Erasmus+

2019-1-PL01-KA203-065784

HIGH 5

INTEGRATED DESIGN

SET OF PRESENTATIONS FOR STUDENTS

2019-1-PL01-KA203-065784

INTEGRATED DESIGN - Set of presentations for students (English language version)

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Lodz University of Technology, Poland
University of Thessaly, Greece
University of Aveiro, Portugal
University of Library Studies and Information Technologies, Bulgaria
Tallinn University, Estonia

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Integrated Design

Transdisciplinary methodology for Integrated Design in higher education

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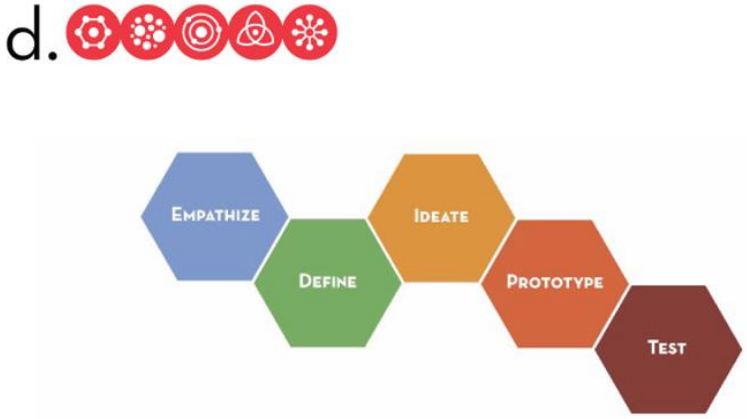
What is Integrated Design?

Please think about 3 associations with this term.
You can write them down.

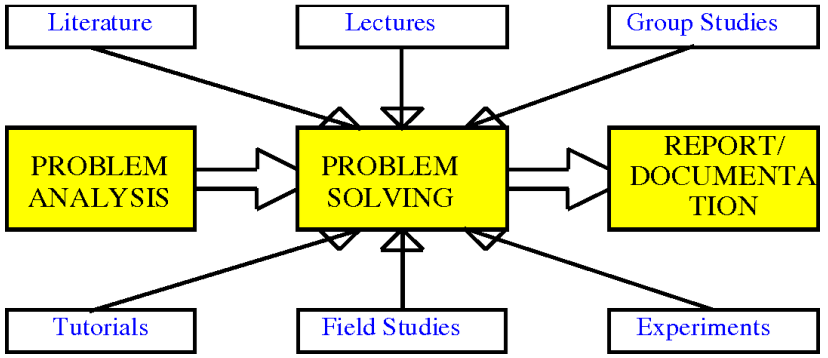
Integrated Design (ID)

What is Integrated Design?

- It is a new **methodology** used in **projects.**
- Methodology based on **Design Thinking** (DT) and **Problem-Based Learning** (PBL)



Source: d.school, Stanford University



Source: PBL model at Aalborg University

Integrated Design

What is Integrated Design?

Source: United Nations

- Problems are treated as **challenges.**
- Main goal is to find **the best solution** for your challenge.
- **Creativity** is essential!
- **Sustainable development** and **circular economy aspects** are taken into account in the whole designing process.

Integrated Design

method of meeting humans' needs and desires in
a technologically feasible and strategically viable way

human

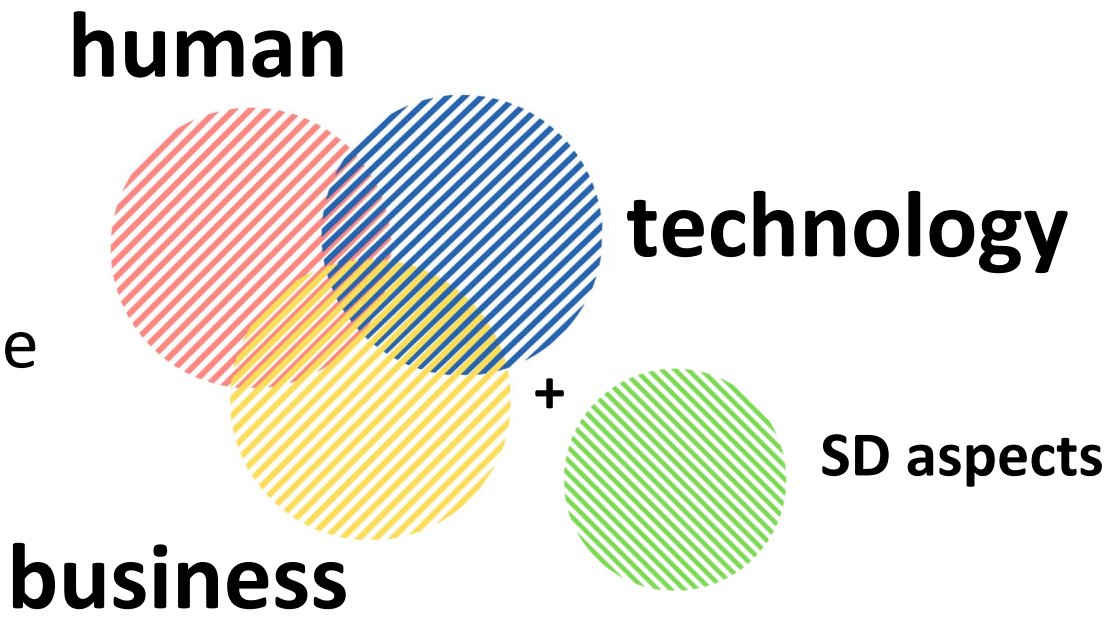
technology

business

Source: Own creation

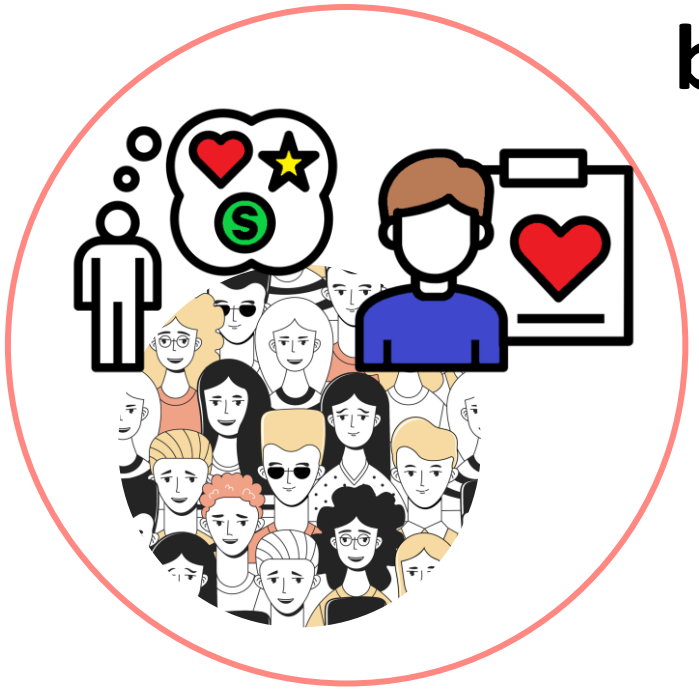
Integrated Design

- Method of meeting humans' needs and desires in a technologically feasible and strategically viable way.
- Products that don't generate value for humans will not generate revenue for the business.



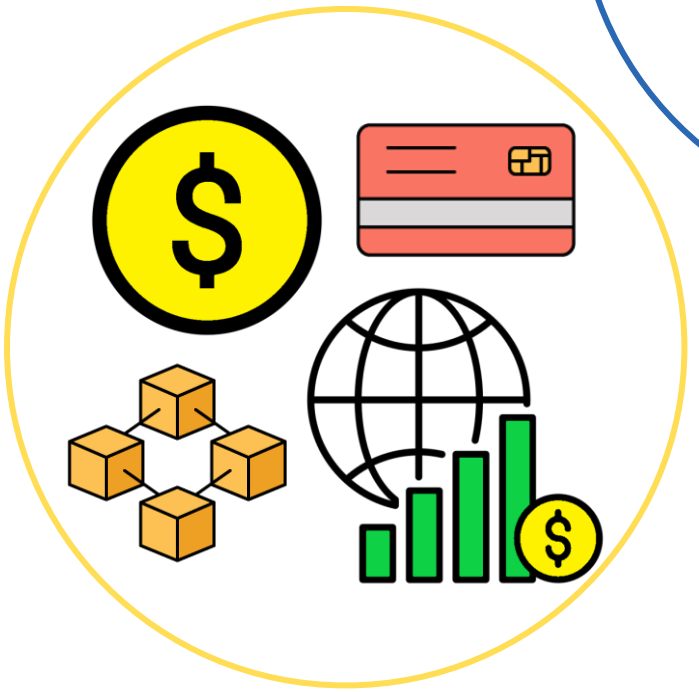
Source: Own creation

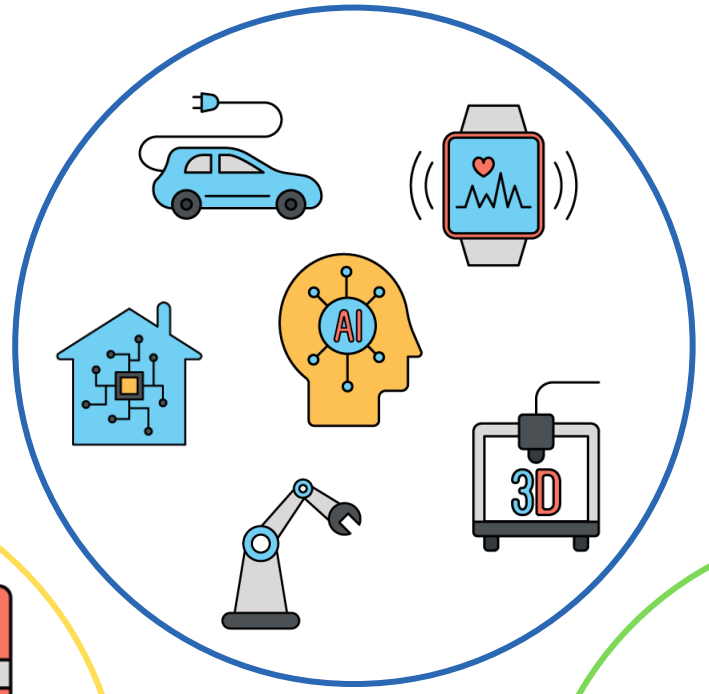
Included aspects in ID



human

business



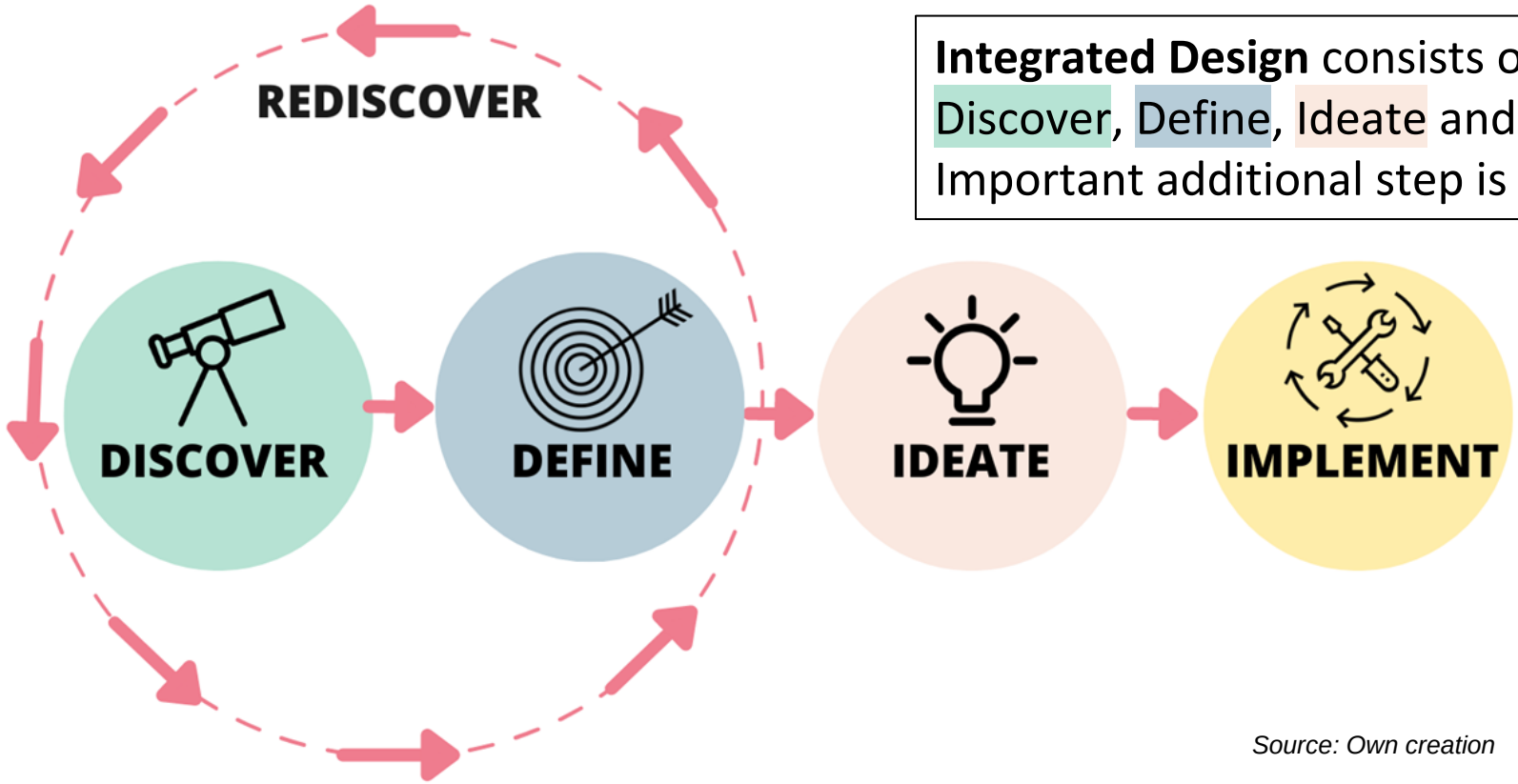


technology

SD aspects

Source: Own creation

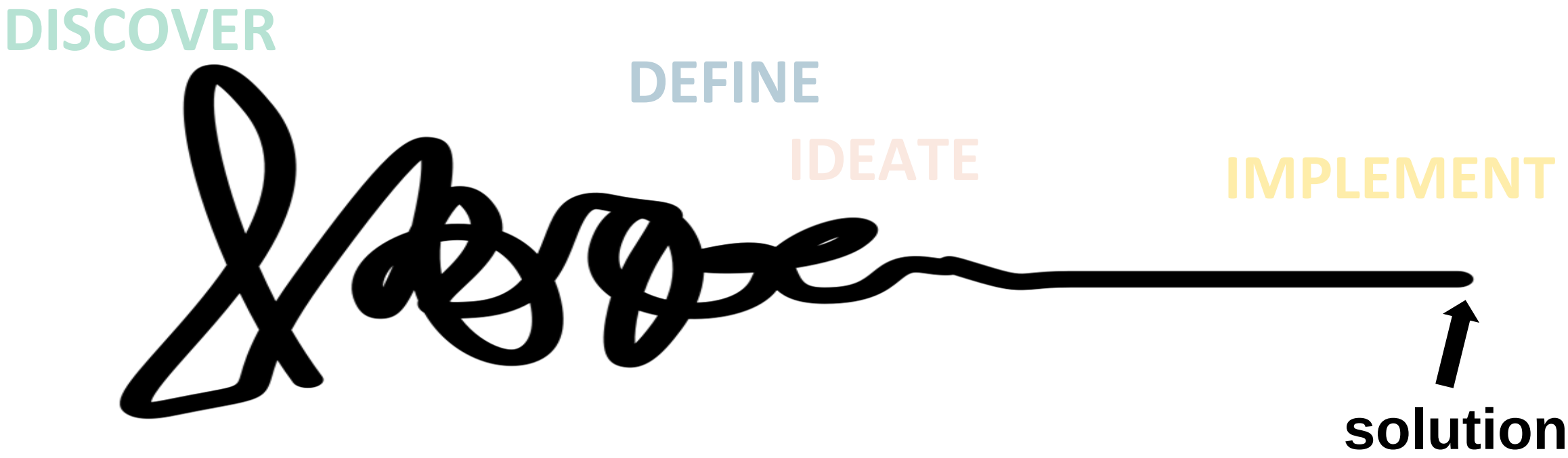
Stages of Integrated Design



Integrated Design consists of 4 main stages: Discover, Define, Ideate and Implement. Important additional step is Rediscover.

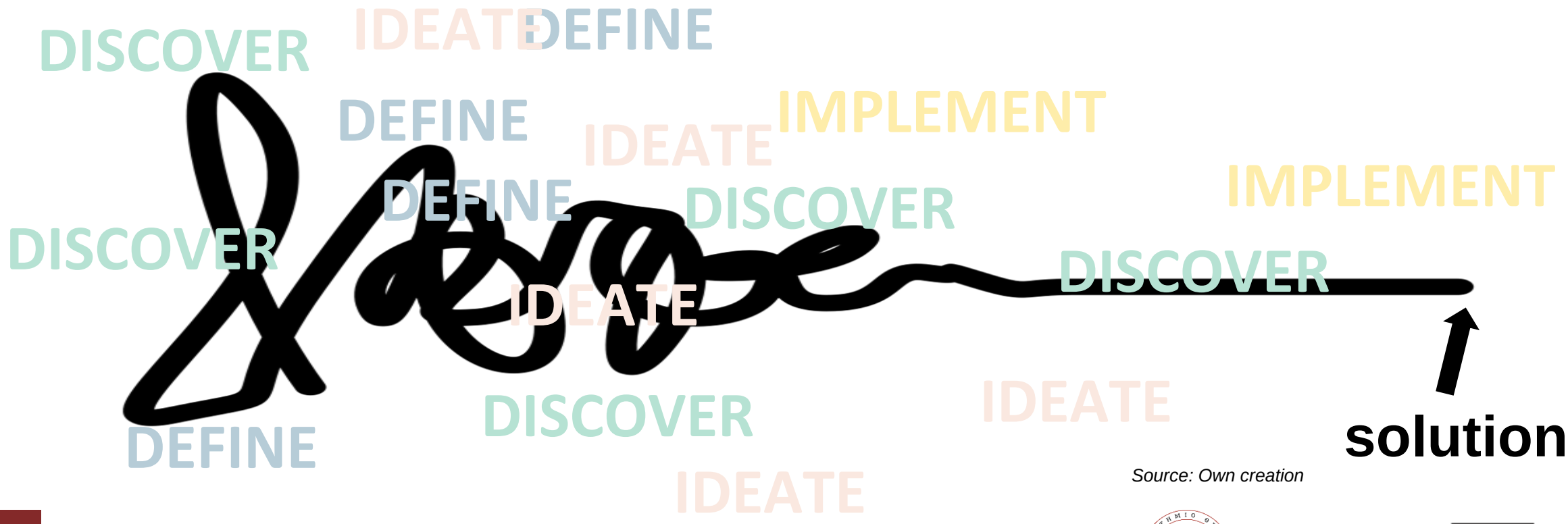
Source: Own creation

Integrated Design is not linear process



Source: Own creation

Integrated Design is ITERATIVE process



Source: Own creation

Integrated Design is ITERATIVE process

- **Iteration** – the act of repeating a particular action or process to produce a better outcome.
- Designing and solving problems can take place in a non linear way. Therefore, iteration allows to improve the work and overcome failures supporting the idea –
  - "*it is OK to fail*".

Integrated Design: DISCOVER

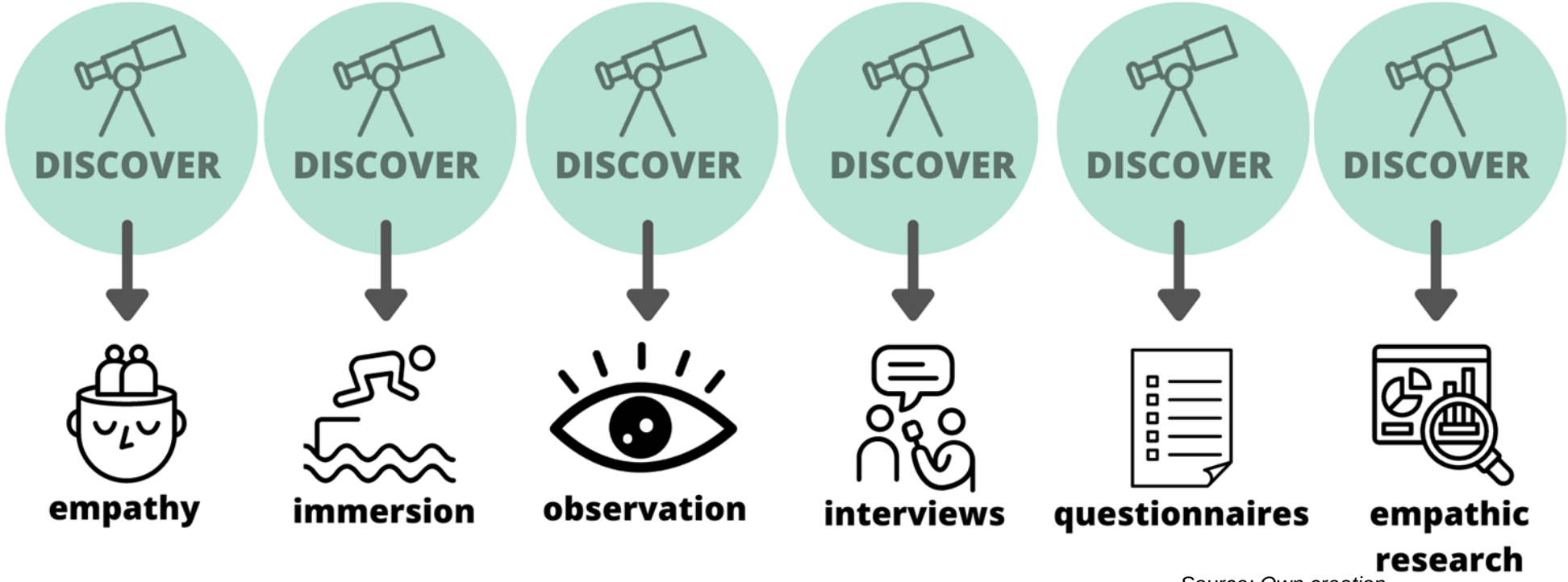
Discover phase is at the beginning of the designing process. It is a deep recognition of the topic.

Discover stage can be divided into following steps:

- Topic recognition – your associations;
- Research in various sources (Internet, scientific journals, books etc.);
- Observations of surroundings;
- Interviews with users, experts etc.

In **discover** you should EXTEND your perspective!

Integrated Design: DISCOVER



Source: Own creation

Integrated Design: DEFINE

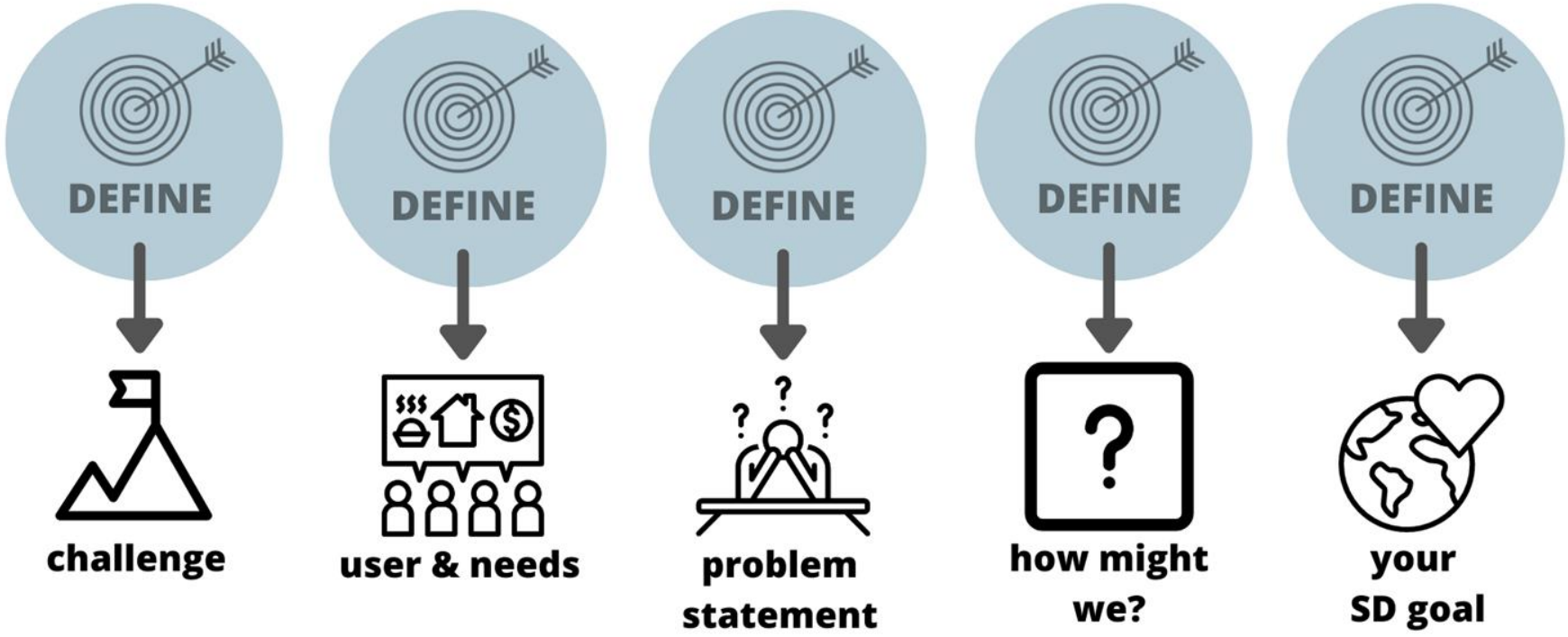
After **Discover** stage it is an exact moment to sum up the findings and finalize the data analysis. Let's define some elements.

What can you define?

- A **challenge** that you want to face in the project.
- A **problem statement** that you want to solve during the project.
- Your potential **users and their needs** – for who you will provide solution(s).
- **SD goals** that are connected with your challenge and/or problem statement.

Define stage is crucial to go further in the ID process.

Integrated Design: DEFINE

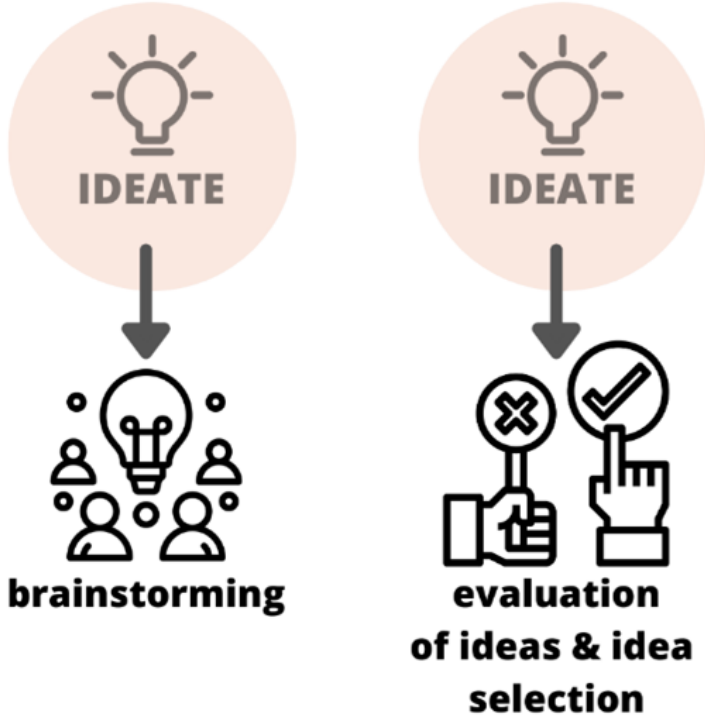


Source: Own creation

Integrated Design: IDEATE

IDEATE is about:

(1) generation of ideas
(there are many brainstorming techniques)
(2) evaluation of ideas
(3) selection of idea



Source: Own creation

Integrated Design: IDEATE

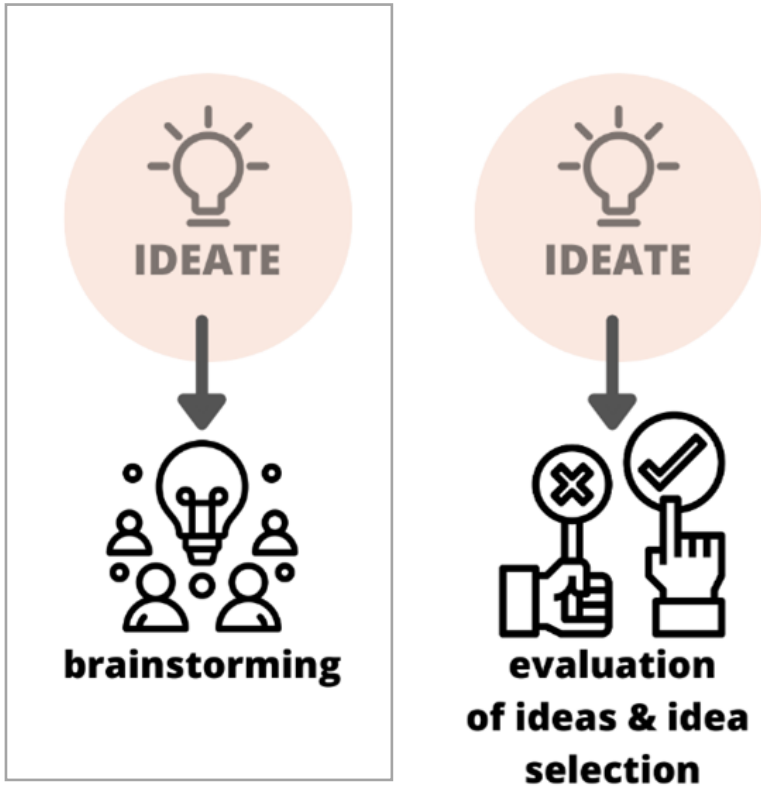
What is important in brainstorming?

Don’t jugde!

Thinking outside the box!

Be creative!

The more the better!



Source: Own creation

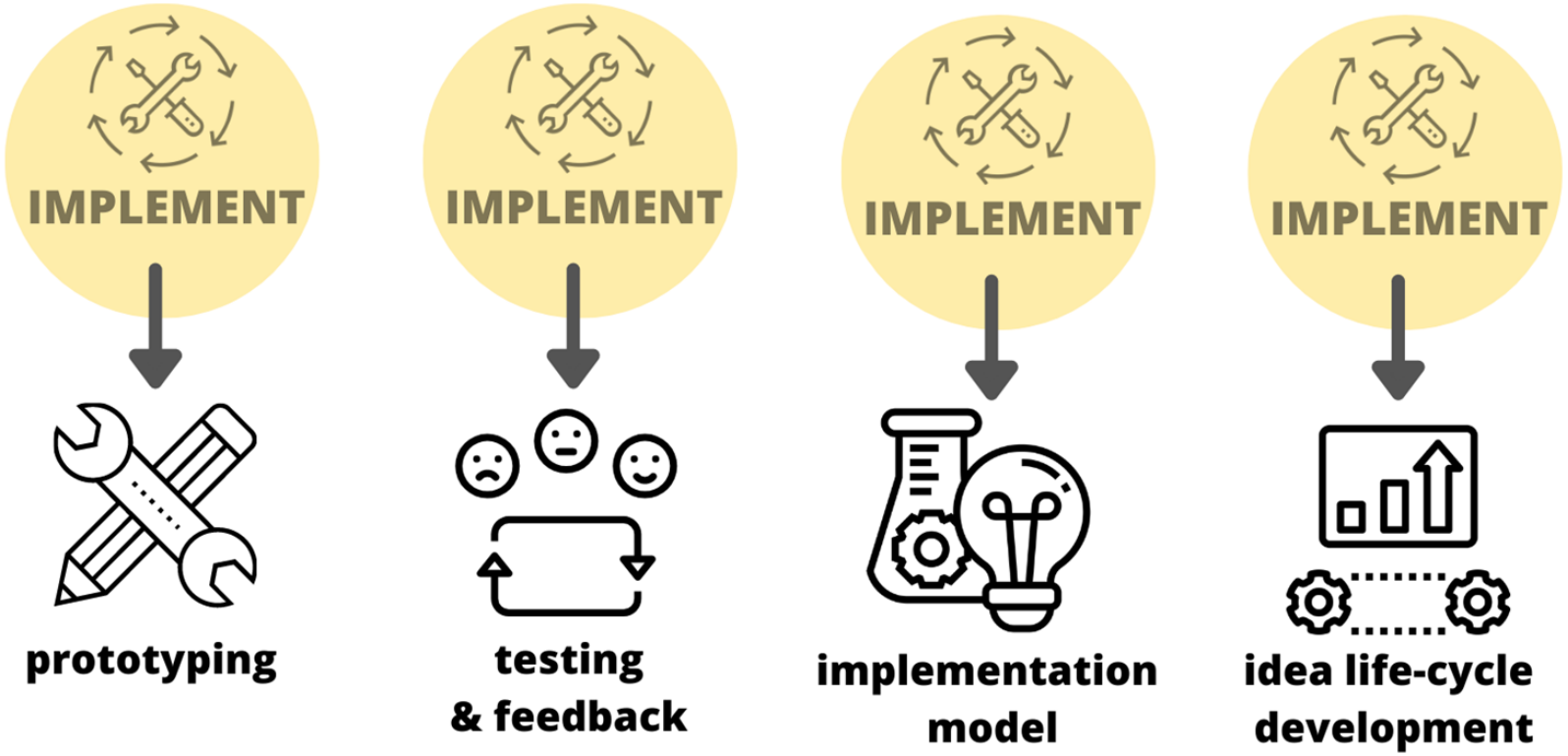
Integrated Design: IMPLEMENT

- **Implement** is about making your idea tangible.

- **Implement** stage consists of several steps:

- Prototyping the selected idea.
- Testing the idea and gathering feedback.
- Creation of implementation model while the aim is to implement the solution on the market.
- Development of the idea life-cycle.

Integrated Design: IMPLEMENT



Source: Own creation

The end

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Integrated design: discover

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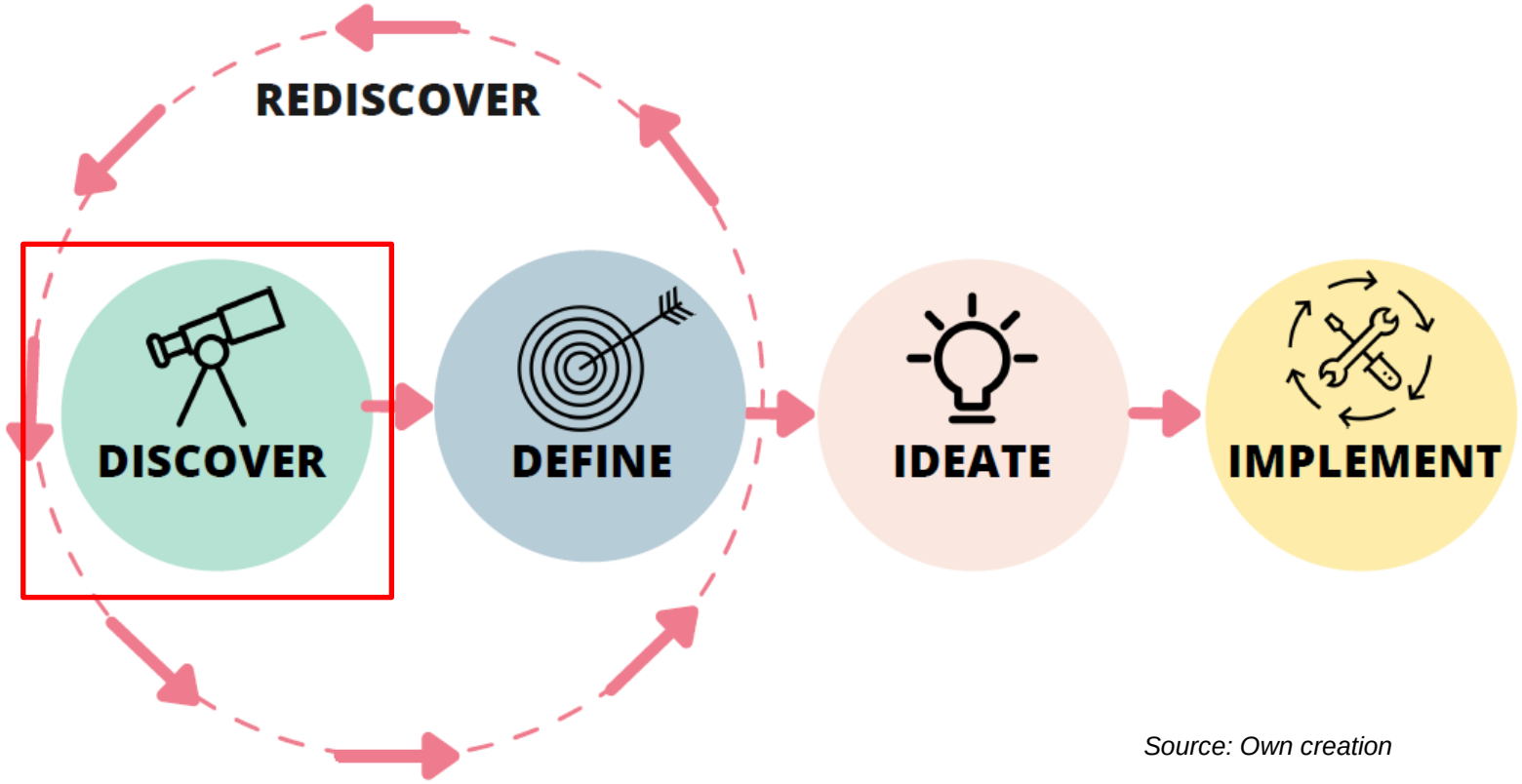
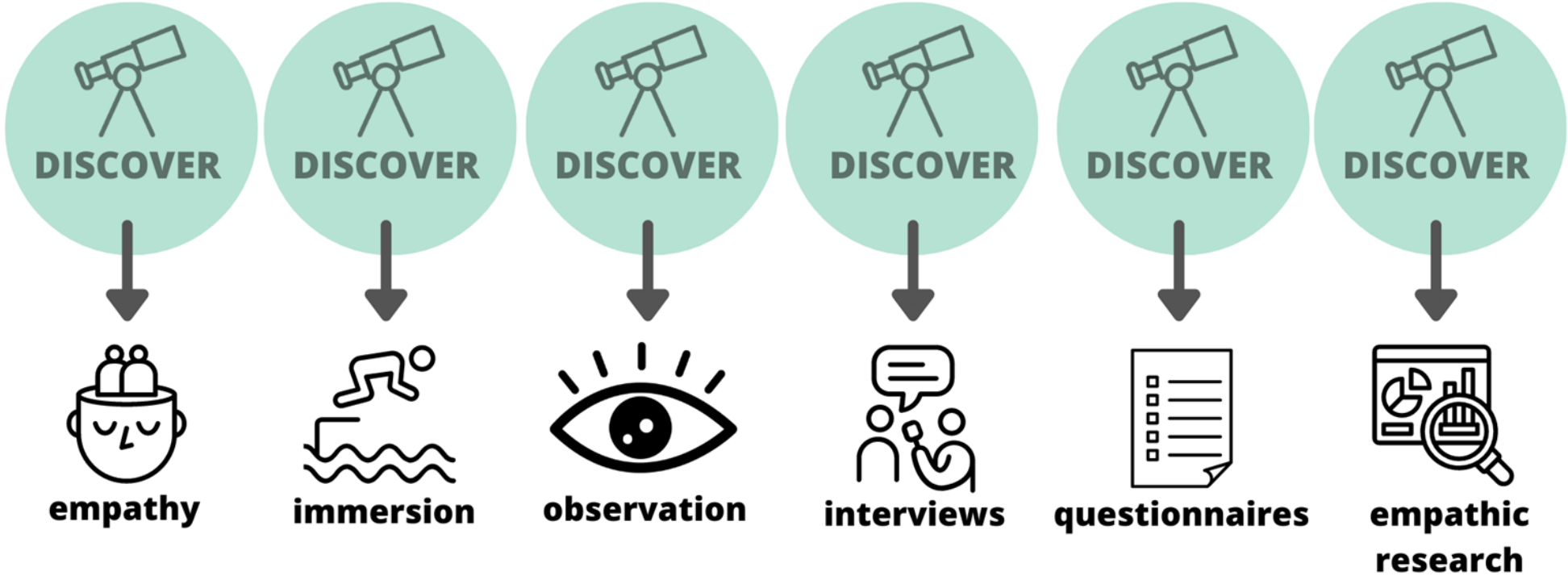
First phase of integrated design



Source: Own creation

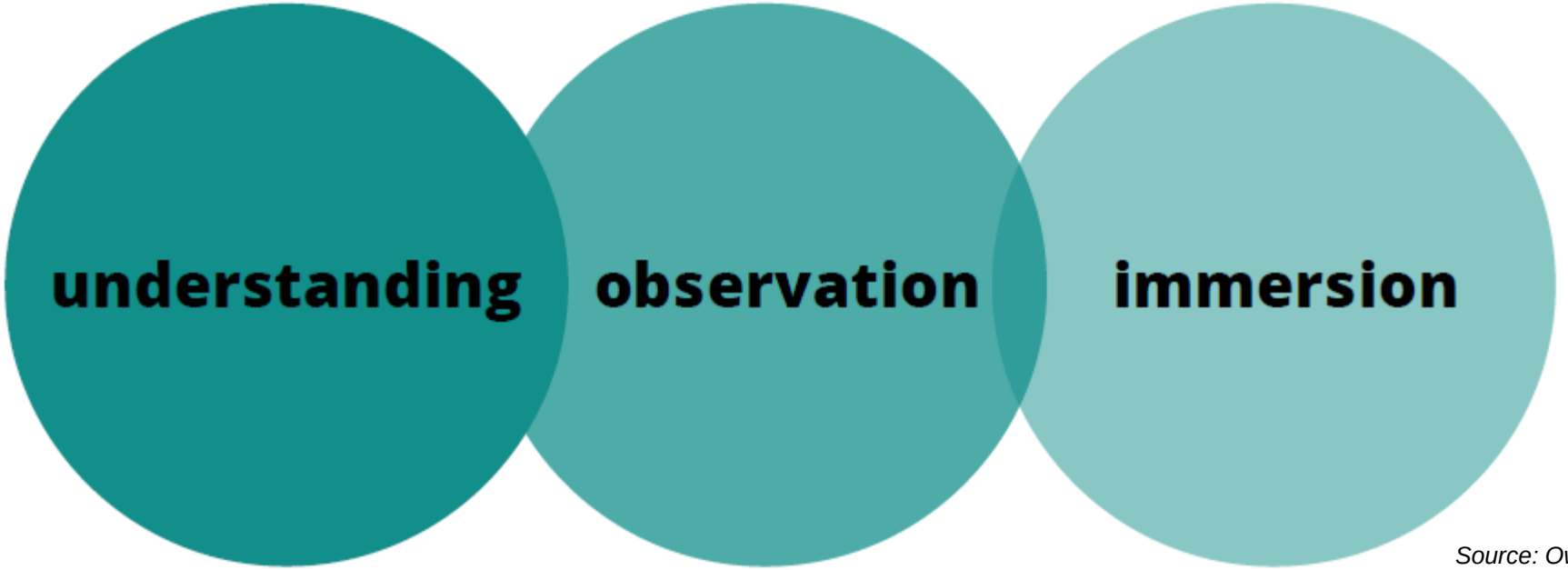
Discover – tools



Source: Own creation

Investigation and research

- Discover stage often can be divided into separate but mutually intertwined steps, which are for example: understanding, observation and immersion.



