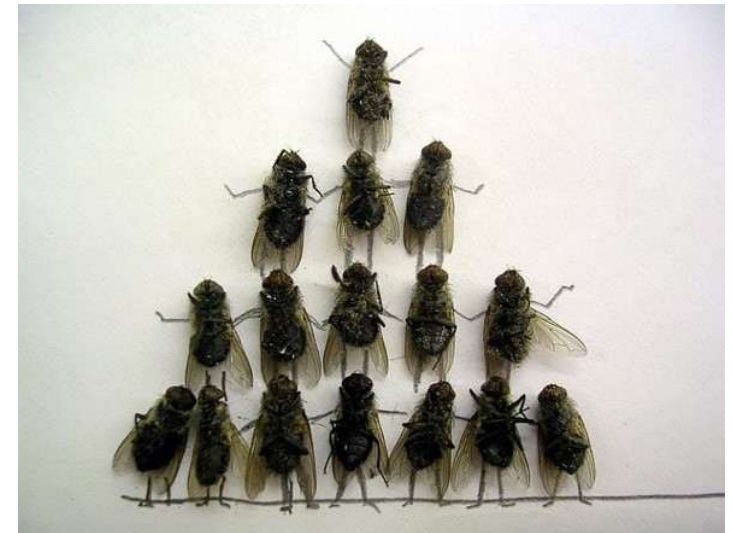




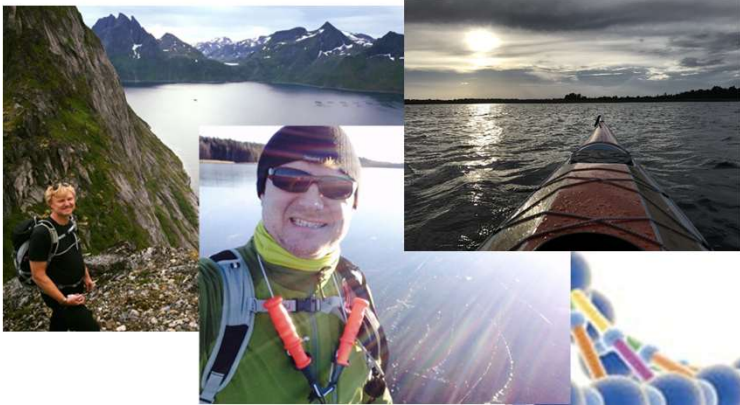
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Balancing act: Are modern frameworks in product development overshadowing individual technical skills?

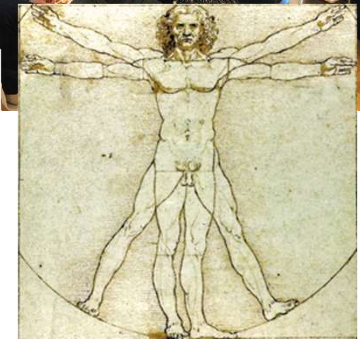
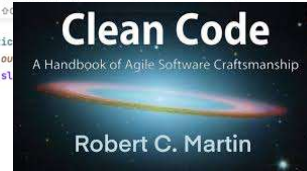


Björn Westerberg

Lean agil coach

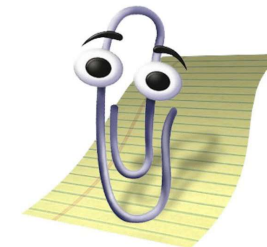


```
J App.java x
1 package example;
2
3 public class App {
4     Run 'example...pp:App.main()'
5     Debug 'example...pp:App.main()'
6     Click on icon to Debug, '9
7
8     public static
9     System.out
10    Thread.st
11 }
```



What was it like before?

- Tech was driving development
- Cool solution, seeking application
- “Feature mania”
- Waterfall methods, cookbooks
- Big Design Up Front plans as if all is known
- - “We know what our customers want and need”
- Big releases





Lean and agile to help



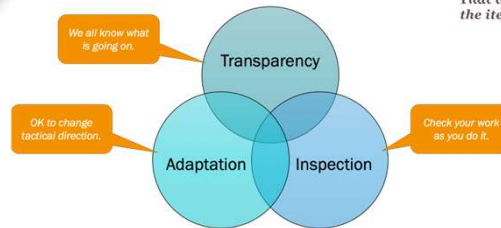
AGILE VALUES

www.agilemanifesto.org

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- **Individuals and interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.



