Scenario for the Simulation Training

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Document description: The objective of the deliverable is to present a structural process in which the BRISWA 2.0 simulation model can become a learning experience. The deliverable outlines all the necessary steps and elements that would allow a facilitator to use the simulation, in order to engage participants, so that they can understand the complexity of racism rather than discussing it in abstraction.	

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Introduction

The phenomenon of racism in football extends beyond the boundaries of sport. It reflects broader patterns of exclusion and prejudice, shaped by feedbacks between individual behaviour, institutional response, and social context. In the previous phase of the BRISWA 2.0 project and more specifically on deliverable 3.3, these dynamics were captured in a System Dynamics model that can illustrate how racist incidents emerge, spread, and can be mitigated through coordinated interventions in the context of a football club. The model was developed into an Interactive Learning Environment (ILE), which allows users to explore policy combinations and understand how enforcement, education, and trust interact across time while importantly being in a consequence-free environment.

This deliverable represents the next step in the context of the BRISWA 2.0 project. It focuses on how the ILE can be transformed into an educational tool, meaning how it can be used to develop a structured experience that can enable students to engage actively with the complexity of racism through a serious game format. Rather than presenting information about racism in the traditional analytical way (a teacher providing information with minimum interaction), the approach relies on active participation of the students with the aim of:

- testing their own assumptions,
- investigating when and where unintended consequences might appear under different combinations of interventions/policies
- observing how well-intentioned decisions may produce unexpected results.

The general objective is not to reach a single correct answer, but to develop a more systemic understanding of how racism persists and how it can be countered.

The session is designed as an interactive sequence. Students first complete a short pre-survey, expressing their views on the causes of racism and the effectiveness of different responses. They then engage with the simulation, adopting the perspective of the various stakeholders (that are integrated in the model itself) fans, football club managers, and association managers (each with distinct decisions and objectives). By experimenting with the model, the students (or end-users in general) observe how different combinations of policies generate different outcomes such as reputation, deterrence, and cumulative costs. Finally, a post-survey and facilitated discussion allow them to reflect on what changed in their thinking and why.

Thus, this deliverable serves not only as a guide for professors and teachers on how to teach about racism in a more experiential way, but it also shows how a System Dynamics model can be used for such an approach.

The structure of the deliverable is the following: In the next section, the Interactive Learning Environment is presented in detail. The section after that goes step by step with the surveys that the students must fill before and after the experimentation. Final conclusions are presented in the last section of the deliverable.

It should be noted that in later stages of the project, the deliverable will be complemented with empirical data from classroom sessions, comparing pre- and post-survey results and exploring how interaction with the model can affect student reasoning.

Interactive Learning Environment

The Graphical User Interface of the Interactive Learning Environment can be found on: https://exchange.iseesystems.com/public/georgios-tsaples/briswa-20-interactive-learning-environment-on-policy-design-against-racism

