Interreg Europe | Co-funded by the European Union | CLIMATE

Improving EU regions' environmental and socioeconomicresilience to climate change

I would like to transform my community **QUICKLY** and with **NO** surprises

Do I look like some kind of miracle worker?

# Systems thinking

VIDZEME

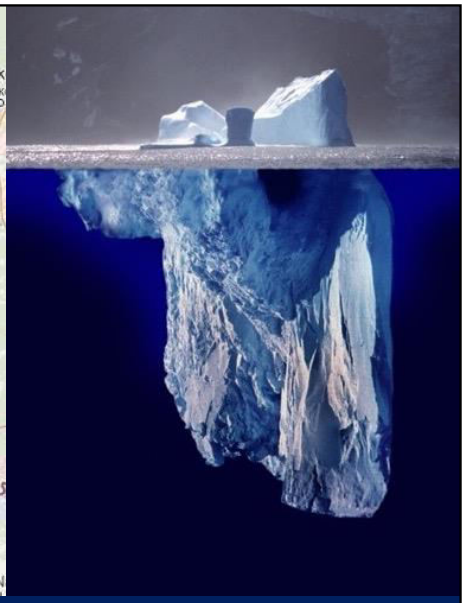
for smarter climate adaptation and resilience. For All.

"It's easier to split the atom than change human behavior"

(A.Einstein)

*Vita Brakovska, PhD*
*Knowledge and Innovation Society*



**Portfolio:** 16 years = event **# 2044**

**MISSION**


What I
DON'T SEE
it
DOESN'T
EXIST


MĀCĪŠANAS IR
KLŪŠANAS
MĀKSLA
Loesje
BRĪVĪBA
NAV STĀSTS
TIKAI
P A R M U M S
Loesje
VAI
IR VĒRTS RUNĀT
JA NEESI
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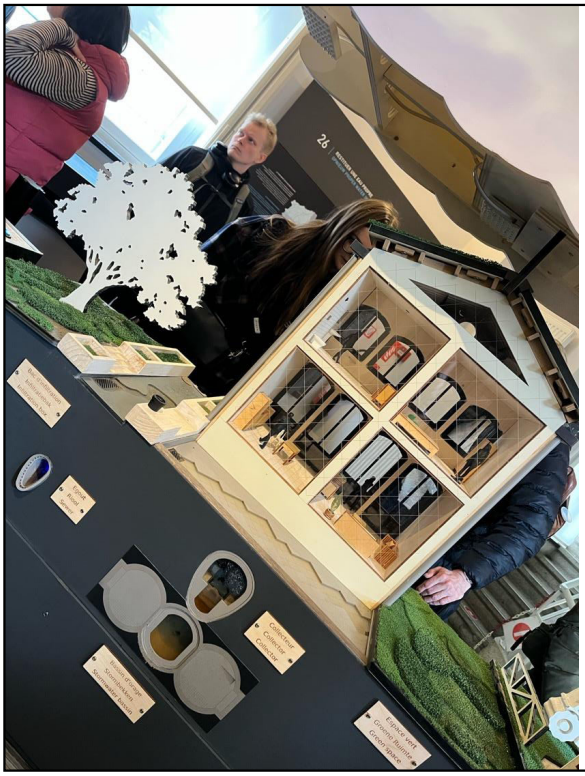
KLAUSĪTIES
AR A B Ā M AUSĪM
Loesje



**Workshop challenge TODAY:**
to design and build
**a physical demo || mock-up**

that helps to CHANGE **attitude** and **social behavior** in the areas of climate resilience and civil protection.