Source: Own creation

Investigation and research

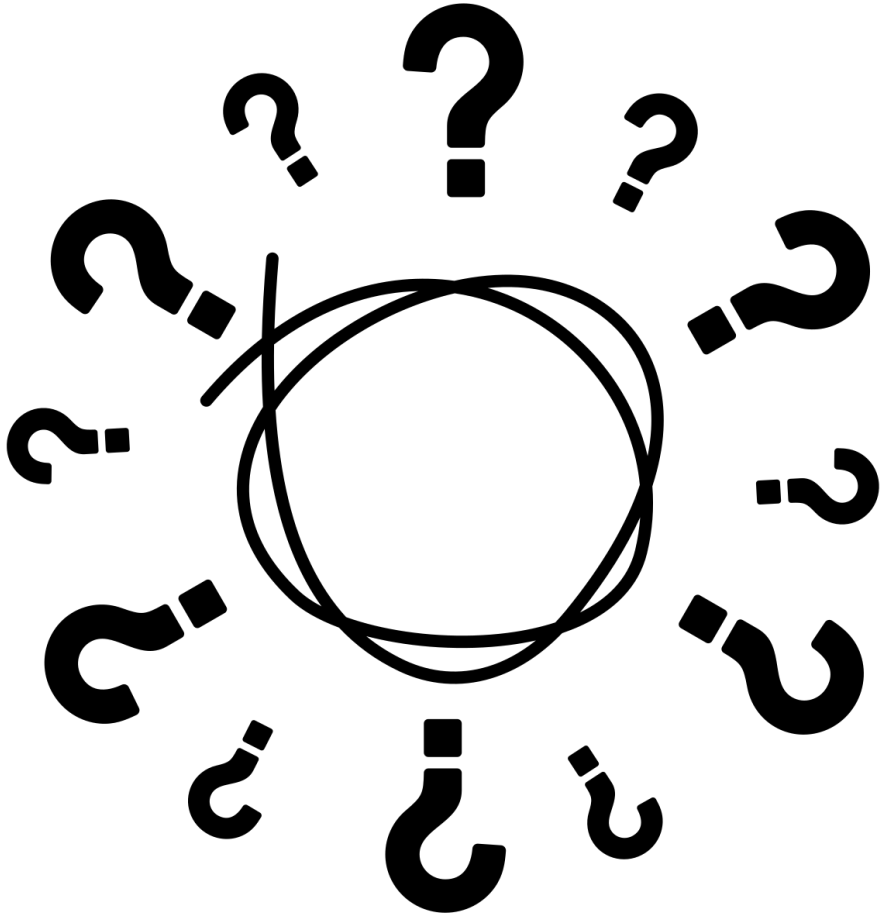
- Methods: personas (What do they say, think, do, feel?)
- Interviews (open and closed questions, exploratory or predefined, online or focus group)
- Questionnaires
- Observations
- Immersion, participatory research

Problem statement

- Thinking exercise:

For one minute try to answer the following questions according to your topic:

- What is the problem/ problems?
- Whose problem is it?

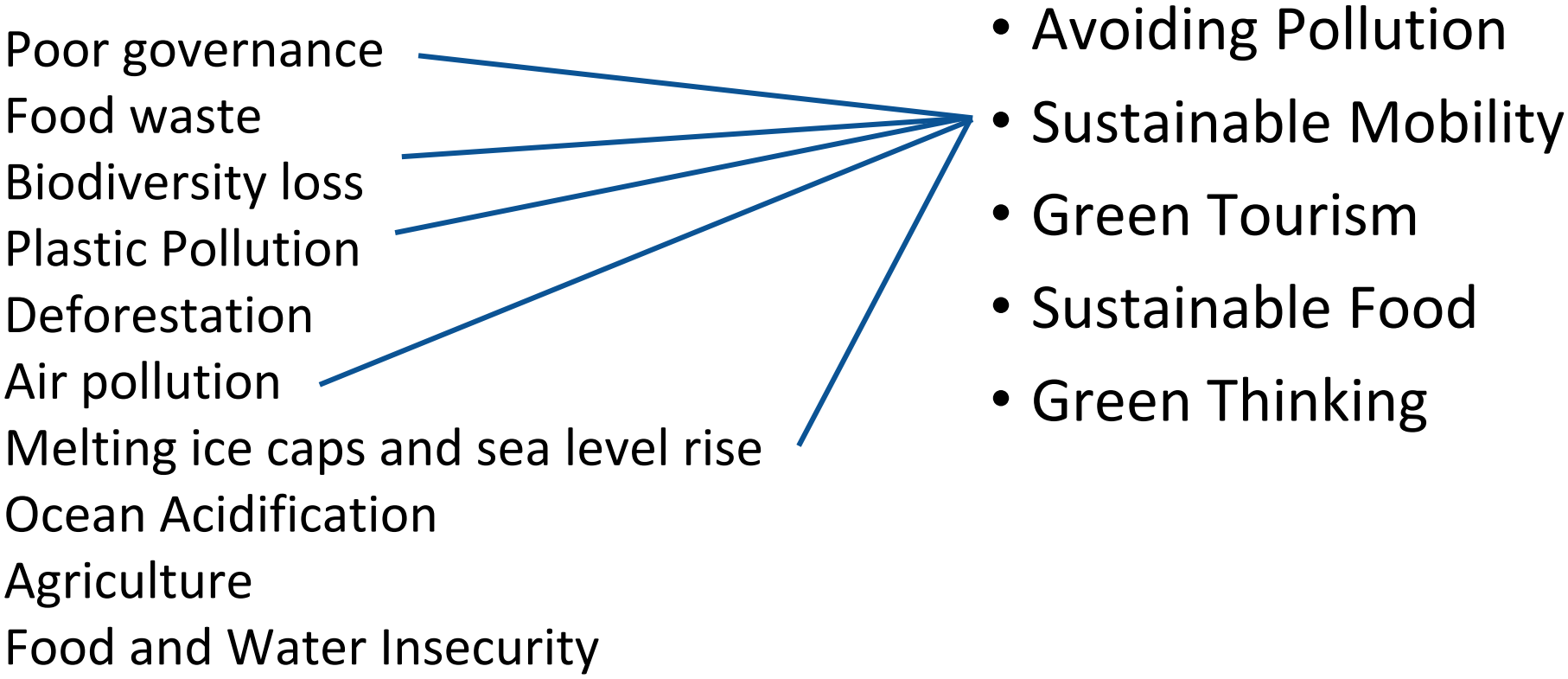


Biggest Environmental problems of 2021

Poor governance
Food waste
Biodiversity loss
Plastic Pollution
Deforestation
Air pollution
Melting ice caps and sea level rise
Ocean Acidification
Agriculture
Food and Water Insecurity

- Avoiding Pollution
- Sustainable Mobility
- Green Tourism
- Sustainable Food
- Green Thinking

Biggest Environmental problems of 2021



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- Avoiding Pollution
- Sustainable Mobility
- Green Tourism
- Sustainable Food
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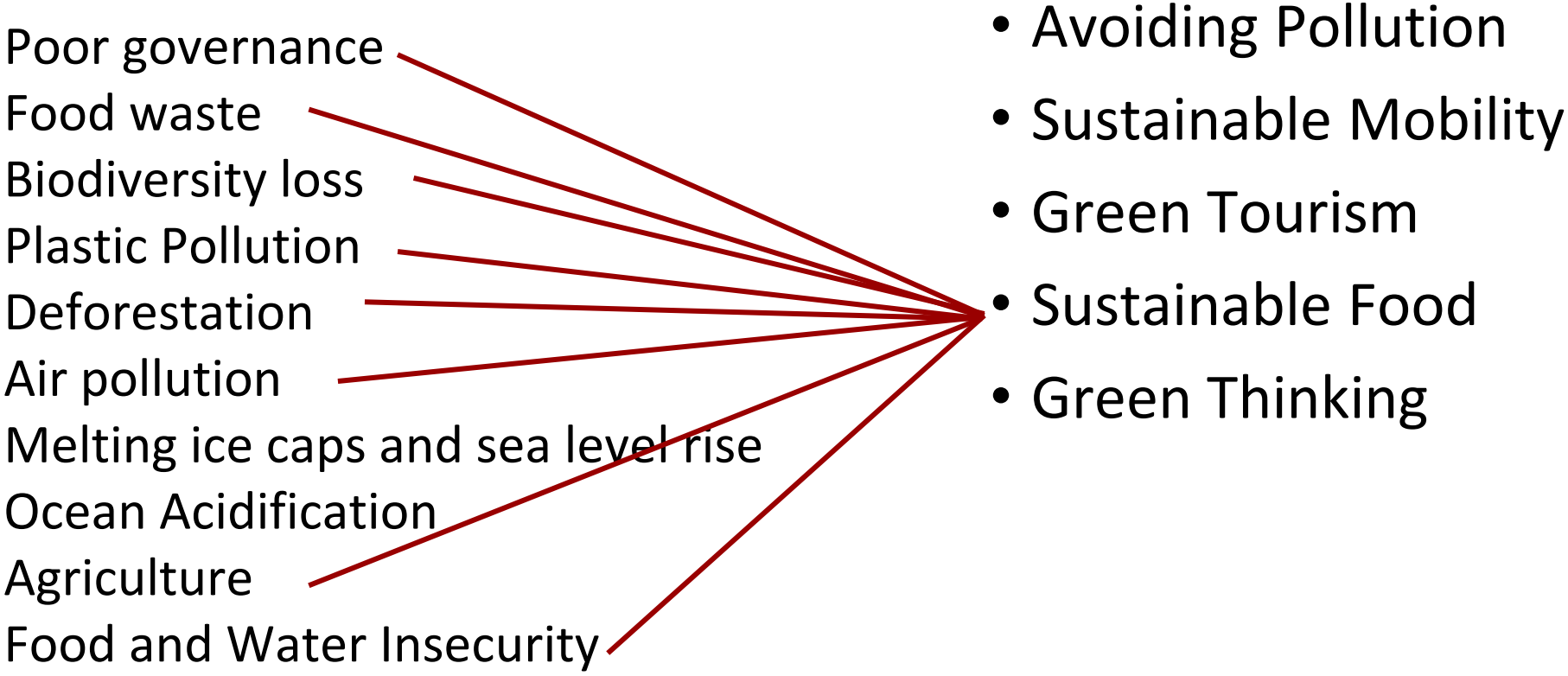
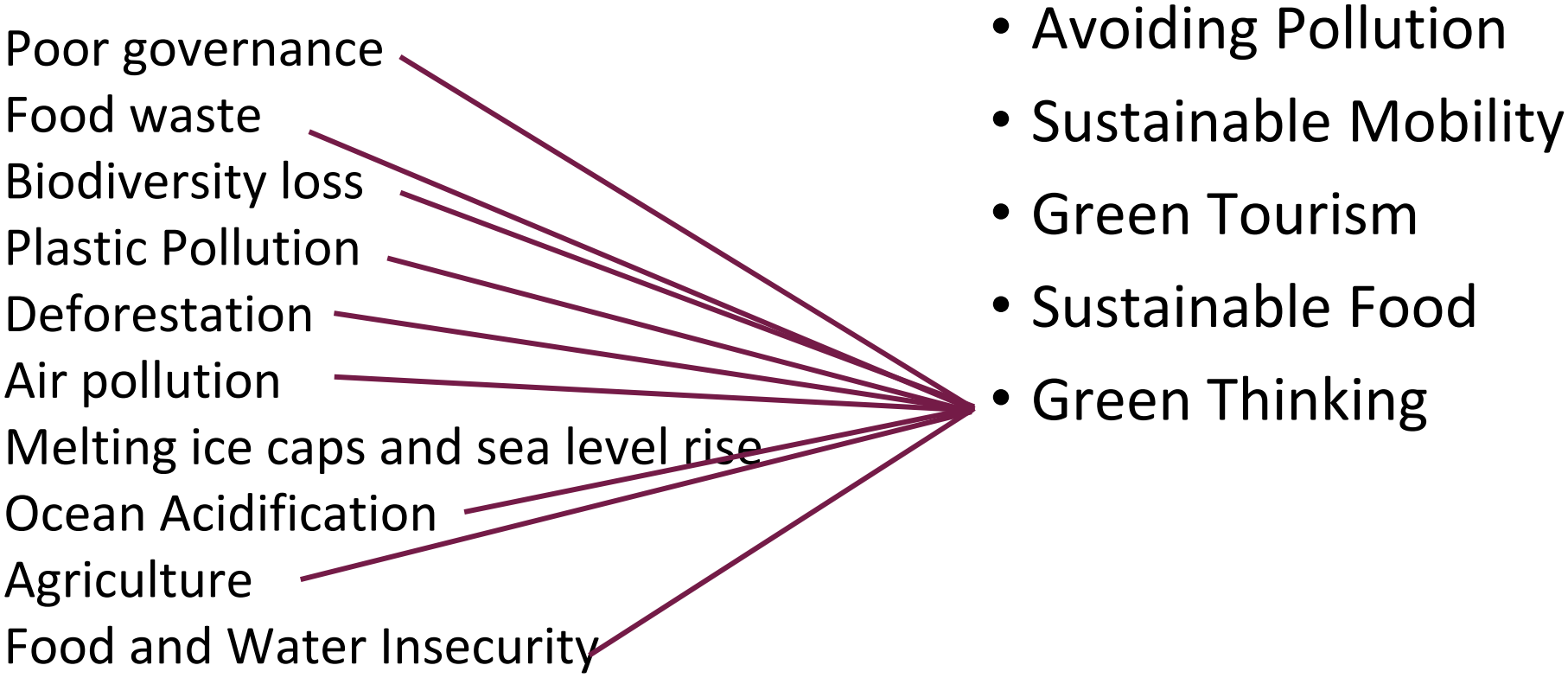
Biggest Environmental problems of 2021



Biggest Environmental problems of 2021



SDGs

https://www.hiltonfoundation.org/sdgs

SDG Flashcards

- SDG Flashcards contain more than 200 questions relevant to the four dimensions - social, worldview, ecological, economic- whole systems approach to sustainability to collaboratively identify actions and solutions aimed at implementing the global goals in ways that are relevant to their lives and their communities.

Addition information about SDGs

- Overview of indicators including the metadata and explanations - https://unstats.un.org/sdgs/indicators/database/ and https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202020%20review_Eng.pdf
- Country profiles - https://country-profiles.unstatshub.org/
- UN Data catalog - http://www.sdg.org/#
- UN, GRI and PwC reporting guide - https://www.globalreporting.org/resourcelibrary/GRI_UNGC_Business-Reporting-on-SDGs_Analysis-of-Goals-and-Targets.pdf
- Overview of the SDG related global data - https://sdg-tracker.org/
- SDG Report 2019 - https://www.sustainabledevelopment.report/
- Voluntary national review results - https://sustainabledevelopment.un.org/content/documents/26136Estonia_Main_messages_VNR_Estonia_2020_700.pdf
- Estonia specific tool - https://tamm.stat.ee/

Hands on activity

1. Each team will get a bunch of SDG cards
2. Look at the flashcards and decide which SDGs are the most relevant to your topic (5 min)
3. There is one extra SDG card, return it
4. Each one of you will choose one SDG card
5. Work on the topic with your team and connect the SDG card to it

Homework

- Provide the best possible answers/solutions related to your team topic to the questions on the SDG card.
- Each team member will present how is your topic related to your SDG card during 1 minute

The end

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Integrated design: DEFINE

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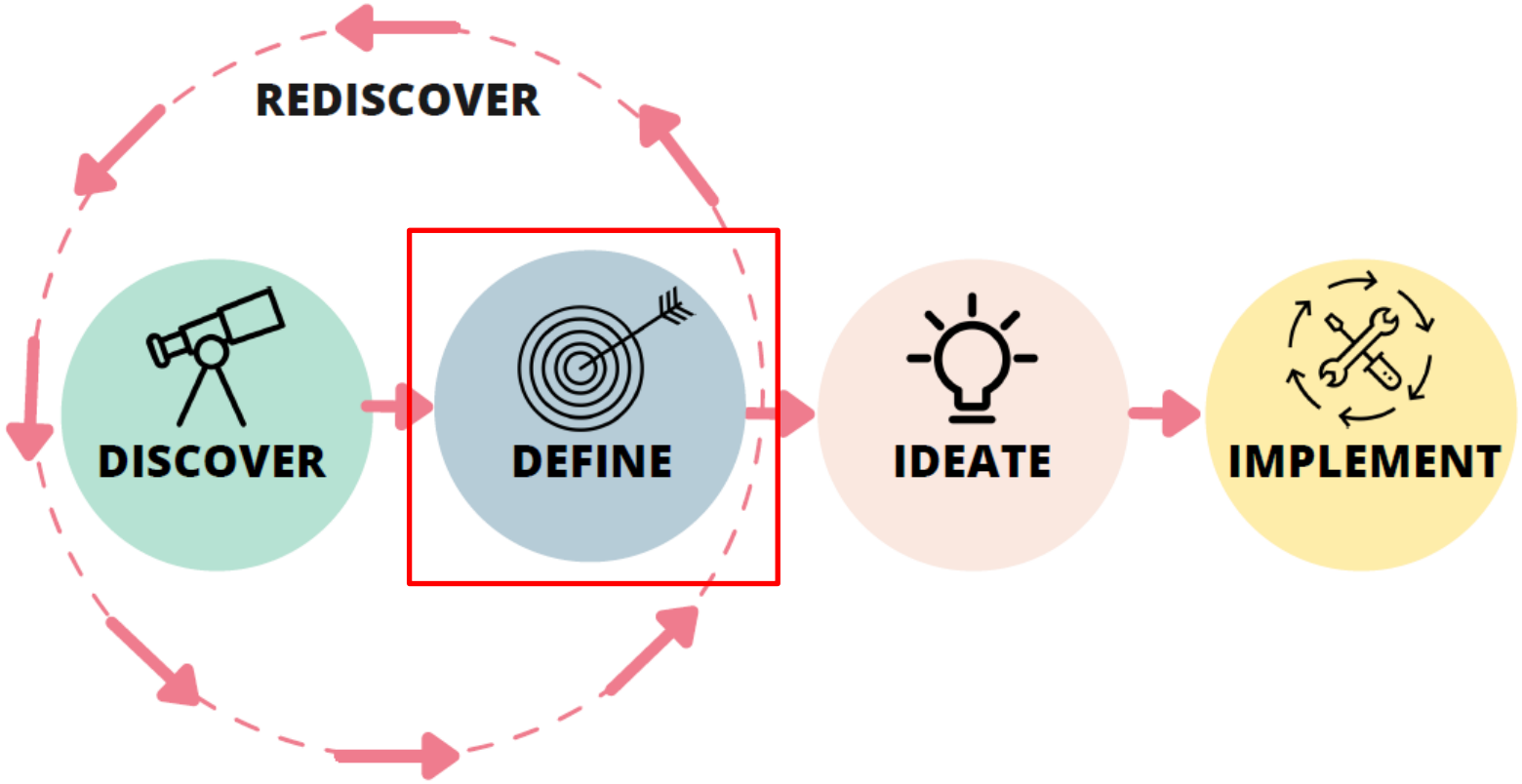
Second phase of integrated design

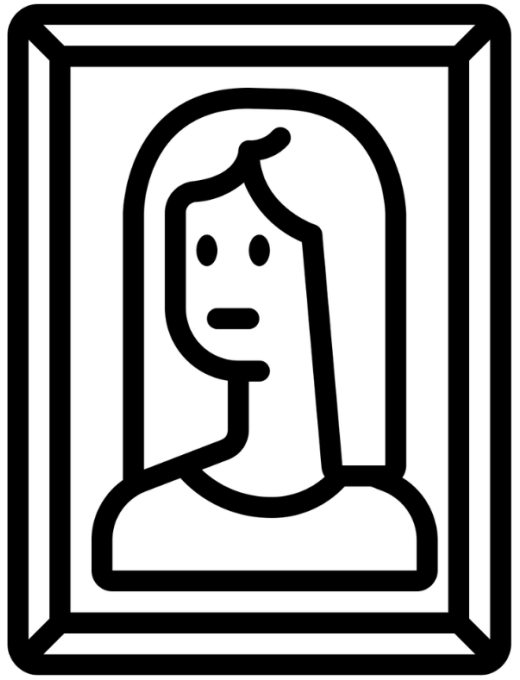


Define Stage

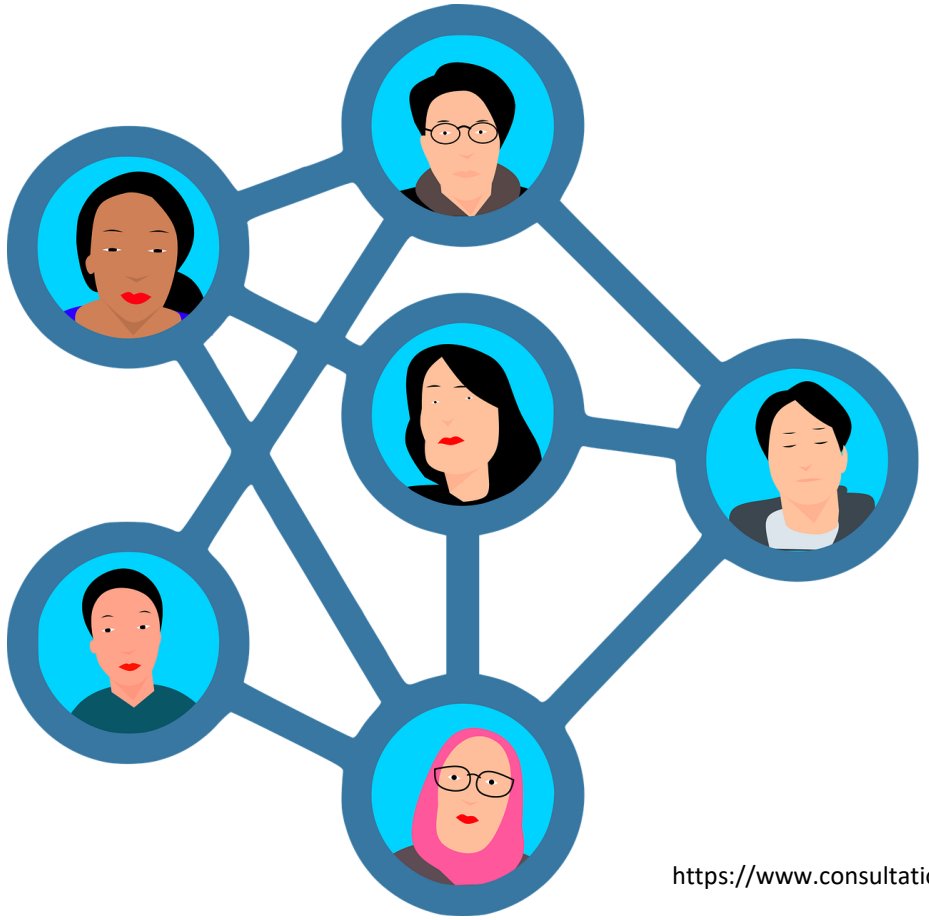
Framing the issue

Define:

- User
- Challenge/ Problem
- User's needs
- SD goal(s)
- Insights

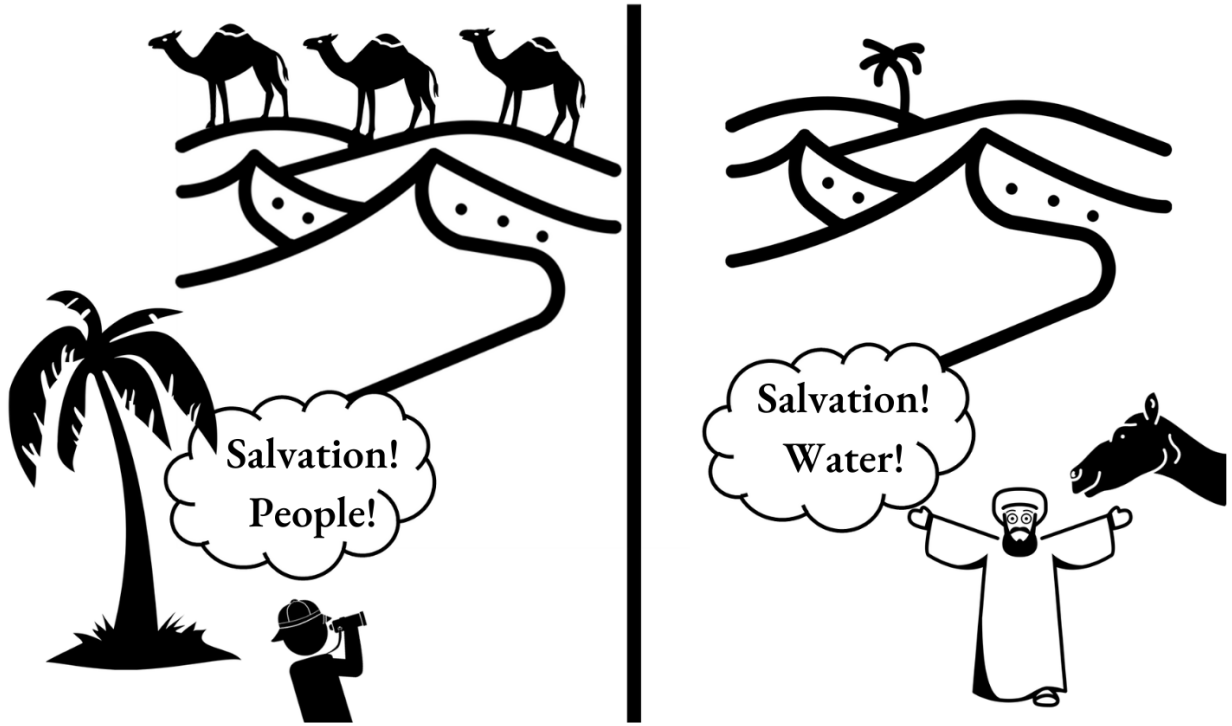


Stakeholders



https://www.consultationinstitute.org/its-global-community-engagement-day/

The concept of POV – different points of view



Source: Own creation

Constraints

- Environnement
- Time
- Place
- Culture
- …

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CREATIVE Persona

Build a detailed picture of your USER

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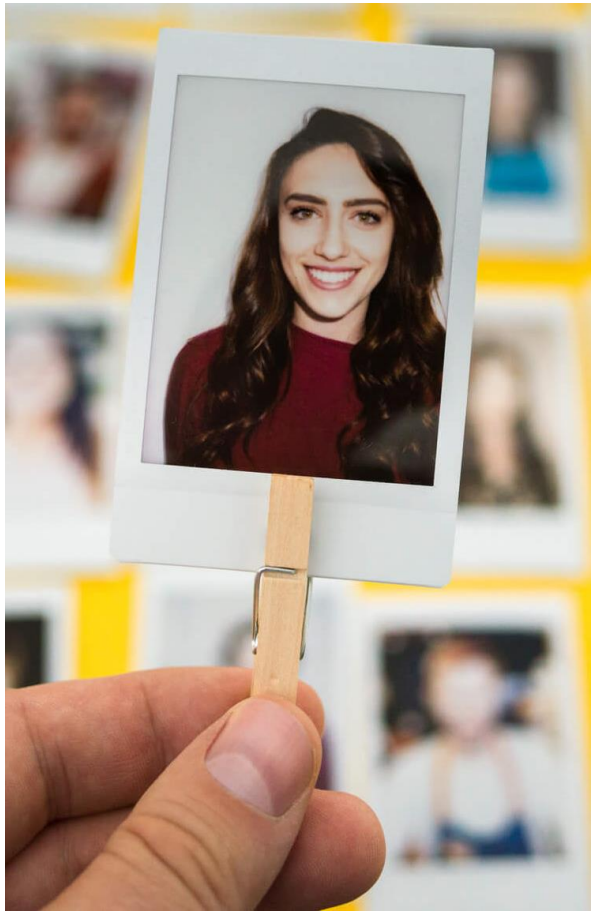
How to build a good picture of the Persona?



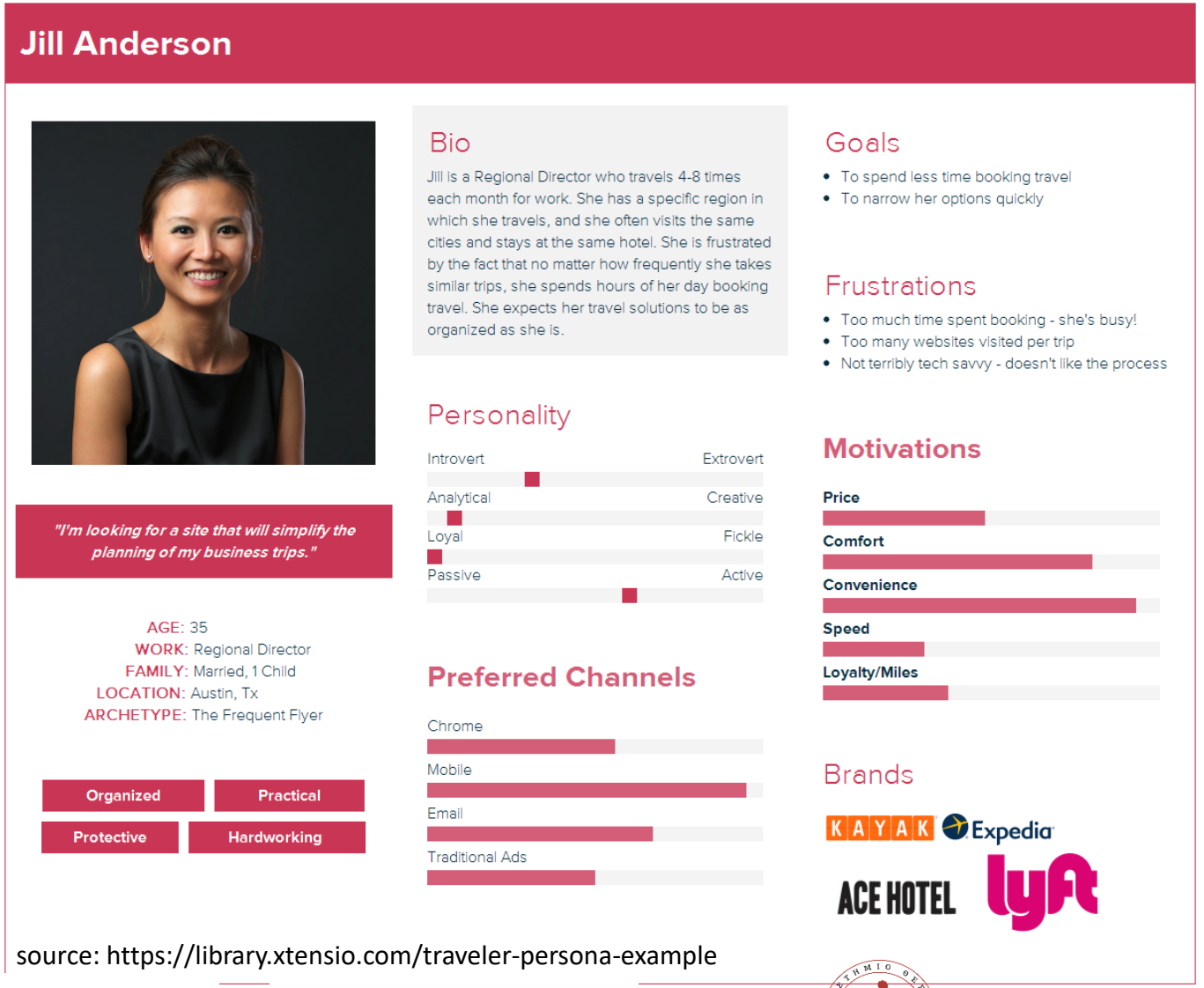
source: https://eri-wi.org/blog/2019/07/31/visual-resume-wow/

- Collect and segregate all the information about your target group
- Find some interesting/ inspiring/ funny/ striking/ repeatable* quotes that you noted during interviews
- Visualize the Persona – first in your head, then find a picture or draw a face/ body
- Choose the style of expressing your creative Persona – e.g. mind map, list, Feng-Shui map, road map, empathy map, story, journey…
- Take anything you need from the materials and build TOGETHER your CREATIVE PERSONA !!!

* choose one or more ☺

CREATIVE PERSONA – list

(*) Tip:
It consists of a picture and listed information about the target group, e.g. biometric information, personality features, interests, goals, values, frustrations, fears, motivations, challenges, etc.



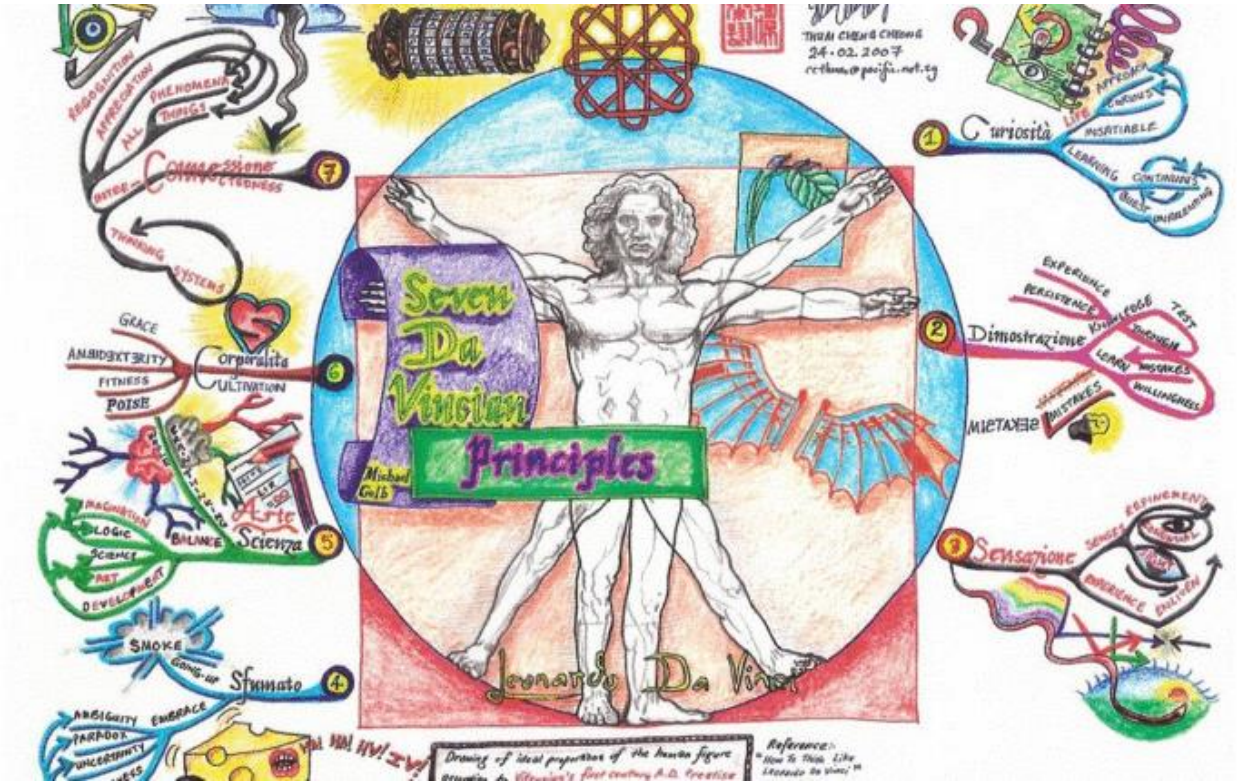
source: https://library.xtensio.com/traveler-persona-example

CREATIVE PERSONA – journey/ story

(*) Tip:
It is a way to show the path taken by the user as a customer. In this picture it is important to create a chain of dependencies between the following:
1) awareness, 2) research and knowledge, 3) evaluation and consideration,
4) purchase, 5) recommendation and loyalty.

source: https://www.mageplaza.com/blog/omnichannel-marketing-strategy-optimize-conversions.html

CREATIVE PERSONA – mind map

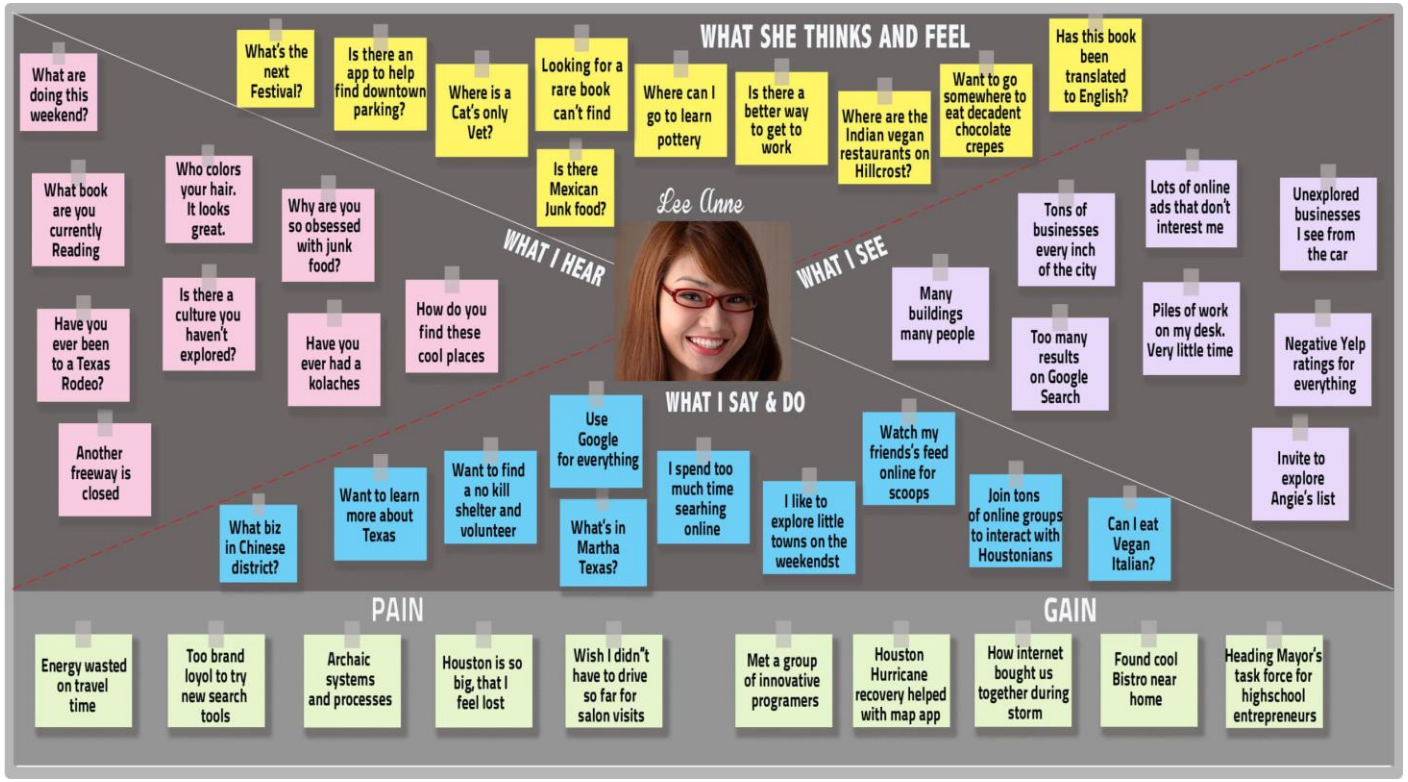


source: https://www.mindmapart.com/da-vinci-mind-map-thum-cheng-cheong/

(*) Tip:
It is created around a single concept – potential user, drawn as an image in the center of a blank page, to which associated representations of ideas such as images, words and parts of words are added. Major ideas are connected directly to the central concept, and other ideas branch out from those major ideas. The branches can be created using similar groups as in a List Persona type, however, here the information are more visual.