AGILE PRINCIPLES

www.agilemanifesto.org

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
- Business people and developers must work together daily throughout the project.
- Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
- Working software is the primary measure of progress.
- Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- Continuous attention to technical excellence and good design enhances agility.
- Simplicity—the art of maximizing the amount of work not done—is essential.
- The best architectures, requirements, and designs emerge from self-organizing teams.
- At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.



Agile Team Values

Derived from Exploring Scrum: The Fundamentals by Dan Rawsthorne and Doug Shimp

Openness

There should be no secrets between/amongst team members about things relevant to production; the team members should be open to suggestions from others.

Focus

Everything that the team does must have a focus; and the team members must focus on what is important in everything they do.

Commitment

The team makes and keeps its commitments/agreements, and the team members must have commitment to the team and the product itself.

Respect

Team members believe that people are always doing the best they can do at any given moment; they respect all points of view, including those of their stakeholders.

Courage

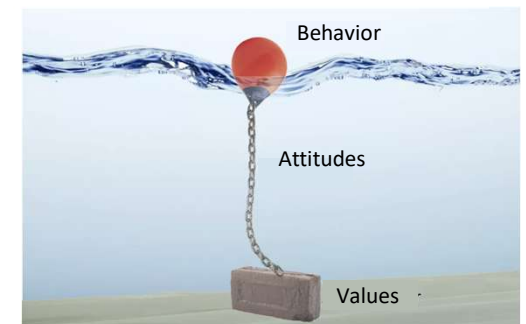
The team must have the courage to make reality visible—the courage to say no—and team members must have the courage to be open with each other.

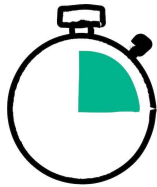
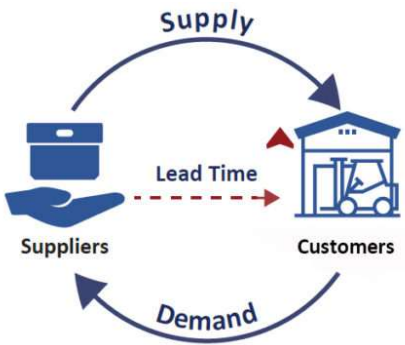
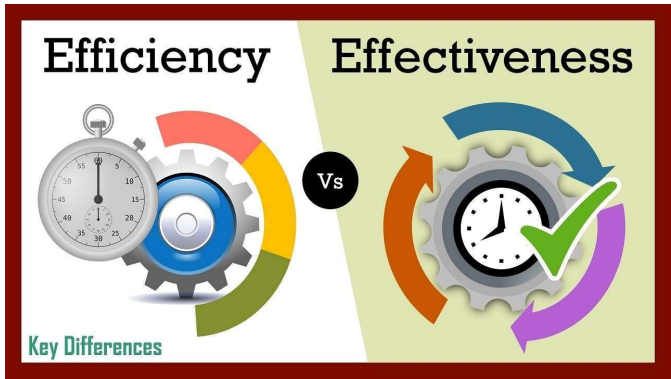
Visibility

The team must make the current state of the product visible; that is, the details of production belong to the team, but the state of the product is available to all.

Sense of Humor

Since everyone is always doing the best they can, everyone needs a sense of humor; if we can't laugh at the things we do, we'd have to cry.





