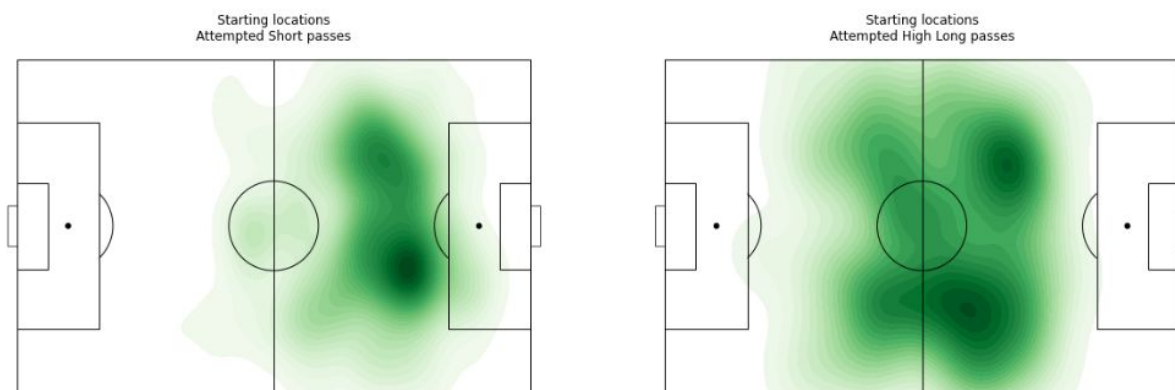


# Liverpool Attack

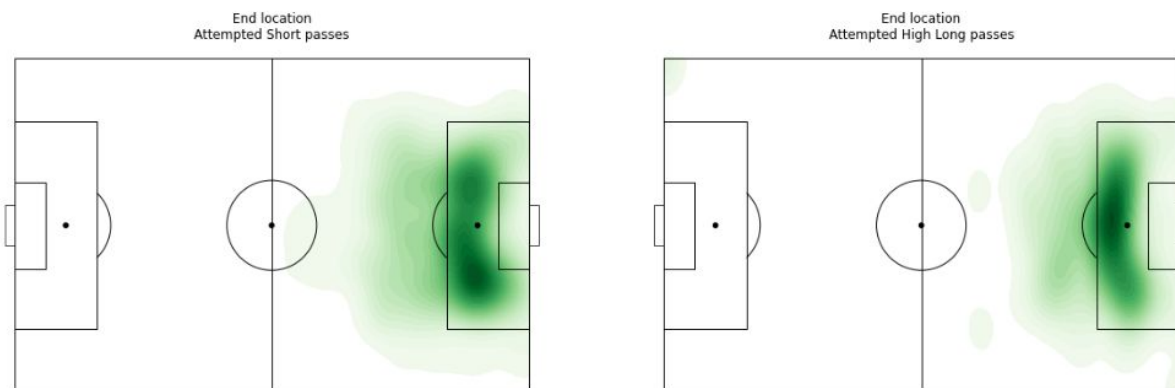
Using our event provider (wyscout) and @Lastrow tracking data we analyze our next week upcoming opponent - Liverpool.

## How they score

They are attempting a lot of *Through Passes* (direct pass behind defensive lines). Even if the success rate of these passes is low ( 30%), they are creating a lot of scoring opportunities with these passes. If the pass reaches the receiver, usually scoring opportunity is created. Pass attempts to put the ball behind opponent defensive lines can be high long pass or short smart pass. As you can see from Plot 1, they will always seek an opportunity to pass, even from their half-court. Majority of short passes will create run-ins inside the penalty area behind the defensive lines. (Plot 2)