## Key Social Behavior Challenges in Civil Protection and Climate Resilience


**# Underestimating risks**
Many people believe disasters happen to others not to them

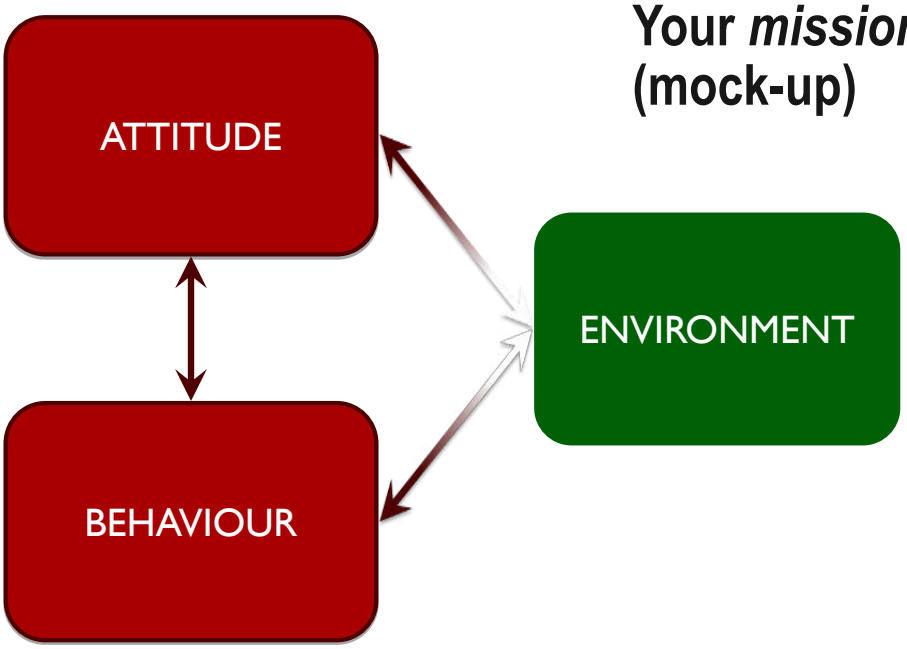
**# Community engagement**
Resilience grows when communities take **shared responsibility**

**# Cultural and psychological factors**
Values, norms, and social influences shape how people respond to risks

**# Sustaining behavior change**
Awareness is not enough; "be ready" must become a habit.


"low hanging fruits"

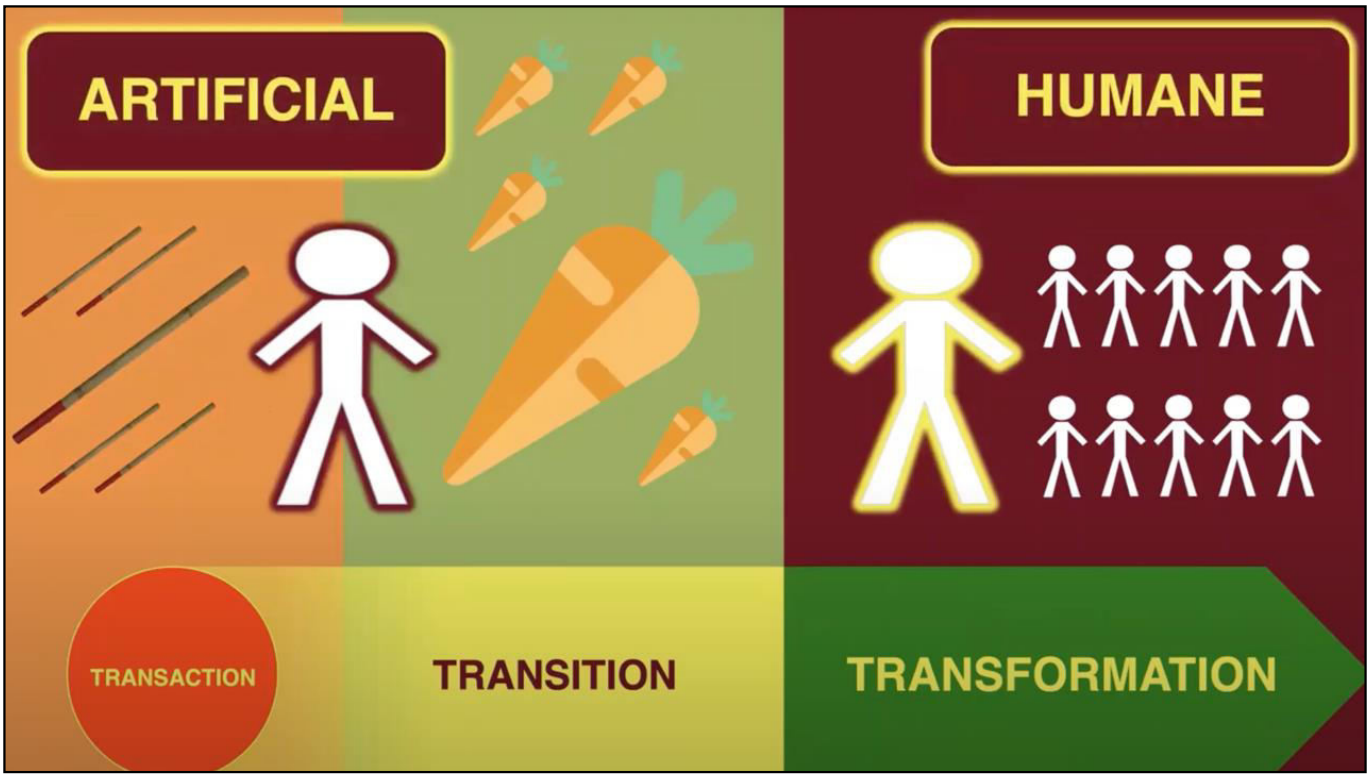
## Your *mission* today (mock-up)