Takt Time



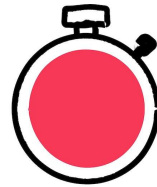
Process Time



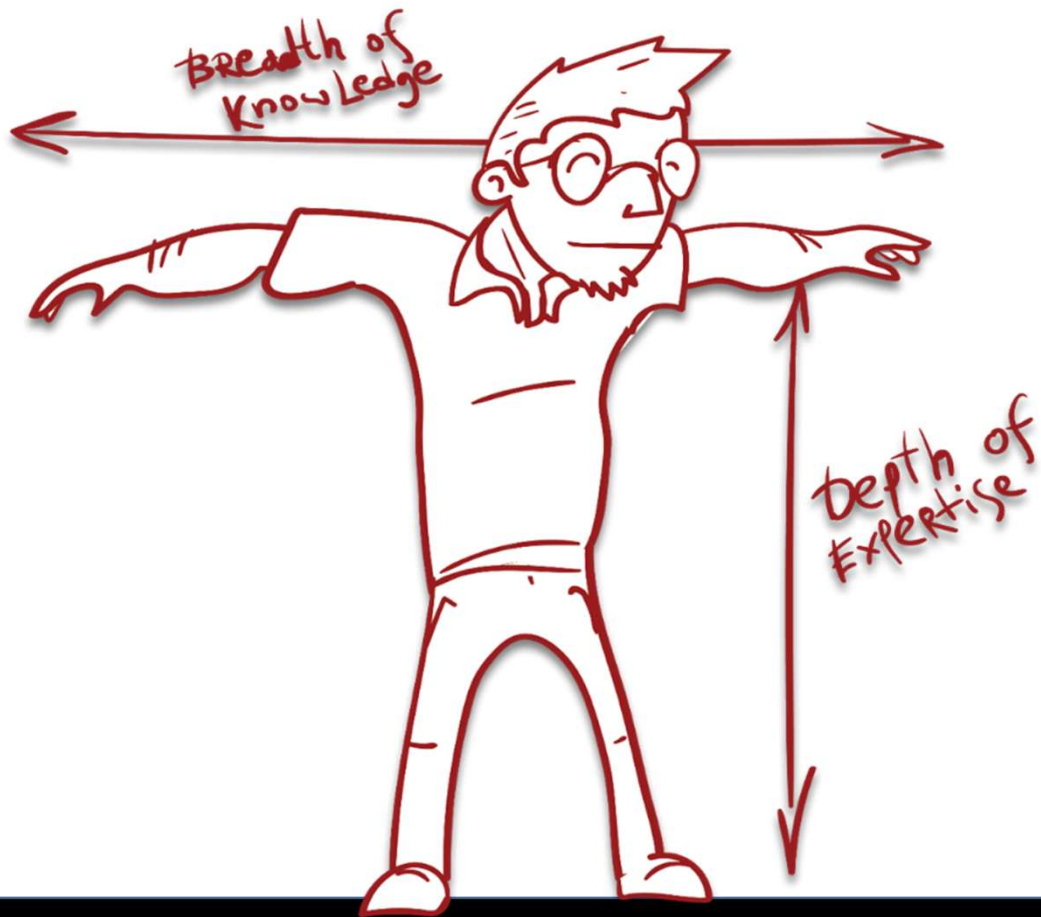
Cycle Time



Lead Time



Customer Lead Time



- T-shaped
- π -shaped
- Comb-shaped

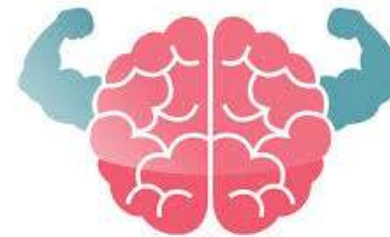
- "Tall bodied" or "Deep rooted"?



