

Revolutionizing Goalkeeper Analytics

Introducing The Ultimate AI and Machine Learning
Goalkeeper Data Metrics Software



Topics of Presentation

- The purpose of this presentation is to highlight the urgent need for a comprehensive goalkeeping data mining software with the transparency of gathering objective statistical and analytical data metrics, with the ability to create an insightful and compelling narrative that is of intrinsic value to the end user.
- The creation of a unique software that will possess a variety of holistic functions that will be of benefit to various leagues and clubs. Part of its main function is to ascertain the best goalkeeper in any professional league in a season for the right to win the coveted Golden Glove Award where applicable.
- Improve the standard of goalkeeping with innovative technological troubleshooting systems like AI and Machine Learning.
- To illustrate the creation of intrinsic value for key stakeholders within the game, an element that, while often viewed as subjective, is critically important in rebalancing market value perceptions between the acquisition of elite goalkeepers and professional goalkeepers.





The Golden Glove Award

The significance of this title, and its equivalent across various professional leagues worldwide, is to recognize the goalkeeper who demonstrates the most comprehensive statistical and analytical skill set, complemented by subjective assessments, over an entire league season.

Currently, the award criteria are based solely on the highest number of clean sheets recorded by a goalkeeper, which introduces biases and inconsistencies. The absence of a data-driven, objective evaluation method results in controversies, ambiguous analysis, and dissatisfaction among commentators, experts, the goalkeeping community, players, and fans. The primary concern is the propagation of a misconstrued and illusory collective perception among consumers regarding the composition of goalkeeping skillset abilities deemed necessary for attaining the award—an assumption that, in fact, does not reflect the reality of the criteria involved.

This title serves as a benchmark that reflects the true skill set of the award recipient, which in turn influences their market value. While similar technology has been integrated into football business evaluations, there remains significant potential for refinement and innovative advancements in this area.

Current Challenges

- **Existing Technology:** As mentioned in the preceding slide, there is existing technology that allows for the evaluation of statistical and analytical data pertaining to goalkeepers. This technology is currently being used to assess their skill levels. However, the challenge lies in accurately measuring crucial performance indicators. Factors such as agility, reflexes, decision-making under pressure, and positional awareness are subjective and hard to quantify. Additionally, industry experts and commentators may hold diverse opinions on the significance of each indicator, but it is crucial to establish a consensus regarding the overall assessment process.
- **Current Criteria:** Due to the current criteria set for the Golden Glove Award, the standardized methodology used by clubs and coaches to assess goalkeepers does not accurately reflect individual competency levels. While goalkeeper evaluations are expected to incorporate objective metrics and statistical data, true development of comprehensive skill sets can only be achieved if aligned with a redefined award criteria. Unfortunately, the sole focus on securing the highest number of clean sheets remains the primary determinant of the title, exposing a fundamental flaw in the system.
- **Elites vs Professionals differentials :** It is becoming increasingly challenging to differentiate between the skill sets of goalkeepers when determining what defines an established elite. Due to the current professional goalkeeping training methodologies, the development of optimal skill abilities appears to have plateaued prematurely. As a result, the systemic market valuation of goalkeepers in professional leagues is largely dictated by the ranking of the club they are associated with or set to join. However, this valuation can often be misleading or inaccurate, leading to significant long-term consequences, as goalkeepers from top-tier clubs frequently fail to justify their perceived market worth.
- **Contractual Clauses:** Elite goalkeepers at the highest level often include specific clauses in their contracts to ensure they receive a guaranteed number of game appearances throughout the season. These clauses are crucial for the club to fulfill their contractual obligations. The market value of a goalkeeper is heavily influenced by objective statistical and analytical metrics, as well as other subjective factors. However, the current criteria for winning the Golden Glove Award does not accurately reflect the level of excellence, and this discrepancy plays a major role in the market value of the award winner. Consequently, the evaluation process becomes imbalanced. This situation leads to limited competition for the starting goalkeeper position at a club, as contract clauses restrict opportunities, even if other backup goalkeepers may in theory, possess superior overall data metrics and analytics compared to the favored goalkeeper.

KeeperScore™



Introducing KeeperScore™ Data Metrics Software

KeeperScore™ is a goalkeeper-first data intelligence platform designed to translate on-pitch performance into valuation-grade insights. It unifies advanced performance metrics, contextual analysis, and role-specific modelling to quantify intrinsic value, assess recruitability, and support high-stakes decisions across development, recruitment, contract negotiation, and transfer strategy.

As AI technology becomes more prevalent, it is crucial for the development of football/soccer to prioritize maintaining quality and integrity of the sport to keep fans engaged. The use of data metrics is becoming increasingly important in evaluating player performance, and this applies to goalkeepers as well. The goalkeeper's role is particularly significant and intricate, requiring a thorough and transparent evaluation process that contributes to the improvement of goalkeeping techniques and skillset abilities.

Furthermore, this technology not only serves as a valuable tool for professional goalkeeping coaches, enhancing their creativity in applying coaching methodologies, but also acts as a benchmark for tracking the development of goalkeeping skill sets right down to the academy level. Additionally, the multifunctional software will have the capability to determine the intrinsic market value of individual goalkeepers using data metrics analysed through AI and Machine Learning. Finally, **KeeperScore™**, with its innovative match-day points scoring system, will accurately identify the most deserving candidate for the Golden Glove Award or its equivalent once adopted, across various professional leagues worldwide.



