

Agile network course

Module 1.1 Introduction to Agile Methodologies



Module 1.1. Introduction to Agile Methodologies



Co-funded by the
European Union

ROADMAP

We reviewed the project concept to distinguish those parts that are most related to agile methodologies. We seek inspiration from those people who, in some way, have changed the way projects are approached.

We see how crises have changed the way we think and approach projects. We discovered how disruptive thinking is part of the foundation for managing change in unfamiliar environments.

We reviewed how there are more suitable contexts for each type of project. We reviewed the fundamentals of how the different steps can be approached in each project context.

We explore the concept of LEAN. We look at some of its origins. We try (because it's not easy to understand at first) to understand the concepts of Muda, Muri, and Mura. KaiZen concept is and how it influences agile management.

Finally, we reviewed the Agile Manifesto in detail. Originally designed for software development, it has proven to be a very effective way to approach projects in non-predictable environments.


**You
are here**



UNIVERSITAT
POLITÈCNICA

The project

“The optimist always has a project;
the pessimist, an excuse.”

Anonymous



Module 1.1. Introduction to Agile Methodologies



Co-funded by the
European Union

The project

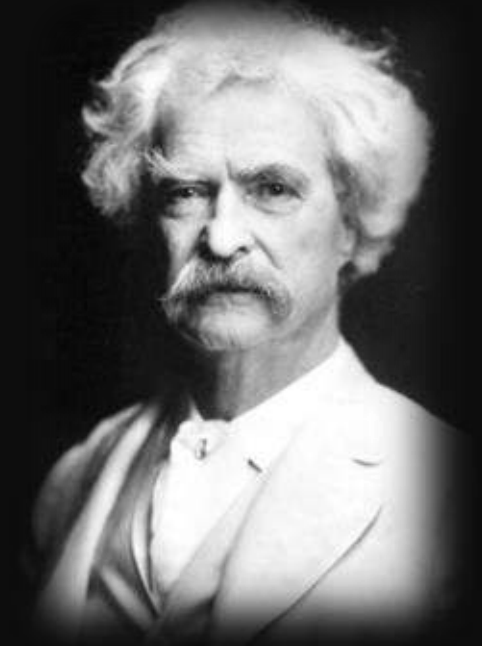
- What is a project? In broad terms...
- It arises from:
 - An idea (company initiative)
 - A problem (customer initiative)
- It consists of
 - The product (money)
- It is used
 - Resources and time (money)
- Participants
 - The company's staff
 - Customers
- It is done in a
 - The environment: Competitor companies, partner companies, the administration, previous projects (maintenance), future projects



UNIVERSITAT
POLITÈCNICA

“A man with a new idea is a madman
until the idea succeeds.”

Mark Twain



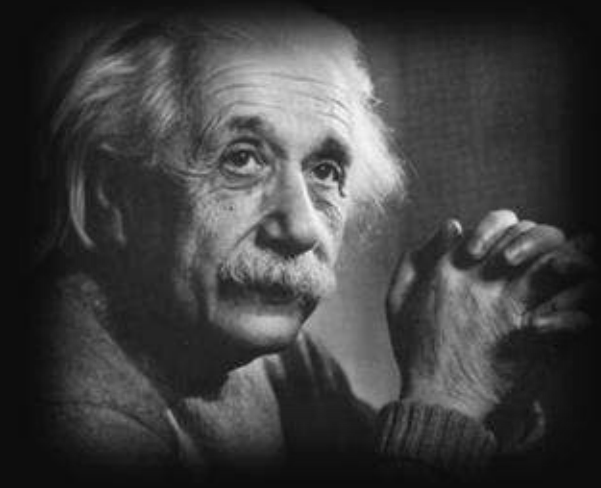
The project

- What is Any ideas?
- Ideas are important , but ...
- I I have ideas, you You have ideas, everyone has ideas ...
 - Be careful not to despise Ideas depend on who you're talking about . proceed
 - There is no need to overvalue our ideas
- My idea, my treasure
 - “Gollum” effect
 - If an idea spreads , it will possibly grow .
- Nobody's going to make me change your mind
 - Don't be stubborn , if They criticize us for it It's for improvement.
 - Flexibility : the ability to change the idea... adapt the idea

The project

“We cannot solve problems using the same kind of thinking we used when we created them.”

