



Certification report	Pragmatic Play Game Audit Report –Greyhound Racing
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Jurisdiction	Colombia
Technical standards used for testing	Coljuegos Technical Requirements for Internet Games Operated in Colombia May 20, 2020. Coljuegos Agreement 8 of 16 September 2020. Coljuegos Agreement 2 of 30 March 2021.

Gaming Associates

1 Notations

1.1 Confidentiality

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This document, its themes, and ideas are strictly confidential and may not be used in any manner other than its expressed purpose, without the written permission of the author. The documents are for the intended client named in this report, also referred to as “the client” or “client”, and the applicable gaming jurisdiction mentioned in this document.

The documents are copyright.

1.2 Disclaimer

ga has reported on what was discovered throughout the assessment period of the client’s game related to the technical scope of testing as per applicable jurisdictional requirements. Results are based on the client’s submission of information material, access to the testing environment and applicable testing is performed within a finite period.

Inherently there are limitations in performing compliance testing within a laboratory environment and accordingly **ga** has undertaken its best endeavours to ensure a thorough assessment is performed and conclusion stated.

2 Administration

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2.2 Version

Version	Description	Date
V0.1	Initial Draft – MARB	2022-06-20
V0.2	Reviewed & Updated – WKAS	2022-06-21
V0.3	QA – UVAS	2022-06-22
V1.0	Final report to Pragmatic Play	2022-07-05

3 Executive Summary

3.1 Introduction

Pragmatic Play Ltd has requested Gaming Associates (ga) to test their game in scope against the requirements of the jurisdiction of Colombia as regulated by Coljuegos.

This report presents the results of testing performed by ga related to the technical scope of testing as per applicable jurisdictional requirements.

Hashes of the critical components of game are listed in Annex A: SHA-1 Hashes.

3.2 Scope of Testing

Pragmatic Play has provided the game “Greyhound Racing” to be tested against the following game related requirements of “Coljuegos Technical Requirements for Internet Games Operated in Colombia May 20, 2020”:

- ♣ Chapter III. General aspects of the games operated by Internet
- ♣ Chapter IV. Game system
- ♣ Coljuegos Agreement 8 of 16 September 2020
 - Title 1 of the Game of Luck and Chance of the Modality of Novelty-Type Games Internet Operate
- ♣ Coljuegos Agreement 02 of March 30, 2021

This compliance evaluation was performed against game related requirements and does not include the evaluation of technical standards specific to the Platform, Financial Reporting, and Random Number Generator (RNG) as these are outside of the scope of this assessment.

3.3 Testing methodology

The following test methods have been used for compliance evaluation of the game:

- ♣ functional testing;
- ♣ documentation review;
- ♣ source code review;
- ♣ emulation of game payout combinations;
- ♣ verification of theoretical return to player (RTP), and
- ♣ calculation of actual RTP using simulated game results.

No sampling has been used during game testing as this is not applicable.

3.4 Description of the system being certified

Pragmatic Play’s game is provided in HTML5 format that supports both Desktop and Mobile browsers. The game is not deployed on any gaming platform or gaming servers at the time of evaluation. Therefore, gaming platform related requirements are out of scope and operator will be responsible for meeting these requirements.

3.5 Test Environment

Testing was performed remotely using the test environment provided by Pragmatic Play at <https://emul.pragmaticplay.net/cgAPItest/v3/game/game>

3.6 Test Summary

A summary of testing results is provided below:

Game Name	Channels (game clients)	Game version	Actual RTP (Calculated RTP)	Single Market			Platform name and version
Greyhound Racing	Desktop and Mobile	1.0.3	92% (70.89% each way side bet)	WIN AND EACH WAY MARKET			Pragmatic Play Ltd. V1.0
				Market	Field Size	RTP	
				Win	6-8	92.0%	
				EW	6	70.89%	
				EW	8	70.89%	
				FORECAST AND TRICAST MARKET			
				Market	Field Size	RTP	
				Forecast	6-8	92.0%	
				Tricast	6-8	92.0%	
				Inside/Outside	6-8	92.0%	
				Odd/Even	6-8	92.0%	

3.7 Conclusions and Recommendations

Subject to the scope of testing and on the basis of testing performed by **ga** for Pragmatic Play on the game provided, has formed an opinion that the submitted game complies with the applicable technical standards of the jurisdiction of Colombia as regulated by Coljuegos.

4 Test Results

This section summarises the results of the tests performed on the game provided. The tables in the following sub-sections provide the assessment of compliance status of the game against the applicable requirements of the technical standards of the jurisdiction of Colombia as regulated by Coljuegos.

The different values used in the tables below within the “Compliance Status” column are described as follows:

Compliant: The testing results comply with the requirement.

Acknowledged: The requirement is only a statement or information.

N/A: The requirement is not applicable for the current product testing.

Out of scope: The requirement is not evaluated at this stage due to the current scope of testing or limitation of the test environment.