+ Sometimes **QUESTIONS** are more important than answers


I'm Trying Hard
To Grow....
So Please Don't
Walk On Me!
Thank You.
10 000
How Minority influences
the Majority
The desired behaviour is requested,
but not socially reinforced
"Management" of social norms in the public area


ARTIFICIAL
HUMANE
TRANSACTION
TRANSITION
TRANSFORMATION

## Transformation process in the community + work with community leaders

"NEVER!"

On JANUARY 1st

**WANT to change**

Let's GO!

Prof. AGNIS STIBE

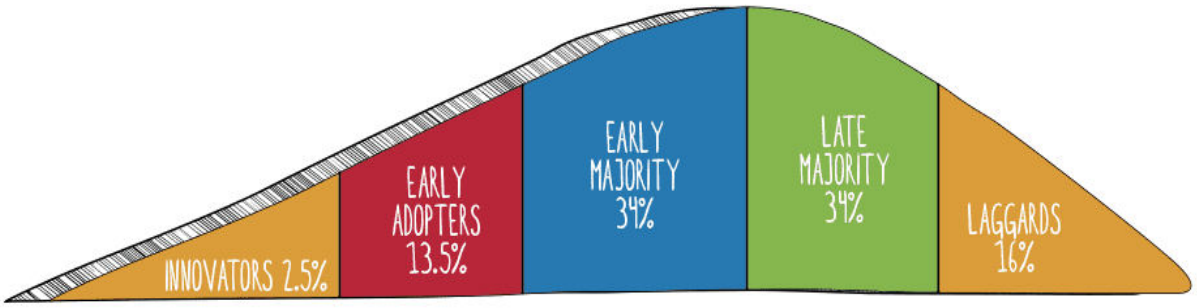

DATA TO COMPARE

"This street floods **2x less** often after rain because […]"

Reflection of **New Social Norms**: people are more likely to change their behavior **if they see other people already doing it**

VISIBILITY!

# DIFFUSION OF INNOVATION MODEL

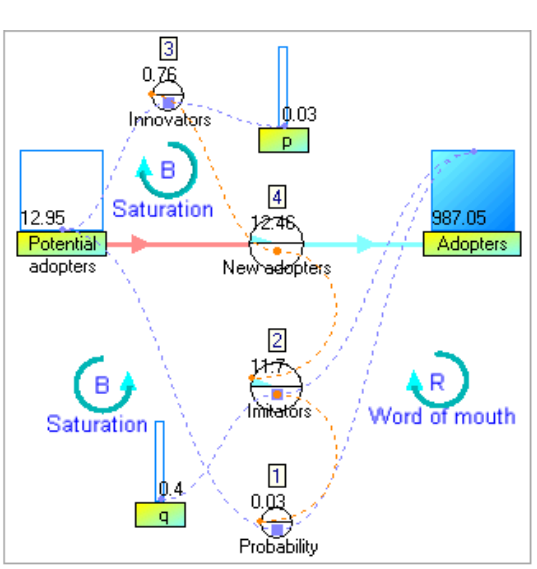



We need at least 25% to have a start for changes

Today's Problems Come from Yesterday's Solutions

# Systems Thinking

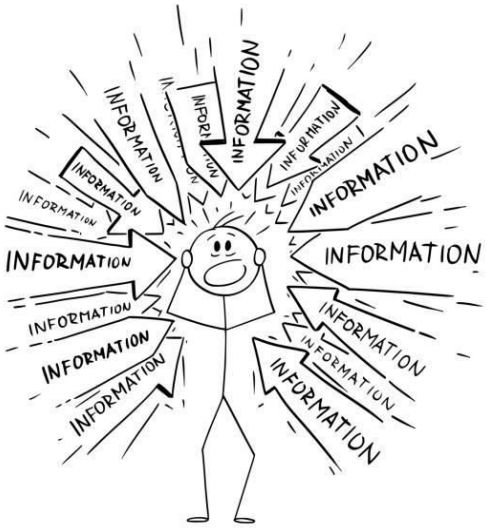
**A way of understanding the world by looking at how different parts of a system are CONNECTED and INFLUENCE one another.**