Albert Einstein



The project

- A problem ... must dimension properly
 - Beware of exaggeration : it leads to panic
 - Caution with relaxation : it leads to failure
- The problem It belongs to the client , we We are the solution
 - The problem is whose suffers the consequences
 - The solution It belongs to everyone.
- From the moment a problem arises until the solution is implemented ...
 - The problem has changed (and become distorted) all)
 - Just like that the ideas, the problems evolve

The project

“Who should ultimately design the product? The customer, of course.”

Philip Kotler



The project

- That What product is expected from a project ?
 - The client wants ... solutions ... is going to pay money by they .
 - The shareholders they want ... money (really) they want benefit)
 - The company wants ... money (really) wants benefit)
- The client wants
 - Sensations
 - Emotions

The project

“Time is one of the few important things we have left.”

Salvador Dalí



The project

- Does lack more or less time ?
- We (who manage the project) want
 - Time to finish it
- The client ... does not have time
 - He wants it as soon as possible
- If we think So ,
 - One of the two (as minimum) loses out

The project

“I think it’s a big mistake to think that money is the only way to compensate a person for their work. People need money, but they also need to be happy in their work and feel proud of what they produce.”

Akio Morita



The project

- That What happens to the people involved in the Project?
- company
 - It should be to think that they don't have them employees but people
- From group to team
- Time generates interactions between people that affect the team
 - If they are good : synergies
 - If they are bad : conflicts
- Physics applied to psychology
 - The poles opposites attract
 - The poles Like repels

The project

“If I had asked my clients what they needed, they would have said a better horse.”

Henry Ford



The project

- Do you know the What do customers need ?
- Yes, they know , but ...
 - Have that learn to tell us
 - We need to accompany them to tell us.
- If they don't know , then ...
 - Have that learn to clear up their doubts
- But always , the end customers , the users want more than a product
 - They want experiences
 - They want sensations
 - They want emotions

The project

"The astronauts who just went to the Moon had to bring their own atmosphere, their own pressure, their own food..."

Julian Marías



The project

- What is the project environment?
- The environment comes from the past
 - Nostalgia effect: we think that what was around us is still the same
- The environment is constantly changing.
 - Futurist effect: we all like to predict what will happen...
 - But we always predict it with what we want to happen
- We do not control the environment (no matter how much we study it)

The project

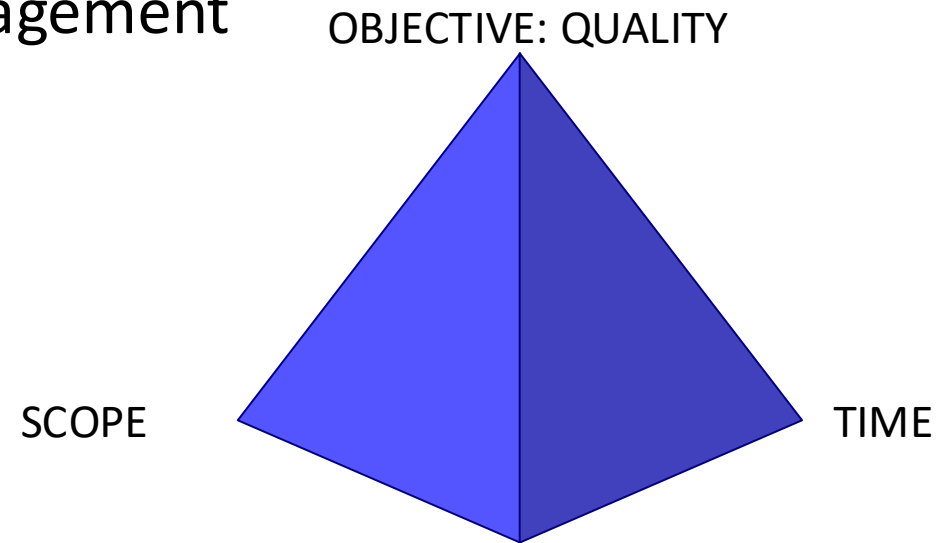
“I’m not a pioneer of anything. Things aren’t done to be the first, but because you love doing them, because you fall in love with the project.”

