

# IDR600 Bacheloroppgave

# Chosen International Clubs Approach to Technical Scouting

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## 1. Preface

Since my love for football found place, playerlogistic has always been a theme that has interested me. To be able to write about a theme that both interests me, but also helps me develop as a scout, I am honoured and very grateful for.

I would like to thank my family, girlfriend and friends who encourage and support me on my dream of becoming a footballscout. Writing this assignment has been a challenge, but also a great learning process.

I would like to thank The University College of Molde for good teaching the last 3 years and especially to Birnir and Geir who gave me some tips to this bachelor-assignment on the bachelor seminars.

## 2. Introduction

## 1. Background for the issue

"Some people think football is a matter of life and death. I don't like that attitude. I can assure them it is much more serious than that". (Shankly, u.d.). These famous words from the former Liverpool FC-manager; Bill Shankly, explains for me how much football means for people. For me, football is not only a sport, a hobby or an interest. It is a passion, a lifestyle and a job, which I would have never liked to be without.

The feeling of watching a brilliant goal, a well timed tackle, a nice drible or simply a strong and powerful header is almost to difficult to describe. I can not explain the happiness and excitement watching a game gives me. As a result of this crazy but beautiful love for football, I wanted to dig deeper in a theme that interests me extra about this sport.

Football as an industry is in constant growth, and buying and selling players are one of the highest incomes and outcomes in a football club's budget. In 2015/16 Premier League revenues rose to a record £3.6billion. Each club generated more on average than the whole top divison of 22 clubs did in total in 1991/1992. Commercial revenues also exceeded with £1billion for the first time in the Leagues history. (Deloitte, 2017). As a result of the huge growth of revenues, more money has been used on player transfers and wages. Premier League clubs spent a record of £1,47 billion during the summer transfer window 2017, with Manchester City topping the list spending £217,3million. (Smith, 2017).

These huge amount of money used at wages and transfers are extraordinary. But how does the clubs find the players they want to invest in? How are the international club's scoutingstructure? And which tools are there to help them get the best and most suitable players?

## 2. Presentation of the issue

The issue I have selected for this bachelor assignment is Chosen International Clubs And Their Approach To Technical Scouting. In this assignment I will have a closer look at their scouting structure, view of importance and approach on technical scouting, how they cover markets, which tools they are using, and how much Big Data and statistics they are using in a playerrecruitment.

## **3.** The planned structure

For this assignment, I am writing alone and will therefore write empirically. That means writing on means of observation and experience. To answer the questions that I have listed, I will interview people involved with player logistics from different international clubs, and collect information about scouting-structure, which tools and working methods they are using, how they cover markets, their view of importance using statistics in a player recruitment, and look at ways that can make the scouting more effective.

I started this assignment with developing an issue which interests me, then I developed a disposion with themes I wanted to touch, and at last worked systematic down the list. In the same way I explained my structure working on the case, I will explain my methods and theyrochapters used in this assignment. Here I will explain the planned structure and what the different parts of my assignment will consist of.

In the introduction for this assignment, I wrote a short preface and introduction to give an closer introduction to the theme and why this theme interests me. The point here is to give the readers an insight about my motivation to write this assignment, the importance to have a closer look at this theme, and to whom this theme could interest. I then wrote more about the actuality about this assignment and shortly about the methods I have used to write it. In the main part of this assignment I described the most important elements in bigger assignments, and then went more deep in the chapter structure. The theory in an empirically assignment will illustrate the empirical in a special scienticial way. It is supposed to show

something that normal considerations don't think about. (Bogen, 2009). The main purpose using theory in this assignment is to demonstrate some footballclub's view on the importance and approach to technical scouting, their experiences, to link their ways to think, and problems up towards theory. Theory forms an important understanding on how to analyze the data's that are incoming, and at the same time making it possible to separate and place different phenomena in categories.

In the process of a player recruitment, there are many different considerations to look at. The whole process of recruiting a player is complicated, because of the many aspects playing a part. The profile must fit what the club is looking for, the price of the player has to be payable and the environment and the adaption to a new club, new people and society has to be in order. That is why it is interesting to have a closer look at clubs view on importance and approach to technical scouting, use of big data and statistics, and how important this is in the process of a player recruitment.

A method is what you will do, and how your choices of design and methods, which is suitable for illumination, will answer your research questions. There is also what asssesments you have made in terms of validity and reliability. (Wren, 2006). I have therefore shared my reflections linked to the academic approach to this assignment. I have used a qualitative research method were I have dug deeper in their experiences with the use of technical scouting. Qualitative method is a flexible method that provides greater proximity to the devices than the quantitative method does. (International) The qualitative method includs fewer units as opposed to what the quantitative method does, which suits this assignment better, where I need more detailed information about the clubs pointed out. With this assignment I do not have the ambition to find a result of general or universal character, but rather give an insight and reflect on different clubs's scouting structure and approach to scouting and technical scouting, with the aim to look at ways who could effectives' the scouting.

