

# GrACE

Green Europe:  
Active Citizenship  
and the Environment



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# CHALLENGE-BASED LEARNING FOR CITIZENSHIP EDUCATION



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# TODAY

9:00-13:00

14:30-18:00



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# CBL definition

An educational approach that engages students in solving real-world problems, encouraging critical thinking, collaboration, and practical application of knowledge

- Bridges the gap between academic learning and real-world application
- Equips students with the skills, knowledge, and mindset to succeed in an ever-changing world
- Fosters a holistic approach to education, making students not just learners but active contributors to society

# The 3 steps in CBL



# 1. The Engagement Phase

- Select **the challenge** and the **challenge provider, CP** (an external actor, i.e. company, project, ...)
- Ensure it's broad enough to cover your topic and interest **learners** (=students, better if from diverse backgrounds)
- Learners explore the challenge and its issues from multiple perspectives
- The goal is to ensure all participants have a **clear understanding of the objective of the challenge**



## 2. The Investigation Phase

- Learners are required to **obtain and analyze information** relevant to the development of their solution:
- Lectures, simulations, games, field work, surveys or other types of activities, both individual and collective and through literature on the subject, podcasts, websites, databases, interviews with experts and other resources
- During this phase doubts and interests of the groups can be discussed with the teachers and challenge provider
- The goal is to **fully understand the domain**



# 3. The Action Phase

- The teams **select the solution** and focus on demonstrating that their idea is satisfactory (SWOT and adjustments with help of a **teamcher**)
- and **prepare a concrete and actionable project**
- This is **presented to a jury** (normally the teachers and the challenge provider), who will award the best proposal and **evaluate the learners** (coherence with the challenge and originality of the idea, feasibility and sustainability, accuracy of content, clarity in communication, applicability, ...)
- The goal is to go **from an idea to a practical solution**



# → **Advantages for students**



- Active engagement and motivation
- Real-world relevance
- Development of critical skills and application of interdisciplinary knowledge
- Preparation for the future
- Collaboration and teamwork
- Development of soft skills
- Feedback and iteration

# → **Advantages for teachers**



- Collaborate with local stakeholders (challenge providers) to generate impact
- Innovate a standard teaching method and diversify content and delivery methods
- Activate research and innovation projects through a challenge
- Strengthen relationships with colleagues, collaborating on interdisciplinary topics
- Motivate students bringing them into a “real” context

# Challenge based learning framework



## Stage 1: Engage

- Understanding the Big Idea
- Find the Challenge Provider
- Essential question
- Create the challenge
- Engage students

## Stage 2: Investigate

- Develop guiding questions, activities, resources
- Researching answers to guiding questions
- Create teams

## Stage 3: Act

- Identifying the solution
- Developing the solution
- Presenting results
- Reflections
- Evaluation

# TEAMS

Please take a seat according to your assigned working group. The tables are numbered for your convenience.

# Building the teams

- Optimal team size: 4-7 learners (small-to-medium-sized team is ideal to balance diversity of thought with ease of coordination)
- Random select the members and **ensure diversity** of attitudes and interdisciplinary skills
- Ask the team to **assign specific roles** to ensure clarity and efficiency (for example **Facilitator**, who oversees the project, ensures deadlines are met, and facilitates collaboration; **Research specialists**, who focus on gathering and analyzing relevant data; **Solution designer**, who leads the development and testing of ideas or prototypes; **Documenter**, who manages documentation, presentation materials, and final deliverables, etc.)



