**B-ESECURE: ELECTRONIC SYSTEM TO MEASURE AND IMPROVE BIOSECURITY ON PIG FARMS** 

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## Introduction

Biosecurity procedures impact diseases such as PRRS, but applying and following biosecurity rules is often difficult. B-eSecure is an electronic system that besides external biosecurity, tracks and reports correct and wrong movements of people on farms and visualizes effects of biosecurity improvement on health status and production results. This PigChamp EU program is being piloted by MSD-AH in farms around the world and implementation in 2 Dutch farms is described.

## Materials and method

Via installed tracking-devices, movements of people who wear personalized beacons are reported. The PRRSv status of sows, gilts, farrowing-, nursery- and finishing unit was determined and groups with circulating PRRSv defined as red vs groups without as grey. Movements from grey to red were defined as safe and from red to grey and between red as risk respectively unsafe unless a hygiene-lock was used between them (checked by locker devices). The % of correct and risk/unsafe movements per farm and person were reported monthly. Training and reports were implemented to reduce the amount of wrong movements. The effects on PRRSv prevalence and production parameter are monitored via regular diagnostics and management system.

## Results

Farm (multiplying) 900 sows: PRRSv+ farrowing, nursery and rearing gilts. Risk/unsafe movements were reduced: September 27% vs October 23%. PRRSv prevalence in the farrowing units decreased by 50% and the amount of detected virus dropped 99% in nursery and farrowing.

Farm (breeding) 700 sows: PRRSv+ rearing gilts unit. Amount of wrong movements remained low at 7% in Oct. Extensive PRRSv monitor will be done every 4 months and 2 groups of mature-gilts tested monthly. No PRRSv was detected in October.

## Conclusion

B-eSecure is very helpful for visualization, implementation and improvement of biosecurity procedures. Linking the program with PRRSv prevalence data and production results helps to reach and maintain a high level of biosecurity.