# TDT4140

EXERCISE CLASS – EXPLORATION PHASE

KARI ELINE STRANDJORD

THE COMMON PROJECT

DELIVERABLES

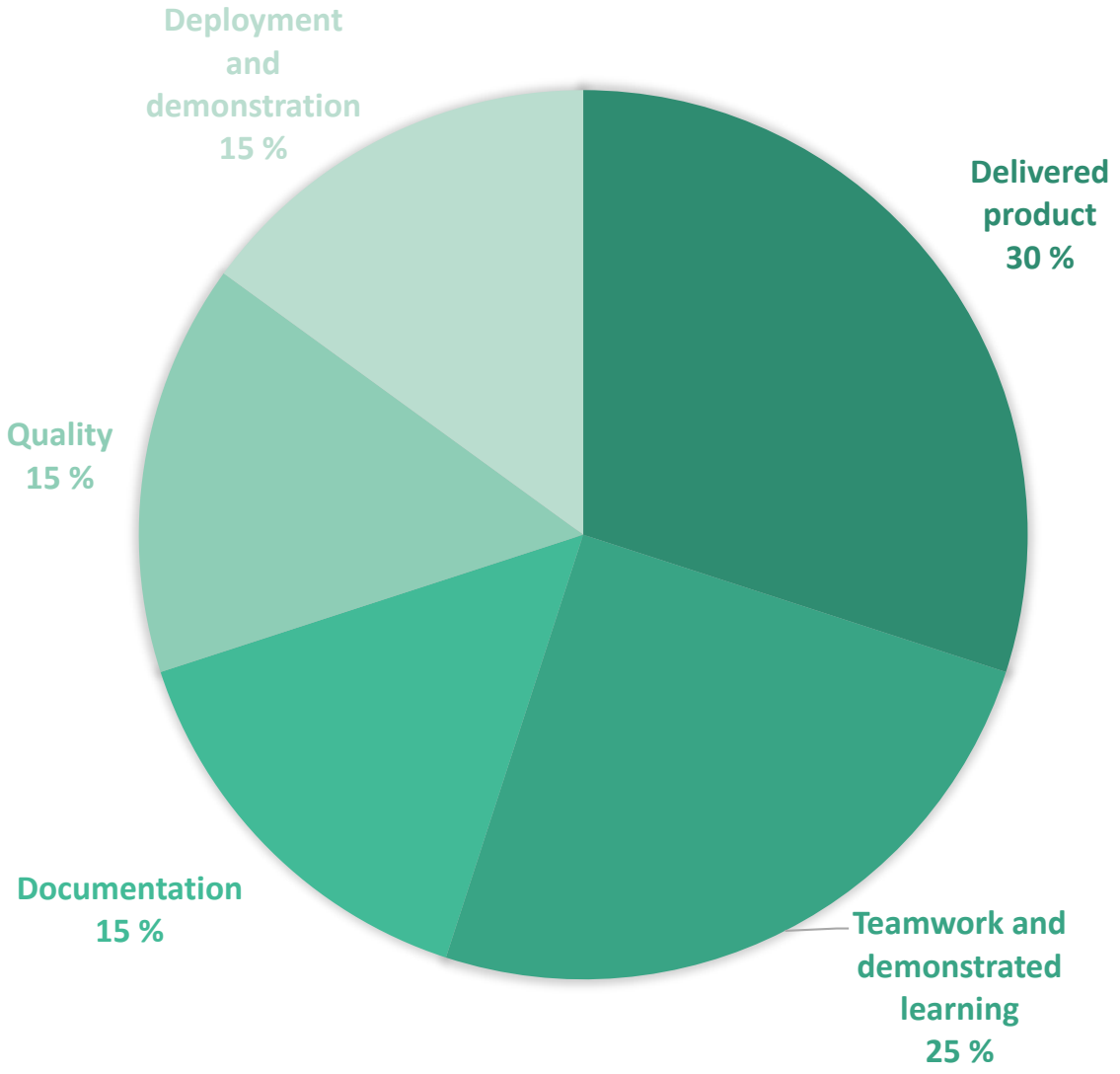
GOAL OF THE COMMON PROJECT

# *REVOLUTIONIZE THE LEARNING-EXPERIENCE IN UNIVERSITY EDUCATION*

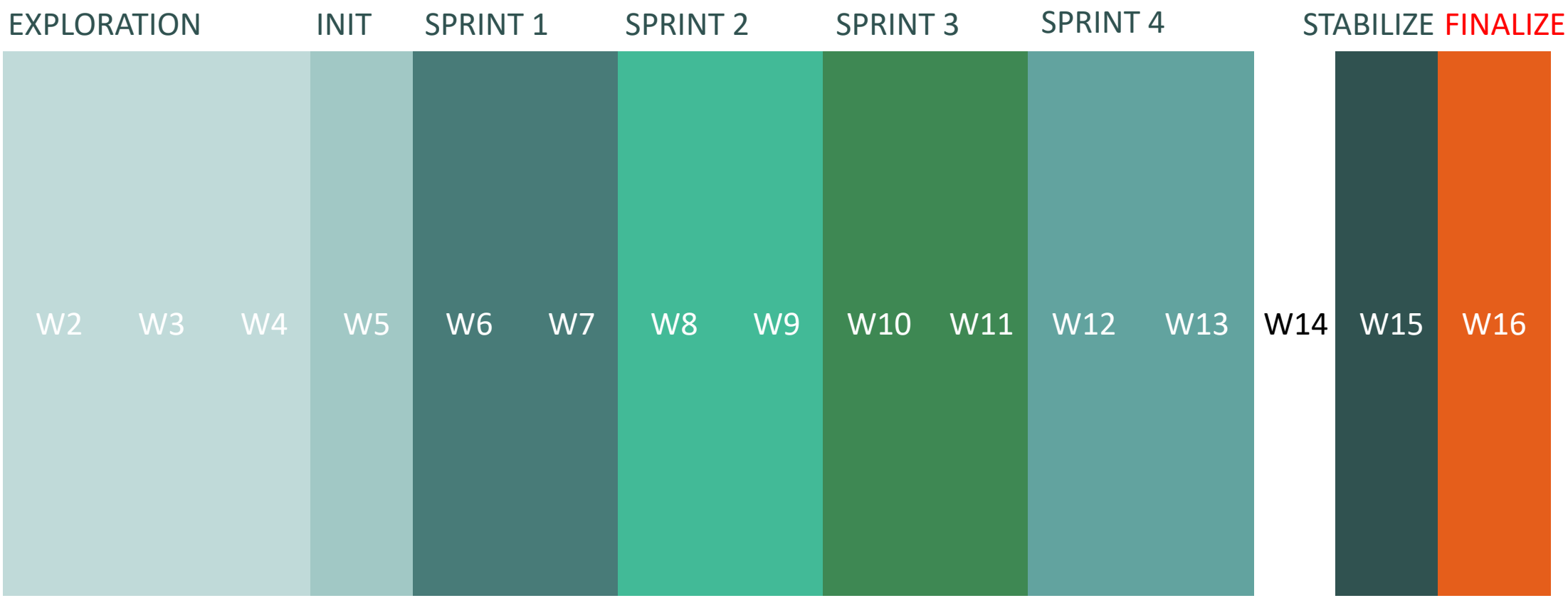
# *EVALUATION DIMENSIONS*

Project is due 27th of April.
Deliverables are mandatory, but only pass/no pass.
100% of the grade is based on project work.
Evaluation dimensions:

- Delivered product 30%
- Teamwork and demonstrated learning 25%
- Documentation 15%
- Quality 15%
- Deployment and demonstration 15%