KeeperScore™ Functionality

The primary purpose of **KeeperScore's** main feature is to utilize an advanced AI and machine Learning system that collects and analyses digital and visual data related to professional goalkeeping in football/soccer. This involves the gathering of information from **Event and Tracking Data**, thorough analysis, and performance scoring for individual goalkeepers. By accessing real-time match event and tracking data and combining it with historical statistics, the AI system calculates the average percentage and assigns point scores for various categories, and create a blueprint for the evolutionary process and sustainability of goalkeeping skillset abilities . These are the outliers of its functionality:

1. **Collect coded data metrics on specific goalkeeping skill sets across all disciplines for strategic analysis and overall performance evaluation.**
2. **Translate extracted data from any chosen skill discipline into a compelling narrative that delivers clear, actionable insights.**
3. **Develop a reliable match-mode points scoring system that accurately reflects goalkeeper performance.**
4. **Establish a database system for each goalkeeper, enabling the assessment of intrinsic market value through comparative analysis.**
5. **Offer detailed insights into the development of goalkeepers from both private and club academies, specifically relating to how their progression impacts transfer fee valuations and the calculation of solidarity contributions.**
6. **Transform clubs/stakeholder business models and perspectives on goalkeeper valuation, influencing both short and long-term strategic planning together with clubs ambitions.**
7. **For clubs to budget strategically and effectively in fulfilling the Profit and Sustainability Rules (PSR) and Financial Fair Play (FFP) regulations in the goalkeeping department.**

Current sports tech companies have been collecting statistical and analytical data to assist clubs in providing comprehensive information about players' performances. However, **KeeperScore™** introduces a unique format and new parameters that set it apart from existing models. The conventional methods used by sports tech companies provide detailed data on key goalkeeper statistics such as **Goals Saved Above Average (GSAA%)**, **Expected Goals (xG)**, and **Post-Shot Expected Goals (PSxG)**. These metrics serve as essential performance indicators for shot-stopping, a crucial aspect of goalkeeper evaluation. However, while informative, they fail to effectively pinpoint deficiencies in skillset application that truly define a goalkeeper's intrinsic value. This issue is further exacerbated when different analytical models are applied to the same dataset, often resulting in complex and ambiguous interpretations of the data.

The **xG** and **PSxG** metrics models are suited to evaluate shooters (strikers, midfielders), but it becomes very challenging to derive a standard calculation to measure a goalkeeper's performance accurately, with the application of the same models, even with the aid of **GSAA%**. This complexity may explain why the professional leagues worldwide have traditionally awarded the Golden Glove title to the goalkeeper with the most clean sheets in a season. However, with the advent of new technology, this method is becoming outdated and insufficient to fully evaluate a goalkeeper's abilities.

KeeperScore™ seeks to transform the evaluation process by introducing a practical, effective, and data-driven problem-solving system designed to support the evolution of goalkeeping skill sets—delivering intrinsic value that benefits the individual goalkeeper, the clubs and stakeholders. With its unique format and parameters, **KeeperScore™** promises to provide a more comprehensive and reliable assessment of goalkeepers' abilities and overall contributions, both on and off the field.



Main Features of KeeperScore™

KeeperScore™ comprises of two main functions that are synergistic and they are: -

- **Match Mode AI Tracker**
- **Comprehensive Mode AI Tracker**

Match Mode

The purpose of the **Match Mode AI Tracker** feature is to collect and analyse statistical data of specific goalkeeping skillset performances from each game. It then transforms this data into a point-scoring system and assigns points to specific performance categories that have been selected. These selected categories consist of: -

1. **Saves**
2. **Crosses Claimed**
3. **Distribution**
4. **Clean Sheets**
5. **Penalty Saves**
6. **Errors leading to goals**

The chosen six categories will mirror the essential skills required for precise point calculation and distribution across each category. The final points score of every game in each goalkeeper appearance will be determined by calculating the average across these categories.

The total points earned through each game played over the season are aggregated to determine the cumulative point tally. The goalkeeper with the most points at the conclusion of the season is honored with the prestigious Golden Glove Award.

Comprehensive Mode

The **Comprehensive Mode AI Tracker** possesses an all-encompassing and intricate capability. This involves the combining of event and tracking data with collecting historical data metrics from previous seasons and using algorithms and applying AI Machine Learning to recognise and interpret the utilization of goalkeeping skillset technical abilities. Subsequently, these algorithms are categorized and segmented, resulting in an overall assessment of the goalkeepers' rating abilities, both on an individual basis and as a whole unit. The information acquired from a 6-year historical data will focus on these subjects: -

1. **Goals Conceded**
2. **Goalkeeping skillsets deployed to counter goals conceded**
3. **Distribution Variation and Conversion Metrics**
4. **Positional plays**
5. **Defence Organisation**
6. **Identifying Variables in Consistency levels**

The specified categories will consist of distinct subdivisions within each group, designed to accurately represent genuineness. The most captivating and meticulous procedure involves enabling the AI algorithm to interpret each designated command (or code) that has been assigned an identity, and subsequently assigning the relevant information to the designated categories. Once this framework is established, incoming data is harmonized, resulting in up-to-date and precise analytical information that effectively evaluates the skill levels of individual goalkeepers. This evaluation is of particular interest to goalkeeping coaches, commentators, analysts, end users, and consumers. The ultimate purpose is to create an **Algorithmic Game Theory** that induces favourable optimal analytical outcomes in the interest of goalkeepers and coaches.

Additionally, these data metrics can be transformed into visualizations, charts, and diagrams, providing end-users with a clearer and more comprehensive understanding of the extracted information.