4.1 Coljuegos Technical Requirements for Internet Games Operated in Colombia

4.1.1 Chapter III. General aspects of the games operated by Internet

Req #	Requirement Description	Compliance Status	Observations and Evidence
	CHAPTER III. GENERAL ASPECTS OF THE GAMES OPERATED BY INTERNET		
3.1	Basic Rules	Out of scope	Operator's Responsibility
	The operator shall keep a record of active games at all times, in which indicate the game mode or variant and, where applicable, the commercial name.		
	Operator displayed on the screen of the game, or in a place easily visible through a direct link containing information about the instructions and restrictions on the game, including the indication of all prizes, account balances and characteristics special.		
	Operators shall have documented and implemented in your gaming system the procedures necessary to meet the requirements of Regulation operated games online.		
3.2	RANDOM NUMBER GENERATOR - RNG	Compliant	Refer to the RNG Report: "PPL-CO-220625-01-RC-R1 - Pragmatic Play RNG Evaluation Report.pdf"
	Random Number Generator - RNG must meet at least the following		
	requirements:		
	Random data generated must be statistically independent.		
	Random data generated will be unpredictable and undeterminable purposes predict outcomes of future game. (Its prediction must be impossible for computer without knowing the algorithm and the seed).		
	Series data generated will not be reproducible.		
	Scaling methods will be linear and will not introduce any bias, pattern or Predictability.		
	The translation method of the symbols or the game results will not be subjected to influence or control of a factor other than numerical values derived from the random number generator		
	The random data must be uniformly distributed within the range settled down.		
	Random data must remain within the range established		
	Different instances of a RNG should not be synchronized with each other so that the results of		

Req #	Requirement Description	Compliance Status	Observations and Evidence
	some to predict the other.		
	Seeded techniques / Re-Seeded should not allow making predictions on the results.		
	Generation mechanisms must have successfully passed various tests statistics showing its random nature.		
	Technical Gaming System may require several RNG, in which case all must meet the above requirements; it can also happen that share one or RNG instance of the same for one or more games, this applies if the behaviour does not affect random system.		
	The operator shall implement a monitoring system that allows you RNG detect its faults and define the methods and criteria for evaluation of the ruling that allow the mechanisms established to make the decision whether to or not to disable the play when a fault in the RNG that impact on the development of the game takes place.		
3.3	APPLICATION OF RANDOM NUMBER GAMES	Out of scope	Operator's Responsibility Refer to the RNG Report: "PPL-CO-220625-01-RC-R1 - Pragmatic Play RNG Evaluation Report.pdf"
	The range of values of the RNG must be precise and not distort the percentage of return to the player.		
	The game should not handle random events, or manually, or automatically, or to maintain a minimum percentage return to the player.		
	The translation method of the symbols or the game results should not be under the influence or controlled by another factor than the values numerical derivatives of the RNG.		
	Random events should be governed exclusively by the RNG and should not there is no correlation between a few plays and others.		
	The game should not rule out any random event, except in cases this circumstance is contemplated in the rules of the game.		
	When the rules of the game require the drawing of a sequence of events random (for example, cards in a deck), random events will not be sequenced during the course of the game, except in those cases where this circumstance is contemplated in the rules of the game.		
3.4	DESIGN OF THE GAME		
	The design of the game to ensure fairness and transparency of the game.	Compliant	Game rules are available on all the pages. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	The name of the game must be clearly visible on all screens and associated apparent to the player.	Compliant	Game name is displayed on the bet screen. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"

Req #	Requirement Description	Compliance Status	Observations and Evidence
	The graphical interface should include all information necessary for the development of the game.	Compliant	Buttons are clearly indicated on the bet screen and all buttons information's are available in the game rules. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	The function of all action buttons represented on the screen should be clear.	Compliant	All buttons are clearly visible and working. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	The result of each play will be displayed, if technically possible so instantly to the player and maintained for a reasonable period.	Compliant	Game results is displayed on time. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
3.5	LOGIC GAME		
	All the logic of the game must be independent of the terminal of the player. This means all functions and logic that are critical to the implementation of the rules of the game and determination of the result they must be generated by the game server, independent of the device used by the player.	Compliant	
3.6	CONTROLS LOGIC GAME		
	The game should be designed to minimize the risk of manipulation. They take the technical, administrative, and procedural measures to prevent behaviours that involving deviations from the rules of the game. The operator shall have a procedure documented that describes the measures applied on your system to ensure that:		
	The game is played according to the rules of the game.	Compliant	Game is deployed accordance with game rules. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Game data are recorded correctly in the system.	Compliant	Game data is recorded correctly. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Guards or identification documents of a bet or participation protect against possible manipulation.	Compliant	
	The system monitors the time to market bets or participation. The when the market is closed should be one that is set to the rules governing the game in any case be before the end of the event triggers the outcome of the game.	N/A	This game is a virtual Sports game.
	The system controls the prize fund constituted.	N/A	This game is a virtual Sports game.
	The procedure for determining winners will not allow that to introduce winners do not qualify to be rewarded or not give those winners yes, they comply.	N/A	This game is a virtual Sports game.
	The system will award the prizes to the players on the list of winners an effective form.	N/A	This game is a virtual Sports game.
	Any modification, alteration or deletion of data must stop audit trail, especially when there is manual	N/A	This game is a virtual Sports game.