Once the link is accessed, the user is directed to the landing page of the ILE, where they can see its title. In order to proceed, the user must press the "Let's Go" button (Figure 1).
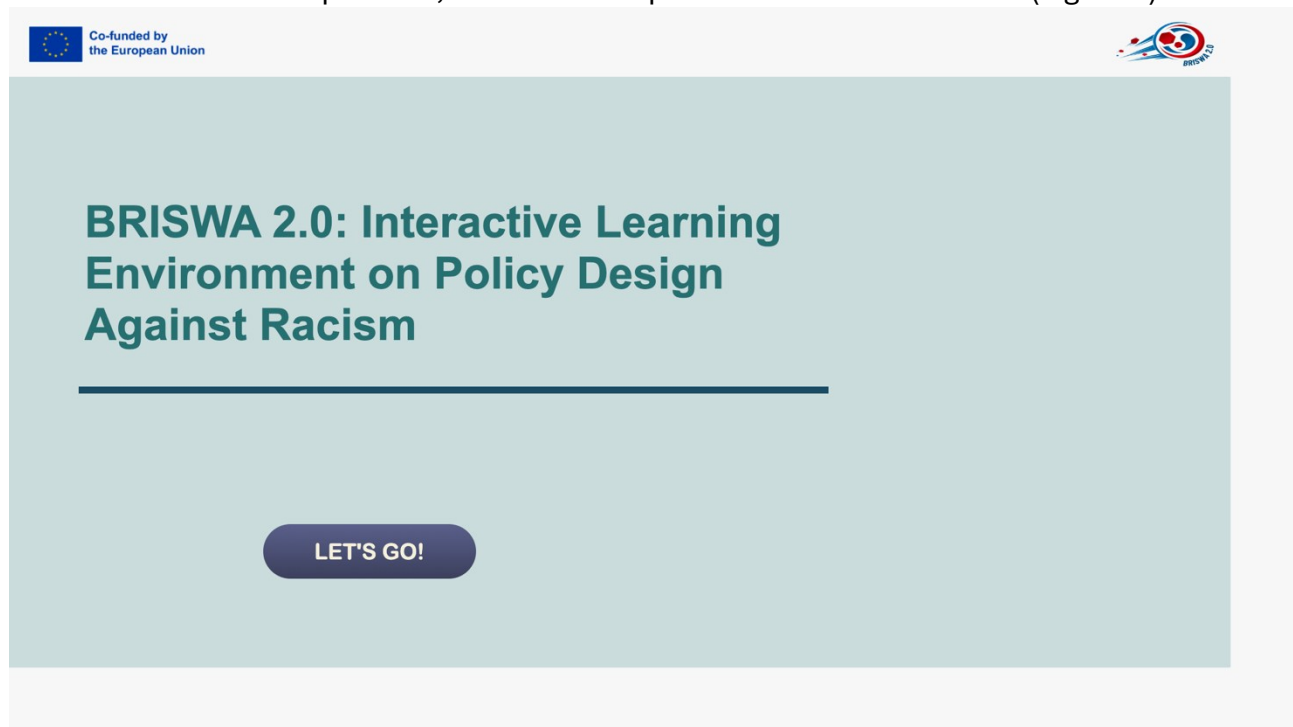
Figure 1 Landing Page of the ILE

The next page provides general information on the purpose of the purpose of the model and more general what the BRISWA 2.0 project is trying to achieve. In addition, it provides commentary on the general themes that are represented in the model. Hence, it explains right away that this is not based on linear relationships or data but rather on structure and more specifically it underlines that the model connects the individual behavior with structural elements and the society in general (Figure 2).

Figure 2 Introductory page to the simulation model

Once the user has read the text, they can move to the next page by pressing the NEXT button. The next page is focused on a general overview of the simulation model through its Causal Loop Diagram (Figure 3).
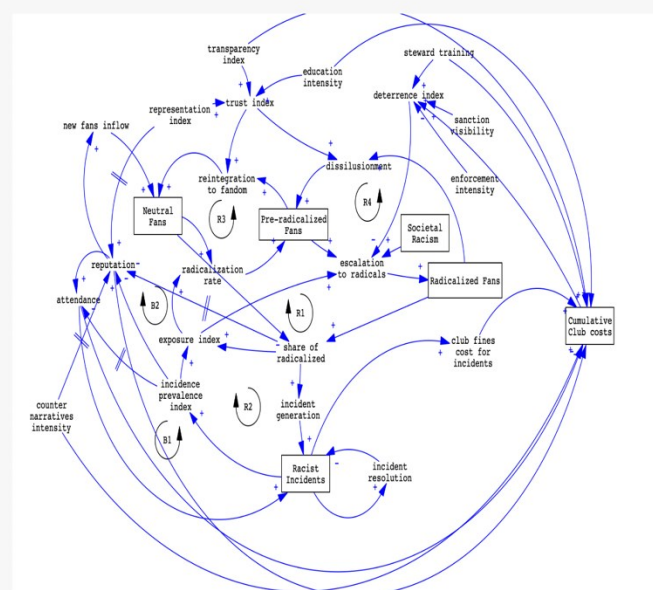
Figure 3 Causal Loop Diagram and explanation of the main feedback loops of the model