To collect the qualitative data, I used different methods. I wanted to use clubs from different countries in order to look at clubs with different environments, budgets, language and traditions view of importance and approach to technical scouting. I chosed clubs through my network and visited therefore Juventus FC and Zulte Waregem at their trainigs facilities, with the aim to get a better understanding of how they work and think. For the other clubs, such as FCK and Shanghai SIPG, I did the interview-process through emails. The people involved in this assignment are carefully selected. Everyone involved in the assignment has a position in their respective clubs with buying and selling players, and the structure and methology of it. To try

to collect as precise and useful information as possible, I made some standard questions which I asked every club. This made the assignment a bit more easy to build up, since the interviews are build more or less up in the same way, which makes the interviews more comparable. The questions I made was about the scouting-structure, the people role in the club, their approachand view on the importance of technical scouting, which tools there are out there and general scouting-tips. Many clubs protects their scouting-methodology and intellectual property around scouting with great care, and therefore the handling of source material method is very important. During the collection, some questions have not been allowed to answer in this report due to secrecy of information in the clubs. There is a huge competition in the world of football, securing the best players, and the secretion of information sharing is important in many clubs worldwide.

In this final part of the assignment, namely the analysis and conclusion, I will clarify findings and explain them in a systematic – methodic way. Then I will slowly move over to where I will discuss my findings, use the theory in an independent way, try to find a common context ,and look at the different clubs sights of the usefulness on the use of technical scouting and big data. Here I will repeat the most important moments from this assignment, and carefully reflect on my foundings and summarize in the end.

## 4. Theoretical framework

The theory that will be used is to give indications, overview and comparable thoughts on the different clubs approaches to technical scouting. Theory is a supposition or a system of ideals intended to explain something, especially one based on general principes independent of the thing to be explained. (Darwin, u.d.)

## 1. Who are football scouts and what are their role?

The job of a football scout is to attend matches with the objective of spotting potential players for their club to sign. (Coggin, 2017), Scouts may be marginalized, professionally, but they possess the power of dreams. There is no textbook for them to follow, no diploma they can receive for their appreciation of the alchemy involved in the creation of a successful player. Their scrutiny is intimate, intense, and highly individual. They must balance nuances of character with aspects of pre-programmed ability, and fit them to the profile and culture of the clubs they represent. (Calvin, 2014)

The global migration of footballers to and within the top professional leagues in Europe has greatly accelerated in the last decade. Commercial interest in this "football business" have also grown prodigiously and the English leagues, especially the Premier League, have experienced an associated and pronounced increase in foreign player migration. (Sugden, 2001). The growing globalism in football have developed the field of buying and selling players, and as a result of that, the importance of scouts and technical tools to help them getting an overview of the playersmarket has grown. To understand how this market works and how it has developed, we need to have a closer look at where it all started.

## 2. Moneyball

In 2003 Michael Lewis released the book "Moneyball – the art of winning an unfair game", who later was made into an Oscar-bait movie starring Brad Pitt. (Craggs, 2011). The story is built on a true story and has it roots from American Baseball. Moneyball is a quest for the secret of a success in Baseball. Following the low-budget Oakland Athletics and their largerthan-life general manager; Billy Bean (Lewis, u.d.) Billy Bean and his club had high ambitions, but the results stalled and they struggled to climb on the table as a result of not being able to recruit the best players. The best players went to the clubs with the most money and the economic differences just got bigger. New York Yankees was the best team and used around 1,5 million dollars compared to Oklands 200 dollar per game. The enorumous difference made Billy Beane think alternative. It was then he meet the economic; Peter Brand, who launched a totally new system. (Filmfront, u.d.). The new system mines all these possibilities-his intimate and original portraits of big league ballplayers are alone worth the price of admission- but the real jackpot is a cache of numbers-numbers!-collected over the years by a strange brotherhood of amateur baseball enthusiasts; software engineers, statisticans, wall street analyst, lawyers and physics professors. What these geek numbers show-no, prove- is that the traditional yardsticks of success for players and tems are fartally flawed. Even the box score misleads us by ignoring the crucial importance of the humble base-on-balls. This information has been around for years, and nobody inside MLB paid it any mind, despite Billy. Billy paid attention to those numbers – with the second lowest payroll in baseball at his disposal he had to and his astonishing experiment in finding and fielding a team that nobody else wanted became a success. (Lewis, u.d.)