Req #	Requirement Description	Compliance Status	Observations and Evidence
	intervention.		
3.7	GAME INTERFACE		
	The screens should display the current balance of the player credit for participation and bets placed.	Compliant	Player balance is displayed on the bet screen. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	The interface should show awards as credits.	Compliant	Total balance and current bet is displayed. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Should not be toggled different representations that can confuse the player.	Compliant	All information's are clearly visible. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Any event resizing or overlapping Player Interface It must be mapped to exactly reflect the modified screen and points tap / click. one	Compliant	
3.8	RETURN TO PLAYER	Out of Scope	Operator's Responsibility
	The operator shall implement a procedure to ensure compliance return theoretical games offered, so that the rate of return obtained by players for each game, modalities or variants, corresponds to the value or expected ranges in the regulations.		
	The operator shall keep the record of changes in the percentage return to the player for those games where the percentage may depend on configurable parameters in Technical gaming system.		
	The percentage return to the player may not be changed during the course of the game, except in those cases where this fact is provided for in the particular rules and player is properly informed.		
3.9	PLAN OF PRIZES		
	The plan awards in those games there will be public and accessible to players and will include all possible winning combinations and a Description of the corresponding prize to each combination.	Compliant	Symbol Prize are available on the pay-table. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Information plan awards should clearly indicate the value in credits the possible bets.	Compliant	
	The player must know the maximum monetary value that can be obtained from the bet or play that you are performing.	Compliant	Player can play the maximum bet amount. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	When there are boats or jackpots or prizes multipliers to be displayed in screens must be specified if the pot or multiplier affects the program awards or not.	N/A	The game is not linked to the jackpot.
	The award scheme cannot be changed during the game, except in Where this fact is specified in the particular rules.	Compliant	
	The award scheme should reflect any change in the value of the prize, for which, it is sufficient that the	Out of Scope	Operator's Responsibility

Req #	Requirement Description	Compliance Status	Observations and Evidence
	operator has a box and show prominently in the graphical interface of the game in which the aforementioned changes to appear in the value of the awards.		
	The operator shall keep record of the plan awards for each game, so that these changes can be audited.	Out of Scope	Operator's Responsibility
3.10	BOATS OR JACKPOTS AND ADDITIONAL PRIZES	N/A	This game is not linked with Jackpot
	The platform will inform the player clearly when providing funds to boats and how a player can choose to them.		
	All players contributing to the jackpots or boats have the option of winning along the development of the game. The description of the terms of the jackpot or jackpot and requirements to earn it must be communicated to the player.		
	A jackpot or boat is considered active from the moment players choose or they can contribute to it, until it is closed, usually by sharing all awards associates or, where appropriate, by re-routing to another jackpot or pot.		
	The conditions of the boat must consider any conclusion or interruption, scheduled or unforeseen, of the game and technical interruptions in the system.		
	The operator must provide a process which allows control of the boat, ensuring that:		
	The jackpot or jackpot is created, managed, and is awarded a manner consistent with the rules particulars of the game.		
	Once constituted, open the can, the conditions do not change until it has It has been won by one or more players and made cash value.		
	The procedure should not be allowed to introduce winners who do not meet the conditions to be rewarded, nor winners not take for those who do comply.		
	The system gives prizes to the players on the list of winners.		
	If they exist, special attention will be given to the redirection systems on the boat that part of the jackpot is redirected to another fund, where it can be won later. The system redirection pot cannot be used for the purpose to postpone indefinitely the delivery of a prize.		
	The procedures involved in determining winners must leave traces to allow further review of the whole process of decisions made.		
	The amount of the pot should appear updated on all the devices Players who participate in it.		
	The inoperability of the boat must be communicated to the players by display on your device similar messages as "closed pot" or.		
	It will not be possible to win a jackpot that is previously closed.		
	The operator will monitor boats account where you collect information corresponding to amounts played by players incorporated into cans gaming machines, additional prizes bingo, gambling funds not spread no winners in a category in the pari-mutuel, and generally all game funds had been provided or incorporated in a game or game and they are to be distributed or used in a game or different game.		

4.1.2 Chapter IV. Game system

Req#	Requirement Description	Compliance Status	Observations and Evidence
	CHAPTER IV. GAME SYSTEM		
4.1	Verification and authentication	Out of Scope	Operator's Responsibility
4.2	Channel Interactive	Out of Scope	Operator's Responsibility
4.3	Continuity Plan Service	Out of Scope	Operator's Responsibility
4.4	Identification Devices	Out of Scope	Operator's Responsibility
4.5	Functionality of the Device	Out of Scope	Operator's Responsibility
4.6	Minimum Connection and Resources		
	The operator is obliged to introduce into their technical systems all means possible to try to reduce the risk that certain players are at a disadvantage compared to other technical factors that can affect the speed of the connection.	Out of Scope	Operator's Responsibility
	The player must be informed in those cases where the response time You may have a significant impact on the probability of winning.	Compliant	Slow connection will not affect the game outcome/results. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	The system will inform the player about the unavailability of communication with the game system as soon as detected.	Compliant	A disconnection message is displayed when the internet connection is not available. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	The software game should not be affected by the malfunction players end devices, except for the operationalization the procedures for end items or incomplete games.	Compliant	Incomplete games are made available to the player on reconnection. Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
4.7	INCOMPLETE GAME		
	An incomplete game is one whose result has not yet occurred or, if it has produced, the player has not been informed of this fact. Before a game incomplete, the rules of the game will determine the performance of the platform, you can expect the participation of a player, override the game or follow in it until it is completed. After recovering a game Incomplete, Technical Gaming System must keep a record of the event, its onset, duration, and services affected for later review.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	If the game is incomplete due to a lost connection of the device player, when the player reconnects, the platform will show at least results and status of the bet as long as you have generated the result thereof.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	The platform will keep track of the causes of disconnection or inactivity sessions of the player, with details of the start and end of the session, as the authentication mechanism used by the player to reactivate its session.	Out of Scope	Operator's Responsibility
	The operator must have a documented procedure for managing incidents of unavailability of one, several or all components, including associated technical measures for recovery. Components must perform self-diagnosis, check for critical files and check communications between the various components.	Out of Scope	Operator's Responsibility