- root causes ~~symptoms~~
- VISIBLE long-term effects of decisions
- discover leverage points where SMALL interventions can create LARGE impacts

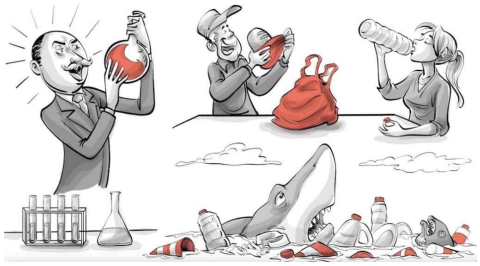
**We support people in making BETTER decisions**

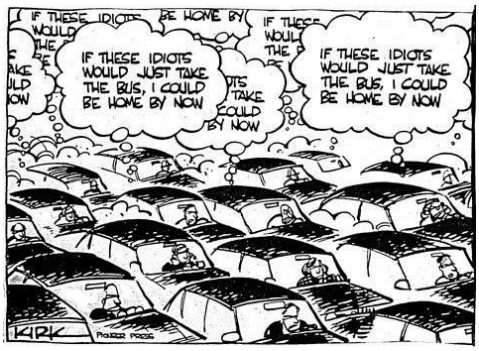
# # Archetype "Fixes that fail"




**People stop paying attention, because**
**"too much information"**

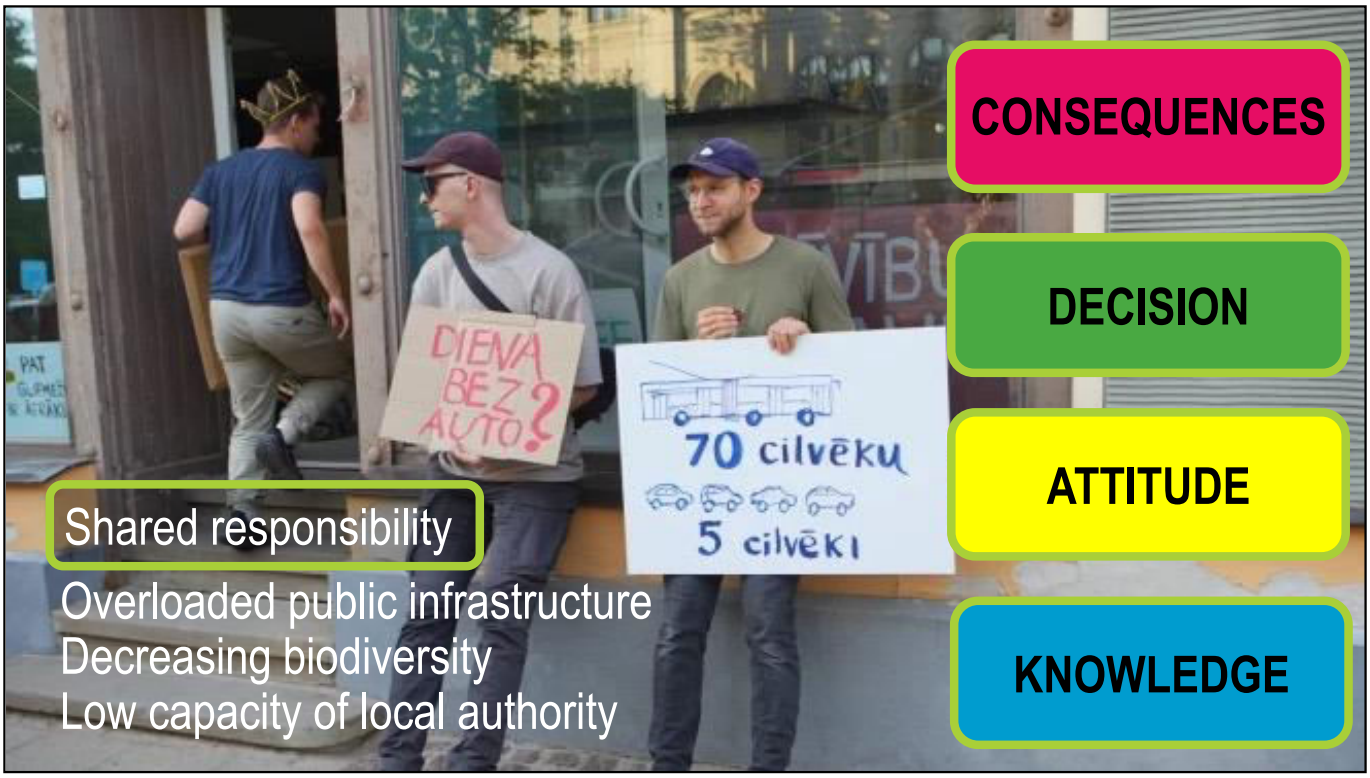
# # Archetype "Tragedy of the Commons"