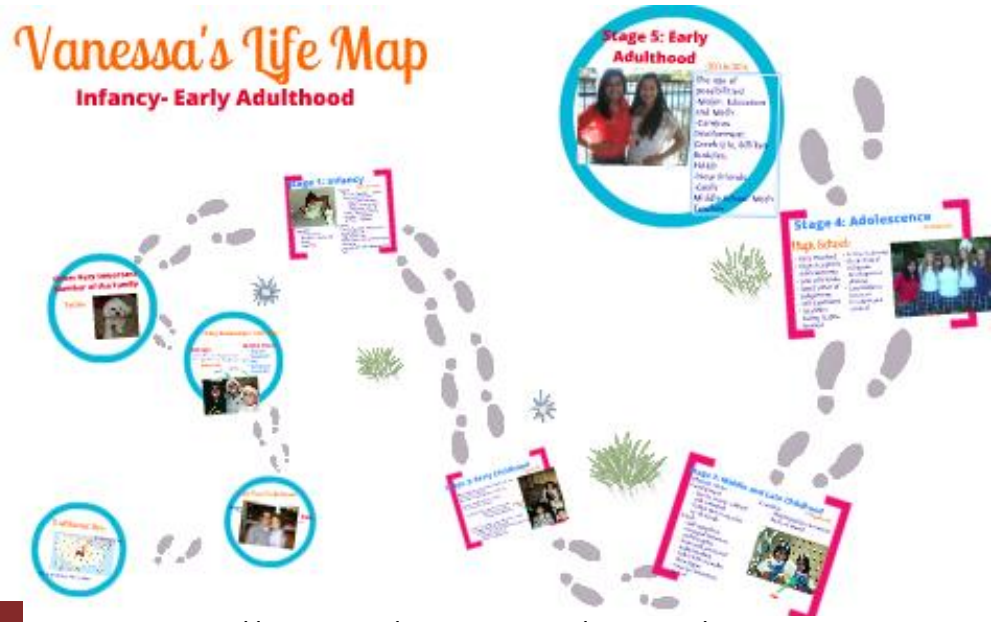
CREATIVE PERSONA –empathy map

(*) Tip:
It provides a picture (or a drawing) of the Persona in the center. Around this picture there are several categories listed describing the user:
1) doing (what does a user's typical day look like?),
2) seeing (what is the user's environment like?),
3) hearing (what influences the user?),
4) thinking and feeling (what are the user's hopes, dreams, fears and important issues?),
5) pains (what obstacles or challenges does the user have?),
6) gains (what does the user hope to achieve and how the success might be measured?).



source: https://www.uxpin.com/studio/blog/the-practical-guide-to-empathy-map-creating-a-10-minute-persona/

CREATIVE PERSONA – road map



source: https://prezi.com/4ovxsz770hej/life-map/

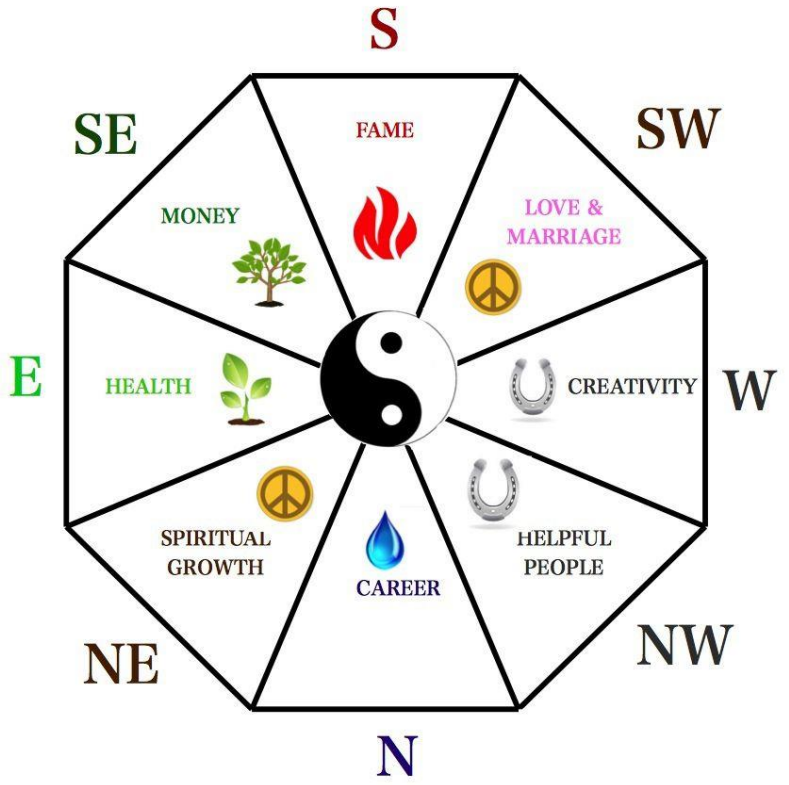
(*) Tip:
It defines the progress and change of the user on the timeline.

source: https://prezibase.com/roadmap-presentation/

CREATIVE PERSONA – feng shui (bagua) map

(*) Tip:

This is a method to represent the important life issues of the user in the form of a circle or a square, placing again the user in center. In Bagua Map the specific place of several life spheres in the general picture is very important. They are as follows: fame - on the top of the user (South), love and marriage – in the right top corner (South West), creativity and children – on the right of the user (West), helpful people and travel – in the right bottom corner (North West), career – on the bottom of the user (North), knowledge, self-development and growth – in the left bottom corner (North East), health and family – on the left of the user (East), wealth and money – in the left top corner (South East).



source: https://www.magicbricks.com/blog/feng-shui-bagua-map/130106.html

CREATIVE PERSONA – create your own graphics and show it!

This project has been co-funded by the Erasmus+ Programme of the European Union.
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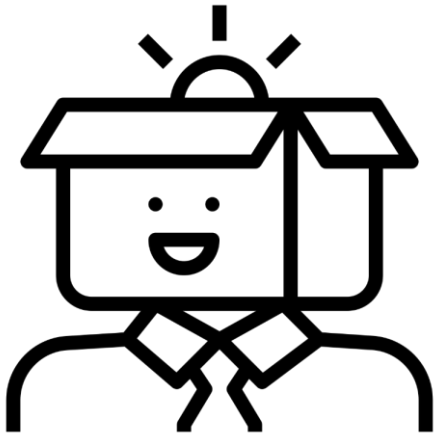
Project no. 2019-1-PL01-KA203-065784

HIGH 5

Brainstorming

Ideation part of the Integrated Design



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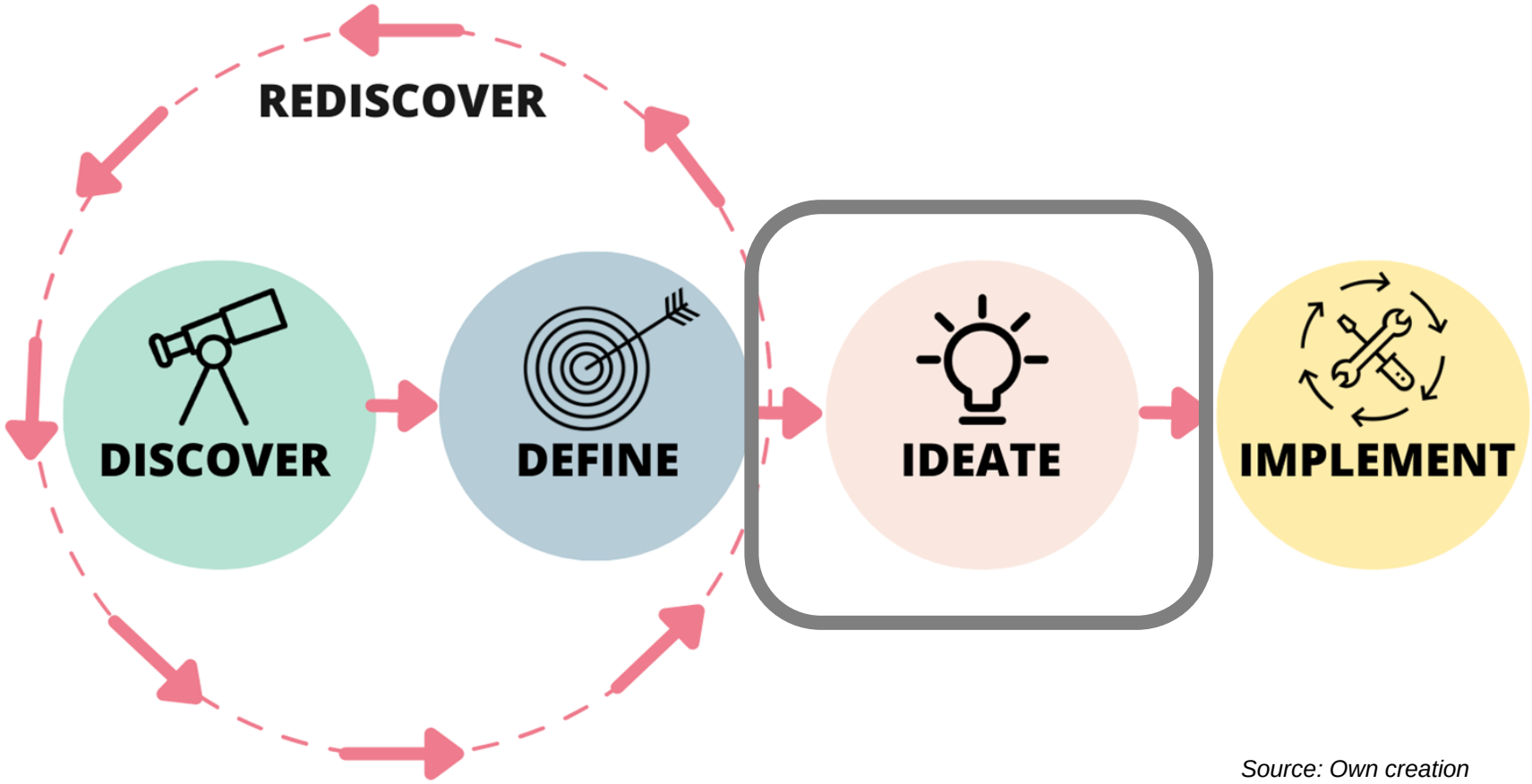
THE STAGES OF INTEGRATED DESIGN



Source: Own creation

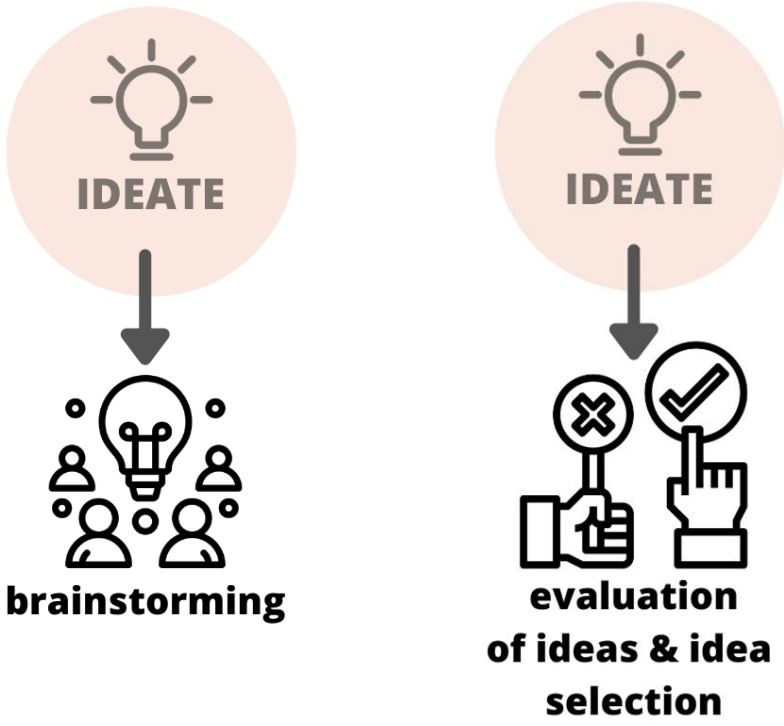
What is hidden under the IDEATE phase?

STAGE 1. IDEAS GENERATION

STAGE 2. EVALUATION OF IDEAS AND IDEA SELECTION

STAGE 3. DATA PRESERVATION

STAGE 4. VERIFICATION



Source: Own creation

Brainstorming rules

No criticism!

Quantity > quality

Ideas belong to the group

Encourage even wildest ideas

Try to stay focused on the topic

No idea is stupid

WHY BRAINSTORMING?

- ❑ Teaches to listen
- ❑ You can build on the ideas of teammates
- ❑ Stimulation of creativity
- ❑ Each participant has the same value
- ❑ Each idea is valuable
- ❑ Quick method
- ❑ Allows the multidirectional approach

How to brainstorm and build on ideas

BRAINSTORMING THEME:

Redesign gym experience

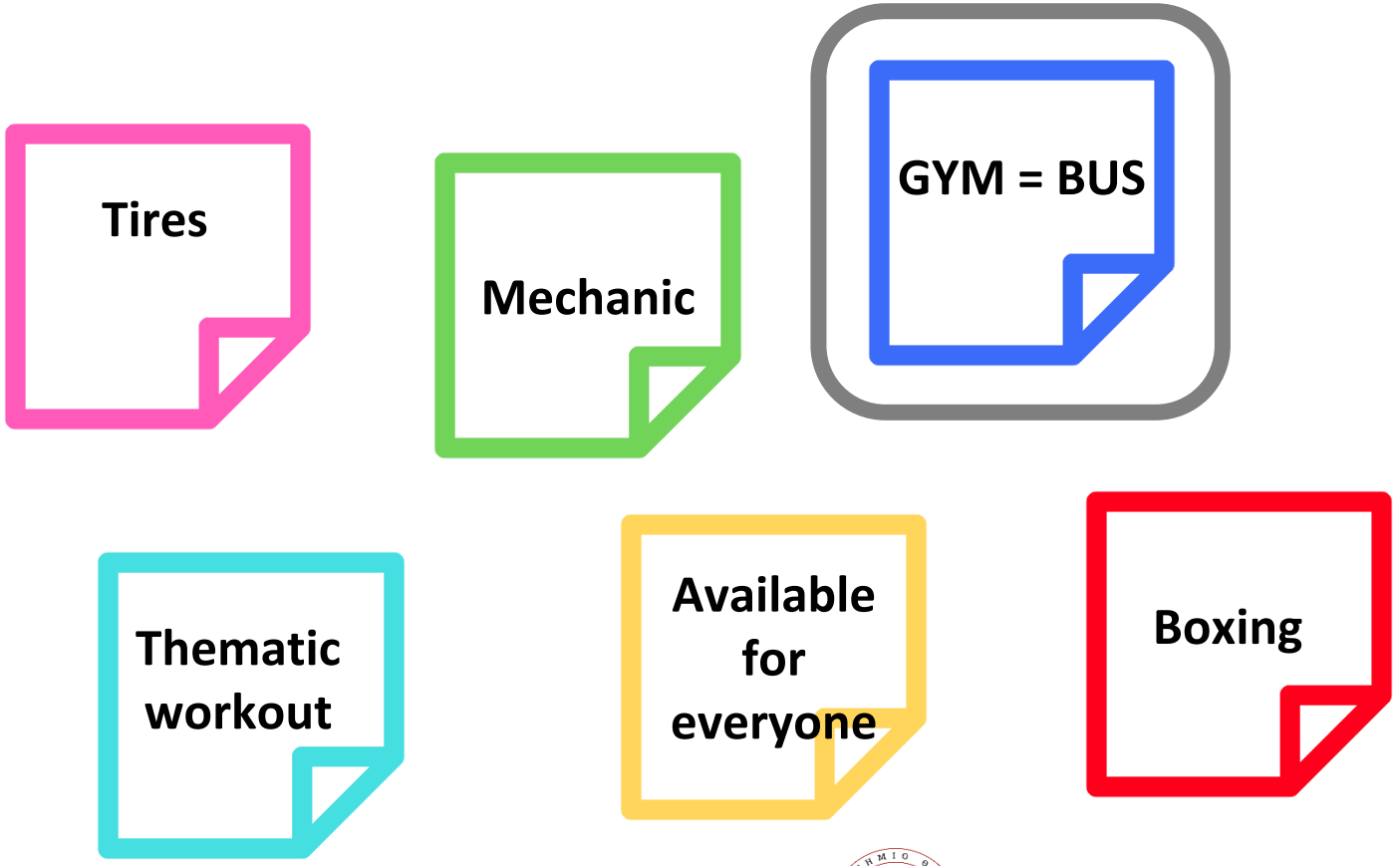
Initial set of ideas

How to brainstorm and build on ideas

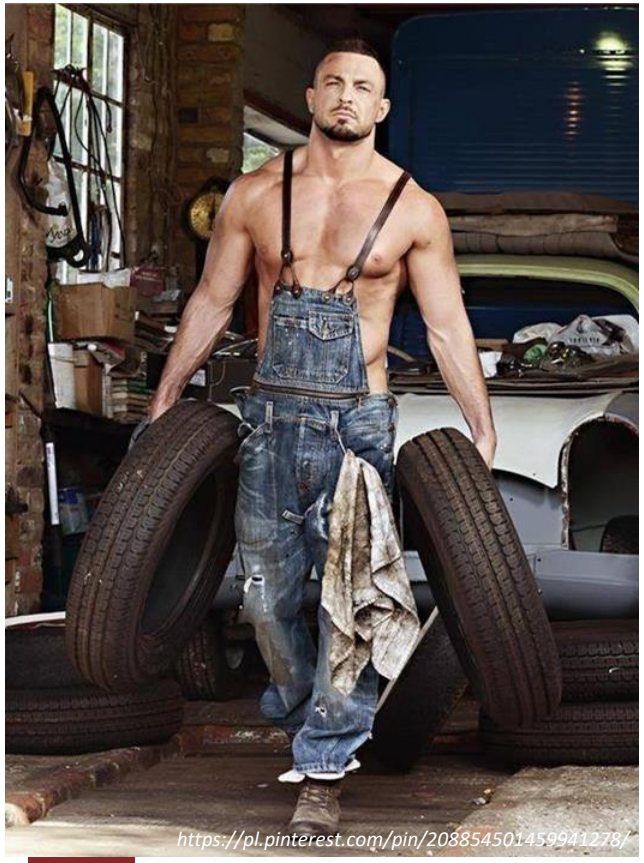
BRAINSTORMING THEME:

Redesign gym experience

Second set of ideas



How to brainstorm and build on ideas



Tires

Mechanic

GYM = BUS

Thematic workout

Available for everyone

Boxing

How to brainstorm and build on ideas

Gym resembling car repair shop

IMPORTANT ASPECTS OF AN IDEA

- Bonus motivator (picture)
- No such solution in Poland
- PUBS/ restaurants decoration easy to adjust (cheap)
- Multiple ways of interior design

How to brainstorm and build on ideas

Tires

Mechanic

GYM = BUS

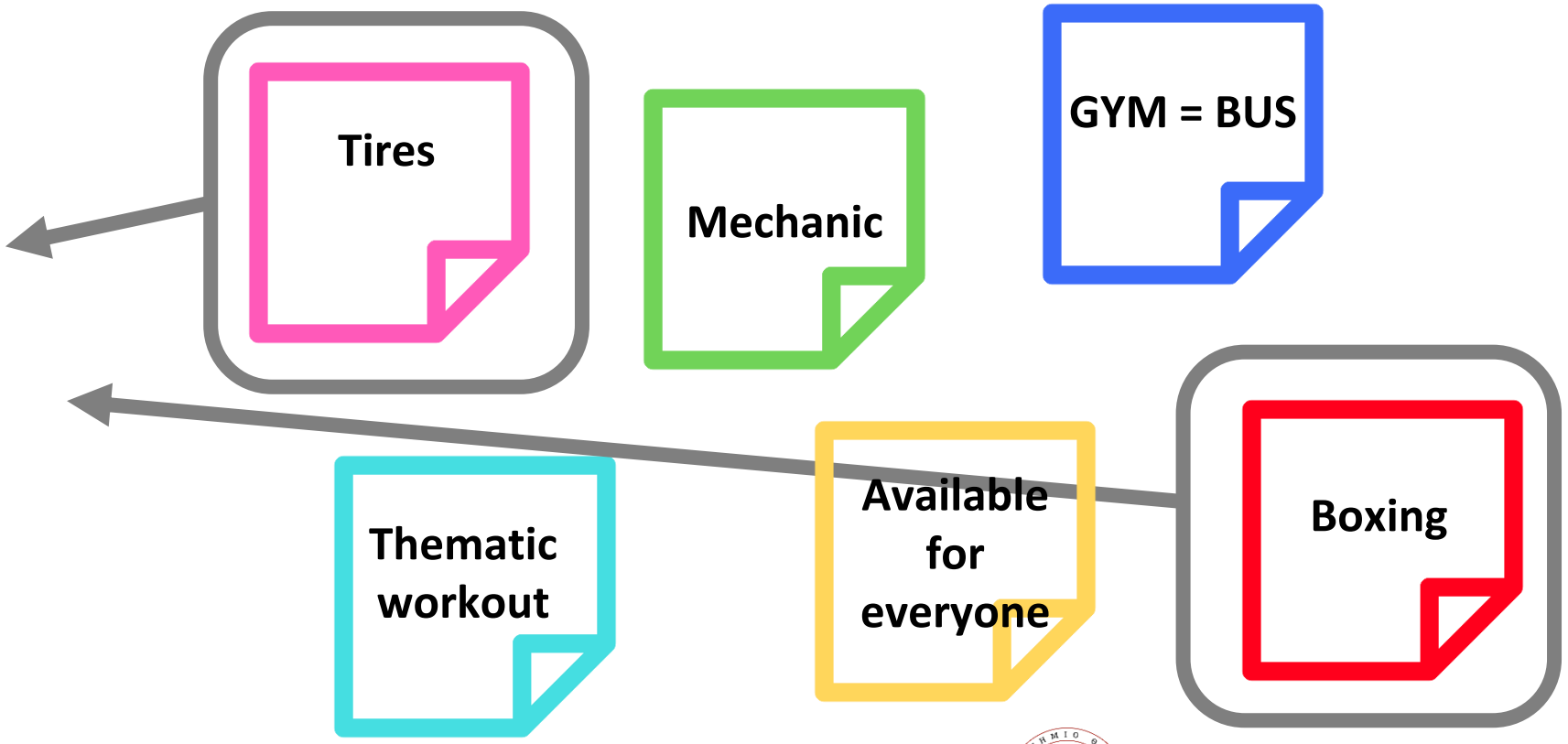
Thematic workout

Available for everyone

Boxing

How to brainstorm and build on ideas

Use of punching bag made of tires



IMPORTANT ASPECTS OF AN IDEA

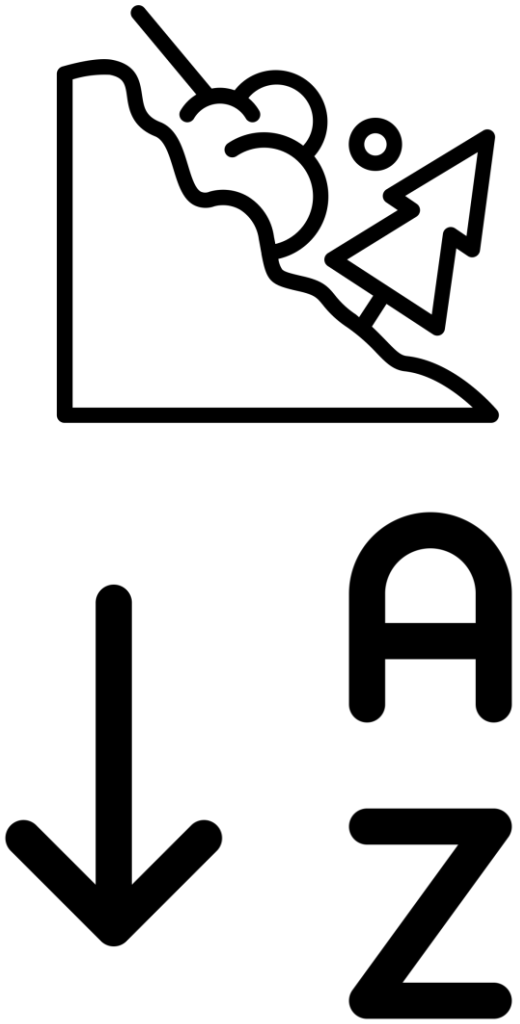
- Available on the market
- No skin damage/alergies etc.
- Various combat styles
- Tires re-use
- Possible social aspect

Let’s get to work on finding solution!

✓ **5 minutes** for traditional brainstorming session in your group

(each person separately)

✓**15 minutes** to refer brainstorming results within the group & grouping



Let's brainstorm! using ABC avalanche method

Step 1. On the top of the page, write down your problem statement

Step 2. Find solutions to this problem, each solution starting with each single letter of the alphabet

A… B… C…

utes to complete the task

Let’s brainstorm!

With some contraints

Add at least 2 solutions for the problem, that link with

BIG AMOUNT OF MONEY $$$

utes to complete the task

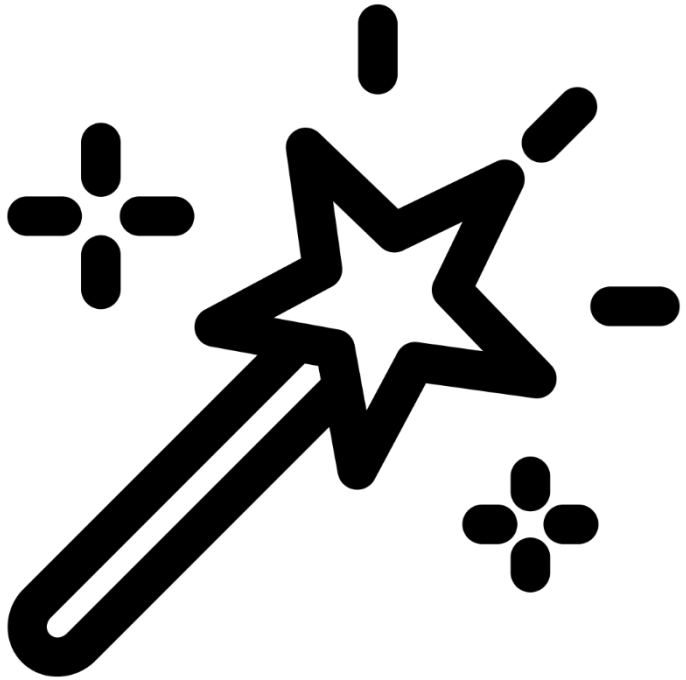
Let’s brainstorm!

With some contraints

Add at least 2 solutions for the problem, that link with

SOCIAL DISCONTENT

utes to complete the task



Let’s brainstorm!

With some contraints

Add at least 2 solutions for the problem, that link with

MAGIC

utes to complete the task

Let’s get to work on finding solution!

✓ **10 minutes** to refer to new brainstorming results

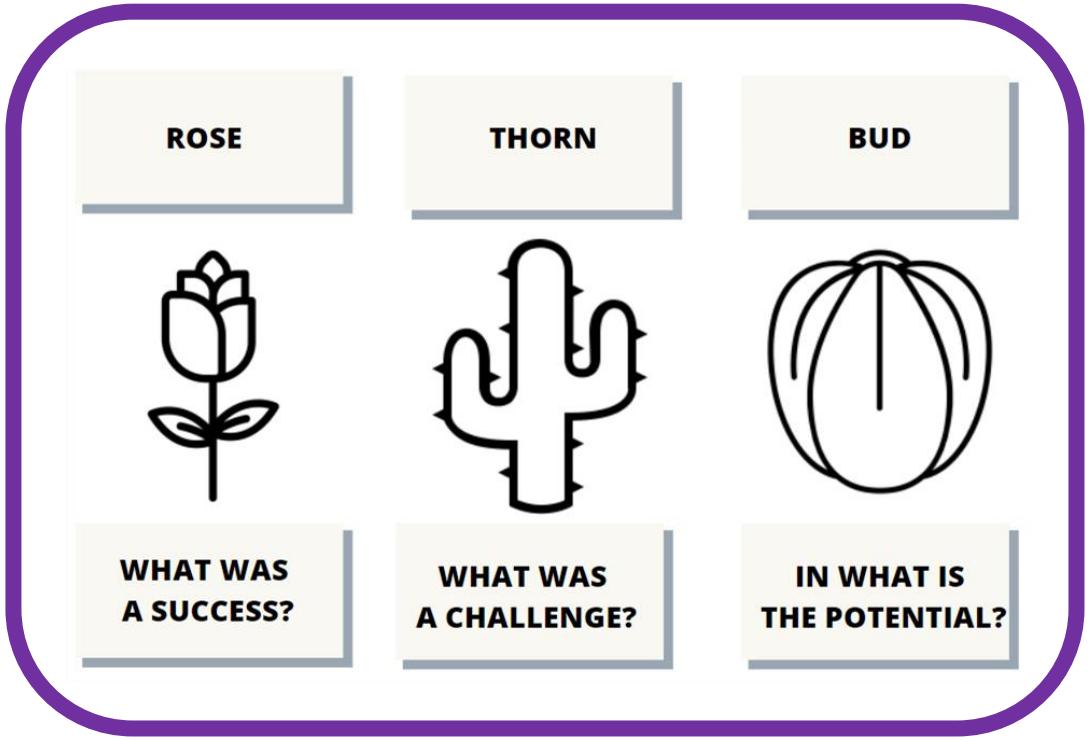
within the group & grouping

Evaluation of ideas & idea selection TOOLS

FEASIBLE

ATTRACTIVE

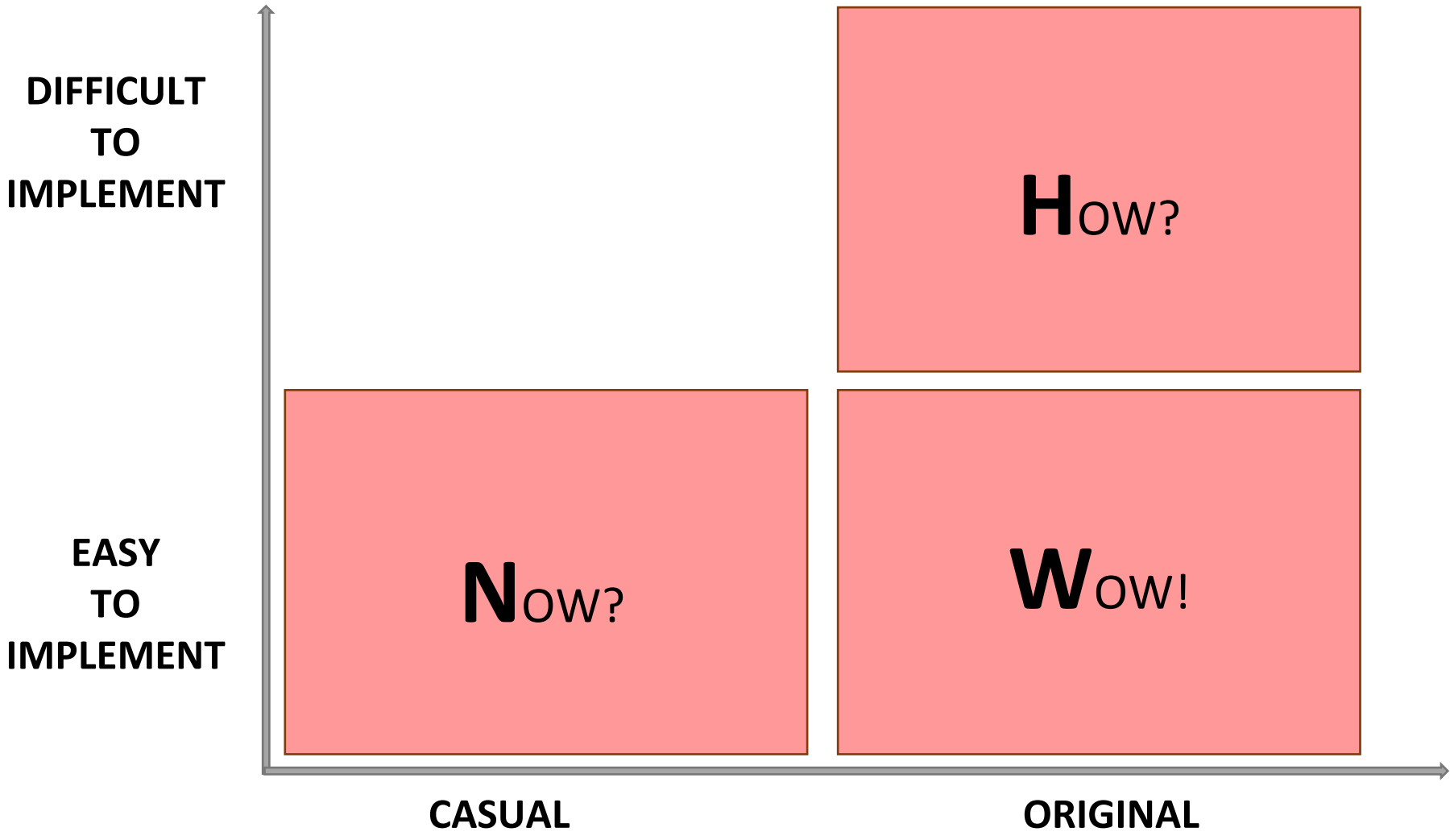
NOVEL

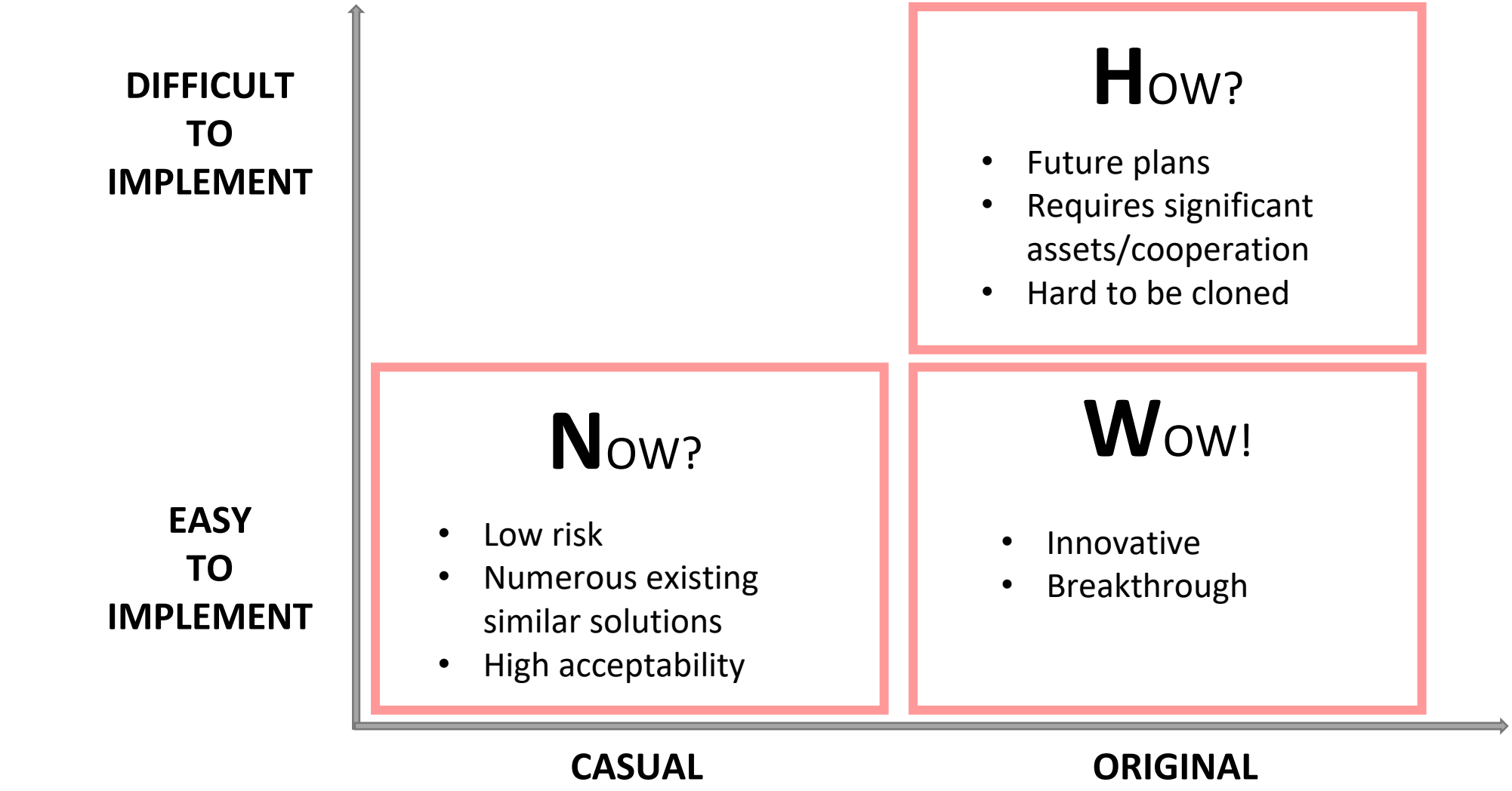


NOW

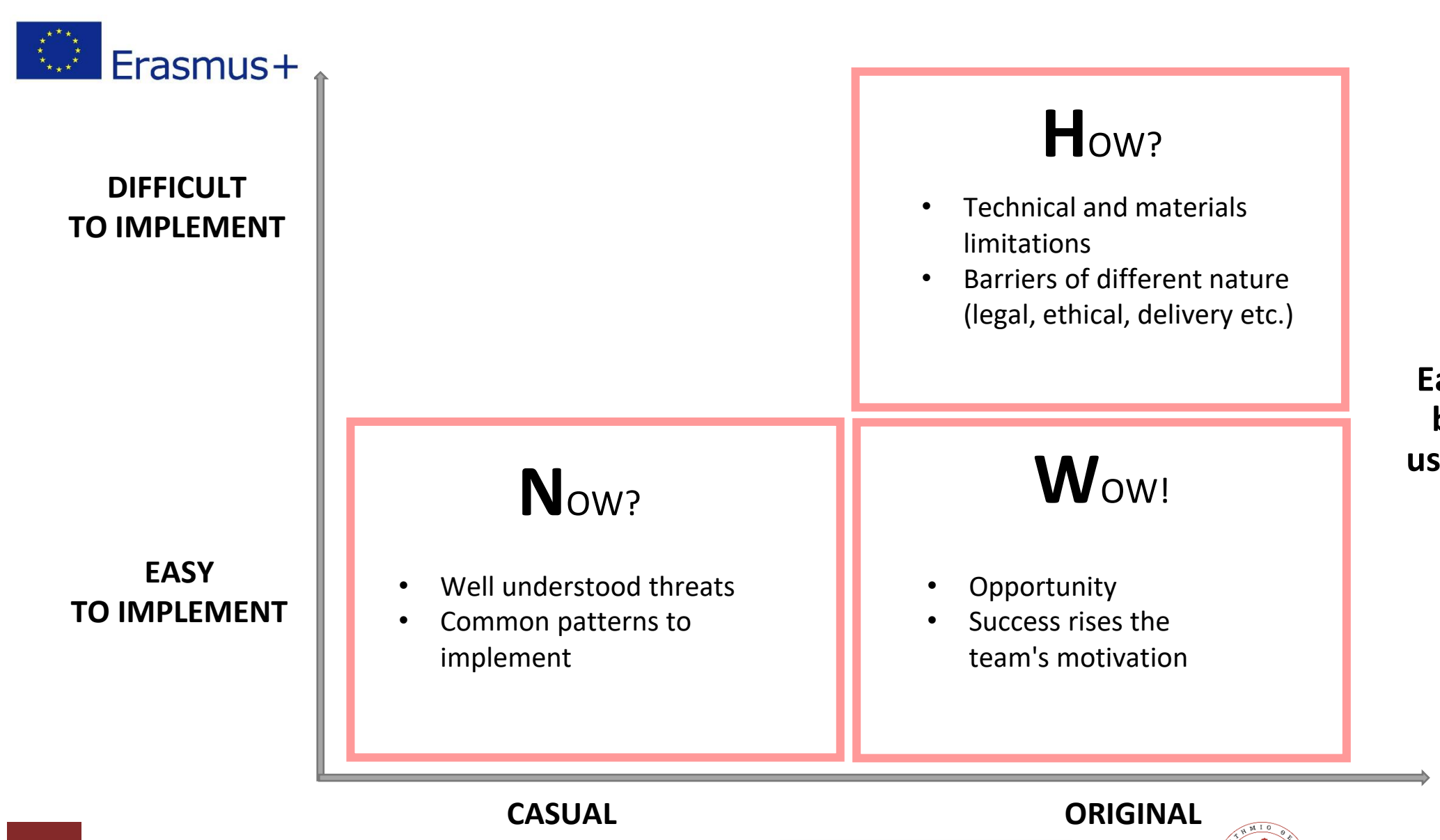
HOW

WOW


DIFFICULT TO IMPLEMENT
EASY TO IMPLEMENT
HOW?
NOW?
WOW!
CASUAL
ORIGINAL



Choice is dependent on the phase of project and devotion of the team



Each polygon can be related with useful information to extract

Let’s evaluate your solutions!