Req#	Requirement Description	Compliance Status	Observations and Evidence
4.8	REDUCED BY OTHER TERMINALS FUNCTIONALITY		
	Devices that have a GUI limited by size, as by such as mobile devices, compared with personal computers, should provide content to visually complement the games as seen in the other devices.	Compliant	
	The platform can offer, for purely technical reasons arising from characteristics of the device, different functionality in different types of devices as long as they identify and document these differences.	Out of Scope	Operator's Responsibility
	The player must be informed of the limitations of information or functionality of the device and client application using, and so to accept express.	Out of Scope	Operator's Responsibility
	Operator mitigate the risks arising from lack of information or functionality on a given device by providing the same information other media.	Out of Scope	Operator's Responsibility
	Unless duly justified technical impediments, all information should appear at the interface of the game must also be displayed in all devices. When it is not possible to include all information or links on the game interface, will be offered from a link from a menu or another application of the same device.	Out of Scope	Operator's Responsibility
	The platform will not process sets the device if you do not have all minimum technical and connectivity resources to enable smooth play technicians without disadvantages.	Out of Scope	Operator's Responsibility
4.9	FAIRNESS IN THE GAME		
	The games should not be designed to give the player a false expectation of better likely representing fictitiously any game event. They're not here games allowed "almost won" type designed to give the player's perception He was about to win the prize, in order to induce the player to continue betting.	Compliant	Games does not give the false expectations to the players.
4.10	SESSION PLAYER		
	Where technically possible, the platform will keep recording meetings game, with details of the start and end of session, of the mechanism authentication used by the player, and the cause of disconnection or inactivity.	Out of Scope	Operator's Responsibility
	Where technically possible operator must ensure that the time Inactivity disconnect the player is at most twenty (20) minutes; After this time, the platform should disconnect the player.	Out of Scope	Operator's Responsibility
	When the operator perform communications basically unidirectional character where the expected behaviour of the player is passive, such as the broadcast of a live sporting event, it will be understood that the player still active, but take no action. If technically possible, inform the player that the session has ended.	Out of Scope	Operator's Responsibility
4.11	DISABLING A GAME PLAYING OF SESSION	Out of Scope	Operator's Responsibility
4.12	AUTOMATIC GAMES	N/A	Autoplay is not provided
	If the system offers advice on automatic gaming strategy or functionalities, such recommendations or functionalities must be truthful and ensure that the return rate is reached.		
	The player will be ensured to maintain control of the game when automatic game functionality is provided.		

Req#	Requirement Description	Compliance Status	Observations and Evidence
	The player will be able to control the maximum value of the automatic game or the maximum bet and the number of automatic bets.		
	It will be possible for the player to disable the automatic gaming functionality at any time.		
	When using the automatic game functionality, the information displayed on the device (duration, graphic elements or others) will be the same and will have the same characteristics as when the game is not automatic. The interface will additionally show the number of automatic plays that have elapsed or remain.		
	The automatic replay functionality cannot disadvantage a player, and neither the sequence of the automatic games nor any strategy that is recommended to the player should be misleading.		
	In the case of games involving more than one player simultaneously, all players must be informed and accept a player who has established the automatic game functionality.		
4.13	METAMORPHIC GAMES	N/A	This is not metamorphic game.
	Metamorphic or evolution games must:		
	Inform about the rules applicable at each game moment or stage.		
	Show the player enough information to indicate the proximity of the next metamorphosis. For example, if the player is collecting elements, the interface should show the number of elements that the player has collected, those that are necessary for the metamorphosis or those that are missing to achieve it.		
	The probability of a metamorphosis should not be varied depending on the prizes obtained by the player in previous games. Any exception must be previously authorized by Coljuegos.		
	The information and the game must not be misleading or ambiguous.		
4.14	VIRTUAL PLAYERS		
	The operator can use artificial intelligence to provide the participation of players virtual, also called robots, in those games intervene simultaneously more than one player.	Acknowledged	
	The virtual player should have no technical advantage over the players, not You have access to information not to the extent of these.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	All players must be informed at the time of entering the game the presence of a virtual player, in order to define their participation.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Virtual players must be clearly identified on the interface.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 -

Req#	Requirement Description	Compliance Status	Observations and Evidence
			Technical Requirement Greyhound Racing.pdf
4.15	ABSENTEE PARTICIPATION	N/A	
	During a game that involved more than one player simultaneously, excluding the poker tournament mode and black Jack multiplayer, the platform can enable the player establish a state of "absent" or "pause" that can be used if the player you need to stop playing for a short period may never exceed twenty (20) minutes.		
	State "absent" the player does not perform new plays. If any play is done your state will no longer be "absent" automatically. If the shares do not affect the game (p. eg. consultation of aid) will remain state of "absent".		
4.16	Replays		
	The platform will provide the player the option to replay, showing it as a graphical reconstruction or intelligible description should play all sets of the game that may have an impact on their development.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Repeat option must provide all information necessary to rebuild the last ten games of the session.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
4.17	MANAGEMENT CHANGES	Out of Scope	Operator's Responsibility
4.18	MANAGEMENT SERVICE AVAILABILITY	Out of Scope	Operator's Responsibility
4.19	PREVENTION PLAN FOR LOSS OF INFORMATION	Out of Scope	Operator's Responsibility