Work with double focus

Deliver customer value

Develop and improve our working skills



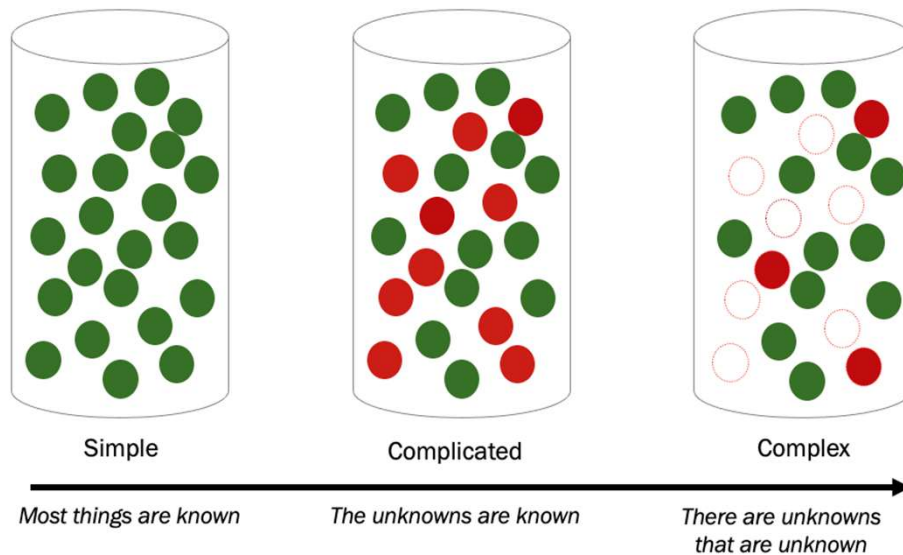


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Tech person

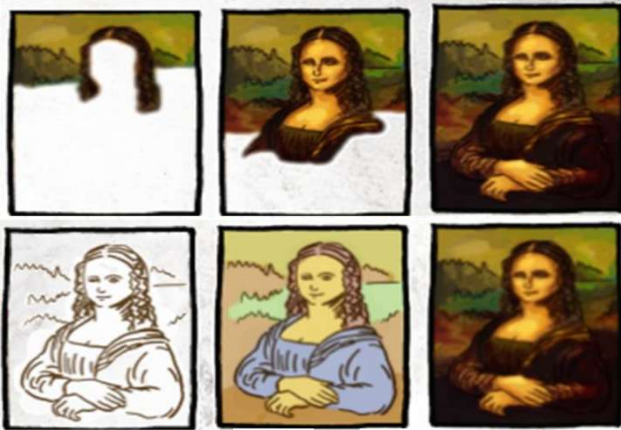


Complicated vs Complex



- **Complicated problems**
 - Hard to solve
 - Addressable with rules and recipes
 - Can be resolved with systems and processes
- **Complex problems**
 - Too many unknowns and interrelated factors to reduce to rules and processes
 - No algorithm that will tell you how to respond





Fully formed idea upfront which is delivered in pieces

An idea is split into planning horizons and delivered incrementally

Complicated

- Result is predictable
- Less customer feedback needed on the way
- Plans can be longer
- Separation of tasks, processes, good practice



Refine concepts over time. Start with what you know, refine products as you go.

Complex

- Result unpredictable
- More customer feedback needed on the way
- Plans needs to be shorter
- Cooperation and adaption



Picture Credit : www.presentermedia.com
 Idea Credit : Jeff Sutherland

[Link to source](#)



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What is the problem then?

- Different personalities needs different stimulus to be motivated
- We create teams where some members do not feel at home
- Some team members "disappear"
- Some team members are forced into tasks they consider waste for them
- Tech quality in our product might go down
- Skilled techs might leave the company
- This is an issue for the whole team. We sometimes set some of the "softer" Lean and agile principles aside.



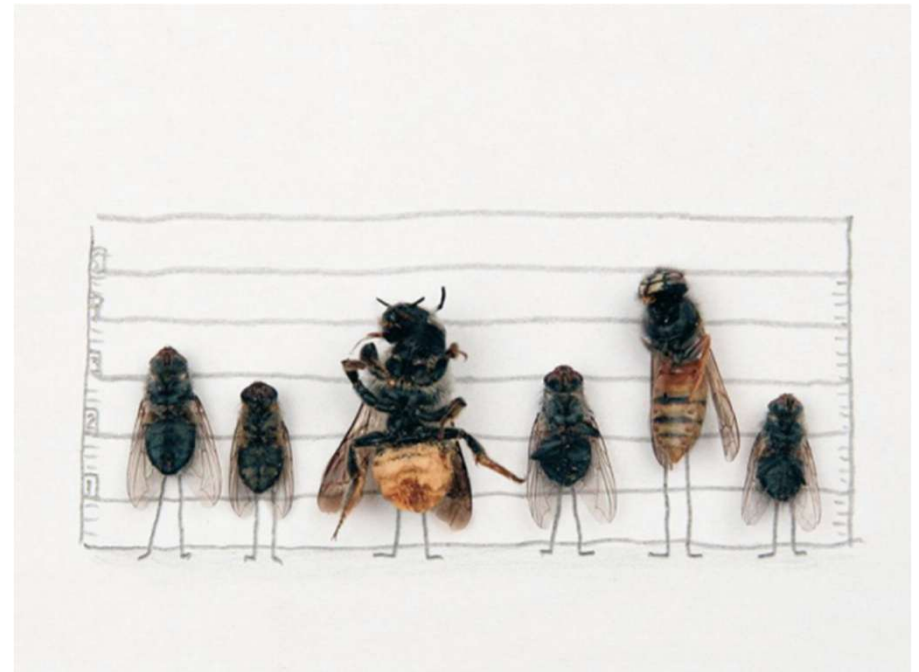
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We are different