## 3. The principles of moneyball in football

The story about Oakland Athletics and Billy Beans approach to the numbers game has had it's impact in football, and clubs has let them inspire. Clubs such as Brentford FC, Barnsley and FC Midtjylland are clubs that operate after the moneyball-term, and to explain why they are using the model, Brentford's co-director of football, Rasmus Ankersen said following: «Brentford can't win by outspending the competition so we have to outthink them. And the question that comes from that is how we can be different in a way? So, what are the inefficiencies in the system in football, and how can we exploit those?» (Wigmore, 2017)

It's not to put under a chair that baseball and football has its differences. Football is a more dynamic sport and is namely the sport with second most actions during a game. Icehockey has the most actions with 60% ball in play each game, and football is second with 57,6%. (Shuker, 2014). But what are the challenges of using analytics in football? It's a very dynamic sport. Baseball is very start-stop and it lends itself to measurement, but on the flip side there are a lot more events going on during a football match than there are in a baseball game – and anybody who is well versed in modelling, whether from a computer science background or a mathematics background, will tell you the more data you have, the better you are able to put the models together. So it may be different but there's certainly a correlation of an interaction between players that may not excist in baseball – but there are a lot of events, and the more events you have the better you should be at predicting things. (Wigmore, 2017)

## 5. Technical Director Shanghai S.I.P.G

1.First of all, as a Technical Director, what is your main tasks? My main task is to be in charge of the football development of the club. I try to advise our president and management on football related topics across the club. So from recruitment to training, coach and player education and to the academy structure. I helped the club develop our philosophy "THE SIPG WAY", which will be our core for every decision in the club.



2.How is the recruitment/scouting structure around Shanghai SIPG? How many scouts do you have (fulltime/ parttime)? And which areas does Shanghai SIPG cover? We have partners across the World if we need foreign assistance and 3 full time Chinese scouts to charge the local market - mostly for the youngsters as we can travel the domestic market for our 1. team as the player pool these years are limited.

3. There is a lot big data/stats available, how big role plays stats in your player-recrutiment process (have your club for example an regular percentage of the importance of stats in a process arund player-recrutiment)? In general I believe in a 50-50 model, where we screen the market in the beginning through technical scouting (data) and other key performance indicators for the position we are searching for. Then we find a certain number and we start to do the subjective scouting - watching the players and analyzing their games. Later we have other phases as the personality analysis and also a cultural dimension as it can be very different to move to China if you lived your entire life at home.

4.Which tools (big data/stats, optastats) do you use in your clubs scouting process? And which tools are the most useful? This I can't be detailed about, but in general we have a style of play and under this a positional description for all 11 positions in this style of play and obviously these skills will be the main ones we search for to fit our style og our team.

5.How do you implement the stats in a final scoutingreport? And does the number of stats vary from player to player or is the same stats used on every player-recruitment? And does the number of stats used vary from position to position (goalkeeper compared to a striker for example? As mentioned above; the technical data is phase 1 where we limit the number of potential candicates, but the criterias will of course be different from position to position.

6.How much stats do you use in a manager/headcoach-recruitment? (if you use it all)? Same. We use a recruitment model for head coaches as well where they are technically valued through some key indicators important for our club and in this culture

7.How is the process around a player-recruitment at Shaghai SIPG? How many different levels do you have before you will sign a player? Over all 7 phases starting with phase 1 - technical screening (I can't give you more info here).

8.After several years in the industry working with playerlogistic, what advices would you give a scout/club to improve a scoutingprocess?

The key is to have a very clear style of play (also called football strategy), because it will limit your possibilities and therefore minimize the risk of picking the wrong player. Too many clubs change style of play all the time and therefore they are "throwing darts in the dark" when searching for players

9.Have the rule of The Chinese Super League-clubs can only have four non-Chinese players registered at one time affected your process around scouting outside Asia in anyway? Obviously, yes. We have 4 top foreigners all in good age-groups as well, so why should we change? They perform and we can have continuity in the group as well, so the foreign transfers are in China very limited this period.

## 6. Chief Scout Juventus FC

1.First of all, as a chief scout, what is your main tasks? My main task is to make the gameschedule for all our international scouts, qualitycheck the players we have looked at, have a closer look at the reports that are being sent in and monotoring the players we find interesting.



2.How is the recruitment/scouting structure around Juventus? How many scouts do you have (fulltime/ parttime)? And which areas does Juventus FC cover? Juventus FC have 5 international scouts, 11 scouts situated across Italy and 60 part-time scouts working regionally. We have as an ambition to cover as much as possible, but we believe in quality over quantity, and are therefore more closely deciding which games and tournaments to attend. All of our international scouts have some countries and markets they are monotoring more closely than others, but we are all covering much of the same markets. It is important for us to have an good overview of different markets, so we have enough references deciding who to go for. I am for example scouting more in South America, than the others, but we are all trying to watch the players we are monotoring at least once live each. I believe watching a player live 4 or 5 times over time gives a good enough image on how this player is, but it is important for us that all our international scouts are involved in the process and have their say.