KeeperScore™ : Match Mode

In the preceding slide, one of the focus was on the Match Mode feature, which introduces a scoring system for evaluating goalkeepers based on their performance per match throughout a season. To ensure the accuracy and effectiveness of this scoring system, KeeperScore will adopt a practical approach using multiples of **Three**, **Six**, and **Nine**. These specific numbers, when employed together, have a well-established reputation in esoteric knowledge for providing balanced and harmonious solutions to problems, as noted by [Nikola Tesla](#) the renowned inventor and engineer. By defining six distinct performance categories, the points system of 3, 6, and 9 can be seamlessly integrated to generate the desired calculations. The following diagram illustrates how this format will be put into practice: -

Performance Category	¹ 50%<	² 75%<	³ 75%>	Extras
1. Saves	3	6	9	
2. Crosses Claimed	3	6	9	
3. Distribution	3	6	9	
4. Clean Sheets				⁴ 6 ⁵ 9
5. Penalty Saves				³ 6 ⁶ 7
6. Error Leading to Goals				-3

As depicted in the tables, the core performance categories and corresponding point allocation system for evaluating goalkeepers' eligibility for the Golden Glove Award are presented. Within each game, statistical and analytical data will undergo regular processing to determine the average percentage for each category. Subsequently, points will be assigned based on these averages. For example, if the average percentage of **Saves** falls below 75%, the goalkeeper will receive six points. Conversely, if the **Distribution** average percentage surpasses 75%, nine points will be granted. In cases where the **Distribution** average percentage is below 50%, three points will be awarded.

Calculating Average Percentages

The first three performance categories [Saves, Distribution and Crosses Claimed] will be calculated on the average percentage of each game. Below is a demonstration of how the methodology will be applied in line with other data processing sports companies like [Opta](#), [Squawka](#), [Statsbomb](#) and [Fbref](#) :-

- **Saves:** - Calculated as the number of saves made divided by the number of shots on target, multiplied by one hundred. The percentage determines the points score.
- **Distribution:** - Calculated by the total number passes (Goal kicks, short passes, long passes, hand distributions, sweepers) completed to a teammate, divided by total amount of passes attempted, multiplied by one hundred. The percentage determines the points score.
- **Crosses Claimed:** - The main challenge is defining accurate percentage ranges that link opposition crosses into the box with a goalkeeper's successful actions, such as catches, punches, parries, and deflections. A standard mean analysis shows that goalkeepers successfully deal with roughly one in ten crosses, establishing a 50% benchmark and forming the basis of the **KeeperScore™ Cross-Claim Success Normalisation Model** used for the 3-6-9 scoring system.
The relative impact of each cross-claim technique is classified through a coding framework that contextualises each action.

The remaining three performance categories—**Clean Sheets [6 and 9]**, **Penalty Saves [6]**, and **Error Leading to Goals [-3]**—incorporate a distinct section labelled "**Extras**" featuring an altered scoring mechanism compared to the initial three categories. In the context of clean sheets, **six points** signify a standard achievement that reflects the efforts of the defensive unit, while **nine points** denote a clean sheet that is particularly influenced by the goalkeeper's performance. Penalty saves warrant a standard **six points**. In recognition of the psychological dynamics between the penalty taker and the goalkeeper, **3 points** are awarded in favour when a penalty attempt misses the target (not saved by the goalkeeper). Errors leading to goals result in a **deduction of three points** for each individual mistake made by the goalkeeper.

This proposed point allocation system is intentionally devised to establish a balanced and consistent algorithmic game theory framework, accounting for each individual goalkeeper's performance throughout the entirety of a season.

Match Mode Analysis

In order to establish a practical, effective, and clear point-scoring system, we will incorporate historical data from the previous six seasons for each goalkeeper in the league. This entails the intricate task of processing and computing statistical information for every goalkeeper's performance in each season, translating these outcomes into individual points, and subsequently utilizing them to monitor their seasonal achievements. Additionally, we will calculate the total average points for all goalkeepers per season, offering insights into the progression, stagnation, or regression in the league's goalkeeping development.

To visually represent this data in an informative manner for analysts and data consumers, we will develop computer graphics with the assistance of AI, Machine Learning, and Natural Language Processing. In summary, the primary goals of the **KeeperScore™** match mode function are as follows:

- Establishing a transparent and equitable standardised selection process for awarding the **Golden Glove Award** in any professional league, based on specific criteria.
- Presenting the genuine worth (intrinsic value) of each goalkeeper solely on their holistic skillset competency and not on the number of clean sheets they maintain.
- Bridging the knowledge gap between football/soccer analysts, goalkeeping analysts, consumers, and fans, fostering a shared understanding of the art of goalkeeping.

The match mode AI Tracking system will be an encompassing programme designed to reflect intrinsic value to the English Football League, the Italian Football League, the German Football League and other major European leagues, worldwide professional leagues, domesticated league association cup competitions and major cup championship competitions (World Cup, European Cup, Champions League, UEFA Cup etc) and as an upgrade to the current selection process system for the race to the **Golden Glove Award** accolade.

