



# Empreendedorismo em Ciências

**CLASS # 3**  
CREATIVITY AND  
DESIGN THINKING  
2020/2021

# HEY THERE, NICE TO MEET YOU!



## RITA TOMÉ ROCHA

Works in Tec Labs since 2013 and in 2019 assumed the coordination of the Incubator and Tech Transfer office from the Faculty of Sciences.

Studied Journalism and covered topics of economy and entrepreneurship for more than 10 years. Has now 7 years of experience of helping to create and support startup and spin-offs and facilitating topics of creativity, innovation, design thinking, communication and digital marketing.





# CONTENTS OF TODAY'S CLASS



Here's what we are going to explore in today's class:

1. Creativity
2. Design Thinking:
  - What is it
  - Values
  - The process

A ALDEIA ADORMECE





CREATIVITY

# WHY CREATIVITY IS IMPORTANT?





# WHERE CREATIVITY COMES FROM

01

## Find "your element"

The things you are passionate about, that you are worried about, that you simple know and care by heart

02

## "Let it go!" like Elsa

Let go of the constant fear of failure and embrace the adventure of try new things or new perspectives

03

## Doubt yourself

Doubting is an open door to continuously find new solution, new strategies, new ways of doing things

04

## Embrace boredom

How are we suppose to think creatively if all we do is running around all day from one task to another?

05

## Consume creativity

Go to art galleries, music concerts, read books, travel more, etc.