Demonstrate that STANDING of **collective interests** creates greater benefits than individual ones



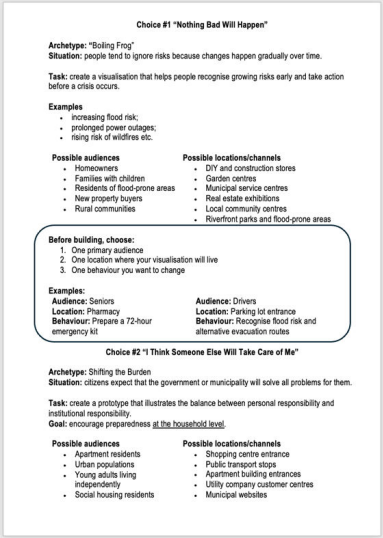
# # Archetype "The Shifting Goals"

People **lower** their expectations and standards.

What risks it causes?

What happens
if we keep the same habits?

# Three ways to drive societal behavior in climate resilience



**Choice #1 "Nothing Bad Will Happen"**

**Archetype:** "Boiling Frog"
**Situation:** people tend to ignore risks because changes happen gradually over time.

**Task:** create a visualisation that helps people recognise growing risks early and take action before a crisis occurs.

**Examples**
- increasing flood risk;
- prolonged power outages;
- rising risk of wildfires etc.

**Possible audiences**
- Homeowners
- Families with children
- Residents of flood-prone areas
- New property buyers
- Rural communities

**Possible locations/channels**
- DIY and construction stores
- Garden centres
- Municipal service centres
- Real estate exhibitions
- Local community centres
- Riverfront parks and flood-prone areas

**Before building, choose:**
1. One primary audience
2. One location where your visualisation will live
3. One behaviour you want to change

**Examples:**
**Audience:** Seniors
**Location:** Pharmacy
**Behaviour:** Prepare a 72-hour emergency kit

**Audience:** Drivers
**Location:** Parking lot entrance
**Behaviour:** Recognise flood risk and alternative evacuation routes

**Choice #2 "I Think Someone Else Will Take Care of Me"**

**Archetype:** Shifting the Burden
**Situation:** citizens expect that the government or municipality will solve all problems for them.

**Task:** create a prototype that illustrates the balance between personal responsibility and institutional responsibility.
**Goal:** encourage preparedness at the household level.

**Possible audiences**
- Apartment residents
- Urban populations
- Young adults living independently
- Social housing residents

**Possible locations/channels**
- Shopping centre entrance
- Public transport stops
- Apartment building entrances
- Utility company customer centres
- Municipal websites

**Expected outcome** (within ~ 50 min)

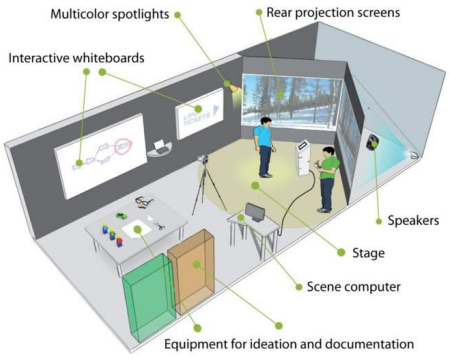
✅ **A physical mock-up** using the available materials