David Lynch



The project

- Project management predictive
 - Process in which the development of a product or project is supervised , controlled , or directed at a cost Economical ? Minimum ? Adequate ? Within a timeframe ? Minimum ? Adequate ?
- Problems in Project Management
 - Keep the surface
 - Maintain the volume
 - Resources are limited





Module 1.1. Introduction to Agile Methodologies



ROADMAP

We reviewed the project concept to distinguish those parts that are most related to agile methodologies. We seek inspiration from those people who, in some way, have changed the way projects are approached.

We see how crises have changed the way we think and approach projects. We discovered how disruptive thinking is part of the foundation for managing change in unfamiliar environments.

We reviewed how there are more suitable contexts for each type of project. We reviewed the fundamentals of how the different steps can be approached in each project context.

We explore the concept of LEAN. We look at some of its origins. We try (because it's not easy to understand at first) to understand the concepts of Muda, Muri, and Mura. KaiZen concept is and how it influences agile management.

Finally, we reviewed the Agile Manifesto in detail. Originally designed for software development, it has proven to be a very effective way to approach projects in non-predictable environments.

**You
are here**



UNIVERSITAT
POLITÈCNICA

The change

- What has changed in recent years?
- The global crisis... let's say from 2008
- Before the crisis: certainties
 - The industrial methodology worked well.
 - The career path was clear.
- After the crisis: uncertainty
 - Traditional methodology does not cover uncertainty
 - A career path is no longer predictable
- Conclusion:
 - The future cannot be predicted
 - Classical methodologies are based on certainties

The change

- Has it always been like this?
- Yeah
 - In 1992 (Seville Universal Expo) nobody talked about the Internet
 - In 2008 (Water Expo in Zaragoza) nobody talked about Facebook
- In 2020... Nobody will talk about...
 - The future cannot be predicted
 - It is designed
 - Projects are no longer based (only) on a plan
- There are still projects . But the environment has changed , the teams , the customers , the products , ... especially management :
 - How the future is not predictable management has to be capable of functioning with uncertainty

The change

- Predictable environments
 - Tasks can be organized with specific start dates and a certain degree of certainty about their completion.
 - Tasks can be linked to each other.
 - The project can be designed
 - Project management involves monitoring tasks, avoiding risks, and resolving issues.
- Unpredictable environments
 - The tasks are known, there is some certainty about when they start, but it is not known when they will be completed.
 - It is difficult to connect tasks to each other; the sequence is unknown.
 - I don't know how to design the project, but how to manage the changes.
 - Project management is continuous action on changes and unforeseen events.

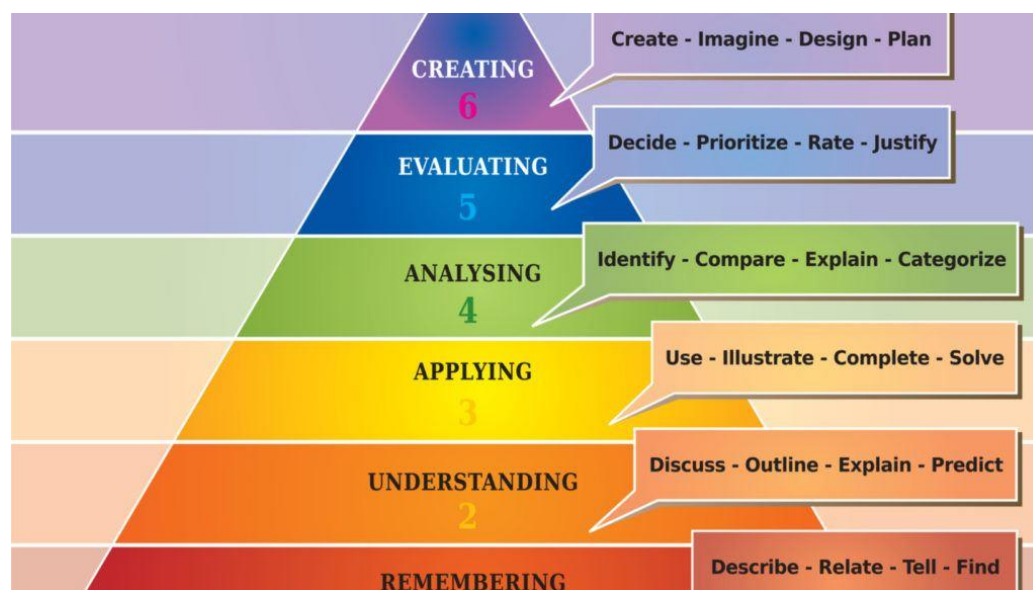
The change

- That tools What do we have to manage change ?