Identify and adapt to the personalities

- Do not "put everyone in the same house"
- Knowledge mapping
- Personality type mapping
- Important work for line management



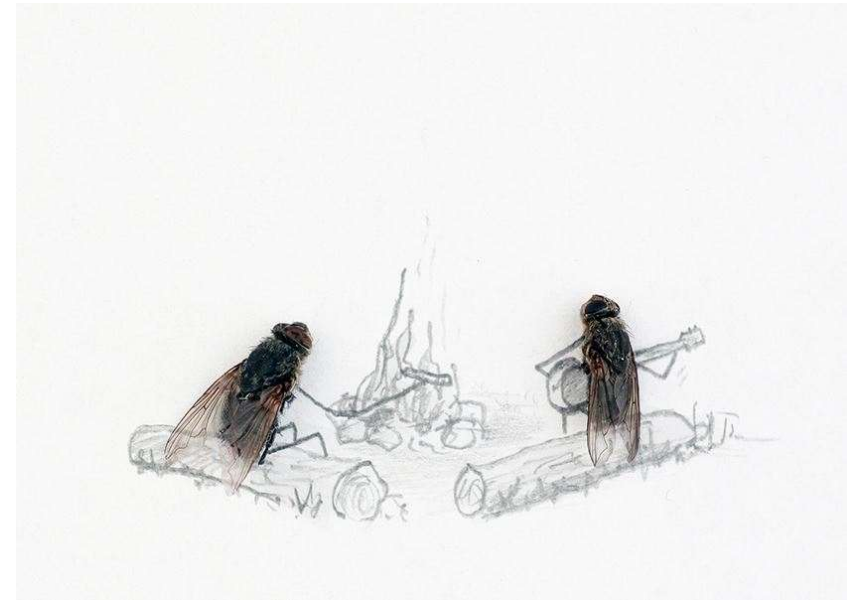
Split the division of work

- Self organized teams, let everyone find and do what they are skilled at
- What areas do we want cross competency to cover?
- Some in the team focus more on customers and what to solve
- Some in the team focus on the implementation, how to solve tech problems and the details
- Some in the team focus on how to be most efficient in the way we work



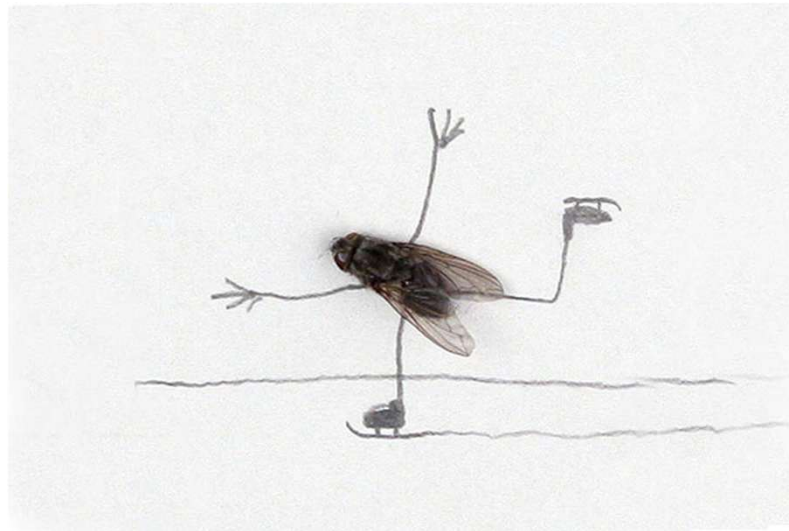
Lean and agile team events

- Campfires where we gather around for what is important for the team
- Big picture together, details in smaller groups