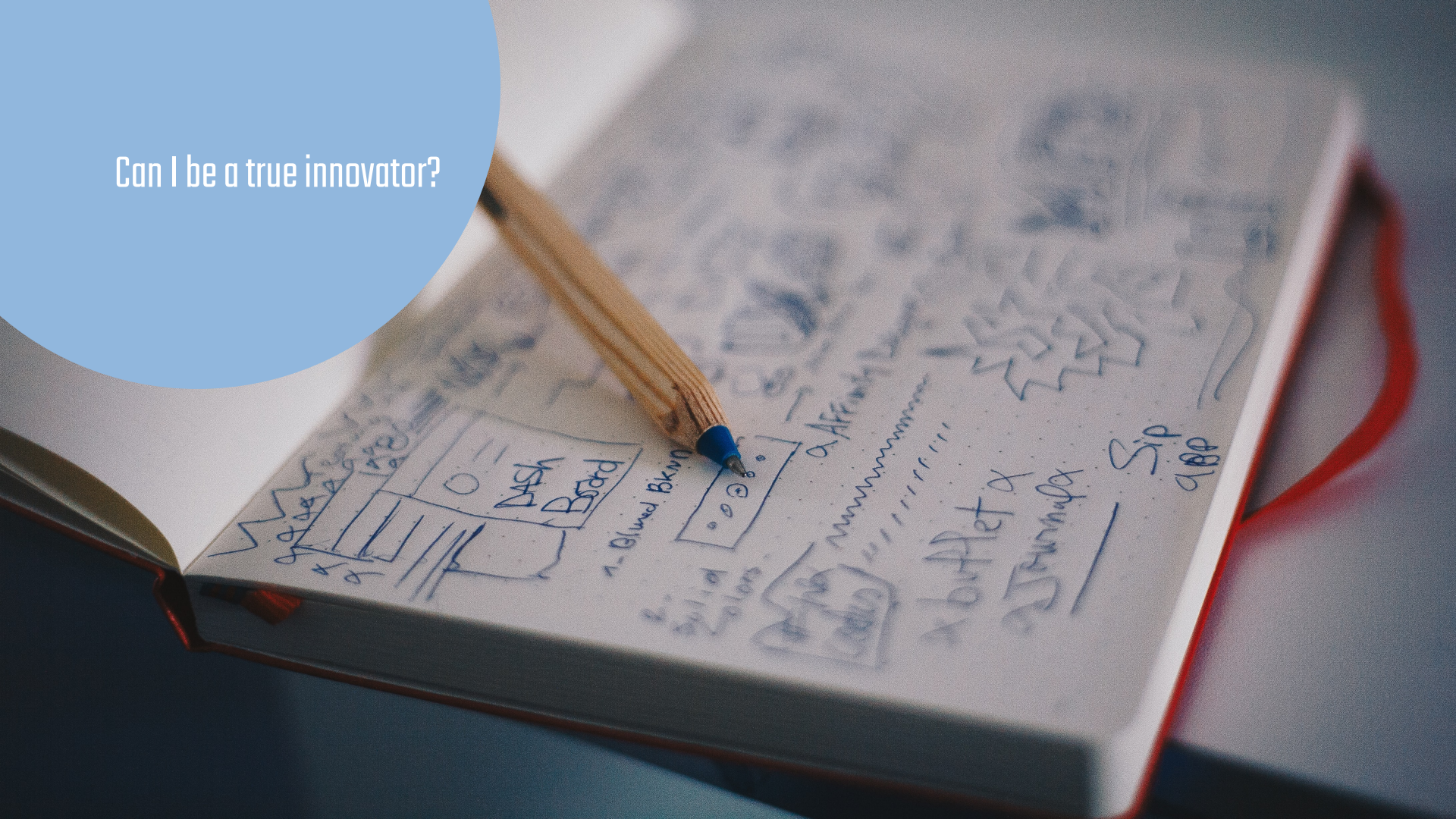




So, shall we play?



Can I be a true innovator?