The change

- What learning or thinking style is needed to address agility ?



Further agile

The change

- Where from Shall we leave ?
- Thought convergent
 - Issues good defined
 - Universe closed
 - Solutions already existing : locate the correct solution



The change

- Some solution ? thought disruptive
 - Method scientist + high Bloom levels
- concept of intelligence
 - Emotional Intelligence . 1995. Daniel Goleman
 - Intelligences . 2008. Howard Gardner
- Thought divergent
 - Undefined problems
 - Universe open
 - The solution



The change

- Can develop thinking disruptive ?
- Yes , but ... we have to break with the established order
- Some questions are
- Develop analytical skills
 - Overview
 - Highlight what's important
- Ability to synthesize and evaluate
 - Simplicity and Harmony
 - Ability to connect
- Creativity
 - Appreciate the absurd
 - Forgetting the impossible

The change

- Can develop thinking disruptive ?
- Hybridization : $2+2=?$
- It is not enough to break the There are rules that must be ...
 - Discover what they can be used for apply
 - Really is mathematics (a + b) where the result It depends on us (x) and not on the rules established



The change

- Hybridization
 - Change things in context (translation)



The change

- Hybridization
 - Bind things related (aggregation)



The change

- Hybridization
 - Bind unrelated things (combination)



The change

- Visual thinking (visual thinking)
 - Express yourself with text or voice
 - Express yourself with images (photographs and video)
 - Expressing emotions ... (this already is further difficult)



The change

- Examples of thought disruptive





Module 1.1. Introduction to Agile Methodologies



Co-funded by the
European Union

ROADMAP

We reviewed the project concept to distinguish those parts that are most related to agile methodologies. We seek inspiration from those people who, in some way, have changed the way projects are approached.

We see how crises have changed the way we think and approach projects. We discovered how disruptive thinking is part of the foundation for managing change in unfamiliar environments.

We reviewed how there are more suitable contexts for each type of project. We reviewed the fundamentals of how the different steps can be approached in each project context.

**You
are here**

We explore the concept of LEAN. We look at some of its origins. We try (because it's not easy to understand at first) to understand the concepts of Muda, Muri, and Mura. KaiZen concept is and how it influences agile management.

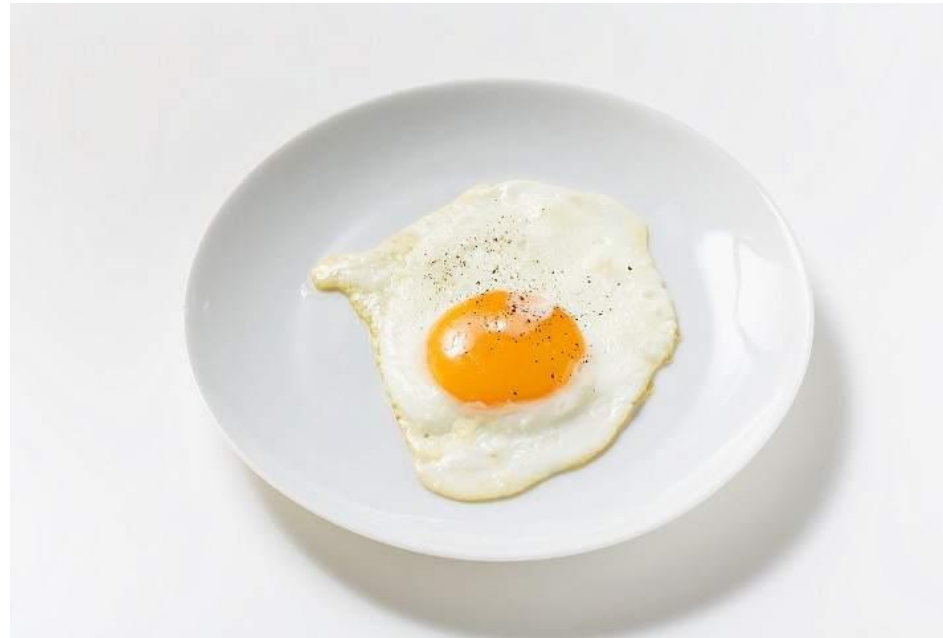
Finally, we reviewed the Agile Manifesto in detail. Originally designed for software development, it has proven to be a very effective way to approach projects in non-predictable environments.



