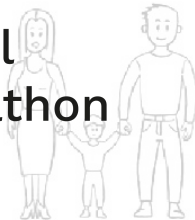# Design thinking
Process and tools

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Co-autor: Yanus HUB

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1. DESIGN AND SYSTEMS THINKING
   - Linear approach vs non-linear approach.
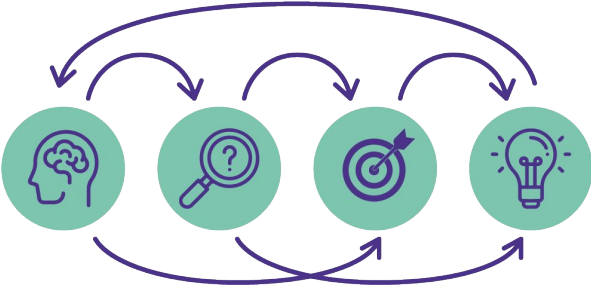   - Why visual tools?
2. THE PROCESS
   - Making sense
   - Framing
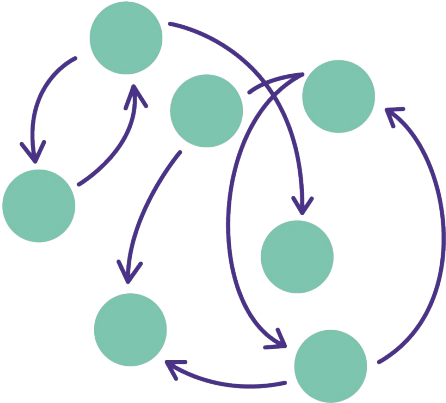   - Ideation
   - Solution
3. TOOLS

1

DESIGN AND SYSTEMS THINKING
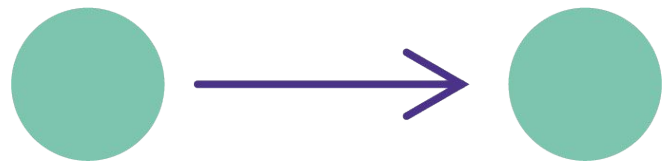
DESIGN THINKING

SYSTEMS THINKING

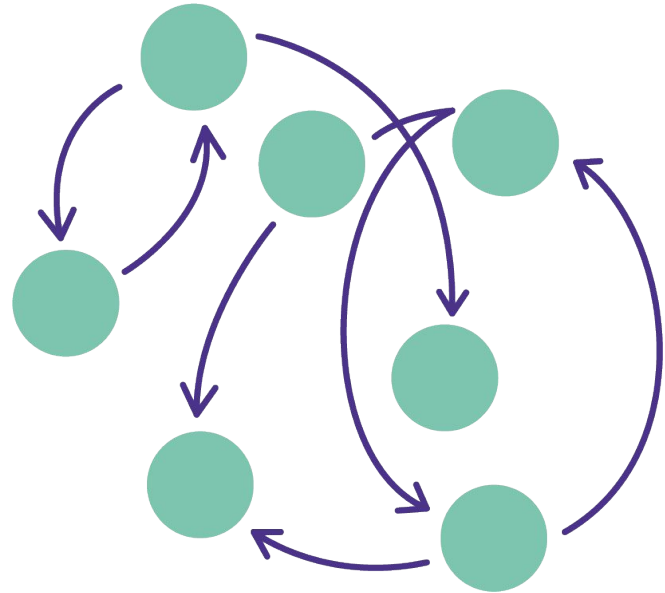# LINEAR APPROACH VS NON-LINEAR APPROACH

LINEAR APPROACH

- Provide skills to face linear challenges.

- Linear learning is a 'safe' route.

- Reduce and divide reality into specific categories.

NON-LINEAR APPROACH

- World as a mixture of static and dynamic elements.

- Blur the boundaries between disciplines.

- Approach complex problems from different perspectives.

WHY VISUAL TOOLS?

VISUAL TOOLS

They are based on systems thinking- apply to complex problems.

| They support group work | They are challenge-led | Inter-disciplinary and intercultural | They are empirical | Inter-connected results |

2

THE PROCESS

01
MAKING SENSE

03
IDEATION

02
FRAMING

04
SOLUTION

01

Making sense

Creating a deep awareness of the context, and the ability to embrace complexity.

02
Framing

The goal of the framing phase is to define the challenge to be addressed by the innovation team.