# CREATIVITY MYTHS

Most ideas are created from scratch and arise in an Eureka moment

01

Innovation is all about technology

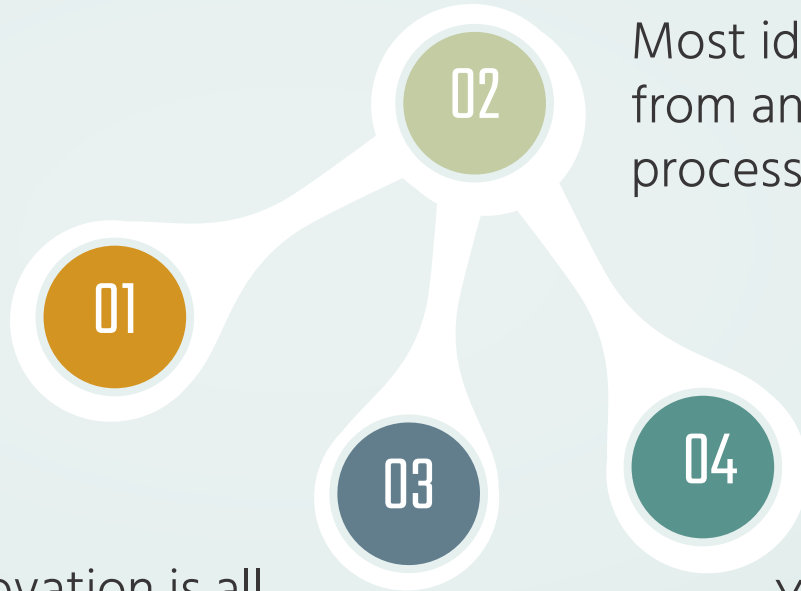
03

02

Most ideas come from an individual process

04

You need to be born creative



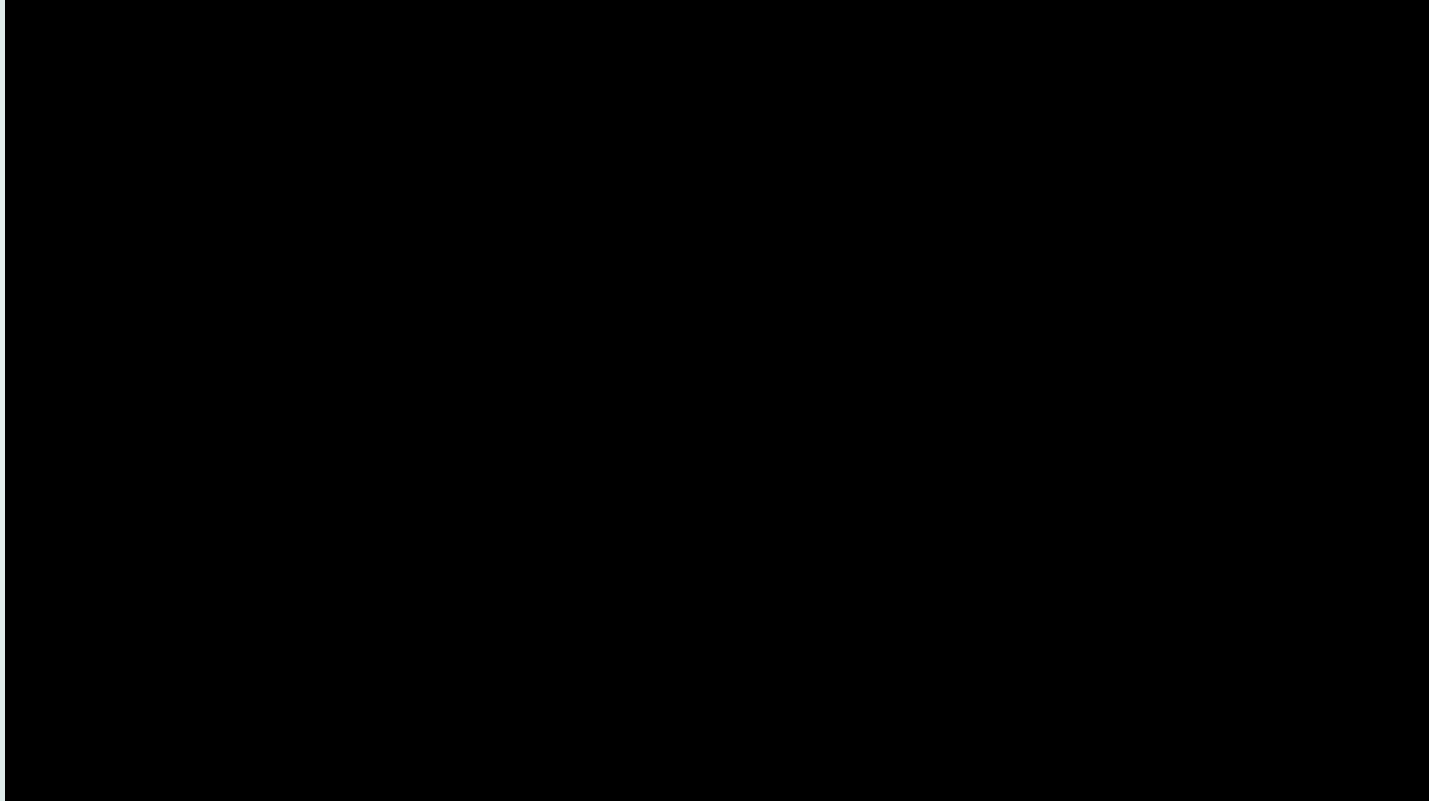


Great examples: Fishing for  
Ideas (With Company)  
and Peixaria Centenária

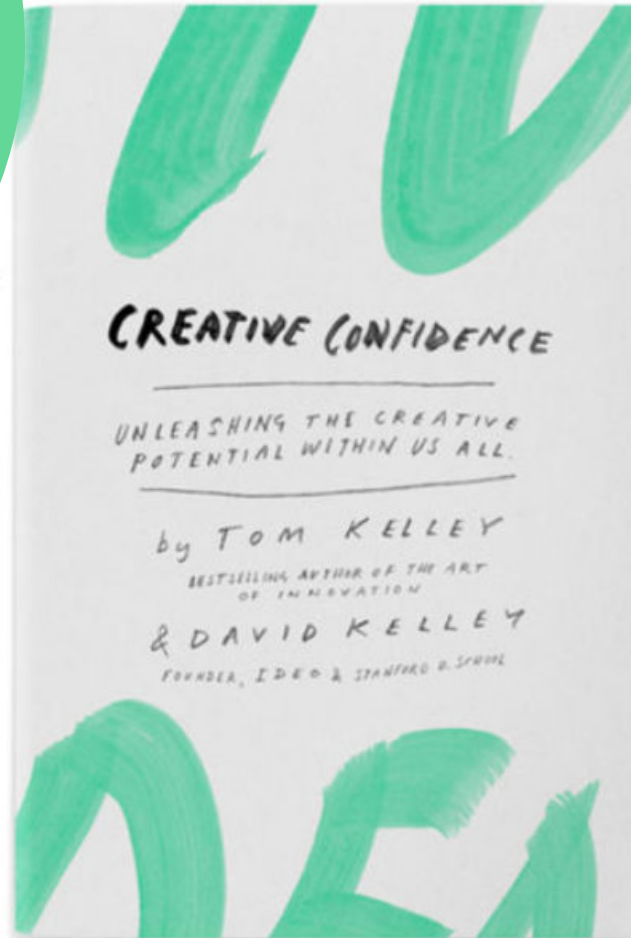
SODOMAR  
PEIXE FRESCO  
LATA DE SODIMAR, SODIMAR,  
PENICHE & NAZARÉ  
*Oha! beaucoup bon!*  
*Bon petit*

*Am. Affet-Hi!*  
LATA DE SODIMAR, SODIMAR,  
PENICHE & NAZARÉ  
PEIXE FRESCO  
SODIMAR  
PENICHE & NAZARÉ

