Project Management for IT Projects: part 2

INNOVATIVE PROJECTS

LESSON 11-May 2025

CONTINUOUS IMPROVEMENT and REVIEW

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Course agenda (part 2:INNOVATIVE PROJECTS)

1. INNOVATION AND METHODOLOGIES
2. AGILE CONCEPTS
3. AGILE METHODOLOGIES OVERVIEW WITHOUT SCRUM
4. SCRUM
5. LEAN
6. DESIGN THINKING
7. VALUE DRIVEN DELIVERY
8. STAKEHOLDERS,TEAMS,ADAPTIVE PLANNING
9. CASE STUDIES
10. EXERCISES
11. **CONTINUOUS IMPROVEMENT AND REVIEW**

AGILE METHODOLOGIES&CONTINUOUS IMPROVEMENT

AGILE APPROACH TO LESSONS LEARNED:

- **DONE CONSCIOUSLY AND INTENTIONALLY.**
- **FREQUENT**
- **ENSURES A REGULAR ADAPTATION AND IMPROVEMENT**

THE «LEARN» STEP

IN EVERY AGILE ITERATION THERE IS A LEARN STEP

INSPECTING

INSPECTING

ADAPTING

ADAPTING

IMPROVING

CONTINUOUS IMPROVEMENT LIKE A JOURNEY

- THE «LEARN» STEP INCLUDES THE TEAM'S ITERATION REVIEWS AND RETROSPECTIVES BUT IT IS NOT LIMITED TO THEM

- IT IS AN ONGOING PROCESS OF ENHANCING PROCESSES,PRODUCTS,PEOPLE

- IT IS AN ONGOING PART OF ITERATIVE LIFE CYCLES DRIVING AGILE METHODS

KAIZEN=CHANGE FOR BETTER

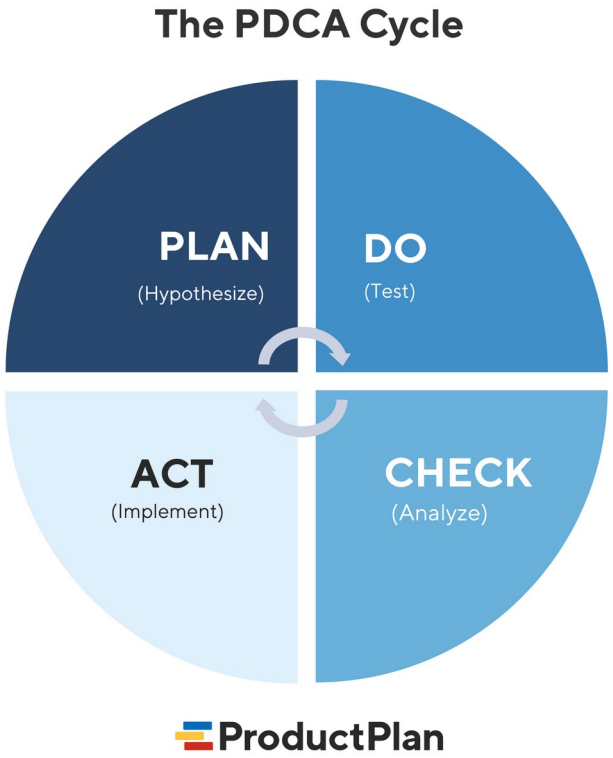
KAIZEN IS THE BASIS FOR AGILE'S WAY OF CONTINUOUS IMPROVEMENT

IT FOCUSES ON ENCOURAGING THE TEAM TO FREQUENTLY IMPLEMENT SMALL INCREMENTAL IMPROVEMENTS

