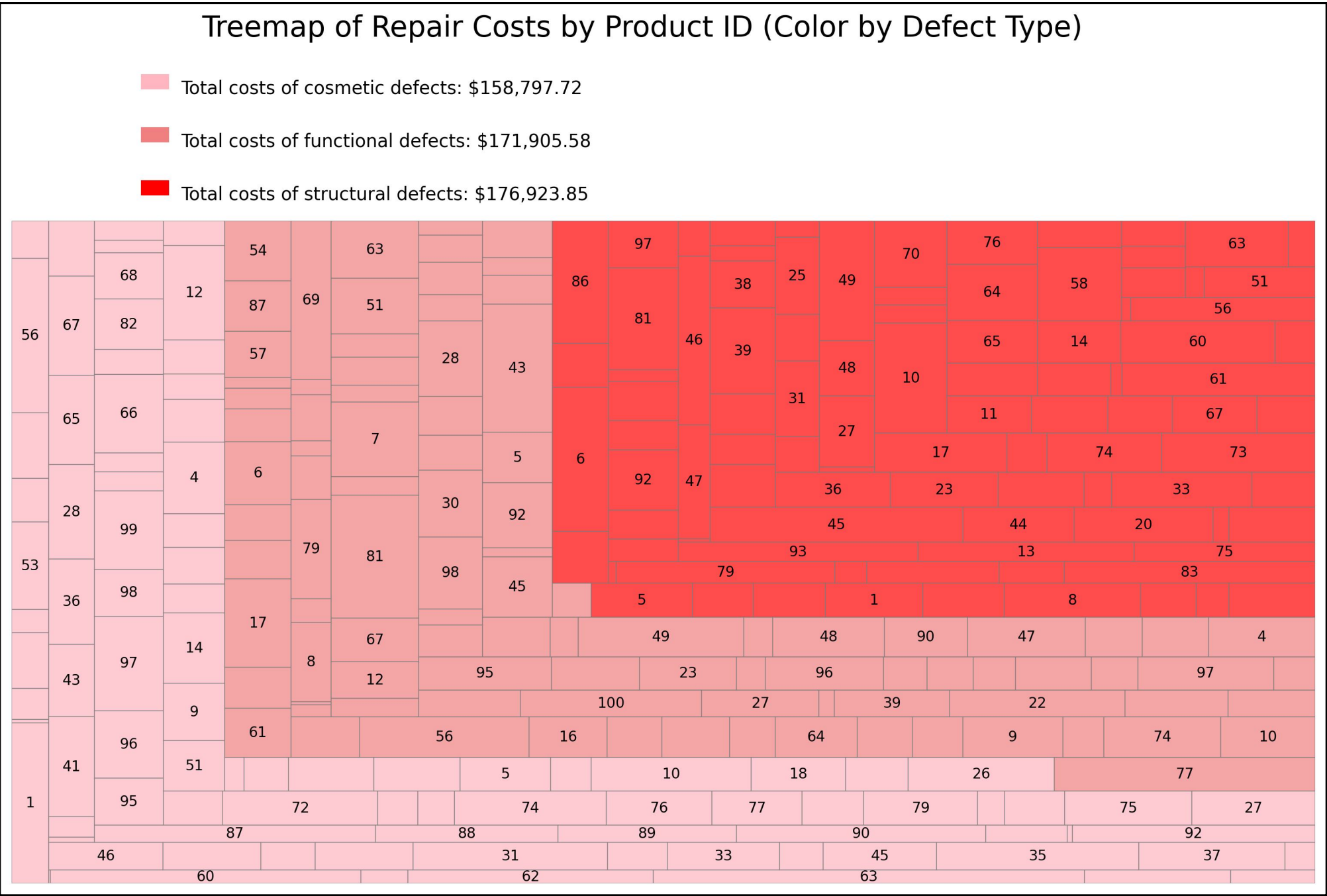


Introduction

The analysis of defects in manufacturing processes is critical for identifying inefficiencies, reducing costs, and improving product quality. This report presents three distinct visualizations to explore and interpret data on manufacturing defects effectively:

- 1. Treemap of Repair Costs by Product ID and Defect Type
- 2. Radial Bar Plot of Repair Costs by Defect Type and Severity
- 3. Network Graph of Product IDs and Defect Types



The Steps of the Analysis:

1. Identifying the total cost of different defect types. (Treemap)

↓
2. Identifying the severity of among different defect types. (Radial Bar)

↓
3. Identifying the defect types among all products (Network)

The first part of the analysis uses a treemap to visualize the distribution of repair costs by product ID and defect type. This visualization offers a hierarchical overview, making it easy to identify the products and defect types that contribute the most to repair costs.

Low-saturation colors were intentionally chosen to represent defect types, respectively. These colors are designed to be visually pleasing and less stimulating to the human eye, ensuring the treemap is both accessible and professional in appearance.