

EBIOS

RISK MANAGER

THE GAME

RULES OF THE GAME



INTRODUCTION

The EBIOS RM game is designed to make it easier to learn the EBIOS RM method. It is part of a training course on the method and for the sequence devoted to the game, the trainer acts as facilitator and "master of the game".

The EBIOS RM method uses concepts that have been integrated and simplified into the game in order to insert them into a mechanism that reflects the process of implementing the method.

Recommended for 3 to 4 players, the game will lead them to collaborate:

1. To reconstruct all the Risk Scenarios (RS) by associating the 5 elements that make them up:

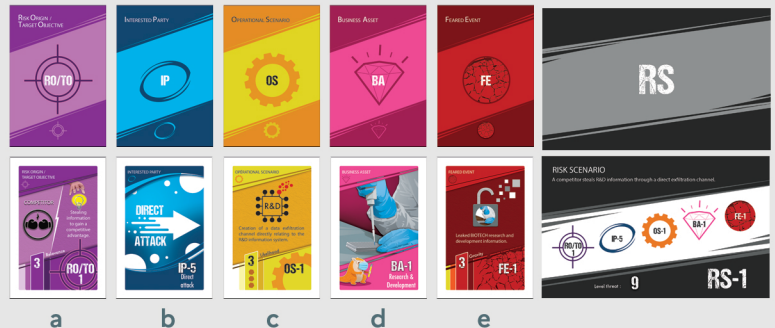
a. The Risk Origins and Target Objectives (RO/TO),

b. Interested Parties (IP),

c. Operational Scenarios (OS),

d. Business Assets (BA),

e. And the Feared Events (FE).



2. To put in place security measures (SM) to lower their level of risk,

3. And thus avoid the occurrence of the Feared Events.





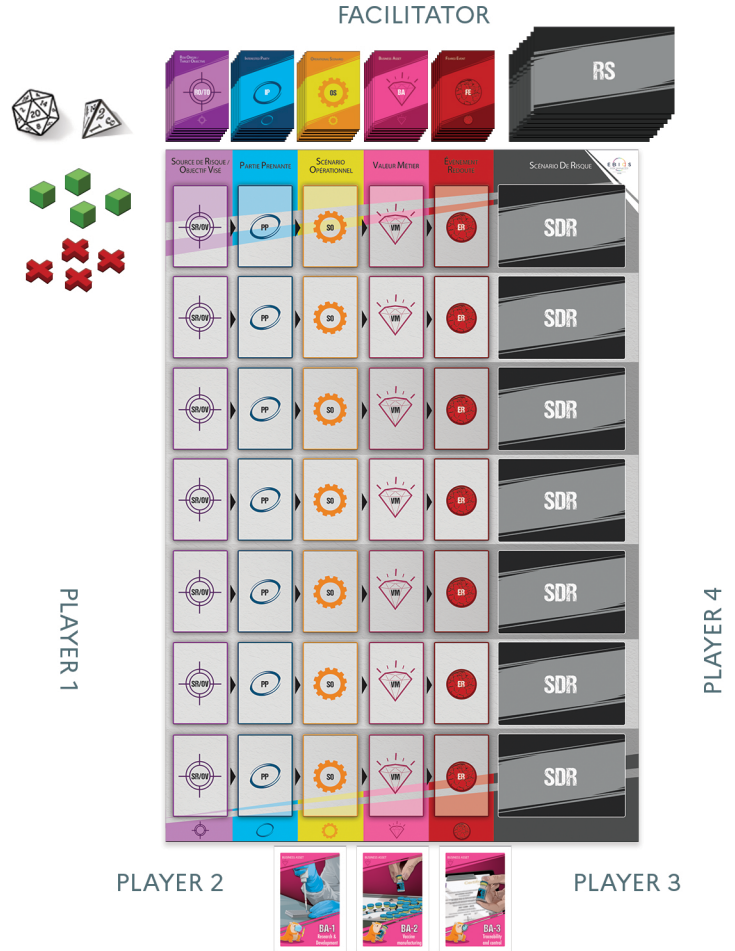
The game box contains a basic "BIOTECH" scenario consisting of a card game.

SETTING UP THE GAME

Place the game mat in the center of the table and arrange the players so that they are facing or sideways in relation to the reading direction.

The facilitator can thus place himself in front of the 4 players and arrange the elements of the game in front of him:

- The 6 types of cards in as many distinct piles.
 - The RO/TO, FE, and OS cards are shuffled before being positioned in their stack.
- The 7 RS sheets face down.
- Protection tokens  (linked to SM) and impact tokens  (linked to FE).
- The 2 dices (20 faces, 4 faces).



The facilitator presents the players with the context of the company in which the game will take place. In the baseline scenario provided, this is BIOTECH, a company that develops, manufactures, and distributes vaccines.

He distributes to the players 1 card of each existing Business Assets in the company, and in the case of Biotech:

- BA-1: Research and Development,
- BA-2: Vaccine Manufacturing,
- BA-3: Traceability and control.

PROGRESS OF THE GAME

The game consists of 3 or 4 turns of play that follow the logic of reconstituting a Risk Scenario.

1st round of play



The host draws 3 RO/TO cards from the pile and gives them to the players:

- Players must then associate them with one of the 3 BAs (Business Assets).
- If the players are missing a BA card to create the association they want, they ask the facilitator, who looks for it in the pile and gives it to them.
- Players can then drop the RO/TO and BA card associations on slots on the game mat.



