

## 1 Background

Sports science is an increasingly hot topic and more and more soccer teams are investing time and money into strategic development of big data and sports science (XXXXXXXXXX, 0000) (XXXXXXXXXX, 0000). All this to increase the players performance on the field and reduce the risk of injuries. One of the pioneers in this field for a long time AC Milan established in as early as 2002 the MilanLab. The goal for the program was to get better and more concrete information about the players physicality by collecting data over time of players performance

As AC Milan was one of the first to use big data, the use of big data today has exploded. Services like Opta, Prozone and Match Analysis serves player statistics, heat maps, and video analytics of players performance. Fans gets exposed by these statistics by clubs and broadcasting companies which uses it actively. The awareness of statistics for clubs and fans has possible never been higher than now.

Soccer teams and athletes in general are constantly looking for possibilities to gain advantages over opponents. In soccer your next opponent is analyzed down to the smallest details to find weaknesses and strengths. All this to be able to take advantage of your opponents weak points and limit their strengths. The players should know what to expect from the opponent team. Detecting typical team plays and player movement of your opponent can help you prepare for the match.

There are several ways to gather information about your opponent. From looking through whole matches to advanced tools, which can highlight key information for you. Some of them are expensive as Prozone (XXXXXXXXXX, 0000) which is a complete system for capturing and presenting information. For small soccer clubs with relatively small budgets this can be a expensive investment. Another system is Interplay Sports which Tromsø IL uses for game analytic. A video feed from any match can be used as the input letting you manually tag and describe situations in the match. Tools for filtering out the useless data is valuable in a sport where the next soccer match usually is in 3 days.

There are two main aspect when we look at the analysis process; First you need to gather the information and secondly is how to present the information.

## 2 Problem definition

This project will develop a system complementing the Muithu and Bagadus systems. Focus will be on soccer opponent analytics, where a data repository need to be developed capturing important events relevant for this type of analytics. Specially we want to identify the key players in a team. A user interface component providing the core information about the opponent should also be developed.