3. There is a lot big data/stats available, how big role plays stats in your player-recrutiment process (have your club for example an regular percentage of the importance of stats in a process arund player-recrutiment)? You cant get away signing a player in the million class without having some data to confirm your view of the player. How much data and what data we use is various, but we use it. Stats or Big Data strenghtens a image of a player and also give us an indication on his strenght and weaknesses.

4.Which tools (big data/stats, optastats) do you use in your clubs scouting process? And which tools are the most useful? The Big Data tools depends on the player and the position on the pitch. We have parametres on what type of player we are searching in the different positons and use different stats to answer some of the parametres.

5.How do you implement the stats in a final scoutingreport? And does the number of stats vary from player to player or is the same stats used on every player-recruitment? And does the

number of stats used vary from position to position (goalkeeper compared to a striker for example?) You cant get away signing a player in the million class without having some data to confirm your view of the player. How much data and what data we use is various, but we use it.



Picture of: Juventus FC U19 training where the centre defenders working on controlling a long ball. Photo by: Patrick Ferreira

6.How is the process around a player-recruitment at Juventus FC? How many different levels do you have before you will sign a player? I won't go very detailed into the different phases we have, but we start with live- or technical screening depending on what type of player we are looking for. If we are looking for a player in a specific position with specific qualities, we do more technical screening while some cases are observed live and will be looked deeper at using stats.

7.After several years in the industry working with playerlogistic, what advices would you give a scout/club to improve a scoutingprocess? Watch a lot of football, get references and believe in your opinion.



Juventus FC Head office in Vinovo. Photo by: Patrick Ferreira

## 7. Technical Scout FCK

1. First of all, as a Technical Scout at FCK, what is your main tasks? Operationally, my main task is identifying potential candidates and filtering those down to a manageable candidate pool, hence contributing to the early stages of the scouting process. More holistically, my task is to contribute to a more evidence-based decision-making around player recruitment.



2. How is the recruitment/scouting structure around FCK? How many scouts do you have (fulltime/ parttime)? And which areas does FCK cover?

We are currently six people in our scouting department: I'm heading a small team of video scouts: One is in a split role between performance analysis and scouting and the other works part-time. We have three "senior scouts": Two are based at our offices, and one covers Sweden and Norway, both senior and youth, mainly U14-U16 (Bjarne). Collectively, we cover the entire world (largely because of a scale that stats give us). Apart from our Scandinavian scout we do not have specific regions divided between us. We have, however, defined our markets in an A-B-C categorization where (A) markets are Scandinavian ones where we have a certain position and have to be proactive; (B) markets are largely development/exporting leagues (mostly Eastern Europe and Latin America); (C) markets are the mid-sized European and Latin American leagues. The categorization is not in order of priority but based on differences in methodology in covering those leagues, and how we assess whether the player is within reach.

3. There is a lot big data/stats available, how big role plays stats in your player-recrutiment process (have your club for example an regular percentage of the importance of stats in a process arund player-recrutiment)? Stats play a large role, especially in player identification. We do not have a percentage split between the various tools. But the majority of players that we assess on video are identified from stats, and then a minority from proactive scouting, agent recommendations, etc. I like to think about our scouting process as a hybrid process in which there is a 50/50 split between stats and intuition. Ideally, both give a thumbs up on a player before we pursue him.

4. Which tools (big data/stats, optastats) do you use in your clubs scouting process? And which tools are the most useful? We use Wyscout stats which I export to my own spreadsheet

for subsequent analysis. Those stats are per-90 aggregates – so for instance the number of successful dribbles per 90 minutes, the number of shot assists per 90 minutes – and feed into a number of positional indexes based on the player's percentile ranking on the different stats and a weighting of those. If a player is above a certain threshold, he is flagged for inspection on video. Later in the process, we calculate Expected Goals and Expected Assists (both per 90 minutes) for attacking players for direct comparison between two or more candidates. We also use a strength rating (ELO rating) of the players' respective clubs since recruiting from clubs that are similar in strength is linked with a higher probability of success.

5. How do you implement the stats in a final scoutingreport? And does the number of stats vary from player to player or is the same stats used on every player-recruitment? And does the number of stats used vary from position to position (goalkeeper compared to a striker for example?) We include a brief summary, kind of a radar chart, which highlight the areas (from stats) in which the player is in the top quartile (i.e. "strengths") and bottom quartile (i.e. "weaknesses") on his position. The stats vary greatly from position to position and are of course linked to our playing style. For attacking players include stats on e.g. number of shots, touches in box, aerial duels won, linkup play, etc. – and for fullbacks we look at e.g. completed crosses, chances created, successful dribbles, possession-adjusted tackles and interceptions. For central defenders, we are very careful with regards to interpretation of stats since quantity does not necessarily reflect quality. Engaging in a lot of tackles in not necessarily a good trait, especially. That's perhaps where we are more weighted towards intuition and the trained eye. We do however take measures of quality – e.g. in % aerial duels won – into consideration.