# *TIMELINE*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SPRINT 1
SPRINT 2
SPRINT 3
SPRINT 4
STABILIZE
FINALIZE
W2
W3
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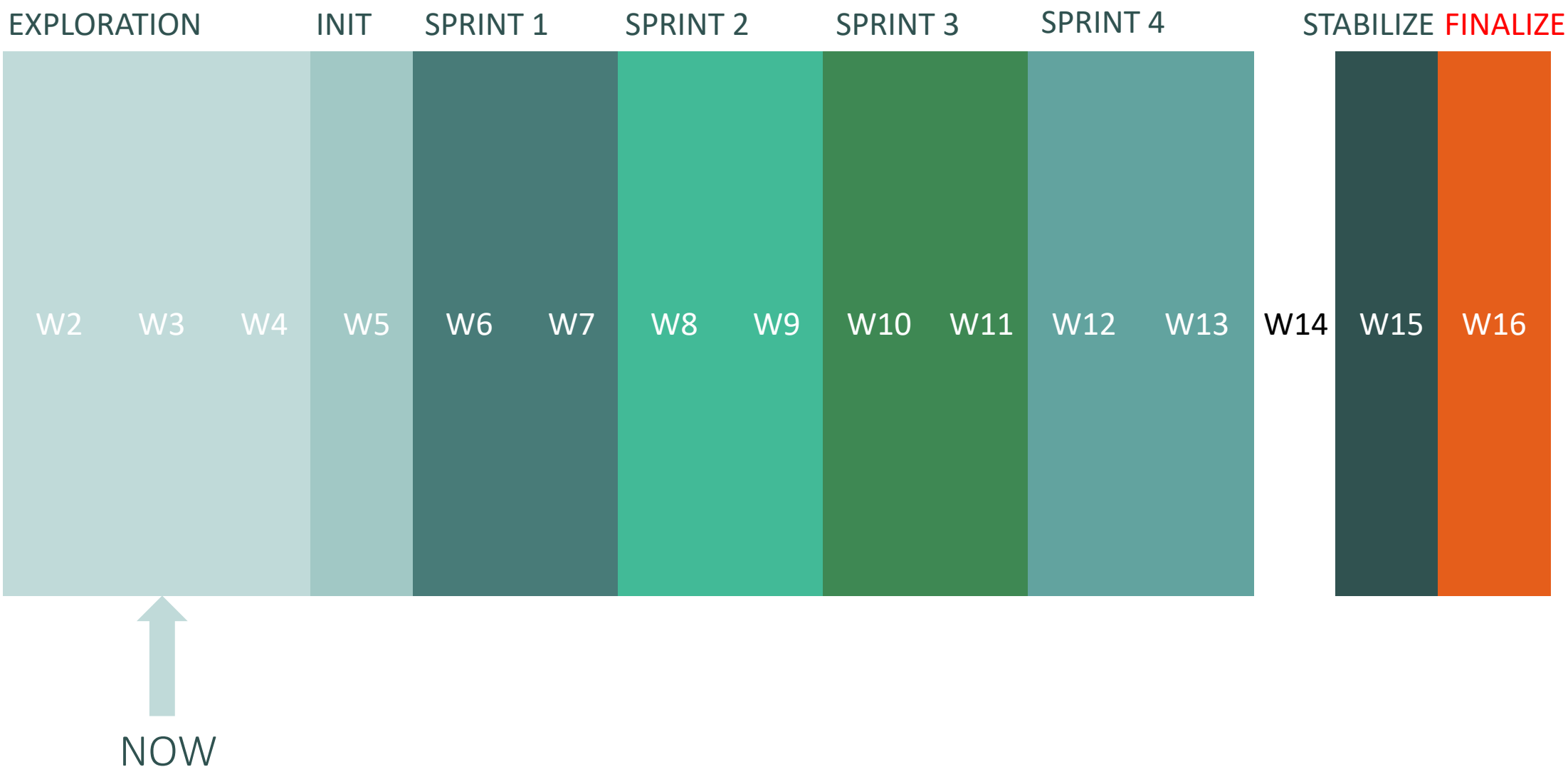
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NOW

# *Exploration phase:* deliverables

1) Problems and concept

→ deadline 23.01

2) Product backlog,
Project plan and poster

→ deadline 3.02

# 1

## *Problems and concept*

Discover the top-5 problems of university education from the viewpoint of professors or teachers and propose a concept.