The user can see which are the main stocks and more importantly which are the main feedback loops of the simulation model. In addition, the embedded figure offers the possibility to study in detail the entire Causal Loop Diagram with all its variables, causal relationships, time delays and feedback loops (For more information, the reader is referred to the deliverable 3.3 of the project). Once the page is understood, the user could either return to the previous page by pressing the "BACK" button or move to the next one by pressing the "NEXT" button.

The next page provides an overview of the scenario testing (or serious gaming process) itself. It discusses which are the main stakeholders that are represented in the model, which actions/decisions they can take and which results are of the most interest to them (Figure 4).

Figure 4 Explanation of how to use the ILE in a classroom/workshop setting

Again the user can go to the previous page through the "BACK" button or move to the next one by pressing the "NEXT" button.

As it was mentioned before, the model assumes three principal types of stakeholders, each with distinct intervention points and outcomes of interest. Consequently, the next three pages/slides show the decisions and results that are most relevant for each type of stakeholder and the user can navigate through them with the arrows of their keyboard.

1. Fans

Fans represent the base layer of the system. Their decisions directly influence attendance levels, exposure to racism, and the rate at which incidents are reported.

Fans can decide:

- whether to attend a game or boycott it based on the perceived reputation and safety of the environment (The higher the value of these slider the more fans attend)
- whether to report racist incidents when they occur (The higher the value of the slider the more normal fans report racist incidents)

Their behaviour not only affects the visibility of racism but also generates feedback that pressures clubs and associations to respond more effectively (Figure 5).
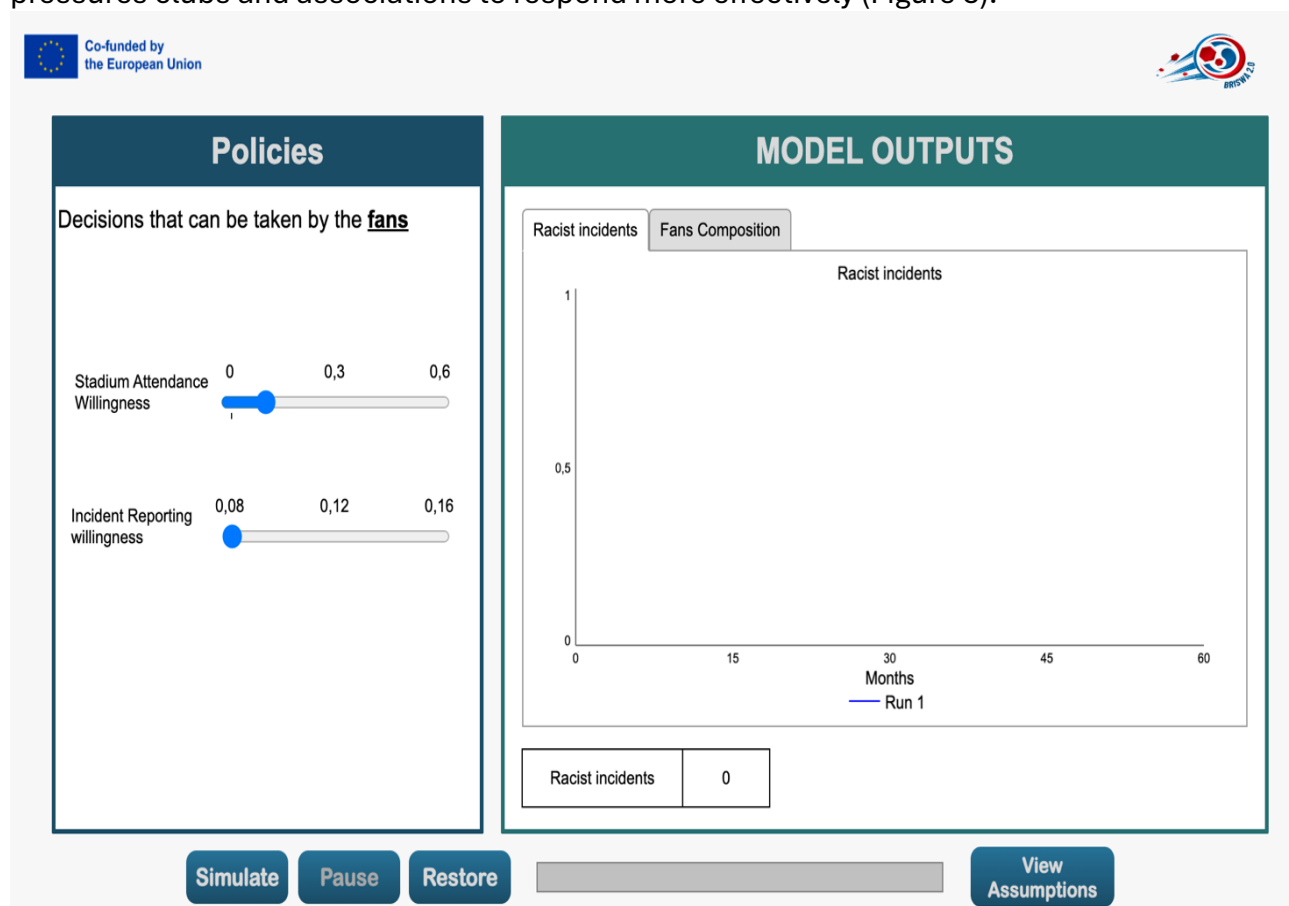
Figure 5 The main page for the decisions and results for the fans

