# FACILITATOR GUIDE





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# Introduction

## Welcome to the GetLand Project

The project "GeT - Gamification, Education and Training designed to activate youth for sustainable choices" was a 21-months transnational cooperation project funded by the Erasmus+ Programme of the European Commission. It was developed to respond to the need for innovative methods to discuss sustainable consumption and links between local actions and global impacts in youth work and Global Citizenship Education.

In addition, it offered youth workers concrete tools for innovative and engaging activities to encourage sustainable consumption and active citizenship amongst youth. During the project, its partner organisations, who are all involved in youth work, in Finland, Austria, Spain and Italy collected, analysed, and disseminated best practices in using games and gamifying in tackling complex issues related to sustainability in youth work. Partners developed a toolkit and this game which enables young people to learn about sustainable consumption in a fun and engaging way.

# **Game Description**

GetLand is a fictional city which, like many other cities, is struggling with environmental problems. These problems include air pollution, traffic, noise pollution and congestion, all of which impact the quality of life. Fossil fuels, along with other natural resources, are becoming scarce. Hopefully, we can change this.

Players complete different Eco-Missions, which are based on the principles of the circular economy and sustainability, to help residents feel happy and safe in their city again. In order to complete the Eco-Missions, players test their knowledge of sustainable production and consumption and the impacts of climate change. Players, in looking to develop the best solutions, also practice and build their active citizenship skills in a creative and fun way.

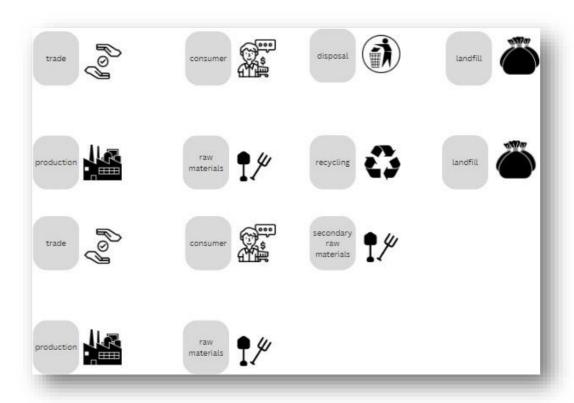
# The Circular Economy

GetLand can be played without prior knowledge of the circular economy, but we recommend a brief introduction to the concepts of the circular economy before playing.

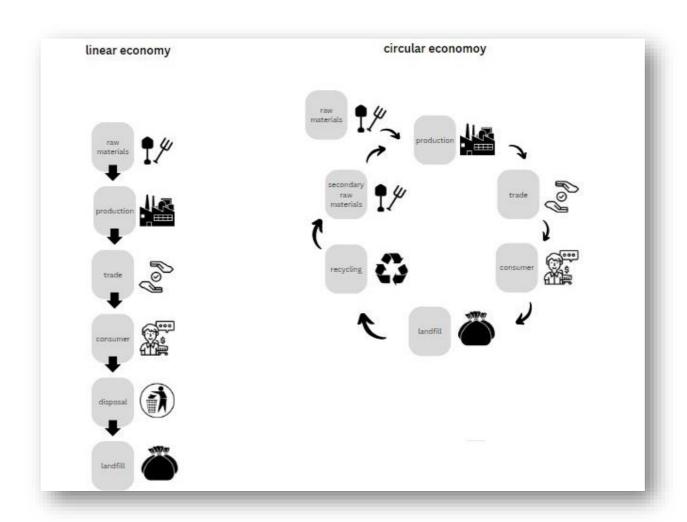
We also recommend that you complete the following two short activities with your group or class to introduce them to some of the ideas that they will encounter in the game.

# Activity 1: The Lifecycle of a Consumer Product

Divide your learners into smaller groups of about 4 or 5 people per group and provide each group with a copy of this sheet. These pictures represent the life cycle of our products. Ask each group to put the pictures in order of a linear life cycle and then do the activity again except this time for a circular lifecycle (please note there will be fewer pictures for the circular lifecycle).



#### Solution:



#### **Discussion/Reflection Questions**:

- Can you identify some advantages of a circular economy?
- Can you think of any products where the principles of a circular economy are already applied?
- In what ways might the principles of a circular economy help mitigate (decrease) the impacts of the climate crisis?

# Activity 2: Circular Economy in Action

Still working in their small groups, ask learners to come up with 2 examples.

(In addition to the ones listed below) that support the following principles of the circular economy:

**Principle 1**: Creating Value from Waste, for example, making potato planters from old car tires.

**Principle 2**: Extending the Life of Products, for example, repairing a ripped piece of clothing.

**Principle 3**: Using Recycled/Repurposed Raw Materials for a Means of Production, for example, using recycled plastic to make a skateboard.

**Principle 4**: Buying Second-Hand, for example, getting a used bicycle.

	<b>Principle 1:</b> Creating Value from Waste	Principle 2: Extending the Life of Products	Principle 3: Using Secondary Raw Materials as a Means of Production	<b>Principle 4:</b> Buying Second- Hand
Example 1				
Example 2				

## Preparing the Game

This game can be played with 3 to 6 players or teams per board and can be downloaded from: <a href="https://eetti.fi/en/getland-boardgame/">https://eetti.fi/en/getland-boardgame/</a>

- **Game figures** (1 per person): You can use anything for game pieces, in line with the principles of the circular economy, for example, bottle caps, small rocks, pieces from other games.
- 2 dice also can be taken from another game or dice app on mobile phone.
- 1 timer (1 minute), alternatively stopwatch on a cell phone
- Points: you can use beans, or paper clips, or pebbles, etc. something that is easy to get in larger quantities (approx. 50 per game set)
- **Game board** (preferably A3, otherwise A4)
- Rules
- **Narrative** (this provides the context for playing the game)
- **Resource triangles** (3 resources per player, so with 6 players, 18 resource cards): print out and cut out triangles (size should fit on pie chart of missions) on preferably thick paper/cardboard.
- **Missions** (print on both sides of A4 it is a trifold design)
- Glossary
- Option A/ Option B card (print both sides and cut out) (for I would rather!)
- Cards
  - > 1 set of cards for up to 3 games is enough, divide cards on game tables (per category!)
  - If all the cards are played through during the game swap with other game table, so that again new cards are in the game.
  - Print the cards on thick paper or cardboard on the front and back and cut them to size. Laminate for longer durability.
  - Card categories:
    - I would rather
    - Quiz
    - Everyone guess
    - · Idea generation
    - Event cards

## Getting started

Prior to starting the game, provide each game table with the following materials:

- 1. Cards:
  - a. *Idea' Competition* and *Event* cards each go in their own pile.
  - b. Quiz: I would rather, and All guess cards are shuffled well and go together in one pile.
- 2. Read the narrative (one person reads aloud)
- 3. Read the rules of the game.
- 4. Distribute the missions and read them aloud (front side, optional back side if interested)
- 5. Start the Game! (**Duration 45 90 minutes**)

# Follow Up Activities

#### **Activity 1: Idea Competition Reality Check**

In the Idea's Competition part of the game, creativity is given free rein. Every idea is allowed and welcome. This process is important, because if you don't have to think about the practical implementation at first, there is a chance to be open to completely new ways of thinking and might find outside of the box solutions. But there comes a time when an idea should be able to be put into practice.

In order to do this, ideas must be checked to see whether they can be implemented. An idea that turns out to be unworkable does not need to be thrown out. Instead, it can be broken down into a smaller project (or projects) that can be implemented.

Have the youth players write down 3 ideas that came out of the Idea Competition that they would like to put into action. These may or may not be the ideas that won the Idea Competition.

#### **Quick Check**

Consider whether the project is actually feasible. The following questions can help you:

- What is your goal?
- What is the benefit of the project?
- What materials do you need?
- What skills and knowledge do you need?
- Are there any costs for your project? If yes, how high do you estimate them?
- Is your project 'allowed' or could there be problems with the law?
- Who else needs to be involved in the project? Do you need any partners?
- Approximately how much time would your project take?
- What problems could possibly arise?
- Why do you want to do the project?

#### Your project passed the quick check?

Then this project planning table will help you to plan it more precisely.

When filling out the project plan, you will also gain clarity about whether your project idea is actually feasible.

Project name	
Needs assessment: Why	
is the project	
necessary/beneficial?	
What is the goal?	
• Specific	
<ul> <li>Measurable</li> </ul>	
<ul> <li>Attainable</li> </ul>	
• Relevant	
Time-bound	
Who is your target	
group?	

	Task	Material needed, budget	Task allocation	Support, permissions	Schedule
Step 1					
Step 2					
Step 3					
Step 4					
Step 5					

#### Activity 2: Design your own playing cards or mission.

Adapt the game for your own context. Have players come up with additional ideas for an event, quiz question, idea competition or even a new mission. Upgrade GetLand with your own playing cards designed by your students or learners.

















# NARRATIVE

In 2010, as a result of an unexpected geological movement, a new state, GETLAND, was born. After the first moments of disbelief, many citizens from all over Europe migrated to this new environment in the hope of making a new and better life for themselves.

Within a few years, the cities that emerged from GETLAND were similar and comparable to the most polluted cities in other European countries: factories, intensive livestock farming, illegal building, over-exploitation of land and natural resources, drilling for cheap fossil fuels ...

Faced with the appearance of the first critical problems (frequent asthma crises in children, water contamination, waste accumulation, cancer), local administrators began to take ambivalent positions on the subject of people's rights and the environment.

After the first studies and the definition of future scenarios, it is clear that the GETLAND community has few years of natural resource exploitation left before the entire system collapses (at current rates of consumption) and the territory becomes uninhabitable. It is necessary to act now to change the situation and conserve the resources still present on the territory as soon as possible, in order to bring a real change towards sustainability and survival.

The citizens of GETLAND are very concerned about the situation: some of them are beginning to mobilize in groups and movements to understand how to deal with the situation and to seek help by networking with activists and experts from all over Europe and the world.

The first reinforcements are arriving from Italy, Austria, Spain and Finland: a number of volunteers with different skills and experiences who, together with local authorities, eco-activists and GETLAND researchers, will try to overturn the situation by researching and collecting innovative solutions for a more balanced development by 2050.

Everyone wants to save GETLAND, but who will? Who will be able to conserve and protect the resources needed to rethink a sustainable social economic model and ensure the survival of the country's future? Who will be able to GET THE FUTURE?

# RULES OF THE GAME

**Number of players:** 3 to 7 or small groups

At the beginning of the game, players are assigned **a mission**. The missions are divided randomly. To fill a mission, a player must collect **six resources:** one signature sign (50 000 votes), material, HR, software,

space and one extra resource.



In the game, players will roll a dice and move around the board and land on different kinds of squares. The purpose of the game is to **collect points and signatures to fill their mission.** Players can change their points to resources that they need to fill their mission.

# Risk marker:

The game has a risk marker that represents the limited time that we have left to take action on climate change. The marker **increases one step in each round** and also **with the event cards.** Every time the risk meter increases, players can give up their points to avoid the increase. Points to decrease the risk meter can come from one player or more players. Players can decrease the risk meter by giving points (1–3 cost 1 point, 4–7 cost 2 points, 8–9 cost 3 points). If the risk marker arrives at 10, the game ends.

The different squares have different kinds of tasks that players will have to do. There are three kinds of squares:

# 1) Quiz, Everyone guess & I would rather...

The purpose of these squares is to collect points.

Quiz: Players will have to answer quiz questions. If the answer is correct, players will receive 2 points.

**Everyone guess:** The person who arrives at this square will read the question in the card. All the players will write down their guess on a piece of paper and once everyone has guessed, the players will check the correct answer. The player whose answer was closest to the correct answer will receive **2 points** and the player who landed at the square will also receive **1 point.** If the player who landed on the square also has the closest answer, they will receive **3 points.** 

I would rather...: The card has two options of which the player arriving at this square has to choose from. The game has a marker which will show the player's answer.

Yes/
First option

No/
Second option

The person sitting next to this player will have to guess what was the players' choice. If the person guesses correctly, both players will receive **2 points**. If the person doesn't guess correctly, none of the players will receive points.

