

**AGILEHAND Project –  
WP6.3 Rapid Reconfiguration  
Marelec Use Case – 1<sup>st</sup> software demonstrator  
Documentation**

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**Marelec use case**

QUALITY RATIO PREDICTION

QUANTITY PREDICTION

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## Table of content

1. Introduction.....	2
2. Connection to the software demonstrator .....	2
3. General Overview.....	2
4. Implementation details of 1. Demonstrator.....	6

## 1. Introduction

This document describes the implementation of Marelec use case for the 1<sup>st</sup> demonstrator (August 2025).

The documentation is as follow structured: After a general introduction in chapter 1, the connection to the software demonstrator will be described in more detail in chapter 2. After that a general overview of menu of the software demonstrator will be presented in chapter 3. Moreover, in chapter 4 the implemented functions of the 1<sup>st</sup> Demonstrator will be explained. Additional to that, a video for guiding the user to the menu should support the usage of the demonstrator and is uploaded to the Agilehand Teams folder: [250820 Marelec 1 Demonstrator](#)

## 2. Connection to the software demonstrator

Check the attached document with the title 250417\_VPN\_Connection\_Fraunhofer.

To access it, it is necessary to be connected to the Fraunhofer IPT's network or VPN and enter the following URL in a browser:

- **Internal (only FHG access):** <http://10.32.199.78:3000/>
- **External (via VPN for Agilehand partner):** <http://10.36.97.253:3001/>

## 3. General Overview

This software is part of the AgileHand project ([AgileHand Project - AgileHand](#)) and aims to prediction the product quality and quantity based on historical data in the poultry industry.

On the initial screen, it's necessary to select the type of prediction (product quality or quantity). After selection the relevant inputs should be filled in from the user.

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## Marelec use case

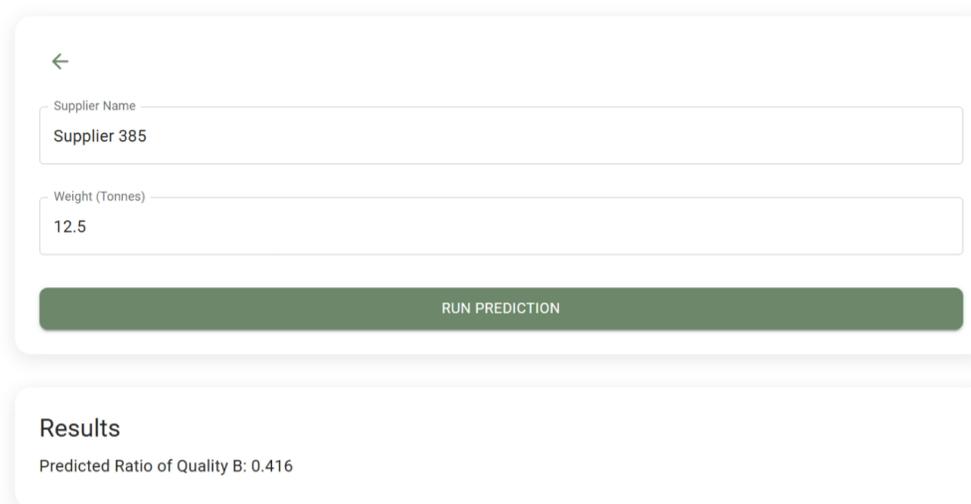


### *Choose screen*

By clicking “QUALITY RATIO PREDICTION” a new screen with two inputs (Supplier name and Weight) will be loaded. On this screen, it’s necessary to fill both the fields to run a prediction and receive a result about the quality of classification B in percentage for the next week. The prediction value is depended on the actual session time and is taken into account historical data.

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## Marelec use case



### *Quality prediction*

By clicking the “QUANTITY PREDICTION” button, a new screen will appear with a Supplier Name input. Fill this input and run a prediction will show a result about quantity in tonnes for that supplier for the next week. Also, this prediction value is depended on the actual session time and is taken into account historical data.

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## Marelec use case

The screenshot shows a mobile application interface. At the top left is a back arrow. Below it is a text input field labeled "Supplier Name" containing the text "Supplier 385". Below the input field is a green button labeled "RUN PREDICTION". Below the button is a section titled "Results" which displays the text "Predicted Quantity (Tonnes): 43.672990984681825".

### *Quantity prediction*

The question mark button on the right top corner shows a pop up with a short explanation about how to use the application.

The help popup window has a title "Need help?". Below the title is the text "First select the type of prediction you want to run:". This is followed by a bulleted list with two items: "• **Quality Ratio Prediction:** Enter the supplier name and weight in tonnes to get the quality ratio prediction." and "• **Quantity Prediction:** Enter the supplier name to get the quantity prediction." Below the list is the text "Click 'Run Prediction' to see the results. Always ensure that all required fields are filled in before submitting." In the bottom right corner of the popup is a button labeled "CLOSE".

### Help popup

Moreover, the used models were trained with a dataset which includes the following names of suppliers. For this demonstrator version, only this supplier names will work with the model.

Supplier Name

1. Supplier 368
2. Supplier 369
3. Supplier 370
4. Supplier 371
5. Supplier 372
6. Supplier 373
7. Supplier 374
8. Supplier 375
9. Supplier 376
10. Supplier 377
11. Supplier 378
12. Supplier 379
13. Supplier 380
14. Supplier 381
15. Supplier 382
16. Supplier 383
17. Supplier 384
18. Supplier 385
19. Supplier 386
20. Supplier 387
21. Supplier 388
22. Supplier 389

## **4. Implementation details of 1. Demonstrator**

For the development of the 1. Demonstrator the main function is choose between two different types of predictions and run it to show its results on the screen.

### **4.1. Function #1 – Choose type**

In this application it is possible to choose between to different types of prediction, quality and quantity. The first screen is where the type can be chosen.

### **4.2. Function #2 – Predictions**

Fill the inputs and run a prediction will return data for the next week. It can be a prediction about quality or quantity depending on which type is running.