4.2 Coljuegos Agreement 8 of 16 September 2020

4.2.1 Title 1: The Game of Luck and Chance of the Modality of Novelty-Type Games Operated by Internet

Req#	Requirement Description	Compliance Status	Observations and Evidence
Title 1: The Game of Luck and Chance of the Modality of Novelty-Type Games Internet Operated			
Chapter 1: General Features			
1.1.1	Object (Article 1, Agreement 4 of 2016)		
	The purpose of this agreement is to establish the Regulation of the game of luck and chance in the novel modality of games operated by the Internet.	Acknowledged	
1.1.2	Scope (Article 2, Agreement 4 of 2016)		
	This Regulation applies to the legal entities that operate the game, to the players and in general, to all the legal and natural persons that, in accordance with the provisions of Law 643 of 2001 and other applicable regulations, are directly or indirectly involved in the operation and exploitation of the game of luck and chance object of regulation.	Acknowledged	
1.1.3	Definitions	Acknowledged	
1.1.4	Deposit Account	Out of Scope	Operator's responsibility.
1.1.5	Exploitation Rights	Out of Scope	Operator's responsibility.
1.1.6	Administration Expenses	Out of Scope	Operator's responsibility.
1.1.7	Declaration, Settlement and Payment of Exploitation Rights and Administration Expenses	Out of Scope	Operator's responsibility.
1.1.8	Coverage for Payment of Prizes and Return of Funds from Players	Out of Scope	Operator's responsibility.
1.1.9	Sending of Information	Out of Scope	Operator's responsibility.
1.1.10	Return of the Player (RTP%) (Article 10, Agreement 4 of 2016. Amended by Article 1 of Agreement 2 of 2019)		

Req#	Requirement Description	Compliance Status	Observations and Evidence
	Games operated over the internet will present a minimum return to the player of 83%, in which case the exploitation rights will have a minimum rate of 15% on the gross income minus the prizes paid.	Compliant	Minimum RTP% is above 83%.
	In accordance with the foregoing and these regulations, Internet gaming operators must guarantee the theoretical return through the design of the game, the determination of the quotas that are offered or the setting of the commission, for each type of game.	Compliant	Theoretical return to player is displayed in gaming rules.
	COLJUEGOS must carry out annual reviews of the return to the player based on the information reported by the operator, without prejudice to the random reviews carried out at any time in the operation contract, using the last year executed as the reference period.	Out of Scope	
	COLJUEGOS may require the operators to provide the data and information that proves that in the game design or in the determination of the quotas offered or the setting of the commission, within the period indicated for these purposes, they have adopted the necessary measures to guarantee the theoretical return referred to in this article.	Out of Scope	Operator's responsibility to provide the data and information to COLJUEGOS.
	In the case of bets on real events, if the return to the player is below 83%, to determine that the theoretical return to the player defined in these regulations is met, COLJUEGOS will apply the following statistical test:	Out of Scope	
	1. Define the day as the minimum unit of observation of the Payout.		
	2. Calculate the actual Payout for each of the days during the twelve-month period.		
	3. Calculate the mean and variance of the Payout.		
	4. Calculate the test statistic.		
	5. Calculate the value of the cumulative probability of PE in a standard normal distribution. The result of this calculation is the so-called test value or p-value.		
	6. Contrast the following hypothesis tests.		
	In general, it is decided if $p\text{-value} \leq 5\%$ is rejected H_0 , therefore, there will be evidence that the Payout theoretical is less than 83%. In the same way, if $p\text{-value} > 5\%$ there is no evidence to reject H_0 , therefore, there is no evidence to say that the theoretical payout is not 83%.		
	Paragraph. Without prejudice to the sanctioning process that takes place on the occasion of the breach of the theoretical return to the player required in these regulations, the operator must make the corresponding adjustments with the rate of 17% of the gross income on the settlement, declaration and payment on the type of authorized gambling that generated the breach for a specified period.		
Chapter 2: Definition and Description of the Game			
1.2.1	Definition of Internet Operated Games (<i>Article 11, Agreement 4 of 2016</i>).		
	According to <i>article 38 of Law 643 of 2001</i> , modified by <i>Article 93 of Law 1753 of 2015</i> and for the purposes of this agreement, games operated over the internet are understood to be those in which the bet and the payment of prizes are made by means that do not require the presence of the player, after registering on the authorized site or portal and whose mechanics are supported by the intervention of a random number	Acknowledged	