UNIVERSITAT
POLITÈCNICA

Context

- How did we arrive at the “ product ” called “ Egg” fried ”
 - An egg broken (enough) transport eggs in a cart)
 - A frying pan hot (just enough that the egg broken fall into the pan)



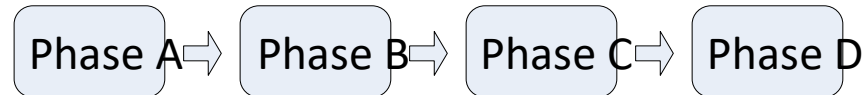
Context

- How did the " product " called "Gazpacho" come about ?
 - Tomato crushed
 - Pepper
 - Cucumber
 - Onion
 - Vinegar ... but the vinegar needs ..
 - Wine (and wine needs ...)
 - Time
 - Oil
 - Bread... but bread needs
 - Wheat ground (flour)
 - Water
 - Yeast
 - Oven
 - Salt

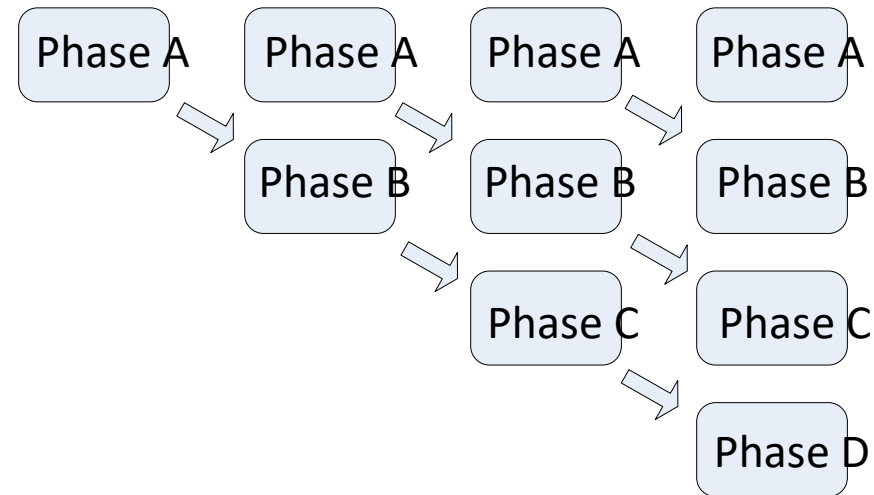


Context

- In all the In some cases , we can to do a project Based on resources and tasks : waterfall model
- Version series



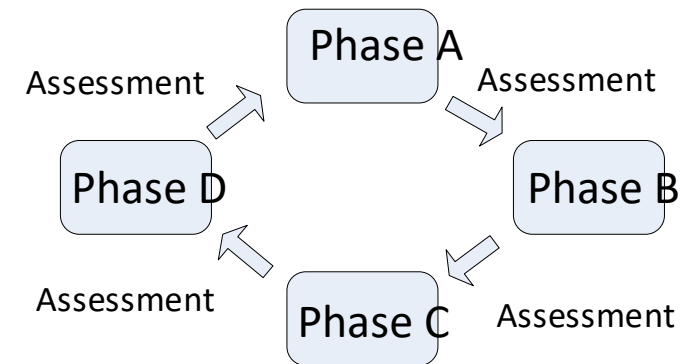
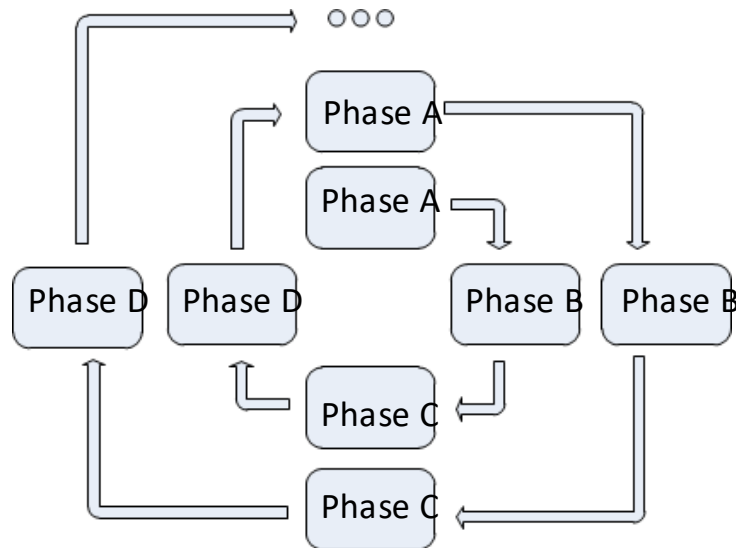
- Version parallel
A.K.A. segment