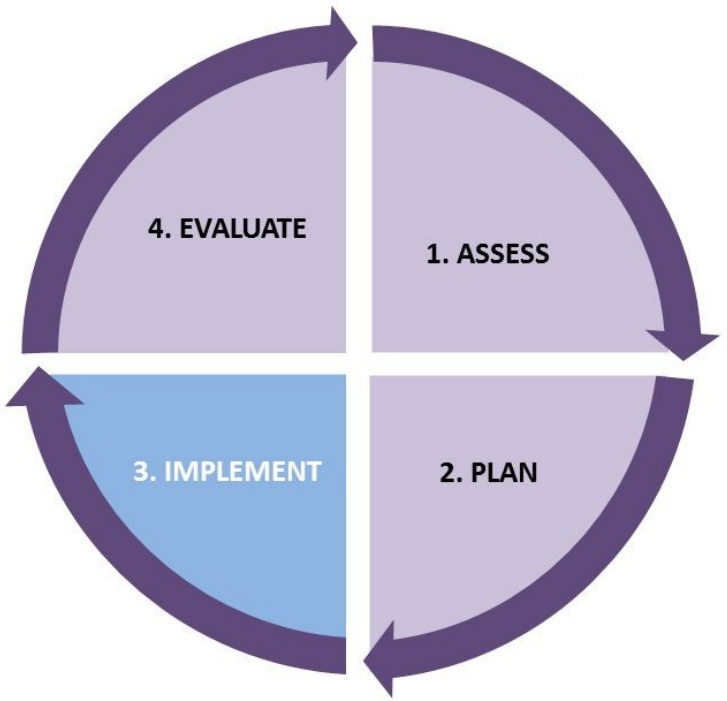
IT IS NOT A SET OF PRACTICES BUT A **MINDSET** THAT HELPS UNDERSTANDIN AGILE METHODS AS A CONTINUOUS ITERATIVE IMPROVEMENT PROCESS

PDCA CYCLE VERSUS AGILE CYCLE

PLAN DO CHECK ACT



PLAN DEVELOP EVALUATE LEARN



CONTINUOUS IMPROVEMENT:PRODUCT

- WHEN WE BUILD IN SMALL INCREMENTS AND GET FEEDBACK, THE PRODUCT EVOLVES TOWARD THE TRUE REQUIREMENTS

- SO THE PRODUCT OR SOLUTION IS INCREMENTALLY BUILT THROUGH A CONTINUOUS IMPROVEMENT PROCESS

VALUE STREAM MAPPING

- THE GOAL OF THIS TECHNIQUE IS THE OPTIMIZATION OF THE FLOW OF INFORMATION REQUIRED TO COMPLETE A PROCESS,THEREBY REDUCING THE TIME IT TAKES TO CREATE VALUE AND ELIMINATING WASTEFUL OR UNNECESSARY WORK

- A VISUAL MAP IS CREATED OF A PROCESS FLOW SO THAT WE CAN IDENTIFY WHERE DELAYS,WASTE,CONSTRAINTS CAN OCCUR

- ONCE WE IDENTIFY THE AREAS TO BE IMPROVED WE LOOK FOR WAYS TO REMOVE THE PROBLEMS AND MAKE THE PROCESS MORE EFFICIENT

VALUE STREAM MAPPING: 6 STEPS

1. IDENTIFY THE PRODUCT TO BE ANALYZED
2. CREATE A VALUE STREAM MAP OF THE CURRENT PROCESS,IDENTIFYING STEPS,QUEUES,DELAYS
3. REVIEW THE MAPS TO IDENTIFY DELAYS,WASTE,CONSTRAINTS
4. CREATE A NEW VALUE STREAM MAP OF THE DESIRED STATE OF PROCESS
5. DEVELOP A ROADMAP TO CREATE THE OPTIMIZED STATE
6. PLAN TO REVISIT THE PROCESS FOR A CONTINUOUS REFINEMENT