## TEACHER CAPACITY FOR INTERDISCIPLINARY SUSTAINABILITY LEARNING

**How might we turn a school into a living lab that measurably reduces environmental impact?**

- 1. Decide for the specific indicators (for example energy, waste, water, mobility, or biodiversity) applicable in one school or class and assess baseline and design a student-led intervention and pilot.**
- 2. Involve at least 100 students and 8 teachers across at least 3 disciplines.**
- 3. Achieve 10% improvement in the chosen indicator within a given time.**

# ***CREATE THE PERFECT CHALLENGE***

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# ***ENGAGEMENT***



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# Big ideas: examples

- Sustainable use of natural resources such as water, food, energy, and air
- Climate change and its effect on the planet
- Public health threats such as pandemics
- Economy downturns, recovery, and growth
- Conflict and human nature
- Personal, team, or cultural identity
- Health and wellness

# From big idea to the challenge

Once the “Big Idea” is chosen, select a specific challenge



Ask and answer a number of essential questions



Work together with the CP to formulate the essential question, find the link between the big idea and real life



The question should be answerable through research and provide a framework for the challenge

# Essential Questions connected to Big Ideas ...

- Big Idea: **Sustainable use of water**
- Essential Question: What is the impact of my water consumption on my community?
- Big Idea: **Climate change and its effect on the planet**
- Essential Question: what is the impact of my use of fossil fuels on my planet?
- Big Idea: **Health and wellness**
- Essential Question: How do my personal choices affect the health and wellness of my community?
- Big Idea: **Eating healthy and sustainable food**
- Essential Question: How can I eat more healthy food?

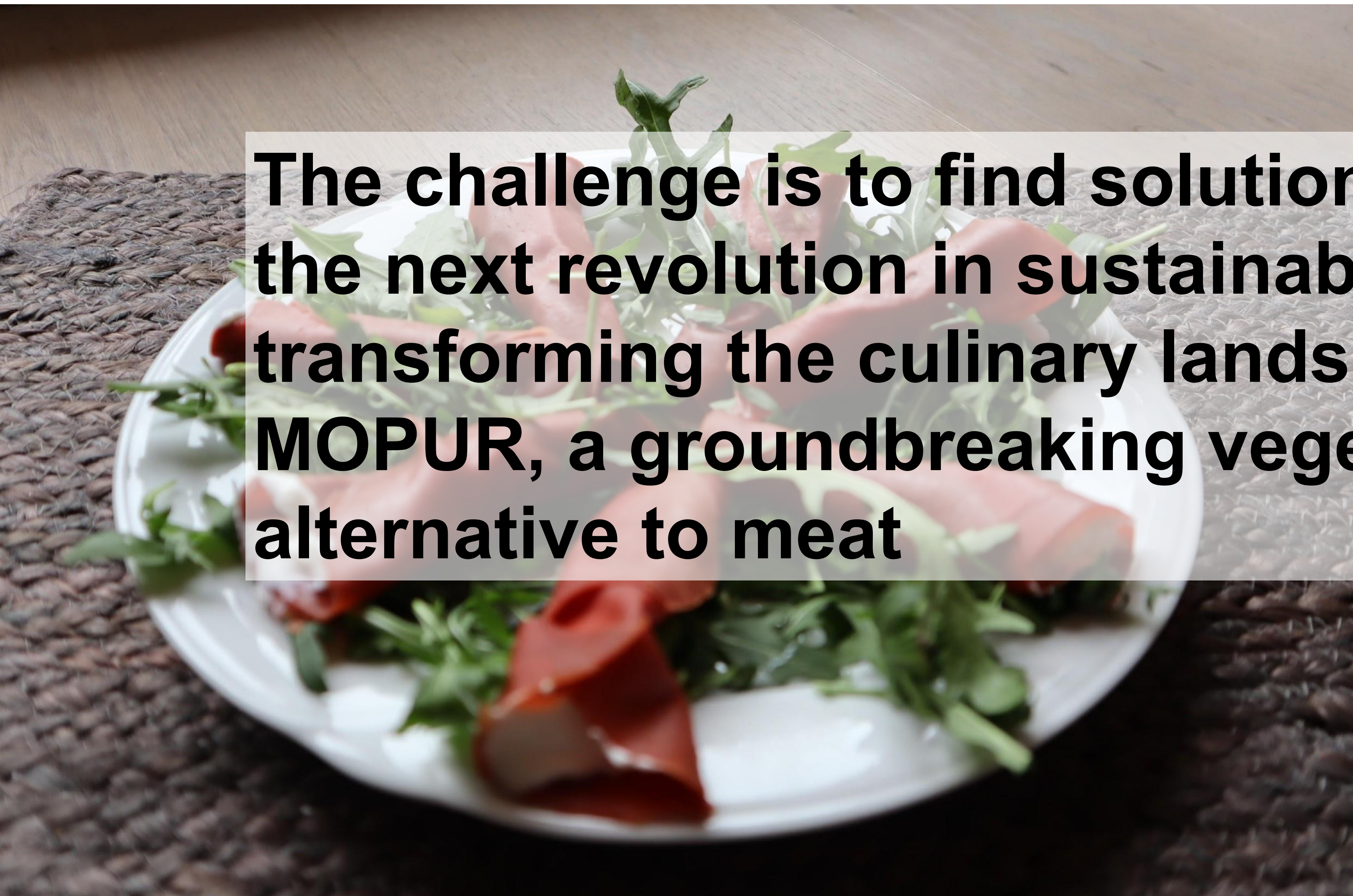
# Big idea: eating more healthy and sustainable food