Context

- As Improve ? Spiral version (allows) do cycles)

- Result



Context

- Some better than other ?
 - Which reply Better to pay in installments ?
 - Which reply Is this better for productivity ?
 - Which reply Better to change ?
 - Which reply Better to make mistakes ?
- The problem is as ...
 - Adapt it to the customer
 - With continuous improvement
 - Without having issues by the unforeseen events and the changes in requirements .

Agile methodologies



ROADMAP

We reviewed the project concept to distinguish those parts that are most related to agile methodologies. We seek inspiration from those people who, in some way, have changed the way projects are approached.

We see how crises have changed the way we think and approach projects. We discovered how disruptive thinking is part of the foundation for managing change in unfamiliar environments.

We reviewed how there are more suitable contexts for each type of project. We reviewed the fundamentals of how the different steps can be approached in each project context.

We explore the concept of LEAN. We look at some of its origins. We try (because it's not easy to understand at first) to understand the concepts of Muda, Muri, and Mura. KaiZen concept is and how it influences agile management.

Finally, we reviewed the Agile Manifesto in detail. Originally designed for software development, it has proven to be a very effective way to approach projects in non-predictable environments.

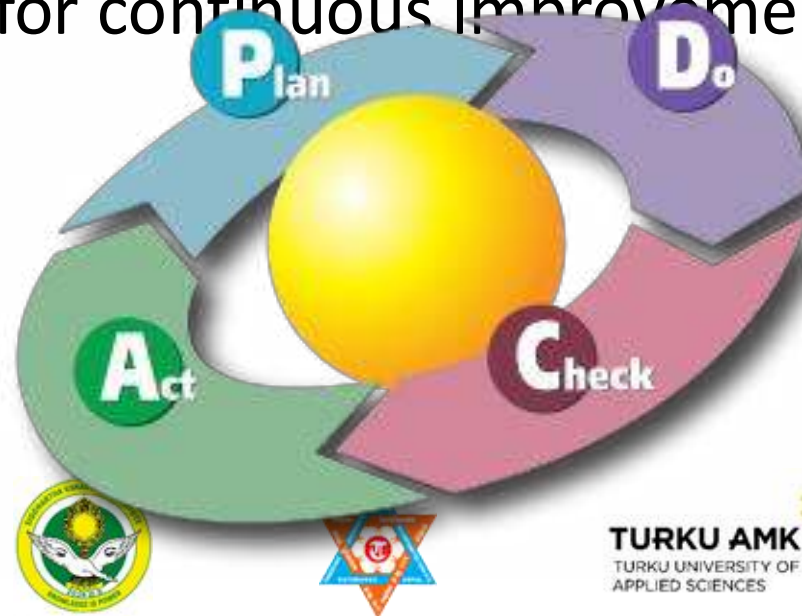
**You
are here**



UNIVERSITAT
POLITÈCNICA

LEAN

- READ: KAIZEN
 - KAI: Change
 - ZEN: Well
- The goal : positive changes
- The method : a mechanism for continuous improvement
- Deming Cycle



LEAN

- LEAN
 - Set of theories that promoted TOYOTA in the 1940s
 - She established it as philosophy / method : James Womack
- They are a set of principles and values : thought
- Try to avoid process problems traditional :
 - Little flexibility
 - Issues repeated
 - Research (method) Scientific) and Development (waterfall models) : What about creativity ? What about innovation ?
 - Hierarchies established and unquestionable
 - Leadership understood as supervision and orders
 - Lack of motivation
 - Without an

