

- Intelligent Documentation Systems for Animal Welfare in Slaughterhouses -

Space Available

Prodder Usage

Environmental Parameters

Digital Checklist

Stun Monitoring

65,30 dB

Noiselevel Dashboard

CO2- Stunning

Historical Weather Data

Counting

## Overview of Genba Solutions



# Why Animal Welfare Surveillance

## Law and Certifications

- Meet the Regulation (EU) 1099/2009
- Automatical documentation
- Support for certification standards

## Increase Meat Quality

- 100% Monitoring of each animal
- Reduced stress for animals
- Automatic generated and well-founded database to train workers

## Reduce Costs

- Proactive system - reduced cost due to less personal supervision
- Reduced need for manual documentation
- No damage to your reputation

WHY ANIMAL WELFARE SURVEILLANCE

# Why Genba Solutions

## Secure Data, Proven Standard Software

- Data portal is Power BI, a performant and flexible analysis software from Microsoft
- Power BI is available in all languages
- Data safety through geo redundant storage within Europe (GDPR compliant)
- 24/7 access via PC or App

## Experience in Animal Welfare

- Parameters according to the leading institute bsi-Schwarzenbek are implemented in the system
- Recommended by the Dutch animal welfare organization "Eyes on Animals"

## Well-founded and tested

- Easy automation
- Known hardware and software
- Carefully selected standard equipment for the tasks → reduce costs

## Meet Consumer Requirements

- Consumer increasingly require high animal welfare standards





Genba Solutions solve essential monitoring tasks based on experience, tested equipment and reliable software.



Do not invent the wheel twice.



# Quick and Easy System Design, Configuration and Implementation of your automatic animal welfare documentation system.

You  
+  
Genba Solutions

chat,  
phone,  
videocall

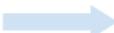


**Together we clarify what you need**

- Which system, sensor and data is needed?
- How is your existing infrastructure?
- What data do you need and how should it be presented in diagrams?



Genba Solutions



**Genba Solutions prepares the hardware for implementation**

- Genba Solutions sources the appropriate hardware
- Assembly of the system
- Programming and configuration
- Genba Solution ships hardware with instructions for your technician/electrician



You  
+  
Genba Solutions

chat,  
phone,  
videocall



**Your Electrician installs the system**

- Installation of the hardware in the control cabinet
- Installation of sensors

**Genba Solutions supports you**

- Genba Solutions calls and supports for local mounting and implementation
- Genba Solutions is available for eventual troubleshooting
- Login to Power BI and go through the program together



### Space Availability

#### Checking available Space

- Automatic visual detection and counting of pigs.
- Checking the available space in the waiting stall at 5-second intervals.
- One camera system is required for every 15m<sup>2</sup> square pen area.
- Mounting height 4 m.
- Stable results even in changing light conditions.
- Guide price € 900.00 to € 1800.00 net.



### Environmental Parameters

#### Included sensors

- Temperature
- Humidity
- CO<sub>2</sub>
- Noise
- Ammonia
- Guide Price € 5,700.00 net

### Counting Prodder Usage

- Available electric prod: Type KAWE21 (like on the picture).
- The transmission range is 100 m with walls and 3,000 m line of sight.
- Each data logger can handle eight drivers.
- An integrated counter continues to count even without a signal being received to check whether the electric prod has been used outside the reception range or whether the receiver has been deactivated.
- Real-time data on PC and smartphone.
- Data integration into the digital checklist is possible.
- Guide price for 1 electric driver + 1 data logger € 1,700.00 net.



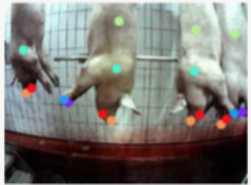
### Prodder Usage

### Mobile and Desktop App

- Prepared tasks according to regulation 1099/2009.
- Series task function.
- Dokumentation with photo.
- Documented continuous improvement process (CIP) to remedy defects.
- Guide Price: One-time license per slaughter facility from € 5,000.00 to € 7,000.00 net.



### Digital Checklist



### Monitoring of Stunning

#### Detecting Movements

- A neural network that is individually trained for each application recognizes characteristic movements that indicate a lack of stunning.
- Gasp, leg movement and bleeding stitch detection.
- Several pigs can be analyzed at the same time.
- Local analysis, no transmission of imagery.
- Visual alarm when a movement is detected.
- Detected movements are entered into the database.
- Local storage of a video sequence five seconds before the alarm and five seconds after.
- Guide price from € 14,000.00 to € 19,000.00 net.



### CO2- Stunning

#### CO2 Stunning Parameters

- Recording CO2 concentration, stun duration and temperature in the pit.
- Countdown display to see if the bleeding cut is in time.
- Checking the maximal allowed number of pigs.
- Measuring noise to see if pigs are silent after 25 seconds.
- Guide price from € 4,500.00 to € 8,000.00 net.

#### Measuring and Recording Noise

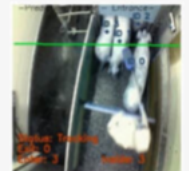
- 54,6 cm (option: 86,4 cm/34" or 109,2 cm/43")
- Every 10 seconds and when noise level changes more than 12%
- Live-data accessible with mobile or web application
- Pighead-symbol changes when threshold is passed. Designed by Madelaine Looije from <https://www.eyesonanimals.com/>
- 230V Power supply
- Class IP54 protection, suitable for dusty areas
- Wallmount
- Guide price from € 5,500.00 to € 7,500.00 net



### Noiselevel Dashboard

#### Counting pigs on the go

- Count when crossing a virtual line, for example when unloading or driving into the CO2 stunning.
- Analysis frequency 10x per second.
- Guide price from € 4,500.00 to € 7,200.00 net.



### Counting