# 2) Idea competition



The purpose of this square is to **collect signatures.** When a player arrives at this square, all the players will battle in an idea competition. In the idea competition, players will have to come up with an idea according to the information on the card. Players will have one minute to come up with an idea. After everyone has shared their idea, everyone will vote for their favorite idea by pointing to the player who has the best idea. The one who has the most points **wins a signature sign with 50 000 signatures.** If two players have the same amount of points, they both will win the signature sign. Also, the player who arrived at this square will receive **one point.** 

# 3) Event



The player who arrives at this square will raise an event card. These cards have either negative or positive impacts. **Negative impact:** The risk marker increases. **Positive impact:** The player will receive a resource mentioned in the card.

On squares with a picture of a dice, players can roll a dice again.



# **Resources:**

When players receive points, they have to change them to resources that they need to fill their mission. **Every resource is worth two points.** Resources can be changed in the corners of the board; each corner has a different resource that players can get.

# Moving on the board:

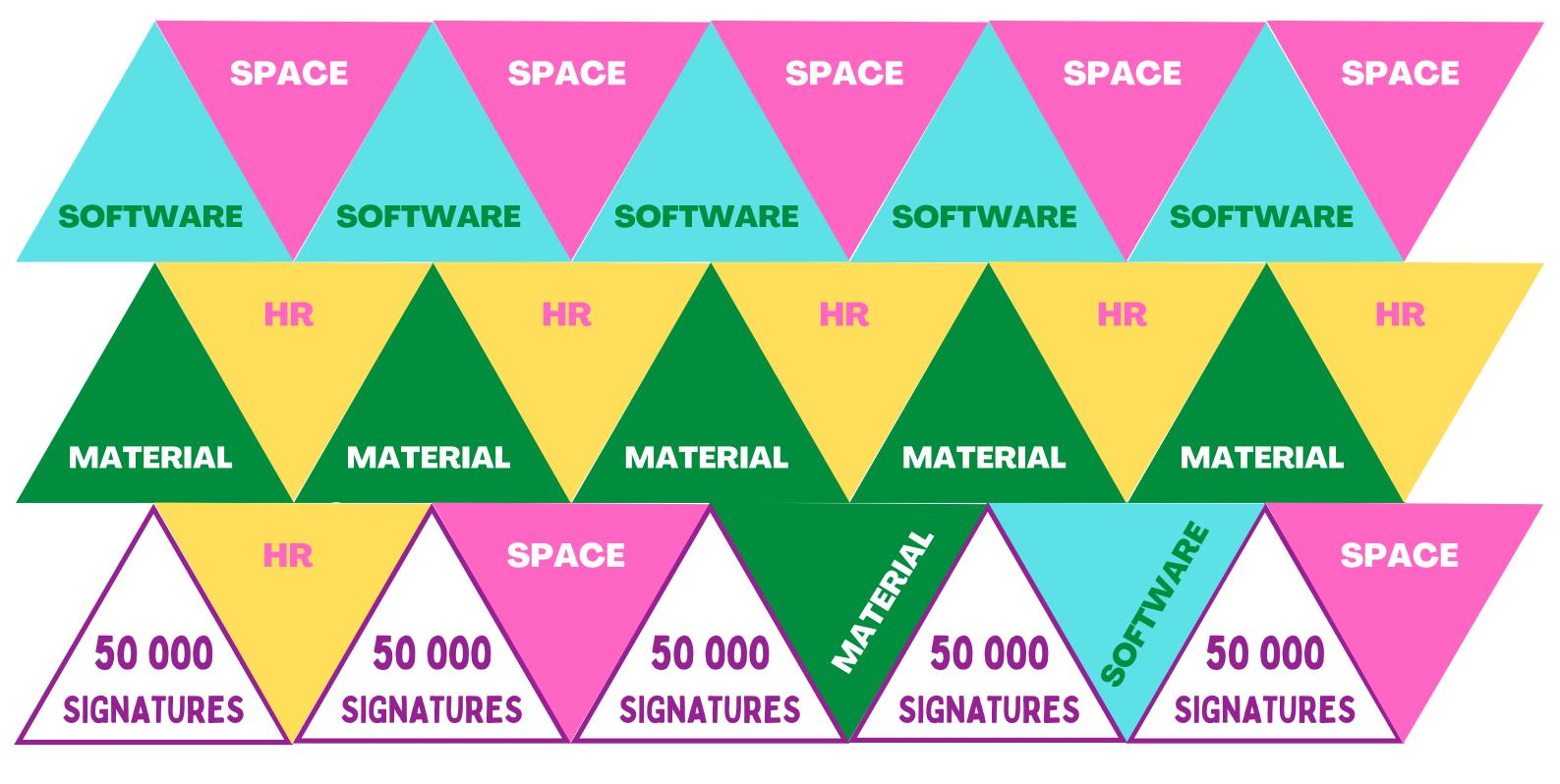
Players will move on the board with two dice. Players will move to the amount that is indicated on the dice. When arriving at corners with more steps than needed, players can take the resource and continue their passage in the board. When two players arrive at the same square, they can exchange resources if they want to. If players arrive at the middle square, they can take any card they want to.

# Winner of the game:

The player who achieves their mission first will win the game.

As soon as a mission is completed, the player can continue with a new mission. The game ends when 5 missions are completed or the risk marker arrives at 10 – whatever comes first.









How many smartphones were sold in the world in the year 2018?

- a) 1,5 million
- b) 150 million
- c) 1,5 billion



True or false: All the mining in the world covers a space which is larger in surface area than Denmark (without Greenland).



From which country comes from 60% of the world's cobalt?

a) Democratic Republic of the Congo b) China c) Kenya



True or false:

Most of the emissions from mobile phones are generated when they are used.

**5**. **6**. **7**. **8**.



# YOU CAN GUESS!

True or false:
The pre-industrial levels of
Carbon Dioxide were lower
than they are nowadays.



How much water is used to produce one T-shirt that is made of cotton?

- a) 2,7 litres
- b) 2700 litres
- c) 27000 litres



# YOU CAN GUESS!

What is the most commonly used clothing fiber?

- a) polyester
- b) cotton
- c) viscose



# YOU CAN GUESS!

True or false:
Up to a quarter of the world's chemicals are used in textiles.

4. 3. 2. 1.







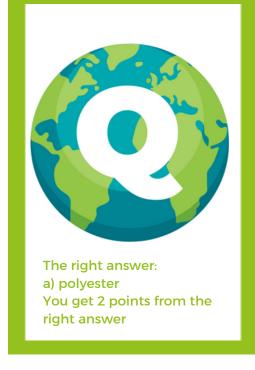


8. 7. 6. 5.



You get 2 points from the

right answer









True or false: Fridays for future (FFF) is a youth-led and organised global climate strike movement started in 2018 by Greta Thunberg.



True or false: The Paris
Agreement is an agreement
within the framework of
the United Nations
Framework Convention on
Climate Change that
establishes measures to
reduce greenhouse gas
emissions.



True or false: Coffee is drunk most in the countries where it is also produced.



What is meant by the term "greenwashing"?

a) Wearing green clothes b) A product that is depriving the environment is advertised to be environmentally friendly. c) A company's attempt to lie about its environmental impact

13... 14. 15. 16.



# YOU CAN GUESS!

What is the sequence that describes the circular economy?

- a) Produce, destroy recycle
- b) Use, produce, reuse
- c) Produce, use, recycle



# YOU CAN GUESS!

What is meant by planned obsolescence?

- a) A strategy to intentionally shorten the life of products.
- b) An attempted coup by the military
- c) A strategy to retire as quickly as possible



# YOU CAN GUESS!

What does Overshoot-day mean?

- a) The depletion of the resources the Earth can produce in a year
- b) The day we remember to fight food waste
- c) The day on which the most natural resources are consumed



## YOU CAN GUESS!

"Zero Waste" describes a concept to avoid waste and waste of resources. In which country is the first "Zero Waste" city in Europe located?

- a) Denmark
- b) Portugal
- c) Italy

12. 11. 10. 9.









The right answer: c) Italy,

city of Capannori

right answer

You get 2 points from the









At current rates of production and consumption, how will we have consumed the earth's resources in 2050?

a) sustainably compared to what the Earth can giveb) twice as much as the Earth can givec) three times more than the Earth can give



True or false: Bioclimatic architecture is the design of buildings that takes into consideration the climatic conditions and uses the resources available (sun, wind, etc.) to decrease the environmental impact.



# YOU CAN GUESS!

What is meant by the term "living wage"?

- a) The minimum wage that every company has to pay their workers
- b) The wage at which the worker is able to obtain a decent standard of living
- c) The wage that only the managers of the company must earn.



### **YOU CAN GUESS!**

By 2030 the Agenda 2030 aim for the production of goods to ...

a) No longer consume natural resources b) Use natural resources sustainably and efficiently c) Increase the consumption of natural resources by 30%.

21. 22. 23. 24.



## YOU CAN GUESS!

Based on current production and consumption rates, consumption of biomass, minerals and metals, and fossil fuels will increase by 2060?

- a) Will decrease
- b) Will double
- c) Will Triple



# YOU CAN GUESS!

Which of these institutions established the "Principles and Criteria for Forest Stewardship"?

- a) World Wildlife Fund (WWF)
- b) Forest Stewardship Council (FSC)
- c) Forest Stewardship European Association (FSEA)



### YOU CAN GUESS!

Which two countries produce the most of the cotton used in the world?

- a) Spain & Portugal
- b) Kenya & South Africa
- c) India & China



### YOU CAN GUESS!

What percentage of the world's agricultural land is used for products that end up in the trash at the end of their journey instead of being eaten?

- a) 7 %
- b) 14 %
- c) 24 %









24. 23. 22.













What does the ecological footprint indicate?

a) the amount of trees needed to restore an entire forest area that has been destroyed b) amount of natural resources needed to regenerate the resources consumed c) indicates the ecological impact produced during a trip



To which catastrophic event relates the name of "Three Mile Island"?

- a) A tsunami that occurred in 1971 in a small island in the north Pacific Ocean. b) A nuclear plant accident in 1979 that alarmed the US population.
- c) An earthquake occurred in 1971 in a small island in the north Pacific Ocean.



What is the largest cocoa producing country?

- a) Ecuador
- b) Australia
- c) Ivory Coast



True or false: Green facades and roofs in cities are nice to have, but do not make a significant contribution to improving the ecological balance of the city.

30 31. 32. 29



## **YOU CAN GUESS!**

Which of the following is not a strategy for extending the life of a product?

- a) Repair
- b) Reuse
- c) Recycle



# YOU CAN GUESS!

Which type of environmental or economic disaster led to the adjustment of agricultural policies of Roosevelt's "New Deal" (US)?

- a) The poverty caused by the Dust Bowl
- b) The poverty caused by the Great Depression c) both are correct



### YOU CAN GUESS!

What is bycatch?

- a) The portion of fish used to feed the crew on board of the large fishing fleets.
- b) Fish and marine animals that accidentally get caught in fishing nets and are usually dumped back into the sea dead.
- c) Beautiful shells and corals that get caught in the nets and are sold as jewelry or decorative items



#### OU CAN GUESS!

When was the term 'circular economy' first used?

- a) 1966
- b) 1976
- c) 2012



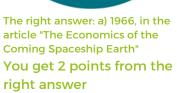






 32.
 31.
 30.
 29.













Which of these aspects are essential to reach the climate neutrality proposed by the European Union?

- a) Rural development,energetic self-supply, effectiveuse of the resourcesb) Active citizenship, territorial
- cohesion, economic prosperity.c) Both are correct



How much fish is consumed nowadays compared to 50 years ago?

- a) about twice as much
- b) About the same amount
- c) Less fish is eaten



What is the main raw material from which plastics are produced?

- a) Oil
- b) Sand
- c) Microplastics



YOU CAN GUESS!

Which sustainable development goals are directly aimed at "sustainable consumption"?

- a) 11 and 12
- b) 6 and 3
- c) 14 and 15

**37**. **38**. **39**. **40**.



#### YOU CAN GUESS!

What percentage of the world's soybean crop is used as animal feed?

- a) 15 %
- b) 60 %
- c) 80 %



Where does the microplastics found in the oceans mainly come from?

- a) Mainly from plastic packaging
- b) Mainly tyres, city dust and synthetic fabrics
- c) Mostly from plastic bags



# YOU CAN GUESS!

Which is the EU's funding instrument in the fields of environment and climate action?

- a) LIFE program
- b) Horizon EU program
- c) Erasmus+



# YOU CAN GUESS!

How much more CO2 is emitted per person for the same distance when traveling by plane compared to by train?

