

## Components

18 Scenario cards (white)

114 Risk cards (orange)

185 Measure cards (green)

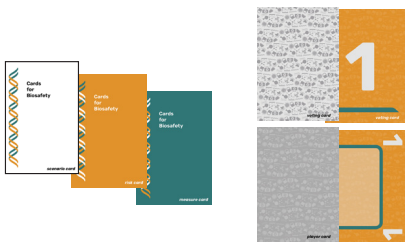
50 point tokens

64 voting cards (white backs)

8 player cards (grey backs)

Facilitator booklet

Extra: 10 blank scenario, risk and measure cards



## **The goal of the game and target group**

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Cards for Biosafety is a serious card game for junior biotechnology researchers. They play the game under the guidance of experienced researchers, biosafety officers or topic experts. By playing the game, the junior researchers will learn about safety and security risks and measures of biotechnology projects in different environments.

Some game mechanics got inspired by the entertainment game “Cards against Humanity”. Cards for Biosafety consists of several rounds where players choose and vote on cards (risk and measure).

A facilitator hosts the game. They explain the rules to players (and who might or might not be the guiding expert). The facilitator makes sure that the game is played in the right way. They also stimulate players in the discussion, argumentation and linking with real life.

The game might become informal on many occasions, but the out-of-the-box thinking is what we want to support with this game. This way of thinking will allow players to get to interesting anecdotes and lessons for the junior researchers.

This manual is written for the facilitator. Please read these rules and explain them to the players. Keep in mind that the most important lesson is the discussion that will come from this game. Encourage the players to share their experiences and tell your own.

The manual closely explains the first two rounds. You deal everyone their cards, pick the scenarios and read them out loud. Announce each step for the players as you go; they are not difficult, but this will help players to get into the game. You are allowed to play along with the players. In that case, you will be picking your own risk and measure cards as well.



## Setup

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As the facilitator, you can look through the **scenarios** and pick whichever you find most suitable or most important to discuss. You can also choose to include all the cards in your scenario deck and draw scenario cards at random.

Before you start, determine how the game will **finish**. Will you play until a player has received a certain amount of points, or will you play a certain number of rounds or time? The picked scenarios can also determine the end of the game.

You can now set up the game area. If you want to, you can shuffle the scenario cards. Place them close to you. You can also keep the facilitator booklet close. On the back, it gives a quick summary of the game. Inside, you can find more information on the different scenarios.

*If you play along with your players, make sure you do not read the additional information without reading them to your players. We advise you to read the additional information at the end of*

*the round. The facilitator should avoid gaining preliminary knowledge that might give them an edge over other players.*

**Shuffle** the **risk** and **measure** cards in two separate piles and place them close to you. Place the **tokens** close to you as well.

Give each player a player card. If you plan to play along, give yourself one as well. Players will use these to vote on the playing cards. Give every player voting cards corresponding with the available players.

*If there are 5 players, each player only needs 4 cards. Cards numbered 1-5 without their number as they cannot vote for themselves.*

Finally, deal 6 **risk cards** to each player. If you play along, give yourself 6 risk cards as well.

## Facilitator booklet



## Point tokens



## Measure cards



## Risk cards



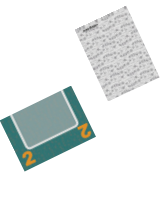
## Scenario cards



## Player card



## Vote card



## First round:

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Draw a **scenario** card and read it out loud. Make sure that all your players understand the card. You can further explain the card with your own experiences and knowledge if needed.

*The players will choose a risk card for this scenario. Make sure you are not already giving away possible risks!*

### Risk phase, determine risks:

Each player will look through their risk cards and pick one they find the best fitting.

*You can, if you want, stimulate players to choose realistic risks only, but we encourage you to let players choose any card.*

Stimulate the players to come with their argumentation for their risk cards. The seemingly funny cards might initiate the most interesting discussions. Additionally, the players will be having fun doing so.

Tell players to interpret the contents of their

cards freely: they are allowed to leave out words or twist the meaning of the card if it fits their story.

*The cards are starting points for the player's story or argumentation.*

Players place their chosen **risk** card **face down** on their player card, as indicated on the player card (so that the player numbers are still visible).