✓ **15 minutes** solutions evaluation using

NowHowWow method

Before the next stage

✓ **Select 3** solutions to your problem

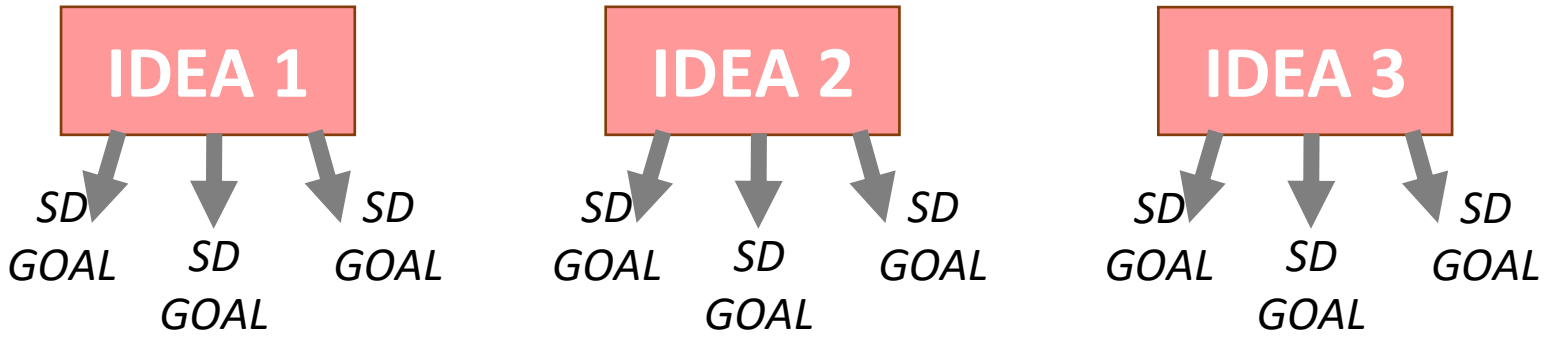
(we will work on them later!)

Further evaluation of ideas

SUSTAINABILITY MEASURE

your SD goal

- For each of your solutions, select 3 SD goals that they are related to. **EXPLAIN WHY**



- Briefly describe how each of your 3 solutions fit the circular economy aspects?

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https://www.hiltonfoundation.org/sdgs

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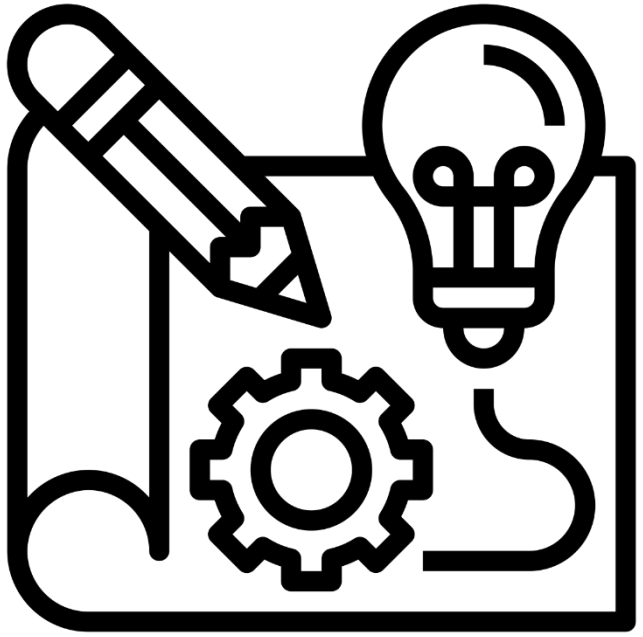
And this leads to the prototyping stage…



- What materials would you use to create the real solution?
- Are these materials reusable/recyclable?
- How can you manufacture/make it?

And this leads to the prototyping stage…

MAKE IT!

- ❑ Describe what are the **key features** that must be implemented to get a **Successful Product/Service** that answers the problem you have?
- ❑ Describe what are the **functions that are important, but not critical**, that can be performed differently.
- ❑ Describe what are the features of your design that would be beneficial but don't make a significant change to the user experience.

The end

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IMPLEMENT
Make Your Idea Real

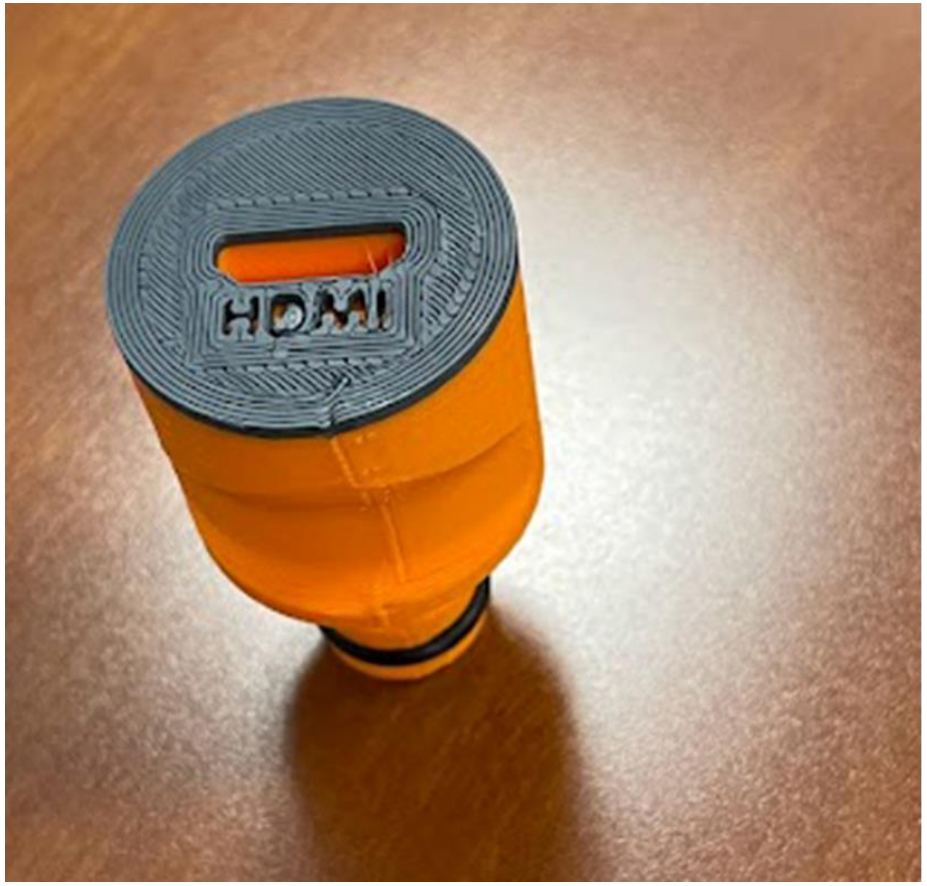
Stage and tools

Implementation of new tools

- Not clear
- Have to be introduced

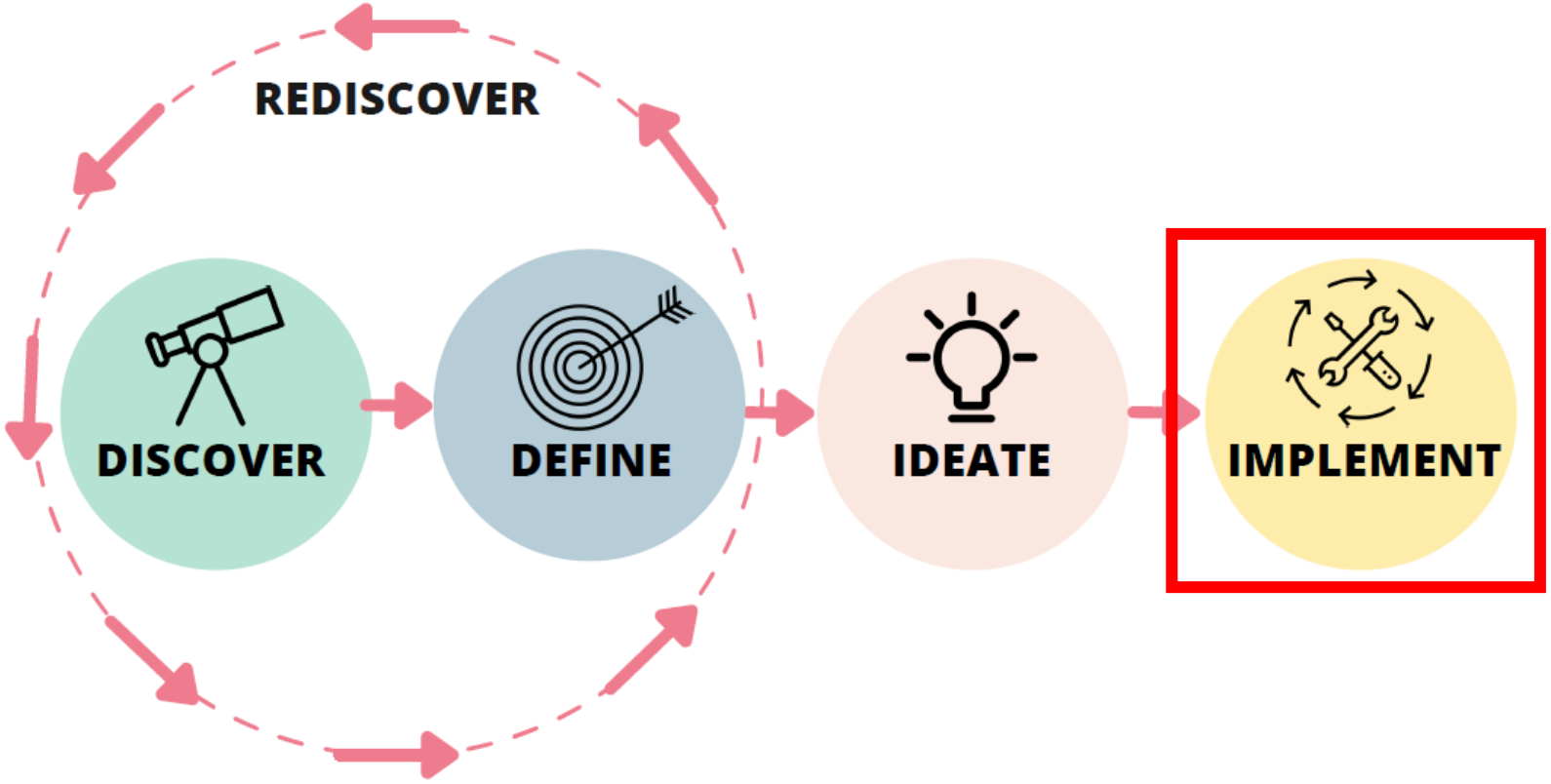
Source: **Joke of the day: Grandpa and iPad**
https://www.youtube.com/watch?v=U2gQE0J00UE

What is this tool about?



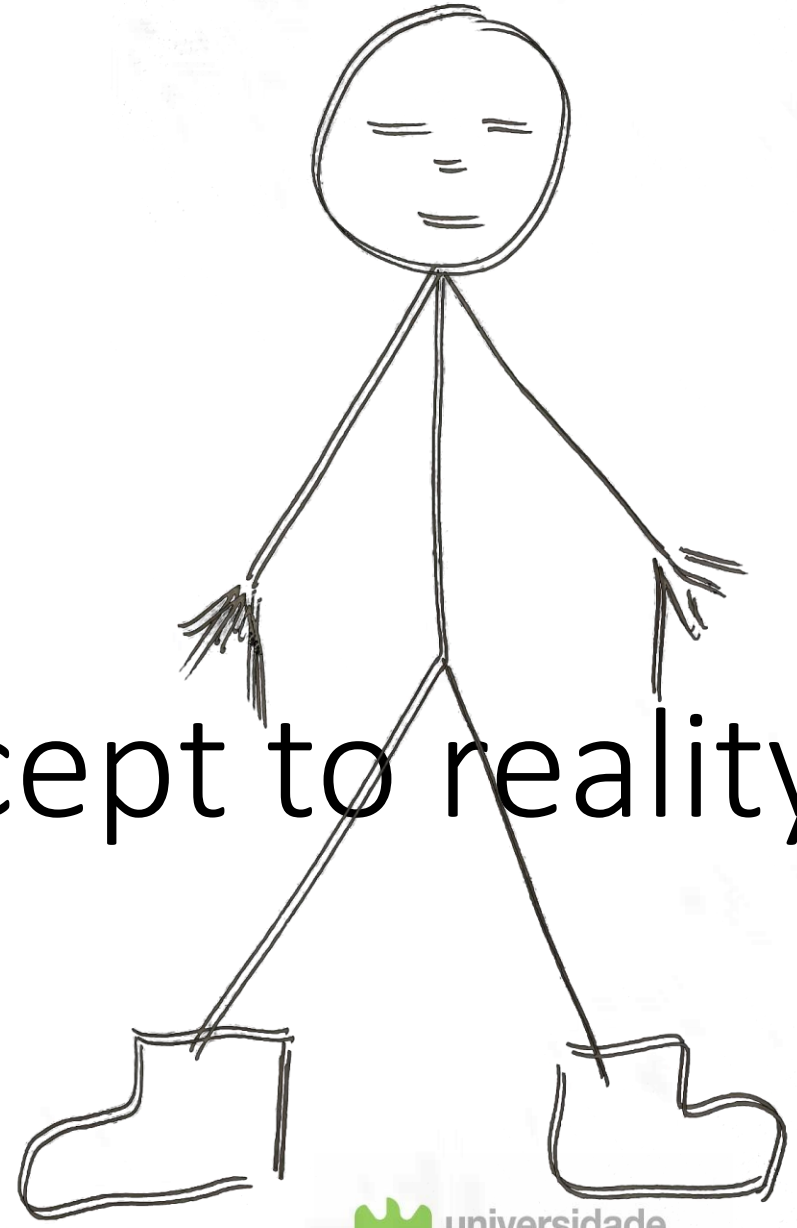
Source:
https://www.3dprintthisout.store/en/boutique/divers/adapteur-hdmi-gardena-imprime-en-3d/

Implement



Source: Own creation

From concept to reality



Source: own creation

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SUSTAINABLE DEVELOPMENT GOALS

SUSTAINABLE DEVELOPMENT GOALS

Source:
United Nation, #Envision2030: 17 goals to transform the world for persons with disabilities
https://www.un.org/development/desa/disabilities/envision2030.html

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БИТ

Shift from … to … implementation

Source: Image by valadzionak_volha on Freepik
https://www.freepik.com/free-vector/earth-clean-dirty_7858400.htm#page=4&query=dirty%20planet&position=11&from_view=search&track=sph

SMART objectives

Source: Image by nuraghies on Freepik https://www.freepik.com/free-vector/red-dart-arrow-hitting-target-center-dartboard_28563661.htm#query=target&position=1&from_view=search&track=sph

Specific – you know exactly what the author wants to happen.

Measurable – you can objectively measure or assess whether the team achieved the result.

Achievable – the objective is something you can actually get done (no “stretch objectives”).

Result – the objective is a result you desire and not an activity.

Time-bound – the team must complete the objective by a deadline, to create urgency and priority.

Implementation plan – how to develop?

Prototype

Prototype

Test

Feedback

Model

- Get Visual
- Determine What to Prototype – De Bono's thinking hats
- Journey Map
- Rapid Prototyping
- Storyboard
- Role Play
- Co-Creation Session
- Mindmap

CREATIVITY

Ideas, alternatives, possibilities

Lateral thinking

PROCESS

Thinking about thinking

Planning for action

FACTS

Information and data

Neutral and objective

What do I know?

How will I get the information I need?

De Bono Thinking hats

CAUTION

Caution, critical thinking

Why something may not work

FEELINGS

Intuition, hunches

My feelings right now

No reasons are given

BENEFITS

Optimism

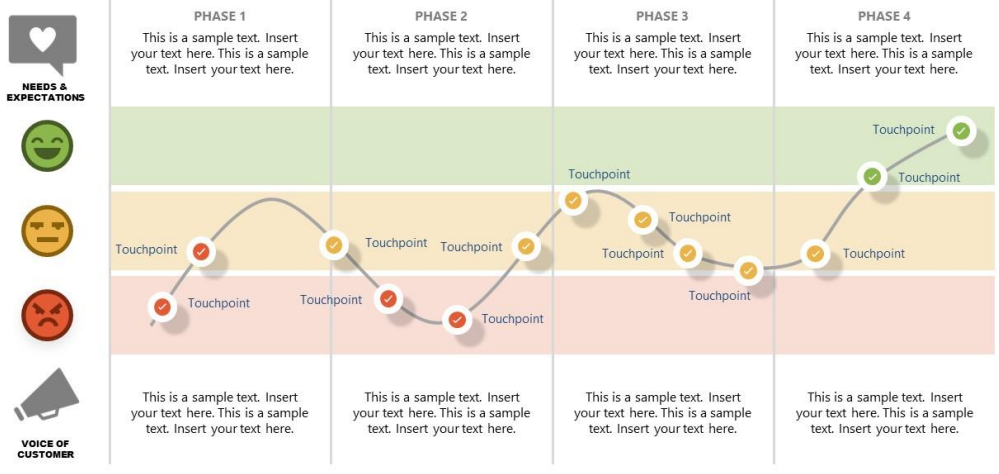
Positives, plus points

Logical reasons are given

Source: https://urbact.eu/toolbox-home/de-bono-thinking-hats

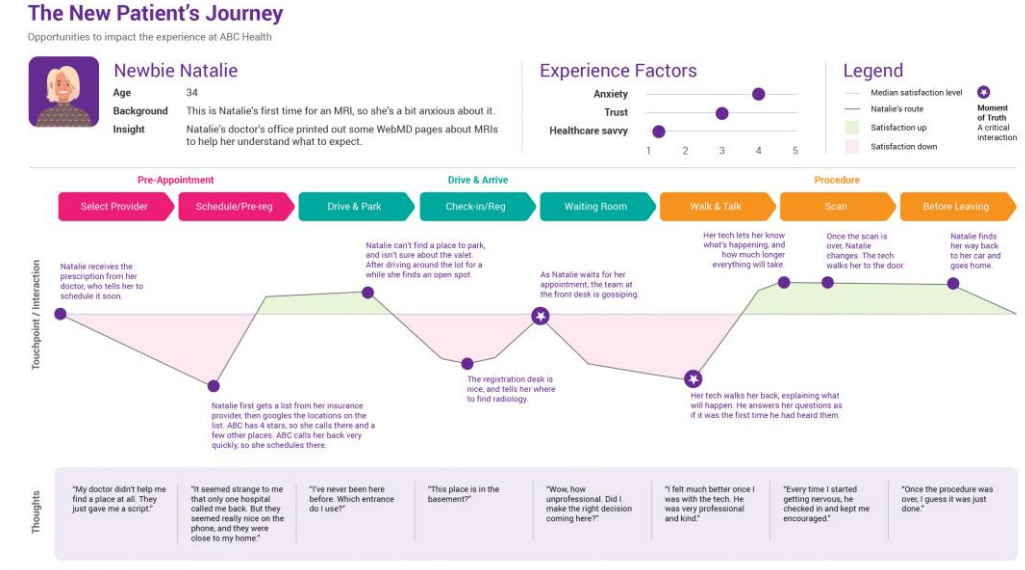
Journey Map

Free Customer Journey Map Template

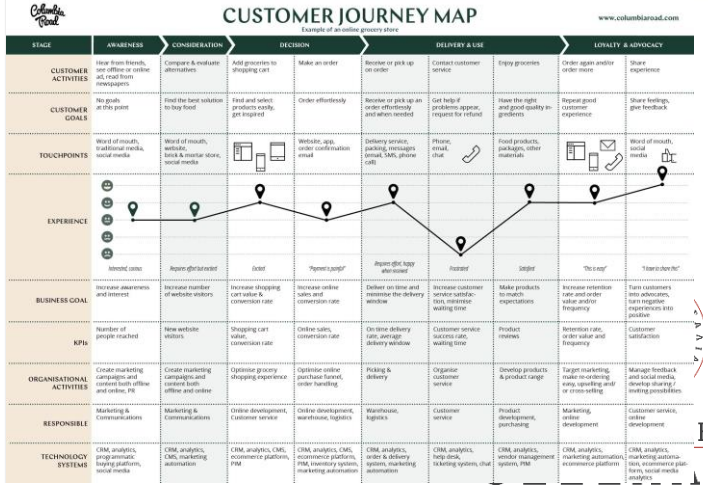


Source: https://slidemodel.com/free-powerpoint-templates/free-customer-journey-map-template-for-powerpoint/

Source: https://app.moqups.com/edit/page/ad64222d5

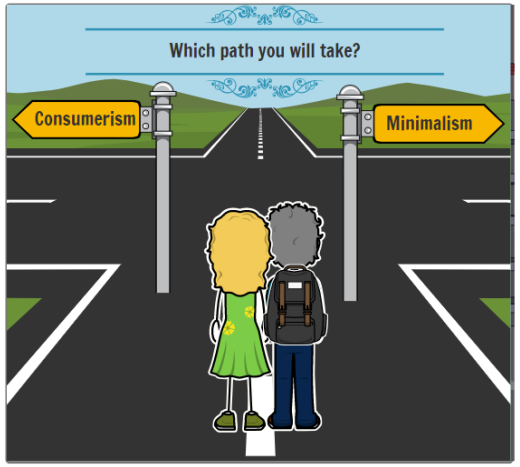


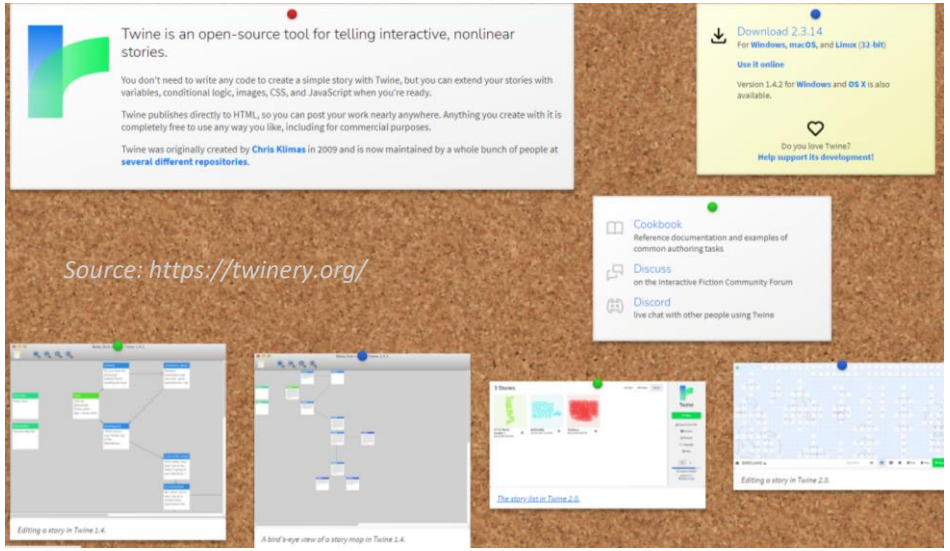
Source: https://www.customerthermometer.com/customer-experience/customer-journey-mapping-templates/



Source: https://www.columbiaroad.com/blog/why-and-how-to-create-a-customer-journey-map-download-free-template

Storyboard - Storytelling





Source: Created by Storyboard creator, https://www.storyboardthat.com/storyboard-creator

ΘΕΣΣΑΛΙΑΣ

Prototype

Source: Image by pch.vector on Freepik
https://www.freepik.com/free-vector/eco-volunteers-cleaning-sea_7416547.htm#query=cleaning%20planet&position=1&from_view=search&track=sph

Test

Prototype

Test

Feedback

Model

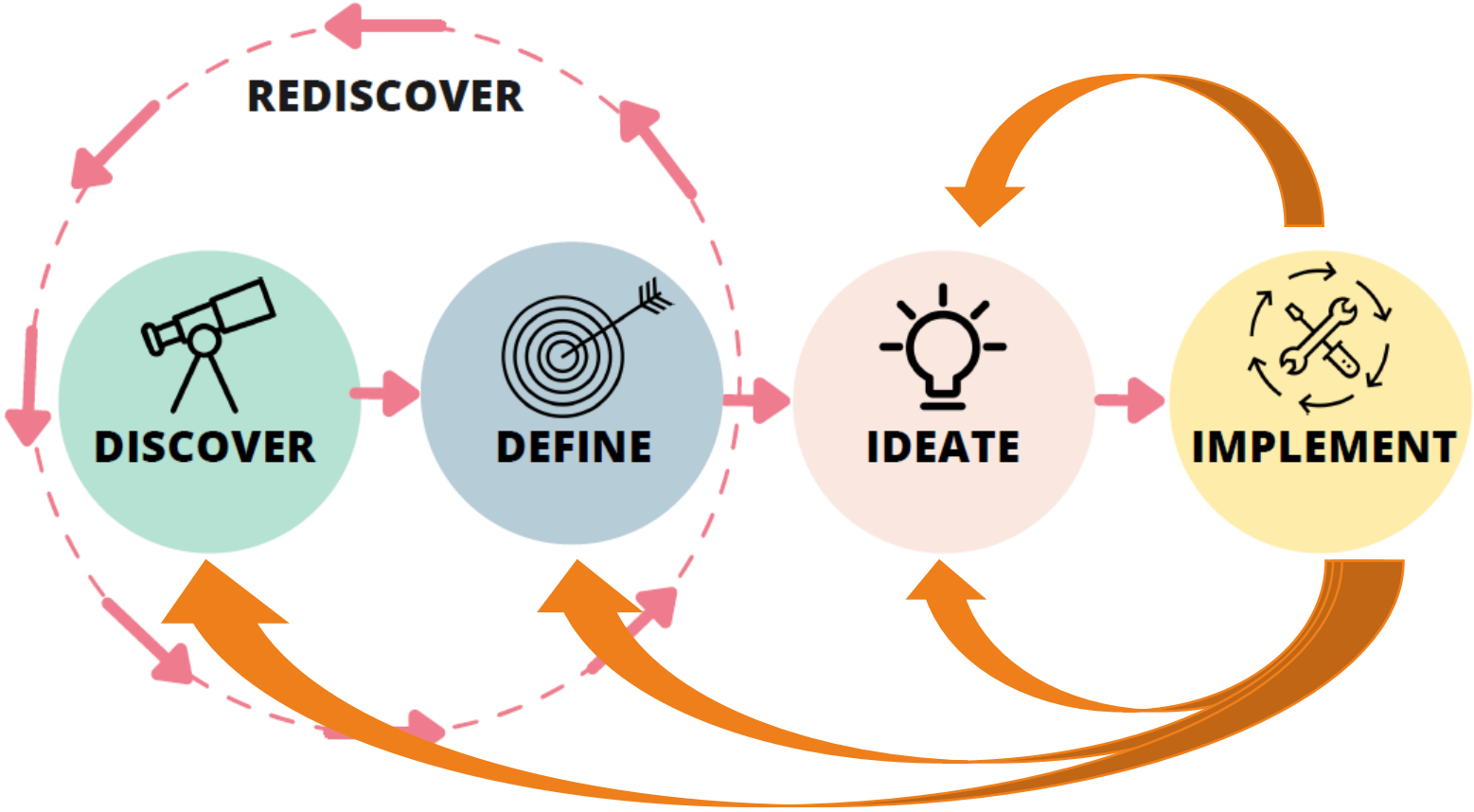
- **Live Prototyping** - a chance to run your solution for a couple weeks out in the real world.
- **Keep Iterating** -help you get a great solution to market and let you know where to push it when you do.
- **Build Partnerships** - stakeholders/partnerships map.
- **Roadmap** - timeline and a plan of action to get your idea out into the world
- **Sustainable Revenue** - financial spreadsheets and forecast on how the revenue of a certain product/solution/service would look like.
- **Measure and Evaluate** - design the ways that you'll measure and grow it into your solution.

Feedback

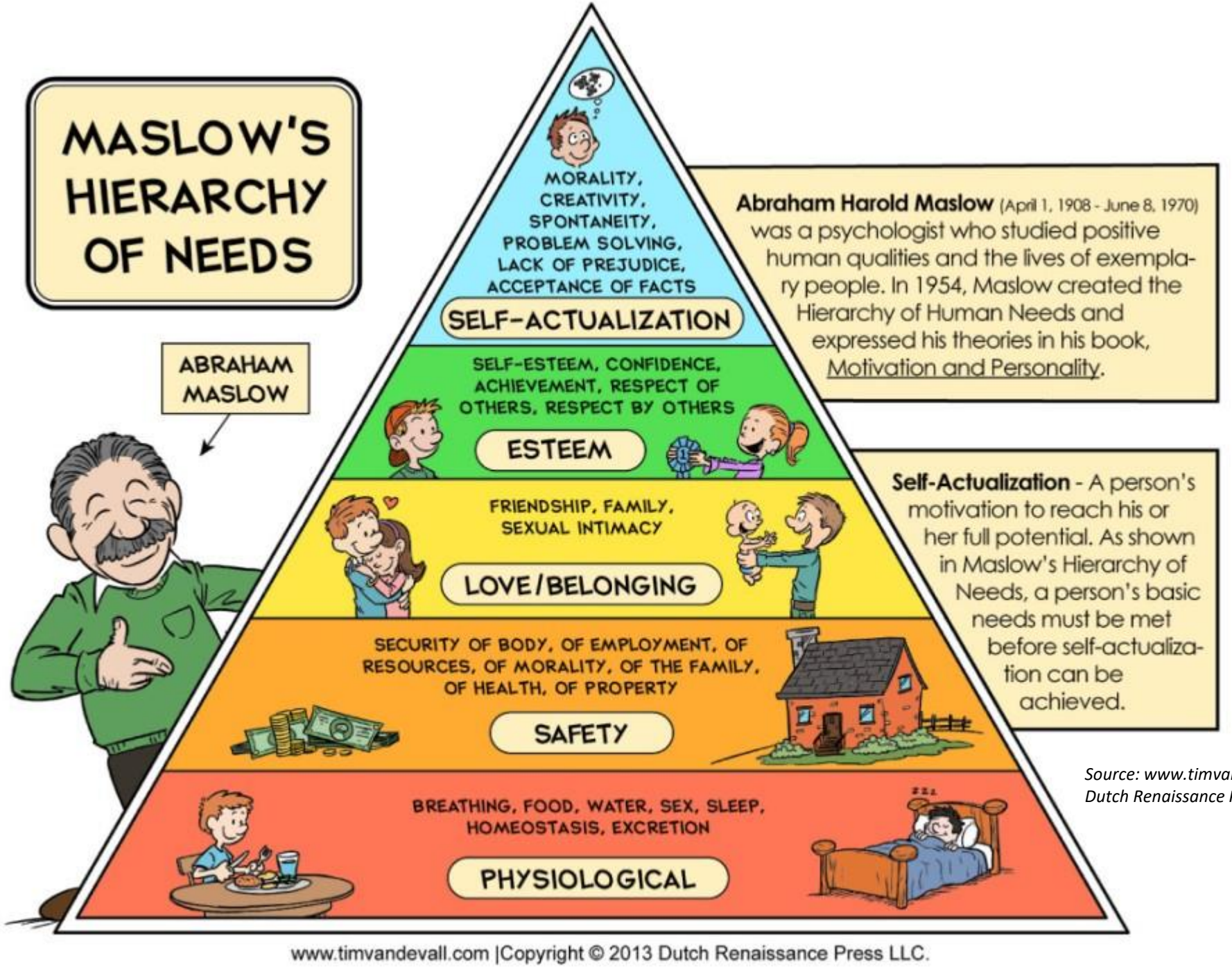
- Do you remember Discover?
  - Interview
  - Questionnaires
  - Observation
  - Immersion
  - Empathy
  - Research
- What have we got to use now?

Feedback

- Prototype
- Test
- Feedback
- **Model**



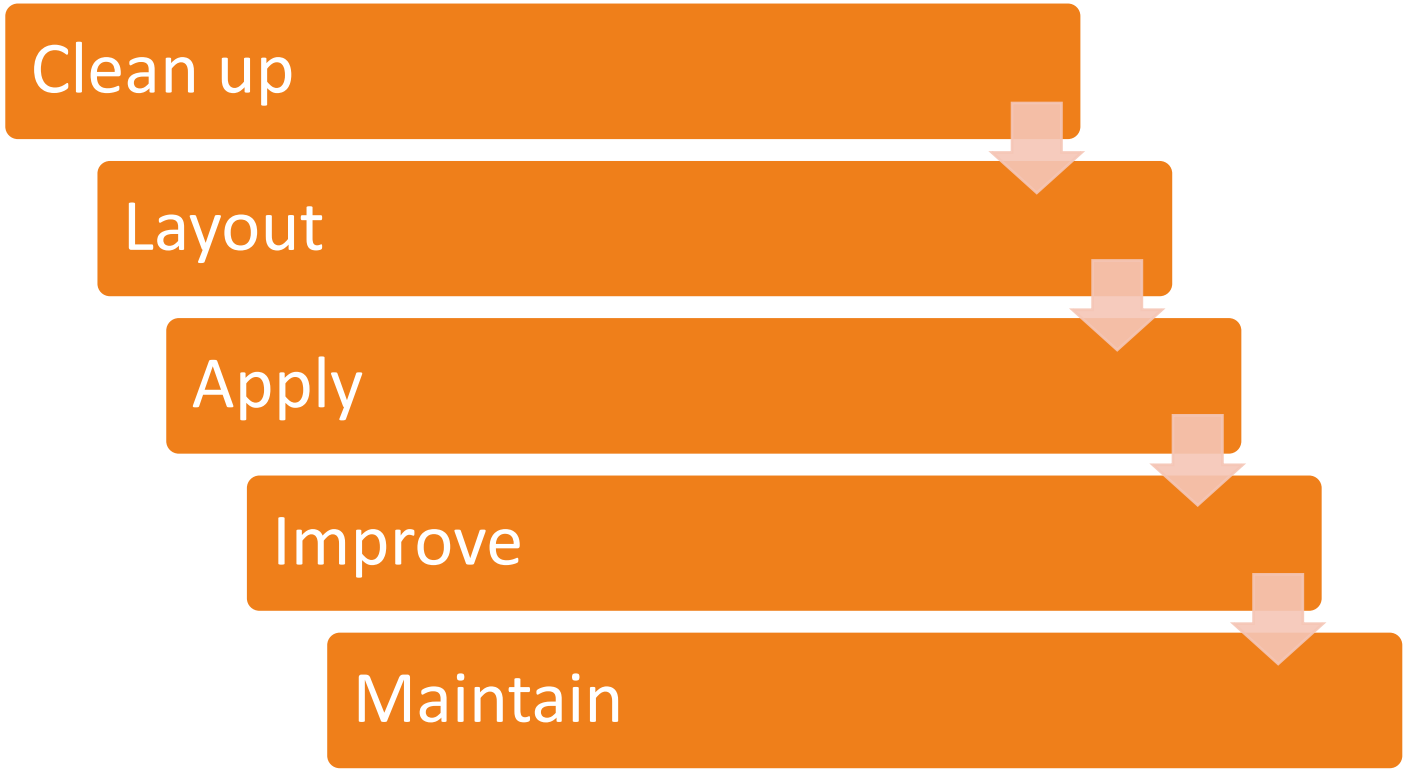
Source: Own creation



Source: www.timvandevall.com
Dutch Renaissance Press LLC 2013

CLAIM Model

- Prototype
- Test
- Feedback
- **Model**



CLAIM Model

Source: Image by brgfx on Freepik https://www.freepik.com/free-vector/illustration-with-pollutions-earth_6907492.htm#query=pollution&position=26&from_view=search&track=sph

Source: Image by stephanie2212 on Freepik https://www.freepik.com/free-vector/hand-drawn-save-ocean-banner_22162244.htm#query=cleaning%20planet&position=5&from_view=search&track=sph

Source: Image by storyset on Freepik https://www.freepik.com/free-vector/save-earth-concept-illustration_23506590.htm#query=clean%20planet&position=2&from_view=search&track=sph

Source: Image by valadzionak_volha on Freepik https://www.freepik.com/free-vector/earth-clean-dirty_7858400.htm#page=4&query=dirty%20planet&position=11&from_view=search&track=sph

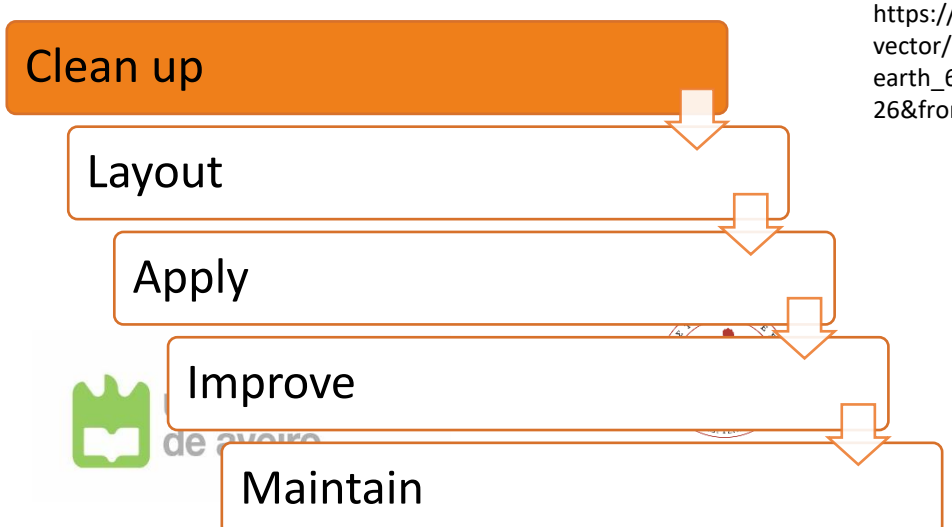
Implementation

Source:Implementation - Georgia Tech - Software Development Process
https://www.youtube.com/watch?v=skpVpuB8VBY

CLAIM Model – Clean up

- Walk the current process
- Review current steps
- Assess what is required to bring new
- Prepare the environment for new
- Set expectation for change

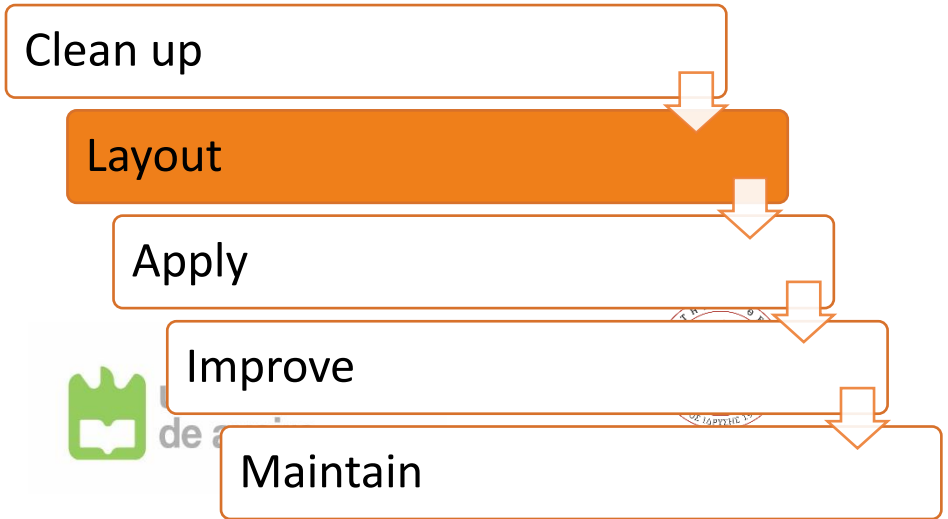
Source: Image by brgfx on Freepik https://www.freepik.com/free-vector/illustration-with-pollutions-earth_6907492.htm#query=pollution&position=26&from_view=search&track=sph



CLAIM Model - Layout

- Map the new solution
- Assign role, activities & audits
- Develop the standards & reporting
- Entrench through training

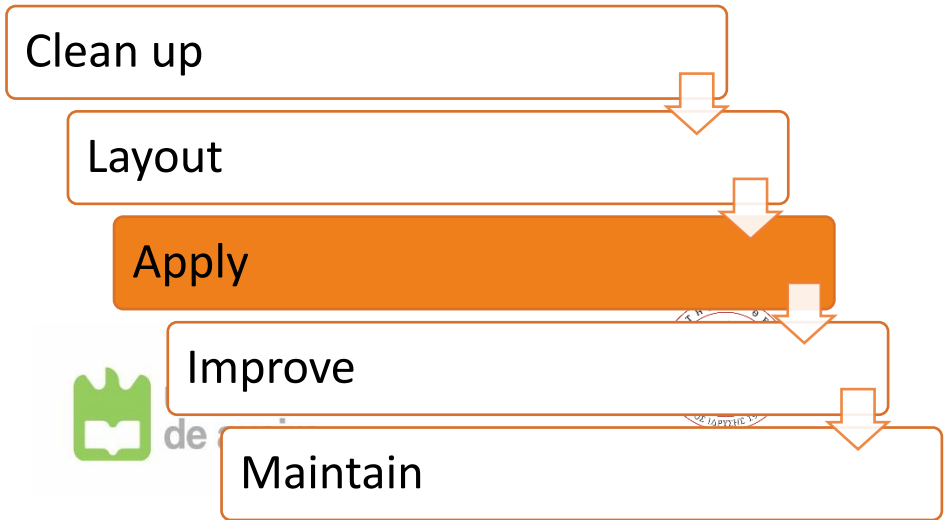
Source: Image by pch.vector on Freepik https://www.freepik.com/free-vector/eco-volunteers-cleaning-sea_7416547.htm#query=cleaning%20planet&position=1&from_view=search&track=sph



CLAIM Model - Apply

- Begin using
- Audit to ensure standard is followed
- Retrain as needed
- Document lessons

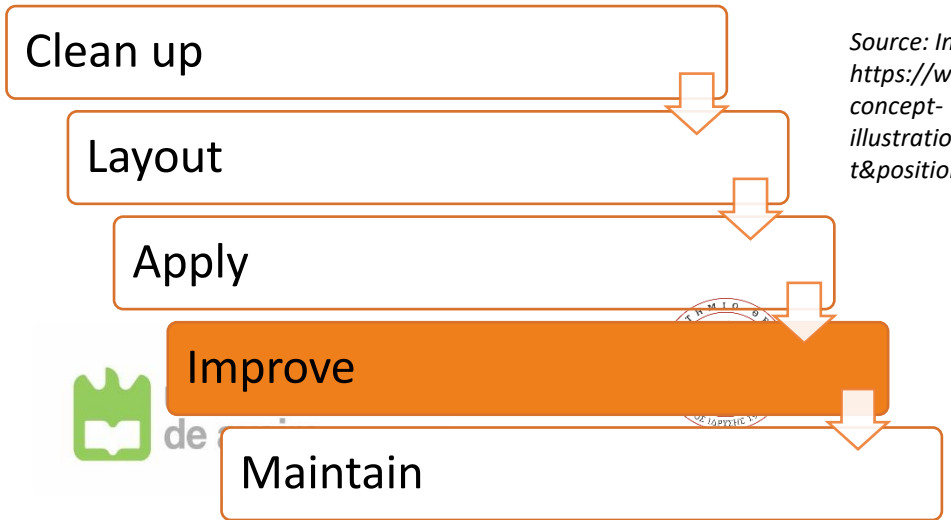
Source: Image by pch.vector on Freepik https://www.freepik.com/free-vector/eco-volunteers-cleaning-sea_7416547.htm#query=cleaning%20planet&position=1&from_view=search&track=sph



CLAIM Model - Improve

- Find improvement opportunities
- Review opportunities
- Approve opportunities
- Make changes
- Ensure update of steps and retraining take place

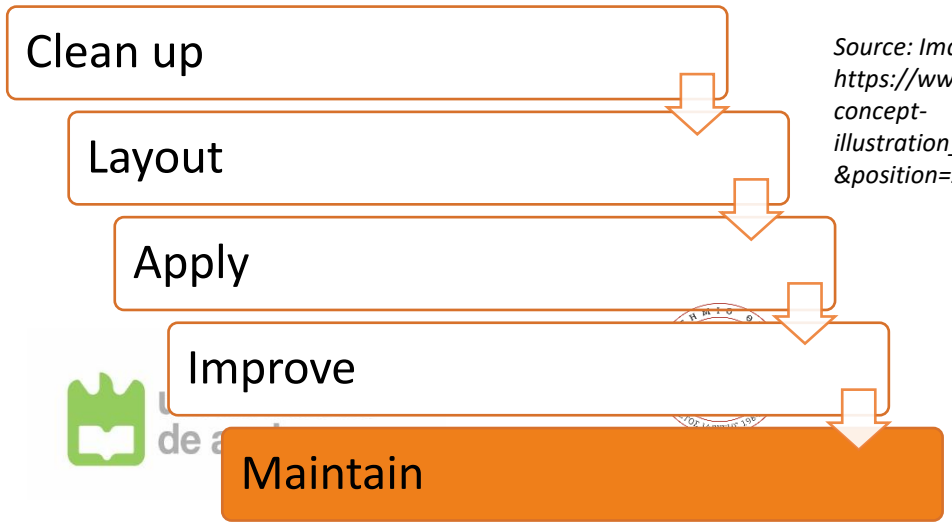
Source: Image by storyset on Freepik https://www.freepik.com/free-vector/save-earth-concept-illustration_23506590.htm#query=clean%20planet&position=2&from_view=search&track=sph



CLAIM Model - Maintain

- Follow new steps
- Audit as planned
- Continue to improve
- Evaluate periodically

Source: Image by storyset on Freepik https://www.freepik.com/free-vector/save-earth-concept-illustration_23506590.htm#query=clean%20planet&position=2&from_view=search&track=sph



Implementation - CLAIM Model

Source: Image by brgfx on Freepik https://www.freepik.com/free-vector/illustration-with-pollutions-earth_6907492.htm#query=pollution&position=26&from_view=search&track=sph

Source: Image by stephanie2212 on Freepik https://www.freepik.com/free-vector/hand-drawn-save-ocean-banner_22162244.htm#query=cleaning%20planet&position=5&from_view=search&track=sph

Source: Image by storyset on Freepik https://www.freepik.com/free-vector/save-earth-concept-illustration_23506590.htm#query=clean%20planet&position=2&from_view=search&track=sph

Source: Image by valadzionak_volha on Freepik https://www.freepik.com/free-vector/earth-clean-dirty_7858400.htm#page=4&query=dirty%20planet&position=11&from_view=search&track=sph

The end

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Project no. 2019-1-PL01-KA203-065784

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Why we need to talk about sustainability?