# DECONSTRUCTING CREATIVITY MYTHS



Build on your creative  
confidence. Challenge  
accepted?



# CREATIVE CONFIDENCE

“Belief in your creative capacity  
lies at the heart of innovation”

**David Kelley, Creative Confidence**



# CREATIVE CONFIDENCE

01

WORK ON YOUR  
INSECURITIES

02

APPLY DESIGN  
THINKING  
METHODOLOGY

03

FALL IN LOVE  
WITH PROBLEMS  
NOT WITH  
SOLUTIONS

# DESIGN THINKING



# DESIGN THINKING – WHAT IS IT?

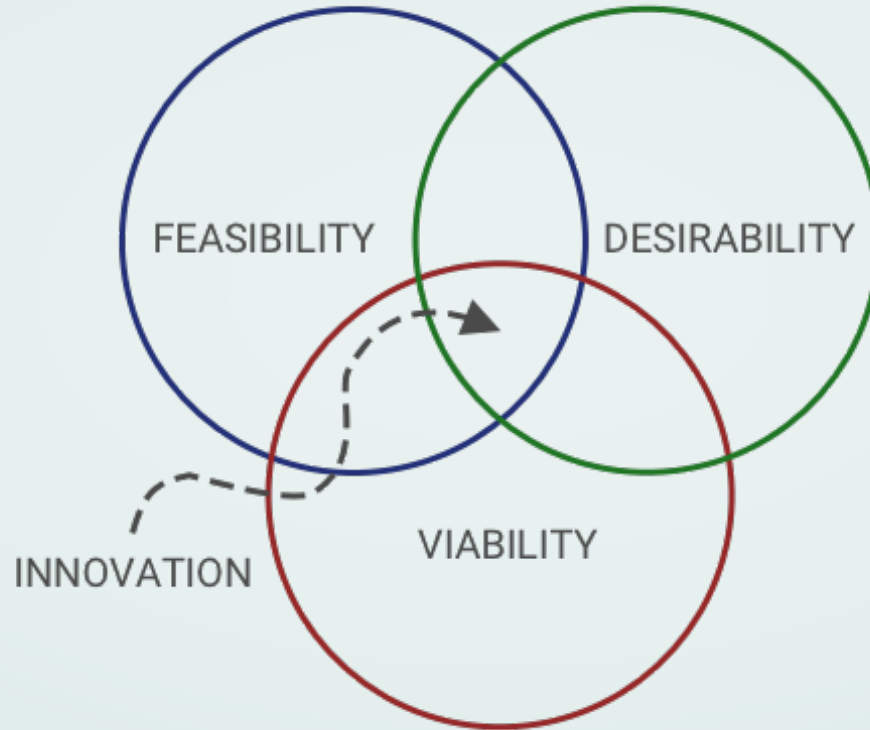
“A human-centered approach to innovation that draws from the designer’s toolkit to integrate the needs of people, the possibilities of technology and the requirements for business success.