- a) 2 times as much
- b) 3 times as much
- c) 10 times as much

 36.
 35.
 34.
 33.









40. 39. 38. 37.



You get 2 points from the

as much

right answer







#### **EVENT**

A tax on kerosine was introduced. The taxes collected are used to subsidise the railway, this leads to more people switching from travelling by plane to travelling by train, which results in a reduction of CO2 emissions.

You can take this resource:



#### **EVENT**

Your country has abolished all subsidies on fossil energies such as gas, coal or oil. Instead, the expansion of renewable energies is being promoted.

You can take this resource:



#### **EVENT**

YGetLand has passed a national supply chain law that guarantees that environmental and social standards are also met by suppliers abroad.

You can take this resource:

SOFTWARE

#### **EVENT**

Your school has switched to organic and regional cuisine.

You can take this resource:



#### **EVENT**

Due to heavy storms, a large part of this year's harvest was destroyed.

This will increase risk marker one level.

#### **EVENT**

A 10 year-old initiative that promoted and implemented reforestation practices has come to an end because lack of resources and volunteers.

This will increase risk marker one level.

#### **EVENT**

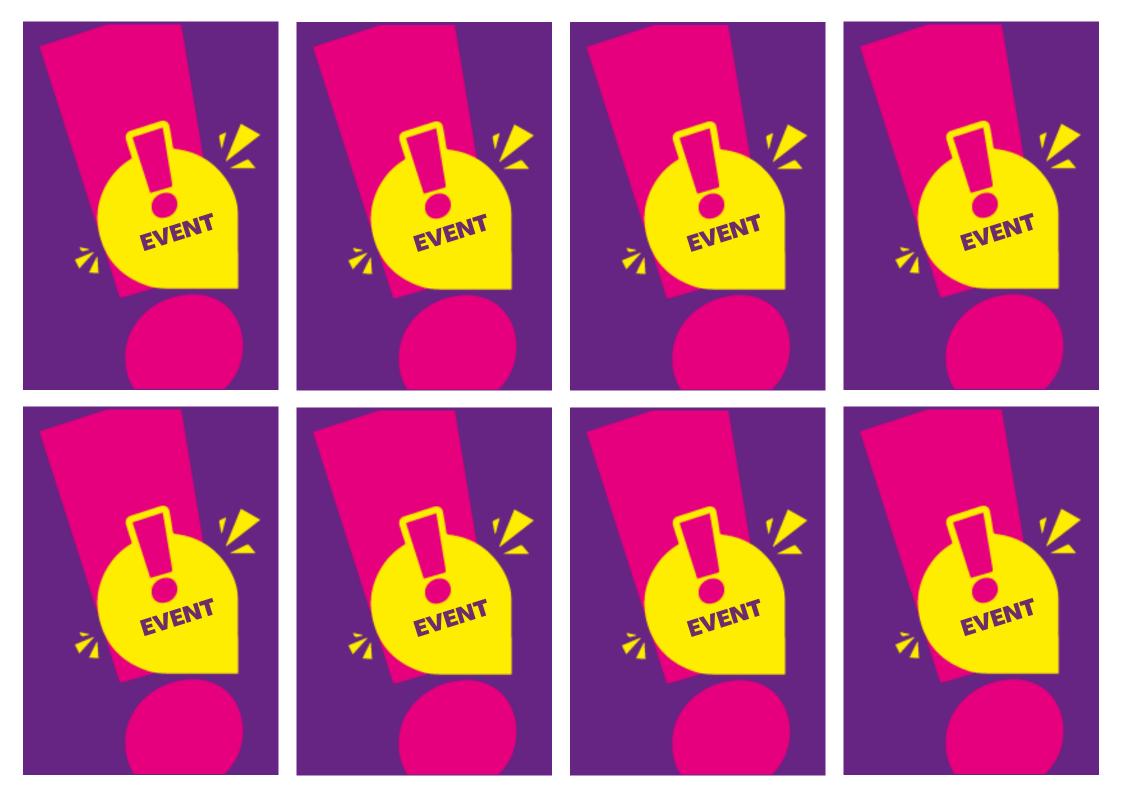
Statistics show that, during the past two years, there has been an increase in the number of heat-related deaths in some regions. Climate change is starting to severely affect human's health and new diseases are proliferating.

This will increase risk marker one level.

#### **EVENT**

IA new climate migration took place in Sri Lanka, as weather events such as heavy storms hit the country.

This will increase risk marker one level.



#### **EVENT**

Your community has received a European fund for implementing a fairtrade program in your city.

You can take this resource:



#### **EVENT**

A collaborative platform to share policy practices between China, Japan and the Republic of Korea (ROK) on the carbon neutrality transition has been created and they have committed to achieve carbon neutrality by 2050/2060.

You can take this resource:



#### **EVENT**

A company of renewable energies and a big GETLAND's NGO have come together to launch a project to help suburban communities, which suffer constant agriculture and food insecurities.

You can take this resource:



#### **EVENT**

In the country's south-west district many new companies that have made the circular economy and social inclusion two key themes are flourishing. All citizens benefit from the impact on the environment and community development.

You can take this resource:

SPACE

#### **EVENT**

After seven months of drought, suddenly the weather changed and the rainfall over the last seven days has been violent. Rivers have flooded and in some places have invaded roads and buildings.

This will increase risk marker one level.

#### **EVENT**

Due to climate change, winters in GETLAND are becoming less snowy and more watery, leading to flooding.

This will increase risk marker one level.

#### **EVENT**

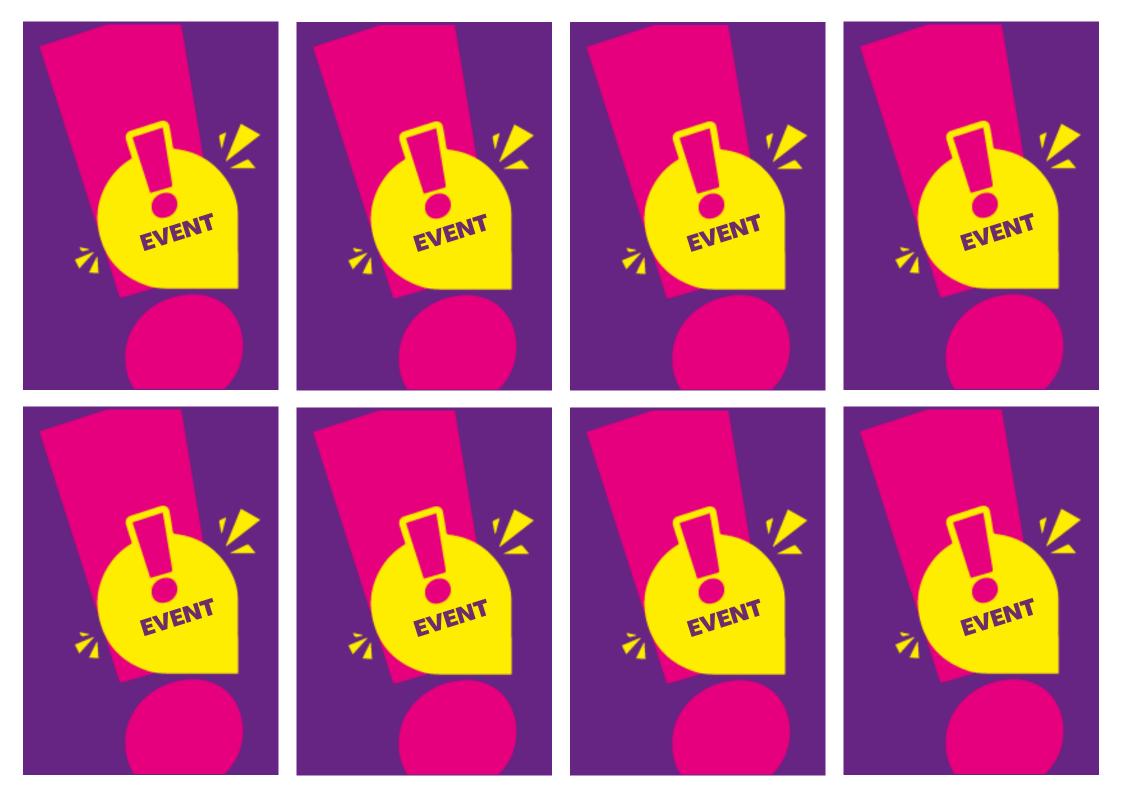
Due to climate change, the water temperatures have increased. This can lead to invasive species ending up in the oceans and lakes of GETLAND. This will increase the risk marker.

This will increase risk marker one level.

#### **EVENT**

The groundwater in GETLAND has been polluted due to the chemicals used in the clothing and textile industry.

This will increase risk marker one level.



#### **EVENT**

The first 'sustainable' music festival has been organized in GETCITY, the GETLAND capital, with very low energy consumption, plastic free and with incentives for those who reach the venue by sustainable means and implement green behavior.

You can take this resource:



#### **EVENT**

The EU's law reform requires countries to recycle textile waste, which will decrease the amount of clothing that ends up as waste or incinerated.

You can take this resource:

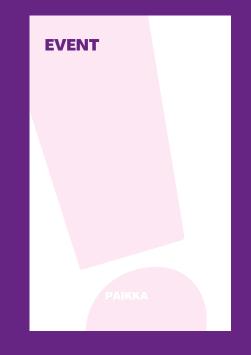


#### **EVENT**

There are many new vegetarian restaurants in GETLAND which have led to reduction in meat consumption. This has a positive impact on climate and environment.

You can take this resource:

OHJELMISTO



#### **EVENT**

After decades of no wars between European nations, an armed conflict has broken out in the heart of Europe of armed conflict. Due to the state of insecurity, many farmers have had to abandon their land and the year's harvest is set to be thrown away, severely affecting food insecurity globally, increasing the food prices in GETLAND as well.

This will increase risk marker one level.

#### **EVENT**

A new proposed legislation would have improved the recycling of electronics but the GETLAND's government didn't enact the law. It would be important to recycle electronics and the metals in electronics. The risk marker increases.

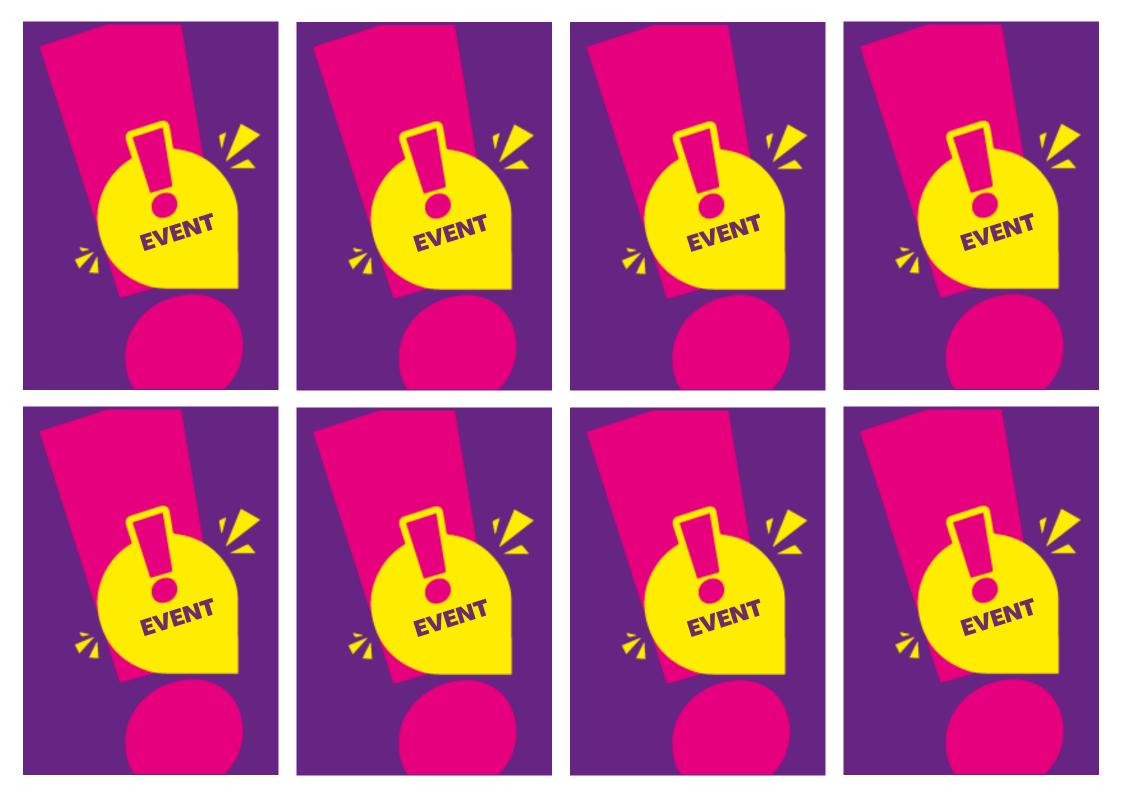
This will increase risk marker one level.