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Are you green or sustainable?

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Are you green or sustainable?

- Going green refers to all aspects of environmentally-friendly products from fashion to buildings to the movement as a whole.
- Sustainability means that what we do today doesn't deplete resources for future generations.
- Some products can be green due to their appearance, but they are not sustainable due to their production (e.g. life-cycle analysis).

Sustainability

- Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs.
- Sustainability is a holistic approach that considers ecological, social and economic dimensions, recognizing that all must be considered together to find lasting prosperity.

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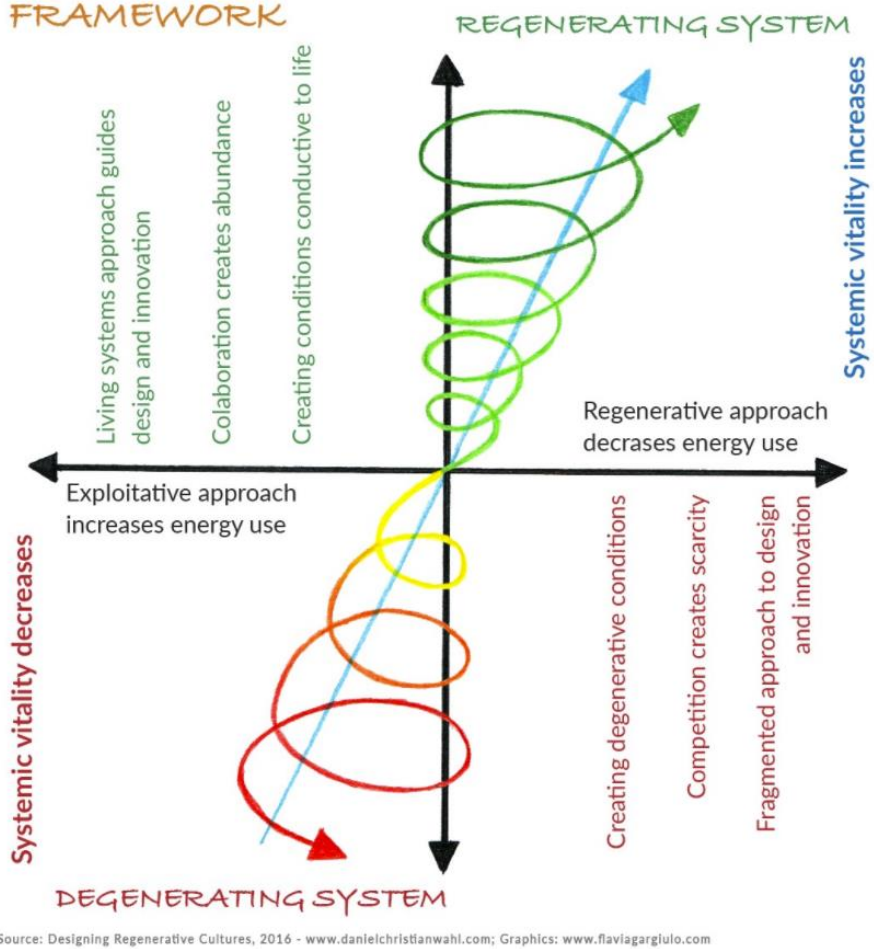
THE REGENERATIVE DESIGN FRAMEWORK



Source: Designing Regenerative Cultures, 2016 - www.danielchristianwahl.com; Graphics: www.flaviagargiulo.com

Regenerative
Appropiate participation and deisgn as nature.

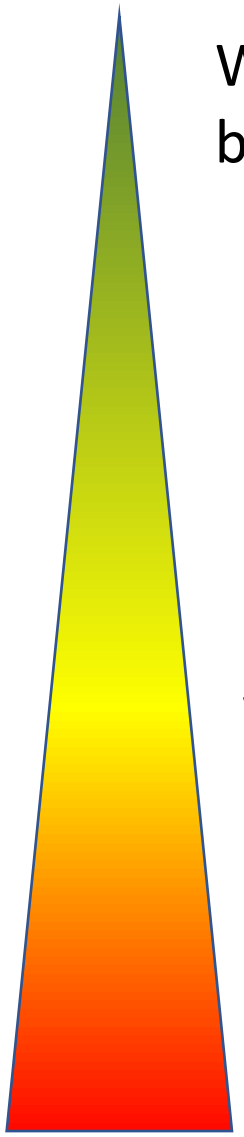
Reconciliatory
Reintegrating humans as integral parts of nature.

Restorative
Humans doing thing to nature.

Sustainable
Neutral point of not doing any more damage.

Green
Relative improvements.

Conventional practice
Compliants to avoid legal actions.



Where we need to be

Where we want to be

Where we are

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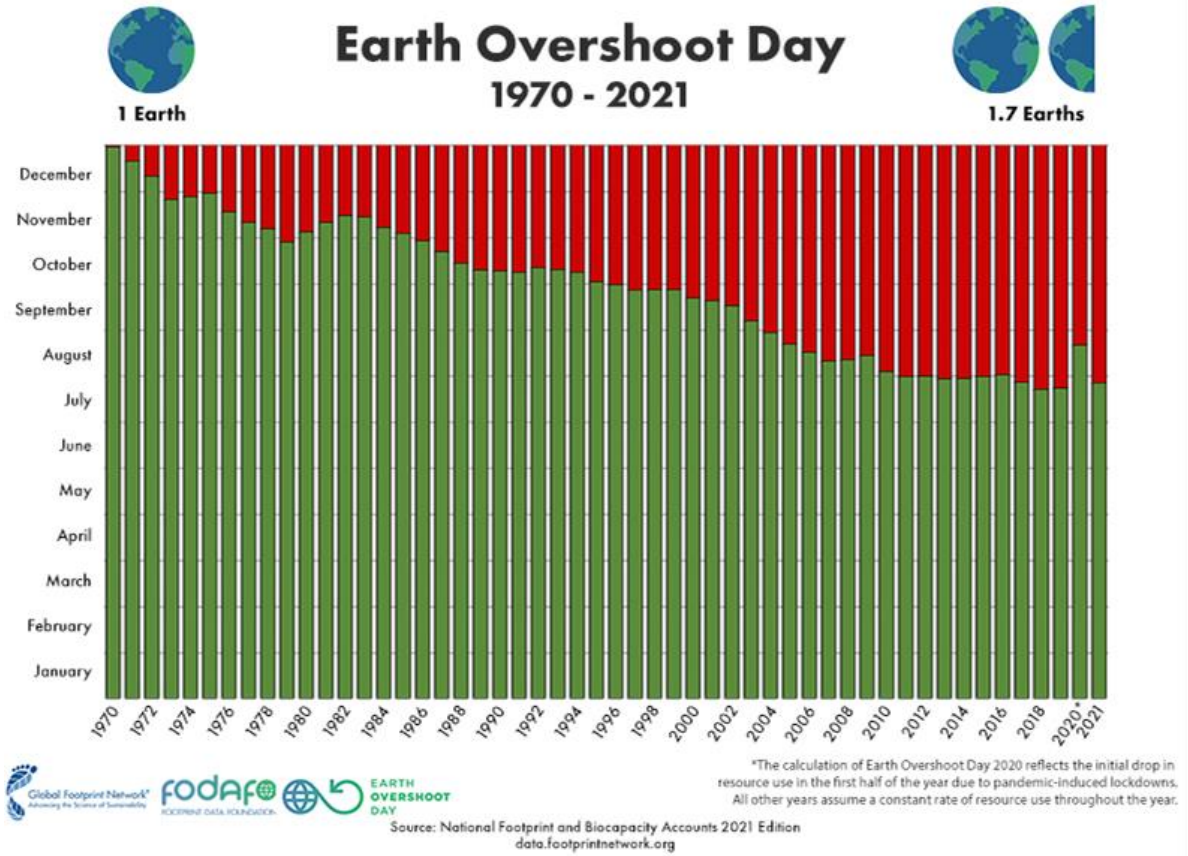
Earth overshoot day

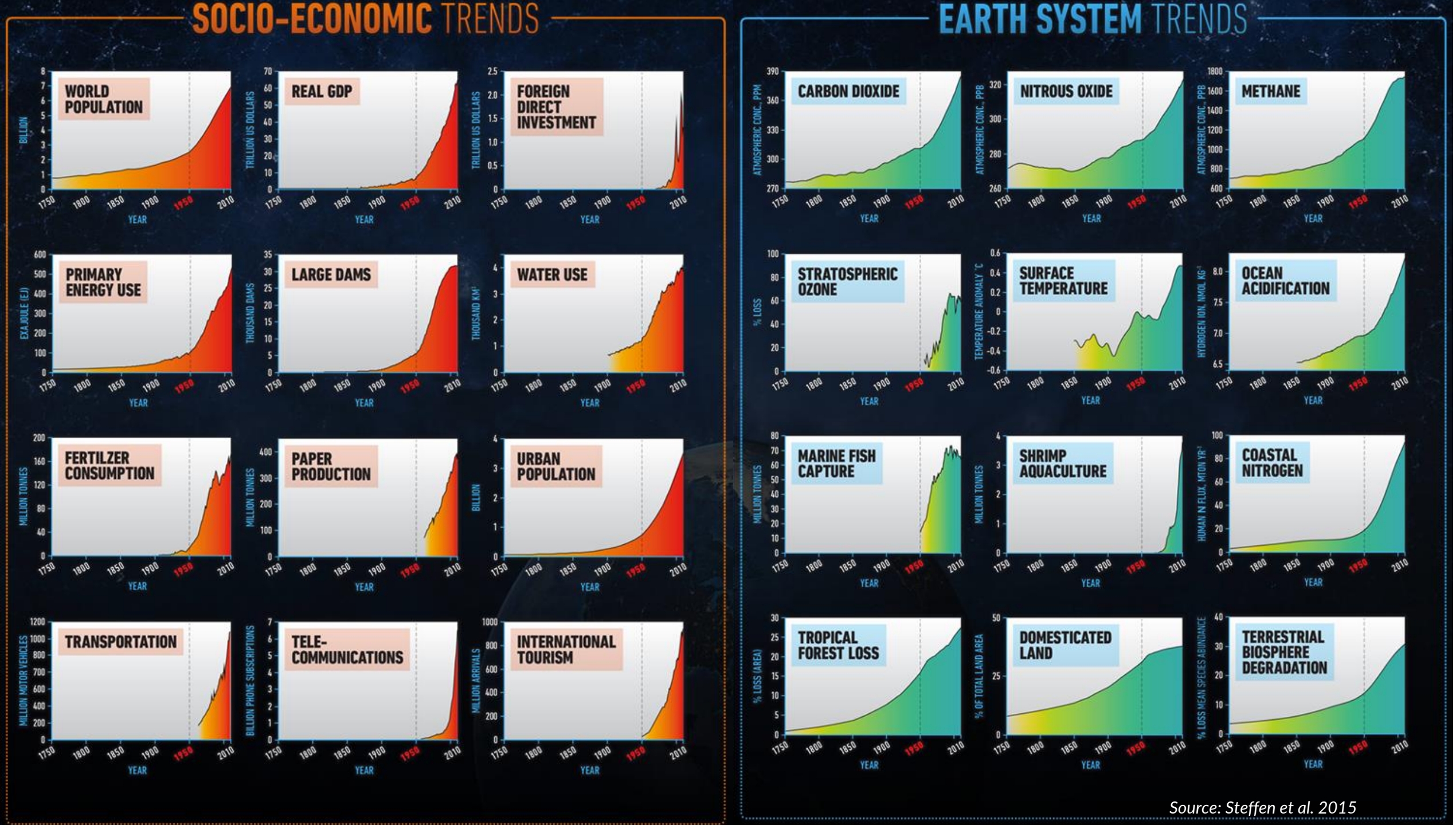
- In 2021 by 29. July we had used all the resources that Earth can reproduce in a year. For the rest of the year, we are maintaining our ecological deficit by drawing down local resource stocks and accumulating carbon dioxide in the atmosphere.



https://www.overshootday.org/

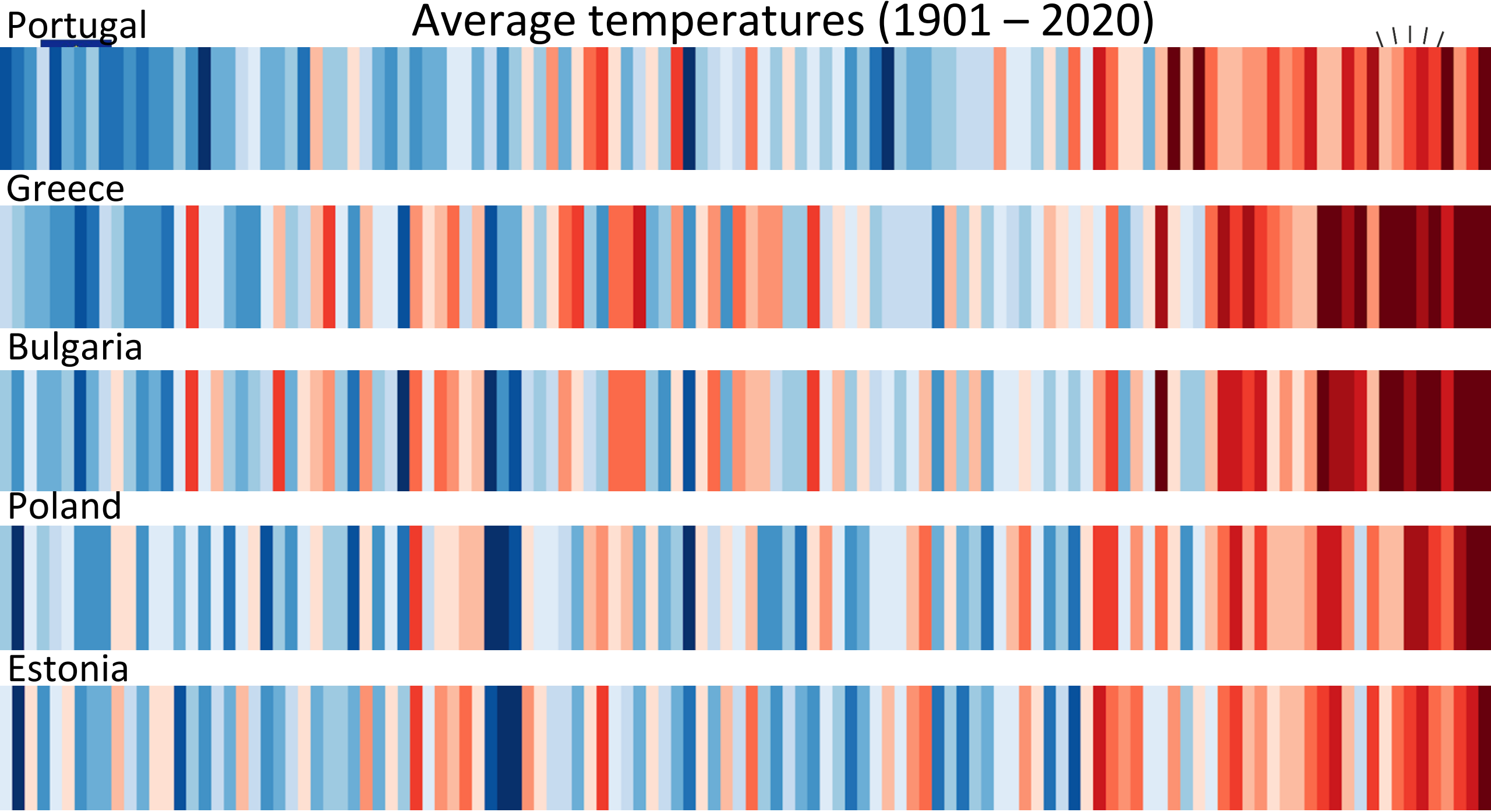
Top Ten overshooters?

1. Qatar 10/2/2022
2. Luxembourg 14/2/2022
3. Cook Islands 11/3/2022
4. Bahrain 12/3/2022
5. Canada 13/3/2022
6. United Arab Emirates 13/3/2022
7. USA 13/3/2022
8. Estonia 14/3/2022
9. Belize 15/3/2022
10. Kuwait 15/3/2022


SOCIO-ECONOMIC TRENDS
WORLD POPULATION
BILLION
REAL GDP
TRILLION US DOLLARS
FOREIGN DIRECT INVESTMENT
TRILLION US DOLLARS
PRIMARY ENERGY USE
EXA JOULE (EJ)
LARGE DAMS
THOUSAND DAMS
WATER USE
THOUSAND KM³
FERTILZER CONSUMPTION
MILLION TONNES
PAPER PRODUCTION
MILLION TONNES
URBAN POPULATION
BILLION
TRANSPORTATION
MILLION MOTOR VEHICLES
TELE-COMMUNICATIONS
BILLION PHONE SUBSCRIPTIONS
INTERNATIONAL TOURISM
MILLION ARRIVALS
YEAR
EARTH SYSTEM TRENDS
CARBON DIOXIDE
ATMOSPHERIC CONC., PPM
NITROUS OXIDE
ATMOSPHERIC CONC., PPB
METHANE
ATMOSPHERIC CONC., PPB
STRATOSPHERIC OZONE
% LOSS
SURFACE TEMPERATURE
TEMPERATURE ANOMALY °C
OCEAN ACIDIFICATION
HYDROGEN ION, NMOL KG⁻¹
MARINE FISH CAPTURE
MILLION TONNES
SHRIMP AQUACULTURE
MILLION TONNES
COASTAL NITROGEN
HUMAN N FLUX, MTON YR⁻¹
TROPICAL FOREST LOSS
% LOSS (AREA)
DOMESTICATED LAND
% OF TOTAL LAND AREA
TERRESTRIAL BIOSPHERE DEGRADATION
% LOSS MEAN SPECIES ABUNDANCE
YEAR
Source: Steffen et al. 2015

Climate change

Average temperatures (1901 – 2020)



https://showyourstripes.info/

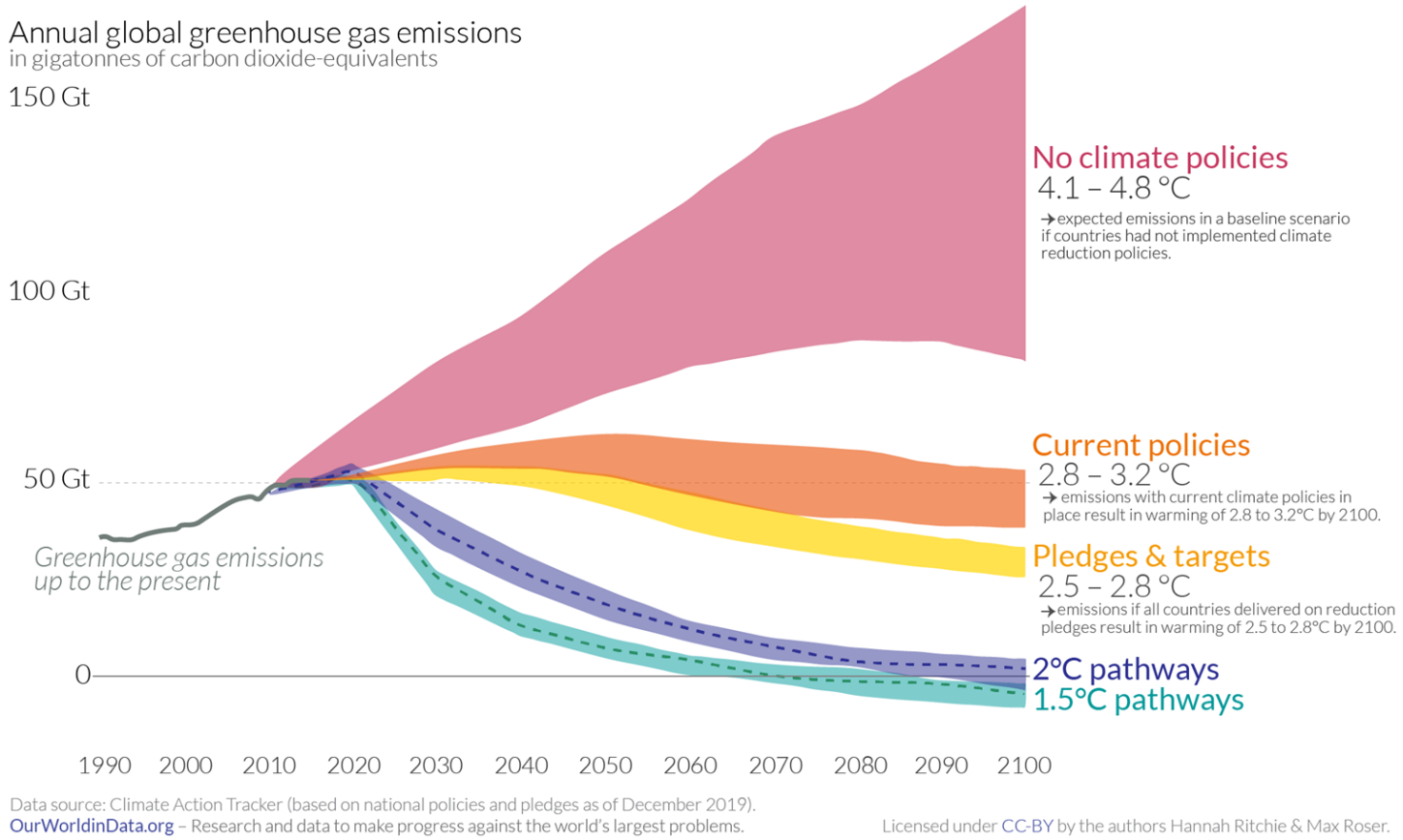
COAL CONSUMPTION AFFECTING CLIMATE.

The furnaces of the world are now burning about 2,000,000,000 tons of coal a year. When this is burned, uniting with oxygen, it adds about 7,000,000,000 tons of carbon dioxide to the atmosphere yearly. This tends to make the air a more effective blanket for the earth and to raise its temperature. The effect may be considerable in a few centuries.

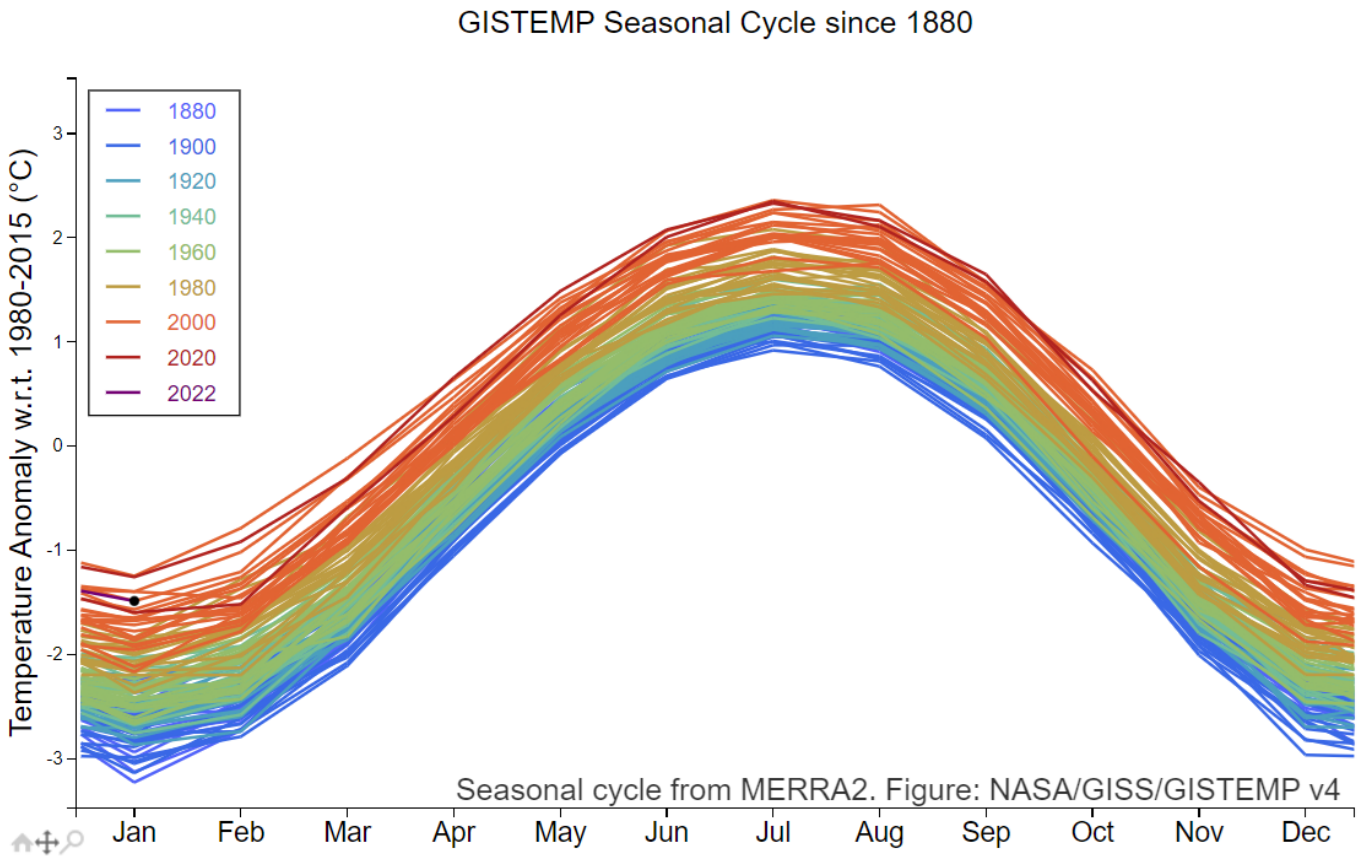
Published Aug. 14, 1912.

Frozen Thames River Source: Abraham Hondius

- The Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) at its 21st Session in Paris, France (30 November to 11 December 2015), agreed to keep the global warming of 1.5°C above pre-industrial levels.
- Limiting warming to 1.5°C is possible within the laws of chemistry and physics but would require unprecedented transitions in all aspects of society.



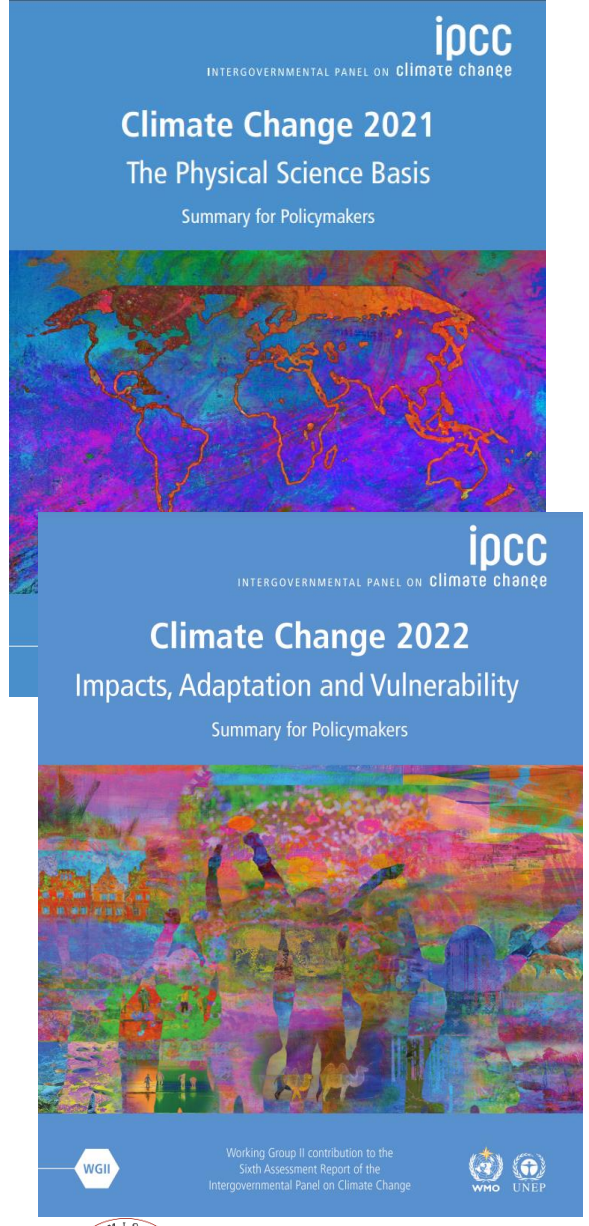
- 2021 culminated as the sixth warmest year on record (0.84°C above the 20th century average).
- The years 2013–2021 are the ten warmest years on record.
- The year 2021 was also the 45th consecutive year (since 1977) with global temperatures above the 20th century average.
- Overall, the global annual temperature has increased at an average rate of 0.08°C per decade since 1880 and over twice that rate (0.18°C) since 1981.

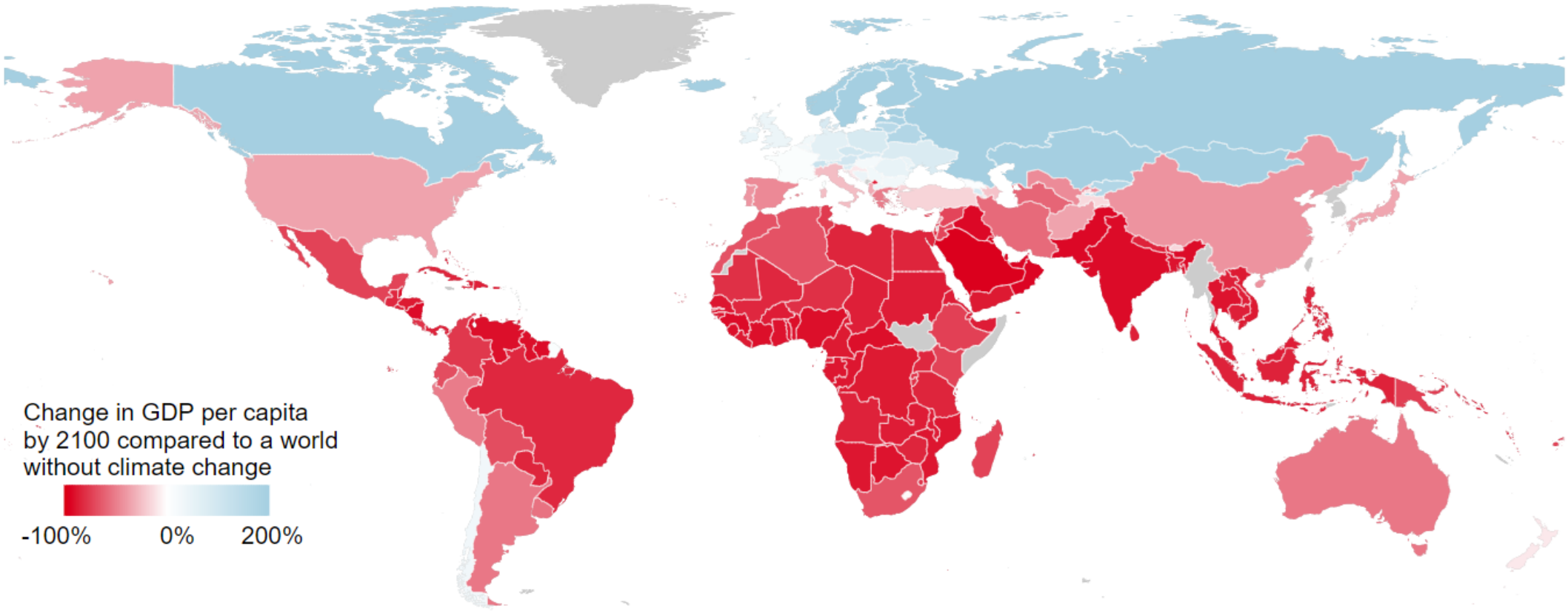


Source: https://data.giss.nasa.gov/gistemp/

IPCC 6th assesssment report

- Over 40% of global population (3.3-3.6 B) will be directly impacted by climate changes (living in the vulnerable territories).
- Currently, the top 10% of global emitters are contributing between 36 and 45% of emissions, which is 10 times as much as the poorest 10% – responsible for only about three to 5%.
- The world needs to halve emissions in the next decade to stay within 1.5C and reach net zero emissions by 2050.
- Lifestyle and diet changes will be instrumental in combating global warming, from refraining from overheating or over-cooling homes to switching to a plant-based diet. This can reduce emissions by up to 50% compared to the average emission intensive western diet.
- There should be no new fossil fuel power plants constructed or developed from this moment onwards if the world wishes to stay within 1.5 C of global temperature increase.





https://web.stanford.edu/~mburke/climate/map.php

Loss of biodiversity

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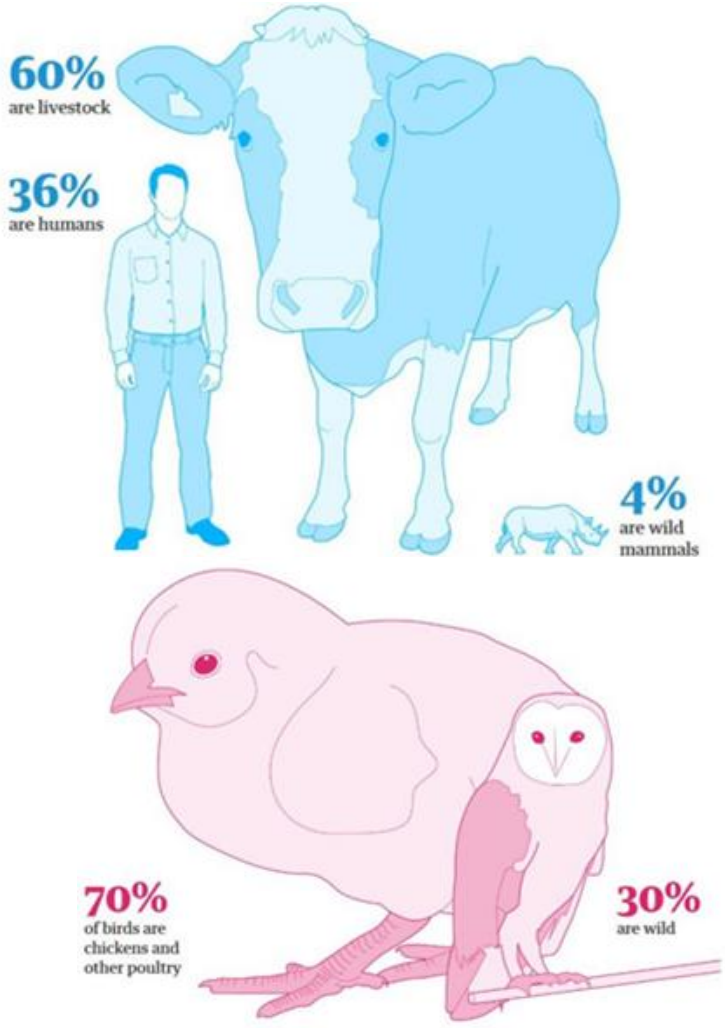

One in four species are at risk of extinction

Species assessed by the IUCN Red List

Amphibians	Conifers	Reef corals	Sharks and rays
40%	34%	33%	31%

Selected crustaceans*	Mammals	Birds
27%	25%	14%

*Assessed species include lobsters, freshwater crabs, freshwater crayfishes and freshwater shrimps

Source: IUCN Red List of Threatened Species

BBC

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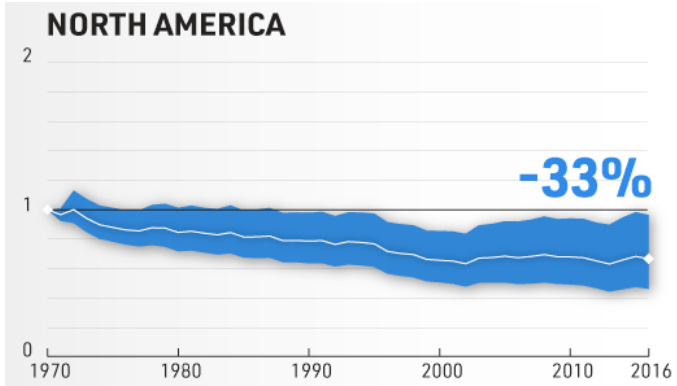
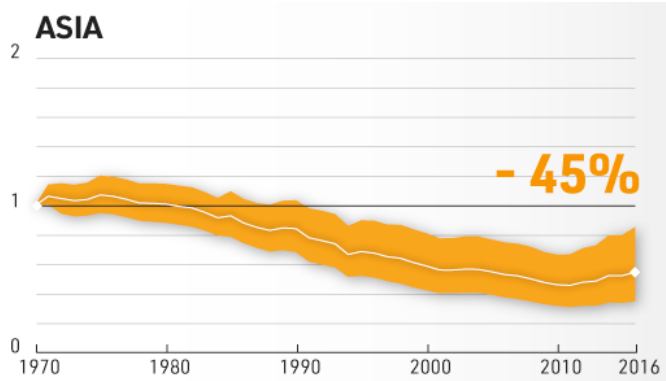
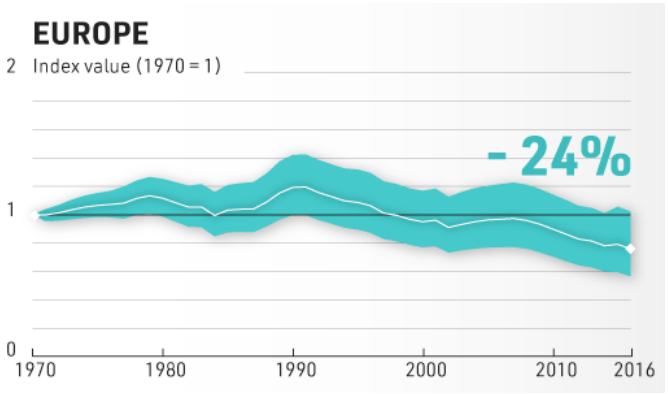
Different starting point

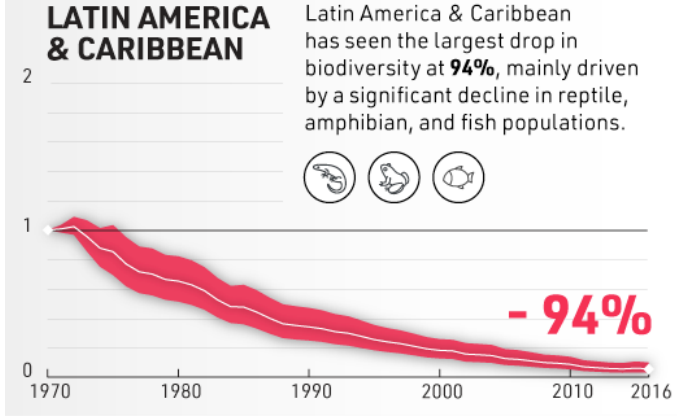
The Living Planet Index (LPI) tracks the abundance of mammals, birds, fish, reptiles, and amphibians across the globe.