PROJECTS-PRE MORTEMS

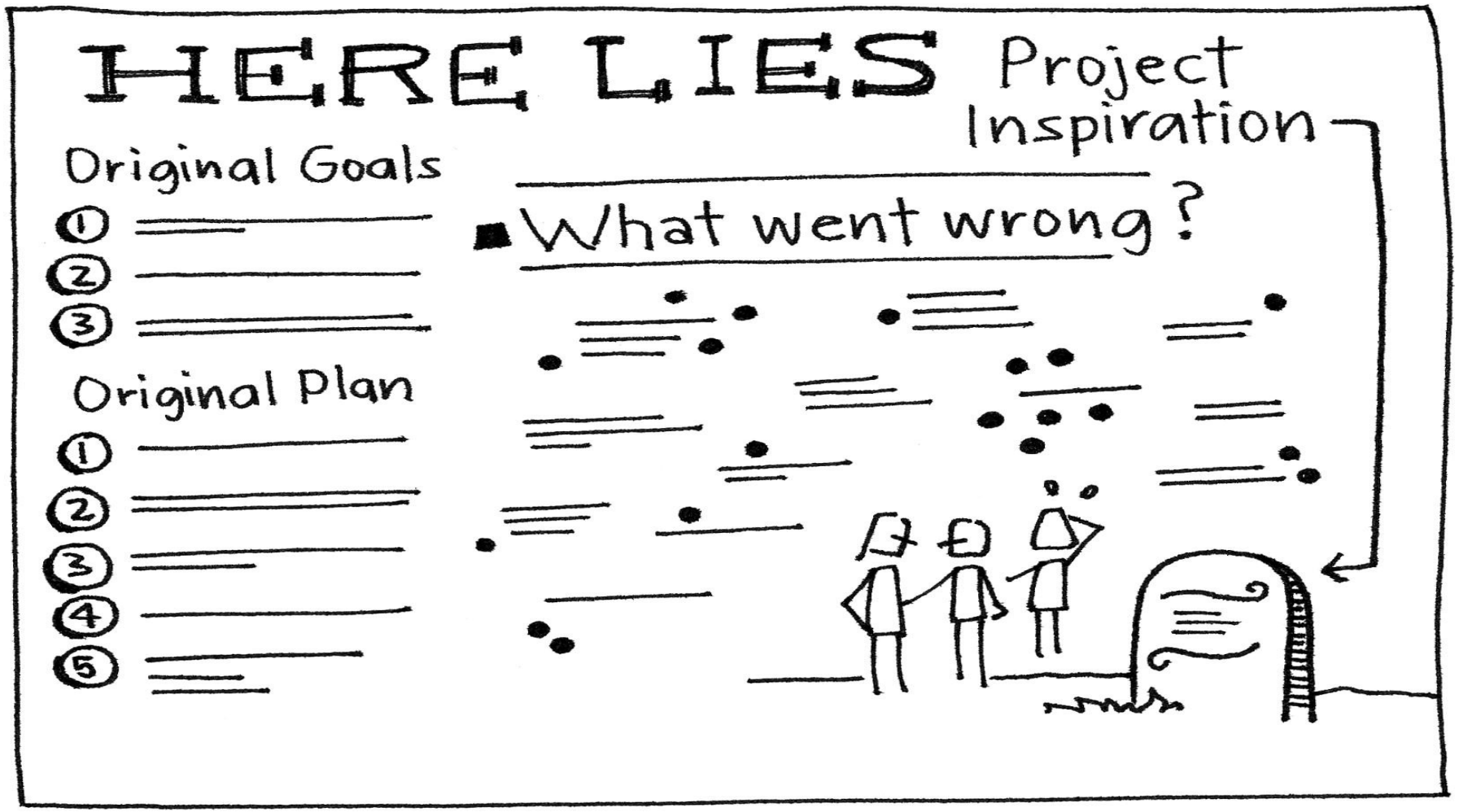
- A FACILITATED TEAM TECHNIQUE AIMING TO IDENTIFY THE POSSIBLE FAILURE POINTS ON A PROJECT BEFORE THEY HAPPEN TO MINIMIZE THE RELATED RISKS

- THEY ARE ESPECIALLY VALUABLE ON LONG-RUNNING PROJECTS THAT ARE LIKELY TO EXPERIENCE MORE CHANGE THAN SHORT PROJECTS,SIMPLY BECAUSE THEY ARE EXPOSED TO A LONGER HORIZON OF RISK

STEPS OF THE PRE-MORTEM EXERCISE

1. IMAGINE THE FAILURE
2. GENERATE THE REASONS FOR FAILURE
3. CONSOLIDATE THE LIST
4. REVISIT THE PLAN

PRE-MORTEM


HERE LIES
Project Inspiration
Original Goals
1
2
3
Original Plan
1
2
3
4
5
What went wrong?

