EDEN HAZARD GOALS ANALYSIS IN WCUP 2018

Eden Michael Hazard, once predicted as the next big superstar after LM10 & CR7 in World Football.

Currently,many has almost forgotten his name due to series of injuries and lack of form while playing for Real Madrid.

But he had a great WC 18 , scoring goals and assists for fun in the whole tournament.

In this file we will look into the goals scored by him and the passes made by hime in WC2018.

In [101]:

```
#Load in Statsbomb competition and match data
#This is a library for loading json files.
import json

#Load the competition file
#Got this by searching 'how do I open json in Python'
with open('Statsbomb_data/competitions.json') as f:
    competitions = json.load(f)
```

In [102]:

```
#Mens World Cup 2019 has competition ID 43
competition_id=43

#Load the list of matches for this competition
with open('Statsbomb_data/matches/'+str(competition_id)+'/3.json') as f:
    matches = json.load(f)
```

Eden Hazard vs England

In [103]:

```
#Now lets find a match we are interested in
home_team_required ="Belgium"
away_team_required ="England"

#Find ID for the match
for match2 in matches2:
    home_team_name=match2['home_team']['home_team_name']
    away_team_name=match2['away_team']['away_team_name']
    if (home_team_name==home_team_required) and (away_team_name==away_team_required):
        match_id_required = match2['match_id']
print(home_team_required + ' vs ' + away_team_required + ' has id:' + str(match_id_required))
```

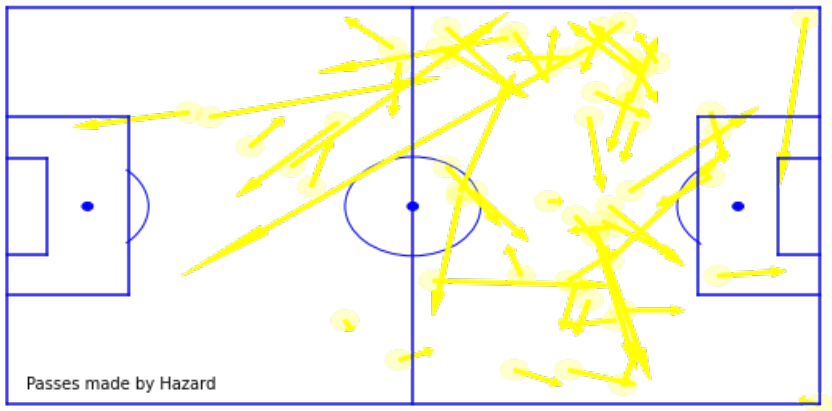
```
Belgium vs England has id:8657
```

In [104]:

```
import pitch
import matplotlib.pyplot as plt
import numpy as np

#Size of the pitch in yards (!!!)
pitchLengthX=120
pitchWidthY=80

#ID for Portugal vs Spain Mens World Cup
match_id_required = 8657

# Load in the data
# I took this from https://znstrider.github.io/2018-11-11-Getting-Started-with-StatsBomb-Data/
file_name=str(match_id_required)+'.json'

#Load in all match events


import json
with open('statsbomb_data/events/'+file_name) as data_file:
    #print (mypath+'events/'+file)
    data = json.load(data_file)


#get the nested structure into a dataframe
#store the dataframe in a dictionary with the match id as key (remove '.json' from string)
from pandas import json_normalize
df = json_normalize(data, sep = "_").assign(match_id = file_name[:-5])
```

In [107]:

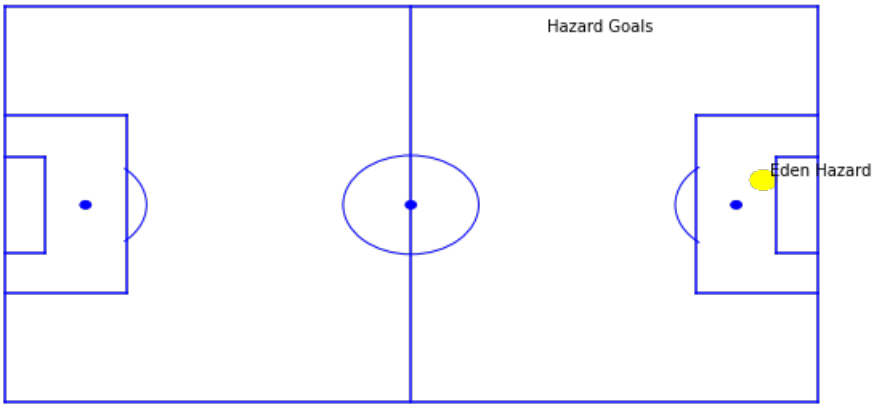
```
#Find the passes
passes = df.loc[df['type_name'] == 'Pass'].set_index('id')
#Draw the pitch
from pitch import createPitch
(fig,ax) = createPitch(pitchLengthX,pitchWidthY,'yards','blue')
for i,thepass in passes.iterrows():
    #if thepass['team_name']==away_team_required: #plotting all the passes of the team
    if thepass['player_name']=='Eden Hazard':
        x=thepass['location'][0]
        y=thepass['location'][1]
        passCircle=plt.Circle((x,pitchWidthY-y),2,color="yellow")
        passCircle.set_alpha(.2)
        ax.add_patch(passCircle)
        dx=thepass['pass_end_location'][0]-x
        dy=thepass['pass_end_location'][1]-y

        passArrow=plt.Arrow(x,pitchWidthY-y,dx,-dy,width=3,color="yellow")
        ax.add_patch(passArrow)

fig.set_size_inches(10, 5)
plt.text(3,3,"Passes made by Hazard")
plt.show()
```



These are all the passes made by Eden Hazard in the match.

In [109]:

```
#A dataframe of shots
shots = df.loc[df['type_name'] == 'Shot'].set_index('id')

#Draw the pitch
from pitch import createPitch
(fig,ax) = createPitch(pitchLengthX,pitchWidthY,'yards','blue')

#Plot the shots
for i,shot in shots.iterrows():
    x=shot['location'][0]
    y=shot['location'][1]

    goal=shot['shot_outcome_name']=='Goal'
    player_name=shot['player_name']

    circleSize=2
    circleSize=np.sqrt(shot['shot_statsbomb_xg'])*3.1
    if (player_name=="Eden Hazard"):
        if goal:
            shotCircle=plt.Circle((x,pitchWidthY-y),circleSize,color="yellow")
            plt.text((x+1),pitchWidthY-y+1,shot['player_name'])
    ax.add_patch(shotCircle)


plt.text(80,75,"Hazard Goals" )
fig.set_size_inches(10, 5)
plt.show()
```



The yellow plot is the goal scored by Eden Hazard at 82nd minute.

Eden Hazard vs Tunisia

In [3]:

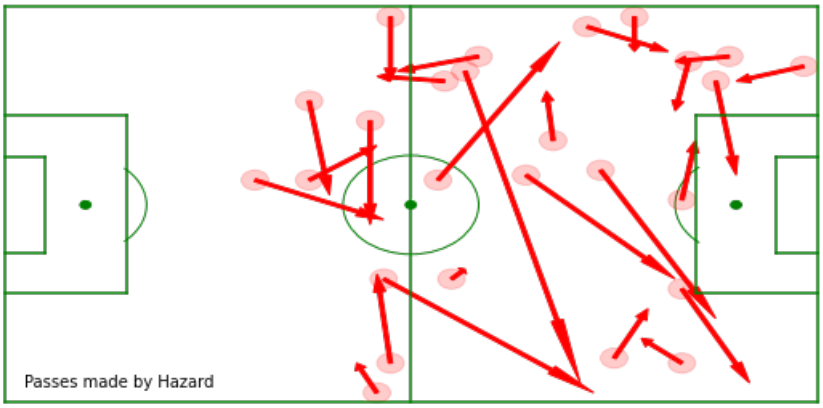
```
#Mens World Cup 2019 has competition ID 43
import json
competition_id=43

#Load the list of matches for this competition
with open('Statsbomb_data/matches/'+str(competition_id)+'/3.json') as f:
    matches = json.load(f)
```