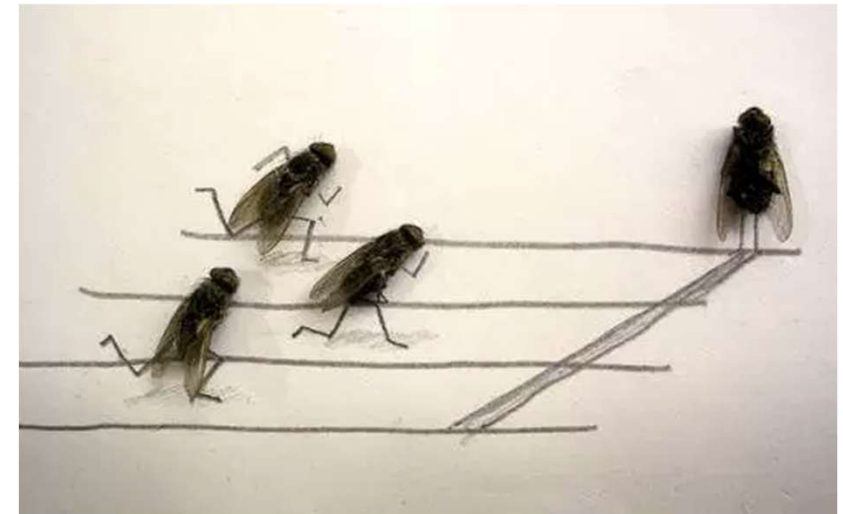
Give everyone something to be good at

- Create ninja roles, virtouses of different competencies



Goals

- Set goals or OKRs also on learning
 - usability 20% better as measured by SUS (UX training)
 - server performance 10% better as measured by time for operation (optimize garbage collection)
- Make sure that there are learning goals that can engage everyone in the team



Learning

- Encourage learning in all formats
- Allow learning to take place on working hours
- Encourage Community Of Practices, COPs.
- Short but regular internal Knowledge Transfers, KTs, by team members
- Engagement from line management



Reading- or viewing circles

- Share a material, set a time frame, discuss the content.
 - Short book, article, video etc
 - Discuss part by part or the whole story at the same time
 - There are short versions to read or videos to watch as an alternative
 - As a facilitator, prepare questions if the discussion does not flow
 - Could have multiple circles going on for different topics



Innovation

- Everyday innovation is usually not about disruptive innovations that change the entire business
- It is about using our tech skills in the team work to create solutions that go one step further
- Kaizen, challenge everything

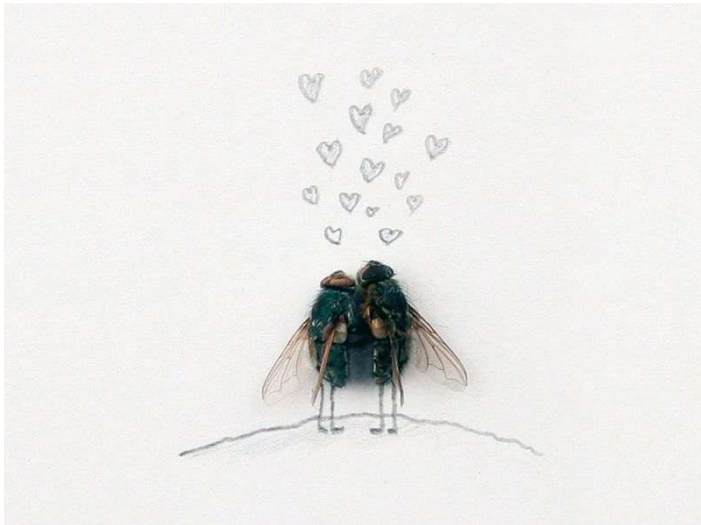


Definition of Done

- Make technical and quality issues included in the DoD
- Code is according to the team standard
- Compliance with technical standards
- Usability measure over a certain level
- No increased Technical debt



Line management



- Focus on managing people
- Make the best out of all resources
- Inspire, encourage and motivate
- Commitment to continuously invest in its people and promote a culture of continuous improvement.
- Lean-thinking manager-teachers





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