CONTINUOUS IMPROVEMENT:PEOPLE

THIS IS HOW AGILE TEAMS EVALUATE THEMSELVES AND IDENTIFY AREAS OF IMPROVEMENT BY EXAMINING :

- THE RETROSPECTIVE PROCESS
- THE TEAM SELF-ASSESSMENTS

RETROSPECTIVES ARE COMMON TO ALL AGILE METHODS AND SERVE AS THE MAIN TRIGGER FOR DRIVING CHANGES IN THE AREAS OF BOTH PRODUCT AND PEOPLE

RETROSPECTIVES ARE FUNDAMENTAL ABOUT PEOPLE

- BECAUSE THEY ARE MEETINGS HELD FOR AND BY THE TEAM MEMBERS

- RETROSPECTIVE IS A SPECIALIZED MEETING THAT IS HELD AFTER A RELEASE,AFTER AN ITERATION OR EVEN THE ENTIRE PROJECT

RETROSPECTIVES:QUESTIONS

1. WHAT IS GOING WELL?
2. WHAT AREAS COULD USE IMPROVEMENTS?
3. WHAT SHOULD WE BE DOING DIFFERENTLY?

AS PROBLEMS ARE IDENTIFIED,SOLUTIONS ARE BRAINSTORMED

THE BENEFITS OF RETROSPECTIVES

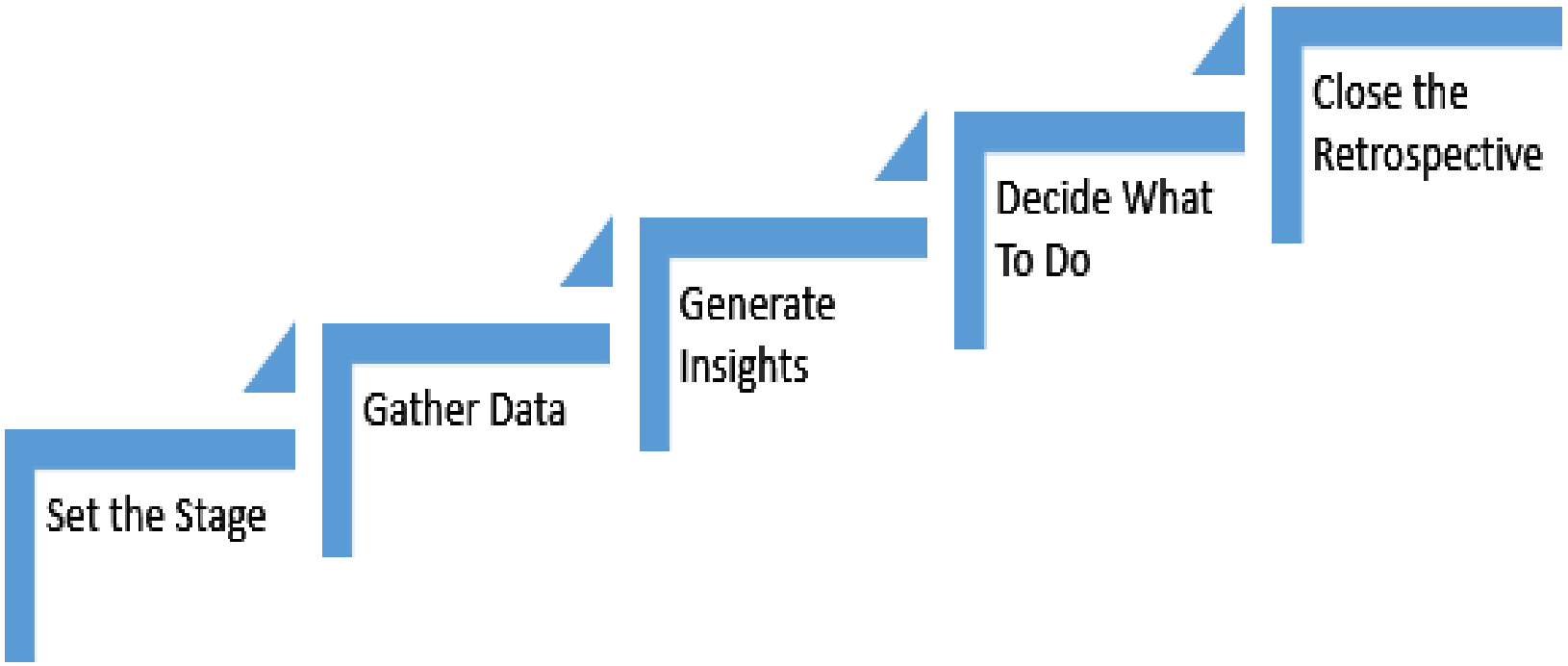
- RETROSPECTIVES PROVIDE IMMEDIATE VALUE TO THE CURRENT PROJECT RATHER THAN JUST DOCUMENTING GOOD ADVICE IN THE HOPES THAT A PROJECT WITH A SIMILAR DOMAIN WILL COME ALONG