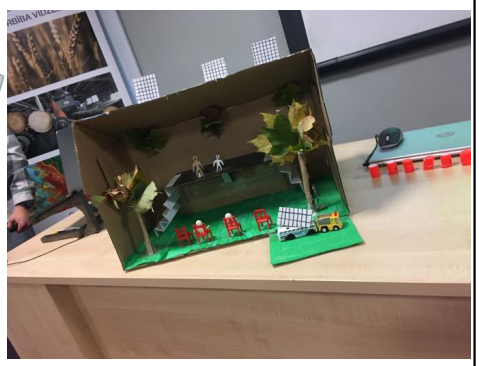
**Mock-up as a behavior-change tool evokes emotions like SURPRISE, RESPONSIBILITY, PRIDE, CARE, A SENSE OF BELONGING OR URGENCY**

✅ **A short explanation covering:**

- what behavior are you trying to influence?
- how would this visualisation help reach people's hearts and minds?
- **what policy recommendations Your group suggest for governance?**

✅ **Presentation:** 3-4 minutes per team.



# Examples of mock-up

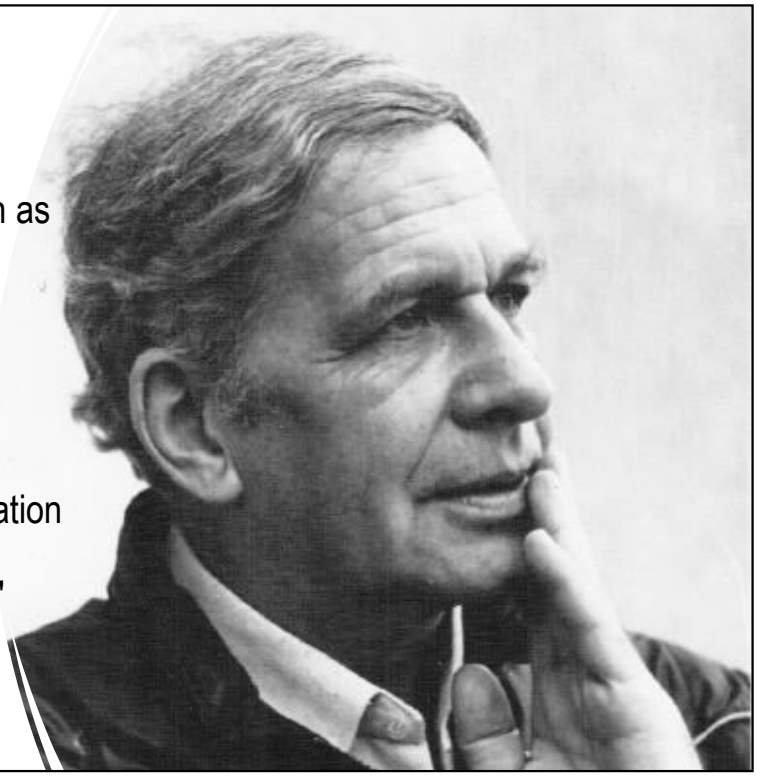
## Genrich Altshuller
(1926 – 1998)

Soviet engineer, inventor and writer.

Remarkable with the development of
**The Theory of Inventive Problem Solving**
known by the abbreviation TRIZ


## Genrich Altshuller

- Passion for understanding innovation as the inner mechanics of a process
- **200,000 patents** reviewed
(1h vs 10 min & 3 years)
- Reverse engineering of inventions
**40,000 patents** identified signs of innovation
- "There is nothing new under the sun"
(said the inventor)