#### **EVENT**

Due to the ongoing drought, feed is becoming too expensive for some farmers. They have to give up their livestock farms.

This will increase risk marker one level.

#### **EVENT**





In the year 2017, what percentage of microplastics in the oceans came from textile washing?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



By how many percent is global clothing consumption expected to grow by 2030?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How much (in Celsius) has the global climate warmed since from the preindisturial time to the year 2020?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



In the year 2022, what percentage of the fresh waters in Earth can be used as a drinking water?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



In the year 2022, how many kilos of textiles were discarded in a year per person?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



Which is the rank position of the european union in the greenhouse gases emitter's global ranking?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many species in europe are critically endangered?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



By which percentage does the EU want to improve energy efficiency by 2030?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

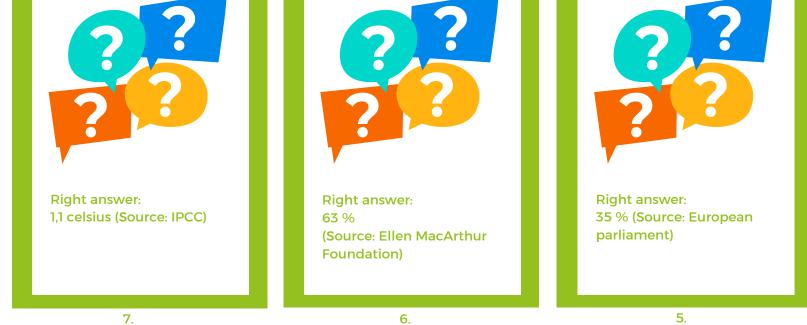


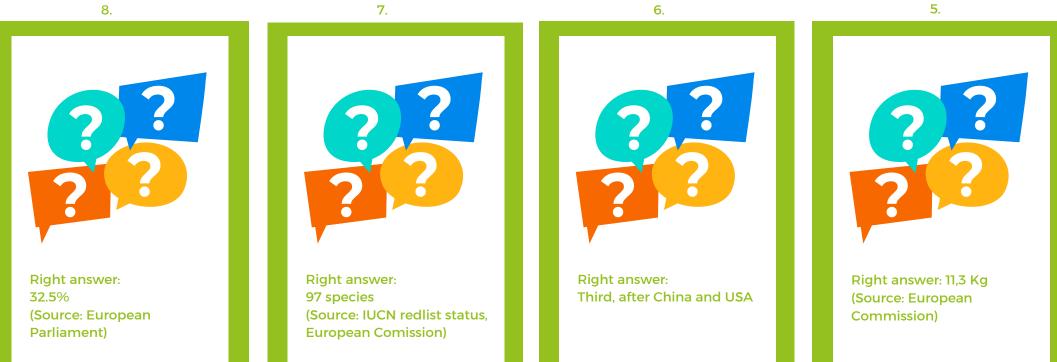
Right answer:

Geographic)

(Source: National

1,2 %







Between 1990 and 2016, greenhouse gas emissions in the EU fell 22 %. How much was economic growth in that same period?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

# EVERYONE GUESS!

A small number of industrial facilities are responsible for 50% of the damage caused by air pollution. Do you know which are the five European countries that mostly contribute to this damage?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

# ??? EVERYONE GUESS!

How many tonnes of plastic ended up in the oceans in 2021?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

# EVERYONE GUESS!

How many nuclear reactors were operating in Europe in 2020?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

13. 14. 15. 16.

# EVERYONE GUESS!

How many tonnes of ice melt each year due to global warming?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

# ?? EVERYONE GUESS!

In which year did the European Parliament plan to stop selling new petrol and diesel cars?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

# EVERYONE GUESS!

How many litres of water are consumed in a 5-minute shower?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

# ?? PEVERYONE GUESS!

Which European state has the largest number of reservoirs (water dams)?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point. 12. 11. 10. 9.



Right answer: 109 operational (Source: Eurostat data 2022)



Right answer: 8 million tonnes (Source: sources Global Plastic Action Partnership -GPAP 2022)



Right answer: Germany, UK, Poland, Spain and Italy



Right answer: 54% (Source: European Court of Auditors)



Right answer: Spain (Source: European Environment Agency)



Right answer: 75-90 litres (Source: United States Environmental Protection Agency 2022)



Right answer: 2035 (Source: European Parliament 2022)



Right answer: 1,2 trillion of tonnes (Source: The Cryosphere Journal)



How old is Greta Thunberg right know?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many litres of water are needed to produce 1 kg of red meat?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



Which is the rank position of the European union in the greenhouse gases emitter's global ranking?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



What percentage of plastic in your country is recycled?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

21. 22. 23. 24.



What percentage of Europe's agricultural area was devoted in 2017 to the production of feed and fodder for the maintenance of intensive animal husbandry?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

#### ?? EVERYONE GUESS!

How many species in Europe are critically endangered?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many ppm CO2 in the air are we at right now?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How long do chickens born and reared in intensive industries live on average?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.









24. 23. 22. 21.



Right answer: 45 days (Source: Animal Equality)



Right answer: Search for the correct answer!



Right answer: 97 (Source: IUCN redlist status, European Comission)



Right answer: 71 % (Source: GreenPeace Europe)



The next long-term EU budget will run for seven years from 2021 to 2027 and will invest substantially in climate- and environment-related objectives. How much percentage is invested in climate-related issues?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many litres of water are needed to produce 1 kg of red meat?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many kg of plastic waste is consumed per person per year in your country?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many countries in Europe produced in 2020 more than 50% of their energy capacity from renewable sources?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

29.

#### ?? EVERYONE GUESS!

When was first introduced the european policy known as "CAP = Common agricultural policy"?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



30

How many pieces of used clothing are generated per person in your country?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



31.

In 2022, which country in Europe had the highest concentration of cities with clean air and low concentrations of fine particles in the air?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many kilograms of meat were eaten on average per capita per year in your country 50 years ago?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



1, in Sweden 60% of energy

is produced from

renewable sources









Right answer: Search for the correct answer!









How many kilograms of meat are eaten on average per capita per year in your country today?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



What percentage of glass packaging is recycled in your country?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many months warranty must a dealer in your country provide on used goods?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



How many months warranty must a dealer in your country provide on new goods?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.

 37.
 38.
 39.
 40.



At what date was the earth overshoot day last year?

One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.



One getting their answer closest to the right answer gets 2 points and one that rised the card in their turn gets 1 point.





2. 3. 4.



#### IDEA COMPETITION

You have a T-shirt that you don't want to use anymore, but the T-shirt is completely usable so you want to give a new life to it. What would you do to that T-shirt?

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

It is important that we take good care of our clothes because then we can use them longer. Invent a way for clothing companies to encourage customers to care for and wash their clothes properly.

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

Your school has a big problem of food waste and therefore there is a competition for a best idea to reduce food waste. You take part in this competition so share your best idea of how to reduce food waste in your school!

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

It is important that we use our electronic devices as long as possible. Come up with an idea that would encourage you to extend the use of your phone.

The best idea wins 50 000 signatures!

5.



#### IDEA COMPETITION

Last night we cooked for 200 people, but in the big preparation we had a lot of bread, tomato sauce and aubergines left over. Would you like to offer us your best recipe with these leftovers?

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

Imagine having to furnish a living room from objects that usually have another function... and you can make them into tables, chairs, bookcases, object holders.. May the best interior win!

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

We are organizing a sport competition with all circular tests and we are looking for new talents. Would you like to propose a new discipline that combines sport and circular economy?

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

8.

You have been hired by a beauty salon that wants to make green its commitment for the future. Present us with your best proposal for cosmetics with a low environmental impact.

The best idea wins 50 000 signatures!





#### IDEA COMPETITION

There are numerous areas in your city where people tend to leave waste. Create a citizen initiative to ensure that your city is kept clean (without the help of the townhold).

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

Next Friday, there will be a strike for climate change (within the FFF movement) and you have created an internal challenge, in which everyone will create a slogan for the strike. It should be catchy and "strong" to raise awareness.

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

An NGO has a volunteering program for the summer, through which they want to do a Flea market every Monday and they need your help for the preparation. Think of a topic for your stand and explain why it is ecofriendly.

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

One of the conclusions of a conference about climate change was that knowledge about "good agricultural practices" should be passed on to farmers. Think of one good practice that would reduce the environmental impact in your community.

The best idea wins 50 000 signatures!

13.



#### IDEA COMPETITION

Because so many people in Getland now use public transportation, walk or bike, a 500-square-meter parking place in not needed any more the city center. What would be the best way to use the vacated space?

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

For traveling, Emre likes to buy shower gel, deodorant, sunscreen, toothpaste, etc. in small plastic containers. This is practical because it saves on luggage, but also creates a lot of plastic waste. Who has the best idea so that Emre can be more sustainable here but still not have more luggage?

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

New housing concepts in multi-party houses come up with innovative solutions to share a part of the living space for all residents whereas other rooms stay for private use only. Who has the best idea of which housing unit can best be shared by all residents of a multi-party building?

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

16

For special occasions like a wedding or a prom, you need clothes that cost a lot and then just hang in your closet. Wouldn't it be great to just borrow clothes for such occasions instead of buying them? But how can this be put into practice? Which Getlanders idea do you like best?

The best idea wins 50 000 signatures!





#### IDEA COMPETITION

In our vacations, we don't always have to travel by plane to distant destinations. Share your best idea of a vacation day that you can spend in your local area; what are the activities that you would like to do?

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

Propose your best outfit option made from other discarded garments.

The best idea wins 50 000 signatures



#### IDEA COMPETITION

Think of the waste disposals that you produced last week (plastics, organic waste, metals, batteries, cartoon, etc.) and make a list of 3 items. Then think about a way to upcycle all that waste.

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

Think of a significant change in the type of consumption between the habits that the population had around the 60s and nowadays. Then make a funny sentence comparing both habits.

The best idea wins 50 000 signatures!

21.

#### IDEA COMPETITION

Think about how much trash you produce in a typical week. What makes up a large portion of that trash? Share it with the other Getlanders and decide who has the best idea to reduce this kind of waste.

The best idea wins 50 000 signatures!



#### IDEA COMPETITION

22.



#### IDEA COMPETITION

23.



#### IDEA COMPETITION

24.



2. 3. 4.

#### I WOULD RATHER

I would rather drink one less cup of coffee or one less cup of tea in a day?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather walk or go by bike all distances up to 5 kms?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather ALWAYS sort my waste or I would wash my clothes half less of the time?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather halve the time I spend in the shower or I would shower in cold water?

The person on your left will guess your answer. If they guess right you both get two points.

5. 6. 7. 8.

#### I WOULD RATHER

I would like to set up a youth centre with my friends where we can discuss environmental issues or tend a small vegetable garden with my friends.

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

With a pair of old jeans, I prefer to resell them so as not to throw them away or turn them into a bag

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

For the clothes I buy, I would prefer rather second-hand/vintage products or products that use recycled materials (e.g. PET from bottles).

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather use social networks to sell/buy used things or participate in neighborhood meetings to exchange objects

The person on your left will guess your answer. If they guess right you both get two points.

















#### I WOULD RATHER

I would rather write an article for a magazine or do a TED Talk on a topic that is important to me.

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

To draw attention to injustice on a topic that moves me, I would rather organize a flash mob in a public space or write a RAP song.

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather eat only seasonal fruits and vegetables from the region for a year and do without bananas, coffee, etc. from the tropics, or not take a vacation trip by plane for a year.

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

To save electricity I would rather use a broom instead of the vacuum cleaner or not iron my clothes.

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather volunteer at an animal care centre or sign online petitions for animal's well-being?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather share a social media campaign that comes from a local NGO or from a European public authority?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather lead an initiative against climate change or join an existing one?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather participate in an action to reduce waste disposals or an action to promote green energies?

The person on your left will guess your answer. If they guess right you both get two points.

















