



CASE STUDY

COMPLETE SOLUTION
**FROM DATA TO
GRAPHICS AND BEYOND**



INTRODUCTION

Transforming Liga Portugal's Fans' TV Experience

The world of sports broadcasting has evolved significantly over the years, with advanced technologies and innovative solutions enhancing the viewer experience. This case study explores the services offered by **wTVision** for **Liga Portugal**, focusing on **graphics and feed services, draw services, data gathering, and remote production**. **wTVision** and **Liga Portugal** have a long-standing partnership that encompasses various aspects of **Liga Portugal**'s football competitions, including the Portuguese National leagues (1st and 2nd) and the Portuguese League Cup.

All professional football competitions organized by **Liga Portugal**, capture the attention of millions of fans, both domestically and internationally. As matches unfold, capturing the excitement and drama on screen requires a seamless integration of various elements, from dynamic graphics and statistical data to captivating visual effects. This is where **wTVision** steps in, providing a range of services that enhance the overall broadcasting quality and engage viewers in new and exciting ways.

wTVision's data-gathering services ensure that **Liga Portugal** remains at the forefront of delivering up-to-date information. From real-time match statistics to player profiles, team data, and historical records, these services enable commentators and analysts to provide valuable insights while keeping fans informed about the latest developments. Through **FootballStats CG**, our team is able to use all the gathered data to feed, **Commentator, Match Center, Match Reports** and **Analysers**, which help all the intervenients of the match to have access to all the information necessary.

In addition to these services, **wTVision** has delved deep into data gathering and remote production techniques that have transformed the broadcasting landscape.

Main challenge

“ From wTVision’s perspective, sports data holds immense importance across diverse settings. It serves as a key driver for engaging fans and effectively bridging the gap between players and fans. Moreover, the provision of accurate, real-time data extends beyond the match, playing a vital role in enriching the overall experience for fans in other environments.

Paulo Ferreira, Global Sales Director of wTVision

The partnership between **wTVision** and **Liga Portugal** has been in place for many years now and throughout these years our team focused on providing an overall great television experience in all areas of **Liga Portugal**. Given the dimension of this project and the numerous areas it integrated, the main challenge was to offer an all-around 360° integrated solution that covered all the different aspects of the match and its broadcast while maintaining a constant look and feel through all of these services.

PAINTING THE GAME

wTVision’s Dynamic Graphics

Within this partnership, **wTVision** had the opportunity to play a huge role in Portuguese football by providing **Liga Portugal** and, its main sponsor for the 2022/2023 season, with a graphics package that has a new look and feel at the start of the season.



Figure 1: Liga Portugal On-Air graphics examples, including Augmented Reality on top and bottom left.

Our experienced creative team took on the challenge of completely redesigning **Liga Portugal's** broadcast graphics, incorporating the sponsor's identity into every piece and graphics information presented.

Being the League's official data and graphics provider made it easy for our broadcast design specialists to create the complete graphic package for broadcasts as well as implement it for the beginning of the season.

The design concept includes augmented reality graphics with real-time data and video, wipes, lower thirds, bumpers, tickers, and tables. Everything broadcasted during **Liga Portugal's** matches has been implemented by our skilled team, with years of experience designing and creating concepts for football competitions.

Operation and Implementation

In order to bring all these graphics to the fans, our team set up an on-site operation that ensures that the viewer has the best TV experience. Within this operation and implementation on-site, the on-air graphics are produced at the venue inside our own OB-Vans. The OB-Van is placed inside the TV Compound with direct access to the Production OB-Van and direct communication with the TV Director.