- How people can eat more sustainable food?
- What are the examples of innovative sustainable food?
- Are there companies that produce sustainable food?
- A CP producing veg salami are an example
- Building the challenge with the CP

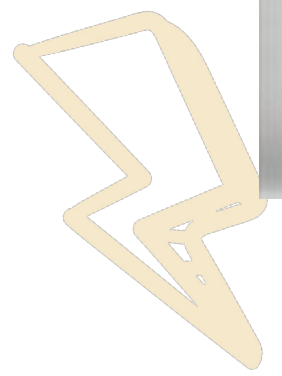
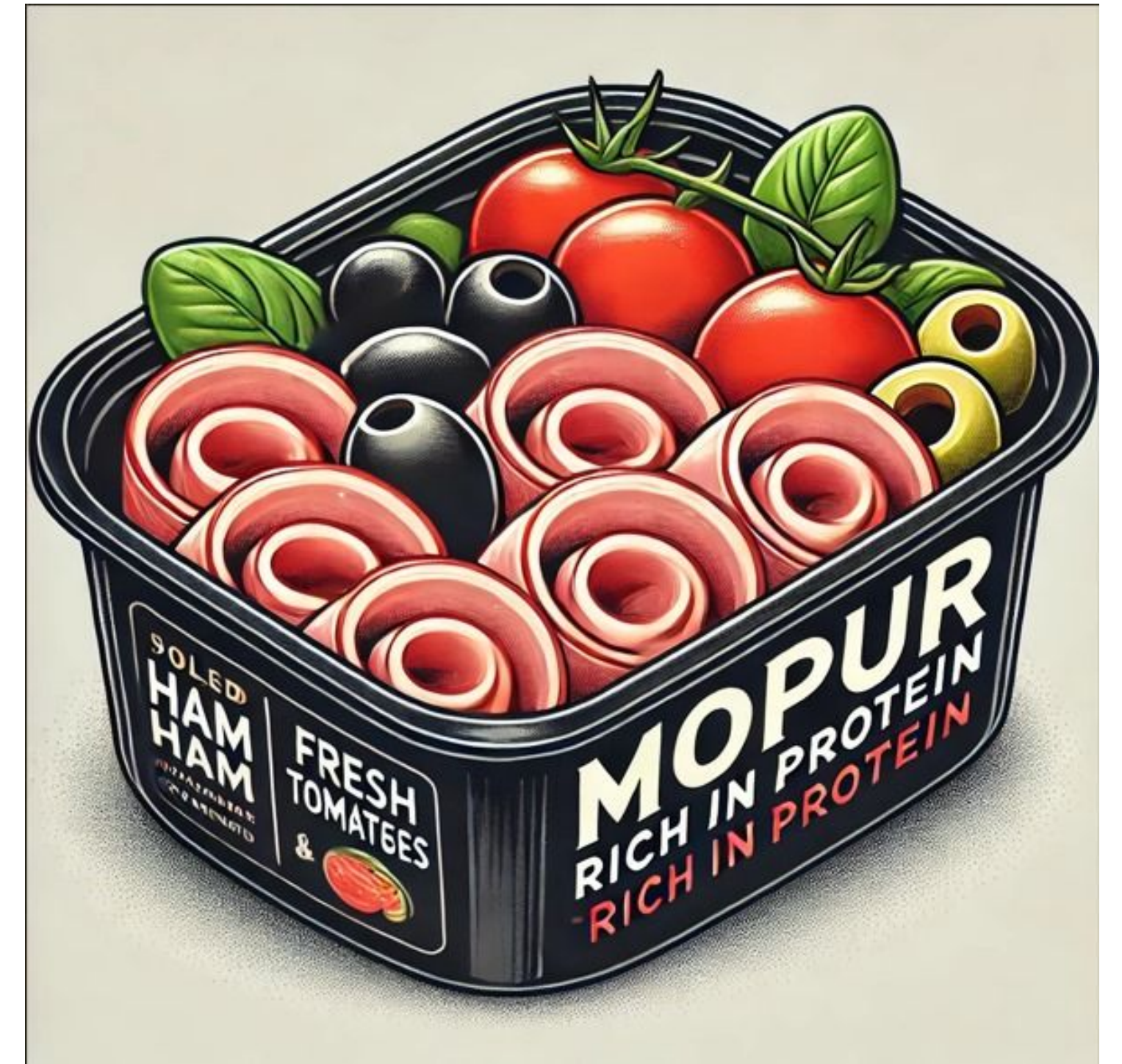
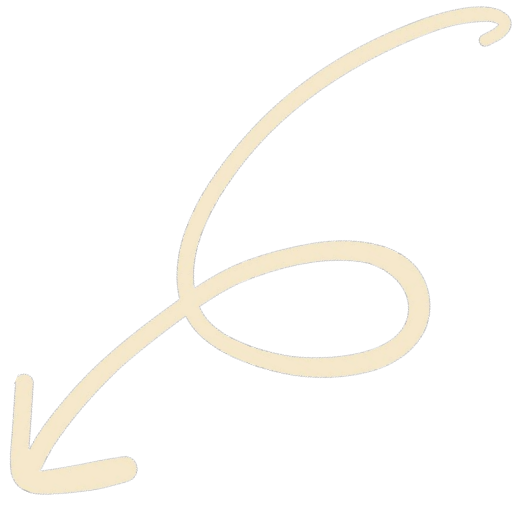