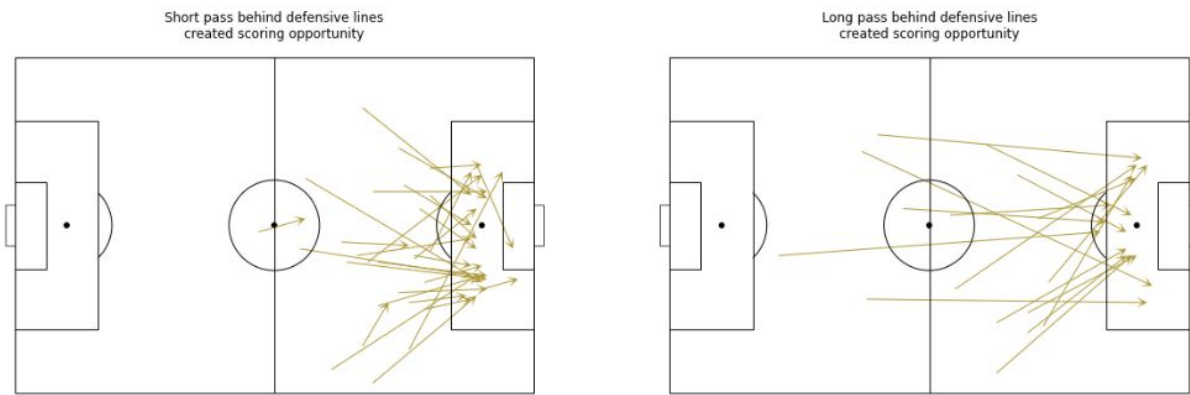


Plot 1: Locations of attempted through passes.



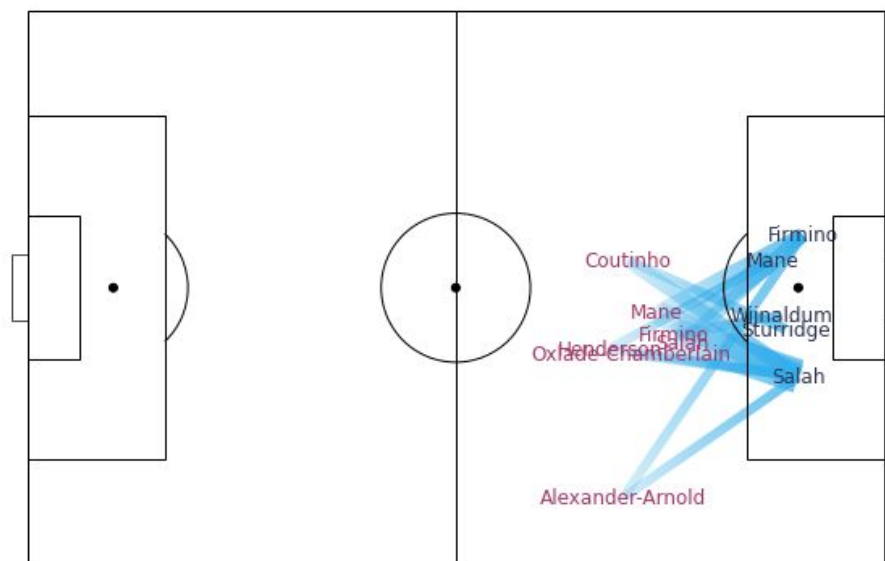
Plot 2: Destinations of attempted through passes (run-in location for players).

In Plot 3 we can see of their successful through passes. As you can see, those passes can come from many different positions on the field.

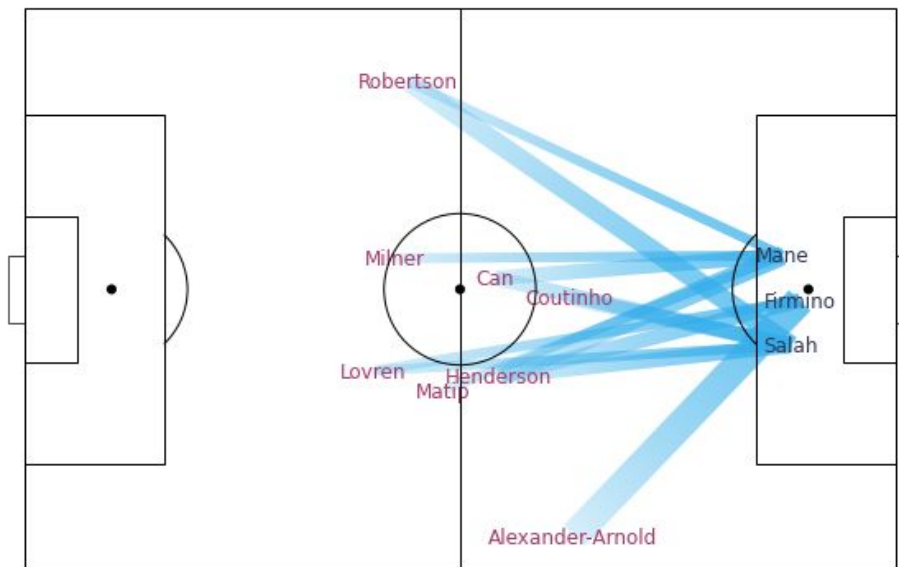


Plot 3: Created scoring opportunity from through passes

In Plot 4 and 5 we visualized passing network of their most successful passing combinations for short through passes. On left, we can see players centroids that are based on their mean position when passing the ball, on the right are players who received most of these passes (running behind defensive lines). Plot 4 shows passing network of short through passes between players, and Plot 5 show long through passes. Salah receives the most of the passes, where Alexander-Arnold is the most frequent passer to him.

