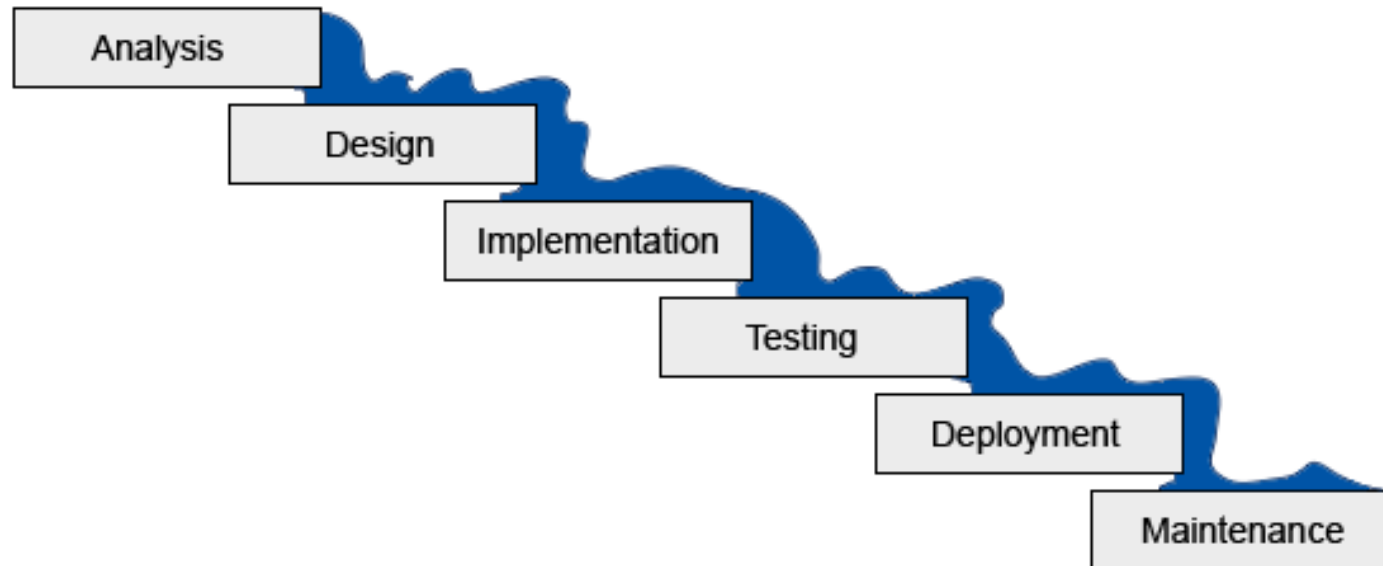


# Agile methodologies

# When do we need agile methodologies?

- In classical systems (before the '90s) the customer was able to provide a good requirement documentation
- Classical methodologies (e.g.: waterfall model) are coming from building architecture. They were working for these systems.



# When do we need agile methodologies?

- ROI – return of investment
- After the '90s they are not working because everybody can be a customer
- The customers cannot define they requirements
- The time spent do documentation is too much
- The first product comes out too late

# Agile methodologies

- SCRUM, eXtreme Programming, Kanban
- The agile manifesto (<https://agilemanifesto.org/>)
  - Individuals and interactions over processes and tools
  - Working software over comprehensive documentation
  - Customer collaboration over contract negotiation
  - Responding to change over following a plan

There are many criticism about agile methodologies. It is hard to introduce. It is tried to be used too many places.

# SCRUM

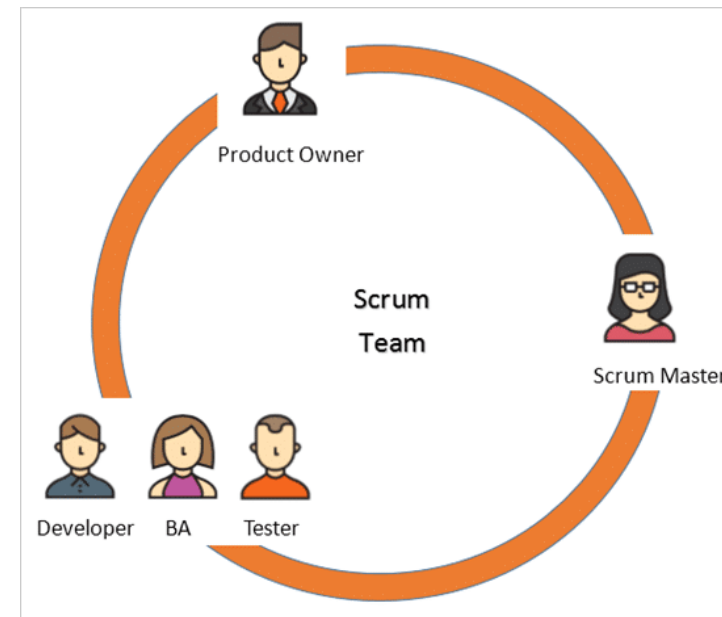
- **Definition of *scrum***
- **1a or scrummage** \ 'skrə-mij \ : a rugby play in which the forwards of each side come together in a tight formation and struggle to gain possession of the ball using their feet when it is tossed in among them

# SCRUM

- Since 1986
- Started to be used widely early '90s
- It is used almost everywhere
- In small or critical systems classical methodologies may be better
- Often dual methodologies are used
- Roles
  - Chickens: customer, user
  - Pigs: SCRUM master product owner, team

# SCRUM roles

- Team
  - PO: Product owner: somebody who represents the customer in all cases
  - SM: Scrum master: not project manager, manages SCRUM
  - Team of 4-5. Since 2011 bigger teams may be possible
    - Teams are typically cross-functional



# SCRUM sprints