6. How is the process around a player-recruitment at FCK? How many different levels do you have before you will sign a player? We have six steps in the scouting process:

- 1. Squad planning we look 6-12-18 months ahead and create different scenarios, and from this launch scouting processes on various positions
- Player identification this stage is all about boiling around 5000 players down to around 10
- 3. Scouting phase 1: Video we watch the players on video
- 4. Scouting phase 2: Live we watch the players live
- 5. Scouting phase 3: Selection the manager and the technical director is involved and watches the player

#### 6. Recommendation for transfer

7. Are there any tools or stats that you look more into than other in a palayer-recruitment phase? See 4 and 5.

8. After several years in the industry working with playerlogistic, what advices would you give a scout/club to improve a scoutingprocess?

I would centralize most of the scouting process and work from headquarters for an optimal utilization of scarce resources. Some of the clubs we compete with have 10 times the number of scouts that we have. So we cannot compete by travelling around in the same manner as them. The use of tools such as video and stats enables us to do a lot of the due diligence from home. There are several advantages to this way of working: It is more efficient in cost and time since travelling is expensive and time-consuming. Moreover, it enables us to cover a large number of leagues. Finally, we are closer to information from the manager and rest of the staff and thus closer aligned to what happens on the pitch, which enables us to find a more suitable candidate.

## 8. Zulte Waregem

1. First of all, as an International Scout at Zulte Waregem, what is your main tasks?

Identifying new players for our first team-squad on immediate, mid term and long term base, who create added value for the team, want to achieve our team goals and are interested to see our club as step to go higher in their football carreer (-->selling option, with profit)



2. How is the recruitment/scouting structure around Zulte Waregem? How many scouts do you have (fulltime/ parttime)? And which areas does Zulte Waregem cover?

First team scouting:

- 1 head of scouting: Toon Mertens
- 2 FTE scouting: Michel Cuypers, Stan van den Buijs
- 2 PTE scouting: Geert Vercaempst, Niels-Jan Geelhoedt

Club structure:

- 1 CEO: Eddy Cordier
- 2 Head Coach: Francky Dury
- 3 Sportive director: Joric Vandendriessche
- 4 Head of scouting: Toon Mertens

Working areas:

- 1. Belux (Belgium/Netherlands) (Pro Leagues)
- 2. France (Ligue 2, National, CFA)
- 3. Scandinavian Countries (1. Denmark, 2. Sweden, 3. Norway) (Pro Leagues)

4. Germany/Austria/Switzerland (2. Bundesliga, 3e Liga, Regionalliga /Bundesliga /Super Challenge)

5. Spain/Italy (Liga Adelante/Serie B

3. There is a lot big data/stats available, how big role plays stats in your player-recrutiment process (have your club for example an regular percentage of the importance of stats in a process arund player-recrutiment)?

We use hard data from Instatt. Instatt scores play a role in the decisive recruitment part.

4. Which tools (big data/stats, optastats) do you use in your clubs scouting process? And which tools are the most useful?
Instatt - Most useful
Wyscout stats - useful
Soccerassociation - useful

5. How do you implement the stats in a final scoutingreport? And does the number of stats vary from player to player or is the same stats used on every player-recruitment? And does the number of stats used vary from position to position (goalkeeper compared to a striker for example?)

The number of stats differ from position to position and also from league to league. In every report Instatt scores are added of the player in that match.

6. How is the process around a player-recruitment at Zulte Waregem? How many different levels do you have before you will sign a player?

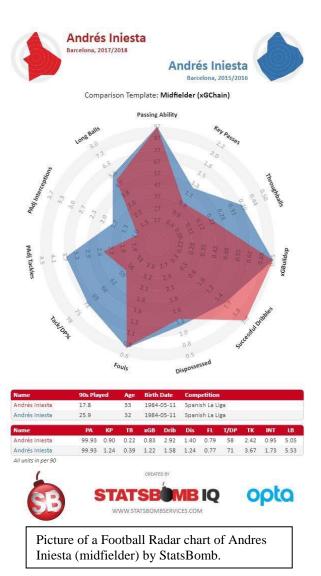
- 1. recognizing talent by one scout
- 2. Scout has the freedom to ask directly for contactdetails, talk to managers etc
- 3. scouting follow up process (talent has to be seen by all scouts)
- 4. If 4/5 of the scouts approve, contact with manager increases by Head of scouting
- 5. If player is also interested, CEO takes over negotiations and makes proposal
- 6. Medical check and guided club tour
- 7. Contract signing.

7. After several years in the industry working with playerlogistic, what advices would you give a scout/club to improve a scoutingprocess?