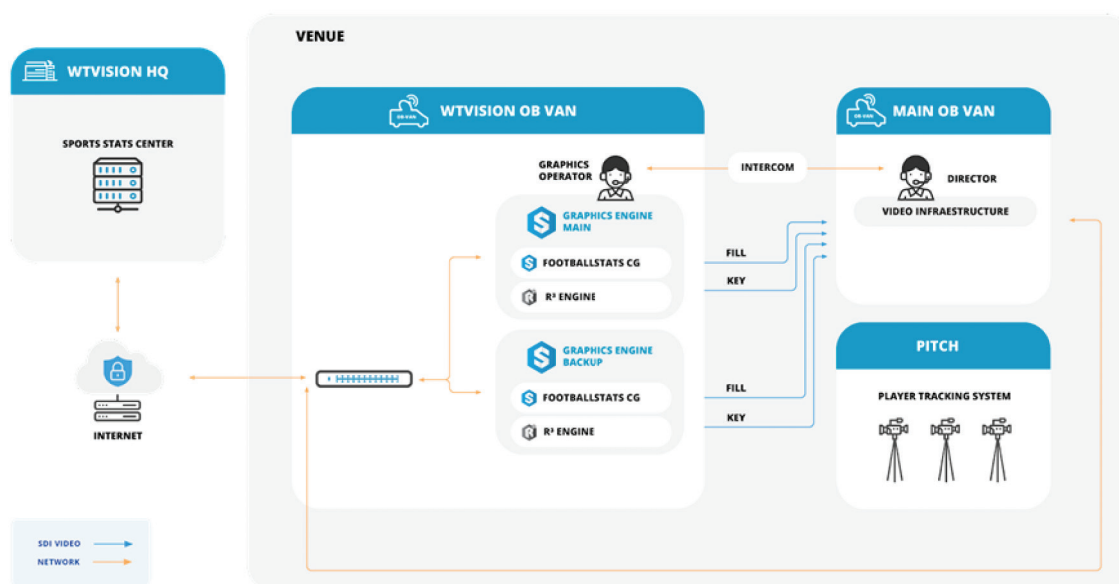


Figure 2: Diagram of the operations and services - on-site and remote - during a Liga match.

Although our TV Graphics operator is on-site, all data gathering is covered remotely in our production center and the **FootballStats CG** profile used for TV graphics is connected to our central system information, receiving all actions gathered by push, meaning without any intervention of the TV Graphics operator for data gathering. As a backup system (in case of an internet connection failure), the TV Graphics operator can gather the most important actions of a football match to guarantee that the broadcast graphics are assured with the most important statistical data.



Figure 3: AR graphics generated by wTVision AR3 Football, overlaid on the pitch.

In addition to providing real-time statistics, our AR solution - **wTVision AR³ Football**, can also be used to enhance the visual experience of football broadcasts. For example, broadcasters could use it to superimpose virtual objects onto the pitch, such as player stats, live commentary, or graphics illustrating tactical formations. Viewers can also see a player's passing accuracy or attempts statistics, or the distance covered by a team or player during a match. This would not only provide fans with additional information but would also make the broadcast more visually appealing and engaging.

It's also important to mention **wTVision's Intellistats**, a software solution that does advanced cross-data analysis to generate suggestions of relevant statistical graphics during a match. This is **wTVision's** answer to the challenge of easing complex operations during broadcasts such as the one described above. **Intellistats** allows broadcasters to enrich their sports coverage with insightful graphics and data, without requiring complex searching, analysis, or extensive preparation.



Figure 4: Team statistics, as suggested by wTVision's Intellistats, being displayed during a Liga Portugal match (4 shots on target in the last 15 minutes).

Intellistats works by collecting and processing statistical data gathered not only during the current match but also from previous events. It then applies complex algorithms to identify patterns, trends, and correlations among the data. Based on these analyses, **Intellistats** generates suggestions of relevant statistical data that can be displayed on the screen. **Intellistats** can generate natural language summaries and captions for the graphics, making it easier to narrate and explain the data to the viewers. For example, it can generate information such as "FC Porto has made 4 attempts on target in the last 5 minutes", or "Pepe has passing efficiency of 80% with 12 accurate passes out of 15."

From Numbers to Insights

wTVision has also been appointed as the official data and statistics provider for **Liga Portugal**. This partnership between **Liga Portugal** and **wTVision** brings fans closer to the action by providing real-time match data and insights through a suite of products that **wTVision** has developed. These products include SportStats Center, Match Center, **Commentator** and **Analyser**, among others that make a truly integrated solution.

FootballStats CG

FootballStats CG is a powerful application prepared to collect detailed football statistics, integrate third-party data and generate state-of-the-art broadcast graphics. **FootballStats CG** is capable of providing data and detailed statistics and turn them into broadcast graphics for live football matches.