# *WHY?*

*When you have understood the problem, you can be more creative when producing a solution and deliver real value to your customers.*

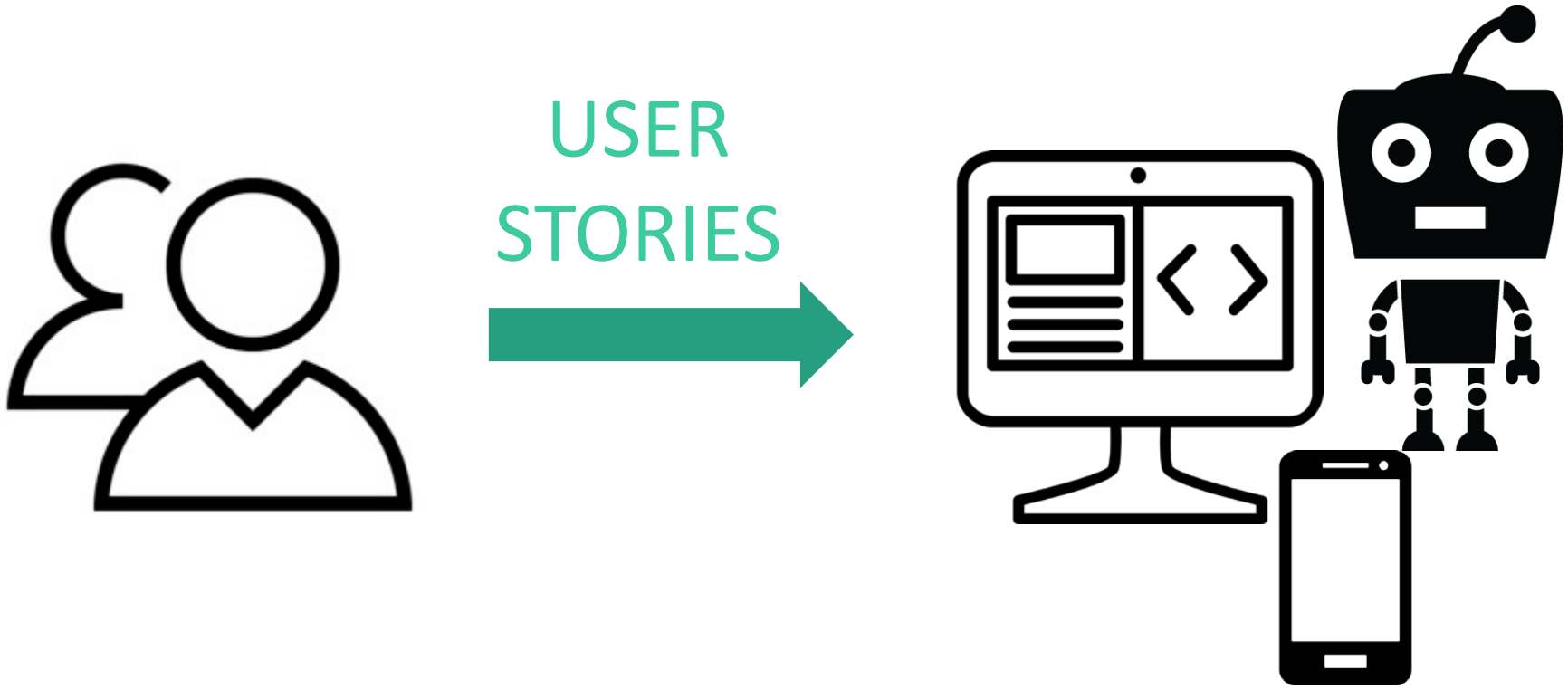
# 2

*Product backlog, project plan and poster*

- Product backlog
  - Prioritized user stories
- Project plan
  - Opportunity
  - Stakeholders
  - Requirements
  - Software system
  - Work
  - Team
  - Way of working
- Poster
  - Illustration of your concept

# *PRODUCT BACKLOG*

*prioritized user stories*




FROM CUSTOMERS TO PRODUCT

# USER STORIES

As a <type of users>,
I <want/can/need>
<goal or objective>,
so that <reason>

# USER STORIES EXAMPLE

As an admin user, I want to create user accounts, so that I can grant users access to the system

# USER STORIES

- Describes wanted features
- Theme
  - A collection of user stories
- Epic
  - A large user story
  - Start with epics and iterate, user stories can be divided into sub-stories
- Prioritize user stories
- Confirmation – condition of satisfaction
  - Acceptance criterias → confirm when a story is done
  - Essentially tests
  - Verify that...