The host then draws 3 FE (Feared Events) cards:

- Players must then match the FEs to the already identified RO/TO-BA pairs and place the FE cards on the corresponding lines on the game mat.
- If they feel that an FE does not match any of the existing RO/TO-BA, they drop it on a new line on the game mat.



The host then draws 3 OS cards (Operational Scenarios):


- Players must then associate these OSs with the RO/TO-BA-FE triplets already identified and place the OS cards on the corresponding lines on the playing mat.
- If they feel that an OS does not match any of the existing RO/TO-BA-FE, they drop it on a new line on the play mat.
- If the OS mentions an IP (Interested Party), the players ask the facilitator for it, who looks for it in the pile and gives it to them.
- If it doesn't mention one, players will have to ask the facilitator for a "Direct Attack" IP card.





The facilitator then proceeds to validate the RSs (Risk Scenarios):

- If the associations made on a line are correct, the facilitator gives the players the corresponding RS card that they can place on the game mat slot.
- If the associations are incorrect, the host tells the players that they have made a mistake but does not give them any further information. It is not possible at this stage of the game to make changes. They will be possible in the next round of play.

Implementation of the SM (Security Measures):

- The host presents the players with the SM cards corresponding to the game turn (written on the back of the cards): 4 for turn 1, 5 for turn 2, then 4 for turn 3.
- One of the players rolls the 4-sided die to determine their budget .
- The resulting budget is the result of the die (from 1 to 4) + 3, i.e. from 4 to 7.
- After debating, players choose and implement SM using their budget to fund the cost/complexity of SM.
- Each SM played lowers the risk level of RS. To make it happen, place protection tokens (green cubes) on the RSs concerned.
- If an SM is played while one of the impacted RSs is not yet identified, the token will be kept on the SM card and positioned on the RS as soon as it is completed.

At this point in the game turn, the host will perform an attack test:

- The likelihood level of an OS will determine the number of faces of the die that will trigger an attack on this OS (example: OS-1, which has a probability of 3, will be triggered by 3 consecutive values of the die).
- The host rolls die 20. 
- From the result obtained, the player counts the number of symbols () present on the OS cards starting from the top of the table. If it stops on an OS card, the OS card activates. If the result of the die is higher, none of the OSs activate.

Example (diagram):

- OS-1 (likelihood 3), OS-4 (likelihood 2) and OS-7 (likelihood 3) were identified and positioned on the mat from top to bottom.
- If the die roll is 1, 2, or 3, OS-1 activates.
- If the die roll is 4 or 5, OS-4 activates.
- If the result of the die is 6, 7 or 8, it is the OS-7 that activates.
- If the die result is greater than 8, none of the OSs activate.

In the example opposite, the result of the die being 6, it is the OS-7 that will activate.



If an OS activates, players will make a defense check:

- If the RS corresponding to this OS has not been identified, the attack is automatically successful.
- If the RS corresponding to this OS has been identified, the players will be able to try to repel the attack: they then roll the 20 faced die and must obtain a result higher than the risk level of the RS, possibly lowered by security measures played previously.



In the event of a successful attack, the dreaded event associated with this OS occurs: the animator then deposits an attack token on the FE and the organization, Biotech in the base game, loses as many "hit points" as the FE's gravity level.



Note: If the FE on the activated OS line is not yet identified, the facilitator adds it to the game mat from the remaining FE in the stack. If there are none left in the stack, one will take one from those already deposited and not integrated into a complete RS.

Similarly, if the RO/TO pair on the SW line is not yet identified, the facilitator adds it to the game mat from the remaining RO/TO in the stack.

Each time an FE occurs, players get 1 additional budget for subsequent rounds to perform SM. Their budget will then be the result of $1D4+4$, then $1D4+5$, etc.

2nd round of play

Follow the same process as for the 1st round of play but the number of cards provided to players is limited to:

- 2 RO/TO cards
- 2 FE cards
- 2 OS cards

At the RS validation stage and before submitting their choices to the facilitator, players can make as many inversions as they want on the game mat to correct any inconsistencies in the associations made during the 1st round of the game.

Reminder: at the Security Measures stage, the facilitator will give the 5 SM cards from round 2.

3rd round of play

Follow the same process as in previous rounds and provide players with:

- The latest RO/TO cards (it is possible that some RO/TO were previously revealed by a successful attack).
- The last 2 BA cards.
- The latest FE cards (it is possible that some FE cards were previously revealed by a successful attack)
- The last 2 OS.
- The last 2 IP.

Again at the RS validation stage and before submitting their choices to the facilitator, players can make as many inversions as they want on the game mat to correct any inconsistencies in the associations made during the 2nd round of the game.

At the end of the 3rd round of play, the playmat is fully completed, but some matches may still be incorrect.

As a result, some SMs will not be able to have an effect on the RSs that have not yet been fully identified.

Reminder: at the Security Measures stage, the facilitator will give the 4 SM cards from round 3.

4th round of play

If players have not been able to identify all RSs on the 3rd turn, they can change the associations again until they are able to do so in full.

They will be able to hire a new series of SM according to their budget.

The host restarts a final test of attack and the players a final test of defense.

END OF THE GAME

At the end of the game, calculate the sum of the severity of the FEs that occurred during the game.

Depending on the results obtained, here is an assessment grid:

Sum of the severity of FEs	Comment
Zero	Excellent !
From 1 to 3	Ok.
From 4 to 6	Can do better
More than 6	Must do better... 😊

This game was designed by Game Partners and Club EBIOS.

It was created to support training in the "*EBIOS Risk Manager*" risk analysis method developed by the French National Agency for the Security of Information Systems (ANSSI).



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