to the environment and does it meet safety standards? (800 words max)**

Environment is a strong and sustainable focus at Manitou Group.

The Manitou Smart Weighing System - SWS innovation allows various customer profiles (farmers, cooperatives, grain stocks, AG contractors) to better **control their feed rations, track their loadings and analyze their weighing data** :

 - it lowers feed excess (environment)
 - it reduces trailers overload (safety)
 - it decreases fuel consumption (environment)

- **Would there be any use for this innovation outside of agriculture?**

Yes, the Manitou Smart Weighing System - SWS can also be used in construction and industry markets to track loadings & monitor storages.

- **Is this innovation a solution to a short term problem, or will it continue to provide end-user benefits for years to come? (400 words max)**

The the Manitou Smart Weighing System - SWS innovation provides short, medium and long terms gains to the operator in terms of:

 - user-friendliness (integrated in the existing 7" display, quick tare process)

- productivity (static/dynamic weighing, measure of the load wherever inside the load chart, integrated feed rations)
- profitability (weighing precision means less waste, so better profitability of the equipment)

- **Description**

MANITOU presents its new and unique Smart Weighing System - SWS innovation.

- The customer challenge
 - In the Agriculture & Agro-industrial markets, customers often need to measure the quantity of handled material (feeding, bulk, bales) with both accuracy & productivity.
 - The existing weighing systems usually require:
 - additional screen in the cab decreasing visibility & ergonomics,
 - calibration for each attachment increasing complexity,
 - static weighing in a single and constraining position lowering productivity.
- The Manitou solution
 - The Manitou Smart Weighing System - SWS solution is a fully integrated weighing system, which is **more connected, productive and user-friendly** than existing weighing systems.
 - More than weighing, the SWS aims to provide strong business added value to various customer profiles (farmers, cooperatives, grain stocks, AG contractors)
 - **Control the feed**
 - **Track the loadings**
 - **Monitor the storage**
 - **Analyze the weighing data**
 - The SWS solution is both available in factory fitted option and aftermarket option (retrofit).
- The customer benefits
 - **productivity**
 - static/dynamic weighing with +/- 2% accuracy
 - manual and automatic data recording (based on configurable boom angle)
 - measure of the load anywhere inside the load chart (with telescopic in/out)
 - integrated feed rations co-designed with AG nutritionists (13 rations, 44 ingredients)
 - **safety, ergonomics, easiness of use**
 - reduced risk of trailers overload
 - intuitive control through the integrated in-cab 7" screen (unified user experience for all functions)

- no attachment calibration required thanks to a quick tare process
 - unlimited number of attachments
 - permanent weighing data visibility even with camera view on display
 - in-cab QR code to access SWS tutorial videos
 - **technical design**
 - ability to install the SWS in factory fitted option or aftermarket option (retrofit)
 - 4 weighing modes (basic, cumulative, target, feed) and 2 counting modes (basic, target)
 - **integration of digital features, connectivity**
 - in-board data dashboard integration in machine interface
 - off-board data dashboard integration in myMANITOU app
 - storage management per ingredient/material
 - activity tracking (rations, ingredients)
 - **environmental impact**
 - reduced feed excess
 - decreased Fuel consumption
- Supporting materials:
 - Video
 - Visuals in HD
 - **This innovation can be seen at the following address :**
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44150 Ancenis
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