# The challenge

**The challenge is to find solutions to lead the next revolution in sustainable eating, by transforming the culinary landscape with MOPUR, a groundbreaking vegetarian alternative to meat**

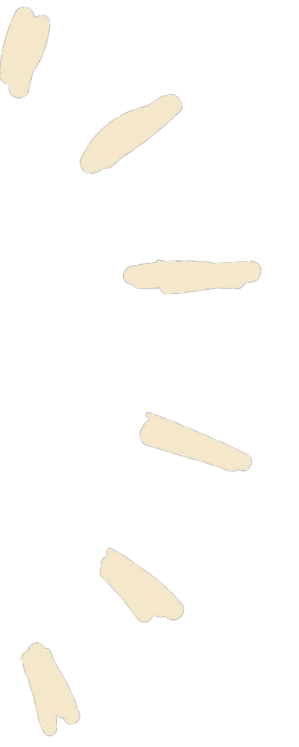
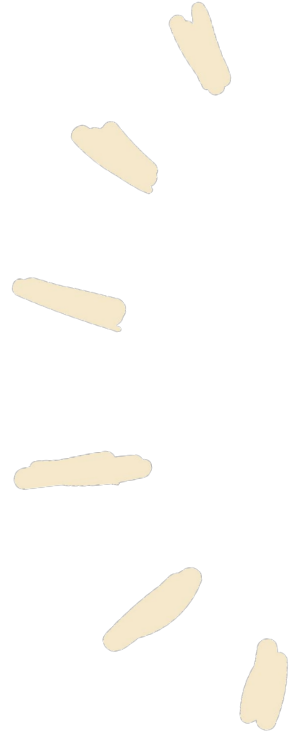