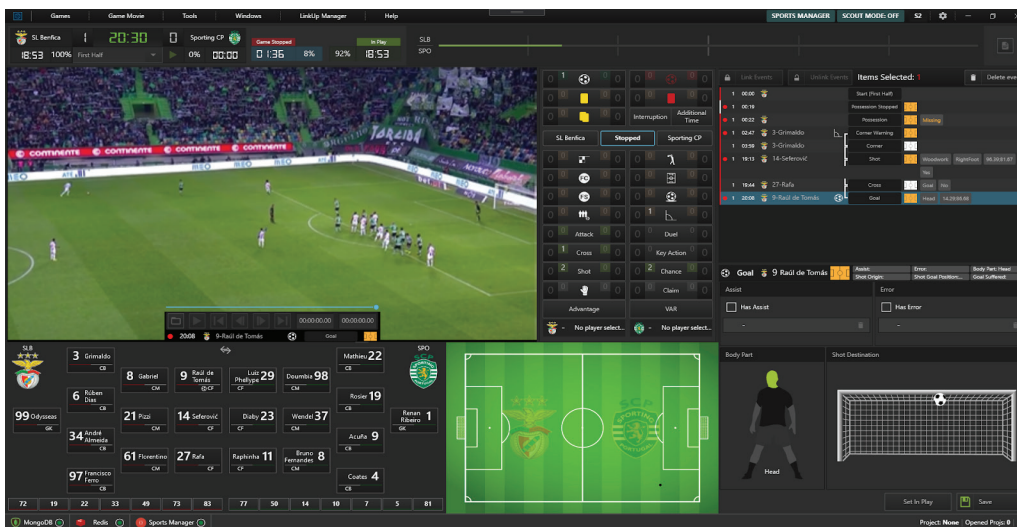


Figure 5: FootballStats CG user interface during a Liga Portugal match.

SportStats Center

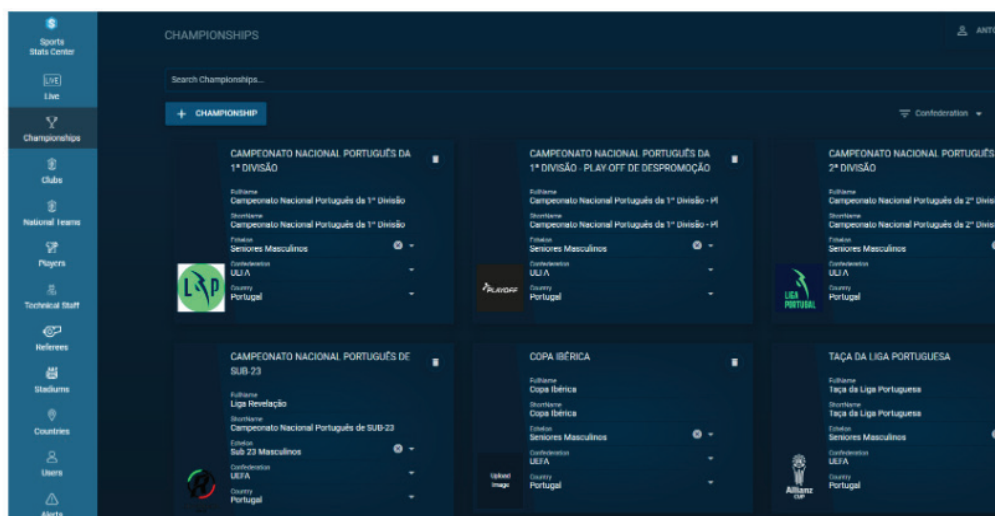


Figure 6: SportStats Center user interface.

SportStats Center is a comprehensive sports data management solution developed by **wTVision**. The platform includes tools for data collection, analysis, and presentation, making it easy for users to manage competitions and share data. It exposes an API for data access and periodically sends push notifications with all the data gathered to our clients and on-air graphics operators.

During **Liga Portugal** matches, **wTVision** provides a stats coordinator that monitors live data-gathering operations and certifies that all events are correctly stored in our central information system, SportStats Center.

