



SPORTS ANALYTICS

Brøndby AS

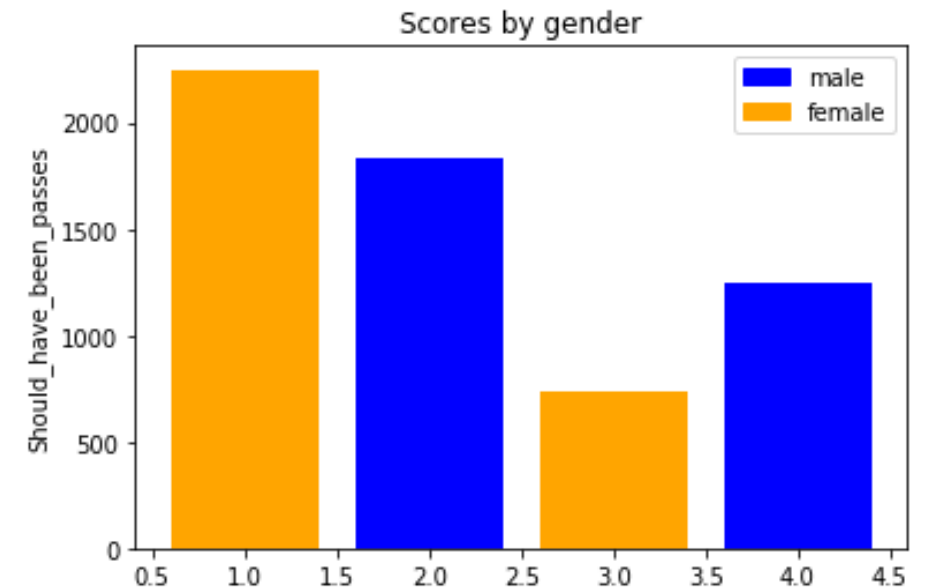
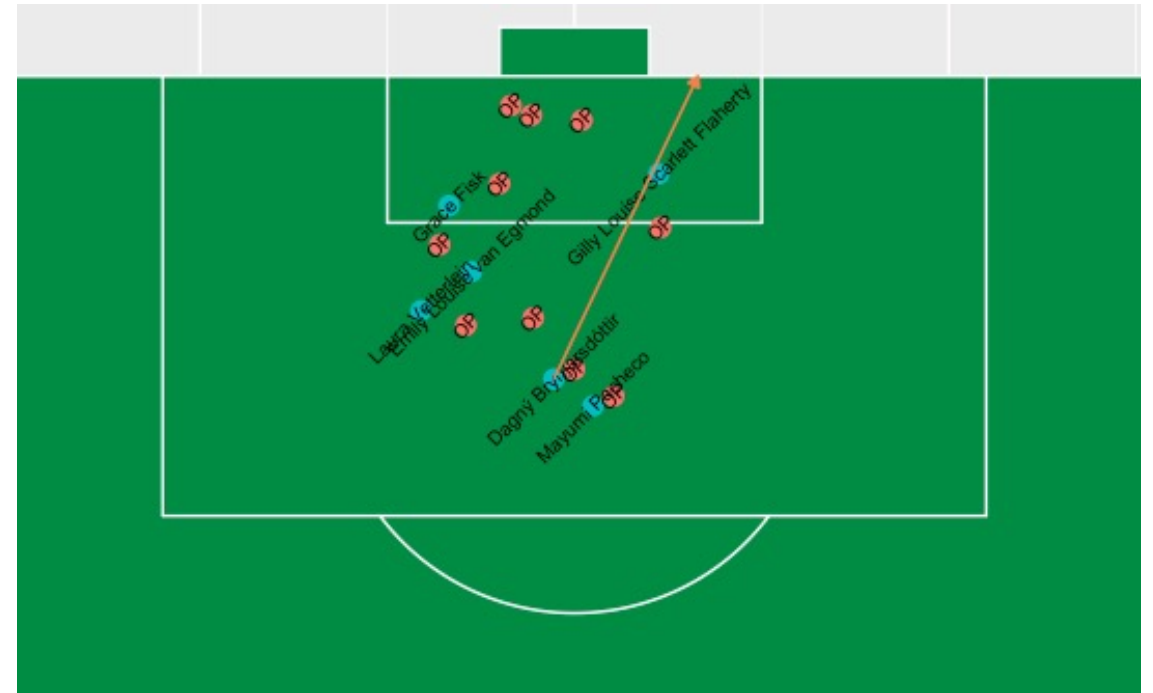
Kvinder & Fodbold