Req#	Requirement Description	Compliance Status	Observations and Evidence
	generator or by the occurrence of real events whose results are not controlled by the game operator.		
1.2.2	Game Description (<i>Article 12, Agreement 4 of 2016</i>)		
	<p>Games operated by the internet are a new type of game of luck and chance, in which the player, using remote connection devices, enters the operator's interactive channels, accessing a user account where they must register their data in the first deposit and in which, through the authorized means of payment,</p> <p>You can purchase credits for participation in the games. The value of the credits for participation acquired by the player is reflected in his gaming account from which he can place his bets on the different games offered by the game operator that have been authorized by COLJUEGOS. Once the bet is made, the game is played, obtaining the result immediately or later, depending on the type of game and its rules. The development of the game and its duration depend on the mechanics of the selected game and the general and particular rules that apply to it.</p> <p>Once the game is finished and the result is known, the player is entitled to the prizes that, according to the rules of the game and its prize plan and depending on the result, correspond to him. The prizes are reflected in the player's account and are added to the balance of their gaming account. At the player's request, the balances of the gaming account associated with his user account will be transferred by the operator to the means of payment requested by the player (among those offered by the operator in accordance with those authorized in this regulation), after compliance of the corresponding tax obligations.</p>	Acknowledged	
1.2.3	Publication of Results (<i>Article 13, Agreement 4 of 2016</i>)		
	After each game match or After the event, the results must be published clearly and visibly on the operator's interactive channel, ensuring that players know if their bets were winners.	Compliant	Result is published clearly and is available to players for reasonable time.
	The results of each game or real event in which the player participates must be recorded and stored in the Central Game Unit and can be requested by COLJUEGOS when it deems it pertinent during the execution of the contract and in the settlement period of the same.	Compliant	Result of each game is stored in back office and shall be presented upon request. Operator's responsibility to make this information available for COLJUEGOS.
1.2.4	Game Features (<i>Article 14, Agreement 4 of 2016</i>)		
	1. The games are operated over the internet using remote connection devices.	Compliant	Games are operated on mobile and desktop using device's internet connection.
	2. The games offer is presented on the gaming operator's interactive channel through remote connection devices through the use of interfaces or applications specifically designed to enable access to the operator's game offer.	Out of Scope	Operator's responsibility.
	3. Depending on the type of game, the result can be generated through the intervention of a Random Number Generator -GNA- by determining the result of a real event in which neither the operator nor the player intervene or present any degree of influence.	Compliant	RNG report is provided by the Auditee and is referenced in section 6 of this report.
	4. The game is developed through a Technical Game System in accordance with the Technical requirements of this Regulation.	Compliant	Refer to the technical evidence documents accompanied with this report.
	5. The player must create a user account in order to participate in the games offered by the operator.	Out of Scope	Operator's responsibility.

Req#	Requirement Description	Compliance Status	Observations and Evidence
	6. The acquisition of the credits for participation and the withdrawal of the value thereof are made through the means of payment registered by the player in his user account among those offered by the operator.	Out of Scope	Operator's responsibility.
1.2.5	Game Elements (Article 15, Agreement 4 of 2016)	Out of Scope	Operator's responsibility.
1.2.6	Game Operation Form (Article 16, Agreement 4 of 2016)		
	The game is operated over the Internet, through a technological platform managed by the operator that must guarantee the correct functioning of the game, comply with the technical requirements that COLJUEGOS establishes within the Technical Requirement of these Regulations, as well as allowing access to technical users authorized by COLJUEGOS for the purposes of controlling the Technical Gaming System when the entity so requires. (Article 16, Agreement 4 of 2016)	Acknowledged	Operator's responsibility.
1.2.7	Game Rules (Article 17, Agreement 4 of 2016)		
	The basic regulations that apply to games operated by the Internet are determined by the technical requirements issued by Coljuegos and these Regulations, which must be published on the operator's website for the players to consult.	Out of Scope	Operator's responsibility. However, auditee published the game rules within the game and are accessible.
	Additionally, the operator must publish the particular rules that it has established regarding the games it offers to the public and they must be in accordance with what is described in this regulation.	Compliant	Auditee published the game rules within the game and are accessible.
	Said particular rules must be stored by the Operator and keep a control record with the effective dates of operation and must be provided in the inspection system for the purposes of information and control by the Entity, as well as be available at the end. the concession periods. Notwithstanding the foregoing, COLJUEGOS may request the particular rules at any time.	Out of Scope	Operator's responsibility.
	The Technical Requirements of this Regulation may have changes in the procedures, requirements and technical conditions that, due to their nature, may be subject to improvements derived from technological innovation or in the control and supervision of gambling, and therefore, COLJUEGOS must establish a transition process that allows the operator to implement the changes.	Acknowledged	
Chapter 3: Authorized Games and Operating Conditions			
1.3.1	Types of Game Authorized		Superseded by agreement number 02 on March 30, 2021 presented in section 4.3.1 of this report.
	The internet gaming operator may offer different types of games within one of the following categories:		
	A) Games operated by Internet in which a Random Number Generator intervenes in determining the result or in the development of the game. Within this category, the Internet gaming operator may develop the following games: 1. Slot or gambling machines. 2. Roulette. 3. Blackjack. 4. Baccarat. 5. Bingo. 6. Poker. 7. Virtual Games		