KeeperScore™: Comprehensive Mode

The AI Tracker in **comprehensive mode** serves as the complementary aspect of **KeeperScore's** primary function. It introduces a novel approach to gathering historical data from played games, employing **Machine Learning** and **Natural Language Processing** to analyse and assign relevant information concerning goalkeeper performances across specific skill areas. The primary goal is to pinpoint any potential weaknesses or errors in the deployment of goalkeeping skills by interpreting the event and tracking data output, and it possesses the capability to offer recommendations where applicable. These recommendations are determined from a pattern of occurrences exclusive to each of the various stated skillset categories transcribed from the historical data input. This represents the most intricate facet of the software's capabilities, aimed at making the system user-friendly and practical for users. Here's a high-level overview on how the system will be built: -

1. **Data collection:** The system would need to gather a 6-year historical data metrics related to all active professional goalkeepers in football/soccer games from the respective professional leagues e.g. EPL, ECL, La Liga, Bundesliga, Serie A etc. This data could be obtained from various sources such as sports databases, or APIs. Furthermore, the system will play a vital role in supporting both private and club academies through a customized module specifically developed to collect data at the academy level, distinguishing it from the professional model.
2. **Data analysis:** Using machine learning techniques, the system would analyse the collected data to identify goalkeeping skillset deployment errors from goals conceded. This could involve training a machine learning model to classify different types of errors based on the available data. Extract relevant features from the data that capture important aspects of goalkeeping performance, such as shot location, shot direction, shot velocity, one vs one, goalkeeping technique, positioning, decision-making etc.
3. **Skillset categorization:** The system would categorize and code (by means of Machine Learning) the identified errors into specific goalkeeping skillset categories. For example, it could classify errors related to positioning, handling, reflexes, or decision-making.
4. **Goal Analysis:** Analyse the historical data to identify skillset deployment errors from goals conceded. This could involve using statistical methods and coded machine learning algorithms to identify patterns and correlations between goalkeeping actions and/or shot-stopping skillset deployment and goals conceded
5. **Recommendations:** Drawing on the coded errors detected across the relevant skill set categories, the system will provide tailored recommendations for alternative strategies, some extending beyond conventional goalkeeping training methodologies, to achieve improved outcomes. These may include specific training drills, adjustments to technique, or tactical refinements designed to optimise goalkeeper performance.
6. **Iteration and Improvement:** Continuously refine and improve the system by incorporating feedback from experts, goalkeeping coaches, and goalkeepers as well as by collecting more data to enhance the accuracy and effectiveness of the recommendations.
7. **Content generation:** To produce the recommendations in video format, the system could leverage natural language processing (NLP) techniques to convert the textual recommendations into spoken instructions. It could also use video editing tools or computer graphics to create visual content that demonstrates the recommended techniques or tactical adjustments.

It's important to note that developing such a system would require a significant amount of data, expertise in machine learning and NLP, and domain knowledge in goalkeeping and football/soccer. In reference to the professional model, the vast number of goalkeepers across various leagues, combined with the need to compile historical match footage and extract statistical and analytical data, presents a monumental challenge. This task will demand a committed team of skilled software engineers to interpret the data effectively. Moreover, the system's success will heavily rely on the quality and accessibility of historical data, as well as the precision of the machine learning models employed in the analysis.

in the next slide we will demonstrate exactly how the system will be setup and deployed.

Comprehensive Mode: The Structured System

This is a comprehensive and structured overview of how the software programme will be created: -

Expected Saves {xS}

AI and Machine Learning will be assigned the intricate task of video archiving, categorising and deciphering of all goals scored from the past six seasons: -

Shots: LD ¹ & SD ²	1VS1	Chips/lob	Crosses	Free Kicks
<ul style="list-style-type: none">• Top corner• Mid-corner• Bottom corner• velocity• trajectory• Movement of the ball	<ul style="list-style-type: none">• Straight• Angled• Distance covered	<ul style="list-style-type: none">• Short Distance• Long Distance• velocity• trajectory	<ul style="list-style-type: none">• High• Mid• Low• velocity• trajectory• Movement of the ball	<ul style="list-style-type: none">• Straight• Angled• Velocity• Trajectory• Movement of the ball

From the filtered data analytics, AI and Machine Learning can: -

1. Calculate the percentage average of **all data** in relation to each categorised goal in the column section above to represent the **Goalkeeping Standard Average** in the selected league. This calculation will be conducted per season
2. Individual goalkeepers in the league will have the data derived from the initial overall calculations distributed to their personal data records. This process aims to create a **Performance Profile** for each goalkeeper. This Performance Profile serves as a benchmark against the Goalkeeping Standard Average, allowing for the tracking of goalkeeping development within the league. Furthermore, the Performance Profile can be used to compare the analytical metrics of each goalkeeper across different leagues.
3. The birth of this model will give rise to a novel concept known as **Expected Saves³** (abbreviated as **xS**). By drawing on data from each goalkeeper's Performance Profile, AI and Machine Learning can estimate both the volume and the types of shots a goalkeeper is likely to save from all shots on target, using patterns identified through historically analysed performance metrics.
4. Linear graphics and other technological equivalents will be created to enhance the understanding and the diversification of information output to users and consumers.

Distribution

AI and Machine Learning will gather statistical data of all varieties distributions and categorise them accordingly.

Below is the outline of the categories of distribution: -

Passes	Goal kicks	Arm Distribution
<ul style="list-style-type: none">• Short distance• Long distance• Assists Leading to goals	<ul style="list-style-type: none">• Type of Technique/style• Accuracy• Direct assist leading to goals	<ul style="list-style-type: none">• Over-arm and Under-arm passes• Frequency and accuracy• Direct assist leading to goals

Within the categories from the historical data accumulated, each distribution skillset will come with its specific statistical data metrics. These metrics will provide detailed insights into the frequency of skillset deployment and the overall impact each skillset has on game variables and dynamics. When it comes to assisted goals via distribution, AI and machine learning will analyse potential play patterns and key areas of effectiveness within a team's counter-attacks, direct attacks, and recovery plays. Using this information, they will suggest optimal strategies to enhance the chances of achieving more favourable results.



Positional Play

Mastering goalkeeper positioning and set-positional plays is a crucial skillset, heavily reliant on mental awareness. Leveraging AI and machine learning, we will utilize historical video archives spanning the past six seasons to create visual graphic displays highlighting potential skillset execution errors during critical moments in games, particularly those leading to goals conceded by the goalkeeper. AI and machine learning recommendations will emphasize aspects such as distance judgment awareness, correct set-position implementation, timing awareness before taking action, and handling dead ball situations as essential elements to be ingrained.