03 Ideation

Brainstorming activity, where project teams encourage and harness the creativity of individuals into collective intelligence, more effective than the sum of its parts.

04

Solution

Once we have chosen an idea, it is important to ensure that our solution creates value for the system.
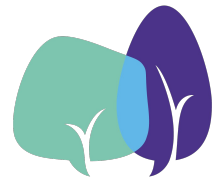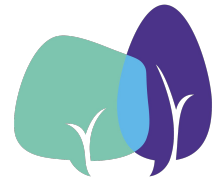
3

TOOLS

01
MAKING SENSE

TOOL 1.1
Pentagonal problem

TOOL 1.2
Empathy Map

03
IDEATION

TOOL 3.1
Brainstorming

TOOL 3.2
Analysis

02
FRAMING

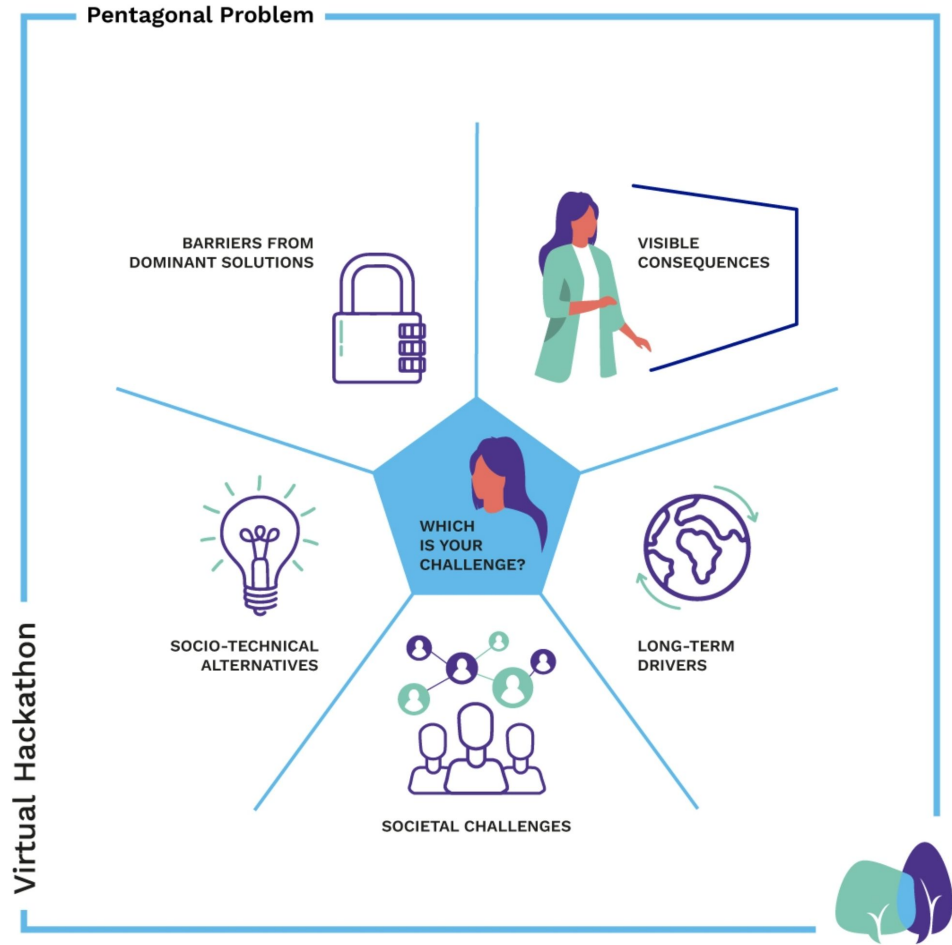**TOOL 2.1**
Innovation focus

TOOL 2.2
Triple i

04
SOLUTION

TOOL 4.1
Value
proposition

01 MAKING SENSE TOOLS

PENTAGONAL PROBLEM

Visual tool to help teams nail down problems, identify its different components and details, agreeing on a common ground for future actions.

Pentagonal Problem

BARRIERS FROM DOMINANT SOLUTIONS

VISIBLE CONSEQUENCES

WHICH IS YOUR CHALLENGE?