#### I WOULD RATHER

I would rather strive to reduce all of your food waste to a minimum or I would stop eating meat?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

If I had a workshop at my disposal, I would rather to make unique pieces of furniture out of old furniture or I would make bioplastics to make belts, purses and other accessories from fruit waste

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather raise awareness about the importance of food consumption for the climate by going on a walking strike or by doing a sit strike to hinder traffic

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would be more likely to buy a smartphone second hand or buy an outfit second hand.

The person on your left will guess your answer. If they guess right you both get two points.

21. 22. 23. 24.

#### I WOULD RATHER

I would rather buy new electronics very rarely and always buy high quality products or I would buy all new electronics second hand?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather travel by low-impact means and go on an Erasmus+ European exchange or join the company of old friends in familiar destinations.

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather sign an online petition to stop deforestation or to ensure animals rights

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather turn the heating to only 18° instead of 20° in winter or the air conditioning to 25° instead of 23° in summer.

The person on your left will guess your answer. If they guess right you both get two points.

















#### I WOULD RATHER

I would rather join a protest climate change or boycott companies that are not trying to become climate neutral?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

If I had a week free to myself, I would rather visit Europe's major capitals by train or go on a bike tour to discover Europe's lesser-known places and communities waste The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

If I had a limited amount of CO2 emissions as a citizen, I would rather stop travelling by plane or stop using my private car during a whole year

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

To reduce the climatedamaging effect of air travel, I would rather politically lobby for a tax on kerosene for 2 h per week for one year or not fly myself for one year.

The person on your left will guess your answer. If they guess right you both get two points.

 5.
 6.
 7.
 8.

#### I WOULD RATHER

I would rather set up my own garden or I would only buy fruits and vegetables that are produced nearby?

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

I would rather learn to make objects with my own hands, transforming and combining various components in a creative way or produce all-purpose cleaners at home from natural and/or recycled ingredients.

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER

In order to stand up for a political goal that is important to me, I would rather go to demonstrations or enter politics myself in order to stand up for things.

The person on your left will guess your answer. If they guess right you both get two points.

#### I WOULD RATHER













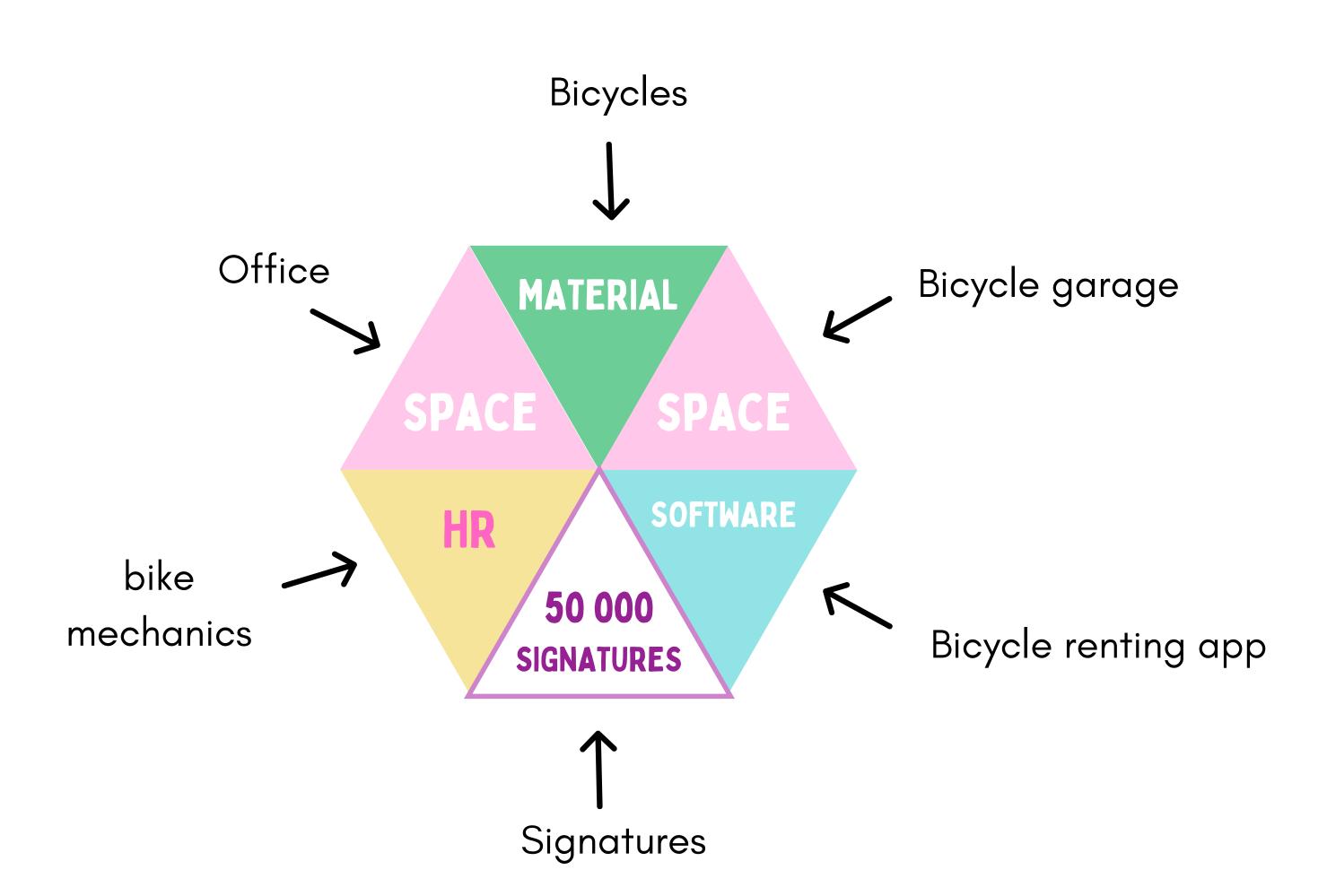




## BICYCLE RENTING SYSTEM

Your mission is to set up a Bicycle rental system for Getland. For this you need bikes, the space for the bike racks in the city and for an office and a software system for renting. The introduction of a bicycle system also needs approval of the city. Signatures from citizens will help you convince the city admintraves.

For the new business you need:



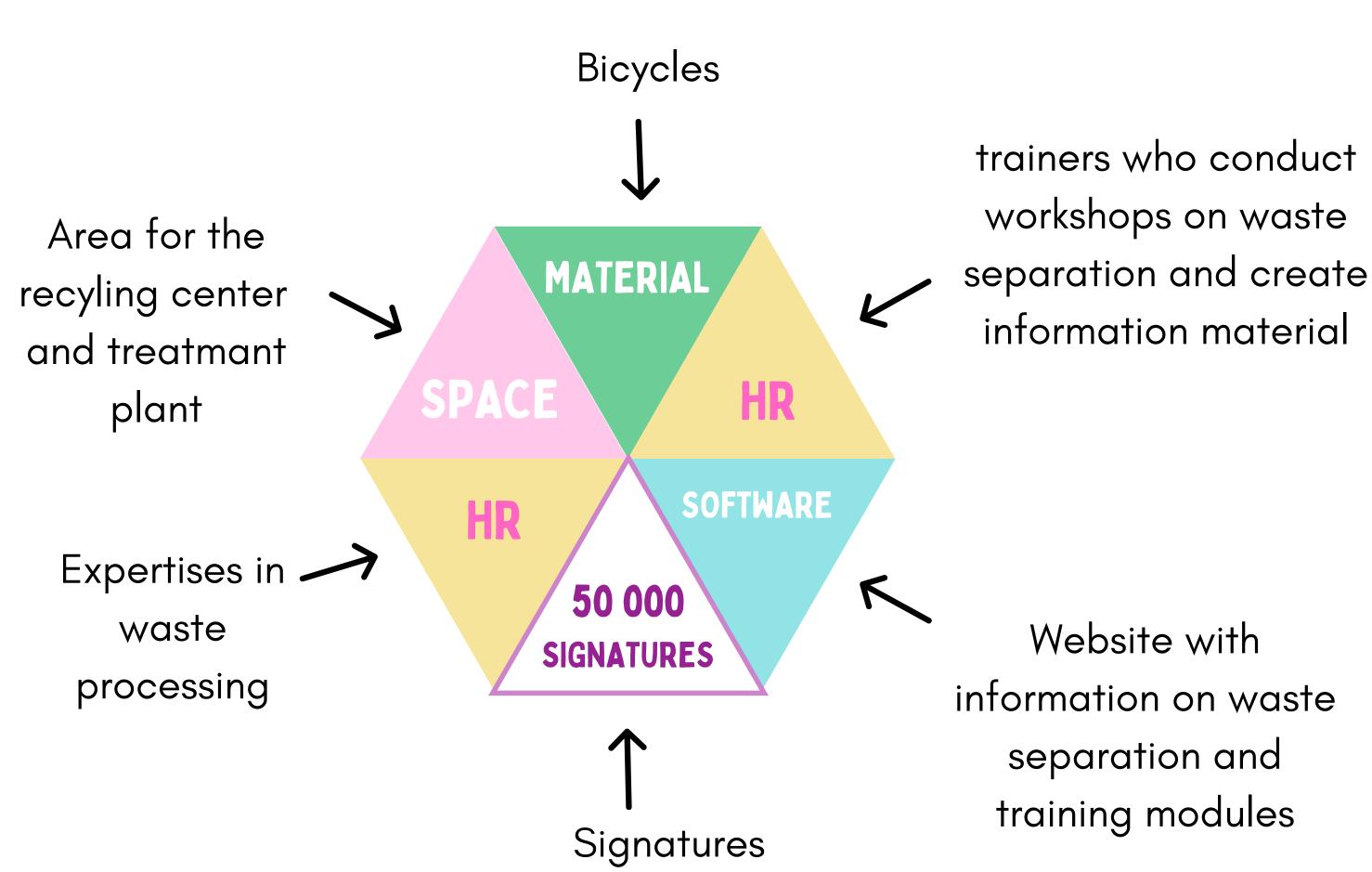
Bicycle Renting System

Take a bike spontaneously exactly where and when you need it: get and put back the bike wherever it suits you in the whole of Getland. You can even get up the Getland heights with an E-bike without sweating. The electricity for charging comes sustainably from solar energy. No traffic noise, no traffic jams, no emissions, no sweat - that's how mobility in the city is fun. If you have a little more to transport, then try out the GetAround load E-bikes.

## WASTE MANAGEMENT

Your mission is to establish a waste separation system for private households and a recycling centre for hazardous or bulky or in other way special waste – furniture, electronic devices, textiles and shoes etc. – in Getland. The best waste management system only works if people apply it. That't why you also need to start an information campaign, which can include information material sent to the households, events in the city with workshops or a report on radio or TV.