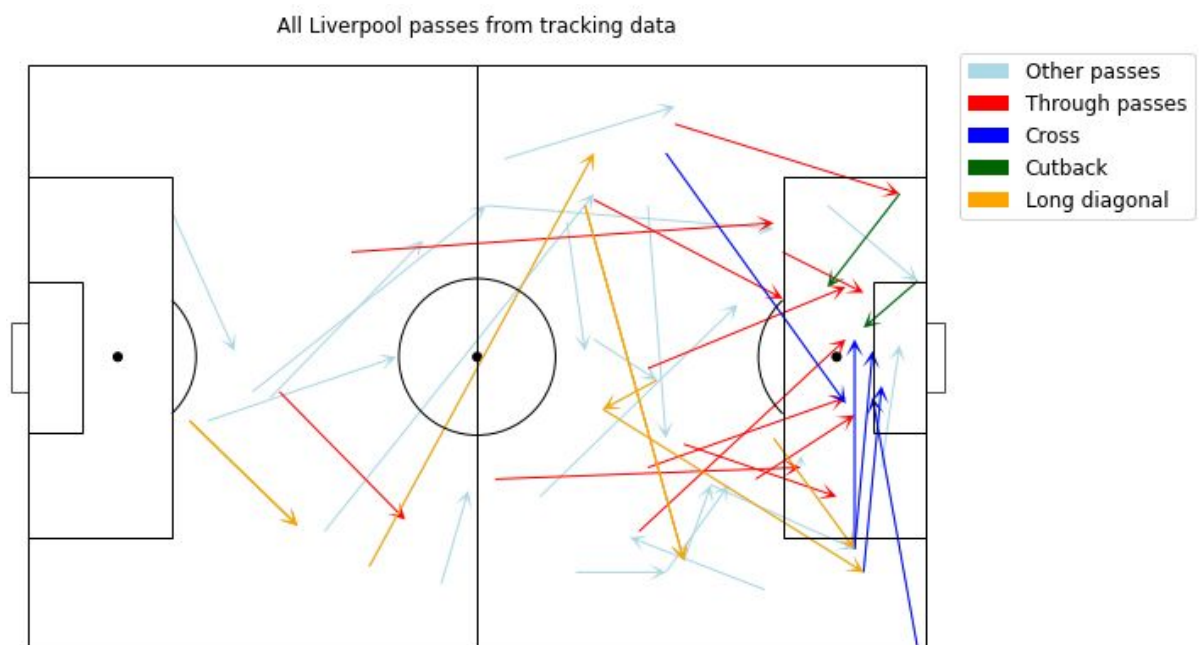


Plot 4: Passing network - centroids of passing locations for short passes



Plot 5: Passing network - centroids of passing locations for long passes

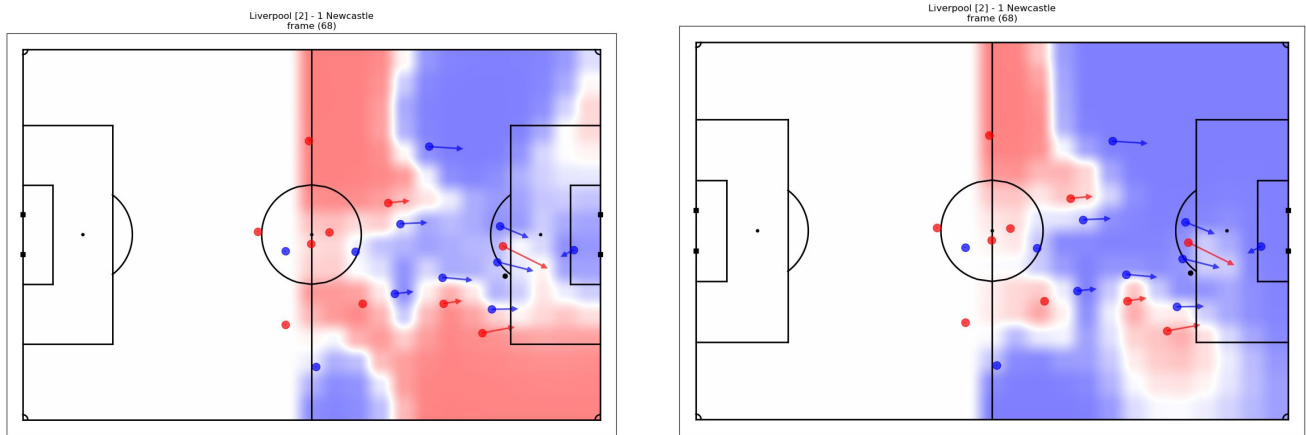
From available tracking data for some of Liverpool goals, we plotted all the passes (Plot 6). and classify them into different categories. A large portion of their goals was created with accurate through passes.