- REVIEWING LESSONS LEARNED THROUGHOUT THE PROJECT MAKES THE ISSUES AND LESSONS VERY REAL AND PRESSING

BENEFITS OF RETROSPECTIVES

1. IMPROVED PRODUCTIVITY (rework reduction)
2. IMPROVED CAPABILITY (increase of people performing knowledge tasks)
3. IMPROVED QUALITY (removal of causes of defects)
4. IMPROVED CAPACITY (efficiency)

THE RETROSPECTIVE PROCESS:5 STEPS



RETROSPECTIVE TYPICAL TYMING

1:SET THE STAGE

- **The goal of the first phase is to bring the mind of the team to the retrospective meeting so they have their focus on the work at hand**

- **Everyone should be in a state that he feels like he wants to contribute his thoughts and ideas as much as possible.**
- **People have been working on other tasks just a few minutes ago before they had to stop and go to the retrospective meeting.**

- **The goal for the leader of the meeting is to bring the focus of the team to the work at hand.**

2.GATHER DATA

- **The goal in this phase is to bring the facts of the sprint to the table, so that every participant has the same picture of what happened during the iteration.**

This phase is generally splitted up in two steps:

- **First:*hard facts and statistics* based on the data the team generated during the sprint.**
- **Second:get the insights and *personal opinions* from each individual to generate a complete picture.**

3.BRAINSTORM IDEAS (GENERATE INSIGHTS)

- **The goal of this phase is to dive deeper in at least one of the subjects from the previous phase. We want to uncover the root cause why certain things happened. And then we want to find options for a possible solution.**

This phase can be splitted up in two steps:

- **At first we decide which particular subject we want to select. So we have a focus point on one specific subject rather than talking about multiple topics at the same time.**
- **In the second step we dive deeper into the selected subject to find the root cause.**

4. DECIDE WHAT TO DO (PICK A SOLUTION)

- **The goal of this phase is to create action items to improve in the next iterations.**
- **A list of possible root cause of the problem and potential solutions are identified.**
- **Now it has to be decided what to do differently in the next Sprint.**
- **Therefore a list of action items must be issued about what exactly to do differently.**
- **When creating action items there are a couple of things to be kept in mind:**

4. DECIDE WHAT TO DO:TO KEEP IN MIND

1.Make action items actionable

2.Make action items small

3.Don’t pick too many action items

4.Make action items visible

5.Try-Measure-Learn Loop

5.CLOSE THE RETROSPECTIVE

- **The goal of this last phase is to sum up the results of our Retrospective and generally leave a good feeling behind for the participants of the meeting.**

- **Everyone should leave the room with the feeling that we achieved something useful and that the meeting was worth it**.

Perform a Retrospective of the Retrospective Session

- Have an input from all participants what they liked about the Retrospective and what could be improved.
- Ask everyone to write down on a sticky note the one thing they like and one thing they would change about the Retrospective.

- Everyone, one after another, explains what they mean.
- With these activities the team is able to celebrate the results of the retrospective.
- By letting everyone explain their feelings about the meeting the results are even more important for the team.

TEAMWORK HAS A DRAMATIC EFFECT ON ORGANIZATIONAL PERFORMANCE.

- A team that is not working collaborativelycan cause unnecessary disruption, failed delivery and strategic failure.

- Nowadays it is almost impossible to avoid being a member of team.
  - it's important for career development to know teamworking **strengths and weaknesses**.

WHY SHOULD WE USE AGILE?

The current info era is focused on **information rather than manufacturing.**

Value is moving on t**he ownership of knowledge** which creates goods and services through….

KNOWLEDGE WORKERS.