# USER STORIES EXAMPLE

As an admin user, I want to create user accounts, so that I can grant users access to the system

Acceptance criteria's:
- verify that an admin user can create a user account by adding following information: name, email…
- verify that the new user retrieves an email with login instructions
…

# *PROJECT PLAN*

# Project plan

- Include details of all essence kernel alpha states
- Include a risk assessment
- Include the product backlog
- Should give all stakeholders a clear understanding of the project and how it is run
- Should be updated throughout the project

Software project problem:

*lack of a documented project plan*

# SEMAT

There are *Customer* needs to be met

- Someone has a problem or *Opportunity* to address
- There are *Stakeholders* who use and/or benefit from the solution produced and some will fund the endeavor.

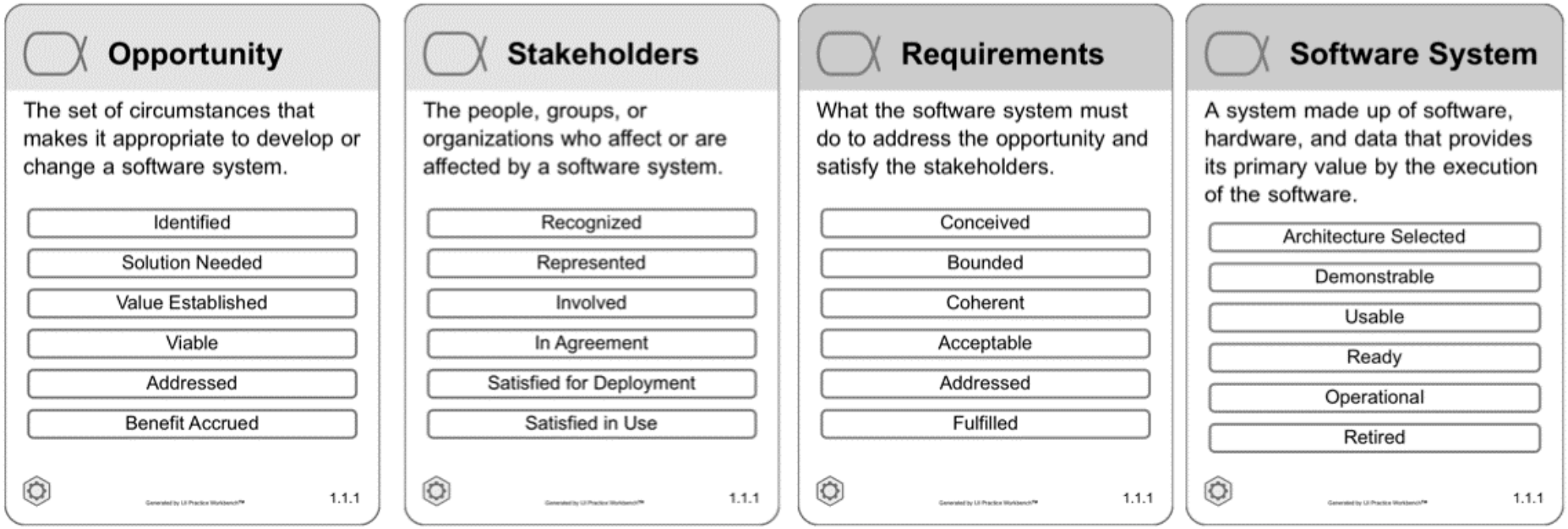
There is a *Solution* to be delivered

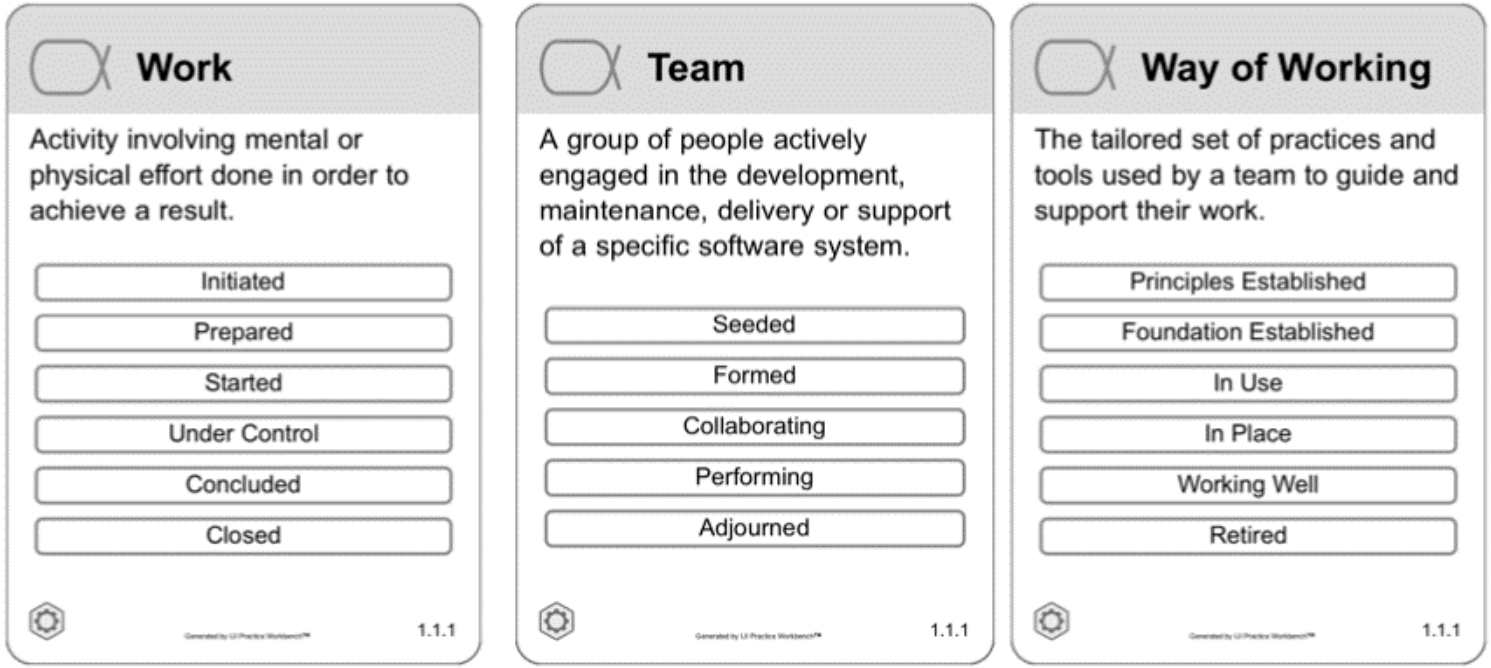
- There are certain *Requirements* to be met
- A *Software System* of one form or another will be developed

There is an *Endeavor* to be undertaken

- The *Work* must be initiated
- Form an empowered *Team* of competent people
- With an appropriate *Way of Working*

# Essence kernel alpha states



# *POSTER*

# HOT DOG

Productowner: Lars Furu Kjelsaas, Scrum Masters: Cornelius Grieg Dahling & Stian Jørgensrud
Developers: Kristoffer Finckenhagen, Martin Gundersen, Egil Uggerud, Sigurd Berglann & Robert Einarson

## SAVE THE DOG

Hot Dog is a tool that measures the temperature inside the users car, and lets the user know through an app when the temperature exeeds a fatal level. Make sure your dog is nice and comfy with Hot Dog!


