

CONTINUOUS IMPROVEMENT – A3



1

Project title:

Reduce Carbide Expenditure in Tooling Department

Learners

Alex Maguire

Work area:

Tooling (Milling)

Process:

Tool Consumption

Date:

9/3/2024

2 Background

Define

This project aims to reduce Carbide expenditure within the Tooling Department. It will focus on 3 objectives,

- To introduce a process to increase control on Tool use.
- To explore the potential for use of Tools from Alternative Tooling providers.
- Explore recycle opportunities for Carbide Cutters.

STAKEHOLDER

Daniel Ryan
Peter Ott

ROLE

Project Sponsor
Tooling Production Manager

IS

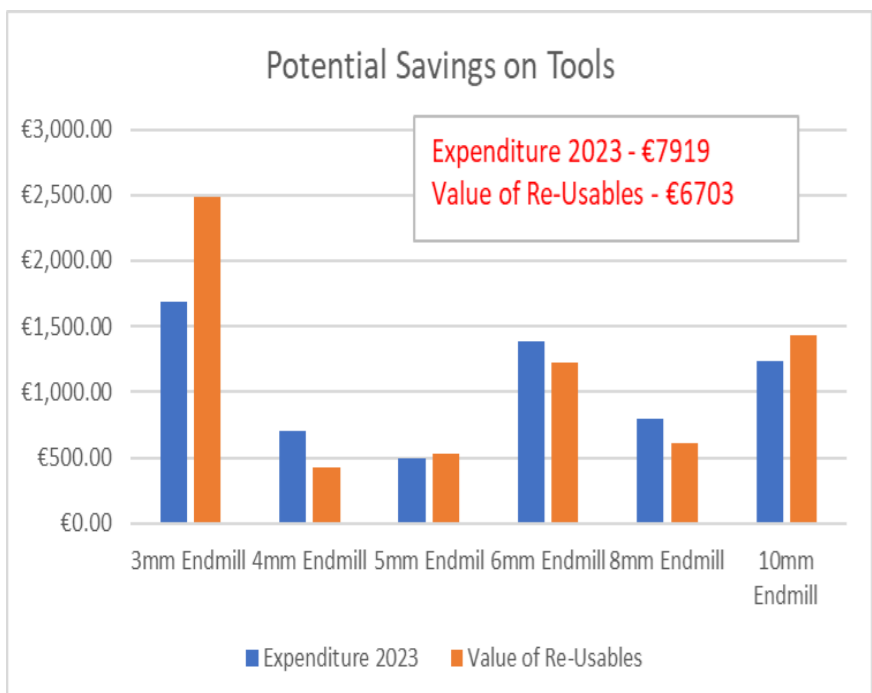
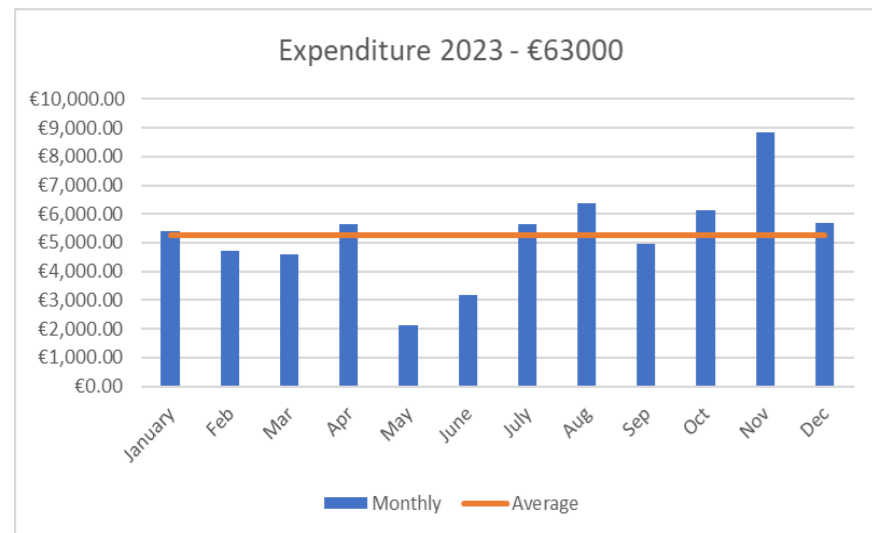
Dawnlough
Tooling Department
WNT Vending Machine
End Mills
Milling Machines

