### Football Club Project



### To make successful football club

#### Preliminary Approach

In the membership data, it is possible to identify current players at specific clubs and to pull out their past career progression, to date.

Initial exploratory analysis employed network diagrams to illustrate the paths of players towards their current club.

This is demonstrated in the below example for AC Milan, where AC Milan is the centre node to which all of the surrounding player paths lead

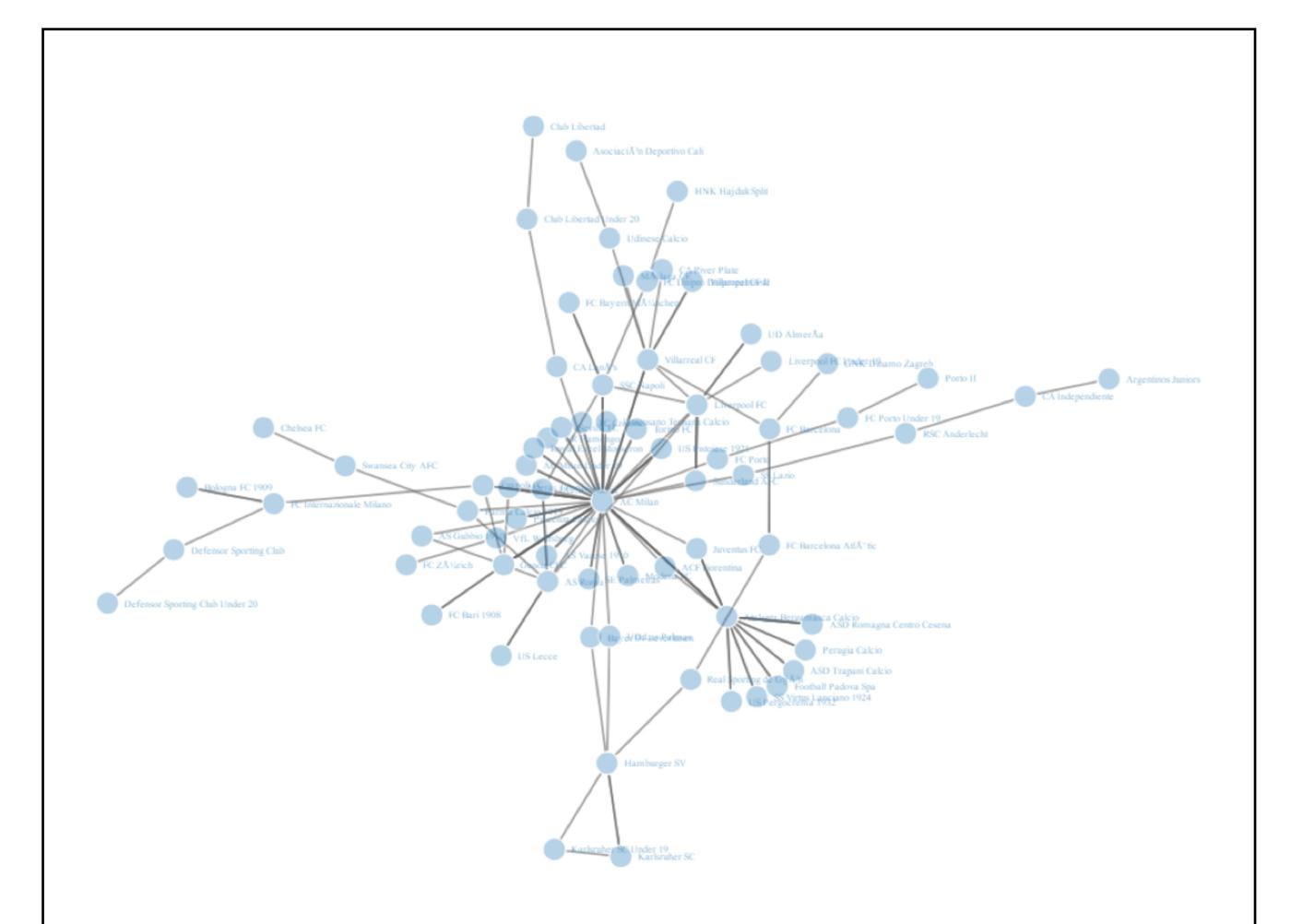


Figure 13: Example network graph illustrating the path that AC Milan players have taken to reach their current club. Each node represents a club; the central node is AC Milan. Each path represents a player (or players) who have moved from one node (club) to another

#### Disadvantages

network graphs are not able to capture all of the variables that might be valuable for recruiters.