LEAN

- LEAN: Fundamentals
 - Passion by do the Simple things ... better simple
 - Motivation to eliminate the superfluous
 - Seeking to reduce deadlines but by means of use efficient use of time
 - Interest by how the customer use the product developed
 - Talent : instead of looking for clones in teams , contributions are encouraged .
differentiated from each component .
 - Synergy : as the connections between different talents generate further talent
- READ: The three M's
 - MUDA: Waste
 - I DIED: Resource Consumption high
 - WALL: Misalignments

LEAN

- READ: SHUTTERS
 - You wait unnecessary
 - Transportation unnecessary
 - Processes unnecessary
 - Movements unnecessary
 - Defects and errors
 - Unnecessary
 - Overproduction

LEAN

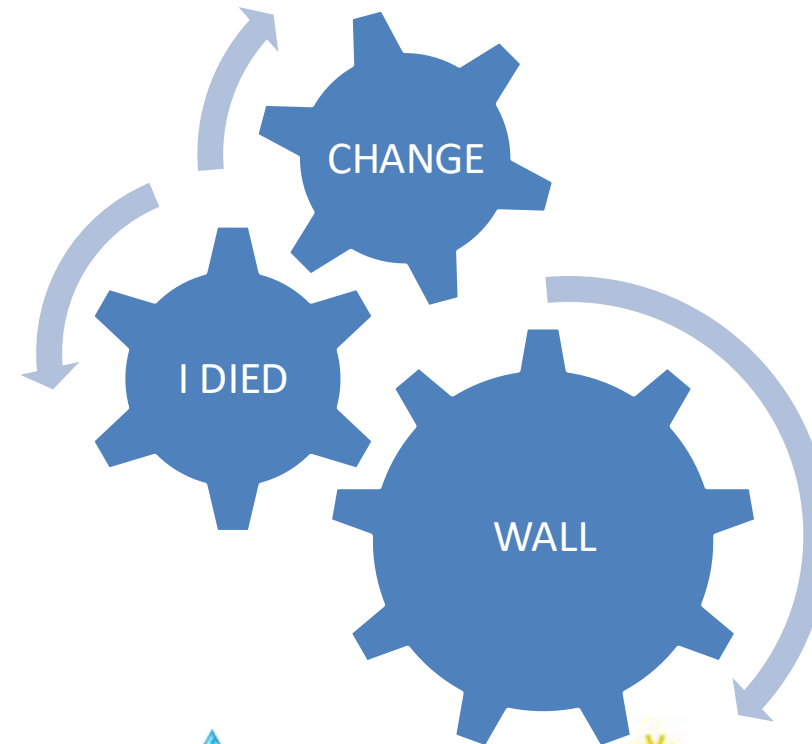
- READ: MURIS
- When we consume many resources ?
- Relationship with the MUDAS
 - You wait unnecessary : time
 - Transportation unnecessary : time and money
 - Processes unnecessary : time , money , and talent
 - Movements Unnecessary : time , money , talent and return back
 - Flaws and mistakes : time , money , talent , changes
 - Unnecessary inventory (stock) : space , money
 - Overproduction : time , money
- consequences ?
 - Stress
 - Lack of motivation
 - Conflicts !!!!!

LEAN

- READ: WALLS
- Mismatches ?
- Relationship with the MUDAS
 - You wait unnecessary : deliveries out of time
 - Transportation unnecessary : deliveries out of place
 - Processes unnecessary : more probability of errors
 - Movements unnecessary : more probability of errors
 - Defects and errors : repairs , bad image
 - Unnecessary inventory (stock) : over - management
 - Overproduction : time lost
- consequences ?
 - Loss of credibility
 - Bad image
 - Conflicts !!!!!

LEAN

- Organizing terms
 - MUTE: something is lost on us escape by some place
 - I DIED: something this overloaded
 - WALL: something this unbalanced





Module 1.1. Introduction to Agile Methodologies



Co-funded by the
European Union

ROADMAP

We reviewed the project concept to distinguish those parts that are most related to agile methodologies. We seek inspiration from those people who, in some way, have changed the way projects are approached.