PRIMERA DIVISIÓN FEMENINA TABLE				
#	Team	MP	D	P
1	Barcelona	27	+138	81
2	Real Sociedad	27	+20	59
3	Atlético Madrid	27	+37	53
4	Real Madrid	27	+8	53
5	Granadilla Ten...	27	+2	53

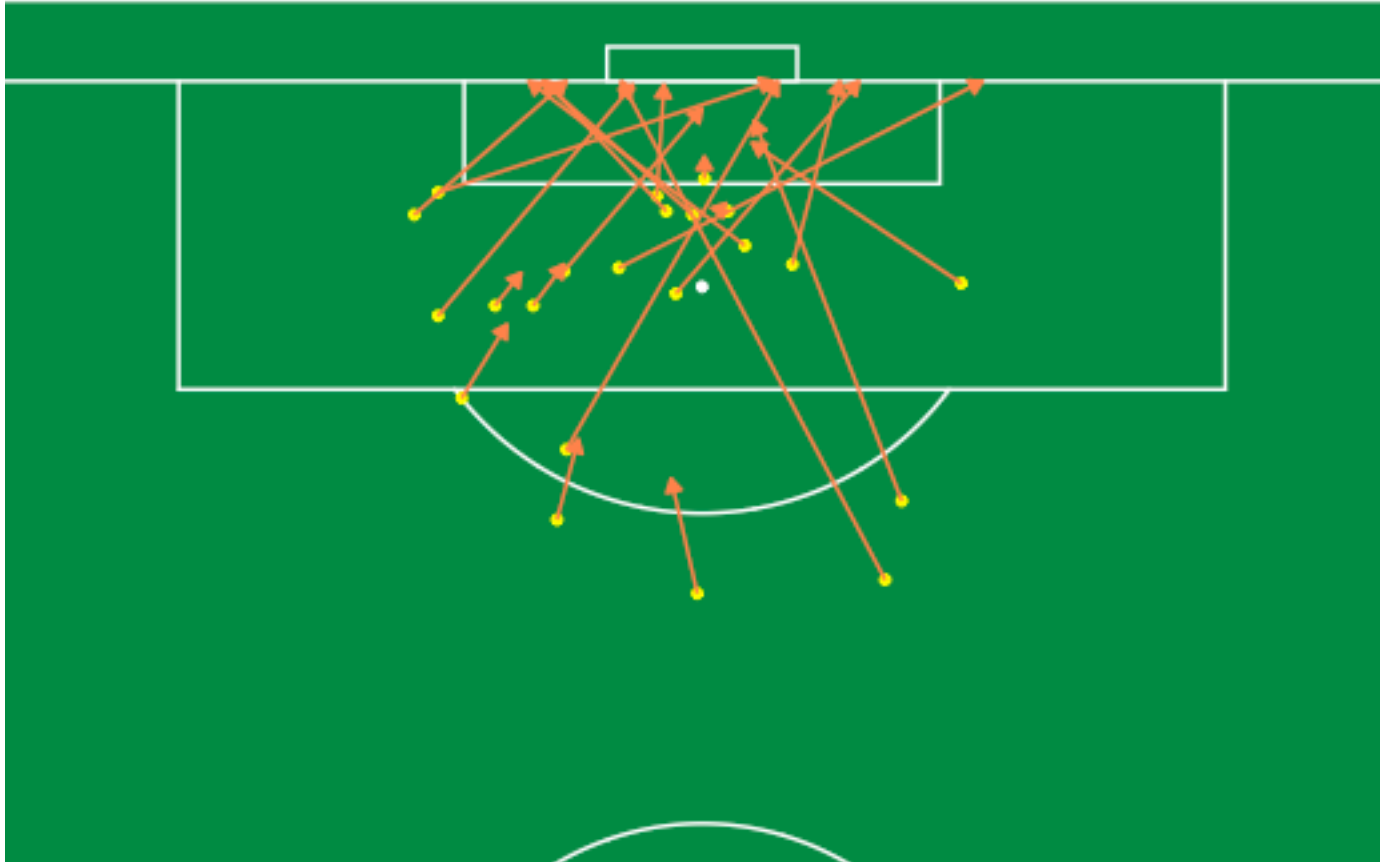
Agenda

- Overview Statsbomb
 - lineups
 - events
 - matches
- Statsbomb i Mongo
 - import herrekampe
- Events – shots
 - import fra statsbomb
 - all shots one match
 - one shot – position
 - ggsoccer
 - all shots – position and arrow
 - one shot - freezeframe



```
shots <- data.frame(x = c(90, 85, 82, 78, 83, 74, 94, 91),
                    y = c(43, 40, 52, 56, 44, 71, 60, 54))
```

Plot all shots in one game



	location	shot.end_location
1	c(113.3, 41.9)	c(119.8, 41.6, 1.6)
2	c(112.2, 40.4)	c(120, 46.7, 1.6)
3	c(110.4, 38.2)	c(120, 47.3, 1.3)
4	c(106.3, 51.1)	c(119.8, 42.9, 1.3)
5	c(112.2, 52.1)	c(120, 45.7, 0.2)
6	c(98.5, 45.7)	c(120, 36.8, 1.2)
7	c(112.4, 41.5)	c(120, 46.6, 1.5)
8	c(90.1, 40.2)	c(96.8, 41.3)
9	c(107.6, 41.1)	c(120, 33.4, 1.9)
10	c(109.3, 36.2)	c(120, 34.2, 1.6)
11	c(90.9, 32.3)	c(120, 43.4, 5.9)
12	c(95.5, 31.6)	c(117.7, 37.8, 1.4)
13	c(114.3, 39.9)	c(115.6, 39.9, 0.3)
14	c(101.5, 50.1)	c(105.8, 48.2, 0)
15	c(94.4, 46.1)	c(99.1, 45.2)
16	c(112.4, 38.9)	c(112.6, 39.6)