2. Football Club Managers

Clubs act as the primary institutional actors in the model. They are responsible for implementing direct interventions that influence fan behaviour and reputation. Club managers can decide to:

- train stewards to handle and prevent racist behaviour,
- organize counter-narrative campaigns,
- enforce education programmes for fans and players, and
- improve transparency to enhance public trust.

Each intervention carries an associated cost, contributing to the cumulative monthly expenditure of the club.

Managers must therefore balance their financial sustainability with their reputational goals and fan attendance levels.

High costs may undermine profitability, while insufficient investment risks escalating incidents and damaging the club's public image (Figure 6).
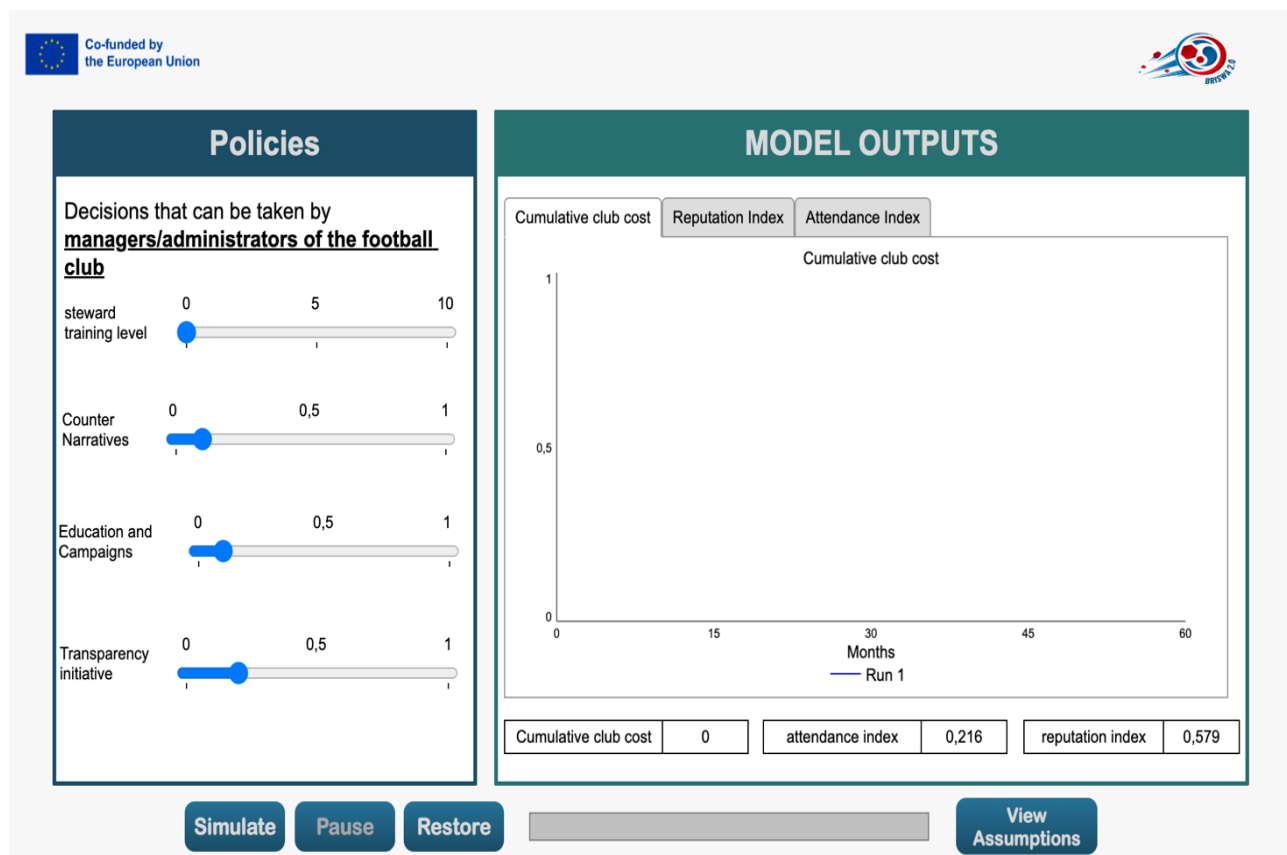
Figure 6 The main page for the decisions and results for the football club

3. Association Managers

At the regulatory level, association managers determine the strength and visibility of institutional enforcement.

They can decide to:

- increase enforcement intensity,
- make sanctions more visible to deter misconduct,
- impose financial penalties on clubs for losing sponsorships due to reputational damage, and
- set the fine per racist incident.

These decisions influence the deterrence index, which in turn shapes the likelihood of future incidents.