After each player picked their card to play, go around the table. Each player turns around their card and read it out loud, starting with player one.

The player should explain why they choose this card and why it fits the scenario. Encourage players to give this argumentation if they forget or keep it too short.

*You can put the player cards and their risk cards in the middle of the table. Make sure each player can read them for the voting round.*

After each player has presented their risk, players pick their favourite. The players vote with their **vote cards** (white back). They select the one corresponding with their favourite risk and place this card face down in front of them. Each player



will flip their card and show their choice at the same time.

*Players cannot vote for their own cards.*

The player who ends up with the most votes collects a **point token**. Place the chosen **risk** cards next to the **scenario** card. Discard the other risk cards on a separate pile.

### ***In case of a draw:***

*If a draw occurs, ask the players with the chosen risks to debate why their card is the best. Everyone except these players votes on one of those cards. If there is still a draw, each player gains a coin. The facilitator chooses one of the risks. You will use this risk in the **measure** phase.*

You can take a couple of minutes to **discuss** the scenario and risk combination. You can share some stories but keep an eye on the time. Move on to the measures.

### **Measure phase, deploy measure:**

After you have chosen the risk card, deal each player 6 **measure** cards (green back).

Similar to the risk phase, each player chooses one of their **measure** cards and places them face down on their card. Again, choose the card best fitting (or the funniest or otherwise best choice).

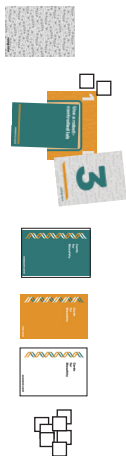
*Remind players that the measure should be an answer on the risk card picked in the risk phase.*

After everyone chose their **measure** card, they read their choice and explain them to the rest. This time the player who just won a point will start.

Similar to the previous round, everyone chooses their favourite. The players place their **vote** card face down in front of them. Flip them right side up at the same time and see who won.

### ***In case of a draw:***

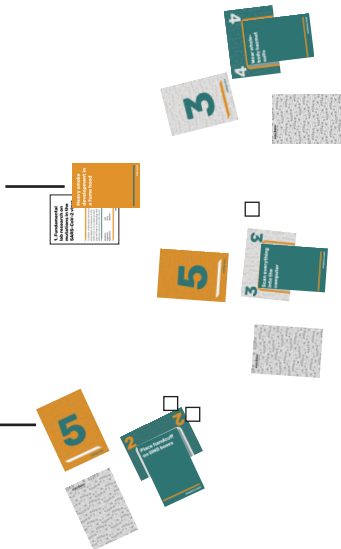
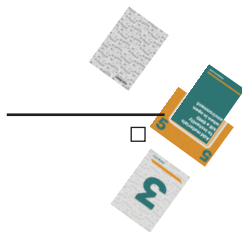
*If a draw occurs, ask the players with the chosen measure card to debate why their cards are the best. Everyone except these players then votes on one of those cards. If there is still a draw, each player gains a coin. Place both cards next to the scenario and risk card.*



Played  
measures

Current scenario  
and risk

Votes



Place the winning measure card with the scenario and risk card. The player who played the winning card can collect a **point token**. Discard the other measure cards.

You can **discuss** the outcome in the group. Share anecdotes or fears surrounding the scenario, risks and measures. After the discussion, place the three cards (**scenario** card, **risk** card, **measure** card) to the side.

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## Second round:

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Pick or draw a new **scenario** card and explain it. Deal each player another **risk** card. They should have **11** total cards in their hands (risk and measure together). When players have picked their risk cards, let the player who won with their last measure card start. After players have played and chosen the risk card, deal everyone a new **measure** card. Each payer should have **11** cards in their hand.

*Remember to announce each step and phase as you play through them. That way your players will know what to do for the next rounds.*

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## Following rounds:

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After the second round, you can place the **risk** and **measure** decks on the table so that players can draw their own cards. Players should now understand the flow of the game and be able to play it without much assistance. If you are a player, you can join in and play. If you are not playing along with your players, you can still draw the scenario cards and make sure everyone is involved in the conversation.