Meet often and discuss. Don't always say yes. Discussion is the foundation. Interact and if you are really convinced about a player, keep promoting the player internally Don't judge to fast.

## 9. Owner, StatsBomb

The owner of Statsbomb worked as Head of Player Analytics for Brentford and Midtjylland, and has consulted for multiple Champions Laeague Football clubs. His areas of expertise include recruitment, data visualization, and set piece design. As the founder of StatsBomb, he has also appeared on Sky, been published by the Guardian and Daily Mirror, and is often consulted as an expert in the application of stats and analytics to football. (StatsBomb, u.d.) He was once a professional bettor, and also currently works as lead trader for the English Premier League at one of the world's largest sportsbooks. (The Guardian, 2017). His company is at the forefront of the data and analytics in Soccer (Sloan Sport Confernce, u.d.), and he has developed ways to create, read and understand stats. The owner of StatsBom is especially known for creating footballradars, which it's a way of visualizing a large number of stats at one time. In our case, the radar specifically deal with player stats. Some people also call them spider charts or graphs because they can look like they make a spider web. (StatsBomb, u.d.).



The design for these (footballradars) was taken from Ramino's 2013 NBA All-Star Poster (Ramino, u.d.). I thought it would be really interesting to apply this to football. That's when I added the standard deviations idea, and started playing with different positional templates. (StatsBomb, u.d.).

Why bother creating them? The answer is probably a book long, but the quick response is because people like to look at stats presented in this way far more than they like to look at set of numbers. Radars invite you to engage with them. They create shapes that brains want to process. People have real reactions, and once you get used to what they display and how they display it, you can interpret them much faster than if you had to do the excact same analysis with a table of numbers. (StatsBomb, u.d.).

The way StatsBomb and other data analytics collects data, handle them and make them usefull, is impressive and very interesting. This is one way to handle data to make sure the club find the right profile.

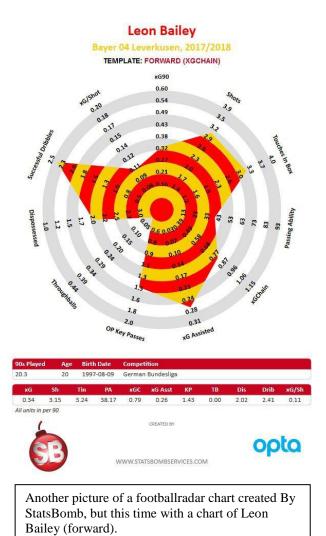
Companies that collects data and video is Opta, Wyscout and Instat. Here is some information about them.

## 10. Opta Sports

Opta Sports is the worlds leading supplier of detailed sports data. They have collected data, analysed and distributed data and content to customers for twenty years. Opta Sports are the only sports data business that collects and distributs full, time-stamped, contextual data live, featuring complete x/y co-ordinators (as well as z coordinates where applicable, such as shots in football), and a granularity of event type unique amongst data providers. (Opta Sports, u.d.) Opta Sports is based in London.

## 1. Wyscout

Wyscout is the leading company for football pro. A world of data and videoes available online. Since 2004 Wyscot has changed the way football works. Today Wyscout is used by more than 800 professional clubs, more than 40 among National Teams and Federations, and the most important Players Agengies in the world. Wyscout provides data, videoes and contents on more than 400.000 players and connects the people who live for the beautiful game worldwide through a global network. (Wyscout, u.d.) Wyscouts head office is in Chiavari, Italy.



## 2. InStat

Football InStat Scout video plattform is truly unique; it contains information on more than 400.000 players and you can get statistics on each one of them or watch video highlights. Over 6.000 new videoes records are added to our database monthly, and the Instat Production breaks down more than 1.500 matches weekly, making records of every action made on the pitch virtually every second. (InStat, u.d.) The comapny was founded in Moscow, Russia in 2007, and has multiple offices and representive around the world. (Wikipedia, u.d.)

#### 11. Risk Management

The increasing proffesionalization of sport means there is a growing demand of developing and getting better in every field of sports. The development in the world of football is extraordinary and football is currently The Worlds most prominent sport. (Shae, 2018)

To explain why football has become so popular, Phile Neville in an interview with Though Economics said it very well: «Football is tribalism. It's something different from your work, from your hobby. This is a religion; it's your tribe that you fight for. You become attached to your tribe, and this attachment is passed down through generations. It's not like you're born one day and think, hey, I'll support Man Utd or Liverpool, this is passed down. (Shae, 2018)