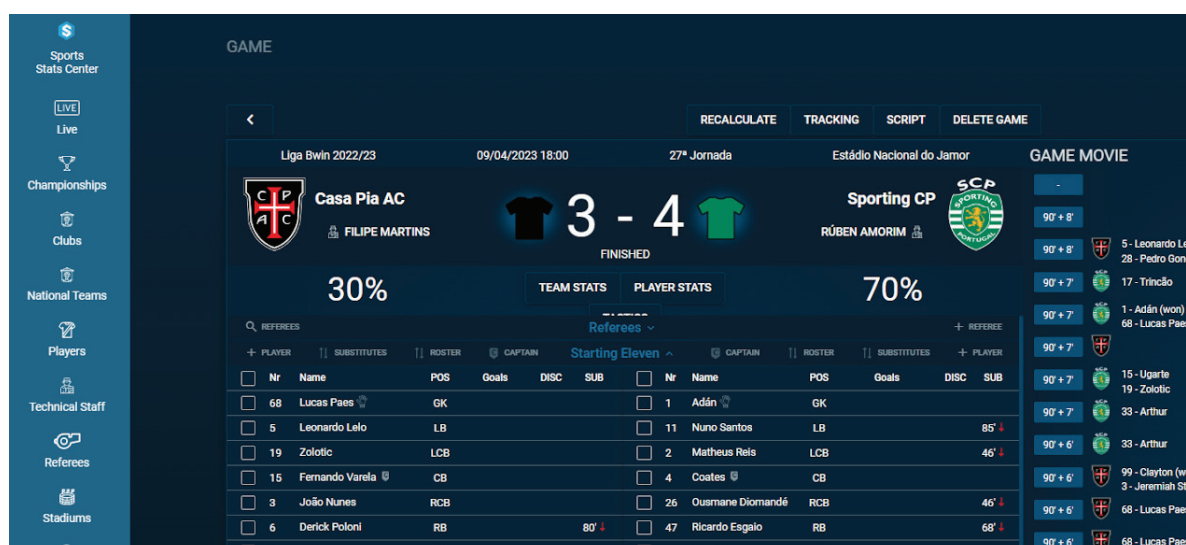


Figure 7: SportStats Center user interface showing data gathered during a Liga Portugal match.

Commentator

Being the official data gatherer for **Liga Portugal**, **wTVision** is also requested to provide a platform for **Commentators** to visualize statistics and other relevant data of the players and their teams.

wTVision's Commentator offers real-time match analysis and detailed data and statistics to commentators. The web application provides a range of information, including **Match Reports**, player and team stats, timelines, rankings, georeference, attempts zones and destinations, attacks, and crosses. This rich amount of data ensures that commentators have access to comprehensive insights into each match, enabling them to provide informed commentary.

Due to its portable nature, **Commentator** can be made available on a vast range of devices, such as tablets, smart screens/TVs, smartphones, PCs, or laptops.

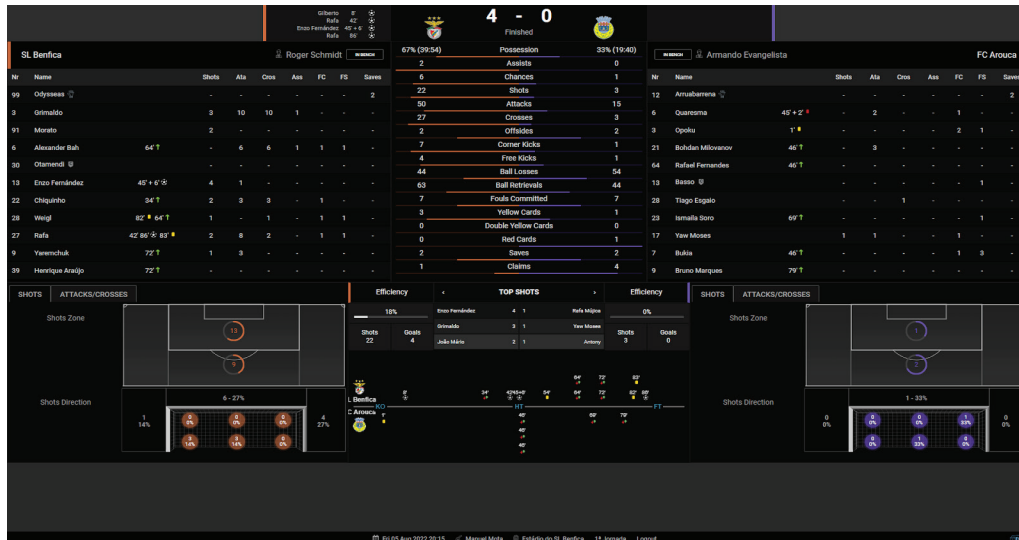


Figure 8: wTvision's Commentator showing data gathered during a Liga Portugal match.

Match Center

wTvision also provides a platform that enables the fans to follow the matches even when they're not present at the venues or watching them on TV - **Match Center**. Match Center is a customizable digital platform that provides fans with live updates on matches in real-time, including statistics, team line-ups, and commentary. With Match Center, fans can stay up-to-date with every moment of the game, even if they are not watching it on TV. The platform also includes features such as heat maps and player tracking to give fans a deeper understanding of the game.

