

# The Intelligent Application of Quality Management to Smallsat programs

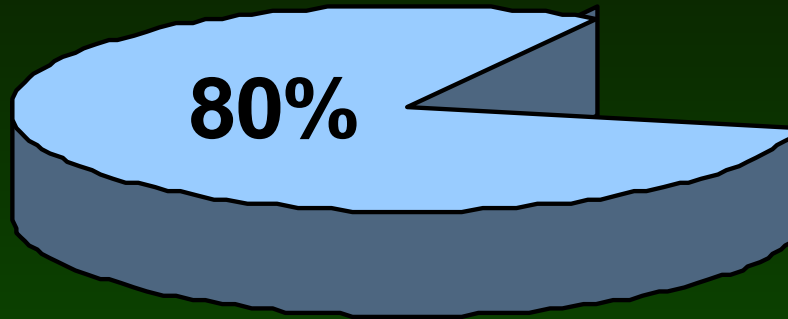
Brian Cox

# Manage Risks

---

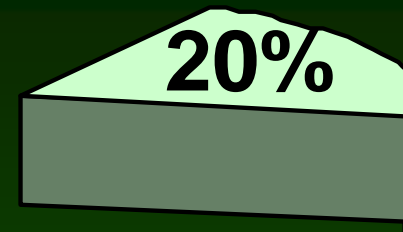


# Satellite Failures



## POOR DESIGN

- Hardware/Software
- Misunderstanding Environment
- Parts Application



## HUMAN ERROR

- Management Decisions
- Poor Workmanship

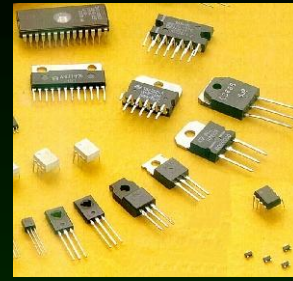
# Apply process Intelligently

---



- Decide on the criticality
- Analyse where necessary
- Qualify and Test

# Commercial Parts



## ADVANTAGES

- Very cheap
- Easily available
- New Technology

## DRAWBACKS

- Less known reliability & screening
- Long term reliability problems, radiation
- True cost is often high

**MATCH THE PART TO THE APPLICATION**

# Satellite failures

---



Not all satellite failures occur in space!

# Conclusions

---

- Manage risks intelligently
- Avoid poor design
- Apply process where necessary
- Use commercial parts wisely
- Remember all stages of the program
- Enjoy your success!