For the new business you need:

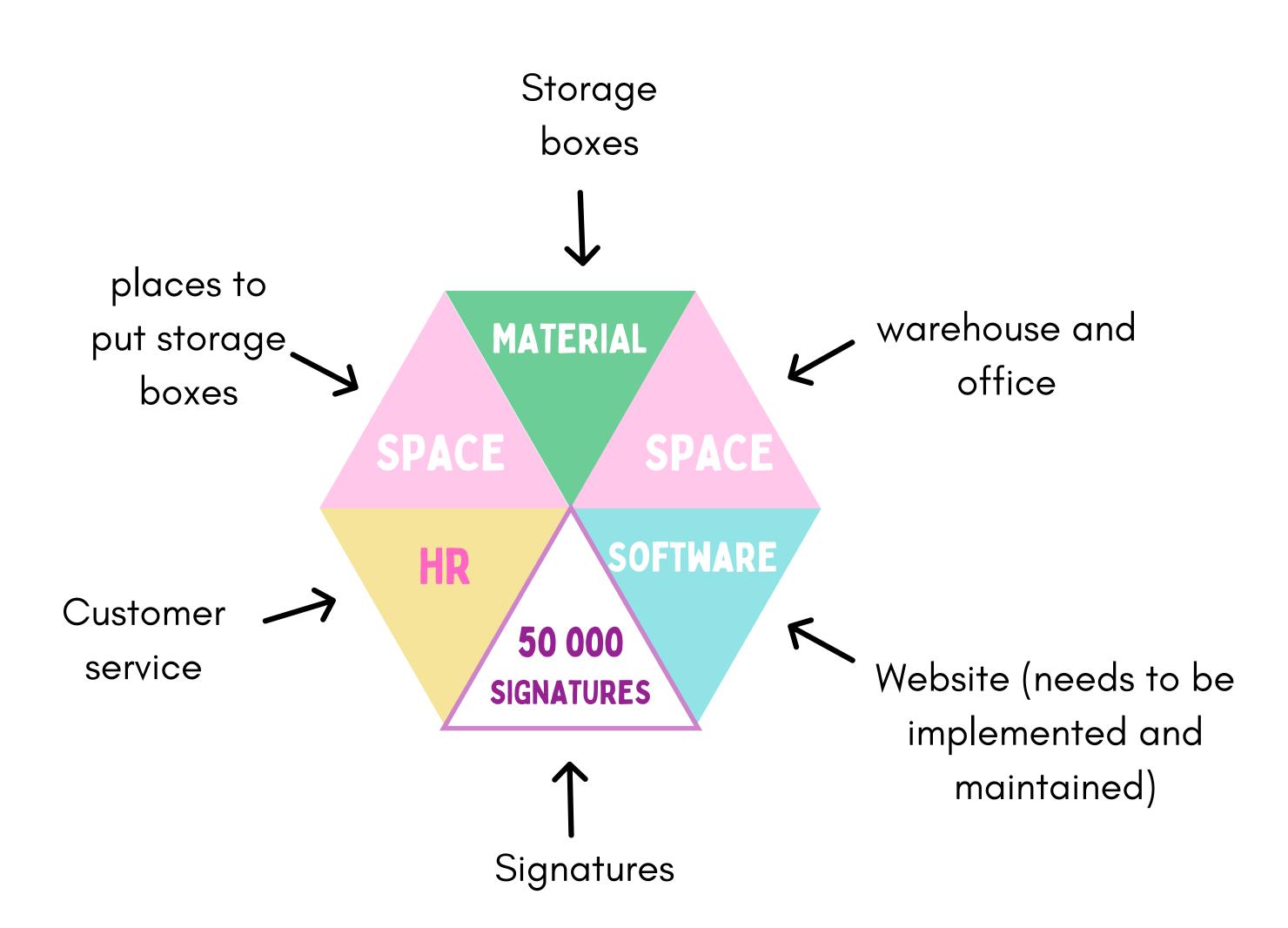


The best waste separation and recycling system is of no use if people don't use it and throw everything into the residual waste. In order for people to separate waste properly, they need to be aware of the problem and know how to do it correctly. After they have received training, the citizens confirm their commitment to the correct waste separation with their signature.

On the outskirts of GetLand, piles of garbage are piling up. Not only does it look unsightly, it also stinks enormously and toxic substances that escape from batteries or old refrigerators poison the underground. At the same time, resources for new goods in Getland are becoming scarce. With a proper waste management system the GetLanders can win important ressources back from their waste like paper, cardboard, wood, metal or different kinds of plastics like PET or PE. What cannot be recycled is thermally utilised and is thus still available as energy.

# SHARING PLATFORM FOR GETLAND

Your mission is a sharing platform where people can offer their goods they want to share with others and find what they need for some hours, a day or two. To facilitate the handover, there are handover boxes distributed in Getland, from which you can get your reserved products with the code. Together with activists from the repair centre, you also run an awareness raising campaign on sustainable consumption.

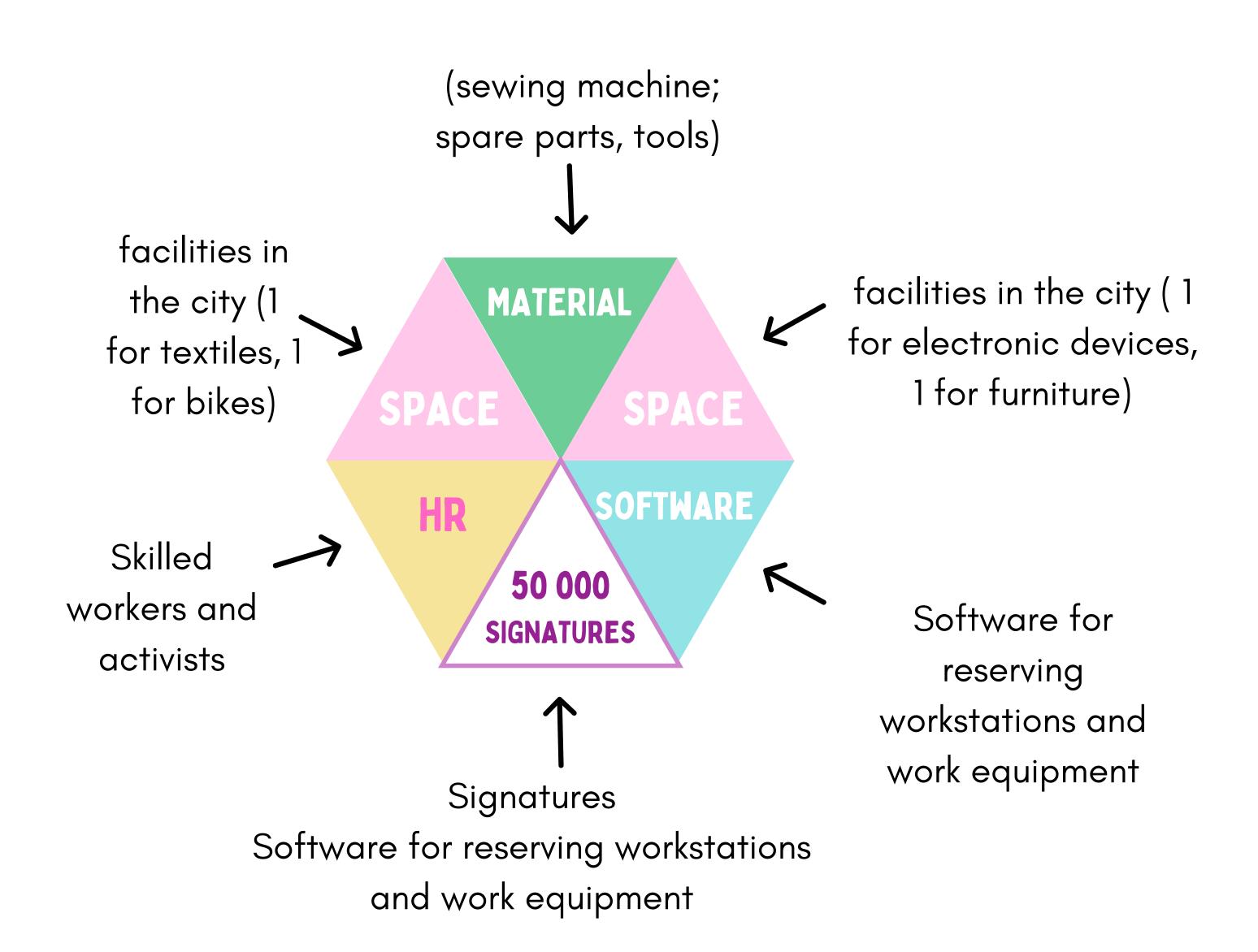


#### Sharing Plattform

A drill might work for 500 hours but is used on average 15 minutes in 20 years for home use. Many people have table tennis bats stored in the cellar or a waffle maker stored in the kitchen but use this devices only once or twice a year – if at all. It begs the question: is it necessary for everyone to own a drill etc.? Or rather, is it necessary for everyone to be able to use a drill when needed?

### GETLAND REPAIR CENTRE

Your mission is to found a Repair Centre for GeTLand. There GetLanders can find everything they need for repairs, from sewing machines to tire levers. If they don't know what to do themselves, there are experts on hand to provide support. Together with activists from the Sharing Platform, you also run an awareness raising campaign on sustainable consumption.

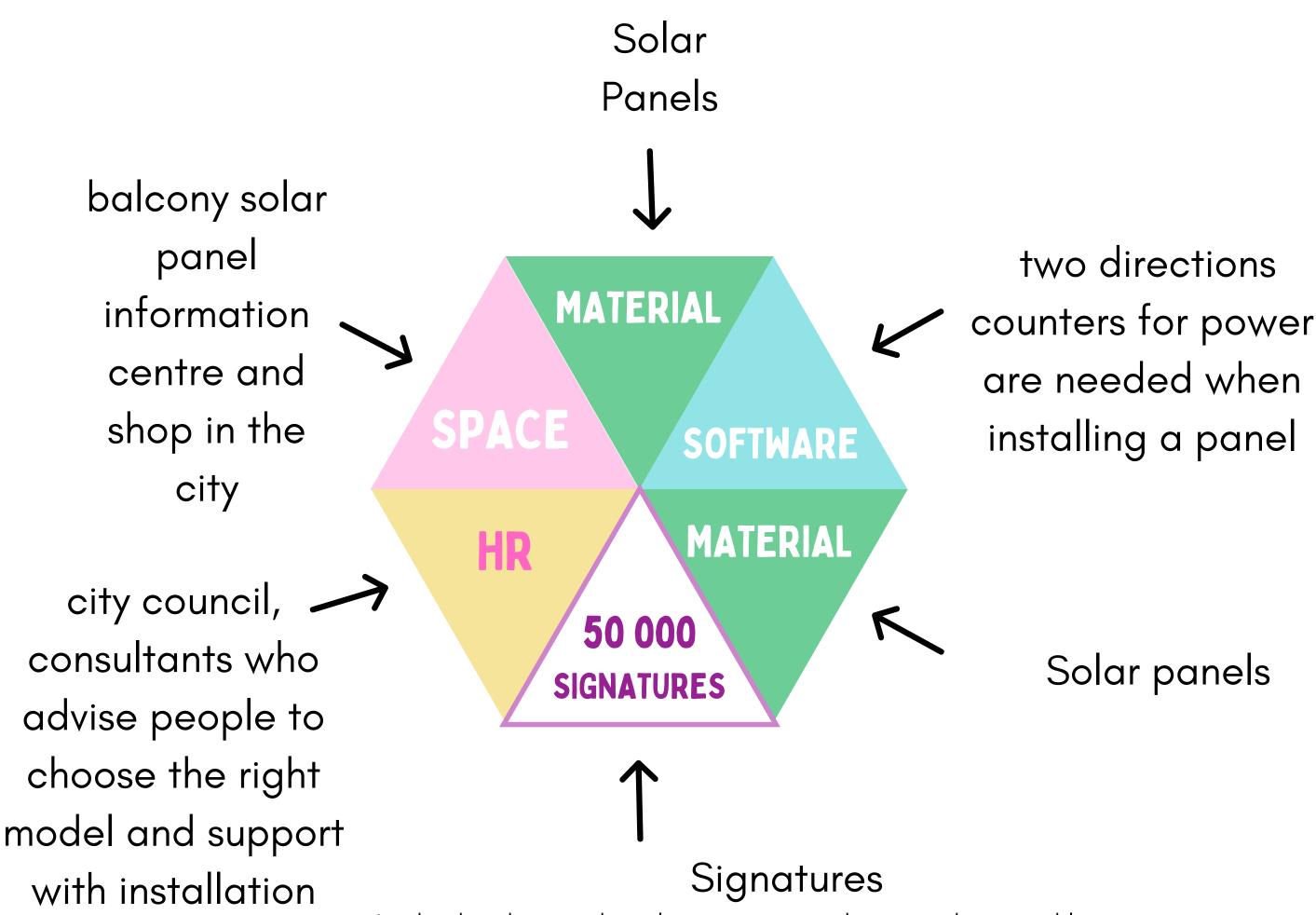


#### Repair Center

The zipper of the jacket is broken, there is a hole in the sweater. The buckle on the backpack is broken. The cell phone fell down and the screen is now broken. The bicycle has been in the basement for months and is no longer used because the tire is flat. For a long time, it was a matter of course to repair broken objects. It wasn't until mass production and the advent of cheap products that people started throwing away broken items and buying something new. But a change in thinking is needed: products should be of as high a quality as possible and should be repaired again instead of being thrown away. This not only saves money in long-term, but also the environment. After all, every product contains valuable resources.

## GREEN ENERGY COMMISSIONER

Your mission is to convince as many GetLanders as possible to use a balcony solar system. With a balcony solar system, between 5 and 20 percent of the electricity needed in the household can be generated. Convince politicians to subsidise balcony solar systems with a petition and start an information campaign to inform GetLanders about the use of balcony solar systems.



