Evaluation Feedback for COMP2811

### Introduction

This document summarizes the evaluation feedback collected for the COMP2811 project, which includes the Dashboard Overview, Pollutant Overview Page, Persistent Organic Pollutants (POPs) Page, Environmental Litter Indicators Page, Fluorinated Compounds Page, and Compliance Dashboard. The feedback aims to identify improvements in usability, functionality, and overall design to meet user needs and enhance application performance.

## Feedback Summary

### Dashboard Page - Sultan

**Questions Asked:**

1. Is the dashboard layout intuitive and visually appealing?
2. Do the pollutant summary cards clearly communicate compliance information?
3. Are the navigation links to detailed pages easy to locate and use?

**Participant Insights:**

1. Most participants praised the dashboard for its clean design but suggested adding filter controls if possible.
2. Compliance indicators were seen as effective; however, participants recommended adding textual descriptions as well as colour-coded statuses for accessibility.
3. Two participants mentioned the need for adaptive resizing for better viewing on smaller devices.

**Lessons Learned:**

1. Attempt to add filter for quick access.
2. Enhance accessibility with descriptive compliance indicators (with colours).
3. Ensure responsive design elements for seamless tablet and mobile experience.

### Pollutant Overview Page - Eben

**Questions Asked:**

1. Is the search functionality easy to use and effective?
2. Do the time-series/bar charts provide clear pollutant trends?
3. Are compliance indicators clear and consistent?
4. Does the page offer sufficient details on pollutant risks and thresholds?

**Participant Insights:**

1. The search bar was appreciated for its simplicity but could benefit from auto-suggestions for pollutant names.
2. Charts were clear but lacked markers for significant thresholds or alerts.
3. Compliance color-coding was praised, but additional explanations on thresholds were recommended.

**Lessons Learned:**

1. Add auto-suggestions for pollutant search functionality.
2. Include threshold markers on charts for better data interpretation.
3. Provide contextual explanations for compliance thresholds in tooltips.

### Persistent Organic Pollutants (POPs) Page - Sultan

**Questions Asked:**

1. Are the data trends displayed effectively using line charts?
2. Do rollover pop-ups provide meaningful insights into pollutant details?
3. Is the compliance color-coding intuitive and helpful?
4. Would a drop-down menu be preferrable over all the data on one line graph? If so, how would you break down the different drop-down options?

**Participant Insights:**

1. Line charts were well-received, but participants suggested adding a line for critical compliance thresholds.
2. Pop-ups were considered informative but could use simpler language for wider accessibility.
3. Compliance indicators were effective, with consistent feedback on their intuitive design. However, some participants insisted having a coloured column in the table would look easier on the eyes.
4. Drop-down menu heavily recommended, with most agreeing with a “Sample Point – Date” format for each option.

**Lessons Learned:**

1. Enhance line charts with compliance threshold line.
2. Simplify language in rollover pop-ups.
3. Ensure visual consistency with the Dashboard Overview.
4. Add drop-down menu in “Sample Point – Date” format.

### Environmental Litter Indicators Page - Aman

**Questions Asked:**

1. Are the litter comparison visualizations clear and engaging?
2. Do the compliance indicators align with EU Bathing Water standards?
3. Are the filters for location and litter type easy to use?

**Participant Insights:**

1. Pie charts for litter comparisons were engaging but could use interactive drill-downs for more detail.
2. Compliance indicators were well-received, with one participant suggesting the inclusion of additional contextual information on litter regulations.
3. Location filters were functional but required more visibility on the page.

**Lessons Learned:**

1. Add interactive drill-down capabilities to pie charts.
2. Include contextual explanations for litter-related compliance.
3. Improve filter visibility for quicker navigation.

### Fluorinated Compounds Page - Anhmlpje

**Questions Asked:**

1. Does the map/time-series visualization clearly display compound distributions?
2. Are the compliance indicators easy to understand?
3. Do rollover pop-ups provide sufficient health and environmental impact details?

**Participant Insights:**

1. Map visualizations were appreciated but lacked zoom controls for detailed analysis.
2. Compliance indicators were clear, with a request for additional explanations on PFAS safety levels.
3. Pop-ups were informative but could benefit from a more concise format.

**Lessons Learned:**

1. Add zoom controls to the map visualization.
2. Provide concise but detailed pop-up information.
3. Ensure compliance indicator consistency across pages.

### Compliance Dashboard - Kat

**Questions Asked:**

1. Do the summary cards effectively communicate compliance status?
2. Are the filters for location and pollutant intuitive and functional?
3. Do the pop-up details provide sufficient explanations for non-compliance?

**Participant Insights:**

1. Summary cards were effective, but participants requested more detailed explanations for non-compliant statuses.
2. Filters were intuitive, though a multi-select option for pollutants was suggested.
3. Pop-ups provided helpful summaries, but participants recommended adding historical trends for context.

**Lessons Learned:**

1. Include more detailed explanations for non-compliant summary cards.
2. Add multi-select functionality to filters.
3. Provide historical trends for non-compliant sites in pop-ups.

### General Feedback

* Navigation: Ensure consistent navigation elements across all pages for a seamless user experience.
* Accessibility: Consider adding alternative text whenever colour indicates important information.
* Visual Design: Maintain consistent styling and formatting across all pages to reinforce a cohesive design.

### Changes to Implement

* Dashboard: Add more dashboard functionality, if possible, enhance compliance view, and improve responsive design.
* Pollutant Overview: Add auto-suggestions, threshold markers, and compliance explanations.
* POPs Page: Improve tooltip language and enhance line charts with threshold line and drop-down menu.
* Litter Indicators: Introduce drill-down capabilities and improve filter visibility.
* Fluorinated Compounds: Add zoom controls and concise pop-ups.
* Compliance Dashboard: Include detailed non-compliance explanations and historical trends.