IS NOT

Production
Assembly
Lathes
Online Orders

3 Current Condition

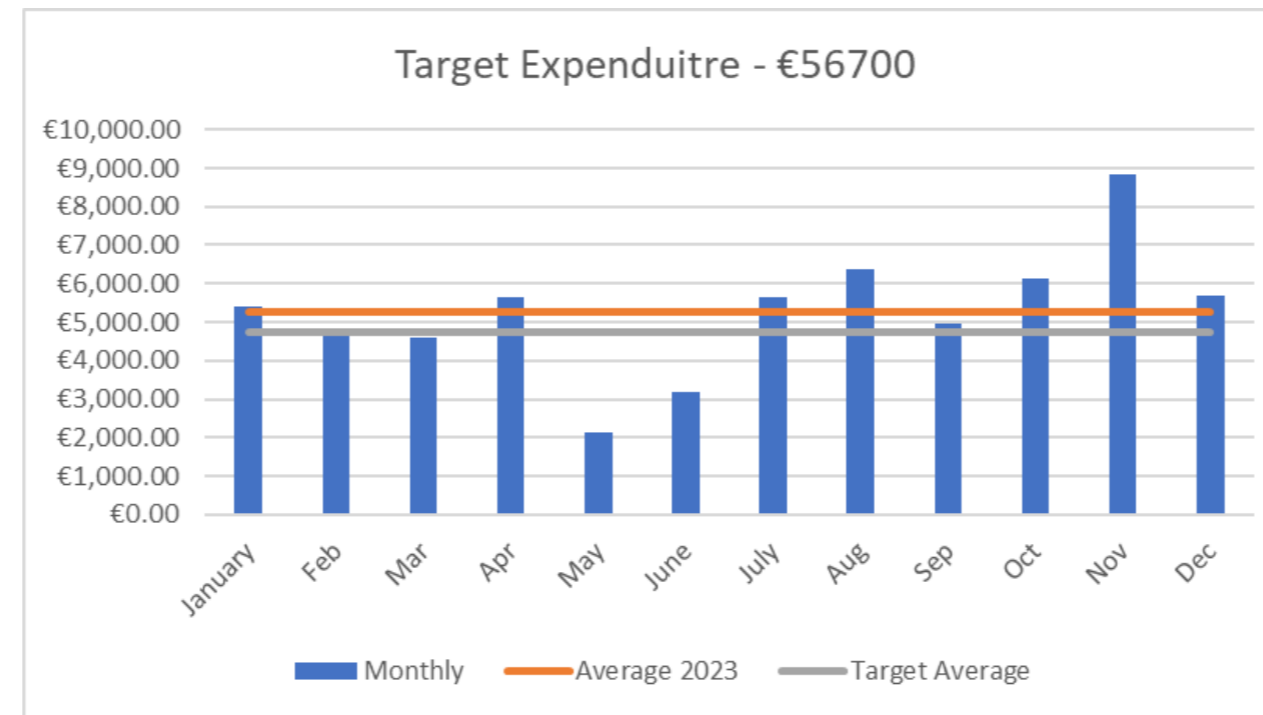
Define/Measure



- Large number of good quality tools being scrapped.
- Re-use, Re-grind, Re-cycle process aims to implement a circular process in which tools have multiple life cycles.
- 5S Principal drives this process to minimize waste.

