



四十五年齊臻善 創新蛻變展佳績

Continuous improvement for 45 years Innovate, Transform for greater success

臻善圈 **決賽隊伍** 提案摘要

PROJECT SUMMARIES OF WIT **FINALISTS**



港鐵設施管理車站清潔部

MTR Nordic Facility Management /
MTR FM Station Cleaning Division

月台安全區域的「清潔怪人」
"Frankenstein" Cleaning of the
safety zone at the platform

成立日期
Date of Team Formation 09/2023

圈長
Team Leader Claudio Contreras MASSU

促進員
Facilitator [Name]

圈員
Team Members
Daniel MEICA
Adrian RADULESCU
Marcin GORZUCH
Ermias Wondwossen SEYOUM
Sanker ALZANGANEE
Tadesse HABTE



問題剖析

- 清洗戶外地鐵站安全區內的白線和導盲徑涉及高昂成本。
- 以機械進行清潔後，須採取特殊的防護措施，通常會造成高昂的人力成本。對於戶外車站，高壓沖洗是最適合清潔安全區域的方法。
- 可惜的是，找尋一部能夠在合理時間內達到理想效果的高壓沖洗設備是很困難的。若使用傳統的高壓沖洗槍或噴槍，需要幾個晚上才能完全清潔一個車站。

改善方法

- 我們購買市面上的沖洗器並加以改裝，因為這些沖洗器的兩側在出廠時已有車輪，令它們無法清潔月台的邊緣。
- 我們在沖洗器上安裝了已升級及更有效率的噴嘴，以提高高壓沖洗的清潔效率。

總結成果

有形得益

- 由於員工在同一時間內可清洗多個車站，減少了員工數量和化學品用量，每年可節省高達 70,000 元。
- 提升我們提供的清潔品質。
- 節省 1 名全職員工 (FTE) 的支出

無形得益

- 我們透過顯著減少使用化學品，令清洗更環保。
- 清潔過程更順暢。
- 設計更符合人體工學，為員工帶來更佳的工作環境和健康。



Problem Analysis

- High costs associated with the cleaning of white lines and tactile lines within the safety zone of outdoor metro stations.
- These mechanical interventions entail special protective measures that often result in high personnel costs. At outdoor stations, high pressure flushing is the most suitable cleaning method for the safety zone.
- Unfortunately, it is difficult to find pressure washer equipment that can be used to achieve the desired results within a reasonable time frame. With a traditional high-pressure flushing lance or gun, it takes several nights to completely clean a station



Improvement Methods

- We modified the purchasable flushers because they came from the factory with wheels on both sides and could not clean the edge of the platform.
- We have installed upgraded and more efficient nozzles on the tool to improve the cleaning efficiency of high pressure flushing.



Summary of Achievements

Tangible Benefits

- Several stations can be cleaned during the same time period savings up to 70,000 dollars per year due to reduction in the number of employees and chemical use
- improved quality of the cleaning we deliver
- Save 1 full-time employee (FTE) expenditure

Intangible Benefits

- Environmentally friendly cleaning because we use significantly less chemicals.
- Smoother cleaning process.
- Better working environment and well-being because it is more ergonomic for the employee



未經改裝的設備。

The equipment when purchased, before all the modifications.



改裝完成後的設備。

The equipment after all modifications were done in shop.



設備全面投入服務。

The equipment in full production.