Defence Organisation

The goals conceded in a match can be influenced by various factors, including the team's tactical setup, formation, game circumstances, and defensive structure. Determining the exact percentage of goals attributed to defensive disorganization is complex due to the multifaceted nature of defensive errors and the variability among teams, which directly or indirectly impacts goalkeeping performances. To address this, AI, Natural Language Processing, and machine learning will analyse specific game phases and situations leading to conceded goals, visually highlighting instances of reduced goalkeeper awareness through graphic representations. It will then offer corresponding recommendations. Once again, historical video archives from the previous six seasons will be employed to identify awareness patterns and accurately interpret the data for users. It (AI and Machine Learning) could also use video editing tools or computer graphics to create visual content that demonstrates the recommended techniques or tactical adjustments.

Consistency Level Tracking

AI and Machine Learning will have the capacity to monitor and enhance various aspects of goalkeeping skills to facilitate the growth and development of goalkeepers. This monitoring system will be presented through linear graphical representations and technical video editing tools, offering practical and efficient solutions for goalkeeping coaches, experts, and end-users.

Calculating Intrinsic Value

Given the vast capital circulating within modern football — from media rights and commercial partnerships to global merchandising — assessing the true value of players has become increasingly complex. Clubs frequently invest tens of millions in established names, only to realise over the duration (or even half the duration) of a contract that both the transfer fee and wages were significantly inflated when measured against expected returns.

Most recruitment strategies operate on perceived value, shaped by factors such as club stature, data-led insights, player profiling, career management, and commercial influence. However, when it comes to goalkeepers, this challenge intensifies. The role is uniquely specialised, and accurately measuring goalkeeper performance and value through analytics remains far more intricate than for outfield players — making valuation a nuanced difficulty for clubs and stakeholders across the game.

Historically, elite goalkeepers were often acquired for relatively modest fees, yet still delivered substantial returns — contributing to league titles, major trophies, merchandise growth, and lucrative commercial revenue throughout their tenure. In contrast, the modern era has seen goalkeeper transfer values surge into the tens of millions, while the expected returns frequently fall short, and in many cases result in negative value. This is despite advancements in data analytics, sports science, and goalkeeper-specific training methodologies that, in theory, should enhance performance and outcomes.

With this in mind, we now turn to real case studies that illustrate and reinforce these observations...

Classic vs Modern Goalkeepers Calculated Intrinsic Value

Our analysis examines four historic goalkeepers alongside four current-era goalkeepers, measuring their intrinsic value against their market valuation. While the modern group remain active professionals, typically with around eight years of competitive football still ahead of them, this means their present metrics are incomplete. However, given the scale of contemporary transfer fees and salary investments, the available data provides a strong enough foundation to develop a reasoned, evidence-based hypothesis on value.

Peter Schmeichel – ROI Profile

1. Era: Classic
2. Total Investment (modelled): €7.77M
3. Major Trophies: 14
4. Clean Sheets: 278
5. Cost per Trophy: €0.555M
6. Cost per Clean Sheet: €0.028M
7. Trophy Weight Index: 63.64
8. Clean Sheet Efficiency Index: 100.0
9. Cost Return per Million Index: 100.0
10. PSxG Shot-Stopping Index (subjective): 94
11. KeeperScore™ Index: 89.41 / 100

Interpretation: Higher KeeperScore indicates superior combined ROI + performance across trophies, clean sheets, financial cost and shot-stopping quality.

Bernard Lama – ROI Profile

1. Era: Classic
2. Total Investment (modelled): €6.16M
3. Major Trophies: 6
4. Clean Sheets: 137
5. Cost per Trophy: €1.027M
6. Cost per Clean Sheet: €0.045M
7. Trophy Weight Index: 27.27
8. Clean Sheet Efficiency Index: 62.16
9. Cost Return per Million Index: 59.45
10. PSxG Shot-Stopping Index (subjective): 85
11. KeeperScore™ Index: 58.47 / 100

Interpretation: Higher KeeperScore indicates superior combined ROI + performance across trophies, clean sheets, financial cost and shot-stopping quality.

Oliver Kahn – ROI Profile

1. Era: Classic
2. Total Investment (modelled): €42.54M
3. Major Trophies: 22
4. Clean Sheets: 310
5. Cost per Trophy: €1.934M
6. Cost per Clean Sheet: €0.137M
7. Trophy Weight Index: 100.0
8. Clean Sheet Efficiency Index: 20.37
9. Cost Return per Million Index: 23.16
10. PSxG Shot-Stopping Index (subjective): 93
11. KeeperScore™ Index: 59.13 / 100

Interpretation: Higher KeeperScore indicates superior combined ROI + performance across trophies, clean sheets, financial cost and shot-stopping quality.

Gianluigi Buffon – ROI Profile

1. Era: Classic
2. Total Investment (modelled): €87.1M
3. Major Trophies: 20
4. Clean Sheets: 425
5. Cost per Trophy: €4.355M
6. Cost per Clean Sheet: €0.205M
7. Trophy Weight Index: 90.91
8. Clean Sheet Efficiency Index: 13.64
9. Cost Return per Million Index: 13.34
10. PSxG Shot-Stopping Index (subjective): 92
11. KeeperScore™ Index: 52.47 / 100

Interpretation: Higher KeeperScore indicates superior combined ROI + performance across trophies, clean sheets, financial cost and shot-stopping quality.