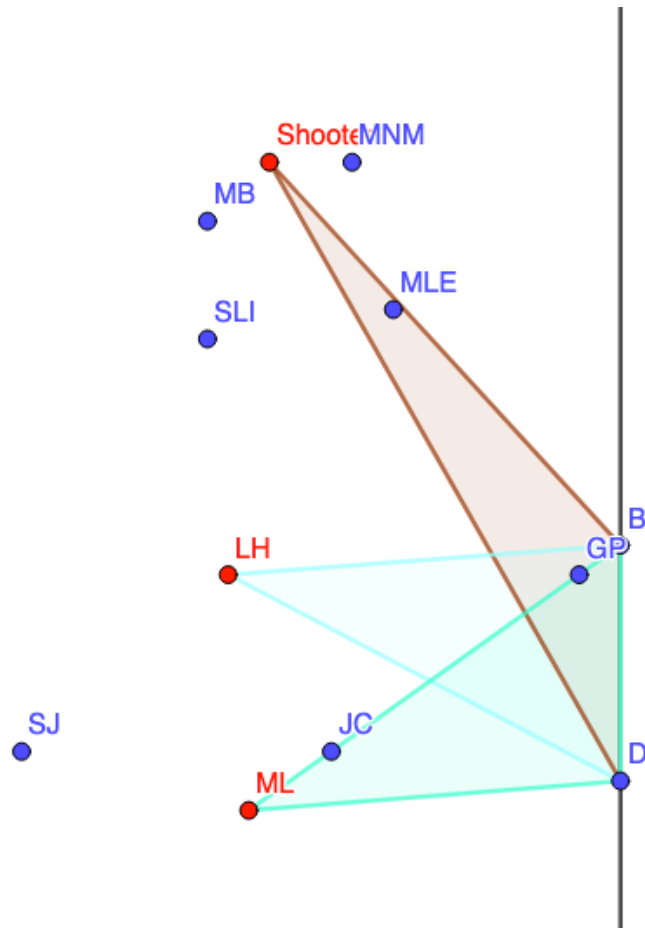
Kvinder & Fodbold

Kvinder & Fodbold

Find all non-teammates

For each teammate

compute number of nont in triangle



	location	shot.end_location	shot.freeze_frame.location	shot.freez
1	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(98.5, 58.2)	TRUE
2	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(118.4, 42.8)	FALSE
3	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(111.8, 42.9)	TRUE
4	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(109.1, 43.8)	FALSE
5	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(106.9, 61.6)	FALSE
6	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(110.3, 52.5)	FALSE
7	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(112, 49.6)	FALSE
8	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(97.4, 56.1)	FALSE
9	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(106.9, 44.4)	TRUE
10	c(112.2, 52.1)	c(120, 45.7, 0.2)	c(115.3, 51.6)	FALSE

	location	shot.end_location
1	c(112.2, 52.1)	c(120, 45.7, 0.2)

