### Cost of Poor Quality (COPQ)

COPQ is divided into 4 categories:

- **Appraisal costs** (costs associated with inspection and testing to monitor and measure quality parameters)
- **Prevention costs** (costs associated with quality planning and preventing errors from reaching final customer through testing, audits, process controls, etc.)
- **Internal error costs** (internal costs associated with rework)
- **External error costs** (impact of poor quality product on customer such as loss of goodwill, returned sales, service problems and warranty obligations, etc.)
## Savings Associated with Reducing COPQ

- **Hard savings**
  - Direct flow to the Profit and Loss (P&L) statement
  - Tangible
  - Can be directly measured
    - Examples:
      - Decreased costs
      - Reduced rework
      - Reduced cycle time

- **Soft savings**
  - Intangible
  - May not be directly measured
    - Examples:
      - Loss of goodwill
      - Loss of competitive advantage

- **Cost avoidance savings**
  - Difficult to quantify
  - Savings resulting from actions taken to reduce future costs