They are **IT specialists but also engineers, doctors, lawyers, writers, scientists…**becoming a large segment of the workforce of the countries

AGILE VALUES

AGILE MANIFESTO COMES DEVELOPING SOFTWARE TO VALUE:

1-INDIVIDUALS AND INTERACTIONS OVER PROCESSES AND TOOLS

2-WORKING SOFTWARE OVER COMPREHENSIVE DOCUMENTATION

3-CUSTOMER COLLABORATION OVER CONTRACT NEGOTIATION

4-RESPONDING TO A CHANGE OVER FOLLOWING A PLAN

HIGH-UNCERTAINTY PROJECTS

CHANGE COMPLEXITY RISK

AGILE MEANING AND GOAL

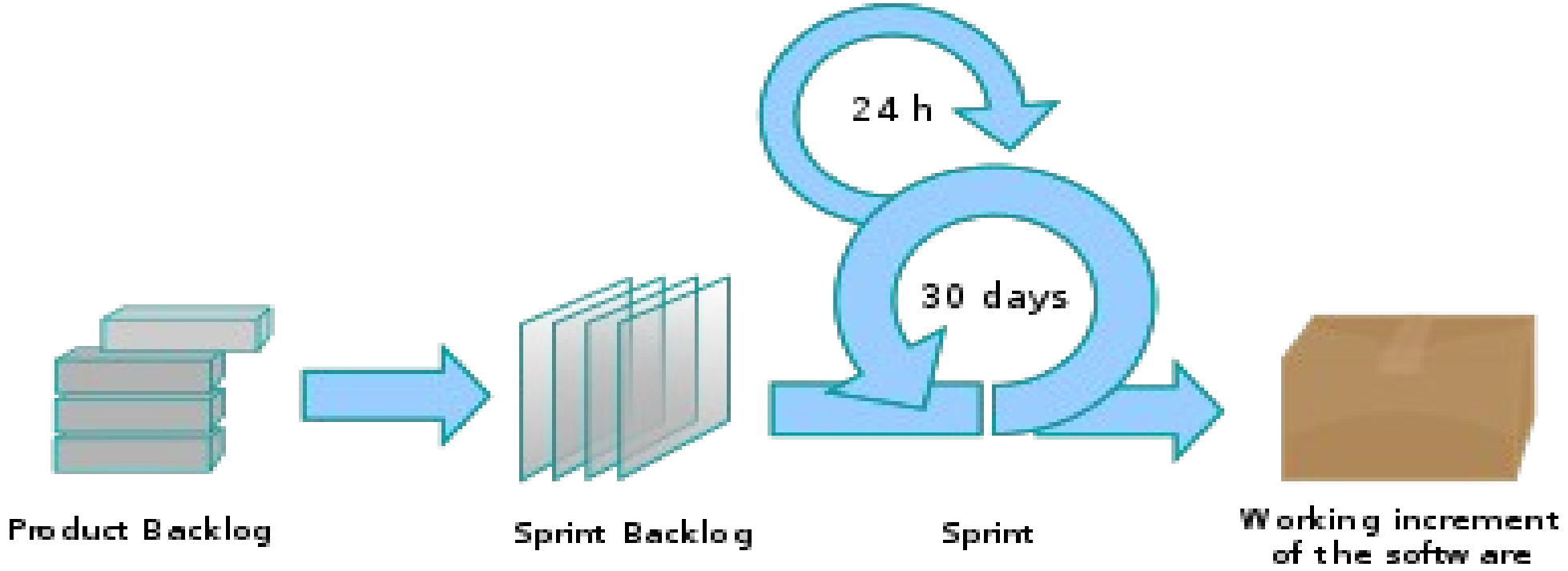
NOT TO BE AGILE FOR ITS OWN SAKE

BUT

TO PROVIDE CLIENTS WITH A NONSTOP FLOW OF

VALUE

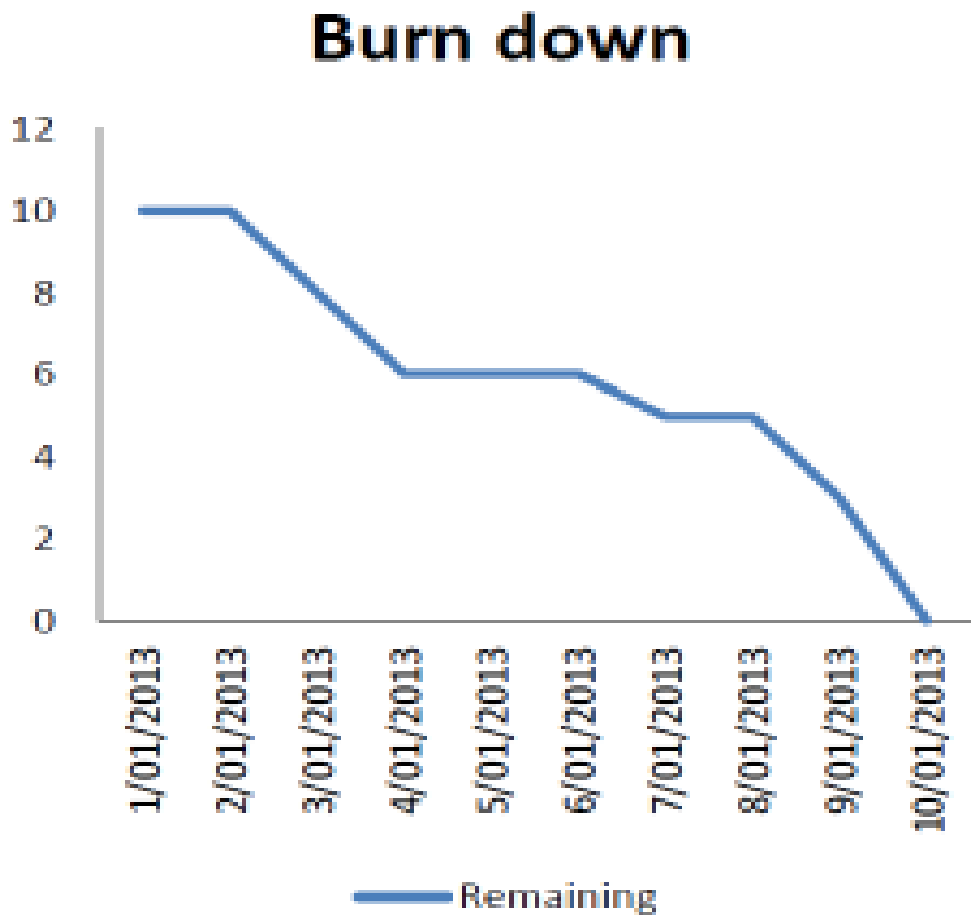
SCRUM IN A PICTURE

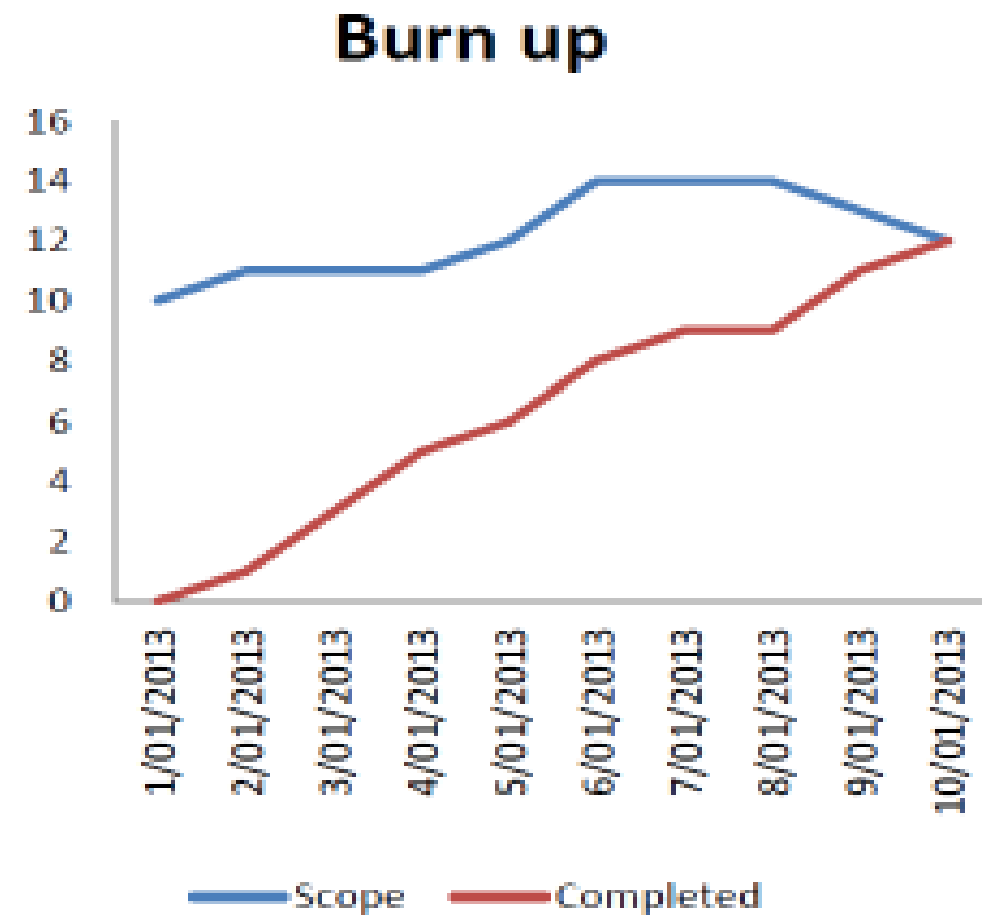


ROLES IN SCRUM

1.PRODUCT OWNER
2.TEAM
3.SCRUM-MASTER

BURN CHARTS


Burn down
12
10
8
6
4
2
0
1/01/2013
2/01/2013
3/01/2013
4/01/2013
5/01/2013
6/01/2013
7/01/2013
8/01/2013
9/01/2013
10/01/2013
Remaining


Burn up
16
14
12
10
8
6
4
2
0
1/01/2013
2/01/2013
3/01/2013
4/01/2013
5/01/2013
6/01/2013
7/01/2013
8/01/2013
9/01/2013
10/01/2013
Scope
Completed

WASTE