SOCIO-TECHNICAL ALTERNATIVES

LONG-TERM DRIVERS

SOCIETAL CHALLENGES

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01 MAKING SENSE TOOLS

EMPATHY MAP

Visual tool designed to put you in the shoes of a stakeholder to see the challenge from a different perspective.
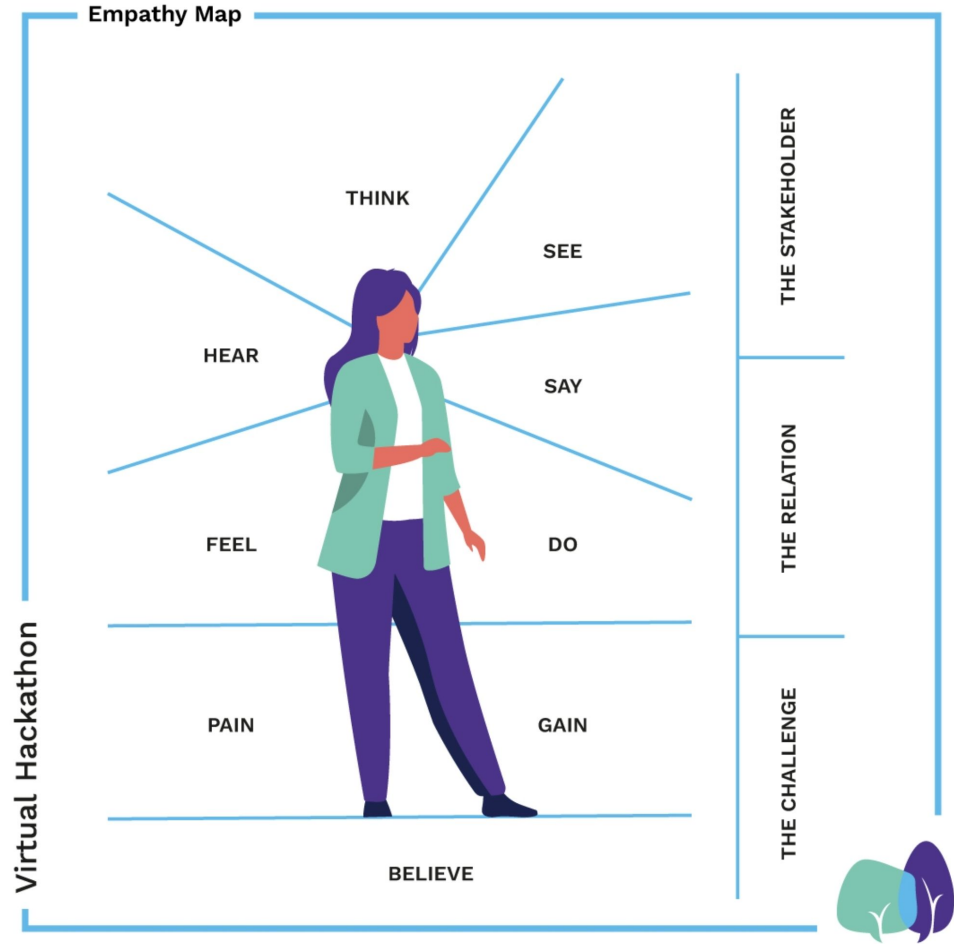
02 FRAMING TOOLS

