

Software Project Management

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Project - Meaning

Some dictionary definitions:

- ***“A specific plan or design”***
- ***“A planned undertaking”***
- ***“A large undertaking e.g. a public works scheme”*** Longmans dictionary

Key points above are *planning* and *size* of task.

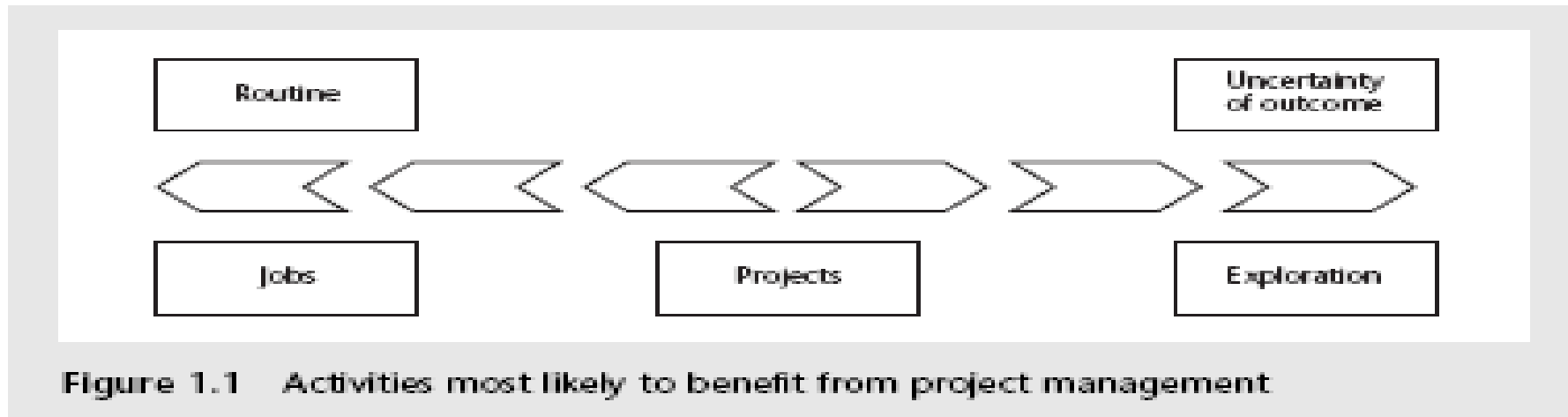
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Project - Meaning

- In the broadest sense, a **project** is a specific, finite task to be accomplished. Any activity that results in a deliverable or a product.
- Projects always begin with a problem. The project is to provide the solution to this problem.
- When the project is finished it must be evaluated to determine whether it satisfies the objectives and goals.

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Jobs versus Projects



- 'Jobs'—repetition of very well-defined and well understood tasks with very little uncertainty
- 'Exploration' –e.g. finding a cure for cancer: the outcome is very uncertain
- 'Projects' –in the middle!

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Characteristics of projects

A task is more 'project-like' if it is:

- Non-routine
- Planned
- Aiming at a specific target
- Work carried out for a customer
- Involving several specialists
- Made up of several different phases
- Constrained by time and resources
- Large and/or complex

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Software vs Other Projects

Are *software* projects really different from other projects?

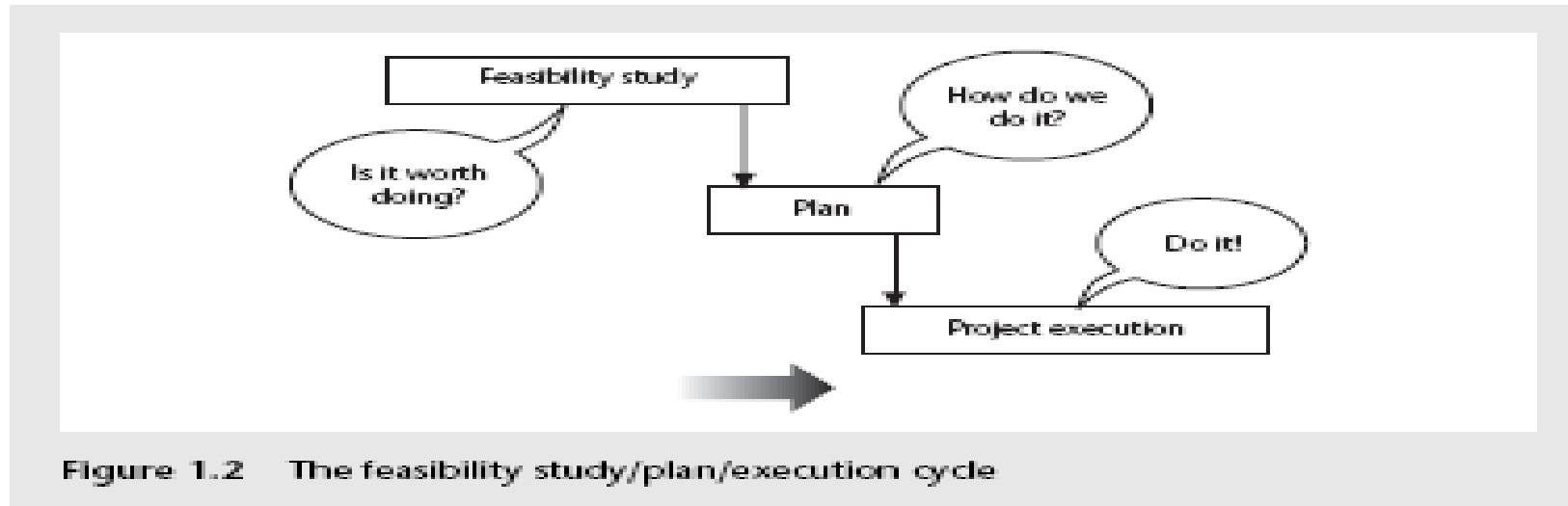
Not really! ...but...