# Proposed Packaging



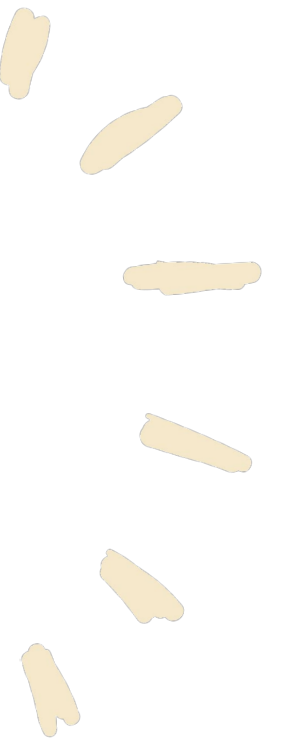


# Gym and Fitness Center Events





# Community Events



# Challenge: some tips

- Developing a local solution to a global problem which is immediate and actionable
- If the challenge is too broad or vague, you will fail
- If it is too narrow, you will not be able to develop the skills that CBL cultivates
- Must be real and meaningful to all team members
- Students personally connect with the Challenge, will fully engage in the process





# ***ICEBREAKING ACTIVITY***

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# ***ENGAGEMENT***



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**How to Play:** Participants have 3 minutes to plan their strategy and divide tasks. Then, in 3 minutes, they must create the longest possible chain using only one hand and without speaking