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## End of the game:

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The game ends depending on the conditions determined in the setup phase. The condition can be a certain amount of points, a certain number of rounds or the available time. The player with the most point tokens wins. In case of a draw, they both win.

At the end of the game, look back at the combinations you have made during the rounds. Can you see a difference between the various rounds? You can have a short **discussion** to wrap up the game.

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## Debriefing:

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Debrief with your players to make a connection between the game and real-life working practices. Discuss the correlation between insights from the game and real life.

*Some example questions:*

- *Why did you choose this (risk/measure) card?*
- *Do you have an idea about what a specific reason for the occurrence of such a risk could be?*
- *Have you (or a colleague) already experienced this or a similar situation?*
- *For the chosen scenario, what is the main risk you need to take into account when planning, preparing or doing research?*
- *For the chosen scenario, what could be an appropriate measure to mitigate the corresponding risk?*
- *Do you see a connection between the information about the measure on the card and reality?*
- *How can you transfer such a measure to your everyday work? What is needed to do so?*



## Alternative play modes:

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We recommend you to play the game as described before a couple of times. When you have mastered the game and each scenario, you can try out some of the rules stated below. These new rules could give new insights or work to keep the game interesting. You can combine the different variations. Maybe you come up with some rules of your own!

### *Round leader:*

Instead of a facilitator, you play the game with round leaders, each round, the round leader changes. The round leader will not be playing their own risk and measure cards, but instead, pick who wins each time. A round consists of drawing a scenario card and choosing a risk card and measure card.

At the start of the round, determine who will be the round leader. This person draws the scenario card and reads it to the players. The leader will not play risks and measures this round.

The other players pick and defend their cards like normal. The difference is that they will not vote for their favourite card. Instead, the round leader picks their favourite card. Players can discuss if they agree with the choice of the leader, but ultimately, the leader has the final say.

After a round has finished and a risk and measure card is played and picked, the leader position will move. The player to the left of the leader will become the leader next round.

*The player who most recently dropped something will be the leader of the first round.*

Continue until everyone has been a round leader at least once.

*This version will let you discuss the various risks. It will also allow you to get to know each other a bit better. Players will have to show and discuss their best cards. However, they will also need to cater to the leader and their preferences.*

### ***Anonymous choosing:***

Place the numbered player cards in the middle of the table. Each player will get voting cards for each player card on the table (1-5 if there are 5 players). The facilitator draws a scenario and reads it out loud like normal.

When players pick their risk cards, instead of placing them on their player card, they place the card face down in the middle of the table. The facilitator or the player who last won a point shuffles these cards together. This player will then place them one by one on the player cards in the middle of the table. They read the cards out loud.

*Players should now not be aware of who played which card.*

Players will now vote on their favourite card using their voting cards. Players cannot vote on their own cards. Go around the table and let the players explain why that card is their favourite card. The card with the most points will win. The player of this card reveals themselves to collect a point token.

### *In case of a draw:*

The players try to convince each other on their favourite card rather than their played card.

### **The story:**

Play the game following the standard rules. However, when players show their cards, instead of arguments, player tell stories. This story can be true or false but should convince players of their chosen card. Players vote on a risk or measure card. Players will then need to guess if the story told for the winning card was true or not.

*A true story does not need to be a story experienced by the player.*

The players earn extra points based on how many players the storyteller tricked or whether they guessed correctly if the story was true.

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## **Disclaimer:**

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*The serious game 'Cards for Biosafety' was developed as part of the research project T-TRIPP (Tools for the Translation of Risk research into Policies and Practices), which has received funding from the Technology Foundation of NWO, the Netherlands Organisation for Scientific Research (NWO).*

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## Round summary:

Select a scenario card.

Deal risk cards to all players.

*(1<sup>st</sup> round 6, following rounds 1 card)*

Players choose the best fitting risk card.

Players show and explain their choices.

Players vote on the best risk card.

Winning player collects a point token.

Place the chosen risk card next to the scenario card.

Deal measure cards to all players.

*(1<sup>st</sup> round 6, following rounds 1 card)*

Players choose the best fitting measure card.

Players show and explain their choices.

Players vote on the best measure card.

Winning player collects a point token.

Place the chosen measure with the scenario and risk.

Discuss round.

Repeat.

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