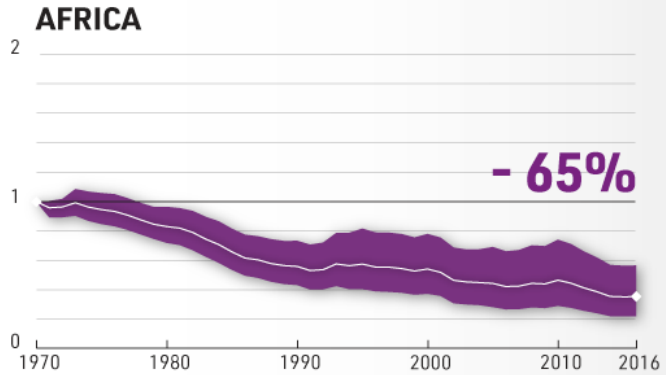
Between 1970 and 2016, vertebrate population sizes dropped by **68%** on average worldwide. However, this rate of this loss varies from region to region.









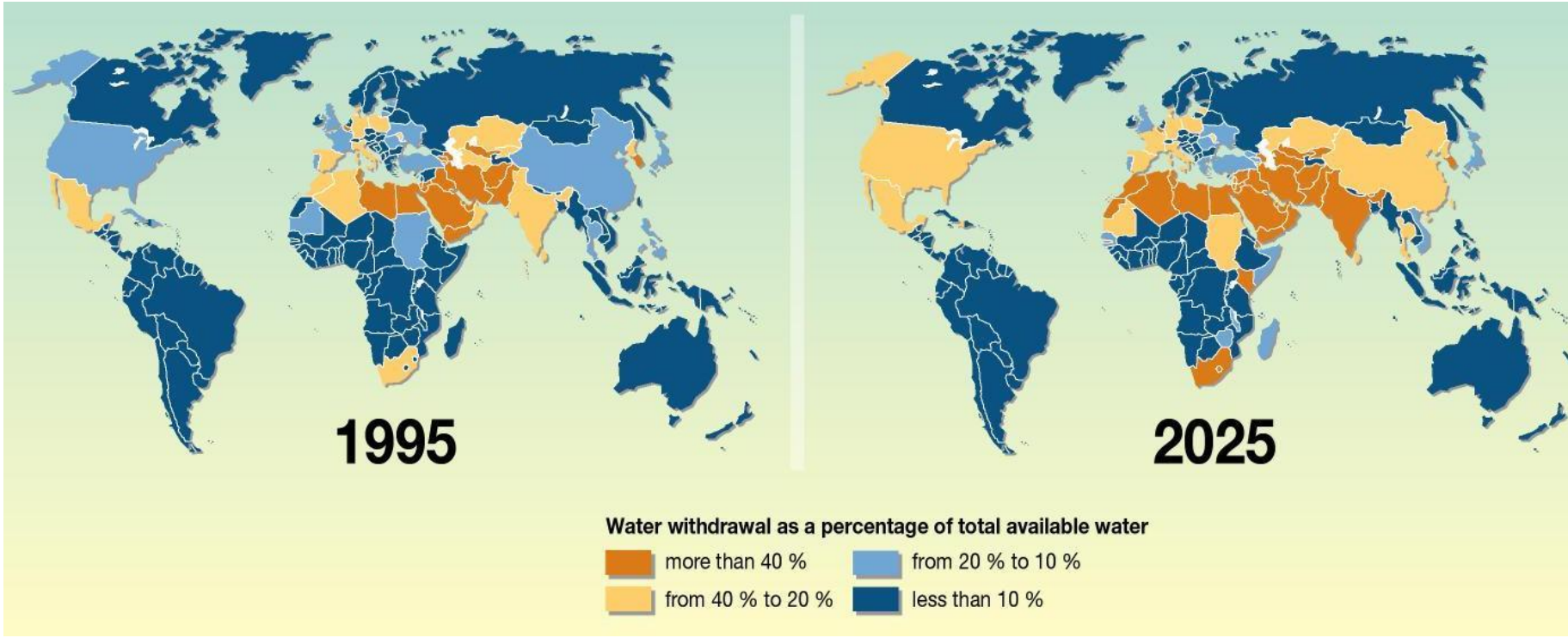


Source: https://www.visualcapitalist.com/earths-biodiversity-loss-by-region/

Water pollution & scarcity

Global water stress

- Only ~2.5% of the available water is fresh and only 1/3 of this is in liquid form.



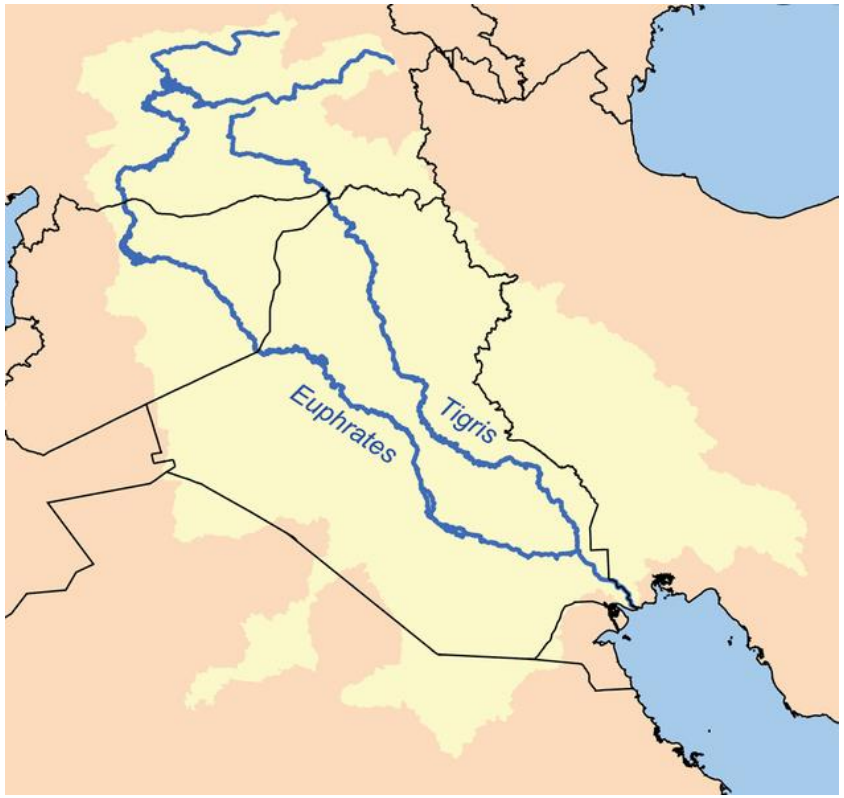
Source: http://www.unep.org/dewa/vitalwater/article141.html

Global water stress

- 3.4 million people die due to lack of clean drinking water.
- 1 billion people do not have enough water.
- 4.5 billion people live in the proximity <50 km from a problematic water resource (polluted, drying).

- By 2030 more than half of humans will suffer from water deprivation.
- By 2050 the global need for water will be increased by 55%.

First documented water war

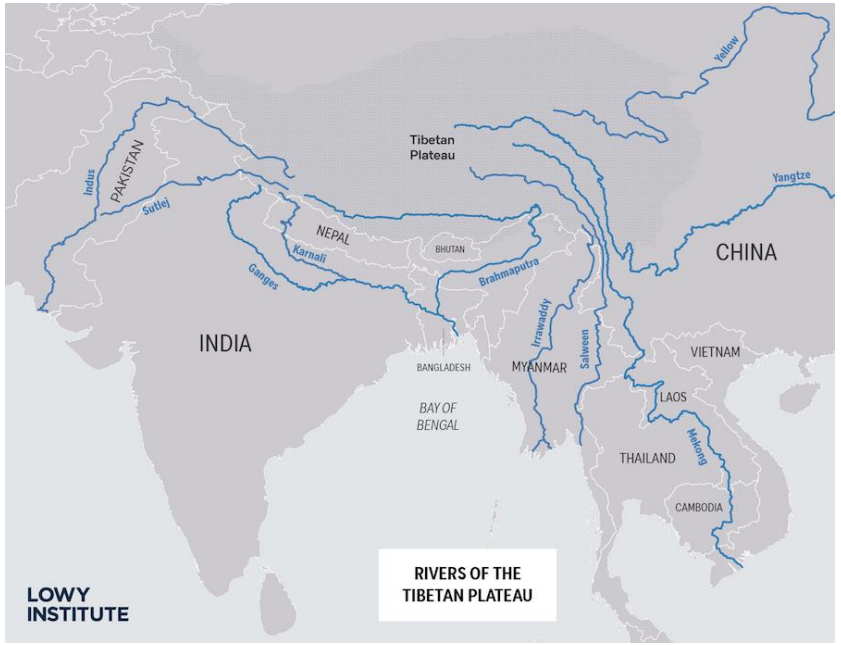


- The rivers are the Tigris and Euphrates have an annual flooding. The flooding deposits silt, which is fertile, rich, soil, on the banks of the rivers every year.
- Lagaš and Umma were two Sumerian cities located 18 miles apart.
- Eanatum of Lagaš settles the border with En-akale of Umma that causes Umma to build up disastrous debt in agricultural wealth. A later king of Umma, Ur-lumma, does not repay this debt but diverts water from the canal and attacks the Eanatum.
- “Eanatum, ruler of Lagaš, went into battle“, reads an account carved into an ancient stone cylinder, and “left behind 60 soldiers dead on the bank of the canal.”

https://cdli.ox.ac.uk/wiki/doku.php?id=umma_lagash_border_conflict

The geopolitics of water in Asia

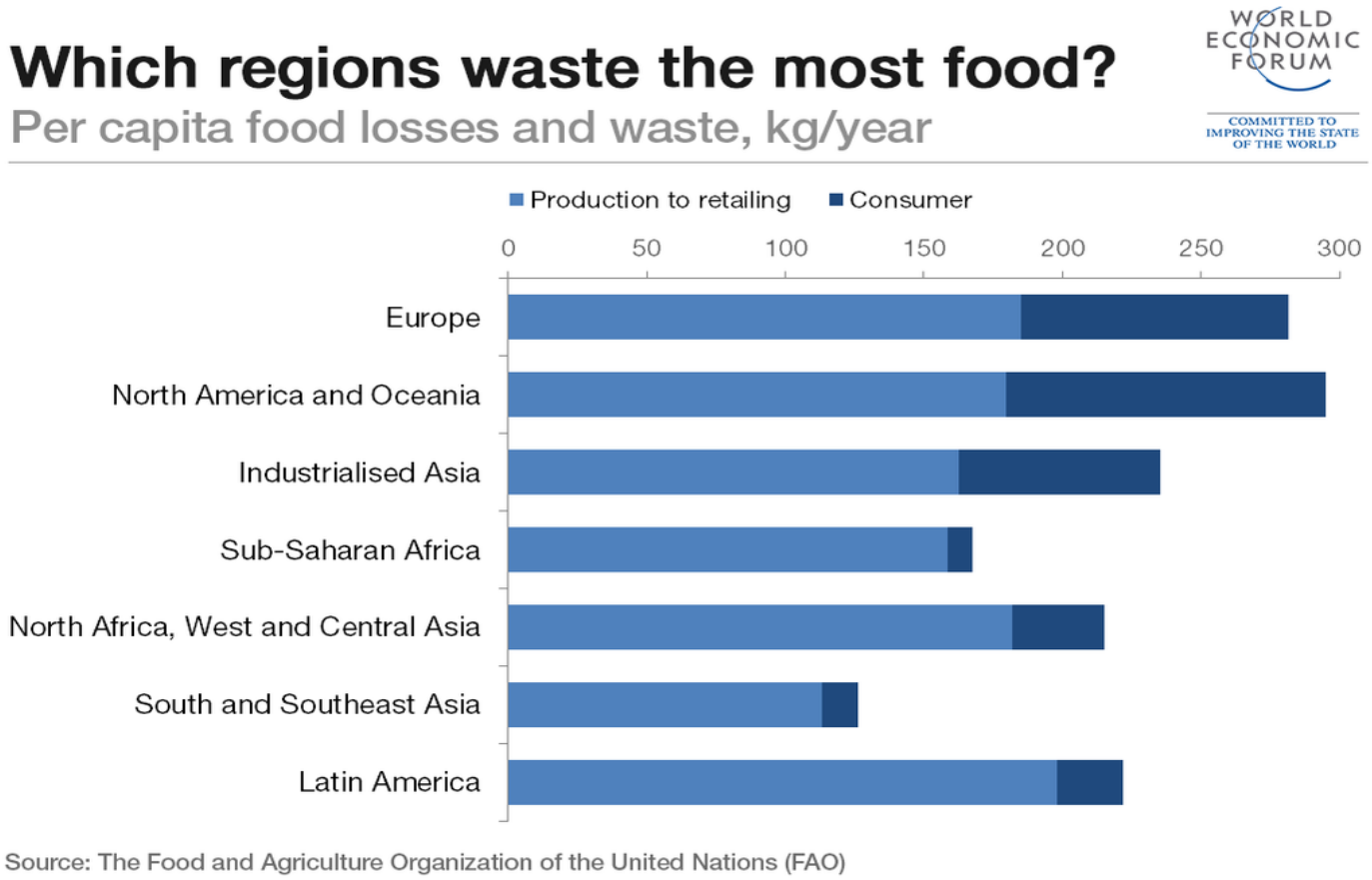
- China has ownership over Tibet's waters, where seven of South Asia's biggest rivers starts – the Indus, Ganges, Brahmaputra, Irrawaddy, Salween, Yangtze and Mekong.
- These rivers flow into Pakistan, India, Bangladesh, Myanmar, Laos and Vietnam.
- 718 B m3 of surface water per yr flows out of the Tibetan plateau and the Chinese-administered regions of Xinjiang and Inner Mongolia to neighbouring countries.
- 48% of this water runs directly into India.
- On the Salween, the Upper Mekong, Upper Yangtze and the Brahmaputra China plans to build 120 gigawatts of new hydropower plants (in total more than any other country has built in its entire history).



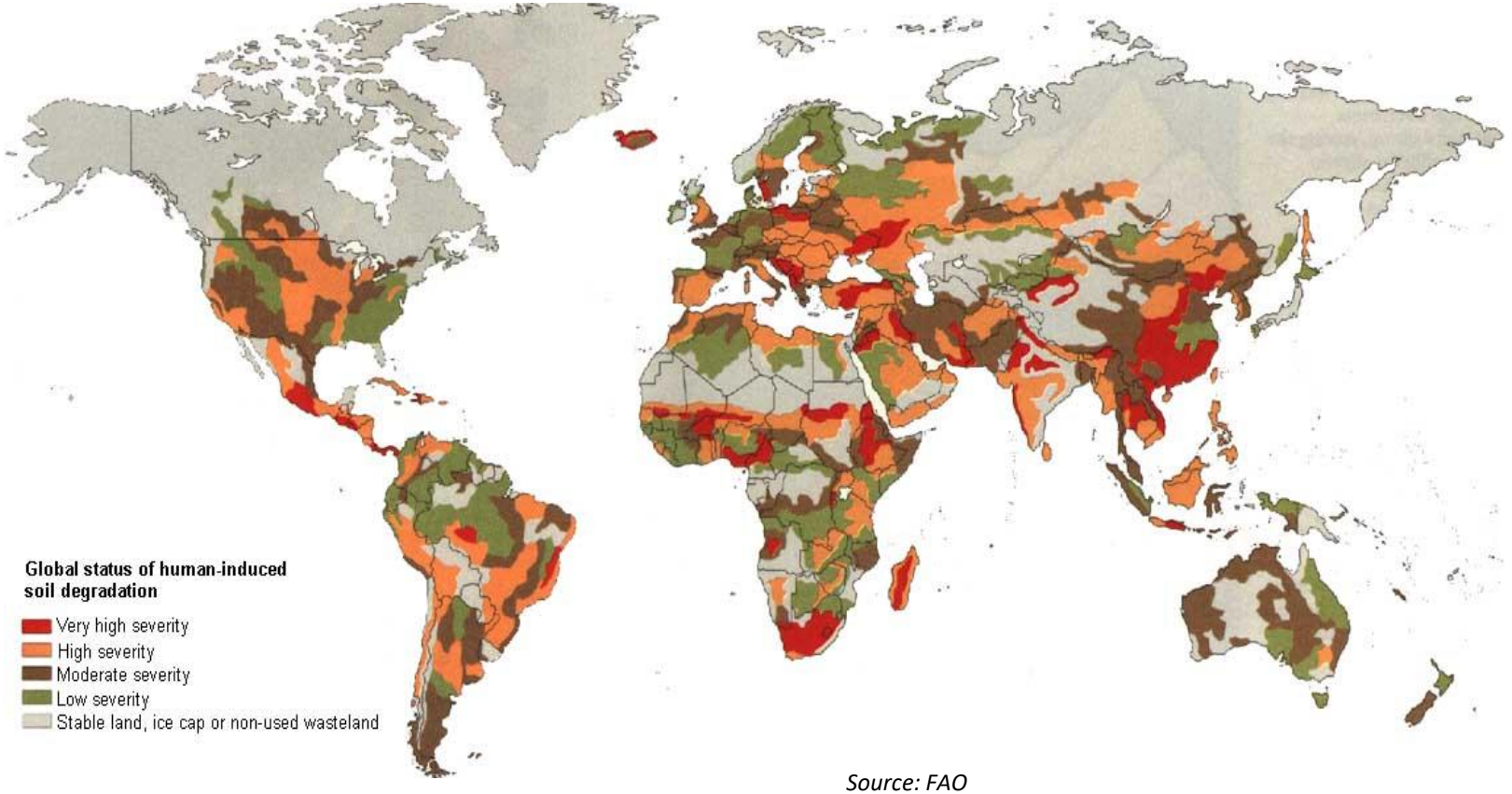
https://www.lowyinstitute.org/

Poverty & inequality

Food waste

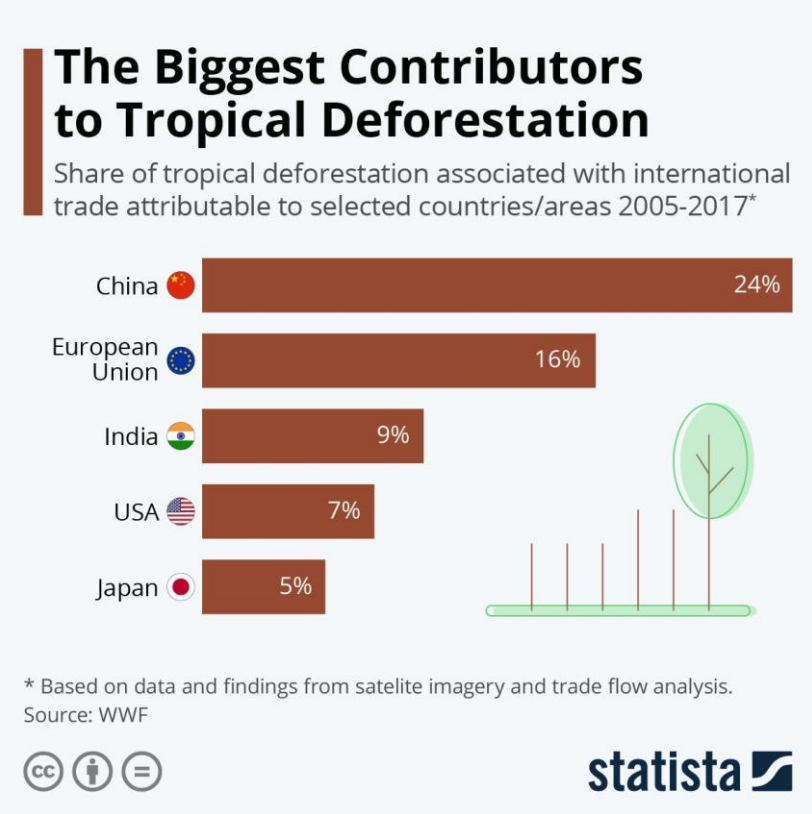

Which regions waste the most food?
Per capita food losses and waste, kg/year
WORLD ECONOMIC FORUM
COMMITTED TO IMPROVING THE STATE OF THE WORLD
Production to retailing
Consumer
0
50
100
150
200
250
300
Europe
North America and Oceania
Industrialised Asia
Sub-Saharan Africa
North Africa, West and Central Asia
South and Southeast Asia
Latin America
Source: The Food and Agriculture Organization of the United Nations (FAO)

Soil degradation



Source: FAO

Deforestation



What can we do?

SDGs

- A set of 17 goals for the world's future, through 2030
- Backed up by a set of 169 detailed Targets
- Negotiated over a two-year period at the United Nations
- Agreed to by nearly all the world's nations, on 25 Sept 2015

Source: https://www.undp.org/sustainable-development-goals

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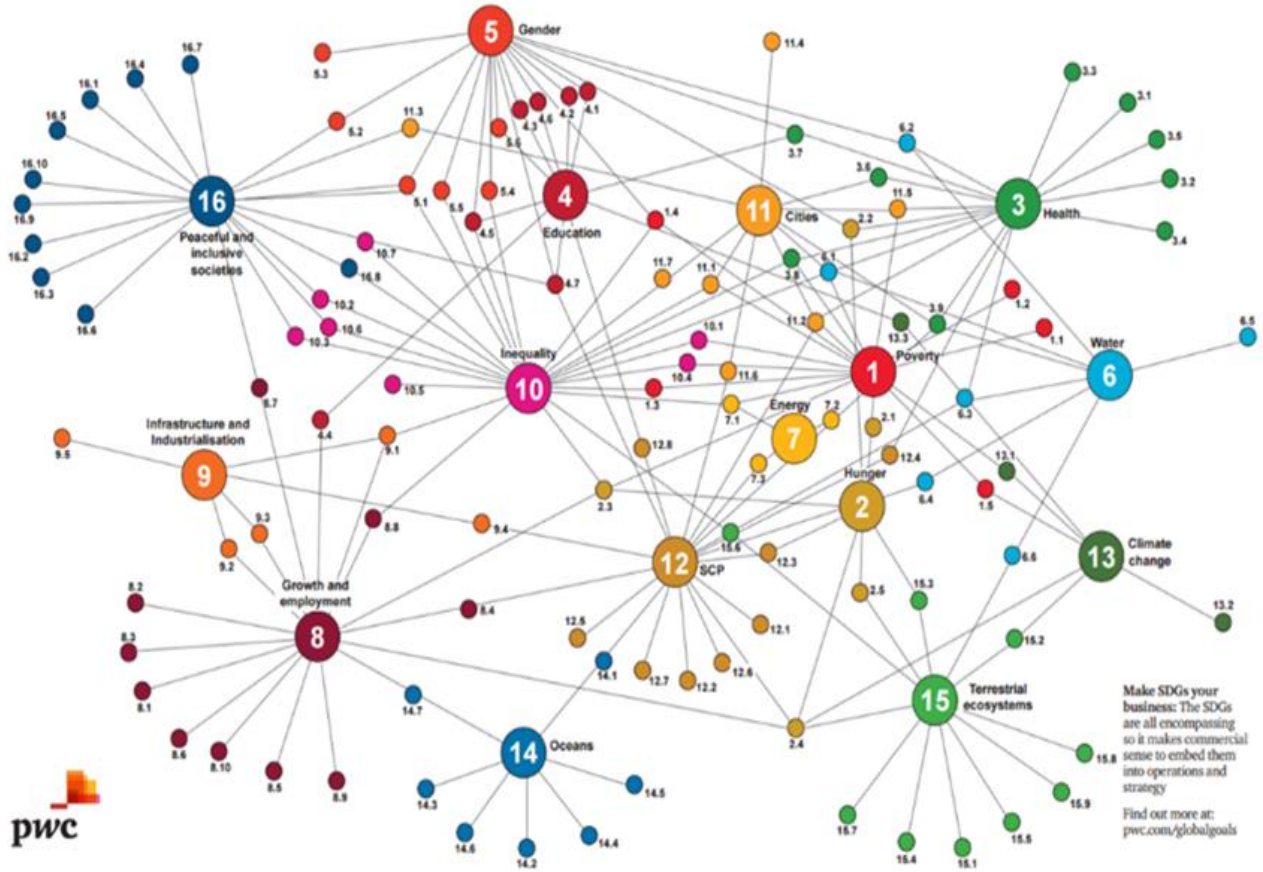
Integration of the SDGs



Source: https://www.undp.org/sustainable-development-goals

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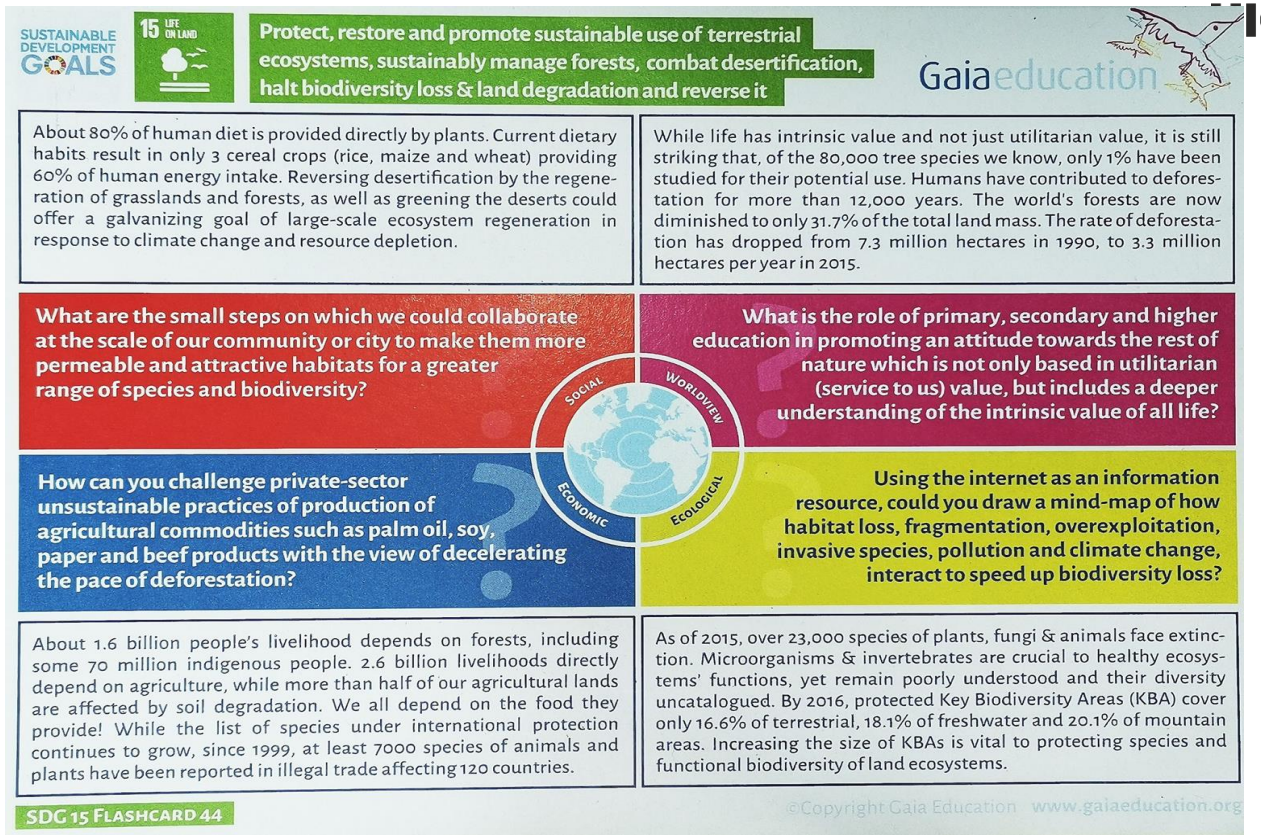
SDG Flashcards

- SDG Flashcards contain more than 200 questions relevant to the four dimensions - social, worldview, ecological, economic- whole systems approach to sustainability to collaboratively identify actions and solutions aimed at implementing the global goals in ways that are relevant to their lives and their communities.



Source: Gaia Education

Addition information about SDGs

- Overview of indicators including the metadata and explanations - https://unstats.un.org/sdgs/indicators/database/ and https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202020%20review_Eng.pdf
- Country profiles - https://country-profiles.unstatshub.org/
- UN Data catalog - http://www.sdg.org/#
- UN, GRI and PwC reporting guide - https://www.globalreporting.org/resourcelibrary/GRI_UNGC_Business-Reporting-on-SDGs_Analysis-of-Goals-and-Targets.pdf
- Overview of the SDG related global data - https://sdg-tracker.org/
- SDG Report 2019 - https://www.sustainabledevelopment.report/
- Voluntary national review results - https://sustainabledevelopment.un.org/content/documents/26136Estonia_Main_messages_VNR_Estonia_2020_700.pdf
- Estonia specific tool - https://tamm.stat.ee/

The end

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Circular Economy

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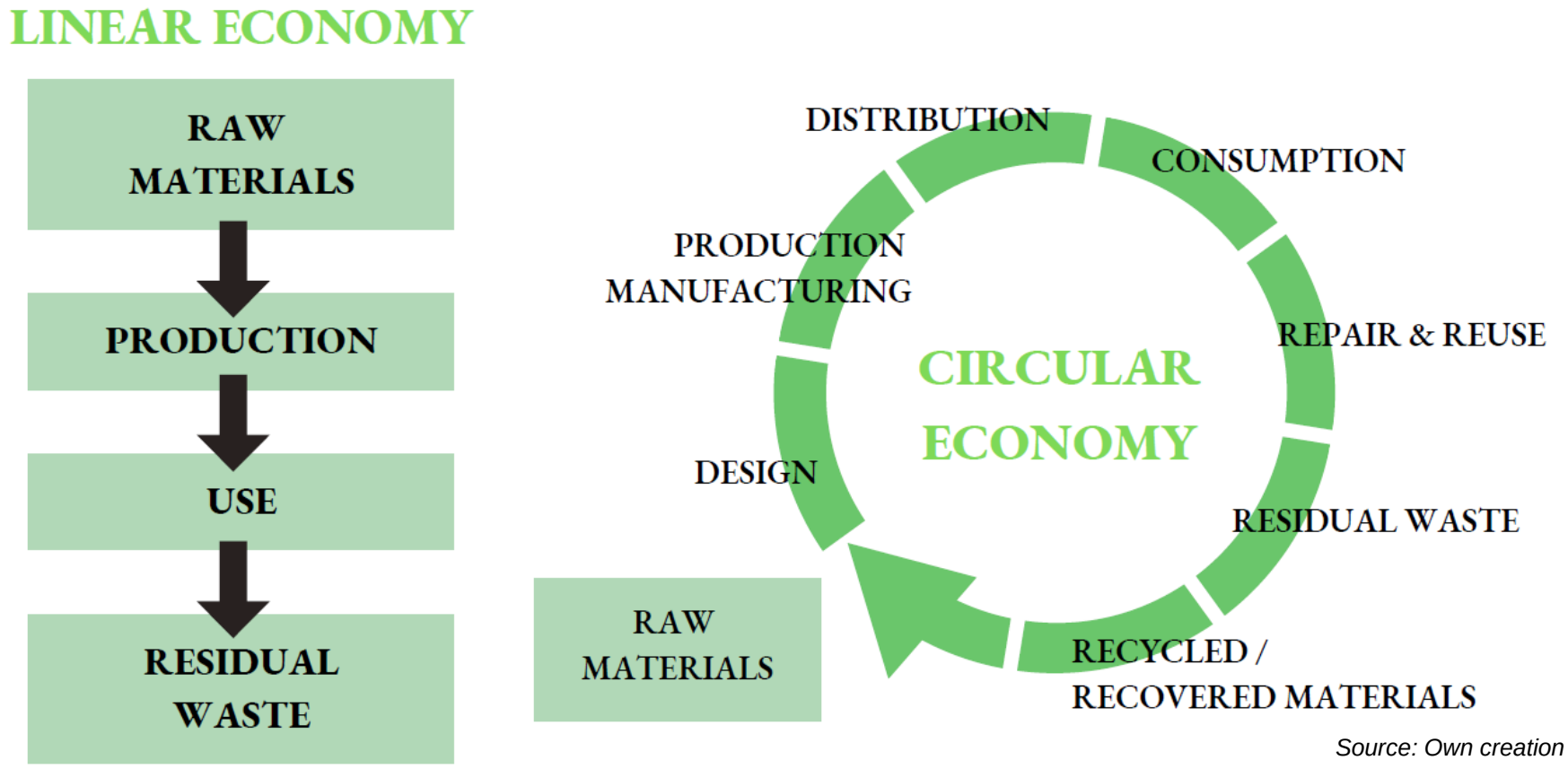
Circular Economy

❑ **presents a sustainable way both to produce goods and services and to contribute to the development of economies**

❑ **is based on 3 basic principles:**

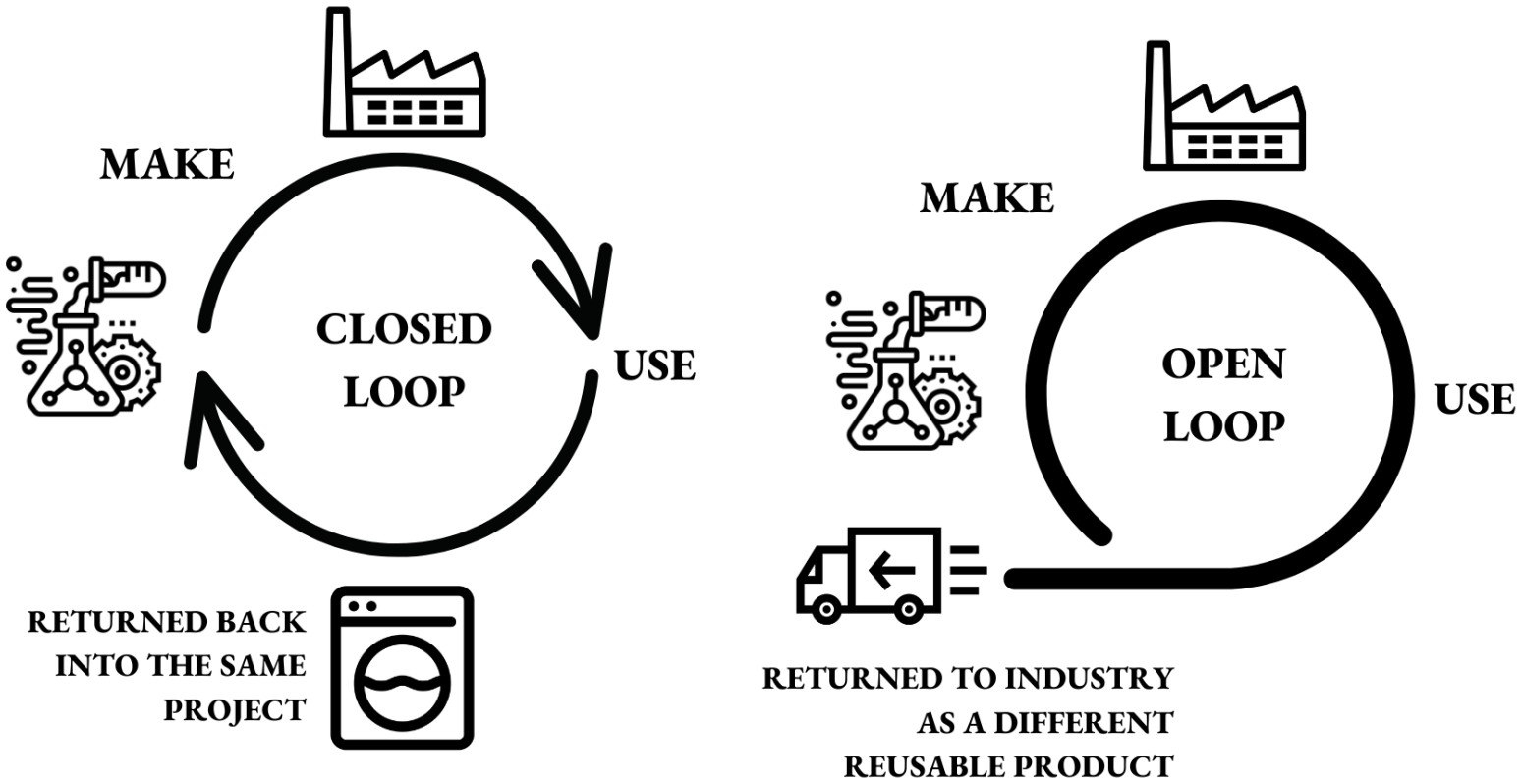
1) preserving and valuing natural capital: controlling finite stocks and balancing flows of renewable resources;
2) optimizing resources productivity through the circulation of products, components and materials, both in technical and biological cycles;
3) enhancing the effectiveness of the system by reducing harm to human welfare, regarding for instance, food, mobility, shelter, education, health and entertainment, and managing externalities related to land use, air, water and noise pollution, release of substances and climate change.