## LETHAL HEAT

Over the course of the last five years, there have been reported a total of 45 cases in the US where dogs have died while being left in a vehicle on warm summer days. Even if the owner decides to leave just for a few minutes it can still have severe consequences for the dog. On sunny days even if the temperature in the air is only 25 degrees celcius, a parked car can reach a temperature double that in just a few minutes.

## THE PRODUCT

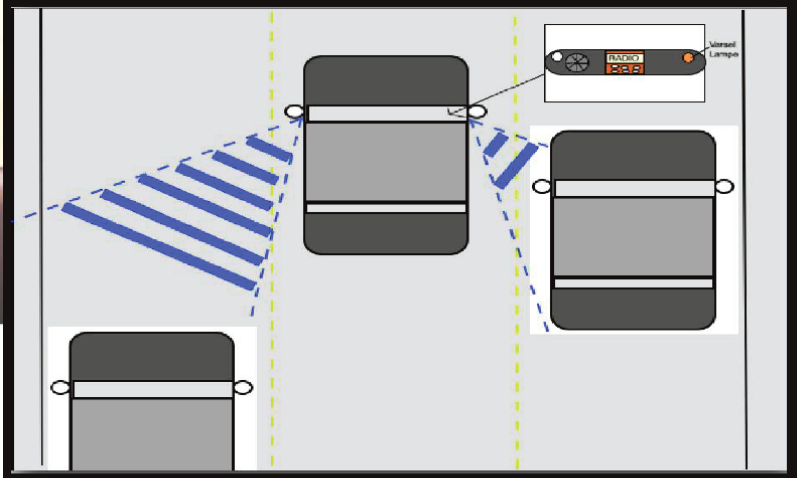
Our solution is developed on a raspberry pi v2, and use module to send the user push notifications received direc their cell phone. The device is easily turned on and off t a switch on the device.



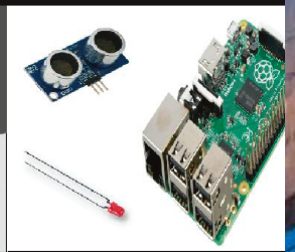
# Blind Spot Sensor

Jonas Dammen, Sigrid Bratsberg, Anniken Holst, Marius Lie Winger, Robin Andersen, Petter Aas, Håkon Fredrik Ruud

5th February, 2016







### The problem

The car driver needs to check his blind spot when excecuting a change of lane, to make sure there are no vehicles in the other lane. The driver has to turn around to look for cars. This means the drivers eyes are not on the road for a moment, which may have impact on the traffic security. It is a problem for every driver, but it may be an even bigger problem for inexperienced and older drivers.

### Solution

To solve the problem, our idea is to place a distance measuring device on each side of the car , as shown in the illustration. These are supposed to detect if there are an object in the cars blind spot, and send a signal to the driver if this is the case. The devices measures the distance to the cars around, and check if the value of the distance is under a critical value.

### How

A good way to notify the driver is to have a light that turns red when the sensor detects something. This has to be placed easily visible to the driver. The system will need a Raspberry pi, two LED-diodes and distance measuring devices. With advanced algorithms, this will be a system that helps drivers take the right decisions on the road.



# SwiitHiit

## Warm car from afar

With SwiitHiit you will be able to warm up your car with your cell phone. Through the iitHiit app you can see the temperature inside your car and it will tell you when to turn the parking heater on to achieve your wanted temperature. If you are a creature of habit you uld love the opportunity to schedule the SwiitHiit parking heater to turn on at the desired me your selected days of the week. It is easy, it is fast, and you will never drive cold again.
SwiitHiit – warm car from afar.

valdsen (Chief Executive Officer), Lars Lervik (Enterprise Architect), Harald Blehr (Scrum Master), Mikael Kvalvær (Scrum Master n Goudoever (Senior Test Engineer), Andrea Engøy (Graphic Design Leader), Erlend Dypbukt (Developer), Jørgen Sund (Develop

Book from 2016

http://bit.ly/2j8FuxZ

# QUESTIONS?