Req#	Requirement Description	Compliance Status	Observations and Evidence
	<p>B) Games operated by Internet whose result is determined by the occurrence of a real event on which the player makes a prediction that, in case of success, makes him the recipient of the prize that results from the application of the corresponding prize plan in accordance with the rules of the game. Within this category, the Internet gaming operator may develop the following games:</p> <ol style="list-style-type: none"> 1. Betting on real sporting events. 2. Betting on real non-sporting events. 		
	<p>C) Games operated by internet called Live Casino, whose transmission is carried out in real time and the result is determined by a hand or play made by a dealer / dealer in a recording studio or a commercial establishment destined to the operation of localized games, inside and / or outside the national territory. The games that may be offered in this category will be those that meet the definition provided in article 1.3.10. of this Agreement and they must be previously certified by a laboratory authorized by Coljuegos.</p> <p><i>(Paragraph c was added through article 1 of Agreement 5 of 2020)</i></p>		
	Paragraph 1	Acknowledged	
	Paragraph 2	Acknowledged	
	Paragraph 3	Acknowledged	
	Paragraph 4	Acknowledged	
	Paragraph 5	Acknowledged	
	Paragraph 6	Acknowledged	
1.3.2	Slot or Gambling Machines (Article 19, Agreement 4 of 2016)	N/A	This is not a Slot Machine game.
	They are those games in which, change of the price of the game, the user is granted a time of use in order to obtain a combination of signs or graphic representations that, in accordance with the particular rules of the game, is favoured with a certain prize.		
	Participation in the slot machine game can be offered by the operator in manual or automatic mode, the player being the one who chooses one or the other game option.		
	In manual mode, the game starts the moment the player manually activates the function for determining the combination of signs, while in automatic mode, the game starts once said game mode is configured.		
	It will not be possible to configure in automatic mode more than one hundred (100) games in a row, the player being able to leave the automatic mode at any time.		
	The game will have a minimum duration of three (3) seconds.		
	Determined by the Random Number Generator the combination resulting from the game, if it is favoured with any of the prizes established by the operator in the corresponding prize plan, it is by assigning the player in their gaming account the one that, if any, reciprocated.		
1.3.3	Roulette	Not Applicable	A virtual sports game is tested.
1.3.4	Blackjack	Not Applicable	A virtual sports game is tested.
1.3.5	Baccarat	Not Applicable	A virtual sports game is tested.
1.3.6	Bingo	Not Applicable	A virtual sports game is tested.
1.3.7	Poker	Not Applicable	A virtual sports game is tested.
1.3.8	Virtual Games		

Req#	Requirement Description	Compliance Status	Observations and Evidence
	Corresponds to virtual or prerecorded events, the result or selection of which must respectively be determined by a random number generator (RNG) and in which the winner of the bet is defined by hitting the result of the event. Virtual games comprise the following events:	Acknowledged	
	●Virtual: Animated graphic representation of a real event.	Compliant	Animated graphical representation.
	●Prerecorded: Compilation of scenes corresponding to real events previously developed.	N/A	Prerecorded events are not applicable.
	The bets in Virtual Games will be counterpart, in which the player bets against the game operator, obtaining the right to a prize in the case of correcting the prediction on which the bet is made and the prize being the result of multiplying the value of the bet , by the coefficient that the operator has previously validated for the forecast made.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Simple bets are those that fall on a single result of an event and multiple bets that fall on two or more results of the same event. Combination bets are those that fall on the results of two or more events.	Acknowledged	
	Bets will not be allowed during the event. Bets will be subject to the coefficient in force at the time they are made.	Compliant	Please refer to the technical document: "PPL-CO-220625-03-GC-R1 - Technical Requirement Greyhound Racing.pdf"
	Virtual games whose graphic representation represents lottery or numerical games, nor any event that represents violent acts or that violates the dignity of people, as well as those contrary to morals and good customs, are not authorized. (Article added through Article 2 of Agreement 4 of 2019)	N/A	
1.3.9	Bets on Real Events	Not Applicable	A virtual sports game is tested.
1.3.10	Live Casino	Not Applicable	A virtual sports game is tested.
1.3.11	Co-organized Operation	Not Applicable	A virtual sports game is tested.
Chapter 4: Awards Plan			
1.4.1	Distribution of the Prize Plan (Article 27, Agreement 4 of 2016)		
	The determination of the prizes depends on the type of game, the bet made and, where appropriate, the return to the player that results from the application of the game design and its resulting odds.	Acknowledged	
	In games that allow paramutual bets, the determination of the prizes is carried out in accordance with the prize plan defined for the game and based on a previously established percentage of the total bets or participations	Compliant	Pay-table is visible and available for players which pertains the outcome of games with different bet options. RTP% is available in online game rules.
	The prize plan must be defined by the operator and informed to the players before the start of the game.	Compliant	Pay-table is always accessible and visible without any betting requirement.
	In games that allow cross bets, the determination of the prizes is made by matching the offer of one or more bets in favour and one or more offers of bet against, made by players, where the prize will be the total of Gross income from the game by previously subtracting the value of the commission established by the operator. Which must be defined by the operator in the particular rules of the game known to the players	Not Applicable	A virtual sports game is tested.
1.4.2	Form of Payment of Prizes and Withdrawal of Funds (Article 28 of Agreement 4 of 2016, modified by Article 3, Agreement 2 of 2019)	Out of Scope	Operator's responsibility.