Ederson Moraes – ROI Profile

1. Era: Modern
2. Total Investment (modelled): €85.8M
3. Major Trophies: 18
4. Clean Sheets: 160
5. Cost per Trophy: €4.767M
6. Cost per Clean Sheet: €0.536M
7. Trophy Weight Index: 81.82
8. Clean Sheet Efficiency Index: 5.21
9. Cost Return per Million Index: 7.37
10. PSxG Shot-Stopping Index (subjective): 90
11. KeeperScore™ Index: 46.1 / 100

Interpretation: Higher KeeperScore indicates superior combined ROI + performance across trophies, clean sheets, financial cost and shot-stopping quality.

David De Gea – ROI Profile

1. Era: Modern
2. Total Investment (modelled): €59.4M
3. Major Trophies: 7
4. Clean Sheets: 180
5. Cost per Trophy: €8.486M
6. Cost per Clean Sheet: €0.33M
7. Trophy Weight Index: 31.82
8. Clean Sheet Efficiency Index: 8.47
9. Cost Return per Million Index: 7.82
10. PSxG Shot-Stopping Index (subjective): 91
11. KeeperScore™ Index: 34.78 / 100

Interpretation: Higher KeeperScore indicates superior combined ROI + performance across trophies, clean sheets, financial cost and shot-stopping quality.

Andre Onana – ROI Profile

1. Era: Modern
2. Total Investment (modelled): €82.4M
3. Major Trophies: 2
4. Clean Sheets: 70
5. Cost per Trophy: €41.2M
6. Cost per Clean Sheet: €1.177M
7. Trophy Weight Index: 9.09
8. Clean Sheet Efficiency Index: 2.37
9. Cost Return per Million Index: 2.03
10. PSxG Shot-Stopping Index (subjective): 86
11. KeeperScore™ Index: 24.87 / 100

Interpretation: Higher KeeperScore indicates superior combined ROI + performance across trophies, clean sheets, financial cost and shot-stopping quality.

Jordan Pickford – ROI Profile

1. Era: Modern
2. Total Investment (modelled): €45.6M
3. Major Trophies: 0
4. Clean Sheets: 140
5. Cost per Trophy: N/A (no major trophies in dataset window)
6. Cost per Clean Sheet: €0.326M
7. Trophy Weight Index: 0.0
8. Clean Sheet Efficiency Index: 8.58
9. Cost Return per Million Index: 5.71
10. PSxG Shot-Stopping Index (subjective): 84
11. KeeperScore™ Index: 24.57 / 100

Interpretation: Higher KeeperScore indicates superior combined ROI + performance across trophies, clean sheets, financial cost and shot-stopping quality.

Bar Chart Illustration

Total Investment:

Classic vs Modern Keepers Modelled total cost = transfer fee + estimated wage bill over tenure.

Cost per Trophy:

Efficiency Comparison Lower bar = more major trophies per € million invested (transfer + wage model).

Cost per Clean Sheet:

Defensive ROI Lower bar = more clean sheets per € million invested; a pure defensive efficiency lens.

KeeperScore™ Overall Ranking:

Combined index from: Trophy Weight, Clean Sheet Efficiency, Cost Return per Million, PSxG Strength.

These insights are derived from publicly available data sourced through open-access AI tools. While the active goalkeepers listed still have many years left in their careers, their present performance metrics, combined with their contractual obligations and their clubs' projected success, indicate that any significant rise in their intrinsic value is unlikely in the foreseeable future.

Based on the extracted data and intrinsic value calculations, the metrics indicate that modern goalkeepers are, on average, significantly overpriced, delivering comparatively low return on investment to their clubs. This stands in contrast to classic goalkeepers, who demonstrate substantially higher ROI alongside superior goalkeeping competencies across key performance areas. While it can be argued that the evolution of the game, driven by technological advancement, improved infrastructure, and tactical innovation, has reshaped football, a compelling counterpoint remains: players themselves must evolve in parallel. At the elite goalkeeping level, core skillset abilities, most notably shot-stopping, which carries the greatest intrinsic value, appear to have plateaued, while market valuations continue to escalate in line with football's expanding financial ecosystem. The result is a distorted valuation landscape, marked by systematic overvaluation and undervaluation of goalkeeping talent.

KeeperScore™ Intrinsic Value

What differs KeeperScore™ from established sports data analytics software systems like Opta, Catapult, StatsBomb etc, is defining intrinsic value from structured, objective and scalable valuation system. **KeeperScore™ unifies match actions, efficiency rates, accountability measures, and contextual weighting into a single holistic intelligence layer.** At its foundation, KeeperScore™ addresses a long-standing structural gap in football analytics: **the absence of a goalkeeper-specific system that links performance reality to intrinsic and financial value.**

Through extensive research into current goalkeeper market valuation methodologies, we have identified a fundamental imbalance: the existing goalkeeping infrastructure driving the evolution of holistic skillset development is insufficient to justify projected market values, while the evidence required to support sustainable growth and optimisation remains largely unexplored. In response, we have developed a three-segmented industry framework aligned with the challenges KeeperScore™ is designed to address and the intrinsic value it seeks to create.

LEFT SIDE (40%) — The Industry Problem:-

The Current Reality is that Goalkeeper valuation is fragmented, subjective, and inefficient.

Today's Stack (Disconnected):

- Video scouting platforms
- Event data & GK analytics
- Tracking & positioning data
- Generic market value models

Result:

- Overvalued & undervalued goalkeepers
- Role misalignment (shot-stopper vs sweeper)
- Poor ROI on transfers & contracts
- No single source of truth for GK intrinsic value Clubs buy data. They still guess value.