INNOVATION FOCUS

A more detailed definition of the challenge that the team wants to address during the hackathon. It will be linked to the context analysis the team has performed in the previous step of the process.
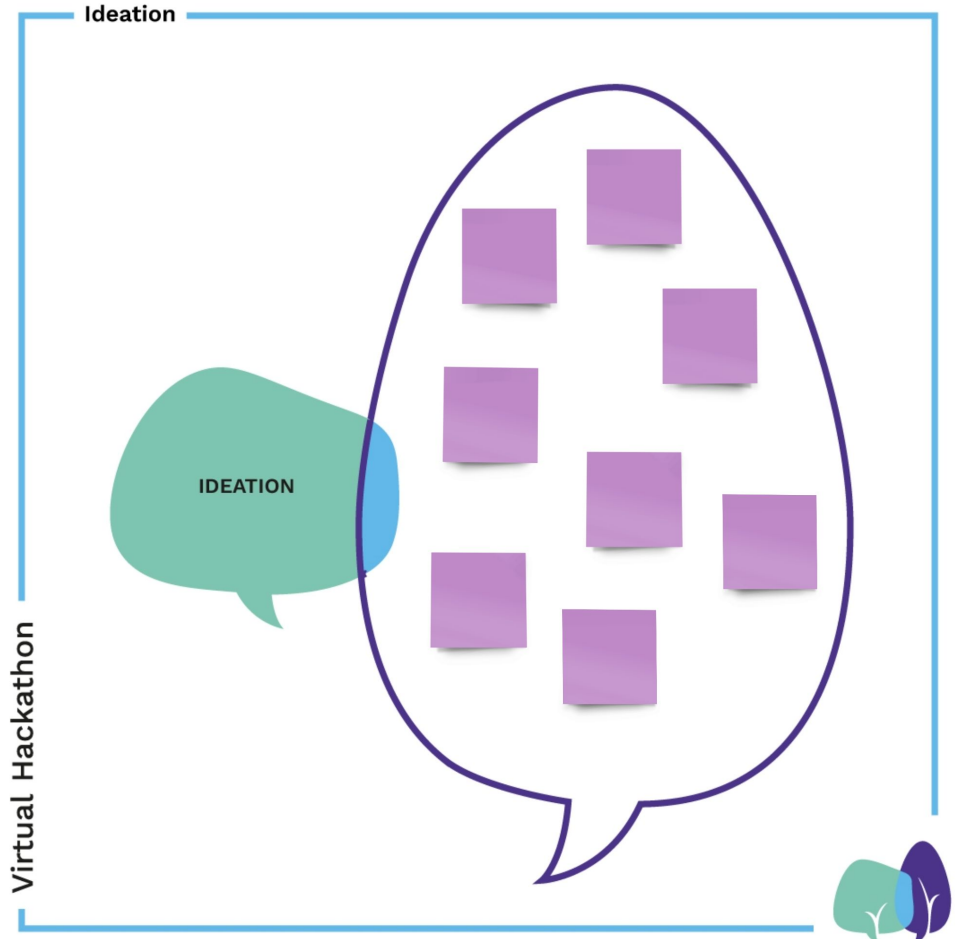
02 FRAMING TOOLS

REDEFINE CHALLENGE

It is a voting procedure for helping to decide which element of a list could be more interesting to pursue.
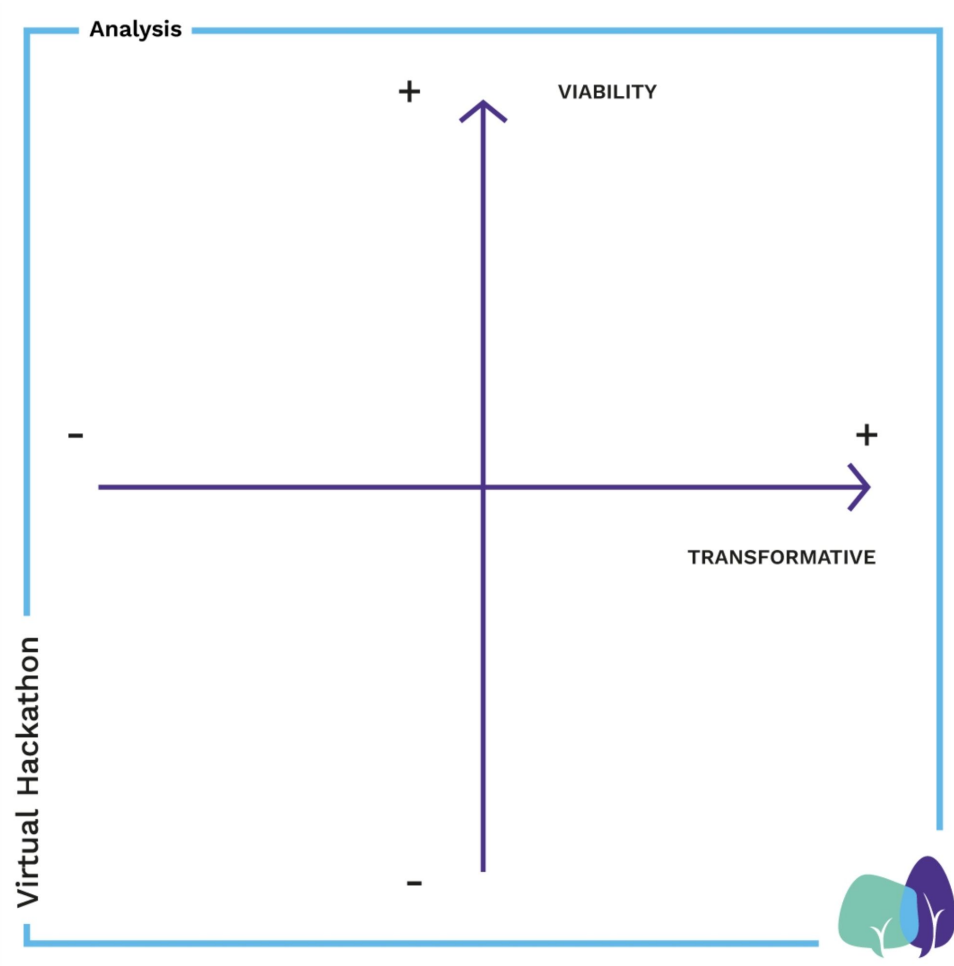
03 IDEATION TOOLS