	location	shot.end_location
1	112.2	120.0
2	52.1	120.0
3	112.2	45.7
4	52.1	45.7

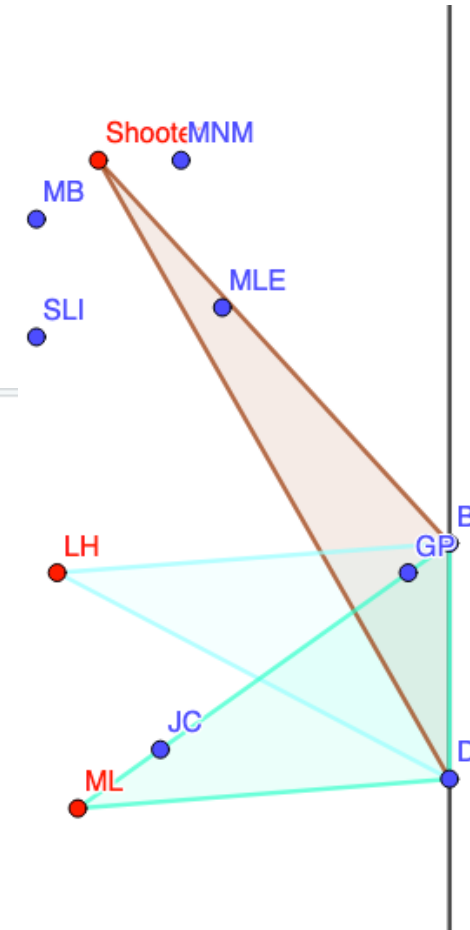
Kvinder & Fodbold

Find all non-teammates

For each teammate

compute number of nont in triangle

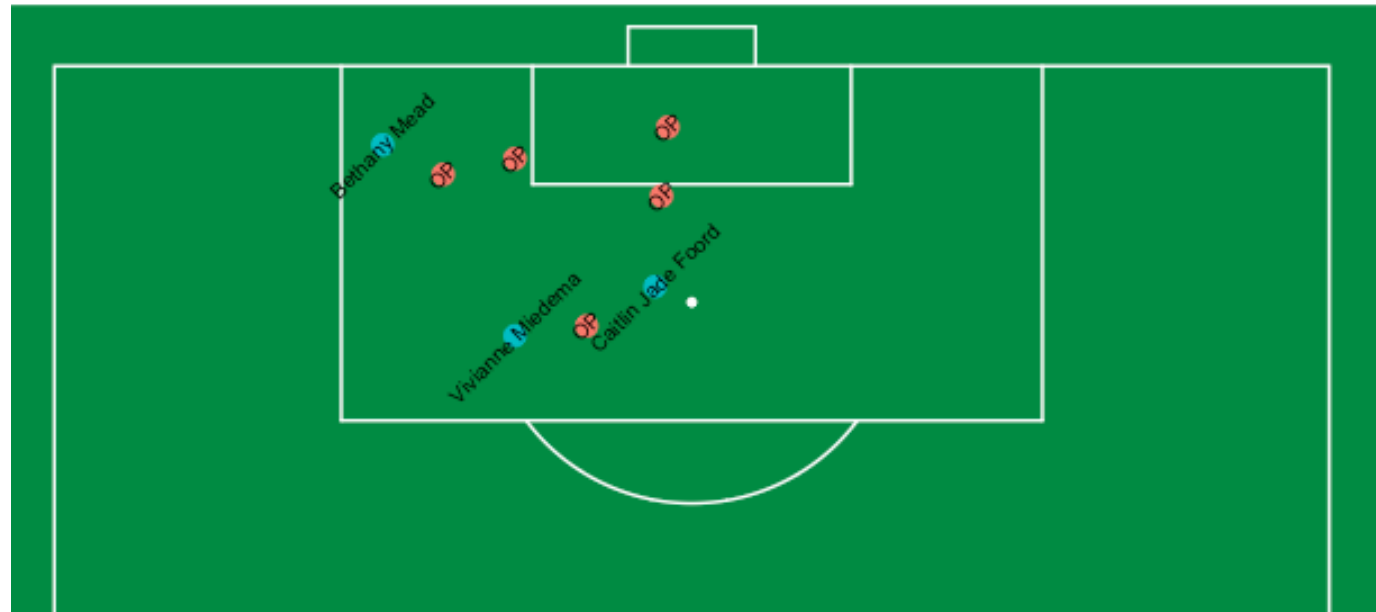
	location	player\$id	player\$name	position\$id	position\$name	teammate
1	c(116, 59.4)	15619	Bethany Mead	12	Right Midfield	TRUE
2	c(108.8, 42.3)	11338	Caitlin Jade Foord	19	Center Attacking Midfield	TRUE
3	c(116.9, 41.5)	42787	Mackenzie Arnold	1	Goalkeeper	FALSE
4	c(115.3, 51.1)	31157	Hawa Cissoko	5	Left Center Back	FALSE
5	c(114.5, 55.6)	15724	Mayumi Pacheco	8	Left Wing Back	FALSE
6	c(113.4, 41.9)	34232	Grace Fisk	4	Center Back	FALSE
7	c(106.8, 46.6)	10124	Dagný Brynjarsdóttir	21	Left Wing	FALSE
8	c(110.6, 37)	18151	Gilly Louise Scarlett Flaherty	3	Right Center Back	FALSE



Kvinder & Fodbold

	team.name	player.name	position.id	shot.end_location	shot.outcome.name	shot.freeze_frame
1	Arsenal WFC	Vivianne Miedema	23	c(119.8, 42.9, 1.3)	Saved	1 variable