Thus, the method focus on three main elements of a product or a solution: people, technology and business. All of these aspects evolve around the customer”

**David Kelley, IDEO**



# DESIGN THINKING – WHAT IS IT?






# DESIGN THINKING – WHAT IS IT?

“A creative process that stimulates collaboration and experimentation to reduce the risks in the innovation process”

**Echos Design Thinking School**

The logo for Echos Design Thinking School is contained within a large, light blue circular graphic that resembles a speech bubble. The logo itself consists of the letters 'ECHS' in a bold, black, sans-serif font. The 'E' and 'C' are on the top line, 'H' and 'S' are on the bottom line. The 'C' and 'S' are stylized with curved, hook-like shapes extending from their right sides. To the right of the letters, the words 'school of design thinking' are written in a smaller, black, sans-serif font, stacked in three lines: 'school', 'of design', and 'thinking'.

**ECHS** school  
of design  
thinking

# DESIGN THINKING - VALUES

01

HUMAN-  
CENTERED &  
EMPATHY

02

COLLABORATION

03

EXPERIMENTATION  
& PROTOTYPING



So, who wants to play  
again?



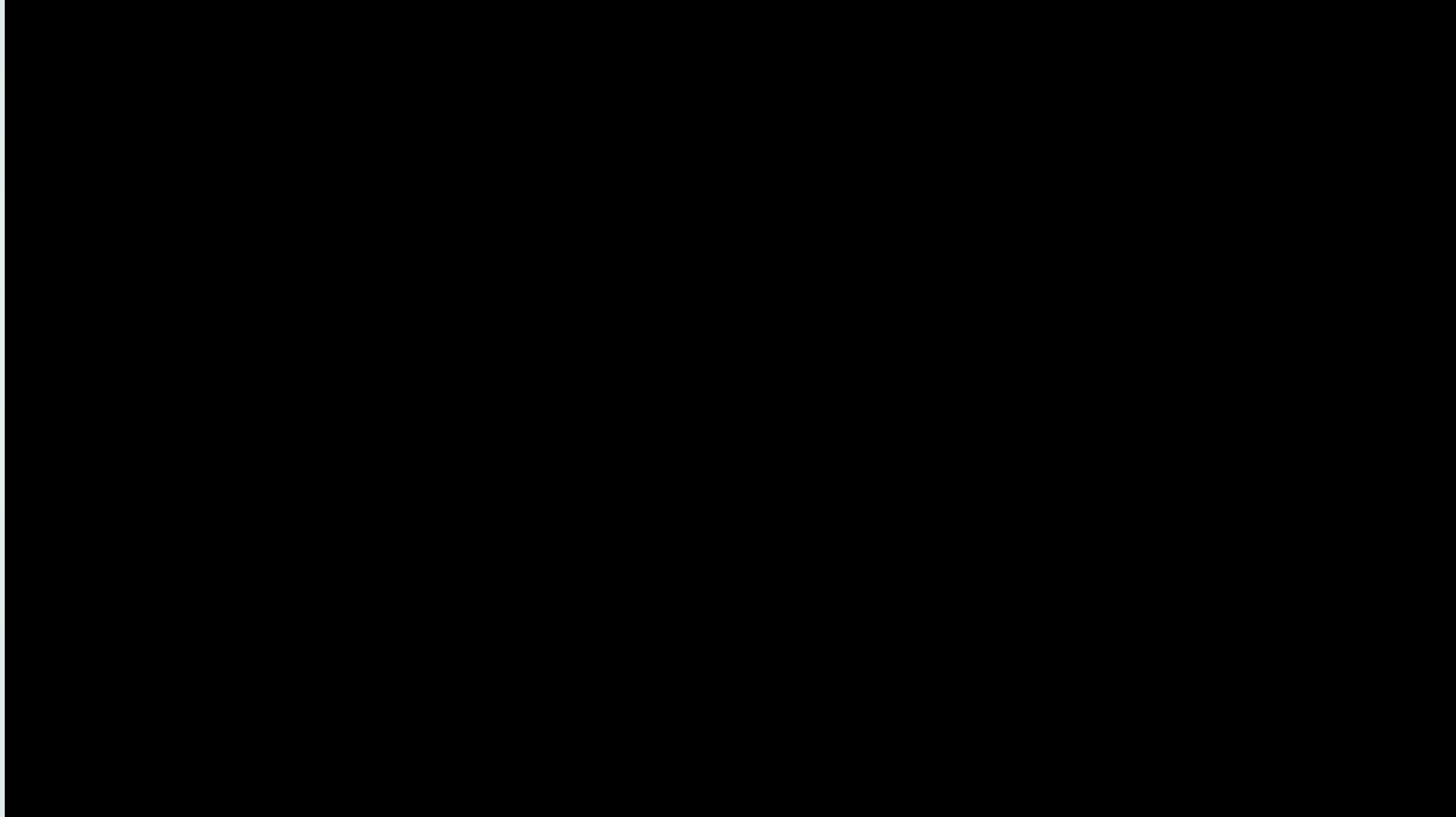
What's the best way to  
get to Mars?