From a Linear Economy to a Circular Economy



Source: Own creation

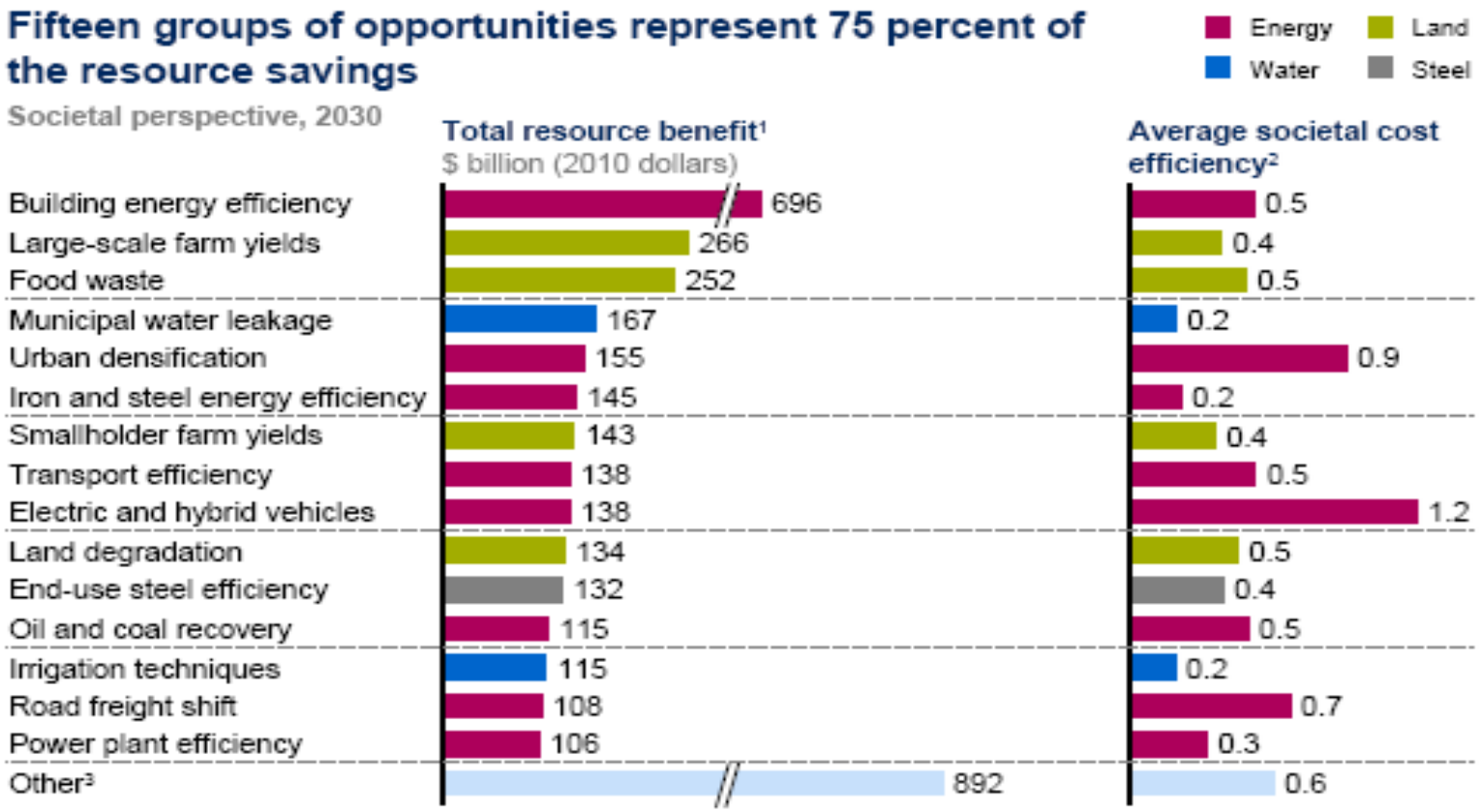
From a Linear Economy to a Circular Economy



Closed Loop vs. Open Loop Recycling

Source: Own creation

Resources savings



1 Based on current prices for energy, steel, and food plus unsubsidized water prices and a shadow cost for carbon.
2 Annualized cost of implementation divided by annual total resource benefit.
3 Includes other opportunities such as feed efficiency, industrial water efficiency, air transport, municipal water, steel recycling, wastewater reuse, and other industrial energy efficiency.

SOURCE: McKinsey analysis

Circular Economy can be applied in:

industries

practical life (individuals and families)

companies and institutions

cities and society

social innovation purposes

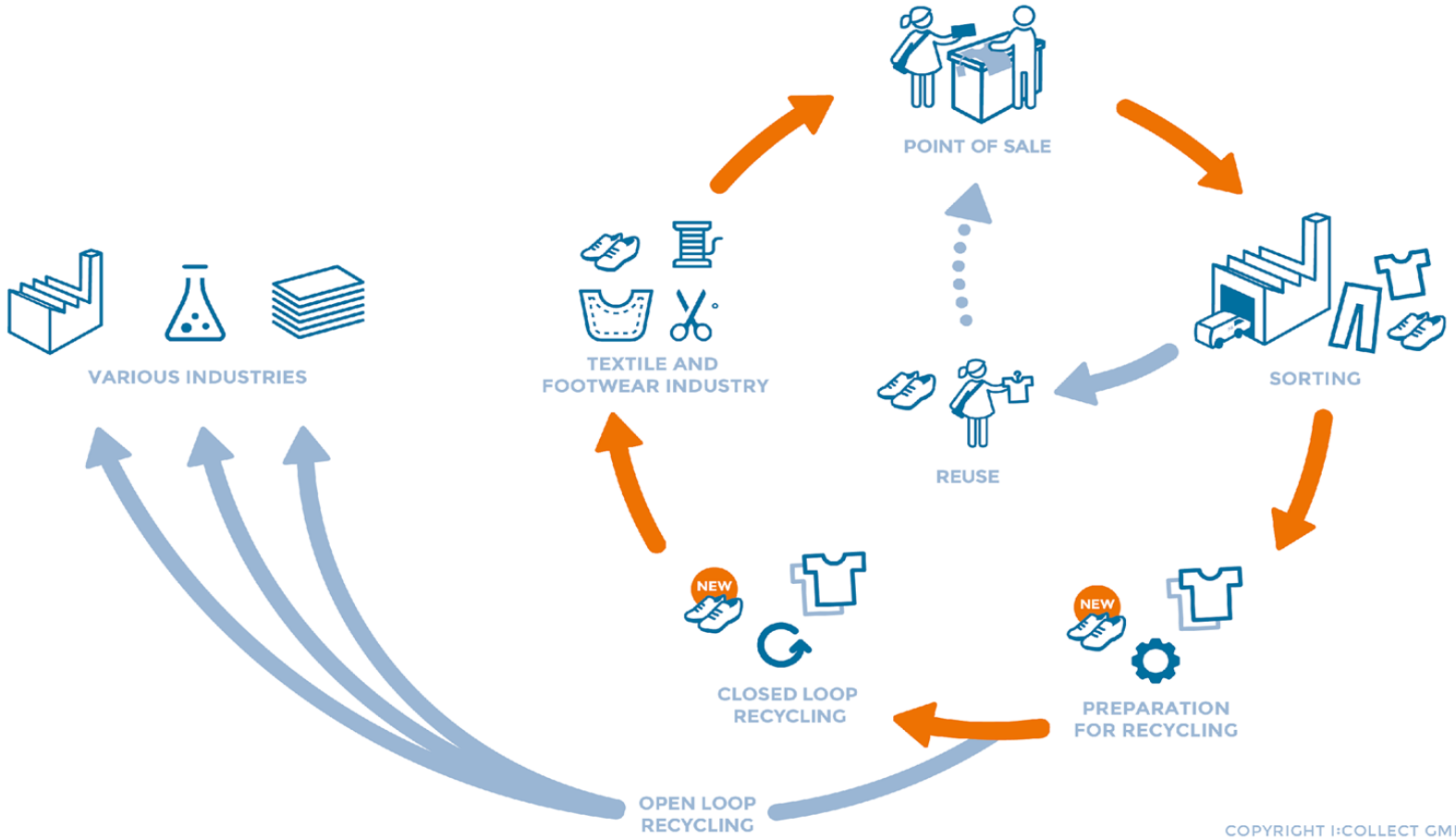
in the relation all together

Textiles Industry case study

…"*textile production is a major contributor to climate change and produces an estimated 1.2 billion tones of CO_2 equivalent per year. According to the UK Parliament's Environmental Audit Committee report "Fixing Fashion", this is more than the total produced by international flights and maritime shipping combined.*

Textile production also entails substantial resource use: for example, to produce 1 kg of cotton takes between 10,000 and 20,000 liters of water. More alarmingly, the World Bank reckons 20% of global water pollution is caused by textile processing, making it the second biggest polluter of freshwater resources on the planet."

Source: https://www.bir.org/the-industry/textiles



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Important is…

the choice of the most sustainable production materials, which not pollute the environment, biodegradable and with the most appropriate production processes

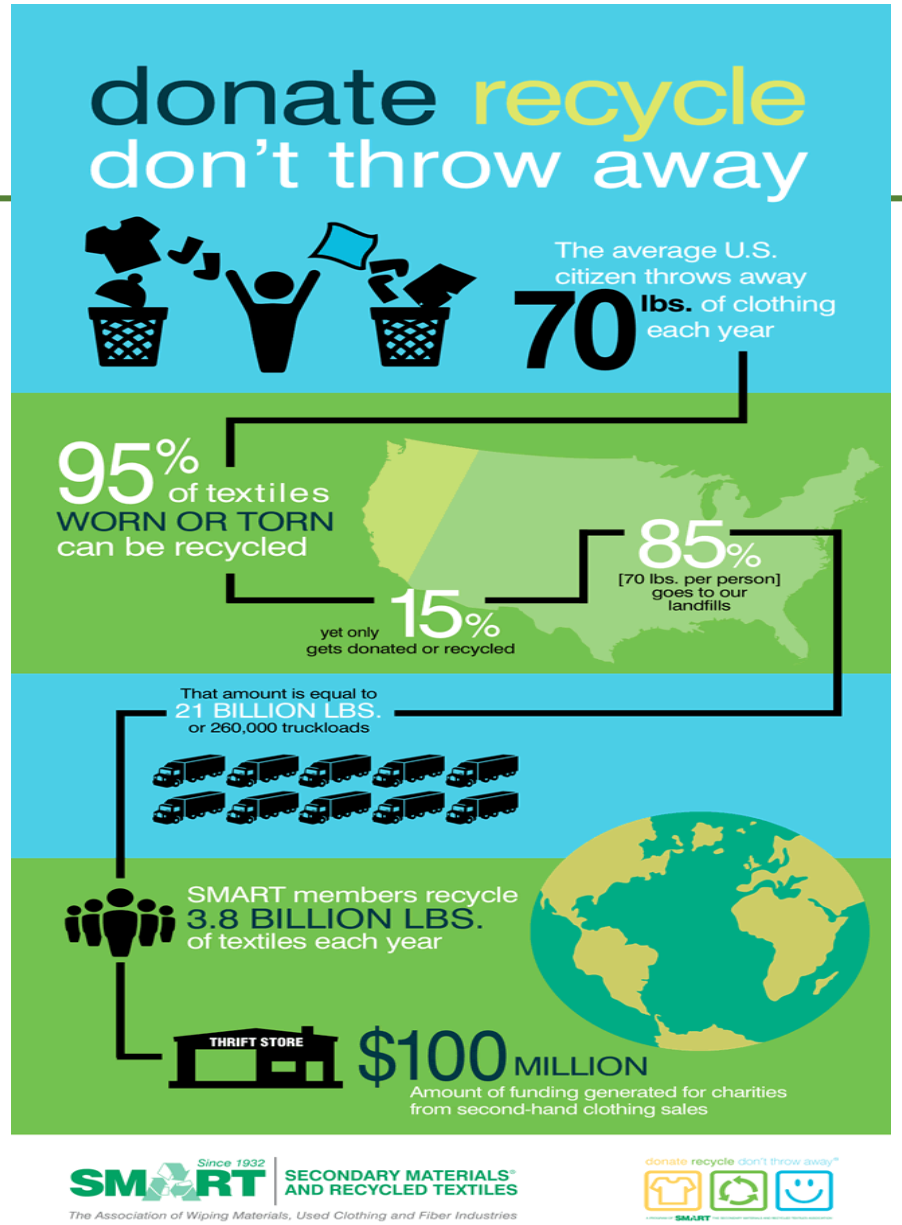
warn about the best ways of dealing with textiles use, such as washing textiles, how to reuse them or to be able to give or sell them in second hand

FACTS ABOUT
RECYCLING GARMENTS
Only 15% of consumer-used clothing is recycled
Nearly 100% of textiles and clothing are recyclable
15+ million tons of used textile waste is generated in the U.S. each year
Synthetic clothing may take hundreds of years to decompose
the balance

Circular Economy & Social Innovation

Some international stores have already started campaigning on **sustainable clothes** (e.g. C&A, H&M, Mango, Zara) **or reuse/recycling** (e.g.: Intimissimi, H&M or Women Secret that give discounts on the exchange of used clothes)

https://commons.wikimedia.org/wiki/File:Intimissimi_vector_logo.svg
https://commons.wikimedia.org/wiki/File:H%26M-Logo.svg
https://www.c-and-a.com/uk/en/corporate/company


donate recycle
don't throw away
The average U.S. citizen throws away 70 lbs. of clothing each year
95% of textiles WORN OR TORN can be recycled
yet only 15% gets donated or recycled
85% [70 lbs. per person] goes to our landfills
That amount is equal to 21 BILLION LBS. or 260,000 truckloads
SMART members recycle 3.8 BILLION LBS. of textiles each year
THRIFT STORE
$100 MILLION
Amount of funding generated for charities from second-hand clothing sales

The Life Cycle of Secondhand Clothing

simplerecycling

What happens to your recycled used clothing?

Once a resident determines that their clothing, shoes, handbags, or household textiles have reached the end of their useful life, materials are collected by Simple Recycling and collected clothing is sorted and graded for condition.

10-20%
Top quality materials are sold to local thrift stores where they create access to low cost clothing and jobs for local residents.

80%
The vast majority of clothing collected is not resaleable in the U.S. so it is further sorted for international export or broken down for raw materials.

Thrift industry employs nearly 100,000 workers in the U.S. with over $1 billion wages paid. In addition, private sector recyclers create an additional 15,000 to 20,000 jobs nationally.[2]

45%
Reused and Repurposed
Majority is exported as secondhand clothing.

30%
Recycled and Converted
Reclaimed wiping rags are used in various ways as industrial and residential absorbents.

20%
Recycled into Fiber
Post-consumer fiber is used to make home insulation, carpet padding, and raw material for the automotive industry.

Only 5% ends up as waste.

The textile recycling process follows the conventional recycling maxim of

Reduce, Reuse, Recycle!

Sources:
1. EPS 2009 Federal MSW waste study; 3.8 billion lbs. recovered divided by 2010 U.S. Census Population 310 million
2. "Textile Recycling in the U.S." Report submitted to SMART by Dr. Jana Hawley PhD. Univ. of Missouri 2009
3. EPA 2009 Federal MSW waste study.

Copyright Simple Recycling ©2014

BENEFITS OF RECYCLING

The recovery and recycling of textiles provide both environmental and economic benefits by:

Reducing the need for landfill space. Certain synthetic fiber products do not decompose, while natural fiber such as wool does decompose but produces methane which contributes to global warming.

Reducing pressure on virgin resources. This includes materials traditionally used in textiles such as cotton and wool, as well as oil and other chemicals employed to produce synthetic fibers.

Reducing pollution.

Reducing water and energy consumption.

Reducing demand for dyes and fixing agents. This, in turn, minimizes the problems caused by their use and manufacture.

Source: https://www.bir.org/the-industry/textiles

Challenge

Problem: Circular Economy applied to your group Topic

Looking for:

i) Integrated solution to be applied by

- **consumers / families in practical life (individuals and families)**
- **producers, firms and/or institutions**
- **cities and society**

and

ii) design a circular scheme that illustrates your integrated proposal.

The end

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Project no. 2019-1-PL01-KA203-065784

HIGH 5

Entrepreneurship

Agile Management

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БИТ

Entrepreneur

"An entrepreneur buys at prices defined in the present to sell at uncertain prices in the future. The entrepreneur subsists on an uncertain income, unlike another worker who has a fixed salary. ”

Cantillon, 1755

Uncertainty taker

An invention makes it possible to produce something more cheaply. It first gives a profit to entrepreneurs… and this profit… is an elusive sum, which entrepreneurs grasp but cannot hold. [It] slips through their fingers and bestows itself on all members of society. Were it not for that interval, entrepreneurs as such would get nothing, however much they might add to the world’s productive power.

Clarke (1899, 1907)

Dynamic Theory

Entrepreneurial activity involves (a) risk-taking, (b) energetic activity, (c) individual responsibility, (d) money as a measure of results, (e) anticipation of future possibilities, and (f) organizational skills.

McClelland (1961)

Traits School

Entrepreneur

"An entrepreneur is someone who specializes in taking judgmental decisions about the coordination of scarce resources."

Casson (1982, 2003)

Roles of the entrepreneur in the history of economic theory include: 1) assumes risk associated with uncertainty, 2) supplies capital, 3) innovator, 4) decision maker, 5) leader, 6) manager, 7) organizer and coordinator, 8) owner, 9) employer of factors of production, 10) contractor, 11) arbitrager, 12) allocator of resources.

Hebert and Link (1988)

The entrepreneur is characterized principally by innovative behaviour and will employ strategic management practices in the business.

Carland et al. (1984)

Behavior School

Combination

Strategic thinker

What is a Entrepreneur?

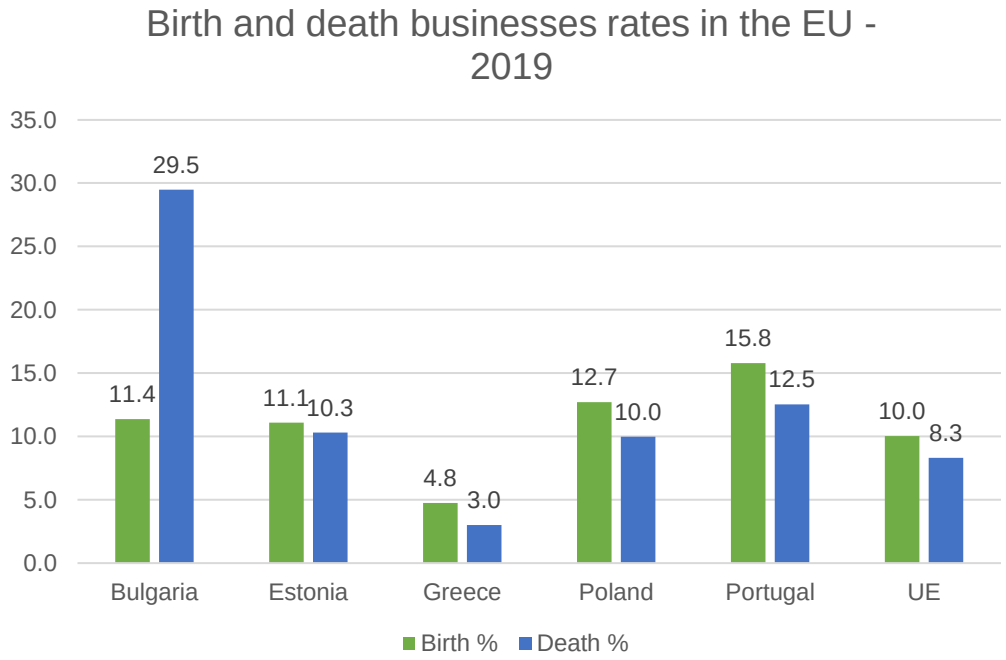
Entrepreneurship is a way of thinking, reasoning, and acting that is opportunity obsessed, holistic in approach and leadership balanced.

Timmons and Spinelli (2008)

Source: Own creation

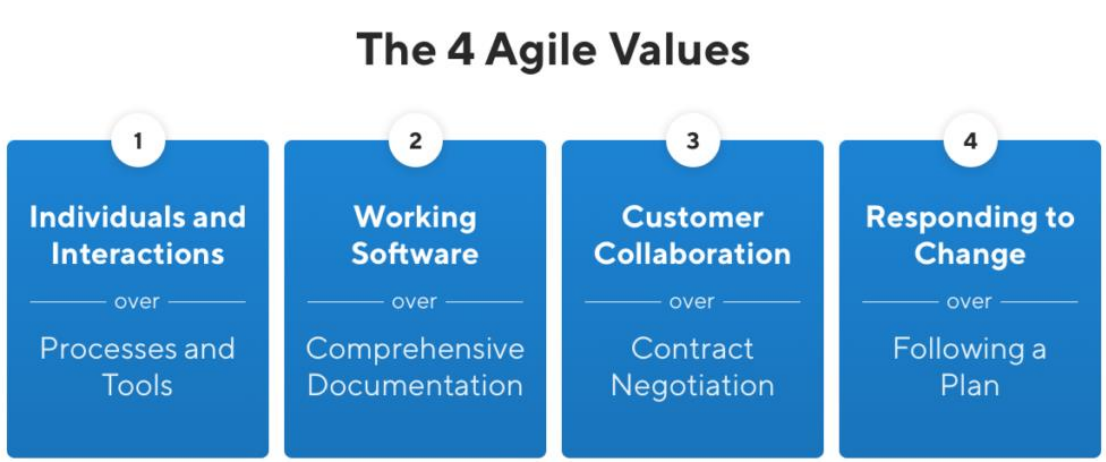
2019	Birth %	Death %	Enterprises
Bulgaria	11,4	29,5	348.667
Estonia	11,1	10,3	82.263
Greece	4,8	3,0	717.680
Poland	12,7	10,0	2.022.248
Portugal	15,8	12,5	930.303
UE	10,0	8,3	23.168.929

Source: Eurostat

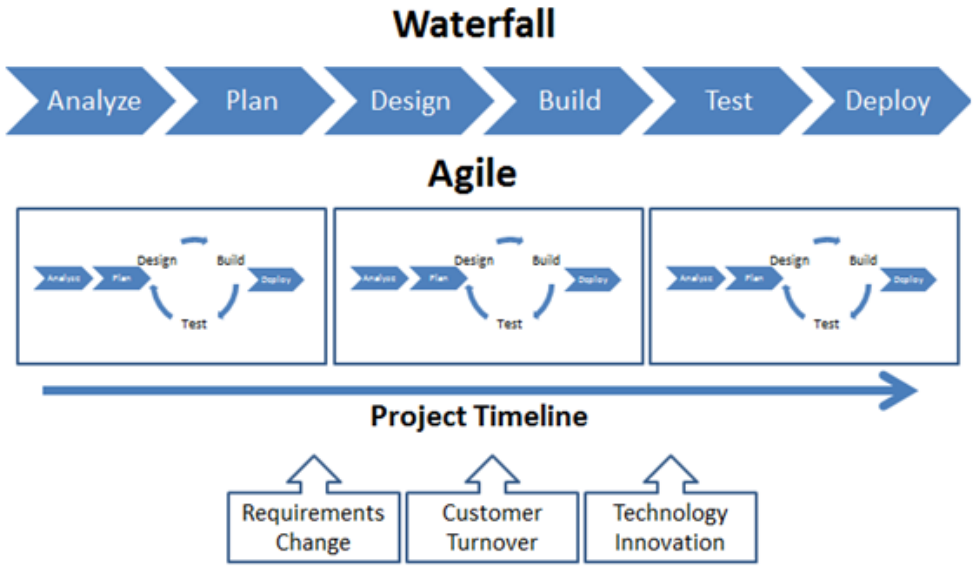


Source: Eurostat

Agile Management



Source: productplan.com



Source: undefined.photos

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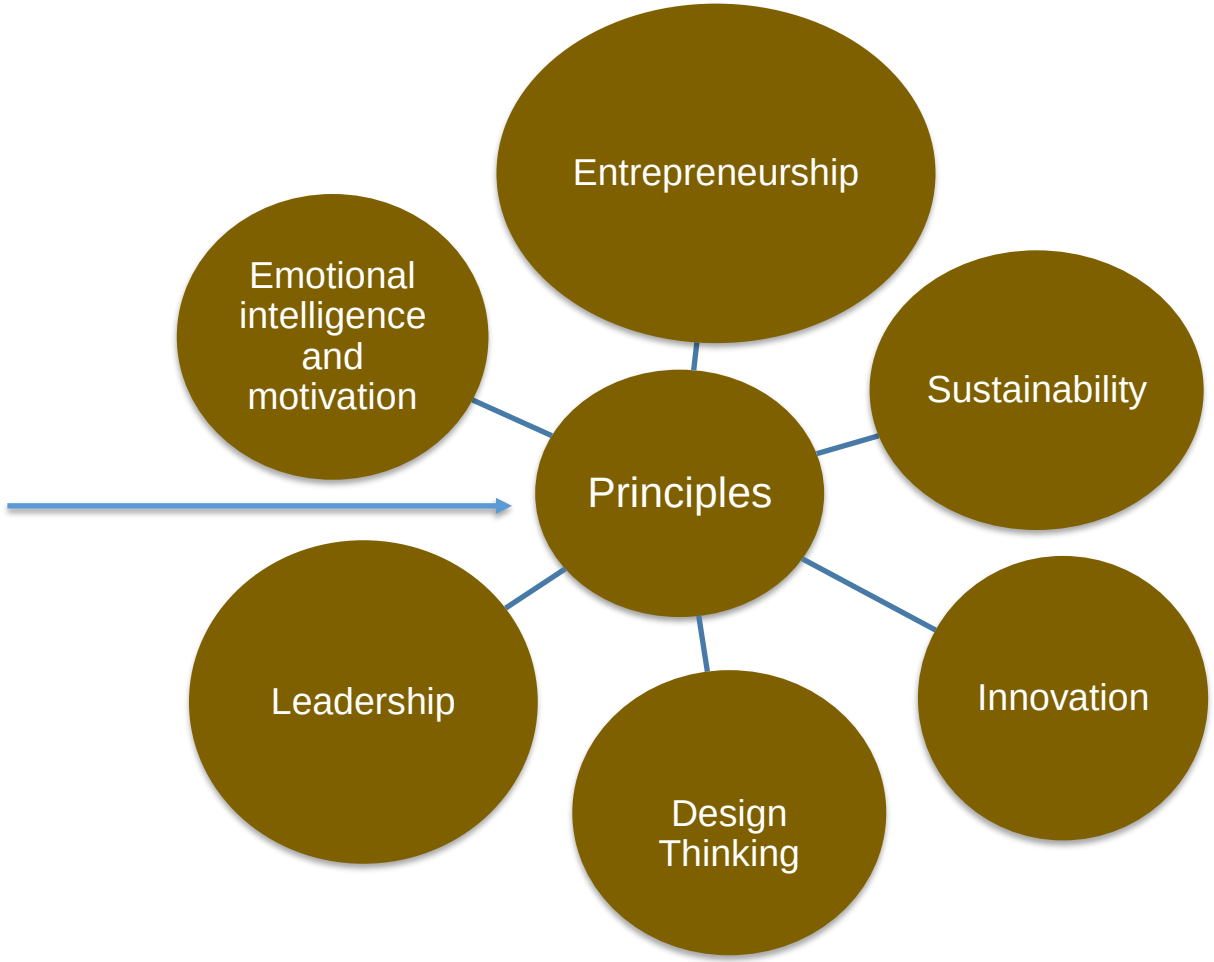

Source: Own creation

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Source: tataandhoward.com

Support and development concepts

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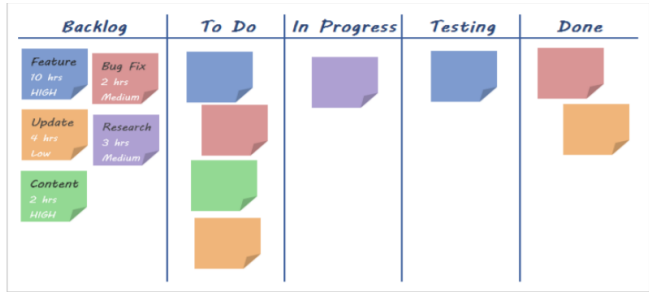
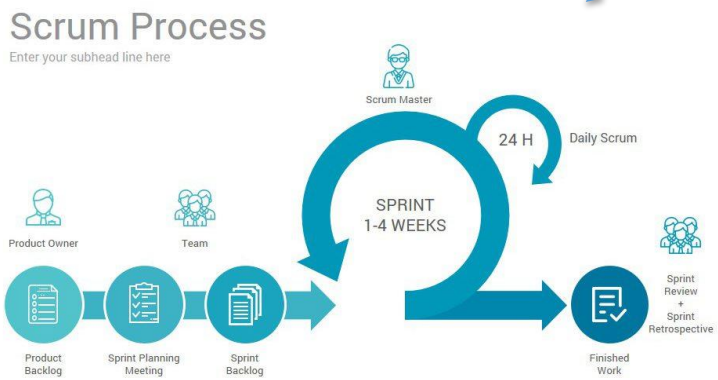
Objectives and key-results

Kanban Methodology



Source: agilecockpit.com



Source: planview.com

Source: innos.at

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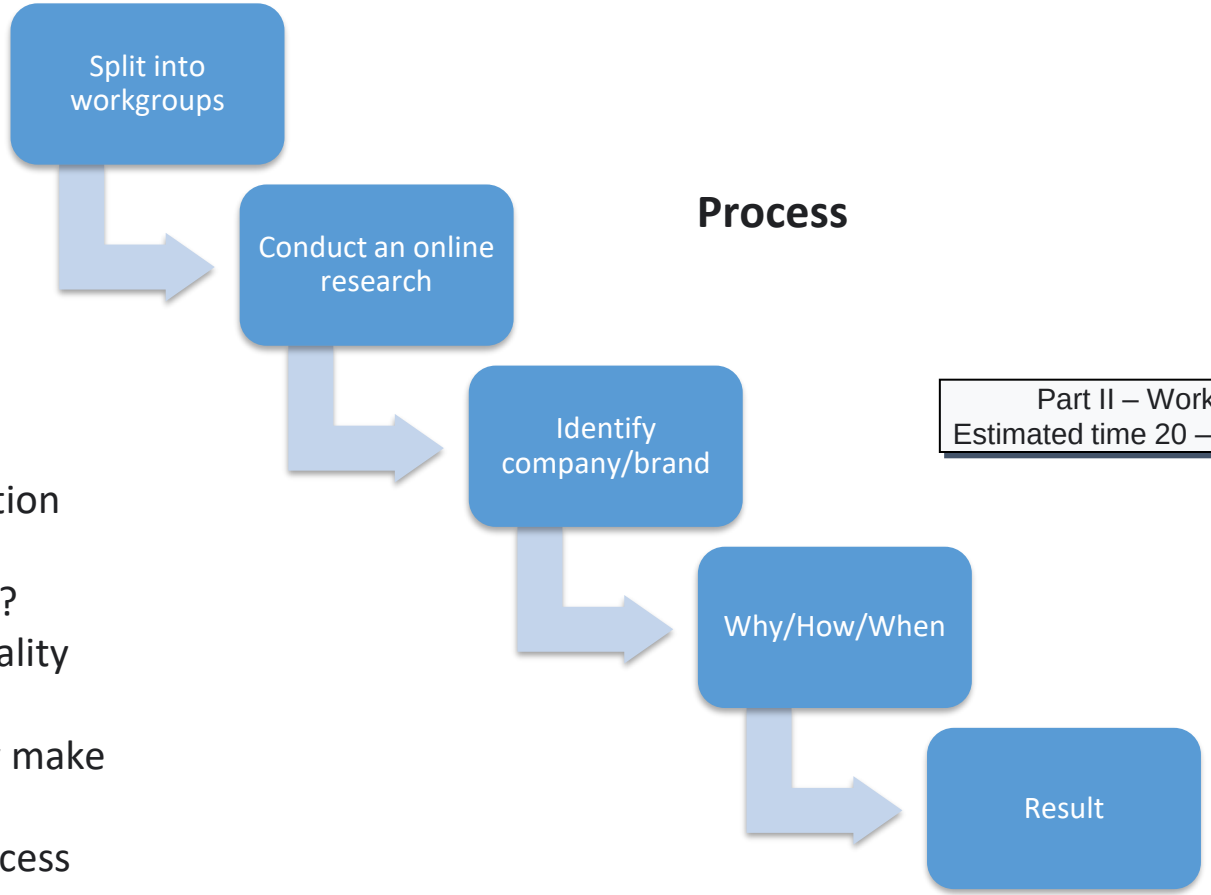
Process



Part II – Workshop
Estimated time 20 – 30 minutes

Objectives:

- Identify reasons that motivated the change
- Define whether it was an innovation or an adaptation
- The importance of design thinking in the process
- Has the company become more sustainable? Why?
- What change: finance approach, leadership, mentality
- Impact of the change
- Why were they, entrepreneurs, and what did they make different
- Did they consider circular the economy in the process

Agile Management

Group discussion of the findings:

- Present the case
- Explain their choice
- Were they innovators or adapted to their needs
- The result
- Good examples of measures taken by companies
- Why design thinking is so important in the process
- The importance of sustainability in the future of the companies
- Why the circular economy is important in the production process
- The importance of being an entrepreneurship

Part II – Workshop
Estimated time 20 – 30 minutes

The end

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Corporate Social Responsibility

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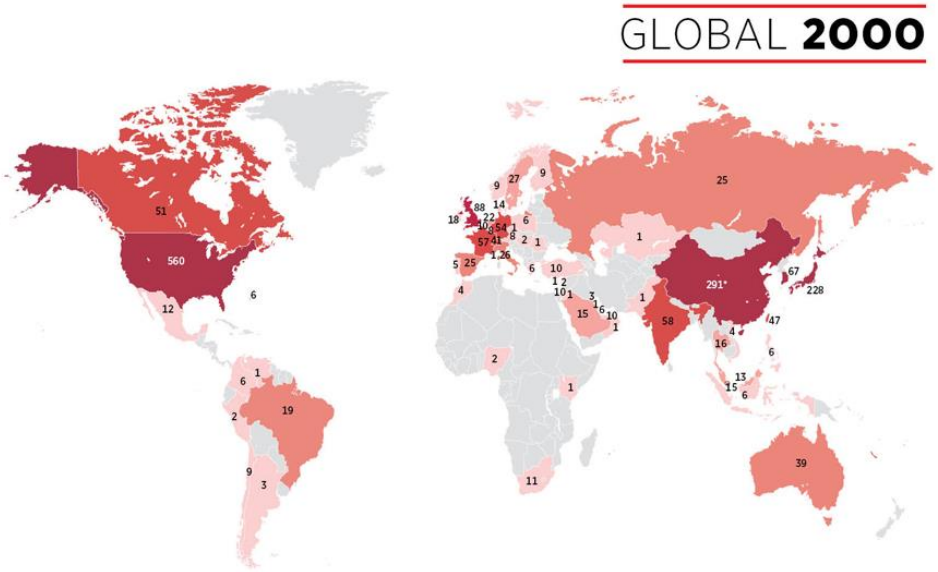
What is CSR

(ang: Corporate Social Responsibility)?

Corporate Social Responsibility



Source: Forbesindia

A multinational is a corporate organization that owns and controls the production of goods or services in at least one country other than its home country that can conduct business worldwide and has as its main objective to make a profit. (EX: Exxon (U.S.), Chevron (U.S.), Saudi Aramco (Saudi Arabia), Gazprom (Russia), China National Petroleum Corporation (China), Equinor (formerly Statoil of Norway), TOTAL (France), and ENI (Italy).

THE TOP 100

1	●	ICBC	CN	51	▼	SIEMENS	GE	101	▲	ITAU UNIBANCO	BR
2	●	CHINA CONSTRUCTION BANK	CN	52	▲	BOEING	US	102	▲	ROSTELECOM	RU
3	▲	JPMORGAN CHASE	US	53	▲	AMAZON.COM	US	103	▲	ENERGY TRANSFER	US
4	▼	BERKSHIRE HATHAWAY	US	54	▲	TD BANK GROUP	CA	104	▲	ENEL CHILE	CL
5	▲	AGRICULTURAL BANK OF CHINA	CN	55	▼	PROCTER & GAMBLE	US	105	▲	ENEL AMERICAS	CL
6	▲	BANK OF AMERICA	US	56	▼	ING GROUP	NE	106	▲	ENEL GENERACION CHILE	CL
7	▼	WELLS FARGO	US	56	▼	POSTAL SAVINGS BANK OF CHINA	CN	107	▲	ENEL GENERACION PERU	PE
8	▲	APPLE	US	58	▲	HONDA MOTOR	JA	108	▲	ENEL RUSSIA	RU
9	▼	BANK OF CHINA	CN	59	▲	SUMITOMO MITSUI FINANCIAL	JA	109	▲	ENERGY TRANSFER PARTNERS	US
10	▲	PING AN INSURANCE GROUP	CN	60	▼	GOLDMAN SACHS GROUP	US	110	▲	ENERGY TRANSFER EQUITY	US
11	▲	ROYAL DUTCH SHELL	NE	61	▲	INTESA SANPAOLO	IT	111	▲	ENERGY TRANSFER OPERATING	US
12	▼	TOYOTA MOTOR	JA	62	▲	INDUSTRIAL BANK	CN	112	▲	ENERGY TRANSFER PARTNERS	US
13	●	EXXON MOBIL	US	63	▼	NOVARTIS	SZ	113	▲	ENERGY TRANSFER PARTNERS	US
14	▲	SAMSUNG ELECTRONICS	KO	64	▲	GLENCORE INTERNATIONAL	SZ	114	▲	ENERGY TRANSFER PARTNERS	US
15	▼	AT&T	US	65	▼	BANCO BRADESCO	BR	115	▲	ENERGY TRANSFER PARTNERS	US
16	▲	VOLKSWAGEN GROUP	GE	66	▲	PRUDENTIAL	UK	116	▲	ENERGY TRANSFER PARTNERS	US
17	▲	HSBC	UK	67	▼	FORD MOTOR	US	117	▲	ENERGY TRANSFER PARTNERS	US
18	●	VERIZON COMMUNICATIONS	US	67	▼	IBM	US	118	▲	ENERGY TRANSFER PARTNERS	US
19	▲	BNP PARIBAS	FR	69	▼	CVS HEALTH	US	119	▲	ENERGY TRANSFER PARTNERS	US
20	▼	MICROSOFT	US	70	▼	SHANGHAI PUDONG DEVELOPMENT	CN	120	▲	ENERGY TRANSFER PARTNERS	US
21	▲	CHEVRON	US	71	▼	COMMONWEALTH BANK	AU	121	▲	ENERGY TRANSFER PARTNERS	US
22	▼	ALLIANZ	GE	72	▼	WALT DISNEY	US	122	▲	ENERGY TRANSFER PARTNERS	US
23	▲	ALPHABET	US	73	▼	PRUDENTIAL FINANCIAL	US	123	▲	ENERGY TRANSFER PARTNERS	US
24	▼	WALMART	US	73	▲	ROSNEFT	RU	124	▲	ENERGY TRANSFER PARTNERS	US
25	▼	CHINA MOBILE	HK	75	▲	ENEL	IT	125	▲	ENERGY TRANSFER PARTNERS	US
26	●	TOTAL	FR	76	▼	CITIC PACIFIC	HK	126	▲	ENERGY TRANSFER PARTNERS	US
27	▼	SINOPEC	CN	77	▲	FACEBOOK	US	127	▲	ENERGY TRANSFER PARTNERS	US
28	▲	UNITEDHEALTH GROUP	US	78	▲	METLIFE	US	128	▲	ENERGY TRANSFER PARTNERS	US
29	▼	DAIMLER	GE	79	▲	ENERGY TRANSFER PARTNERS	US	129	▲	ENERGY TRANSFER PARTNERS	US
30	▲	PETROCHINA	CN	80	▲	SAIC MOTOR	CN	130	▲	ENERGY TRANSFER PARTNERS	US
31	▲	BANCO SANTANDER	SP	81	▲	ALIBABA	CN	131	▲	ENERGY TRANSFER PARTNERS	US
32	▲	CHINA MERCHANTS BANK	CN	82	▲	BASF	GE	132	▲	ENERGY TRANSFER PARTNERS	US
33	▼	AXA GROUP	FR	83	▲	RELIANCE INDUSTRIES	IN	133	▲	ENERGY TRANSFER PARTNERS	US
34	▼	COMCAST	US	84	▼	CHINA STATE CONSTR ENGINEERING	CN	134	▲	ENERGY TRANSFER PARTNERS	US
35	▲	CHINA LIFE INSURANCE	CN	85	▼	CHINA CITIC BANK	CN	135	▲	ENERGY TRANSFER PARTNERS	US
36	▲	BP	UK	86	▲	SONY	JA	136	▲	ENERGY TRANSFER PARTNERS	US
37	▼	MITSUBISHI UFJ FINANCIAL	JA	87	▼	WESTPAC BANKING GROUP	AU	137	▲	ENERGY TRANSFER PARTNERS	US
38	▼	BANK OF COMMUNICATIONS	CN	88	▼	BANK OF NOVA SCOTIA	CA	138	▲	ENERGY TRANSFER PARTNERS	US
39	▼	SOFTBANK	JA	88	▲	BRITISH AMERICAN TOBACCO	UK	139	▲	ENERGY TRANSFER PARTNERS	US
40	▲	BMW GROUP	GE	90	▼	CHINA MINSHENG BANKING	CN	140	▲	ENERGY TRANSFER PARTNERS	US
41	▲	ANHEUSER-BUSCH INBEV	BE	91	▲	EQUINOR[1]	NO	141	▲	ENERGY TRANSFER PARTNERS	US
42	▲	ROYAL BANK OF CANADA	CA	92	▲	AIA GROUP	HK	142	▲	ENERGY TRANSFER PARTNERS	US
43	▼	GAZPROM	RU	93	▼	ROCHE	SZ	143	▲	ENERGY TRANSFER PARTNERS	US
44	▲	PFIZER	US	94	▲	LLOYDS BANKING GROUP	UK	144	▲	ENERGY TRANSFER PARTNERS	US
45	▼	ITAÚ UNIBANCO	BR	95	▲	ENI	IT	145	▲	ENERGY TRANSFER PARTNERS	US
46	▼	NIPPON TELEGRAPH & TEL	JA	96	▲	CHARTER COMMUNICATIONS	US	146	▲	ENERGY TRANSFER PARTNERS	US
47	▲	SBERBANK	RU	97	▼	NISSAN MOTOR	JA	147	▲	ENERGY TRANSFER PARTNERS	US
48	▼	NESTLE	SZ	98	▲	LUKOIL	RU	148	▲	ENERGY TRANSFER PARTNERS	US
49	▲	INTEL	US	99	▼	UNITED TECHNOLOGIES	US	149	▲	ENERGY TRANSFER PARTNERS	US
50	▲	MORGAN STANLEY	US	100	▼	BAYER	GE	150	▲	ENERGY TRANSFER PARTNERS	US