From the association's perspective, the reputation of individual clubs serves as a proxy for the reputation of the league as a whole, meaning that club-level outcomes have systemic implications for the credibility and social standing of the entire football ecosystem. (Figure 7).
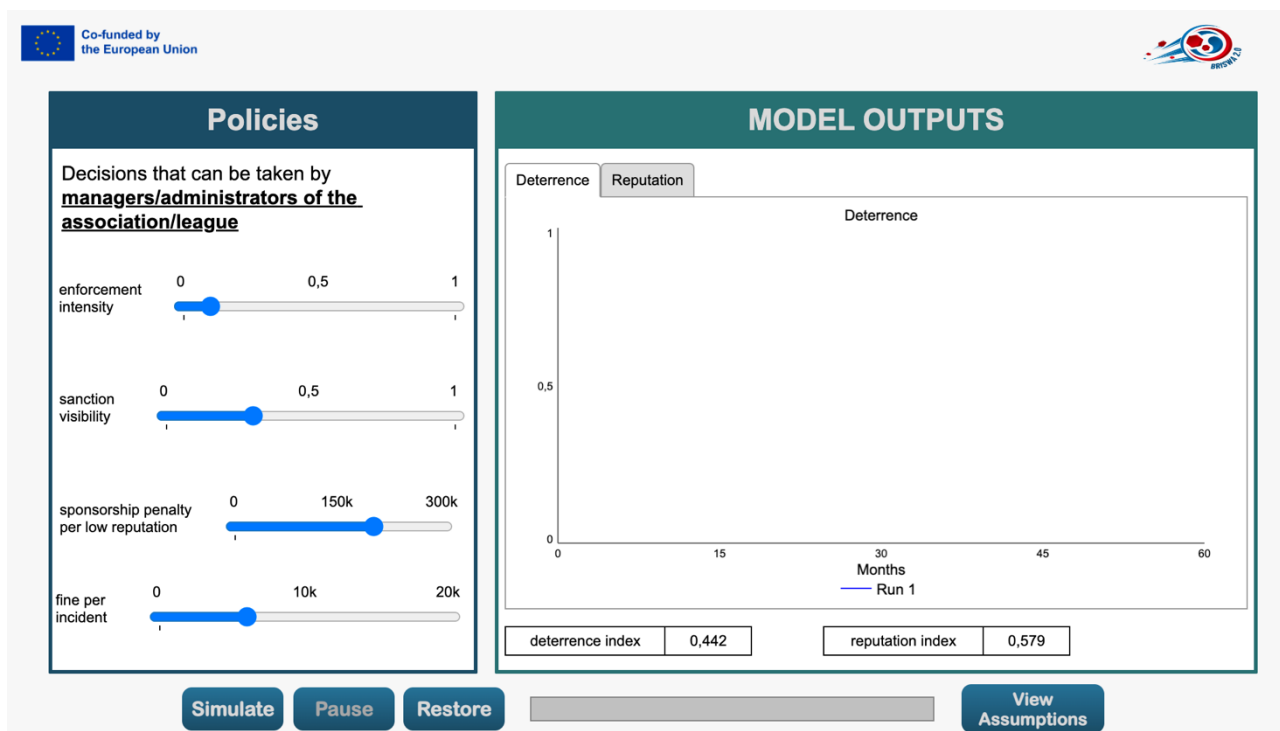
Figure 7 The main page for the decisions and results for the association

To start the simulation a user can press the Simulate button. At any point they can Pause the simulation, change any of the sliders available and by pressing the Simulate Button again they can see how their interventions change the results.

By allowing the simulation to run to its end, the user could either press the Restore button and every slider will return to its original value, while the graphs become empty. However, if they wish to test different scenarios, they could press Simulate again at the end of a simulation and comparative graphs will start to be generated.

Presentation of the game

The classroom/workshop activity is structured as a participatory simulation exercise in which students assume the role of one of the three main stakeholders represented in the BRISWA 2.0 Interactive Learning Environment: Fans, Football Club Managers, or Association Managers. Each role represents a specific perspective and a different set of decisions within the model. The exercise unfolds across a series of discrete rounds, during which the facilitator pauses the simulation, announces the current results, and invites participants to adjust their policy choices for the next stage.

To support active engagement, each participant or team receives a Stakeholder Sheet (a printed page resembling a role-playing game card). The sheet summarizes the available actions, the indicators that reflect their impact, and empty boxes where players record their chosen values and observed outcomes. In this way, participants build a simple decision log that mirrors the feedback structure of the model and makes the learning process tangible and experiential.

Stakeholder Sheet (For printing)

BRISWA 2.0 Serious Game – Stakeholder Sheet

Stakeholder Role: ☐ Fan ☐ Football Club Manager ☐ Association Manager

Team Name / Participant: _____

Objective: Take decisions that improve the overall reputation of football while balancing costs, trust, and the number of racist incidents.