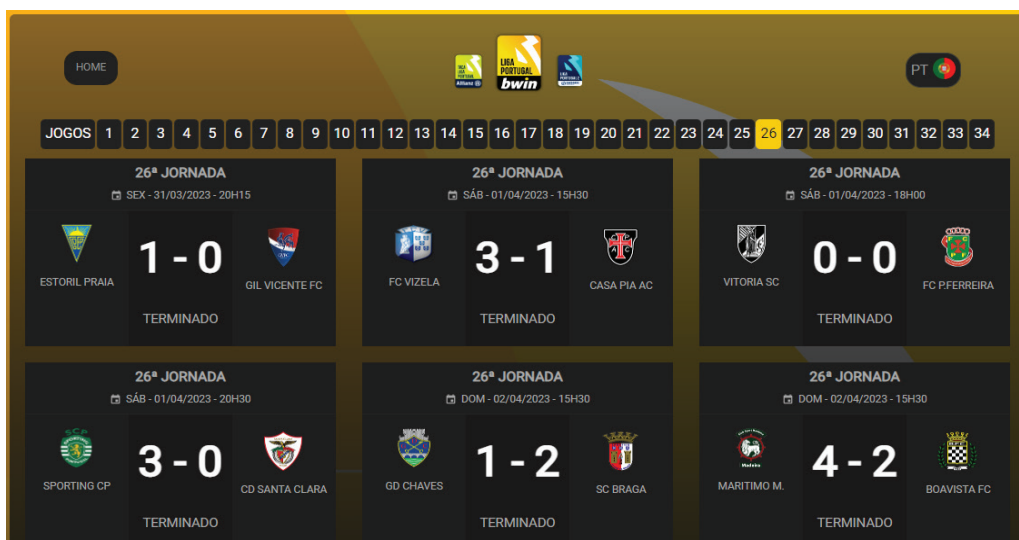


Figure 9: Match Center interface showing statistics of a Liga Portugal match. Player and Team statistics are also available.

The web application provides a range of information, including **Match Reports**, live data, player and team stats, timelines, game movies, comparative statistics, rankings and a calendar with the relevant competition dates.

Match Reports

Another service **wTVision** offers to **Liga Portugal** and is **Match Reports**. Focused on interactivity, optimized on-screen content and offering attractive design and functional interfaces and experiences, **Match Reports** are a 'friendly and addictive' experience that meets the needs of **Liga Portugal**. These reports contain:

- Match Technical Report
- Match Media Report
- Pre-Match Report
- Competition Report

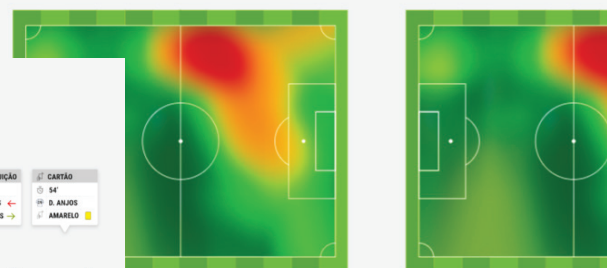
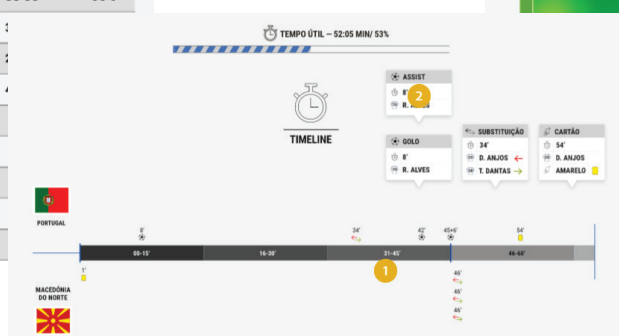
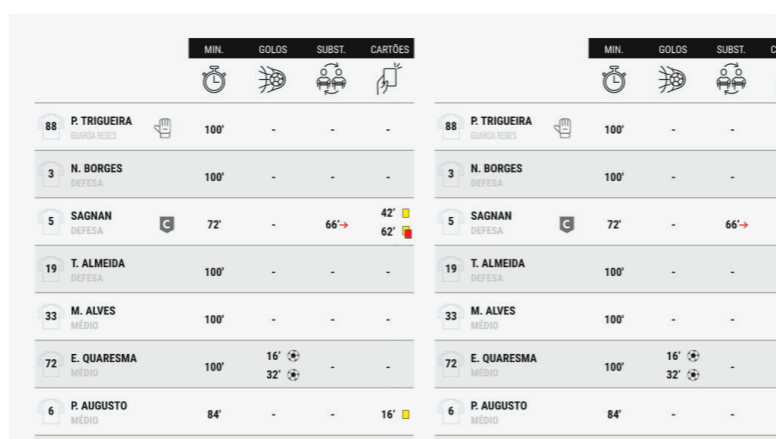