We see how crises have changed the way we think and approach projects. We discovered how disruptive thinking is part of the foundation for managing change in unfamiliar environments.

We reviewed how there are more suitable contexts for each type of project. We reviewed the fundamentals of how the different steps can be approached in each project context.

We explore the concept of LEAN. We look at some of its origins. We try (because it's not easy to understand at first) to understand the concepts of Muda, Muri, and Mura. KaiZen concept is and how it influences agile management.

Finally, we reviewed the Agile Manifesto in detail. Originally designed for software development, it has proven to be a very effective way to approach projects in non-predictable environments.


**You
are here**



UNIVERSITAT
POLITÈCNICA

Agile Manifesto

1. Our highest priority is to satisfy the customer through the early and continuous delivery of valuable software.
2. We accept that requirements will change, even late in development. Agile processes leverage change to provide a competitive advantage for the customer.
3. We deliver working software frequently, between two weeks and two months, with a preference for the shortest possible time period.
4. Business managers and developers work together daily throughout the project.
5. Projects are built around motivated individuals. They need the environment and support they require, and they need to be trusted to carry out the work.
6. The most efficient and effective method of communicating information to the development team and among its members is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. Promoters, developers, and users must be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design improves Agility.
10. Simplicity, or the art of maximizing the amount of work not done, is essential.
11. The best architectures, requirements, and designs emerge from self-organized teams.
12. At regular intervals the team reflects on how to be more effective and then adjusts and refines its behavior accordingly.

Agile Manifesto

1. Our highest priority is to satisfy the customer through the early and continuous delivery of the **product** with value.
2. We accept that requirements will change, even late in development. Agile processes leverage change to provide a competitive advantage for the customer.
3. We deliver the functional **product** frequently, between two weeks and two months, with preference given to the shortest possible time period.
4. Business managers and developers work together daily throughout the project.
5. Projects are built around motivated individuals. They need the environment and support they require, and they need to be trusted to carry out the work.
6. The most efficient and effective method of communicating information to the development team and among its members is face-to-face conversation.
7. The working **product** is the primary measure of progress.
8. Agile processes promote sustainable development. Promoters, developers, and users must be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design improves Agility.
10. Simplicity, or the art of maximizing the amount of work not done, is essential.
11. The best architectures, requirements, and designs emerge from self-organized teams.
12. At regular intervals the team reflects on how to be more effective and then adjusts and refines its **behavior** accordingly.

Agile Manifesto

1. Our highest priority is to satisfy the customer through the early and continuous delivery of the product with value .
2. We accept that requirements will change , even late in development. Agile processes leverage change to provide a competitive advantage for the customer .
3. We delivered the product functional frequently, between two weeks and two months, with preference given to the shortest possible time period.
4. Business managers and developers work together daily throughout the project.
5. Projects are developed around motivated individuals . They need the environment and support they require, and they need to be trusted to carry out the work.
6. The most efficient and effective method of communicating information to the development team and among its members is face-to-face conversation .
7. The working product is the primary measure of progress.
8. Agile processes promote sustainable development . Promoters, developers, and users must be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design improves Agility.
10. Simplicity , or the art of maximizing the amount of work not done, is essential.
11. The best architectures, requirements, and designs emerge from self-organized teams .
12. At regular intervals the team reflects on how to be more effective and then adjusts and refines its behavior accordingly.



ROADMAP

We reviewed the project concept to distinguish those parts that are most related to agile methodologies. We seek inspiration from those people who, in some way, have changed the way projects are approached.

We see how crises have changed the way we think and approach projects. We discovered how disruptive thinking is part of the foundation for managing change in unfamiliar environments.

We reviewed how there are more suitable contexts for each type of project. We reviewed the fundamentals of how the different steps can be approached in each project context.

We explore the concept of LEAN. We look at some of its origins. We try (because it's not easy to understand at first) to understand the concepts of Muda, Muri, and Mura. KaiZen concept is and how it influences agile management.

Finally, we reviewed the Agile Manifesto in detail. Originally designed for software development, it has proven to be a very effective way to approach projects in non-predictable environments.


**You
are here**



References

- To read...
 - Nicholas Nassim Taleb
Black Swan.