Available Actions

Action	Description	Value Chosen					Notes / Rationale
		(For Fans)					
		Round1	Round2	Round3	Round4	Round5	
Attend Matches	Decide if you attend or boycott games based on club reputation						
Report Incidents	Choose whether to report observed racism						
		(For Club Managers)					
Steward Training	Invest in steward preparation and anti-racism procedures						
Counter-Narratives	Implement campaigns to counter racist speech						
Education Programmes	Organize sessions for fans and players						
Transparency	Publicly communicate club actions						
		(For Association Managers)					
Enforcement Intensity	Increase inspections and penalties						
Sanction Visibility	Publicize sanctions to strengthen deterrence						
Fine per Incident	Adjust the penalty applied for each racist act						
Sponshorship penalty per low reputation	How much the association will fine the clubs for low reputation						

Indicators

(reported by the facilitator each round)

Indicator	Description	Round 1	Round 2	Round 3	Round 4	Round 5
Racist Incidents	Total incidents recorded					
Club Reputation	Overall public image of the club					
Attendance Index	Number of fans attending					
Cumulative Costs	Total costs for interventions					
Deterrence Index	Level of deterrence against racist incidents					

Reflection Box

After the final round, note one insight or surprise you observed:

Pre-game survey

Before the beginning of the serious game and after the facilitator has distributed the stakeholder sheets, participants are invited to complete a short pre-survey. The purpose of this initial questionnaire is not to measure knowledge or evaluate attitudes, but to reveal how each participant understands racism as a systemic phenomenon. The questions are designed to reveal existing mental models, meaning how students perceive causality, agency, and responsibility within the world of football.

The documentation of these assumptions, will allow the facilitators to guide after the completion of the process the discussion around how and why participants' understanding evolved through gameplay. The pre-survey thus serves as a baseline for conceptual reflection, not as an assessment tool.

Participants are encouraged to respond briefly but thoughtfully, in their own words. There are no right or wrong answers, but what really matters is how they initially make sense of the issue.

Pre-Survey Questions

What do you believe are the main causes of racism in football?
(You may refer to fans, clubs, associations, or wider social factors.)

Who do you think holds the greatest responsibility for addressing racism in football? Why?

How do you think education and enforcement interact in reducing racism?

(For example, can one replace the other, or should they work together?)

Do you believe that sanctions alone can change behaviour? Explain briefly.

Can anti-racism policies ever create unintended consequences? If yes, what kind?

What would success look like for you in tackling racism within the sport?

The facilitators should collect these responses before the start of the game. They are not scored, but they can be revisited after the session to understand how exposure to feedback loops, delays, trade-offs, and stakeholder interactions reshaped participants' reasoning.
In the post-survey, the students will have the opportunity to revisit these same questions, reflecting on how their views have shifted and what mechanisms or patterns within the model challenged their initial assumptions.

Gameplay procedure

The simulation is played in five rounds.

The facilitator's task is not to direct decisions or prescribe strategies, but to create a structured space for exploration, ensuring that participants engage with the feedbacks and trade-offs of the system. The process is played over a series of five rounds, representing different stages in the evolution of the environment. At the end of each round, the simulation is paused, and participants are invited to adjust their decisions based on the new results. Each participant or team plays as one of the three main stakeholders: Fans, Football Club Managers, or Association Managers. Every role has a unique set of policy levers, as outlined in the Stakeholder Sheet. The facilitator presents the initial conditions, invites each group to set their sliders according to their strategy, and then runs the simulation for the first round. After observing the results, players can choose to maintain or modify their decisions, attempting to balance short-term outcomes with long-term goals.

The facilitator announces at each stop the updated values of the key system indicators, such as:

- Racist Incidents
- Club Reputation
- Attendance
- Cumulative Costs
- Deterrence Index

These values are also recorded by the participants on their Stakeholder Sheet, forming a simple trace of how their decisions influenced the overall system. The facilitator can choose to show these indicators directly on screen or provide them verbally, depending on the classroom setup.