What can we do to fight  
climate change?

# DESIGN THINKING – THE PROCESS



## Problem Space

## Solution Space

ENTENDIMENTO

EMPATIA

SÍNTESE

IDEAÇÃO

PROTOTIPAGEM

TESTE

- Team Building
- Avaliação do Problema
- Criação de base comum de entendimento
- Redefinição do problema
- Planeamento Pesquisa

- Pesquisa de campo
- Identificar necessidades
- Explorar contextos
- Entender stakeholders
- Recolher descobertas

- Analisar dados de pesquisa
- Criar significado
- Mapear perfis de utilizador (personas)
- Identificar oportunidades
- Definir princípios de design

- Gerar ideias/ hipóteses
- Criar cenários
- Mudar perspectiva
- Considerar constrangimentos
- Priorizar e decidir

- Tangibilizar ideias
- Criar e experimentar soluções
- Antecipar potenciais falhas como forma de aprender e melhorar

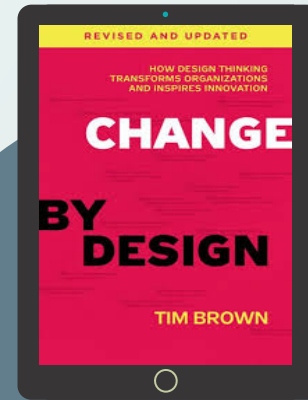
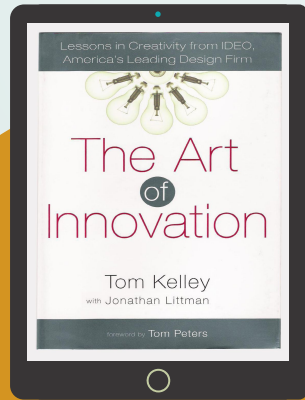
- Validar solução com utilizadores
- Recolher feedback
- Iterar e desenvolver

# DESIGN THINKING – THE PROCESS





# DESIGN THINKING – WANT TO KNOW MORE?





03

## NEXT CLASS



We will be design thinkers so here's what we will need:

- Other students from Ciências or other faculties available to answer questions through WhatsApp or other platform
- Get acquainted with Miro
- Come open-minded and ready to have fun!

# THANKS

Do you have any questions?

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[www.teclabs.com](http://www.teclabs.com)



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