CENTER (20%) — The Market Gap: -

The Missing Layer is that there's no system that translates goalkeeper performance into intrinsic value.

- GK actions doesn't equate to GK value
- Market price doesn't equate to true contribution
- Data exists, interpretation fails

What decision-makers actually need:

- One score they can trust
- Role-adjusted comparisons
- Confidence-aware valuation ranges
- Clear risk vs reward signals

RIGHT SIDE (40%) — The KeeperScore™ Solution: -

KeeperScore™ Unifies the Stack A goalkeeper-first valuation engine Core Outputs

1. **Intrinsic Value Score (IVS):** - Role-adjusted GK competency score
2. **Market Value Range:** - • Low / Base / High valuation band • Confidence & volatility index
3. **Recruitability & Fit Index:** - • Tactical style compatibility • Risk flags & error cost profile
4. **Board-Ready Evidence Pack:** - • Data + clips + valuation narrative

BOTTOM STRIP — Signature KeeperScore™ Metrics: -

KeeperScore™ Categories

- Trophy Weight Index
- Clean Sheet Efficiency
- Expected Save Impact
- Cost Return Per Million
- 3-6-9 KeeperScore Dial (Match mode points score)

From Academy → Recruitment → Elite Contracts → Market Valuation → Transfer fees

In the previous slide, we compared the intrinsic value of four classic (retired) and four modern (active) goalkeepers to highlight the stark disparity between the two groups. This contrast is not isolated; expanding the analysis across a broader sample of goalkeepers from both eras would yield similar outcomes. In principle, advancements in sports technology, coaching education, training methodologies, sports psychology, injury prevention and recovery, and mindfulness should have driven a higher return on investment in the modern goalkeeping era. However, the stagnation of core skillset capabilities, particularly in **shot-stopping, dealing with crosses, and set-pieces**, has distorted perceived market valuations. This distortion is further amplified by the scale of financial inflows within the football ecosystem, resulting in over- or under-valuation driven largely by reputation and club affiliation rather than performance quality. While intrinsic value offers a solution to this imbalance, its calculation is inherently complex and requires a willingness to critically reassess elite goalkeeping standards. Ultimately, the benchmark for distinguished excellence must be redefined through an elevation of output quality in elite goalkeeping skillsets, an element currently lacking in the modern game.

KeeperScore™ Benefits

As we embark on the development of a ground-breaking goalkeeping software system, it's essential to consider who stands to gain from this innovative product/service. Below, we've compiled a list of individuals and organizations and provided an analysis of the benefits they can derive from its utilization:

- 1. Professional Football Leagues**
- 2. Professional Football Clubs**
- 3. Goalkeeping Coaches**
- 4. Goalkeepers**
- 5. Private and Club Academies**
- 6. Sports Media**
- 7. Football/Soccer Agencies**



Professional Football Leagues

As highlighted at the beginning of this presentation, **KeeperScore™** has been assigned two primary objectives: firstly, to establish a fair and transparent method for selecting the best goalkeeper deserving of the prestigious Golden Glove Award through a unique points scoring system, and secondly, to drive growth and advancement in the realm of professional goalkeeping through the implementation of advanced AI and machine learning-driven models. Embracing this innovative system signifies a departure from the outdated practice of awarding the coveted trophy solely based on the goalkeeper with the highest number of clean sheets per season. Modern statistical and analytical metrics reveal that achieving clean sheets is predominantly a collaborative effort by the defensive unit rather than the sole result of individual goalkeeper excellence.

This revolutionary transformation of the system will be welcomed by all stakeholders in the sport, particularly goalkeepers who seek to prove their abilities through equitable challenges.

Professional Football Clubs

The advantages for professional clubs resulting from the incorporation of **KeeperScore™** into their financial business models are boundless. Among the primary aspects of interest to clubs is the ability to enhance their goalkeeper investments through data-driven decision-making, showcasing the inherent value determined by the Golden Glove Award standings. Additionally, in their academies, clubs can identify emerging talents and promising young goalkeepers by analyzing performance trends and utilizing predictive analysis, thus capitalizing on these assets effectively.

Goalkeeping Coaches

KeeperScore™ promises to be particularly exhilarating and demanding for the coaching staff dedicated to goalkeeping within clubs. The software presents a plethora of creative prospects, and if harnessed to its full potential, the outcomes can be exceedingly gratifying. Here are the prospects and rewards that the coaching staff specializing in goalkeeping can anticipate:

- Design targeted and innovative training programmes to improve weak areas identified by **KeeperScore™**
- Make informed decisions based on objective data and comparative analysis that is exclusive to individuals.
- Create a structured model to monitor and evaluate goalkeepers progress and make adjustments were necessary.
- Create quotas on goalkeeper data metrics to work with and in return be rewarded in numeration or the equivalent in meeting or surpassing set quotas.

Goalkeepers

The fundamental objective behind the inception of **KeeperScore™** is to foster the advancement and refinement of goalkeeping skills by harnessing the power of AI, Machine Learning, and Natural Language Processing technology. The substantial advantages that goalkeepers can expect to reap include:

- A fair opportunity for all goalkeepers to vie for the Golden Glove Award through a revamped and contemporary selection process.
- A transparent and pragmatic system for comparing the skillsets of goalkeepers within the leagues.
- Clearly defines the intrinsic value of each goalkeeper as an individual.
- Presents challenges to individual goalkeepers, encouraging them to surpass their performance benchmarks.

Academies

An increasing need exists for a comprehensive database that enables youth academies to track the advancement and nurturing of talent. **KeeperScore™** is poised to offer significant advantages in scouting potential future stars. This software system will provide the capability to remotely upload match videos manually and then undertake the tasks of integrating, processing, and deciphering data metrics to identify performance trends and conduct predictive analyses, thereby assessing the growth and skills development of young academy goalkeepers.