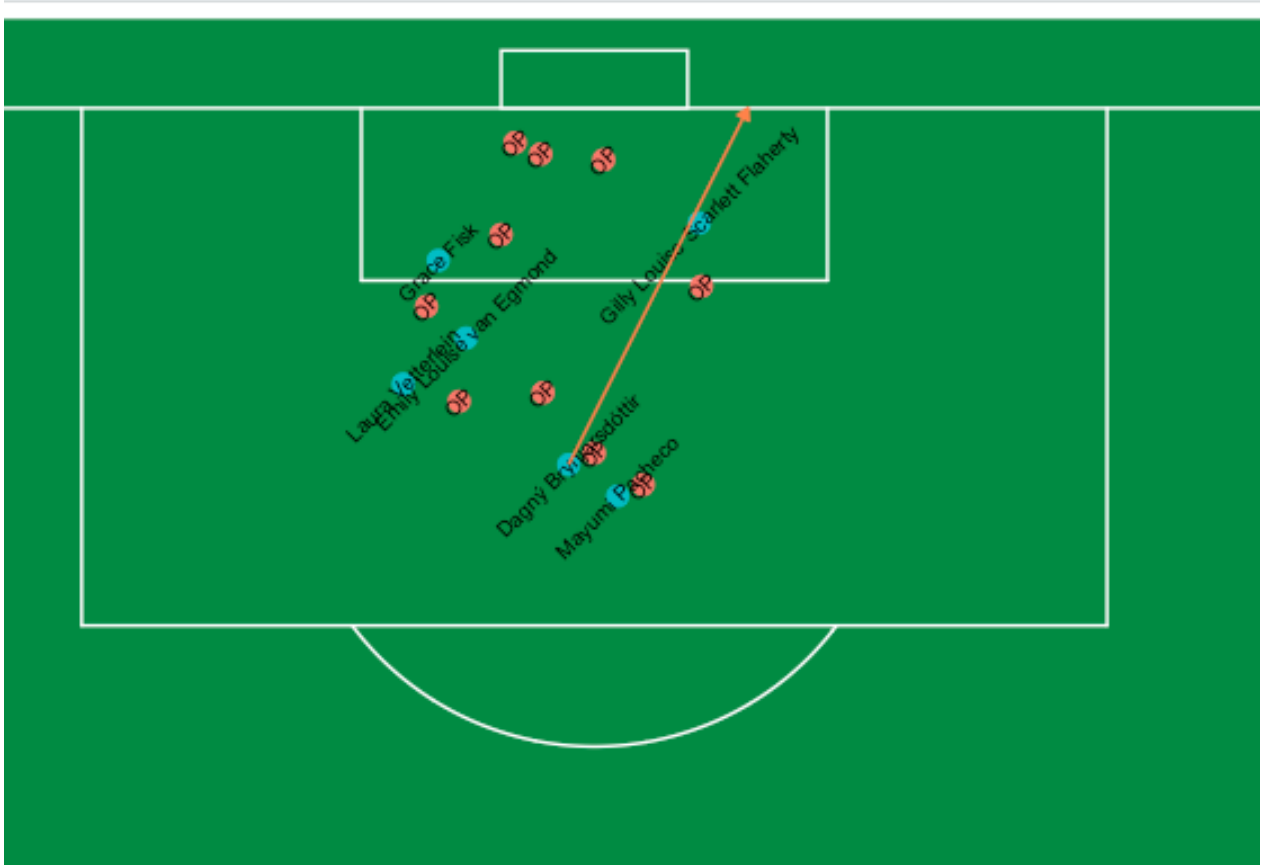
	location	player.id	player.name	position.id	position.name	teammate
1	c(116, 59.4)	15619	Bethany Mead	12	Right Midfield	TRUE
2	c(108.8, 42.3)	11338	Caitlin Jade Foord	19	Center Attacking Midfield	TRUE
3	c(116.9, 41.5)	42787	Mackenzie Arnold	1	Goalkeeper	FALSE
4	c(115.3, 51.1)	31157	Hawa Cissoko	5	Left Center Back	FALSE
5	c(114.5, 55.6)	15724	Mayumi Pacheco	8	Left Wing Back	FALSE
6	c(113.4, 41.9)	34232	Grace Fisk	4	Center Back	FALSE
7	c(106.8, 46.6)	10124	Dagný Brynjarsdóttir	21	Left Wing	FALSE
8	c(110.6, 37)	18151	Gilly Louise Scarlett Flaherty	3	Right Center Back	FALSE



Kvinder & Fodbold

	team.name	player.name	location	shot.end_location	shot.outcome.name	shot.freeze_frame
1	West Ham United LFC	Dagný Brynjarsdóttir	c(107.6, 41.1)	c(120, 33.4, 1.9)	Off T	1 variable

	x	y	name	team	shooter
1	107.6	41.1	Dagný Brynjarsdóttir	TRUE	5
2	106.9	37.9	OP	FALSE	2
3	118.4	42.3	OP	FALSE	2
4	109.8	45.8	OP	FALSE	2
5	113.1	47.2	OP	FALSE	2
6	115.6	44.0	OP	FALSE	2
7	118.8	43.4	OP	FALSE	2
8	110.1	42.2	OP	FALSE	2
9	113.8	35.4	OP	FALSE	2
10	118.2	39.6	OP	FALSE	2
11	108.0	40.0	OP	FALSE	2
12	112.0	45.5	Emily Louise van Egmond	TRUE	2
13	110.4	48.2	Laura Vetterlein	TRUE	2
14	116.0	35.5	Gilly Louise Scarlett Flaherty	TRUE	2
15	114.7	46.7	Grace Fisk	TRUE	2
16	106.5	39.0	Mayumi Pacheco	TRUE	2