Plot 6: Visualized through passes from @LastRow tracking data

## Runs behind defensive lines

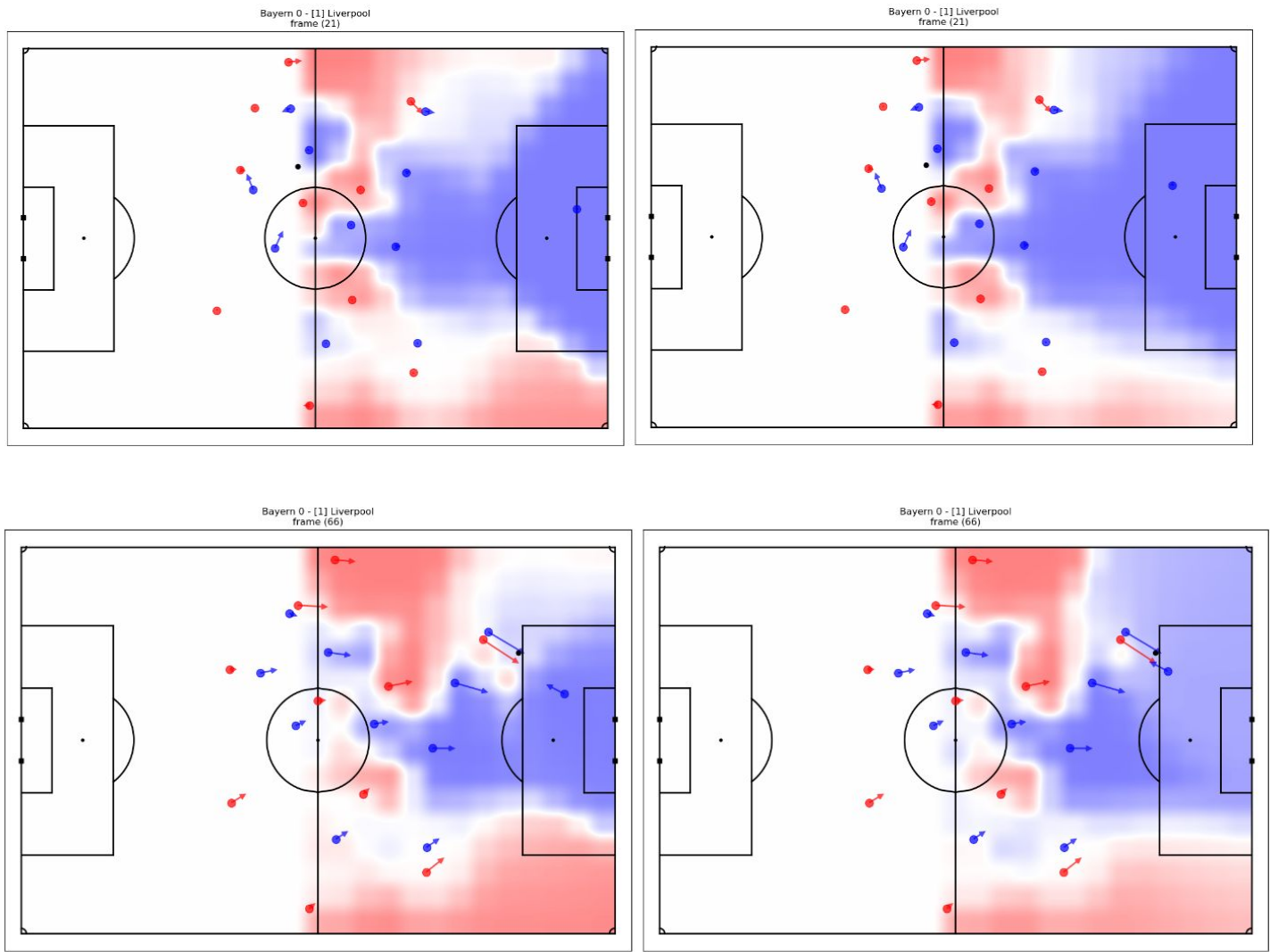
Their tactics with these passes between defenders are successful because of the physical ability of their players. Their speed and acceleration help them gain advantages when running into empty space.