**40 TRIZ principles**

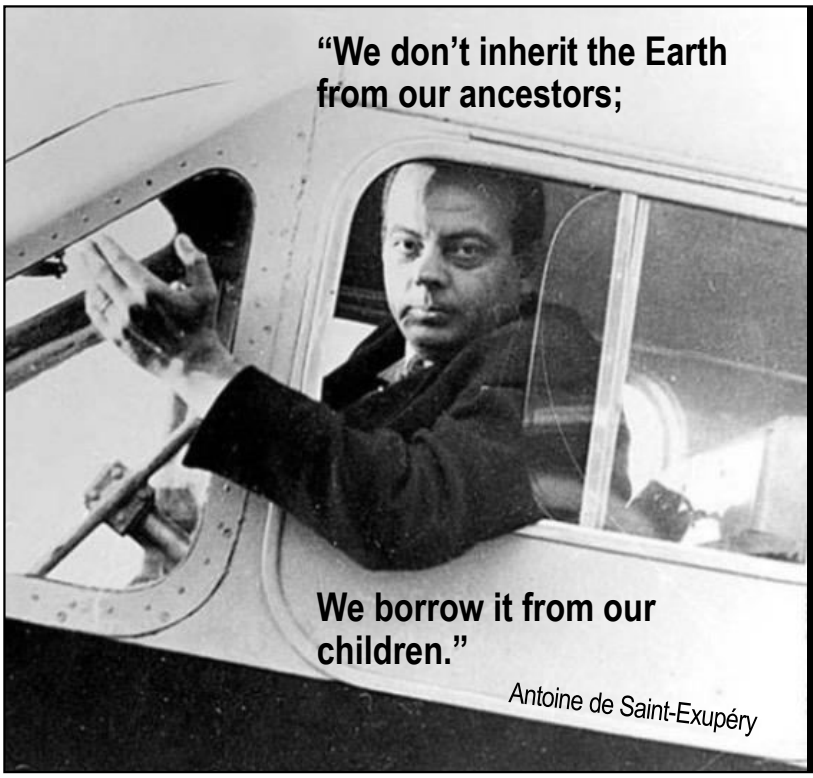
| # | Principle | Description | Example |
|---|---|---|---|
| 1 | **Segmentation** | Divide an object or system into independent parts | • Modular furniture design allows for flexible arrangement and customization.<br>• A multi-tool knife with separate tools for different functions. |
| 2 | **Taking out** | Remove or isolate the problematic part or property from the system | • Removable batteries in electronic devices to prevent overheating.<br>• Detachable keyboards for tablets. |
| 3 | **Local quality** | Change the object's structure to provide different conditions in different areas | • Zoned mattresses with different firmness levels.<br>• Shoes with reinforced heels for stability. |
| 4 | **Asymmetry** | Make the system asymmetric or change its shape for improved functionality | • Ergonomic handles that fit the natural grip of the hand.<br>• Aerodynamic car mirrors to reduce wind resistance. |
| 5 | **Merging** | Combine identical or related objects/functions | • 2-in-1 shampoo and conditioner.<br>• All-in-one printers (printer, scanner, copier). |
| 6 | **Universality** | Make a system or object perform multiple functions, reducing the number of parts | • Smartphone acting as a camera, calculator, and GPS.<br>• Convertible sofa-bed. |
| 7 | **Nested Doll (embedding)** | Place one object inside another, like a nesting doll. | • Collapsible storage containers.<br>• "Matryoshka" (nesting dolls) |
| 8 | **Anti-weight** | Use counterweight or leverage to balance the system | • Counterbalanced cranes.<br>• Rocking chairs with stabilizing weights. |
| 9 | **Preliminary anti-action** | Take preventive action to mitigate a problem before it occurs | • Surge protectors to prevent electrical damage.<br>• Waterproof coatings on electronics. |
| 10 | **Preliminary action** | Perform an action in advance to simplify subsequent operations | • Pre-cut vegetables for quicker meal preparation.<br>• Pre-assembled kits for furniture. |
| 11 | **Beforehand cushioning** | Prepare emergency backup systems or safety measures | • Airbags in cars.<br>• Lifeboats on ships. |

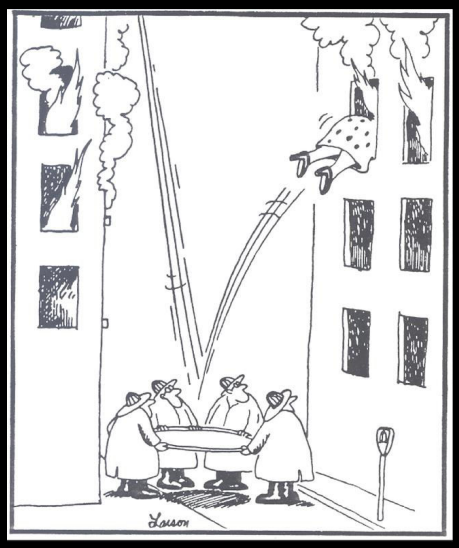
# TRIZ method

by Genrich Altshuller

**Technique:**

Define a challenge
(how could we..)
+ principle




Cartoon by Gary Larson

A system-blind solution leads to unintended consequences. Systemically. Think systemically.


IF YOU WERE THIS
WAITING FOR
A SIGN IS IT