Req#	Requirement Description	Compliance Status	Observations and Evidence
	Once the player won a prize, it is immediately reflected in the gaming account associated with your user account.		
	When the player wishes to withdraw the funds from his gaming account, the operator must accept and order the payment within a period of no more than 72 hours, payment to be made by the means of payment chosen by the player, of those offered in the game, the above provided that the operator has verified		
	1. The information provided by the player in the process of opening a user account. 2. That the player has made a maximum of (3) three daily withdrawals of funds. 3. That at the time of withdrawal the sum of the bets made, is greater than or equal to 50% of the totality of the deposits. The foregoing applies accumulated from the technological implementation and start-up of this agreement. This condition does not apply to the prizes obtained by the player.		
	The foregoing must be expressly stated in the terms and conditions that will be published on the gaming platform, since they are an integral part of the contract entered into between the operator and the player.		
	Paragraph 1	Acknowledged	
	Paragraph 2	Acknowledged	
	Chapter 5: Participation Conditions	Out of Scope	Operator's responsibility.
	Chapter 6: Technical Requirements of the Game	Out of Scope	Operator's responsibility.
	Chapter 7: Advertising and Responsible Gaming	Out of Scope	Operator's responsibility.
	Chapter 8: Final Provisions of the Games of Luck and Chance of the Form of Brand-New Internet Operated Games	Out of Scope	Operator's responsibility.

4.3 Coljuegos Agreement 2 of 30 March 2021 by which title 1 of the Agreement 08 of September 16, 2020 is modified

Req#	Requirement Description	Compliance Status	Observations and Evidence
This Agreement modifies article 1.3.1. and 1.5.8 and adds article 1.3.12 of Agreement 08 of 2020 and governs as of its publication in the Official Gazette.			
	Article 1 of Chapter 3: Authorized Games and Operating Condition of the agreement 08 cited on September 16, 2020 is superseded by agreement number 02 cited on March 30, 2021 as below:	Acknowledged	New game type is added.
1.3.1	a) Games operated by Internet in which the determination of the result or the development of the game involves a Random Number Generator. Within this category, the Internet gaming operator may develop the following games: 1. Slot or gambling machines. 2. Roulette. 3. Blackjack. 4. Baccarat. 5. Bingo. 6. Poker. 7. Virtual Games. 8. Instant prize games.	Compliant	A virtual sports game is tested.
	Article 2. Added the Article 1.3.12. Immediate Prize Games Agreement 08 of 2020, which will have the following content:		
1.3.12	Immediate Prize Games		

Req#	Requirement Description	Compliance Status	Observations and Evidence
	It corresponds to the modality of a series of counterpart games in which, in exchange for paying a bet value for the game, the user is granted the possibility of predicting the number, letter, image, symbol and / or the combination, sequence or pattern between them, which must coincide with the result of a random number generator (GNA) as determined by the rules of the game.	Not Applicable	A virtual sports game is tested.
	PARAGRAPH		
	The mechanics of permanent bets (chance), traditional lottery, instant lottery (scratch), pre-printed lotto, online lotto or SUPER ASTRO are not authorized in immediate prize games	Acknowledged	
	Article 3. Modify the Article 1.5.8. Commercial Activities or Supporting Services Authorized to Offer Bets on Real Events and Virtual Games of Agreement 08 of 2020	Out of Scope	Operator's responsibility.

4.4 Return to Player

Game Name	Channels (game clients)	Simulation of games run	Actual RTP (Calculated RTP)	Single Market			Platform name and version
Greyhound Racing	Desktop and Mobile	10 million	92% (70.89% each way side bet)	WIN AND EACH WAY MARKET			Pragmatic Play Ltd. V1.0
				Market	Field Size	RTP	
				Win	6-8	92.0%	
				EW	6	70.89%	
				EW	8	70.89%	
				FORECAST AND TRICAST MARKET			
				Market	Field Size	RTP	
				Forecast	6-8	92.0%	
				Tricast	6-8	92.0%	
				Inside/Outside	6-8	92.0%	
				Odd/Even	6-8	92.0%	



5 Testing site, dates, equipment and team

Testing Site:

Testing was carried out at the following Gaming Associates (**ga**) laboratory premises:

- Suite 1, 82 London Road, Leicester, LE2 0QR, United Kingdom.

Testing Period:

Testing was executed during the time period from:

- 06 June 2022 to 17 June 2022.

Testing Equipment:

Testing was carried out using standard laptop computers and mobile devices. The test team involved in game testing is:

Supervisor:

Usman Vaseer

Tester(s):

Muhammad Arbaz Shahid



6 References

1. Coljuegos Technical Requirements for Internet Games Operated in Colombia May 20, 2020.
2. Coljuegos Agreement 8 of 16 September 2020.
3. Coljuegos Agreement 2 of 30 March 2021.
4. RNG Certificate “PPL-CO-220625-01-RC-R1 -Pragmatic Play RNG Evaluation Report.pdf”, version V1.0, date June 25, 2022.
5. Game Description “Game descriptions_MGA_Greyhound Racing.docx”, no version, no date
6. Game Description “Game descriptions_MGA_Horse Racing.docx”, no version, no date
7. Game Description “Game descriptions_MGA_Penalty Shootout.docx”, no version, no date.

**Annex A : SHA-1 Hashes**

Game Name	Critical Component	SHA-1 Hashes
Greyhound Racing	DREngine.dll	1225DA79A91BCD2E6F0FABB5F6FBDECCC95FDA27
	EngineClasses.dll	4D344A5F69B66E045BFE874094A78A85D20D9A4A
	CryptoRNG.dll	C16F86A8E838113911574EEA749868E89F025299
	Combinationclasses.dll	941D1844896526310C6C4B47FA9F6132E0D9CC88



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