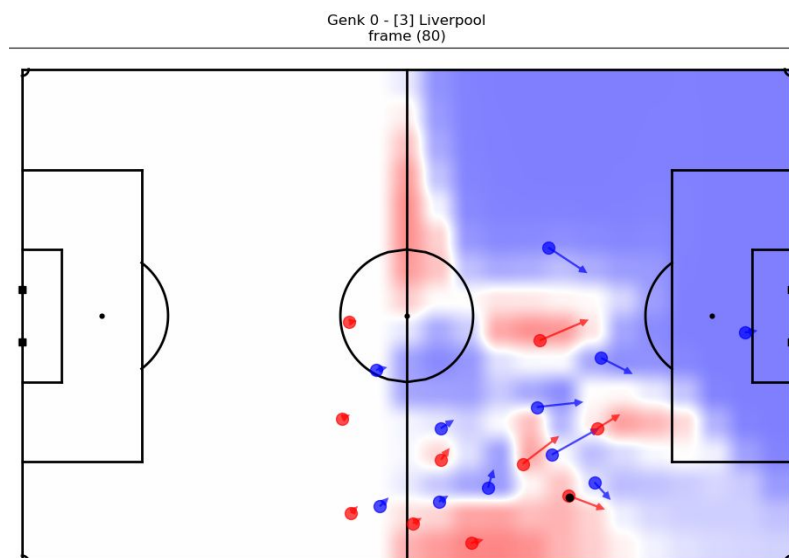
Plot 7: Because of higher speed and acceleration than opponent, Liverpool players can “control” more area (left). If the defensive team would have faster players, this action would not cause them problems (right)

To defend against such run-ins you should minimize the available space for these run-ins. For example, you can use a goalkeeper to stand outside the penalty box and play as a “sweeper”. With this, you can get more control outside the penalty area if they use long passes. An example is shown in Plot 8.

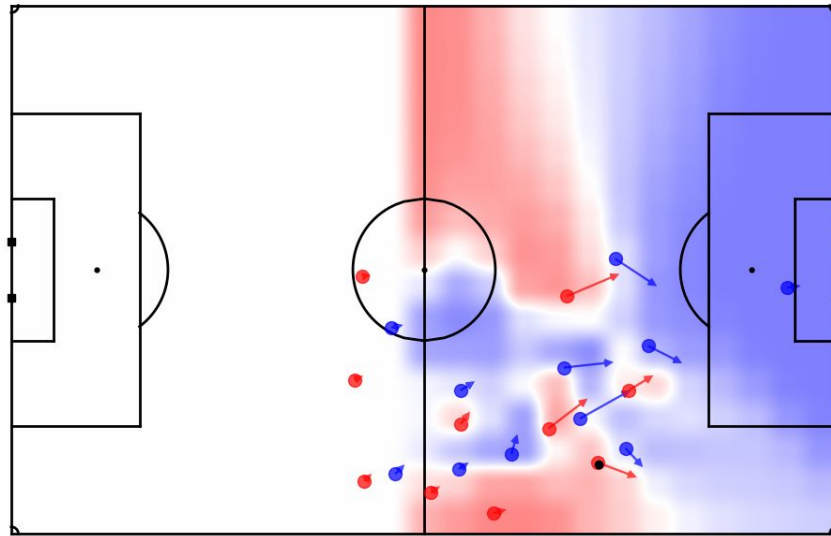
You should also bring the defensive line closer so that there won't be a lot of space for the Liverpool players to operate. An example is in Plot 9-10. In Plot 9, the defence is too widespread, that is why you can see a more red area which is controlled by Liverpool. In Plot 10 we bring right-wing defender a bit closer to the central defender, and now the defence is controlling that area.



Plot 8: On the left is visualized action with long through pass as it happened. On the right, we can see how the goalkeeper can gain more pitch control if he is not back at goalkeeper line



Plot 9: Right-wing defender stands too wide, the attacker can run into empty space



Plot 10: With right defender standing closer to a central defender, the gap for run-in has decreased.

In [Jupyter notebook](#) you will find additional visualization of such passes.

