

# Working Backwards Deliverables

## FAQ

The FAQ is structured into two parts, the Customer Solution FAQ and the Client Solution FAQ

### 5.1 CUSTOMER SOLUTION FAQ

- **Question 1: What is the main purpose of the application?**

**Answer:** PredictiveBMS uses data analytics and machine learning to predict failures in AHUs (Air Handling Units) and notifies users quickly when a failure is about to occur. The notifications are sent via the mobile app. Details can be viewed through the web dashboard solution.

- **Question 2: Who can use the application?**

**Answer:** The application offers usage possibilities for both engineers/ technicians who are in charge of controlling and observing the respective AHUs and the management to be informed about AHU failures over time.

- **Question 3: How does the use of the application change the way we work?**

**Answer:** Instead of acting reactively to wear and failure of AHUs, proactive intervention is possible before they fail completely. Users are informed about potential failures through notifications in real time, and records of alerts that have occurred in retrospect can be viewed and evaluated.

- **Question 4: Where can I view potentially upcoming failures?**

**Answer:** Predicted failures are shown on the user interface on the app as well as on the dashboard. For the app notification can be turned on to pop up if a failure is about to occur.

- **Question 5: Who is allowed to access the app?**

**Answer:** Access is limited to the engineers/ technicians, facility managers and everyone who needs insight. This is ensured by the restriction that registration for the application is only possible with an email address of the Museum of London.

- **Question 6: Is the engineering staff still required after the PredictiveBMS system is implemented and correctly configured to predict failures with high accuracy?**

**Answer:** The goal of PredictiveBMS is not to replace the engineer. The system is designed to support the engineers' work and aims for minimizing stress through the predictive maintenance solution.

- **Question 7: How does the solution react to new AHU systems?**

**Answer:** Our implementation is trained by the data that will be generated in the future and should continue to run even when new systems are deployed.

- **Question 8: How accurate are the predictions?**

**Answer:** Based on past data, each possible error is assigned to a certain confidence level.

## 5.2 CLIENT SOLUTION FAQ

· **Question 1: What value does this solution offer to the MoL?**

**Answer:** This application will allow the engineering team to be notified, if a failure of an AHU is predicted based on data analytics. Therefore it helps to reduce downtime of these units and protect the artwork from fluctuation of the environmental conditions. Our web solution also provides to observe the progress of each predicted failure in detail and shows information about what type, when and where failure is about to occur to support the engineers in handling it accordingly. Past and future failures can also be sorted or filtered for a better overview.

· **Question 2: How long into the future can a failure be predicted?**

**Answer:** We predict unusual behavior for certain parameters 1 day into the future. Thereby we maximize accuracy and reduce inaccurate warnings.

· **Question 3: How do you ensure only MoL staff is allowed to view the dashboard and receive notifications about a predicted failure?**

**Answer:** Users must create an account with an MOL email address. The generated credentials (username and password) are then required for the login and view the dashboard and receive notifications via the mobile app.

· **Question 4: Could other types of units be added to the system?**

**Answer:** No, so far only failures for the air handling units can be predicted.

· **Question 5: Do we need to train staff?**

**Answer:** PredictiveBMS is easy to use and self-explaining. So explicit training should not be needed.