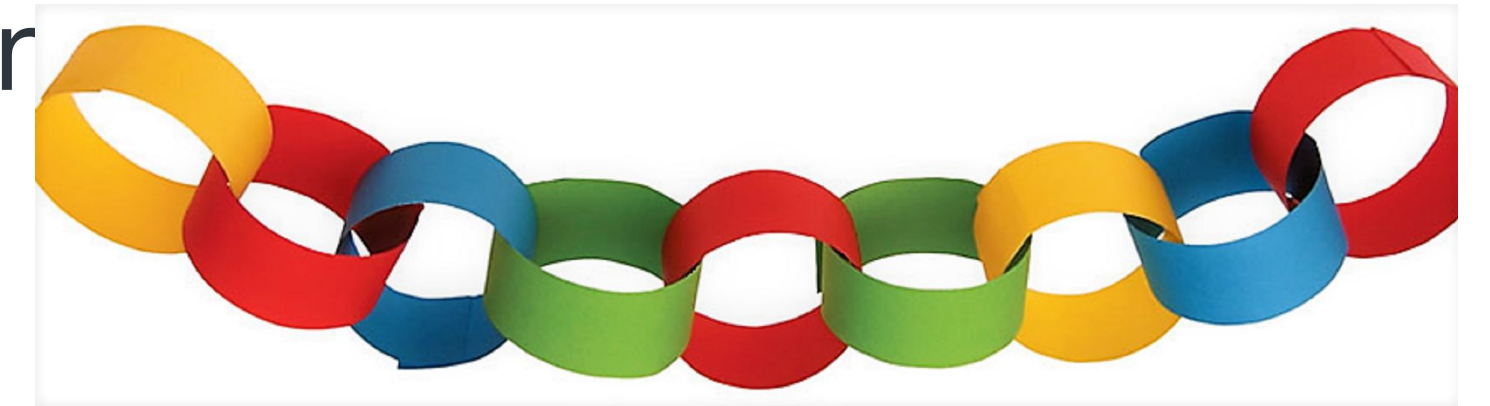
## ***The Longest paper chain***

Duration: 20 minutes

Materials: Scissors, A4 sheets of paper, tape

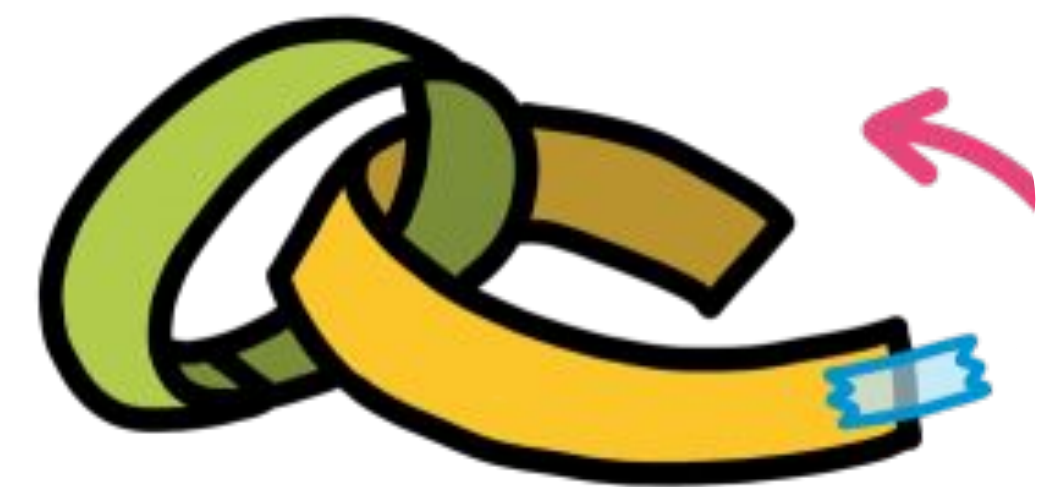
# Building the team: Looped paper chain

- Making a paper chain with one pair of scissors, paper, and tape
- The goal is to make a longest paper chain
- One minute to talk, after that there is **no talking** and use only one pair of scissors
- Three minutes to complete this task



What team behavior helped you make the longest chain?

- Teamwork
- Assigning tasks
- Who is going to do what and how are we going to do it
- Having mutual support in the work environment



# ***BRAINSTORMING***

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# ***ENGAGEMENT***





- Sticky notes with ideas
- Stick them on the board
- Group them according to similarities
- Share and discuss the cluster of ideas

- **Brainstorming**



# ***PROBLEM DEFINITION***

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# ***INVESTIGATE***



# System thinking

Most problem solving techniques focus on the problem rather than the whole eco-system where the problem exists

System thinking defines the relation between the problem and the other elements in the system and how to observe this relation in order to reach an effective solution

It is a framework for seeing :

→ interrelationships rather than things

→ patterns of change rather than static 'snapshots'



# *TOOL*

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# *SWOT ANALYSIS*



# *TOOL*

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# *PESTEL ANALYSIS*





# ***TOOL***

-

# ***STAKEHOLDER MAP***



# *TOOL*

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# *FISHBONE DIAGRAM*



# The solution!!!

Before lunchtime

- **Describe in general terms** your solution
- Check if you can quantitatively reach the objective
- Define **why** it is **original, creative and feasible**