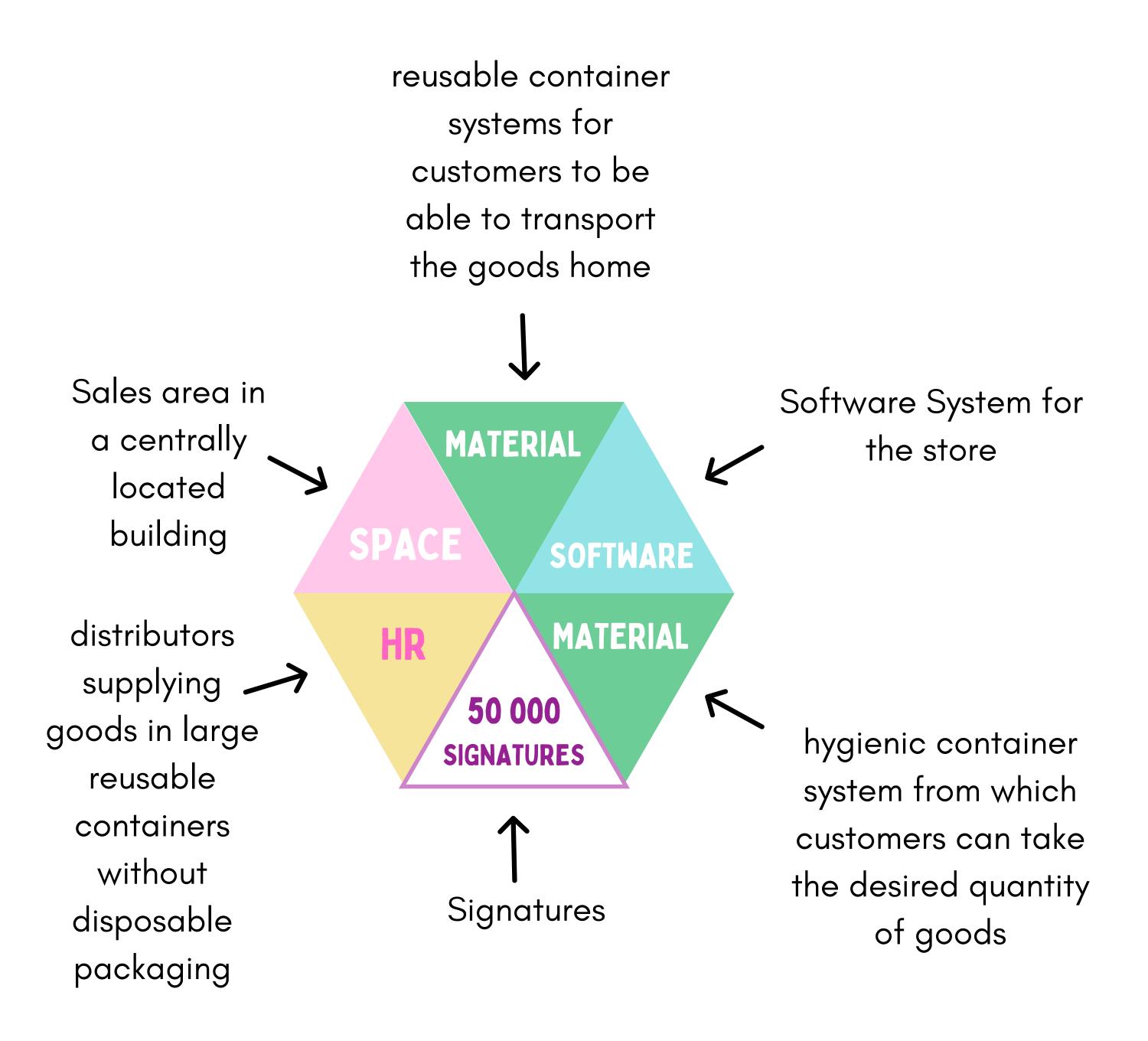
It is hard work to get the politicians on your side to provide renewable energy. 300,000 signatures of the citizens are necessary for the decistion to subidise the balcony solar panels.

#### Green Energy

The energy in Getland for industry, municipal facilities and private households comes from coal and gas. This not only pollutes the air but also drives climate catastrophe. GetLand has a plan to switch completely from fossil energy to renewable energy in the next 7 years. The shift to renewable energy needs a whole-of-society solution and cannot be carried out by individuals alone. Nevertheless, every contribution counts in order to reduce the consumption of fossil energy as quickly as possible and this is where GetLanders can make an important contribution by installing a balcony solar system and benefit from lower energy costs at the same time.

## ZERO WASTE STORE

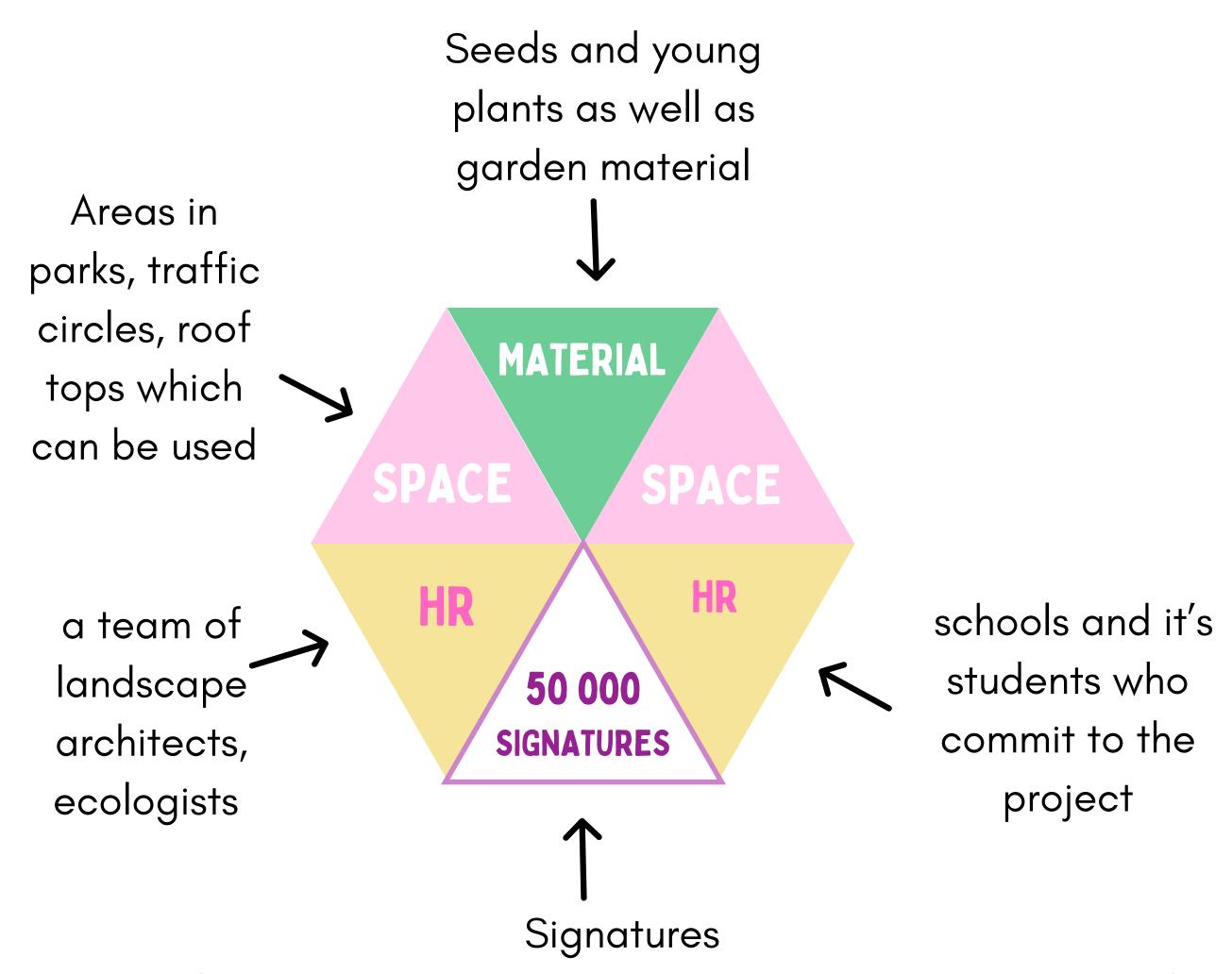
Your mission is to open a zero-waste store, where goods are delivered in large reusable systems (e.g. tubs) and the desired quantity can be decanted into smaller reusable systems and purchased by the customer in the store. The store also hosts regular workshops where Getlanders can learn how to go without disposable packaging.



Cereals, rice, washing powder: nearly every product in the supermarked is packed in plastic. Plastic is not only increasingly polluting the oceans – also in the form of microplastics – tiny plastic particles that fish mistake for plankton and eat. It is als causing a lot of carbon emissions. I ton of plastic generates 1.3 tons of Co2 in production and another 3 tons when it is burned. However, switching from single-use plastic to other materials such as single-use paper, single-use bioplastics or single-use metal is not an environmentally friendly solution either. This is because the production of these materials is also very energy intensive. What really helps is eliminating single-use packaging altogether and finding alternatives[ii].

## BIODIVERSITY IN GETLAND

Your mission is to start a school project to promote biodiversity in the city. Public areas like city parks, roof surfaces of public buildings or traffic circles can be used to foster biodiversity. Together with a team of landscape architects, ecologists and city councils the students make a plan and put it into action.



You need 200.000 signatures to receive permit to rearrange the city parks, roof surfaces of public buildings and traffic circles.

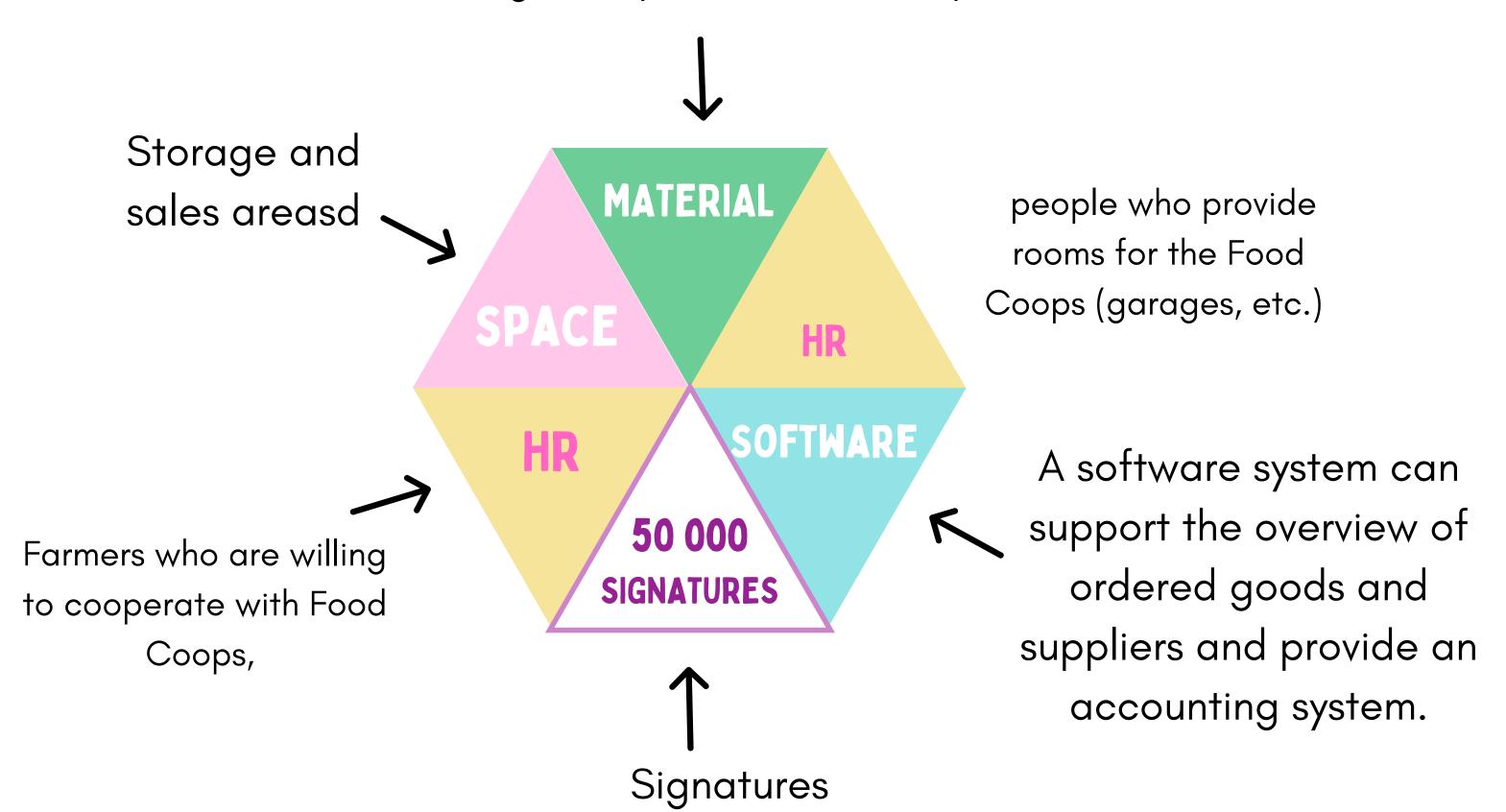
#### Biodiversity

Biodiversity is all the different kinds of life you'll find in one area—the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world. Each of these species and organisms work together in ecosystems, like an intricate web, to maintain balance and support life. Biodiversity supports everything in nature that we need to survive: food, clean water, medicine, and shelter.[i] But as humans put increasing pressure on Getland, using and consuming more resources than ever before, we risk upsetting the balance of ecosystems and losing biodiversity.