Figure 10: Examples of some of the information that a Match Report contains.

Analyser

In addition to its suite of products that provide real-time data and statistics to fans, **wTVision** also offers **Analyser**, a powerful tool that allows teams and sports specialists to analyze the data gathered during matches. **Analyser** allows users to visualize data in a variety of ways, including heat maps, pass maps, and player tracking, among others.

This tool enables coaches and analysts to identify strengths and weaknesses in their teams and opponents, track the progress of players, and make informed decisions about tactics and strategies. The data collected by **wTVision's** suite of products, combined with the analytical capabilities of **Analyser**, provides teams and leagues with the insights they need to improve their performance and stay ahead of the competition. Overall, **Analyser** is a valuable tool that helps teams and sports specialists get the most out of the data collected during matches, and ultimately, improve their performance.

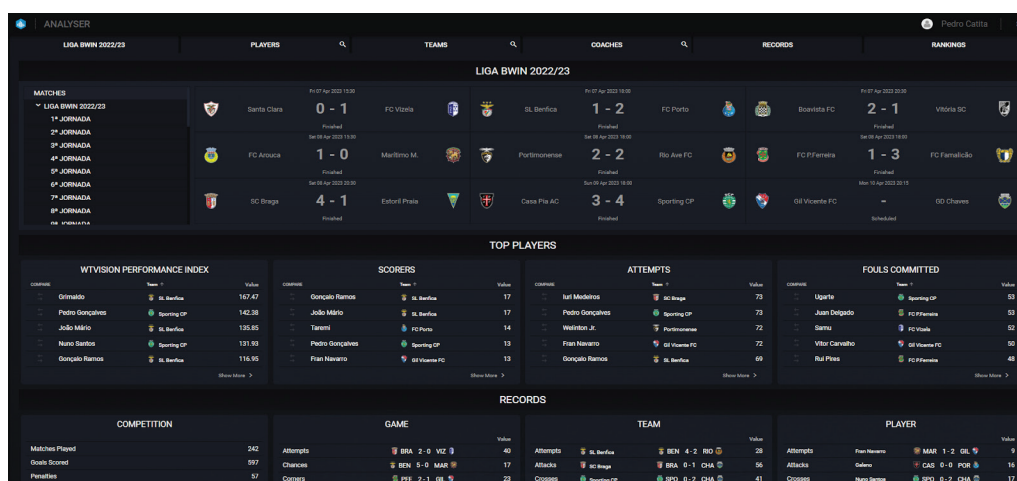


Figure 11: Analyser user interface showing Liga Portugal 2022/23 gathered data.

In summary, **wTVision's** suite of products and services helps **Liga Portugal** bring fans closer to the action by providing real-time match data and insights. These products also help teams and leagues manage and analyze data to make informed decisions.

DRAW SERVICES

Official kick-off of Portugal's Football Season

wTVision's Studio CG has been responsible for every on-air graphic broadcasted during **Liga Portugal's** official draw, a live coverage that established fixtures and schedules for the new season of Portugal's main football leagues - I Liga, II Liga and Taça da Liga.

wTVision's on-air graphics and video controller, in combination with our very own 3D rendering engine, R³ Space Engine & Designer, has broadcasted every piece of relevant information regarding the official kick-off of Portuguese football. Our team assured the on-air graphics, broadcasting lower thirds, round schedules for both leagues and the draw's graphics with the key numbers that attributed the rounds.

Additionally, our operators are on-site covering the live broadcast and controlling **wTVision's** intuitive live production tools.

wTVision has also developed the draw system itself that eventually determines which matches were played and when. The draw system is an automation tool where the fixture rules are introduced and the season is scheduled.