But as the demands in The world of Football is constantly growing, the word "risk" is taking a bigger and bigger part in football. The growing globalism has resulted in a bigger revenue and more money involved. The raising transfer fees makes the pressure around a playerrecruitment higher and makes the distance from a success or a failure bigger. Every person involved with or within a business, should have a relation to the word risk. The word risk in a business sentence concerns the risk the company is put under, but also the people working for or around the business. It is very difficult, or almost impossible to avoid all risk in The World of Football, but it is very important to be aware of them when calculating the company's goals compared to the risks. In the financial world, risk management is the process of identification, analysis and acceptance of uncertainty in investment decisions. Essentially, risk management occurs any time an investor or fund manager analyzes and attempts to quanitify the potensial for losses in an investment and then takes the appropriate actions. (Investopedia, u.d.) To continue developing The World of Football, we need to take risks to grow and develop. Because effectively risks helps socieites achieve. In our fast paces world,

the risks we have to manage evolve quickly. We need to make sure we manage risks so that we minimalise their threats and maximis their potential. (IRM, u.d.)

In this assignment, where I am focusing on clubs approaches when it comes to Technical Scouting and how they put trust in numbers and big data to find the best players quicker, the word risk is absolutely present. Because putting trust finding the best players by doing a technical screening, players without the best numbers might go unnoticed, but the reward of finding the players that could fit the profile faster with less travel-cost could gain the risks.

#### **12.** Decision theory

Decision theory in econmics, psycohology, philosophy, mathematics and physiologogy is concerned with identifying the values, uncertainties and other issues relevant. In a given decision it is rationality who is resolving optimal decision.

While definition of decision theory is the framework of logical and mathematical concepts, aimed at helping managers in formulating rules that may lead to a most advantageous course of action under the given circumstances.

Decision theory divides decisions into three classes

- 1. Decisions under certainty: where a manager has far too much informatio to choose the best alternative.
- 2. Decisions under conflict: where a manager has to anticipate moves and counter-moves of one or more competitors.
- 3. Decisions under uncertainty: where a manager has to dig-up a lot of data to make sense of what is going on and what it is leading to. (Busines dictionary, u.d.)

In the world of football, will decisions be taken under different circumstances depending on the climate in the club or organisation. Football is an resultorientated industry, were the demands are measured towards results. A win could mean another week of job, while a defeat could in the worst case scenario mean the axe. Living with this intense pressure is exhausting and can sometimes effect the decisions we are making. Therefore it is important to understand the challenges that comes along trying to make the optimal decision under pressed situations.

There are 4 basic elements in decision theory: acts, events, outcomes, and payoffs. Acts are the actions being considered by the agent. Events are occurences taking place outside the control of the agent. Outcomes are the result of the occurence of acts, and events and payoffs are the values the decision maker is placing on the occurrences. (SIUE, u.d.)The way we behave also effect the decision making. Behavioral decision theory has two interrelated facets, normative and descriptive. The normative theory is concerned with prescribing courses of action that conform most closely to the decision maker's beliefs and values. Describing these beliefs and values and the manner in which individuals incorporate them into their decisions is the aim of descriptive decision theory. (Paul Slovic, 1977).

#### 13. Conclusion

After spending over 5 months on this assignment, where I have been digging deeper into technical scouting and the chosen international clubs approach and structure around technical scouting, I will try to summarize and reflect over the founds.

To give a quick reflection, the idea of using statistics and big data in a player recrutiment has got its origin from the principles from moneyball and use of data in american sports. As the years has passed the number of data has increased and the way of handling data in the world of football has developed for the better. Not only can the numbers confirm or denie your point of view, but also help finding the right profiles faster, evaluate players easier up towards eachother and by help of the numbers making sure the profile fits what you are looking for.

The amount of data is growing and the same is people in football working with it, but still many clubs finds it challenging to work with this. It is very timedemanding to collect, handle and analyze the numbers, as well as its more difficult to make the use of the numbers in football because it`s a very dynamic sport. Anybody who is well versed in modelling, whether from a computer science background or a mathematics background, will tell you the more data you have, the better you are able to put the models together and predicting things. (Wigmore, 2017).

But despite this there is still a big differnce between clubs approaches and view of importance to technical scouting and the use of numbers in a playerrecrutiment. While Shanghai S.I.P.G uses a 50-50 model, where they screen the market in the beginning through technical scouting (data) and other key performance indicators for the position we are searching for. Then they find a certain number and start to do the subjective scouting - watching the players and analyzing their games, and at an later stage have personality analysis and evaluating cultural dimensions, while clubs like Juventus FC and Zulte Waregem dont have a confirmed structure of the use of stats, but use it more like an final evaluation to make an confirmation that the player fits the profile and use it to evaluate players up towards eachother. While FCK look at

technical scouting as a way to identifying potential candidates quicker and filtering those down to a manageable candidate pool, contributing to the early stages of the scouting process. They look at it like it is more efficient in cost and time since travelling is expensive and timeconsuming. And moreover, it enables them to cover a larger number of leagues for a cheeper amount.