1. Time length — we cannot tell the length of a player's spell at a club or when they moved to another club.

2. Team members overlap — whether current teammates already played together at another club in the past, or whether they simply passed through the same club at different times.

## Extended Approach

It is possible to consider the career path of a player as a sequence of states over the time-span of their career to date. These states could be based on a variety of know attributes

1. Which team are they from — have someone ever played & no other team member has ever played

2. How many appearances the player made (for their club or for a club which they were being loaned to )

Finally, developing a picture of the composition of the team based on the features of each player's previous career experience

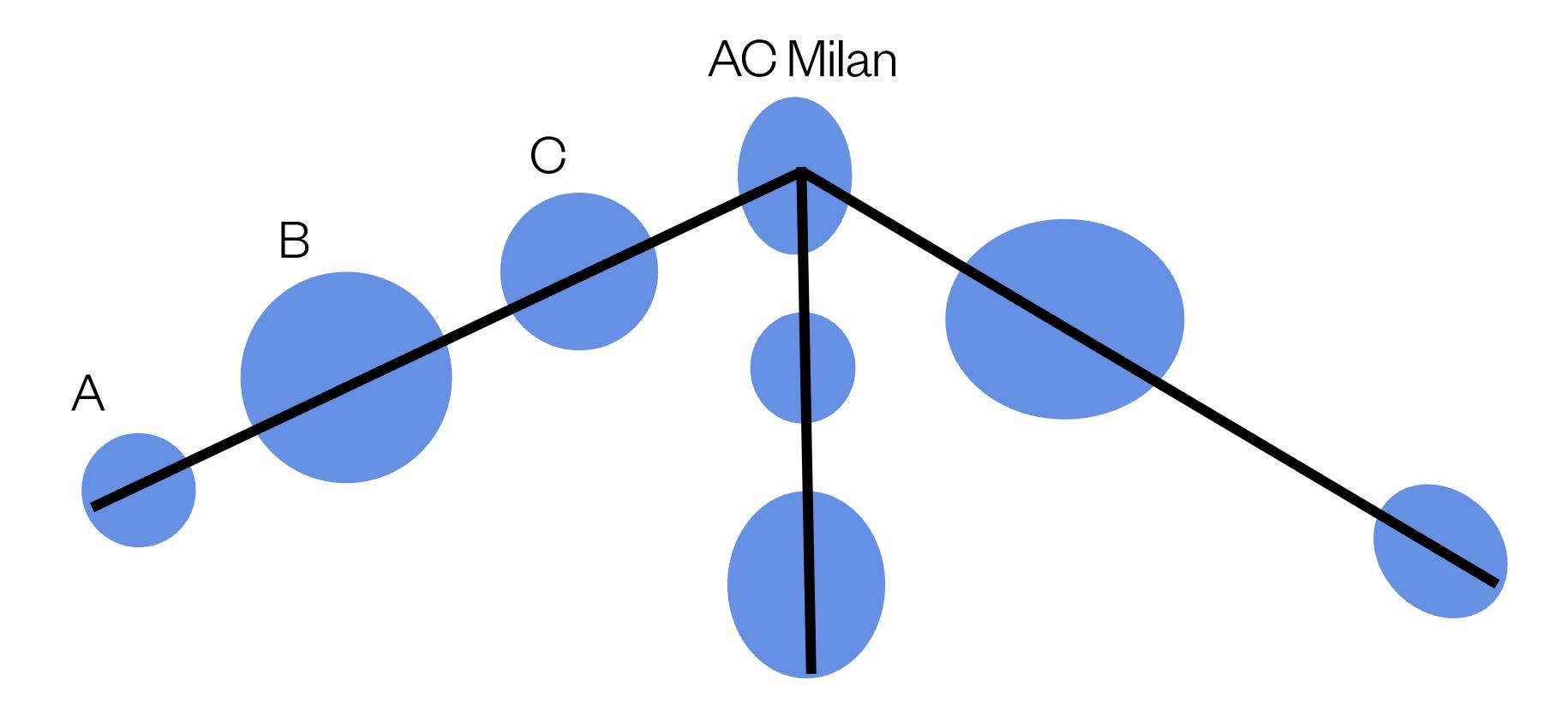
#### Some Ideas about —

makes possible to visualize and apply some sequence analysis measures to the bundle of career pathways forming a team.

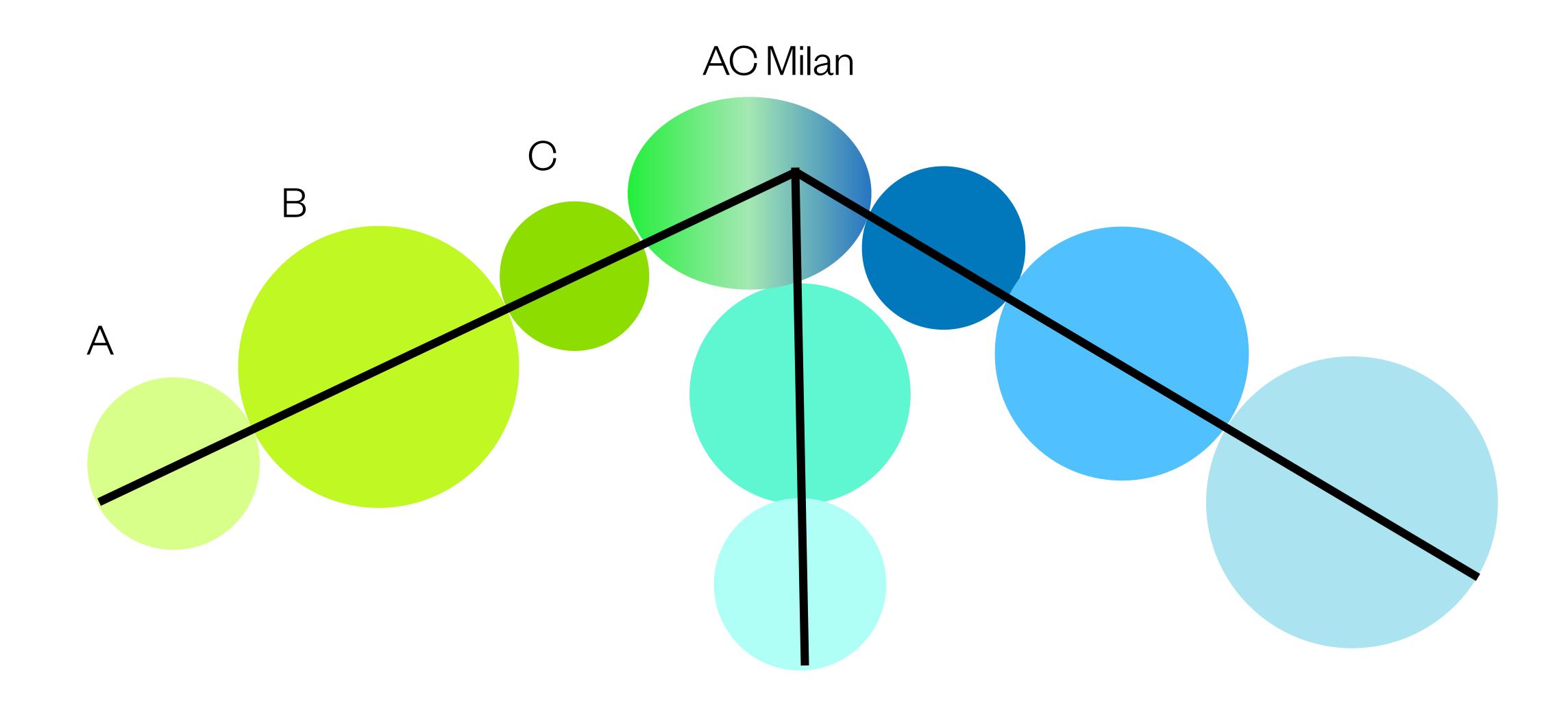
Results can inform the recruitment strategy of a club to appreciate how a new recruit will fit into the new team, also looking at how their career path help reach the mix of seniority and youth, international and domestic experience that made competing clubs to achieve success.