Forbes Global 2000: The world's biggest companies

COUNTRY CODES

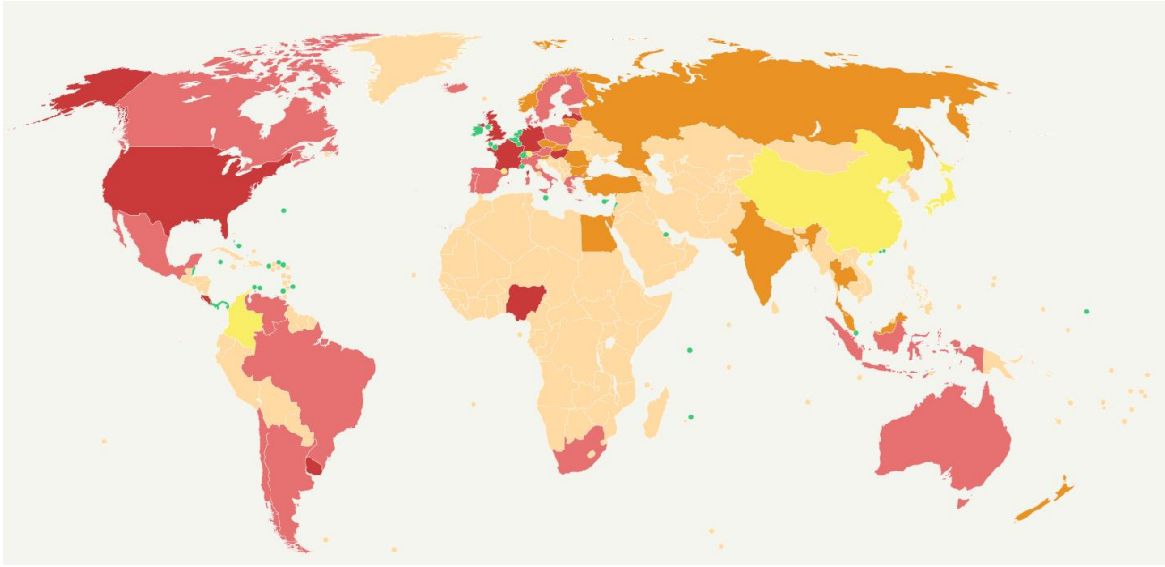
ARGENTINA	AR	GREECE	GR	NETHERLANDS	NE	SAUDI ARABIA	SU	UNITED ARAB EMIRATES	AE
AUSTRALIA	AU	HONG KONG	HK	NIGERIA	NI	SINGAPORE	SI	UNITED KINGDOM	UK
AUSTRIA	AS	HUNGARY	HU	NORWAY	NO	SOUTH AFRICA	SA	UNITED STATES	US
BAHRAIN	BN	INDIA	IN	OMAN	OM	SOUTH KOREA	KO	VENEZUELA	VZ
BELGIUM	BE	INDONESIA	ID	PERU	PE	SPAIN	SP	VIETNAM	VE
BERMUDA	BU	IRELAND	IR	PHILIPPINES	PH	SWEDEN	SW		
BRAZIL	BR	ISRAEL	IS	POLAND	PL	SWITZERLAND	SZ		
CANADA	CA	ITALY	IT	PORTUGAL	PO	TAIWAN	TA		
CHILE	CH	JAPAN	JA	QATAR	QA	THAILAND	TH		
CHINA	CN	JORDAN	JO	RUSSIA	RU	TURKEY	TU		
COLOMBIA	CO	KAZAKHSTAN	KZ						
CYPRUS	CY	KENYA	KE						
CZECH REPUBLIC	CZ	KUWAIT	KU						
DENMARK	DE	LEBANON	LE						
EGYPT	EG	LUXEMBOURG	LU						
FINLAND	FI	MALAYSIA	MA						
FRANCE	FR	MEXICO	MX						
GERMANY	GE	MONACO	MC						
		MOROCCO	MO						

▲ UP ▼ DOWN
● UNCHANGED ● NEW
ASIAN COMPANIES ARE IN RED TYPE

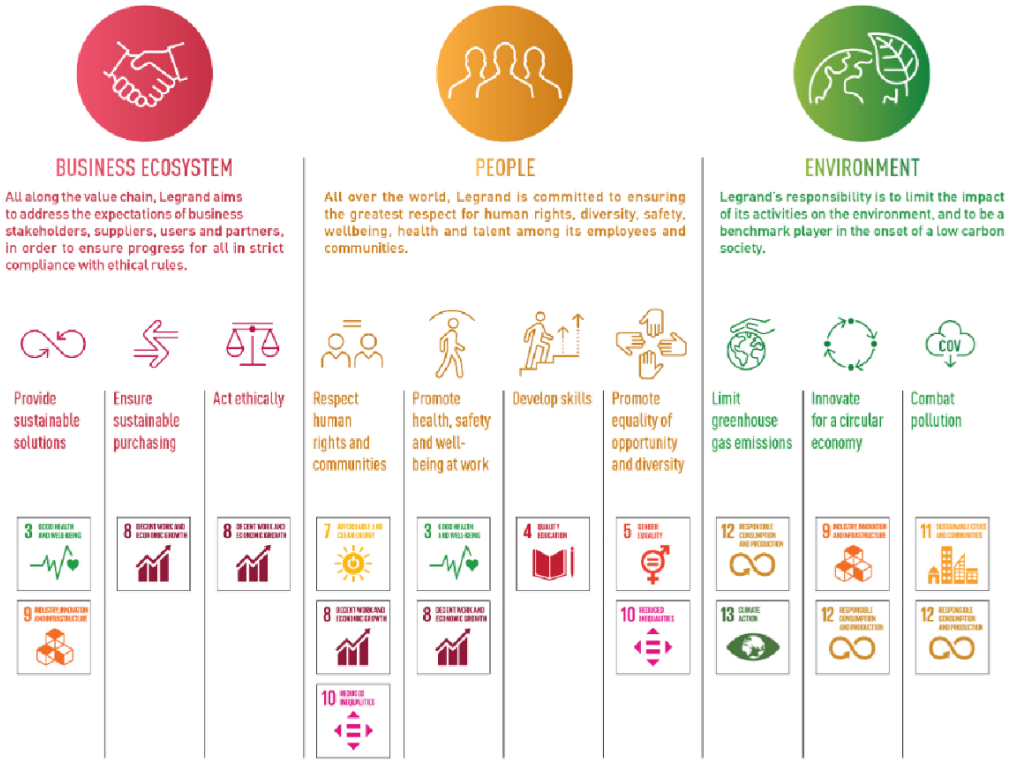
Source: Forbesindia Sept. 2018

- The top 10 companies are all Chinese and North American
- The Asia-Pacific region leads with 792 companies, 40% of the entire list
- The growing importance of the Chinese economy in the world
- The importance of oil companies is still very large

- Multinational firms shift profits to tax havens to reduce their global tax bills. (EX: Ireland, Bermuda).
- Close to 40% of multinational profits are shifted to tax havens each year
- Globally, more than $900 billion (2018) in profits were shifted to such tax havens by multinationals from all countries.



Source: missingprofits.world



Source: Legrand Companie

Environmental Corporate Social Responsibility (ECSR) is a concept, where companies integrate environmental concerns into their business operations and the interaction with stakeholders, without compromising economic performance.

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Coca-Cola (areas of focus)

- Sustainable Packaging
- Water Stewardship
- In Our Products
- Sustainable Agriculture
- Climate Solutions
- Product Quality & Safety

Source: Coca-Cola Companies

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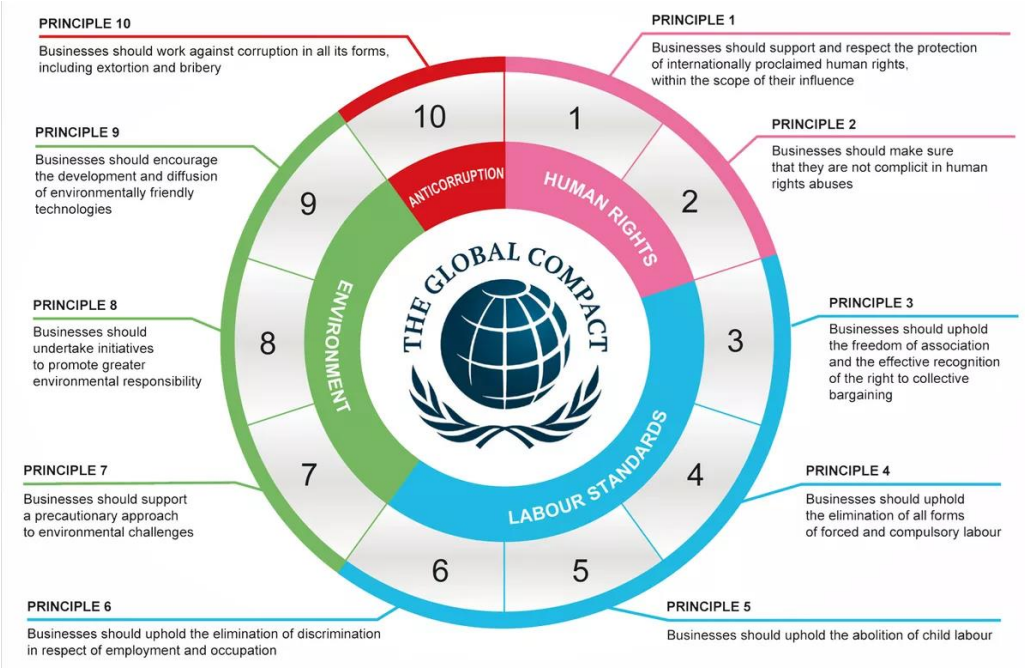
ESG stands for environmental, social and governance, the three most important non-financial factors for a company. It is a strategic and analysis approach that is very widely used by institutional investors and analysts to evaluate sustainability performance. In fact, according to Janus Henderson Investors, a British global asset manager, ESG is today "the bedrock of sustainable and responsible investing for any company". Society and stakeholders are increasingly asking for information on how companies manage issues relating to sustainability.

Source: Iberdrola Companie

The Ten Principles of the UN Global Compact

The United Nations Global Compact is a non-binding United Nations pact to encourage businesses and firms worldwide to adopt sustainable and socially responsible policies and to report on their implementation. The UN Global Compact is a principle-based framework for businesses, stating ten principles in the areas of human rights, labor, the environment and anti-corruption.



Source: United Nations

What is Greenwashing???

- It's a behaviour or activity that makes people believe that a company is doing more to protect the environment than it really is.
- Is when an organization spends more time and money on marketing itself as environmentally friendly than on actually minimizing its environmental impact.

It's a deceitful marketing gimmick intended to mislead consumers who prefer to buy goods and services from environmentally conscious brands.

15 EYE-OPENING CORPORATE SOCIAL RESPONSIBILITY STATISTICS

How do customers know if companies do not lie about social corporation responsibility?

1. 70%of Americans believe it's either "somewhat" or "very important" for companies to make the world a better place
2. 77%consumers are motivated to purchase from companies committed to making the world a better place, while 73% of investors state that efforts to improve the environment and society contribute to their investment decisions
3. 41% of millennial investors put a significant amount of effort into understanding a company's CSR practices, compared to just 27% of Gen X and 16% of baby boomers
4. 25%of consumers and 22% of investors cite a "zero tolerance" policy toward companies that embrace questionable practices on the ethical front
5. A majority of American consumers (55%) believe it's important for companies to take a stand on key social, environmental, and political issues

The end

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High Impact Presentations

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ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΙΑΣ

What is a presentation

- Verbal communication
- + some supporting tools

The power of verbal communication

Martin Luther King, I have a dream (1.48)

The importance of verbal communication

Verbal communication has more impact than written!

We all remember something that “someone said”

- In our everyday life we communicate

- In various forms

The importance of verbal communication

- More direct communication of ideas
- Interpersonal communication
- Less formal, less rigid
- Immediate reactions, we may observe others as we speak
- More effective in solving problems and conflict resolution

What it means ….

Usually face-to-face communication
- The audience can see us

What is important
- What we say
- How we look

So, for impact it is important
- The speaker must show belief in their words
- The presentation must be relevant to audience needs

Common problems in verbal presentations

We all communicate verbally on a daily basis

- Verbal communication is a natural activity

But when we speak in front of an audience stress changes the way we come across

- Some almost present a different personality than their real one

We don’t have enough time to say everything we wish

What is important in a presentation

To convey the central message

To maintain the audience's attention
To pursue audience engagement

To let our personality come across

These imply ….

- Expressing our ideas clearly
- Empathy, understanding the reactions of the audience
- Avoiding information overload

Who is a good speaker?

Someone with correct grammar and syntax?

or …

Someone who presents clearly a message

Provides relevant and good examples

Helps the audience follow

It requires practice!

Preparing a presentation

<u>Example to avoid</u>

Structure

- Introduction
- Overview
- What others do
- Our proposal
- Conclusions

Used even in conferences
Audience falls asleep

Proposed structure

Strong entrance

1 central message, first!
2-3 sub-messages

The audience cannot follow several messages in the same presentation

We do not have time to say all we wish

Supporting tools for explanations
- Examples
- Video, images, slides, animations
- Stories

Strong closure

Tell a story

Tell a story (people love stories not objects)

Create strong images

Ok to use some clichés

Supporting tools

Non-verbal communication

- Effective during pauses
- Can create feelings
- Can change perceptions
- Not suitable in all cases

Audience participation

Relevant examples

Rhetorical questions

- Must be relevant to the audience

Address each person individually

The importance of eye contact

The audience needs to feel that we are addressing them

It shows confidence in what we say

In everyday communication we look at our listener when we say something important

This is a good rule for verbal presentations too

- Not always stare at the listener
- But at the beginning and end of an important message

The importance of pauses

Some speakers feel they speak too fast

This is not necessarily a problem
- If the audience understands us

More important to use pauses
- Between important messages
- To allow the audience to digest what we said

10-20-30 rule for slideshows

10 slides
20 minutes
Font size 30+

Avoid “death by powerpoint”

About supporting tools - slides

Not everything will fit in slides

Use notes

Avoid reading the notes

A presentation should be more than that

The audience can read a paper at home

What to avoid

Don’t read the slides!
Don’t turn your back to the audience

Use slides for underlining concepts

Emphasis is on verbal communication

Keep notes separately

Body language

Less is more

Not many moves and gestures
Use our hands like in everyday conversation

About unconscious movements

Avoid some movement

- Don’t cross your arms on your chest
- Don’t put your hands in your pockets
- Don’t walk nervously

Breathe!

The end

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HIGH 5

Pictograms and Design Thinking or Design Thinking and Pictograms

Trends and parallels in prehistoric rock art
and the contemporary street art

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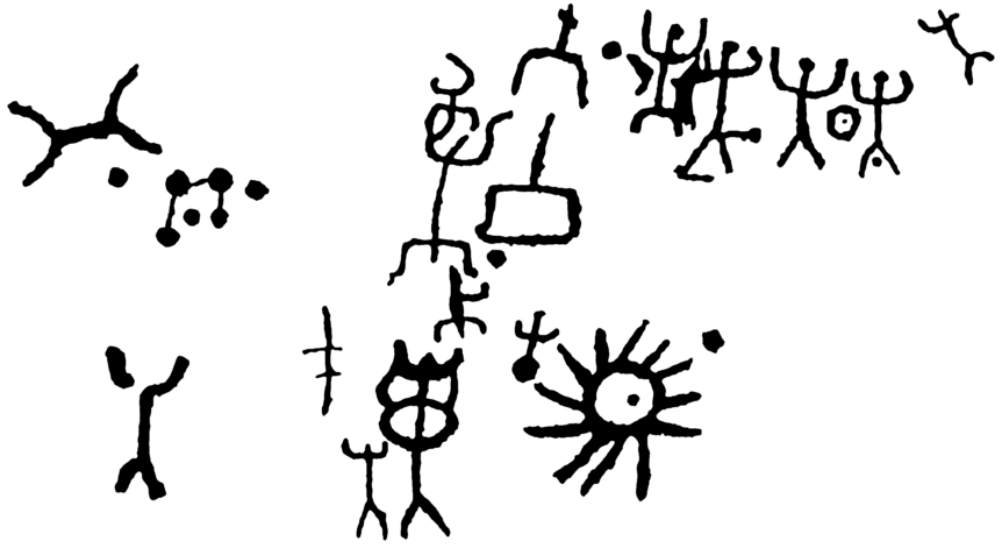
?Pictograms?

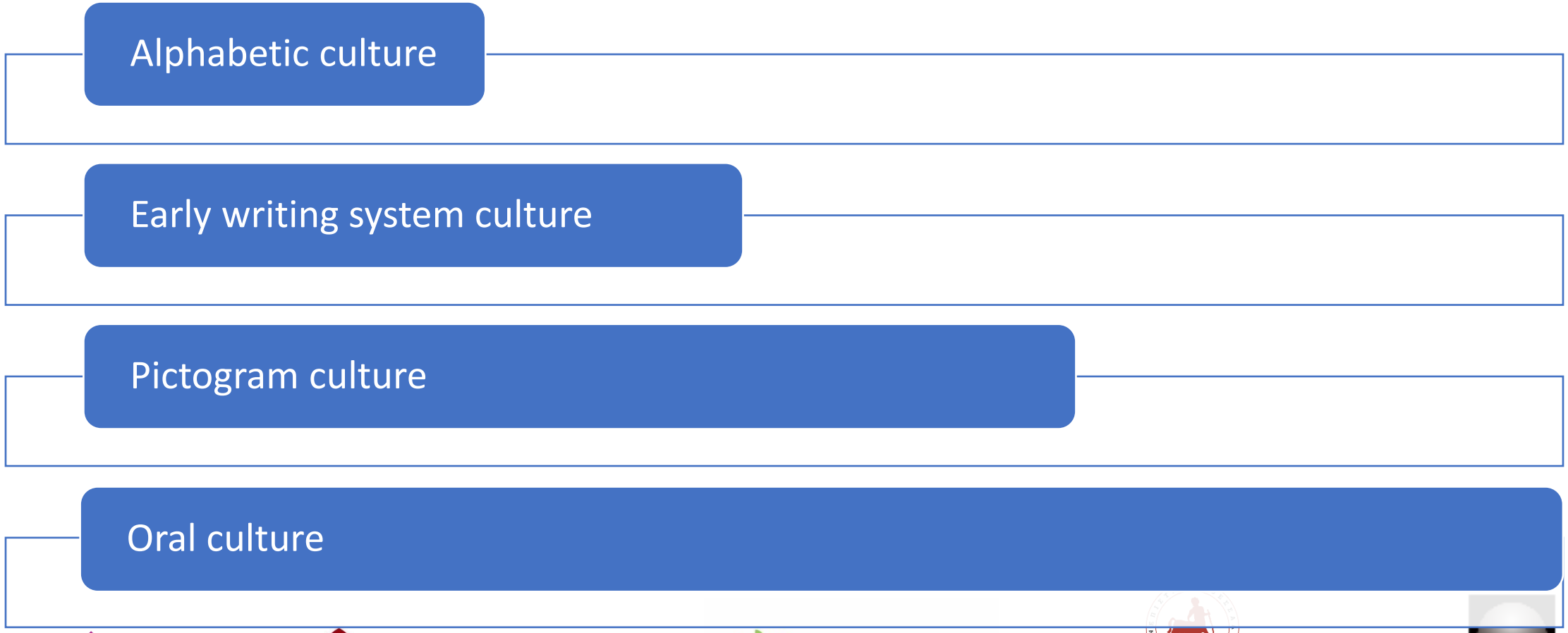
Pictograms are the oldest tool for visualization of human thoughts

One-way Evolutionary Proucese

Oral culture → Pictograms → Writing systems



Culture and Communication Layers



?Pictograms?

Today we still have a huge amount of pictograms in usage. They are in use in the fields of industry, trade, sport, tourism and everyday life.

The new heyday of the pictogram is related with the technological and industrial development from the past 30 years. The advance of computer software, opportunities to travel, cross-border exchange of goods and services all increased use of pictograms.

Types of Pictograms

PICTOGRAM

LOGOGRAMS

A symbol for a specific word

IDEOGRAMS

A symbol for a more complex idea

?Pictograms – Basic Principles?

- The pictogram is a symbol representing a concept, object or activity by illustration
- The pictogram is directly related to its surrounding environment
- The pictogram should be based on general social and communication conventions
- Every detail can change the meaning
- The pictogram should not contain many different visual elements
- The accumulation of pictograms in our environment must be carefully planned

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Laos

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GOOD PRACTICES

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PROBLEMS

If you present something more complex or abstract a different meaning can arise

PROBLEMS

- When accumulating more than one pictogram, a different meaning may occur

1. The street is forbidden for cars but not for bicycles
2. The street is forbidden for bicycles but not for cars
3. The street is forbidden for cars and for bicycles

COMMUNICATION ISSUES AND SUSTAINABILITY

- HUMANS CONSTANTLY COMMUNICATE WITH SURROUNDING ENVIRONMENT
- IF THE SURROUNDING ENVIROMENT SEND YOU RONG SIGNALS YOU CAN GET EAZILY CONFUSED
- IN FIELDS OF TRANSPORTATION, PRODUCT INSTRUCTIONS, LABOR PROTECTION THE MISUNDERSTANDING IS DIRECTLY RELATED WITH SUSTAINABLE DEVELOPMENT

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HIGH 5

ARE YOU READY TO TRY YOUR PICTOGRAM LITERACY LEVEL

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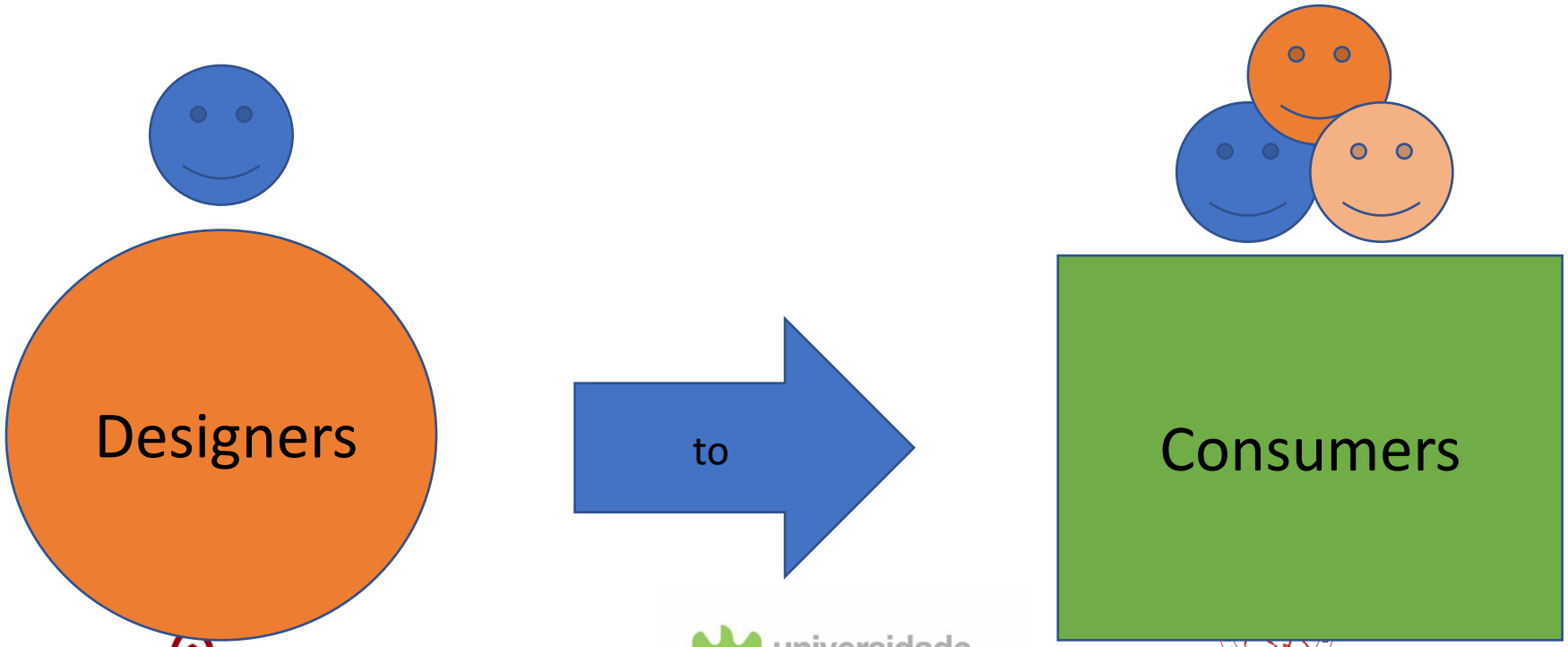
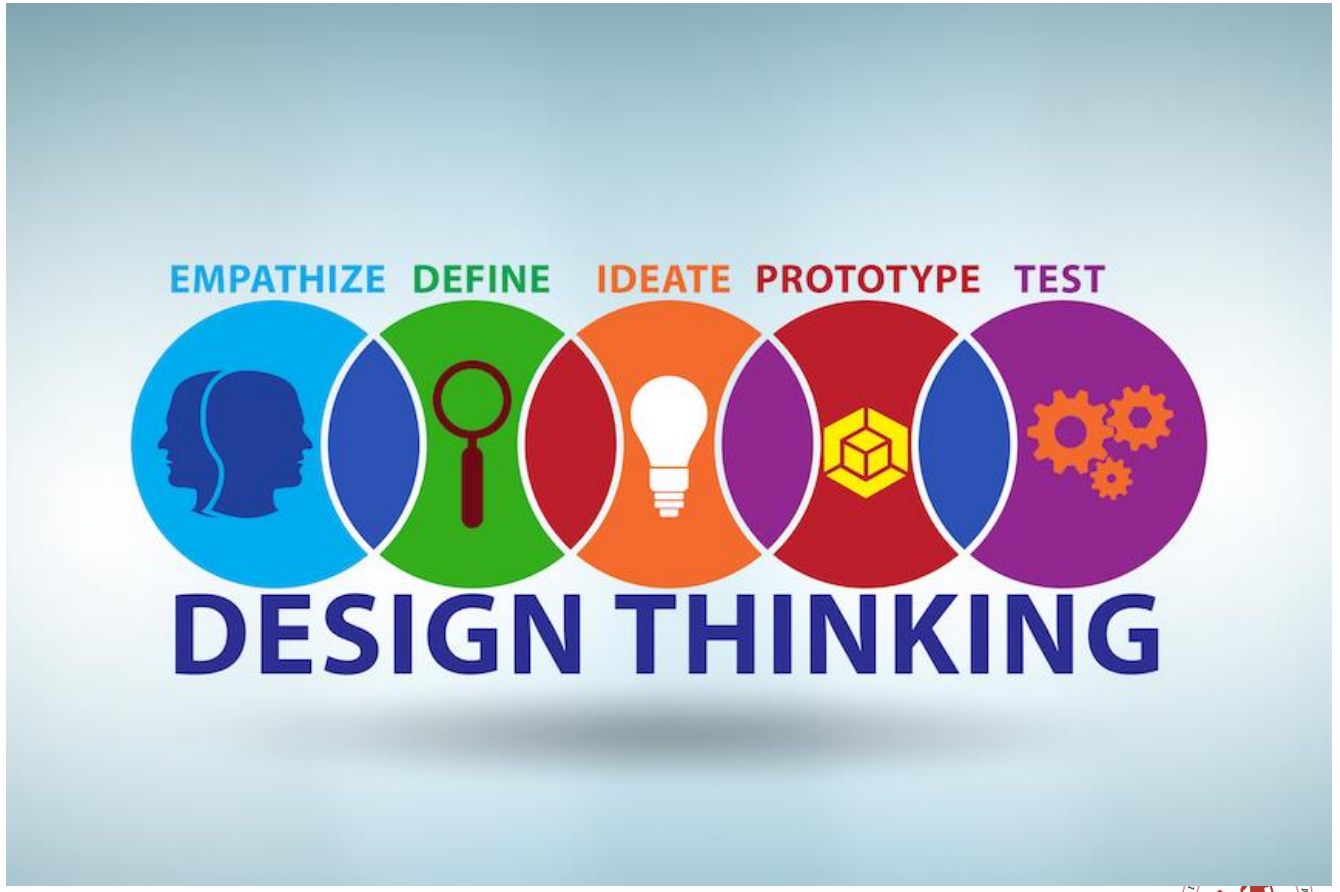
WHAT WILL… IF YOU CAN **NOT** READ THIS???

Who creates the pictograms?

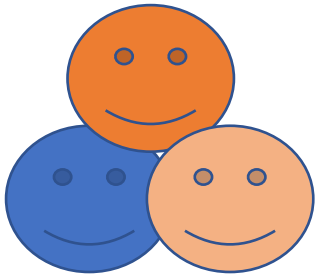
- Designers from different types of industries and social sectors.
- International standard *ISO 7001*: *Public Information Symbols*.



PICTOGRAMS AND DESIGN THINKING PRINCIPLES



LETS USE DESIGN TINKING

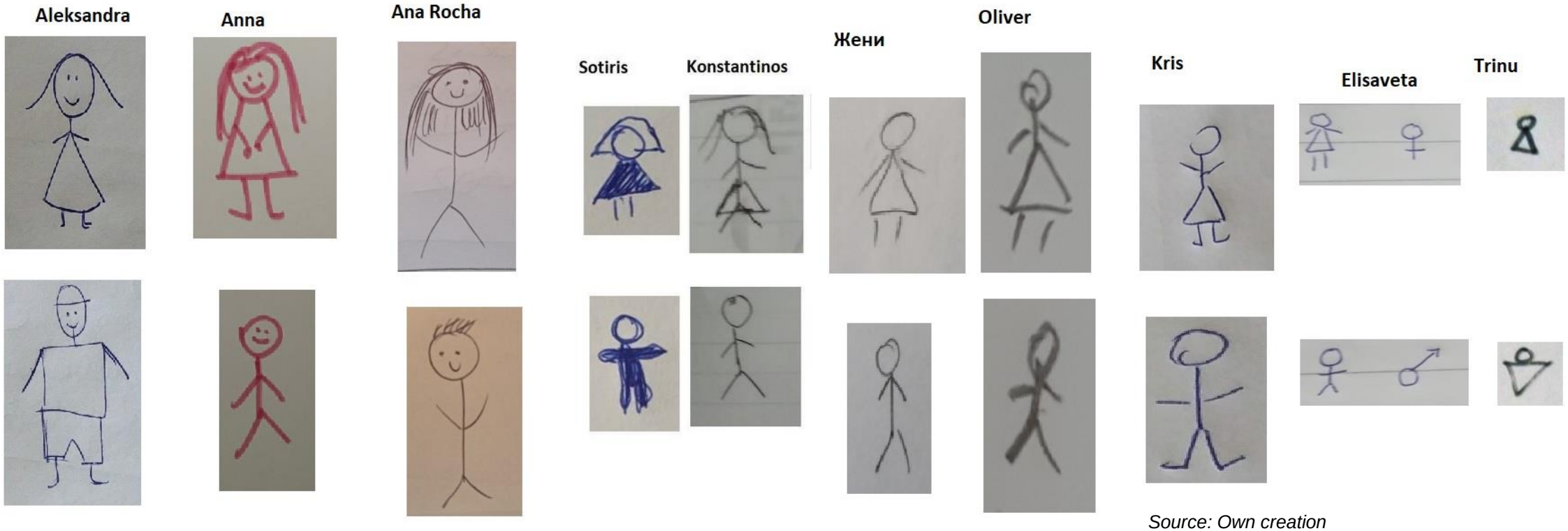


Consumers

to

Designers

HIGH5 PICTOGRAME EXPERIMENT



Source: Own creation

SO!

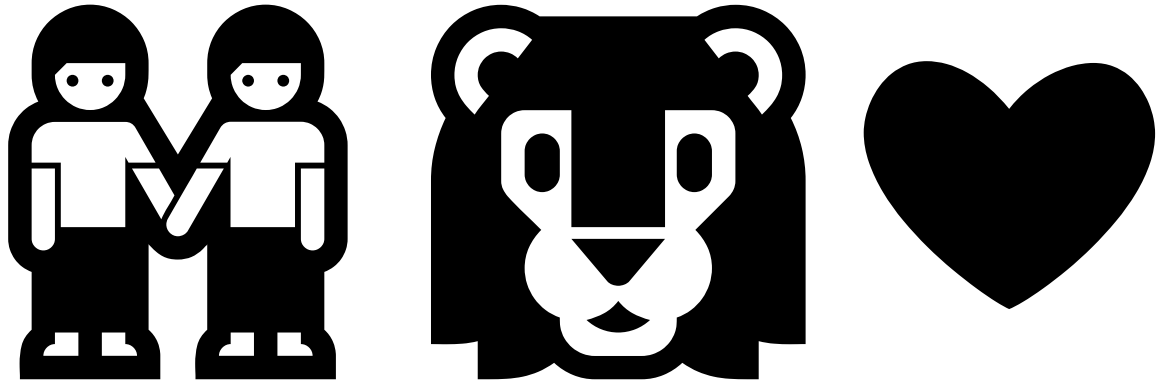
The number of pictograms in use is rising from year to year

Soon we will challenge a problems related with so called pictorial literacy and especially iliteracy

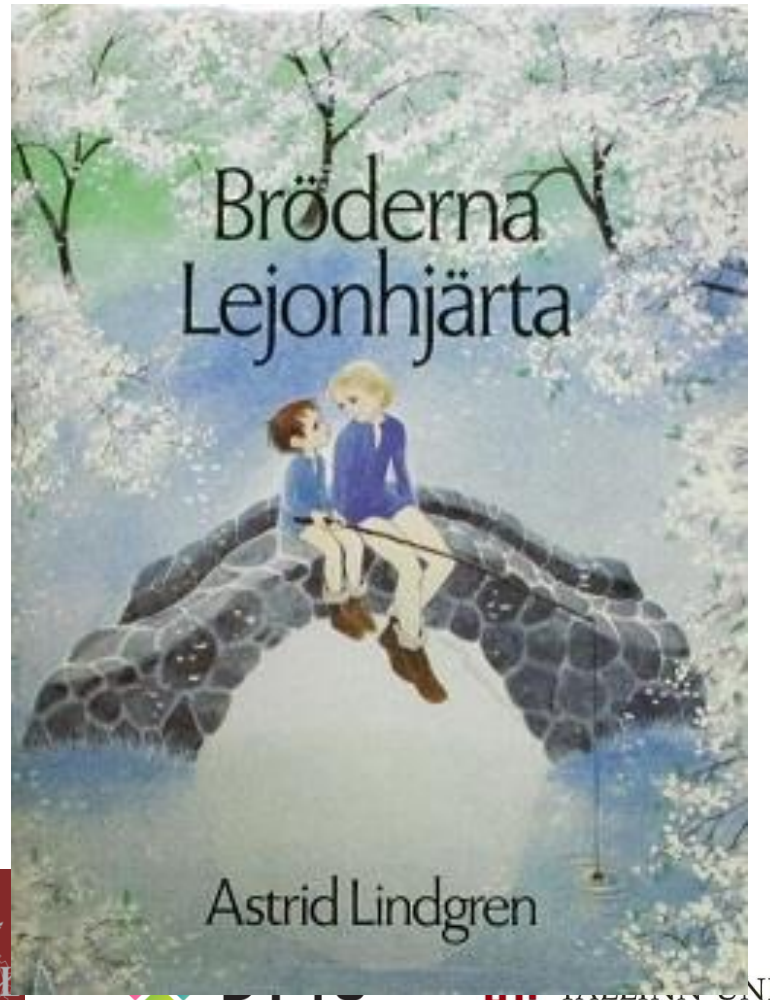
OR

We can design the pictogram on principles of Design Thinking –

READ THE PICTOGRAMS
GUESS THE TITLES OF MY FAVOURITE BOOKS

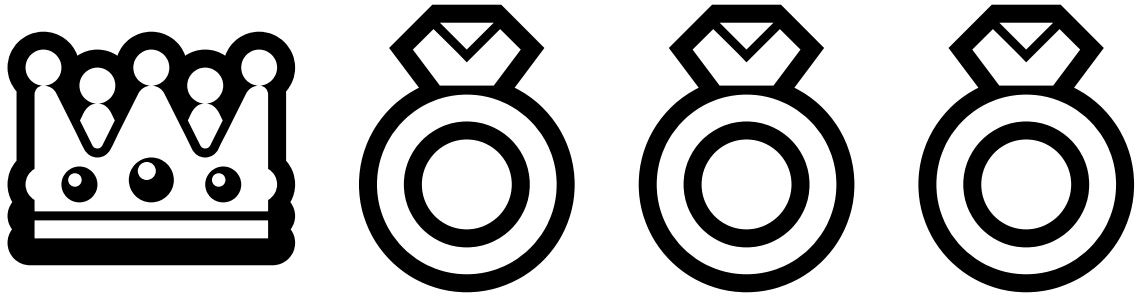


The Brothers Lionheart

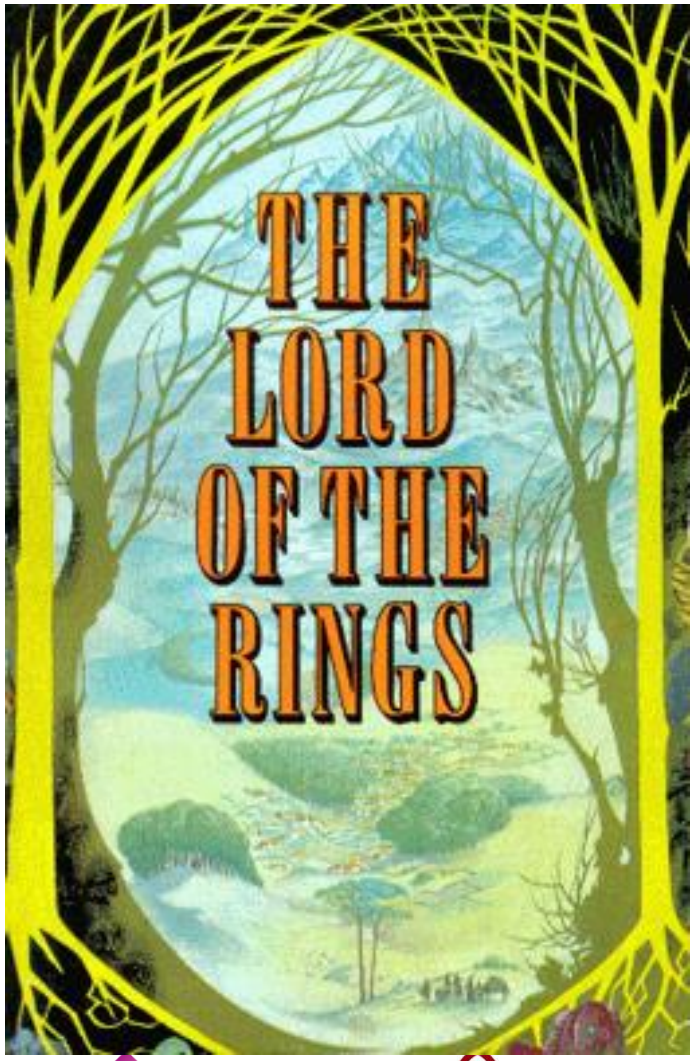


(Swedish: Bröderna Lejonhjärta) is a children's fantasy novel written by Astrid Lindgren

READ THE PICTOGRAMS
GUESS THE TITLES OF MY FAVOURITE BOOKS



The Lord of the Rings

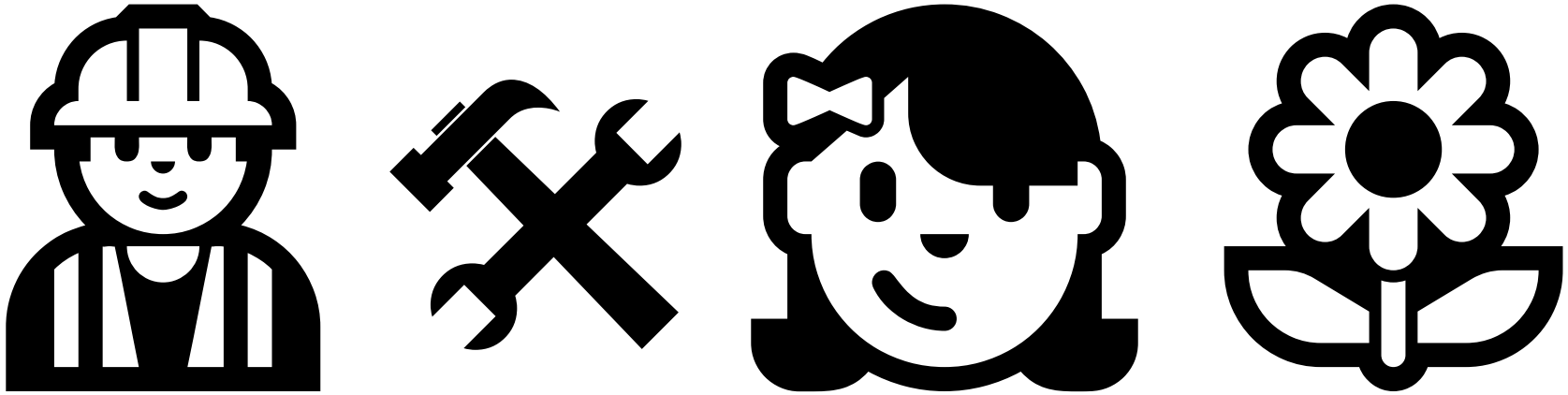


The Lord of the Rings

is an epic fantasy novel by

English author and scholar J. R. R. Tolkien

READ THE PICTOGRAMS
GUESS THE TITLES OF MY FAVOURITE BOOKS



The Master and Margarita

(Russian: Мастер и Маргарита) is a novel by Russian writer Mikhail Bulgakov, written in the Soviet Union between 1928 and 1940

NOW IT IS YOUR TURN

TRY TO DISCRIBE WITH PICTOGRAMES

YOUR FAVOURITE BOOK OR MOVIE

PICTURES SOURCES

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The end

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