ANY ACTION OR STEP IN A PROCESS THAT DOES NOT ADD VALUE TO THE CUSTOMER.

ANY PROCESS THAT THE CUSTOMER DOES NOT WANT TO PAY FOR.

DESIGN THINKING

Design thinking is a tool that applies to improve project and design management

It was born ufficially in the 2000 in Stanford-California with focus on people by promoting:

integration of analysis and creativity

MAIN MEANINGS OF VALUE

1. VALUE FOR THE CUSTOMER=SACRIFICE

   DIFFERENCE BETWEEN WHAT HE RECEIVES AND WHAT HE GIVES IN COUNTERPART

2. EXCHANGE VALUE=SELLING PRICE

VALUE DRIVEN DELIVERY

- Within Agile approach the effect is to provide a non costant differential value which grows progressively up the achievement of a peak.

- In opposition in the traditional approach the differential value is totally provided at the end of the project

EAT YOUR DESSERT FIRST

Value could be defined in terms of monetary benefit, compliance adherence, an answer to the competition in the market etc.

The term value can differ for each client based on what the client is expecting the product/software to accomplish.

In the agile way of project management, always the requirements are prioritized based on what adds more value to customer delivery.

STAKESHOLDER&TEAM

PEOPLE OVER PROCESSES

PROJECTS ARE UNDERTAKEN FOR PEOPLE AND BY PEOPLE

STAKEHOLDERS

«any people who will be impacted or have impact on a project»

Customers&users,suppliers,business representatives,project managers,norms representatives,quality inspectors,product owners,teams,scrummasters,auditors…

GETTING THEM INVOLVED IS ESSENTIAL FOR THE SUCCESS OF ANY PROJECT

DELIVERABLES

KEY ELEMENTS OF THE SCOPE OF A PROJECT

Intermediate results with the following features:

- Uniqueness
- Measurability
- Verifiability.

BUILDING AGILE TEAMS

- TEAM: A SMALL NUMBER OF PEOPLE WITH COMPLEMENTARY SKILLS; COMMITTED TO A COMMON PURPOSE

- AGILE METHODS RECOMMEND TO KEEP THE DELIVERY TEAM SMALL TO ALLOW THE DEVELOPMENT OF RELATIONSHIPS AND A DIRECT COMMUNICATION

CONTINUOUS IMPROVEMENT

- FOCUSED ON PRODUCT,PEOPLE,PROCESSES

- IN AGILE THERE IS THE NEED TO APPLY THE BENEFITS OF LEARNING

AS WE GO ON CURRENT PROJECT

And

AS SOON AS POSSIBLE

THANKS

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Please contact me for any issue also for your future: one never knows…