# 1. Time length

we cannot tell the length of a player's spell at a club or when they moved to another club.

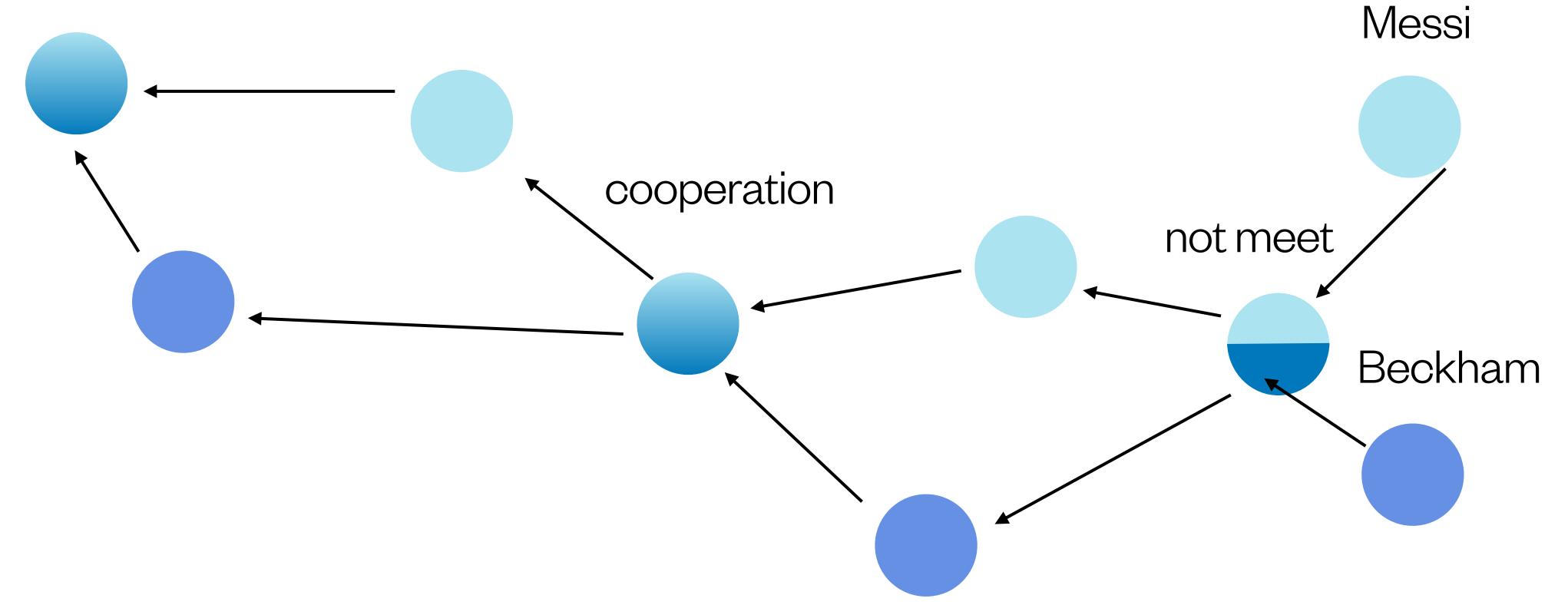


The black line means time, and the circle means the time in different football club, the blank area means rest time.



## 2. Team members overlap

whether current teammates already played together at another club in the past, or whether they simply passed through the same club at different times.



Using color blocks to distinguish, cooperation means color fusion, separation means independent color blocks.