- Invisibility
- Complexity
- Conformity
- Flexibility

make software more problematic to build than other engineered artifacts.

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Project Management Activities



- **Feasibility study** : Is project technically feasible and worthwhile from a business point of view?
- **Planning** : Only done if project is feasible
- **Execution** : Implement plan, but plan may be changed as we go along

The software development life-cycle (ISO 12207)

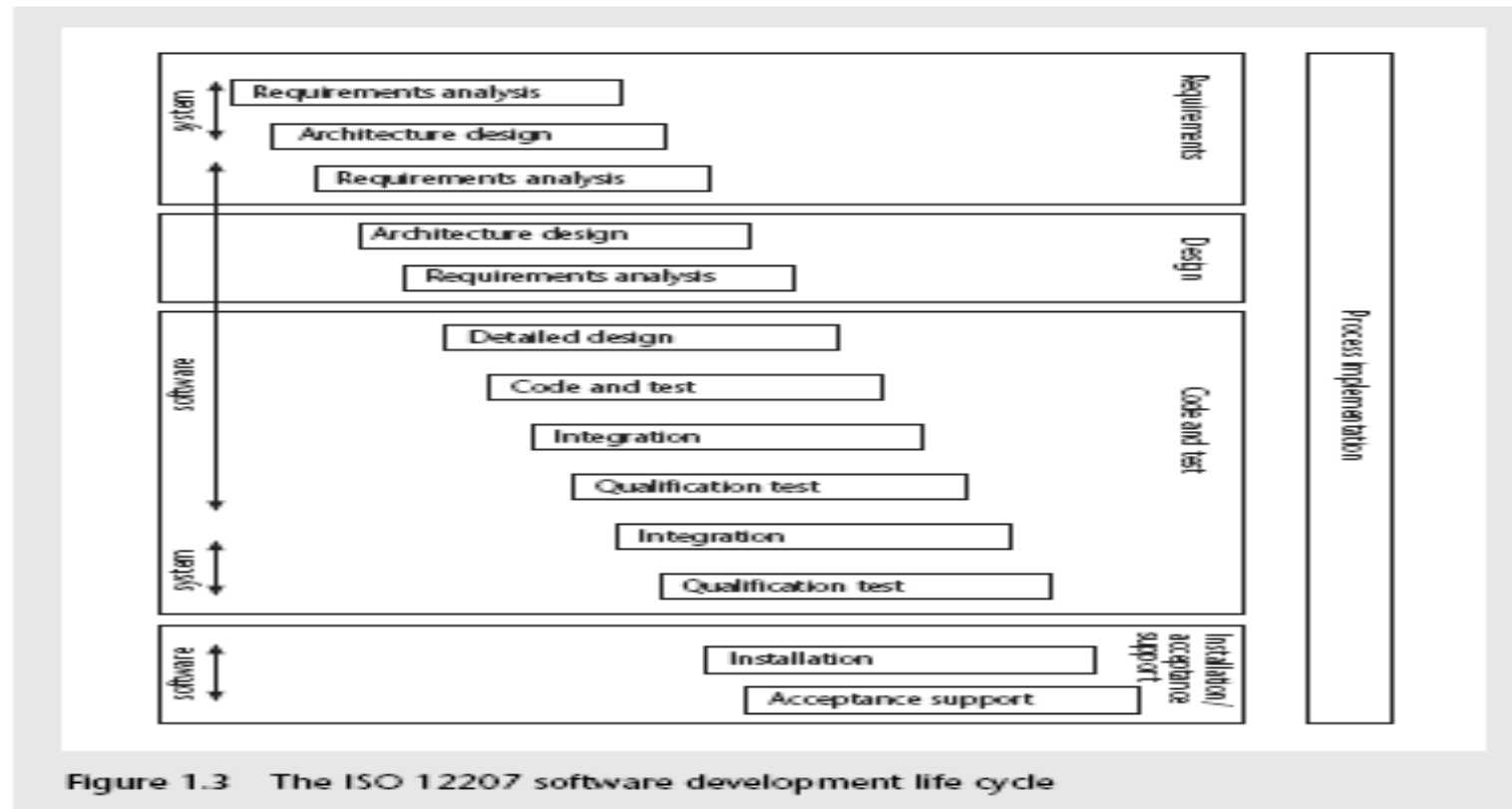


Figure 1.3 The ISO 12207 software development life cycle

Some ways of categorizing projects

Distinguishing different types of project is important as different types of task need different project approaches e.g.

- Information systems versus embedded systems
- Objective-based versus product-based

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What is Management?

This involves the following activities:

- Planning –deciding what is to be done
- Organizing –making arrangements
- Staffing –selecting the right people for the job
- Directing –giving instructions
- Monitoring –checking on progress
- Controlling –taking action to remedy hold-ups
- Innovating –coming up with solutions when problems emerge
- Representing –liaising with clients, users, developers and other stakeholders