Furthermore, academy goalkeepers will have the opportunity to access their profiles free of charge. This will allow them to monitor their progress and make comparisons not only within their own academy but also with their peers in other club academies affiliated with leagues in their respective countries.

Sports Media

While there are currently highly reputable sports data-driven tech companies offering some of the most innovative data analytics, **KeeperScore™** is poised to be embraced by sports analysts and experts across corporate and social media platforms. With the aid of AI systems, they will have the capability to generate visual reports, offering profound insights into the performance of each goalkeeper throughout the season. Moreover, historical records, when applicable to specific subjects, are readily accessible for reference and comparison alongside current data inputs, enabling the analysis of pattern formations and potentially predicting future events.

This is of paramount importance as it engages analysts, experts, and football enthusiasts in gaining a comprehensive understanding of the intricacies and complexities inherent in the art of goalkeeping.

Football/Soccer Agencies

In the financial landscape of football/soccer, sports agencies occupy a central role within the rapidly expanding industry, particularly in light of football's global influence, which has given rise to super leagues such as the Saudi Arabian League in the Middle East. Furthermore, the demand for innovative data-driven technology, aimed at advancing the sport, has surged dramatically as part of the multi-billion-pound growth trend worldwide.

KeeperScore™ represents a ground-breaking and distinctive software system designed to assist football agents and agencies by providing comprehensive access to AI, machine learning, statistical, and analytical data metrics, especially in the context of contract negotiations, encompassing both goalkeeper and commercial contracts.

Through the utilization of this tool, agents, agencies, and representatives find themselves in a distinctive position, gaining access to information that can prove invaluable in securing deals that have yet to be explored within the existing contractual frameworks. The true assessment of a goalkeeper's value to a team involves a complex interplay of factors, making it imperative for clubs to secure the best possible deal that benefits not only the squad but also the coaching staff and the club as a whole.



Validation and Reliability

- In order to guarantee the dependability of the **KeeperScore™** software, it will undergo extensive testing, utilizing data from past seasons of the English Premier League (EPL) and other respective league seasons. This rigorous testing aims to validate its consistency, robustness, and its seamless compatibility with real-time data inputs.
- Effective data integration and setup, utilizing well-established open-source platforms compatible with KeeperScore software systems, will play a crucial role in delivering comprehensive and accurate data metrics. Furthermore, our software will be customized to meet the unique needs and specifications of each of our clients.
- We are committed to maintaining ongoing technical support and regularly updating our system software through our collaboration with top-tier sports technology companies staffed with highly skilled software engineers. This ensures that we achieve peak efficiency and meet the expectations of our customers.



Pricing and Licensing

This summary provides an overview of the pricing and licensing models available for **KeeperScore™** in the United Kingdom.

Pricing Models

1. **KeeperScore™** offers flexible pricing models to cater to the diverse needs and budgets of football clubs, academies, and individual goalkeepers. The pricing structure includes the following options:

Subscription-Based Model:

Under this model, users pay a recurring subscription fee based on the selected plan. Subscription plans may vary in terms of features, usage limits, and support levels. **KeeperScore™** offers different tiers (e.g., Basic, Standard, Premium) with varying pricing levels, allowing users to choose the plan that best suits their requirements.

Perpetual License Model:

The perpetual license model provides users with a one-time payment option, granting them perpetual access to the **KeeperScore™** software system. This model is suitable for organizations and individuals seeking long-term ownership of the software without recurring costs. Maintenance and support services may be offered separately under this model.

Freemium Model:

KeeperScore may also offer a freemium pricing model, allowing users to access a limited version of the software for free. Additional premium features and functionalities can be unlocked through the purchase of a subscription or one-time payment.

Licensing Models

1. **KeeperScore™** offers various licensing options to accommodate different user scenarios and organizational needs. The following licensing models are available:

Single-User License:

A single-user license grants one individual the right to use the **KeeperScore™** software on a designated device or account. This license type is suitable for individual goalkeepers or coaches who require personal access to the system.

Team/Club License:

The team/club license allows multiple users within a specific football club or academy to access and utilize **KeeperScore™**. The license may be based on the number of users or a flat fee for the entire organization.

Enterprise License:

For larger organizations, **KeeperScore™** provides enterprise-level licensing options tailored to their requirements. These licenses are designed to accommodate multiple teams, departments, or locations within a football club or organization.

Additional Services and Support:

KeeperScore™ offers additional services and support to enhance the user experience and ensure optimal utilization of the software system. These services may include:

Training and Onboarding:

KeeperScore™ provides training sessions and onboarding support to help users understand and maximize the software's capabilities. This ensures a smooth transition and effective utilization of the system.

Technical Support:

Users can expect technical support services, such as troubleshooting assistance, software updates, and bug fixes. The level of support may vary based on the selected pricing and licensing model.

Customization and Integration:

KeeperScore™ offers customization options to tailor the software system to specific user requirements. Integration with existing goalkeeping or performance analysis tools may also be available to streamline workflows.

Conclusion

KeeperScore's pricing and licensing models provide flexibility and choice to football clubs, academies, and individual goalkeepers in the United Kingdom, Europe, North America and worldwide. By offering subscription-based plans, perpetual licenses, and freemium options, **KeeperScore™** ensures accessibility and affordability. The availability of single-user, team/club, and enterprise licenses further caters to diverse organizational needs. With additional services such as training, technical support, and customization, **KeeperScore™** aims to deliver a comprehensive solution for optimizing goalkeeping skillsets worldwide.