The table below summarizes the steps in a game with indicative times for the facilitator.

Table 1 Flow of steps for the gameplay process

Stage	Duration	Description
Round 1	5 min	Introduce roles and record first choices
Round 2 – First Update	5 min	Facilitator shares early results; students adjust
Round 3	5 min	Observe emerging trends; discuss trade-offs
Round 4	5 min	Encourage experimentation with extreme values
Round 5 – Final Results	10 min	Record final outcomes and reflect on patterns

Between rounds the facilitator can ask general questions to guide the students towards a more concrete understanding of both the model and the phenomenon of racism. These brief discussions help participants connect quantitative feedback with qualitative reasoning, reinforcing the idea that racism is not driven by isolated acts but by the interaction of multiple decisions over time.

At the end, students complete the post-survey and the facilitator conducts a short debriefing session, inviting students to compare their initial answers with their new understanding of how racism behaves as a dynamic system.

Post survey

After completing the final round of the simulation, participants are invited to return to the same questions they answered at the beginning of the session. The purpose of this post-survey is to capture how their understanding has changed because of the interaction with the simulation game and the mechanics of the serious game elements.

The post-survey is not an evaluation of correctness. It is a reflection exercise, intended to help participants articulate what they have learned about the systemic nature of racism, the role of feedbacks, and the difficulty of achieving balanced outcomes across stakeholders.

The facilitator may choose to collect the surveys for later analysis, or conduct a short plenary discussion immediately afterward to share insights and compare experiences between roles. Participants should answer especially if their views have shifted, they should be encouraged to explain what part of the game led to this change etc.

Post-Survey Questions

After playing the game, how has your understanding of racism in football changed?
(Did you identify new causes or connections that you had not considered before?)

Which policy combination or stakeholder action produced the biggest change in the results?
(Was this consistent with your expectations?)

How did deterrence, education, and trust interact in your game?
(Did they reinforce or weaken each other?)

Did any of your initial assumptions prove incorrect during the simulation? Explain briefly.

What trade-offs did you encounter between reputation, cost, and racist incidents?

If you could redesign one policy after seeing the results, what would it be and why?

Once all participants complete the post-survey, the facilitator could lead a short debriefing discussion, where the aim would be to explore how decisions interacted across roles and why certain patterns emerged. This conversation acts as a takeway of the learning outcomes for the participants. They can crystalize within themselves that systemic problems cannot be solved through isolated measures, and that meaningful change depends on coordination, timing, and the ability to anticipate feedbacks, time delays and non-linearities.

Conclusions

This deliverable aims at assisting professors and teachers to use the BRISWA 2.0 Interactive Learning Environment as a pedagogical instrument. The entire process of presenting and running experiments with the model is transformed into a structured (serious) game, where it becomes possible to teach about racism in football as an experiencial process of decision-making. This process allows students to test assumptions, confront delays and trade-offs, and recognize that even well-intentioned policies can generate unforeseen consequences, while being in a consequence-free environment with condensed time and space. The objective is that the model coupled with a structured approach such as the one described in the deliverable can bridge the understanding between the structure of the system and the behavior of its individual actors.

Through the use of stakeholder roles, sequential decision rounds, and reflective surveys, the exercise creates a complete learning cycle. The pre-survey is used as a tool that would illustrate the initial beliefs of the participants about causality and responsibility. Gameplay reveals the dynamics that connect those beliefs to actual outcomes. The post-survey then brings awareness to how reasoning has changed, thus offering insights to the participants on which of their initial assumptions agree with the model or where they need maybe to re-evaluate their own mental models.

The strucutral process design presented in the current deliverable also lays the foundation for future research. The data generated from pre- and post-surveys, combined with player decisions recorded across rounds, can be analysed to understand how exposure to systemic feedbacks influences learning. In addition, the framework can be extended with extreme scenario analysis and machine learning techniques to map how different strategies or mental models evolve within the game.