BRAIN-STORMING

A group creativity technique used to find a solution to a specific problem. This is achieved by gathering and recording new ideas from team members in a fluid way.
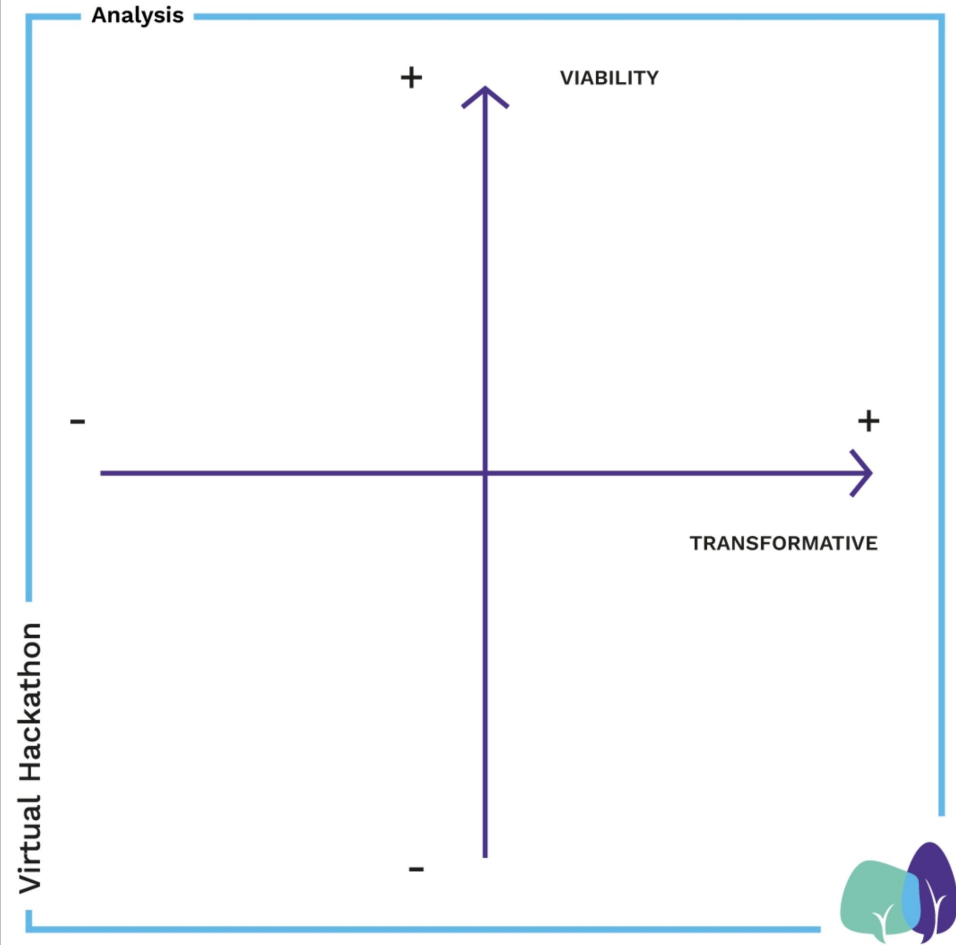
03 IDEATION TOOLS

ANALYSIS

It is a visual tool that helps us to filter and choose which of the ideas we have had during the brainstorming process we want to develop.

04 SOLUTION TOOLS

VALUE PROPOSITION

This activity helps to foster and harness the creativity of individuals into collective intelligence, which is more effective than the sum of its parts.

Analysis

VIABILITY

+

-

+

TRANSFORMATIVE

-

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Thanks!