REMOTE PRODUCTION

From Anywhere to Everywhere

“ **Remote production brought a new level of flexibility and cost-effectiveness to Liga Portugal. It allowed us to maintain production quality while reducing logistical challenges, bringing efficiency and resilience to the broadcasting process.** ”

António Paiva, Sports Program Manager of wTVision

The production of live sports is being transformed by remote solutions, and **wTVision's** Sports Solutions are at the forefront of this change. Through data-gathering applications and quality control, we offer remote operational solutions to our clients.

To enable this, **wTvision** has set up a dedicated unit for remote data gathering in its headquarters, capable of handling up to 12 simultaneous matches. Since 2021, we have been providing remote data-gathering services from our headquarters to **Liga Portugal**.

Our data-gathering unit receives feeds from a wide range of sources, including Cable Providers, Satellite, Fiber, (SRT, RTMP, DVB, etc), Public Internet, Teleports, Dedicated connections to all National ISP, and International Communication Feeds with OVERON and Main Portuguese sports networks.

From our headquarters, we monitor and analyze all matches using **FootballStats CG**, enabling our specialized team to gather all the relevant data and ensure the quality of the information.

DATA GATHERING LIVE REMOTE

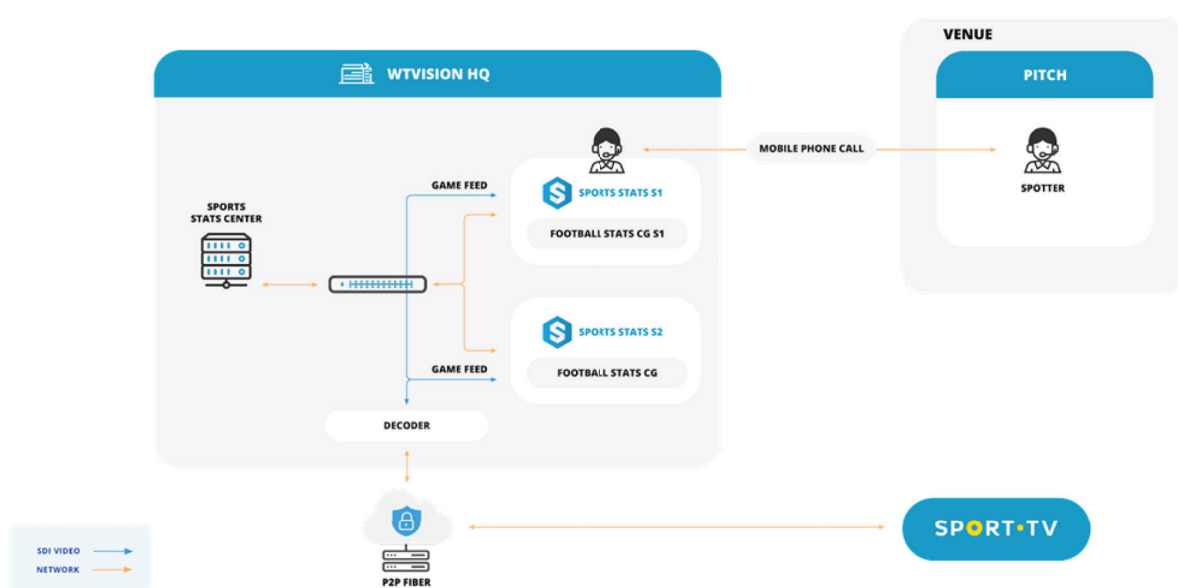


Figure 12: Simplified diagram of the remote data gathering process for Liga Portugal matches.

THE FUTURE UNVEILED

Paving the Way for Enhanced Broadcasting in Liga Portugal

The case study aims to provide a comprehensive examination of the services offered by **wTVision** for **Liga Portugal**, including graphics and feed services, data gathering, draw services and remote production.

Looking ahead, as technology continues to advance, **wTVision** is well-positioned to further enhance its services and bring new innovations to **Liga Portugal**. With ongoing improvements and the potential for additional service offerings, **Liga Portugal** can continue to captivate fans worldwide and set new standards in sports broadcasting.

wTVision's partnership with **Liga Portugal** has proven to be instrumental in transforming the way matches are presented to audiences. Through all of the services provided, **wTVision** has demonstrated its commitment to delivering exceptional broadcasting experiences and received from **Liga Portugal** the same level of commitment and will to empower sports broadcasting.





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