# ***LUNCHTIME***



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# ***WORKSHOP***

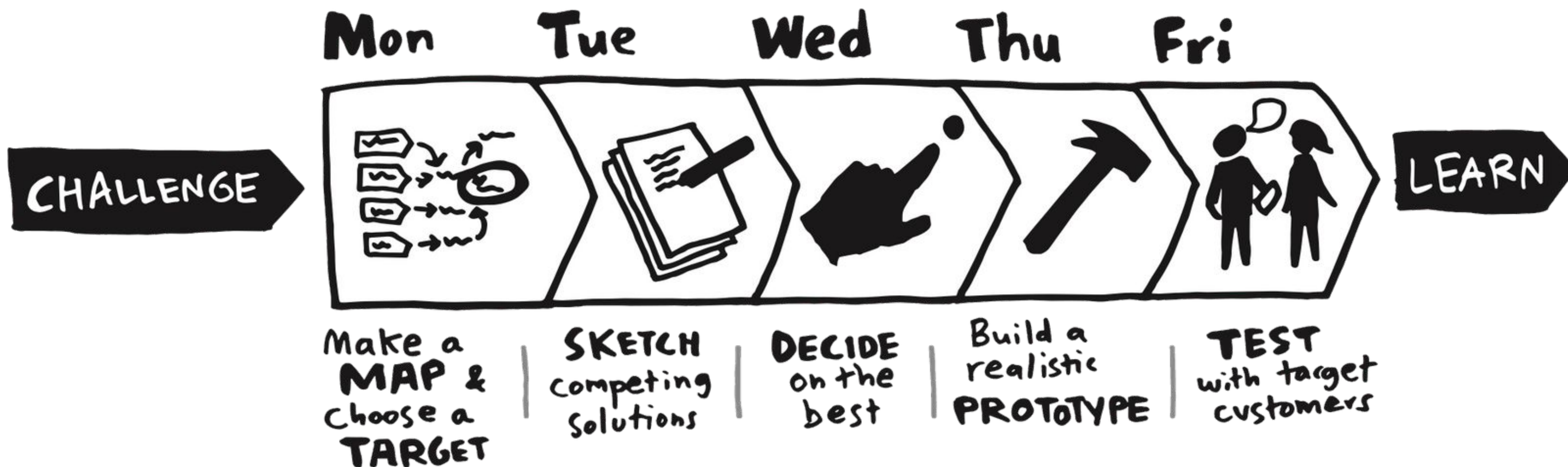
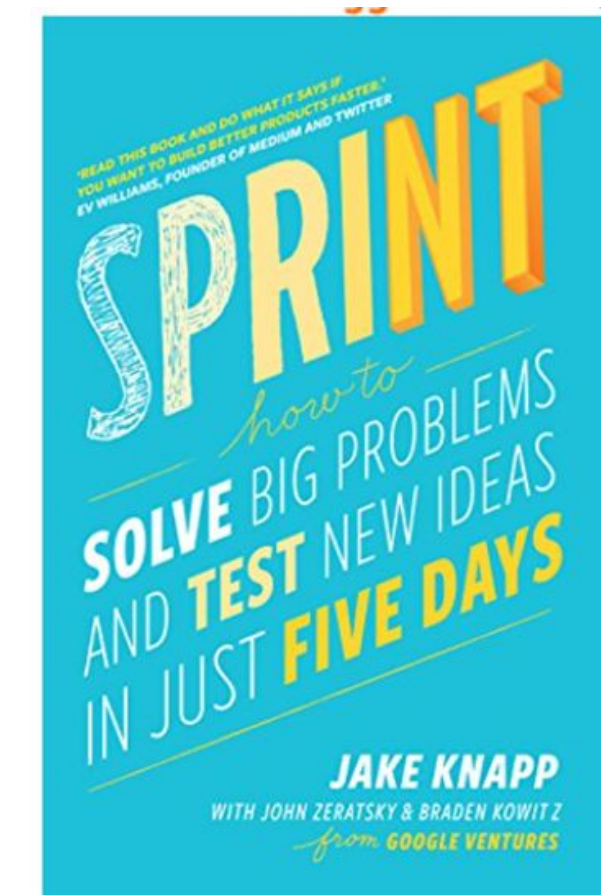
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# ***ACT***



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# Method: Five days SPRINT



# Is it better than alternatives?

- Explain why it is better than all existing alternatives
- If not, reshape your solutions

# Time to build the prototype

- Prepare a project for the implementation of your solution
- For each action define: what, who, when, how
- Decide the time you think you will need to implement it



***PITCH***

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***ACT***



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# Why the pitch is essential in CBL

A strong pitch transforms a good idea into a convincing solution

- Clarifies the challenge
- Builds communication skills
- Encourages critical thinking
- Fosters engagement
- Simulates real-world scenarios

# Prepare a pitch

Present in 3 minutes your solution

You can prepare a PPT, a Canva, or simply talk...