

# Heavy vs Light Methods

## Heavy Process

- Predictive making it difficult to respond to change.
- Elaborate, long-term, detailed planning
- Disciplined, detailed process
- Lots of documentation produced in a bureaucratic environment
- Process oriented

## Light(Agile) Process

- Adaptive - embrace change.
- Iterative and incremental.
- Fast cycle/frequent delivery.
- Tacit knowledge - project knowledge in the participants' heads rather than in documents.
- People oriented.

# Predictive vs Adaptive

- A Predictive process attempts to plan and predict the activities and resource (people) allocations in detail over a long period of time, -the waterfall model.
- This works well until things change so their nature is to resist change.
- An adaptive process accepts change as an inevitable driver and encourages flexible adaptation

# Agile methods

- Dissatisfaction with the overheads involved in design methods led to the creation of agile methods. These methods:
  - Focus on the code rather than the design;
  - Are based on an iterative approach to software development;
  - Are intended to deliver working software quickly and evolve this quickly to meet changing requirements.
- Agile methods are probably best suited to small/medium-sized business systems or PC products.

# What is an Agile Process?

- An agile software process addresses three key assumptions about the majority of software projects:
  - It is difficult to predict in advance which software requirements will persist and which will change. In addition how will customer priorities change as the project progresses?
  - For many types of software design and construction are interleaved.
  - Analysis, design, construction and testing are not as predictable (from a planning point of view) as we would like.

# What is an Agile Process?

- An agile process must be :
- Adaptable - to changing project and technical conditions.
- Incremental - to allow adaptation to keep pace with change.
- Agile Methodologies
  - XP (Extreme Programming)
  - Scrum
  - Feature-Driven Development
  - DSDM (Dynamic System Development Method)

# Agile Methods

**Assignment week 5 class test.**

**Complete the following tasks:**

- From [www.agilealliance.org](http://www.agilealliance.org) (Select Agile Essentials on the menu)
  - What is the agile manifesto?
  - What are the principles behind the agile manifesto. Describe each.
  - What are the pros and cons of each value listed in the Agile Manifesto?
  - Why should an organisation go agile?
  - What are the problems with agile models?
- From [www.agilemodeling.com](http://www.agilemodeling.com)
  - What is agile modelling (AM)?
  - What is an agile model?
  - What are the values of AM?
  - What is the difference between AM and "traditional modelling"?
- Download and read The Scrum Guide to answer the following questions :
  - What is Scrum?
  - Describe the scrum team.
  - What is a scrum sprint?
  - What are the product and sprint backlogs.