## FOOD COOPS DISTRIBUTED IN THE CITY

Your mission is to start 5 Food Coops in GetLand run by groups of neighbours committed to the idea. For that you need to organise information events in the community centres to present your idea and support the volunteers in founding their Food Coops. When the Food Coops are running you are responsible for knowledge transfer and sharing of best practices between the Food Coops.

shelves, scales to weigh the goods, hygienic and well-sealable reusable containers for transport and storage of goods (wheat, corn, ect)

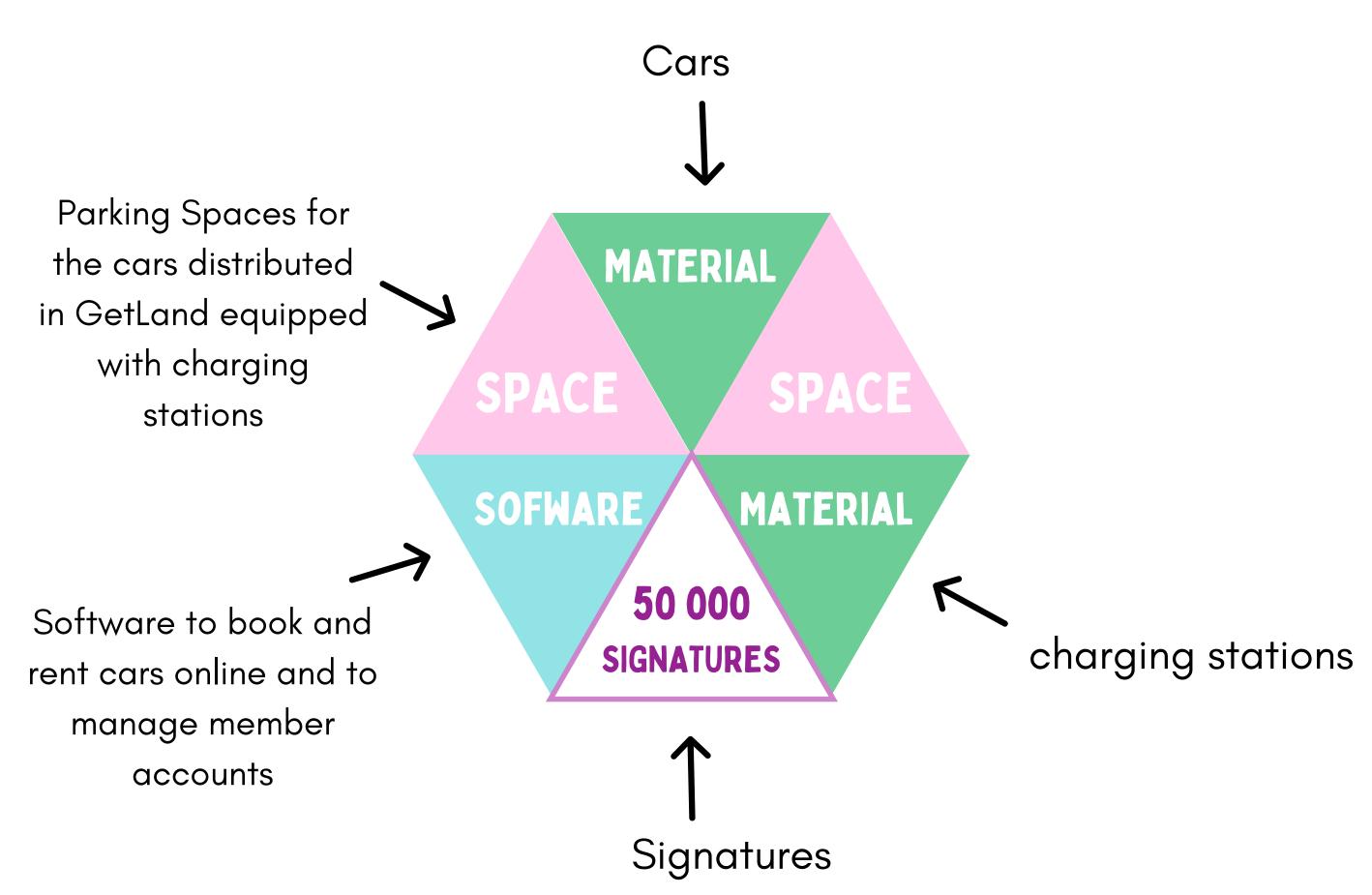


A Food Coop is essentially a grocery store that's owned by the people who shop there. Members get to decide what foods and products are stocked on the shelves, where those items are purchased and what quality standards both products and vendors have to meet. Typically, co-ops aim to offer high-quality seasonal food from the area at fair prices—for shoppers and producers. Doing business this way helps keep money in communities by supporting local growers. Besides, you get fresh food directly from the region without long transport routes and you have the possibility to pay a fair price to the producers without middlemen being involved who dictate low prices to the farmers.

To keep a Food Coop running you need volunteers who take care of the finances and contracts with the farmers, receiving and sorting the goods, keeping the place clean and hygienic etc.

## E-CAR SHARING SYSTEM

Your mission is to establish an E-car sharing system for Getland. One Sharing car that everyone can use when needed replaces up to 20 private cars. All in all, the city will become more car-free through a car-sharing system.

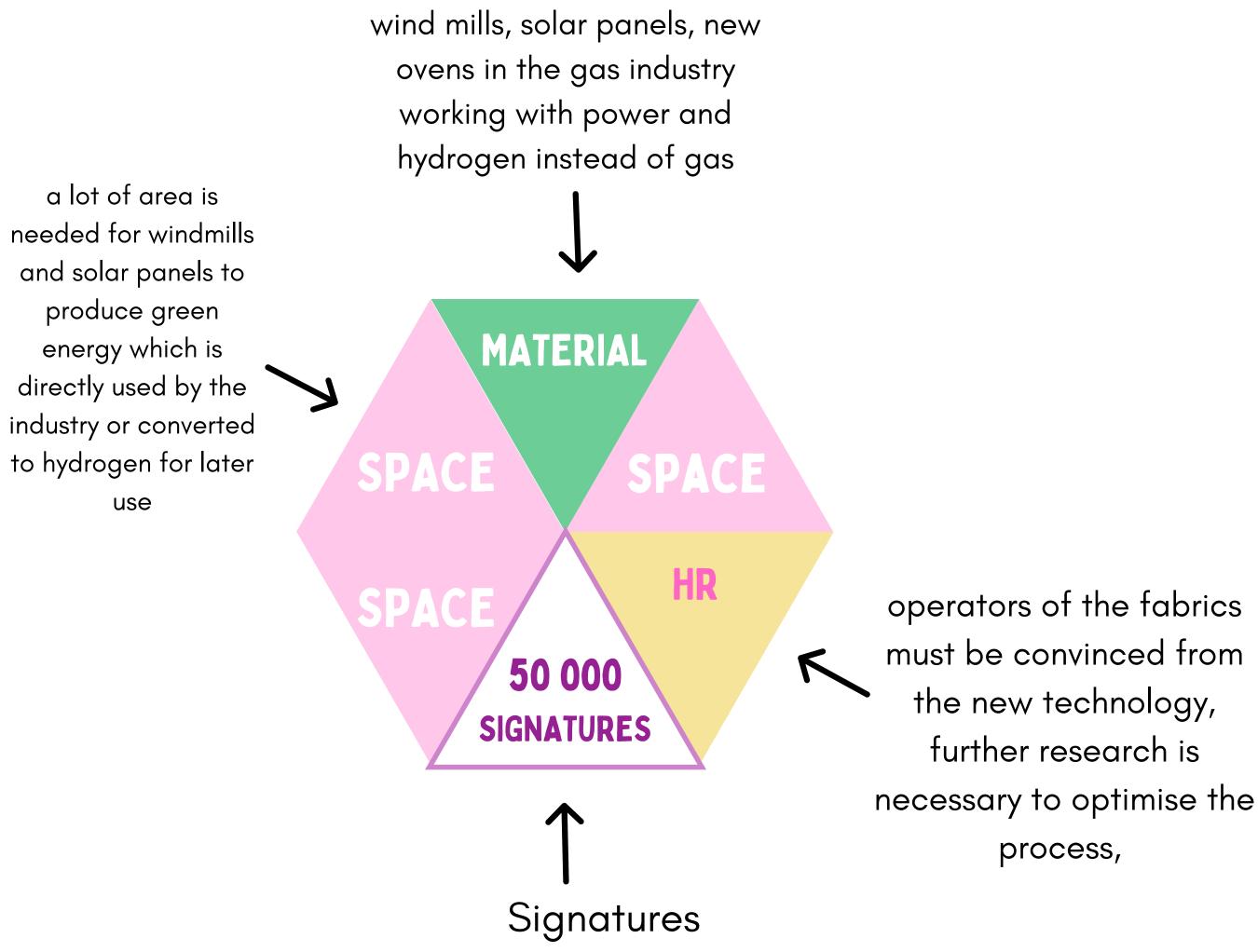


The introduction of a car sharing system requires the approval of the city. For this you need 50,000 signatures from citizens.

Cars cause congestion, noise and, of course, emissions in Getland that pollute the air and drive climate catastrophe.... In addition, cars need a lot of space in public areas – 10 square metres per parking space and more - which can be used well in other ways in the city. For playgrounds, green spaces, cafes, etc. And on average, cars are parked and not used for 23 hours a day - 95 per cent of the time. With public transport, most everyday journeys can be made much more sustainably and comfortably. But sometimes you are in need of a car - if you have a lot to transport, if you're going on a trip to the countryside where public transport is really bad, or if you're travelling with your grandparents who have a hard time walking. And let's be honest - sometimes it's just fun to get in the car and drive yourself - or the cosier option if the weather is bad or you really are in a hurry.

# GREEN INDUSTRY CONSULTANT FOR THE GLASS INDUSTRY

The glass industry is dependent on gas as an energy supplier. Your mission is to manage the transition of the glas industry in GetLand to switch to carbon neutral production. This requires extensive technological steps. A lot of renewable energy must be produced to replace the gas as an energy supply. It also needs persuasion of the people in responsibility and resources must be freed up for further research to optimise the process.



The industry prefers to rely on the tried and tested technology instead of switching to climate-neutral production. The citizens are launching a petition for the politicians to enact a law that provides for the conversion to climate-neutral production in industry in the next 7 years.

To produce glass, temperatures of around 1,600 degrees are necessary in the melting process. Most of the heat is produced with natural gas. Glass furnaces run around the clock. If the gas were to be turned off in between, residues in it would harden and severely damage or ruin the expensive plant.

The fossil fuel gas can be replaced in the glass industry. However, the technological steps required for this are extensive. Possible and planned in many places are, for example, hybrid furnaces that are operated with large amounts of electricity or, in the long term, with hydrogen. The biggest gas consumers in the glass industry are manufacturers of glass for the food and beverage industry and the pharmaceutical industry. But the construction industry and the automotive industry also need glass. Large quantities of used glass are recycled in glass production.