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Software Crisis & Software Engineering

Software Crisis

◆ Examples of software failures

- **Windows failure**
- **Office failure**
- **Website access failure**
- **.....**



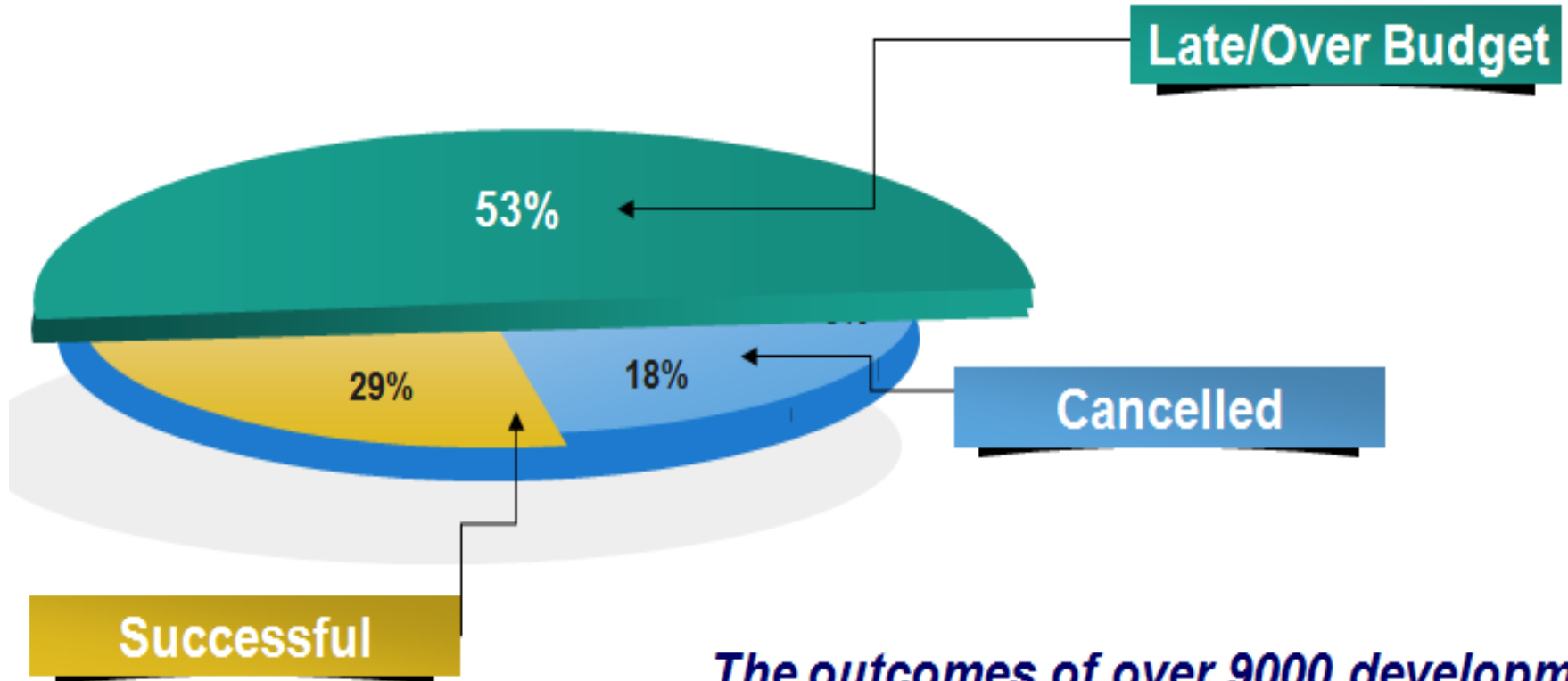
Software Crisis

- ◆ **More and more software projects failed.**
 - *on schedule ?*
 - *on budget ?*
 - *fault-free ?*
 - *meet client's needs ?*

- ◆ **1968 NATO Software Engineering Conference**
 - *Software Crisis*
 - *Software Engineering*



Software Crisis



The outcomes of over 9000 development projects completed in 2004



Software Crisis

- ◆ **Estimation of cost and progress is usually inaccurate.**
- ◆ **The user is unsatisfied with “completed” software system.**
- ◆ **Software quality is usually unreliable.**
- ◆ **Software is un-maintainable.**
- ◆ **No documentation available.**
- ◆ **Software takes more and more proportion of the total cost of computer system.**
- ◆ **Software development does not match the rapid, deeper and wider computer application.**

Software Engineering

- ◆ The software development is not the mysterious technique of a certain individual labor, but should be the *engineering* of an organization of all kinds of persons.
- ◆ *Software Engineering* studies exactly how to develop and support a software system.



DISCUSS

- ◆ **What is the distinction between computer science and software engineering?**