In [6]:

```
import pitch
import matplotlib.pyplot as plt
import numpy as np

#Size of the pitch in yards (!!!)
pitchLengthX=120
pitchWidthY=80

#ID for  vs Spain Mens World Cup
match_id_required = 7552


# Load in the data
# I took this from https://znstrider.github.io/2018-11-11-Getting-Started-with-StatsBomb-Data/
file_name=str(match_id_required)+'.json'

#Load in all match events


import json
with open('statsbomb_data/events/'+file_name) as data_file:
    #print (mypath+'events/'+file)
    data = json.load(data_file)


#get the nested structure into a dataframe
#store the dataframe in a dictionary with the match id as key (remove '.json' from string)
from pandas import json_normalize
df = json_normalize(data, sep = "_").assign(match_id = file_name[:-5])
```

In [7]:

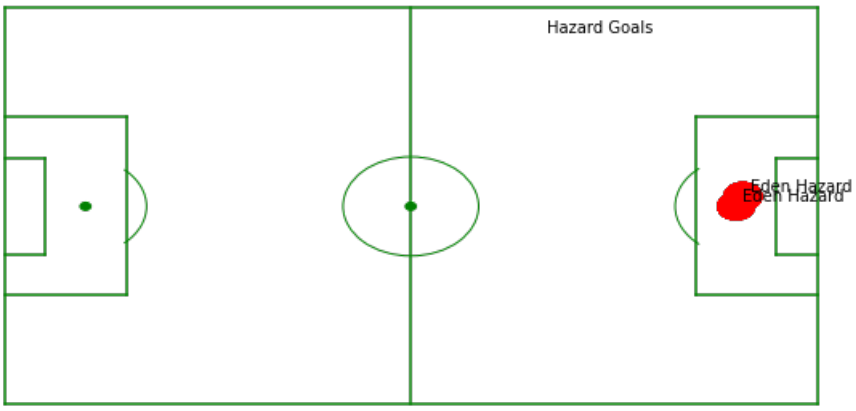
```
#Find the passes
passes = df.loc[df['type_name'] == 'Pass'].set_index('id')
#Draw the pitch
from pitch import createPitch
(fig,ax) = createPitch(pitchLengthX,pitchWidthY,'yards','green')
for i,thepass in passes.iterrows():
    #if thepass['team_name']==away_team_required: #plotting all the passes of the team
    if thepass['player_name']=='Eden Hazard':
        x=thepass['location'][0]
        y=thepass['location'][1]
        passCircle=plt.Circle((x,pitchWidthY-y),2,color="red")
        passCircle.set_alpha(.2)
        ax.add_patch(passCircle)
        dx=thepass['pass_end_location'][0]-x
        dy=thepass['pass_end_location'][1]-y

        passArrow=plt.Arrow(x,pitchWidthY-y,dx,-dy,width=3,color="red")
        ax.add_patch(passArrow)

fig.set_size_inches(10, 5)
plt.text(3,3,"Passes made by Hazard")
plt.show()
```



Passes made by Hazard during the match

In [12]:

```
#A dataframe of shots
shots = df.loc[df['type_name'] == 'Shot'].set_index('id')

#Draw the pitch
from pitch import createPitch
(fig,ax) = createPitch(pitchLengthX,pitchWidthY,'yards','green')

#Plot the shots
for i,shot in shots.iterrows():
    x=shot['location'][0]
    y=shot['location'][1]

    goal=shot['shot_outcome_name']=='Goal'
    player_name=shot['player_name']

    circleSize=2
    circleSize=np.sqrt(shot['shot_statsbomb_xg'])*3.1
    if (player_name=="Eden Hazard"):
        if goal:
            shotCircle=plt.Circle((x,pitchWidthY-y),circleSize,color="red")
            plt.text((x+1),pitchWidthY-y+1,shot['player_name'])
    ax.add_patch(shotCircle)


plt.text(80,75,"Hazard Goals" )
fig.set_size_inches(10, 5)
plt.show()
```



The red spots are the goals scored by Hazard