# L2.1 Software Life cycle Analysis

# Objectives

- Provide the students with the experience to identify and discuss critical factors for different scenarios where Lifecycle model may be a critical aspect to consider.
- Provide the students with the experience to identify and discuss critical factors for different team organization.

# Instructions

- Analyze each case study and propose the best Lifecycle model for the project.
- Provide the rationale about your decision as well as the assumptions that you make it. Remember, you can assume any other project constraint.
- Submit your conclusions using Canvas.
- Work as a team and provide a single report (Teams is formed with a maximum of 3 members)
- Everyone in the team upload the report in Canvas
- Please add the name of all team members in the report

# Case Study 1: Mobile Game

- A new small company is targeting the release of a video game for smartphones. Their plan is to use a new approach for the next version of phones and tablets that provides new sensors that enhanced perceptual computing.
- Engineering team is estimating to spend 3 months for the development of the game but they are also considering to use cloud-testing services to accelerate the testing phase.
- The development team is collocated in Trondheim, Norway. Cloud testing services are mostly defined in Russia.

# Case Study 2: X-Ray Diagnostic Machine

- A large mature company is looking to develop additional software for the equipment they develop to gather data using X-ray technology.
- Marketing team have identified the need to provide additional software to analyze the images and provide initial diagnostic, similarly to their most aggressive competition.
- They have less than six months to have the software ready since marketing is planning to launch the next generation of X-Ray machines in such time.
- This team has development in two cities in Europe and testing in Bangalore, India.

# Case Study 3: Research Group

- A team within a large company focuses on exploring new technologies for the next generation of products that are developed by the company. This team usually is working with technologies and features that are released in a two years window.
- This team requires to evaluate multiple technologies as well as to propose new paths to engineering and marketing teams to assess the potential business opportunity every two months.
- This team is distributed among 3 cities.

# Case Study 4: Graphical Driver

- An organization within a large company is responsible for developing a driver that is used for enabling testing of complex platforms.
- The release of the driver is very important since it allows multiple teams start working on testing the complex platforms as well as enabling the development of new applications for those platforms.
- The driver development team may not be able to fully test the driver since the hardware is not available, some simulation is supported for some features in advance to allow development and testing.

# Case Study 5: Financial System

- A large banking company is planning to outsource the development of a software module that manages the “points” associated to the use of the credit cards.
- This module is sensitive since it will interact with the critical databases from the institution, so that no error is allowed.
- The banking is planning to use a small company near to the headquarters.