

**THE ROLE OF GEOSPATIAL TECHNOLOGIES IN
FOOTBALL: NATIONAL FOOTBALL RECRUITING**

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ABSTRACT

The Role of Geospatial Technologies in Football: National Football Recruiting

National football recruiting is an initiative that uses a Geographic Information System (GIS) to manage the recruitment process. This effort focuses on acquiring young players under the age of 21 from four countries: Spain, France, Germany, and England. This initiative was undertaken because many football clubs do not incorporate logistical planning into their recruitment processes. This creates several elements that cannot be discovered during the hiring process, which can bring convenience and prevent future problems. Using GIS in the recruitment process, elements such as distance and time can be detected to assist the football club's coach and staff in selecting the best player to recruit. The player data used in this project includes the academy player's name, age, and coordinates. The national main stadium coordinates are also used to calculate the distance between the player academy and the major national stadium. This project was completed using ArcGIS Pro and ArcGIS Dashboard software, which includes tools for calculating distance and time. ArcGIS software is used to make a maps and ArcGIS dashboard are used to make a data visualization that makes the data easier to understand. The GIS recruitment methodology includes data collection, processing, visualization, and analysis. This project produced three results: a spider map that shows the distance between the player academy and the main national stadium, a 3-hour driving time boundary map that shows the time required for 3 hours of driving, and all of the results will be displayed in the ArcGIS Dashboard for easy reading. The findings will be studied to ascertain and identify most players from four countries: Spain, France, Germany, and England, who are located distant from or near the main national stadium.

Keyword: Football recruiting, National stadium, GIS, Geometry Attributes, ArcGIS Pro

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CHAPTER 1

INTRODUCTION

1.1 Background of study

National football is one of the most important things in the football industry. It is the dream of many footballers in the world where all countries that pass the world cup qualifiers must compete for the world cup trophy. Just like the World Cup under 21 which talented young players will be called upon by their own national football team. To get young players who are talented and easy to give full commitment in training, recruiting planning is very important for staff and coaches to get players. In football association, the problems with players will affect the performance of the club such as players who come late to the training centre.

Recruiting Planning is a process in which recruiters and staff of a football association make plans to find talented players who are willing to commit. Players with other factors such as remote living areas will be filtered and changed coach options at the end of selection. This project is to implement GIS in recruiting process based on the players academy location. The country that has been choose for this project are Spain, France, Germany and England. The reason of selecting these four countries is because of the players that produced based on the European Cup 2023 under 21 are good and achieved many titles and always through to the