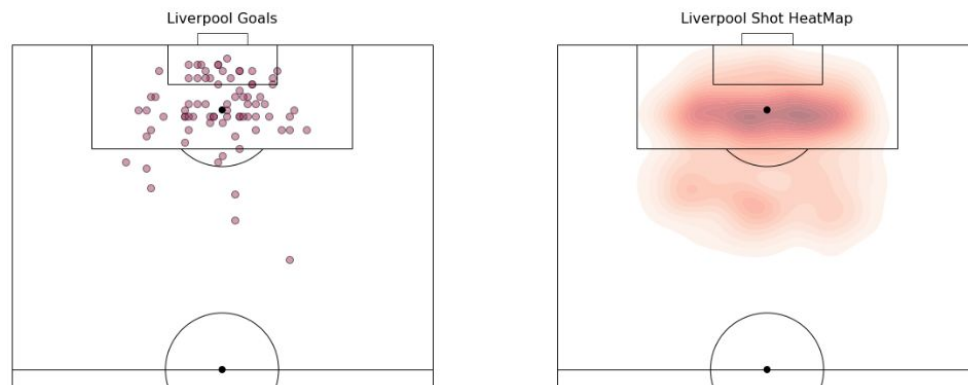
Finally, you need to instruct our players, that they need to be aware, focused, and disciplined, since every little mistake in our defensive positioning, Liverpool players will transform into a goal opportunity.

# Appendix

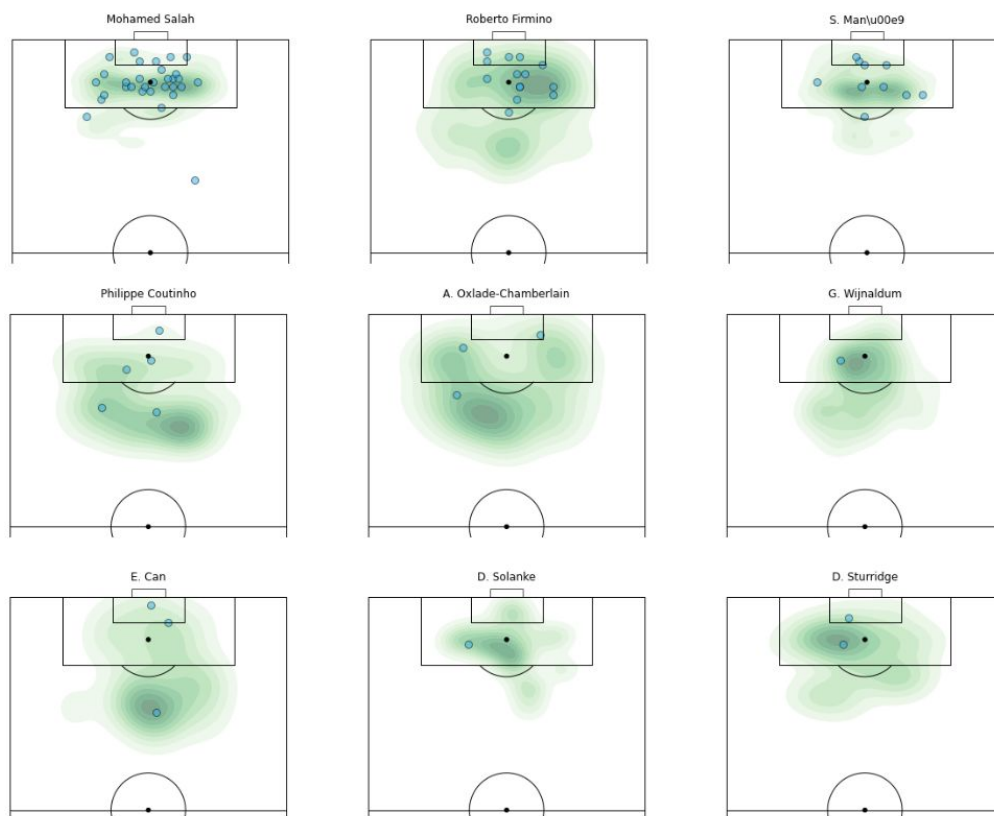
## Shot charts

We analyze their shooting chart (Plot 11). Most of the shots are inside the penalty area, where they also score most of the goals. They had some limited success from shots outside the penalty area.

Additionally, we took a look at their most frequent scorers and their shot chart distribution. Far the most shots took Salah who is also their leading scorer. All of his shots and goals are well within the penalty area. Also, Firmino and Mane score most of their goals inside. Outside shooters are Coutinho who can score from multiple position and Chamberlain who prefers shooting from mid-centre-right.



Plot 11: Liverpool shot chart



Plot: Shot Heatmap for different players