For me personally, I strongly believe technical scouting and screening is a tool which can make the process more effective, filtering down which profiles to have a closer look at earlier. I also believe it is a very good way to evaluate interesting profiles uptowards eachother, by looking at different parametres and numbers. But for me, numbers and statistics will not overtake the importance of doing the subjective scouting. There are for me still a lot in football you can't measure in numbers, therfore my number one priority in a player recruitment will be the subjective scouting. Even though I value technical scouting/screening as the future and a way to make the process more effective in terms of finding the right profiles faster.

## 14. References

- (n.d.). Retrieved from IRM: https://www.theirm.org/the-risk-profession/riskmanagement.aspx
- (n.d.). Retrieved from Wikipedia: https://en.wikipedia.org/wiki/InStat
- Bogen, J. (2009). Theory and Observation in Science.
- Busines dictionary. (n.d.). Retrieved from

http://www.businessdictionary.com/definition/decision-theory.html

- Calvin, M. (2014). The Nowhere Men. In M. Calvin, The Nowhere Men (pp. 2,3).
- Coggin, S. (2017, 05 11). *thoughtco.com*. Retrieved from thoughtco: https://www.thoughtco.com/what-is-a-soccer-scout-3557740
- Craggs, T. (2011, September 22). *GQ*. Retrieved from GQ: https://www.gq.com/story/moneyball-movie-book-comparison
- Darwin. (n.d.). *Oxforddictionaries*. Retrieved from https://en.oxforddictionaries.com/definition/theory
- Deloitte. (2017). *Deloitte Annual Review of Football Finance 2017*. Deloitte Sports Business Group.
- Ferguson, S. A. (n.d.). Retrieved from https://www.youtube.com/watch?v=ZfDA4pADaWo
- Ferguson, S. A. (1999, May 26). Retrieved from

https://www.youtube.com/watch?v=ZfDA4pADaWo

- Filmfront. (n.d.). Retrieved from http://www.filmfront.no/omtale/3164/moneyball
- InStat. (n.d.). Retrieved from InStat: http://instatsport.com/en/

International, F. H. (n.d.). Retrieved from Qualitative Research Methods Overview: https://course.ccs.neu.edu/is4800sp12/resources/qualmethods.pdf

Investopedia. (n.d.). Retrieved from

https://www.investopedia.com/terms/r/riskmanagement.asp

Lewis, M. (n.d.). *Amazon*. Retrieved from https://www.amazon.com/Moneyball-Art-Winning-Unfair-

Game/dp/0393324818#productDescription\_secondary\_view\_div\_1526198987763

- *Opta Sports*. (n.d.). Retrieved from Opta Sports: https://www.optasports.com/about/the-optadifference/
- Paul Slovic, B. F. (1977). Behavioral Decision Theory. Retrieved from https://www.annualreviews.org/doi/pdf/10.1146/annurev.ps.28.020177.000245#article -denial
- Ramino. (n.d.). Ramimo. Retrieved from http://www.ramimo.com/2013-NBA-All-Stars

- Shae, V. (2018, February 5th). *Thought Economics*. Retrieved from Thought Economics: https://thoughteconomics.com/football-and-society/
- Shankly, B. (n.d.). Retrieved from ECHO: https://www.liverpoolecho.co.uk/news/liverpoolnews/bill-shankly-remembered-11-brilliant-10156199

Shuker, R. (2014, August 29). *Hockeynews*. Retrieved from NUMBERS PROVE HOCKEY HAS THE MOST ACTION PER GAME: http://www.thehockeynews.com/news/article/numbers-prove-hockey-has-the-most-

action-per-game

SIUE. (n.d.). Retrieved from http://www.siue.edu/~evailat/decision.htm

Sloan Sport Conference. (n.d.). Retrieved from Sloan Sport Conference: http://www.sloansportsconference.com/people/ted-knutson/

Smith, A. (2017, 09 01). Sky Sports. Retrieved from http://www.skysports.com/football/news/11095/11015137/premier-league-transfershow-much-did-your-club-spend

*StatsBomb*. (n.d.). Retrieved from StatsBomb: https://statsbomb.com/about/

Sugden, J. M. (2001). The World At Their Feet.

- *The Guardian*. (2017, September). Retrieved from https://www.theguardian.com/profile/ted-knutson
- Wigmore, T. (2017, July 4). Bleacher Report. Retrieved from Brentford's Moneyball Way To Beat Football Teams With Huge Budgets: http://bleacherreport.com/articles/2718752brentfords-moneyball-way-to-beat-football-teams-with-huge-budgets
- Wren, C. P. (2006). Retrieved from EXPLORING RELIABILITY IN ACADEMIC ASSESSMENT: https://chfasoa.uni.edu/reliabilityandvalidity.htm

Wyscout. (n.d.). Retrieved from Wyscout: www.wyscout.com