

Integrating Laboratory Examinations into the Pig Health Info System

Degree programme : BSc in Computer Science | Specialisation : Distributed Systems and IoT
Thesis advisor : Prof. Dr. Ulrich Fiedler
Expert : Andreas Dürsteler

Preventing disease outbreaks among livestock requires monitoring the health of animals closely. Linking laboratory examinations with existing data helps getting the right diagnosis during examinations and provides a greater overall picture for monitoring.

Introduction

To ensure the health of animals and prevent the spreading of diseases livestock on farms is regularly checked by a veterinarian. For pigs the reporting of these examinations is currently digitalized in the Pig Health Info System (PHIS) project, where veterinarians can report their findings directly on site using their mobile device or later from the office over a web application.

Since not all examinations can be performed on the farm by the veterinarian carcasses or samples can be sent to a laboratory for further examination over the PathoPig and ZoE-BTA programs from the Federal Food Safety and Veterinary Office.

The goal of this thesis was to integrate the submission of laboratory examinations into the Pig Health Info System. The submission is done after entering the results of the examination that lead to the decision that further examinations in the laboratory are required. Information that was already registered for the examination on the farm can be transferred to the laboratory submission.

Results

The submission for laboratory examinations was implemented within the existing angular web application and spring-boot REST API. To submit a new laboratory submission, the user selects a previously completed farm examination report which is then used as source to copy all required information that already exists. Depending on the requirements of the specific question in the submission form either all corresponding records are copied and can be edited or deleted, or they are displayed from the examination report used as source where they can be cherry picked to be included in the submission.

After completing the form, the veterinarian sees a summary of the information in the submission which is sent to the laboratory after the user's confirmation that everything is correct.



Adrian Aulbach