4 Target / Goal

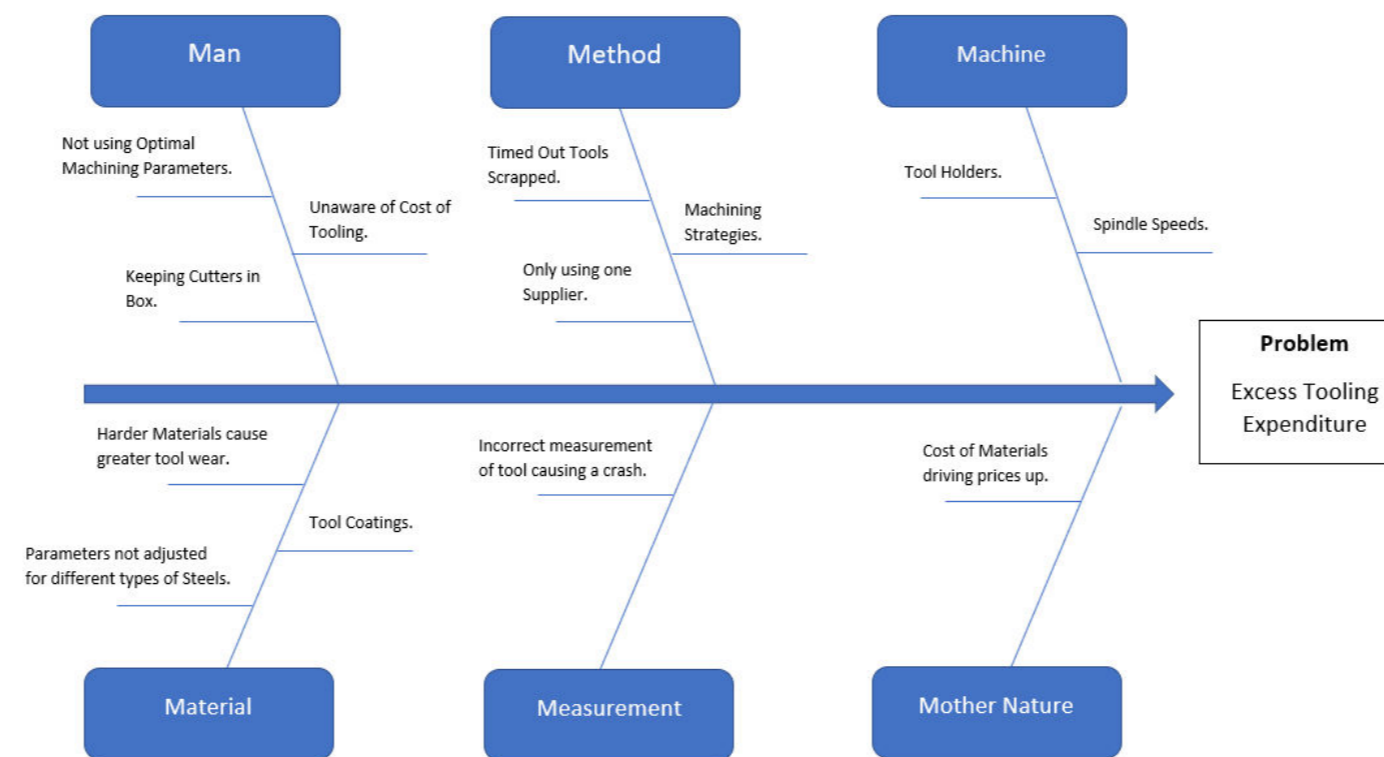
Measure



The Target for this Project is to reduce expenditure by 10% which would reduce Monthly Average from €5250 to €4725 and save a Total of €6300 over the year.

5 Analysis

Analyse



After creating a Fishbone Diagram, it was determined that the greatest contributors to the problem of Excessive Tooling Expenditure were;

- Timed out Tools being Scrapped.
- Only using one Tooling Provider.

6 Countermeasures

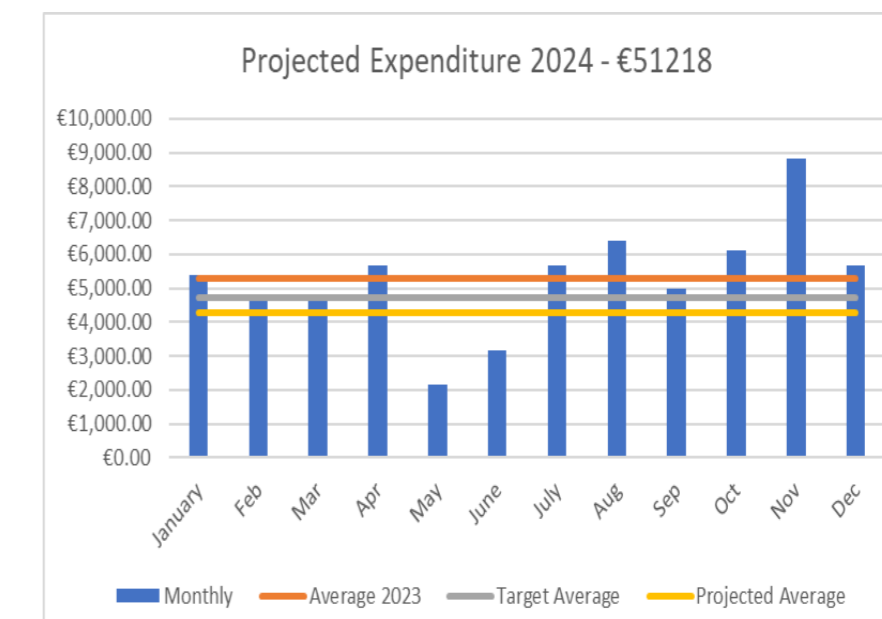
Improve

Issue Number	Date Raised	Issue Description	Counter Measure	Who	When	Status
1	31/3/24	Not using optimal machining parameters	Training	Peter Ott	19/3/24	Complete
2	31/3/24	Unaware of Tooling cost	Monthly notices on expenditure	Peter Ott	2/4/24	In Progress
3	31/3/24	Keeping cutters in toolbox	Urge operators to use cabinet	Peter Ott	19/3/24	Complete
4	31/3/24	Harder materials causing greater tool wear	Refer to tooling data sheets	Alex Maguire	22/3/24	Complete
5	31/3/24	Tool coatings	Use appropriate tools	Alex Maguire	22/3/24	Complete
6	31/3/24	Timed out tools scrapped	Implement new process	Alex Maguire	4/3/24	Complete
7	31/3/24	Machining strategies	Training	Peter Ott	7/3/24	In Progress
8	31/3/24	Only using one supplier	Explore alternative suppliers	Alex Maguire	20/2/24	Complete
9	31/3/24	Incorrect measurement of stock causing tool crashes	Training	Peter Ott	22/2/24	Complete
10	31/3/24	Tool holders	Use more High Precision holders	Peter Ott	2/4/24	In Progress
11	31/3/24	Spindle speeds	Training	Peter Ott	2/4/24	Complete
12	31/3/24	Cost of materials driving price of tooling up	Explore alternative suppliers	Alex Maguire	20/2/24	Complete

7 Implementation Plan

Improve

- Alternative Tooling provider found – 42% saving on 2023 for End mills 2-16mm.
- Re-usable tool cabinet implemented with process.
- Projected result of at least 19% reduction overall.



8 Follow UP

Control

- Refer to vending machine data and tool withdrawal to ensure proper use of re-usable cabinet.
- Observe monthly expenditure.
- Begin re-grinding tools collected in re-grind bins, these tools to be added to re-usable cabinet.