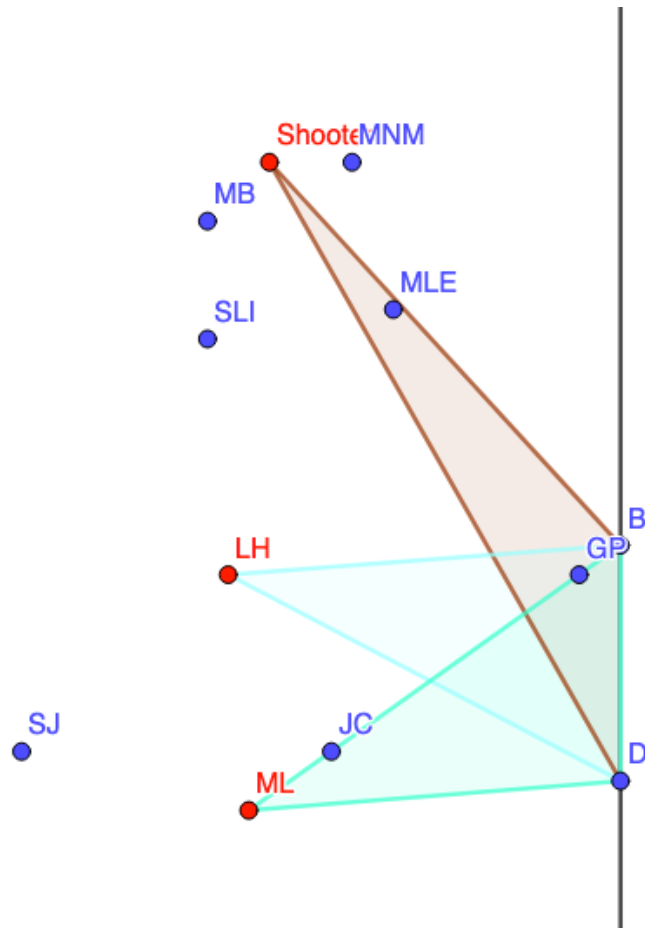


Kvinder & Fodbold

Find all non-teammates

For each teammate

compute number of nont in triangle



```
freeze_frame: [
  {
    location: [ 102, 35 ],
    player: { id: 15547, name: 'Melissa Lawley' },
    position: { id: 24, name: 'Left Center Forward' },
    teammate: true
  },
  {
    location: [ 101, 43 ],
    player: { id: 15555, name: 'Lauren Hemp' },
    position: { id: 22, name: 'Right Center Forward' },
    teammate: true
  },
  {
    location: [ 118, 43 ],
    player: { id: 4640, name: 'Rut Hedvig Lindahl' },
    position: { id: 1, name: 'Goalkeeper' },
    teammate: false
  },
  {
    location: [ 109, 52 ],
    player: { id: 4633, name: 'Magdalena Lilly Eriksson' },
    position: { id: 5, name: 'Left Center Back' },
    teammate: false
  },
  {
    location: [ 100, 51 ],
    player: { id: 15549, name: 'Sophie Louise Ingle' },
    position: { id: 9, name: 'Right Defensive Midfield' },
    teammate: false
  },
  {
    location: [ 100, 55 ],
    player: { id: 4642, name: 'Millie Bright' },
    position: { id: 3, name: 'Right Center Back' },
    teammate: false
  },
  {
    location: [ 91, 37 ],
    player: { id: 4647, name: 'So-Yun Ji' },
    position: { id: 19, name: 'Center Attacking Midfield' },
    teammate: false
  },
  {
    location: [ 107, 57 ],
    player: { id: 10395, name: 'Maren Nævdal Mjelde' },
    position: { id: 11, name: 'Left Defensive Midfield' },
    teammate: false
  },
  {
    location: [ 106, 37 ],
    player: { id: 19422, name: 'Jessica Carter' },
    position: { id: 2, name: 'Right Back' },
    teammate: false
  }
]
```

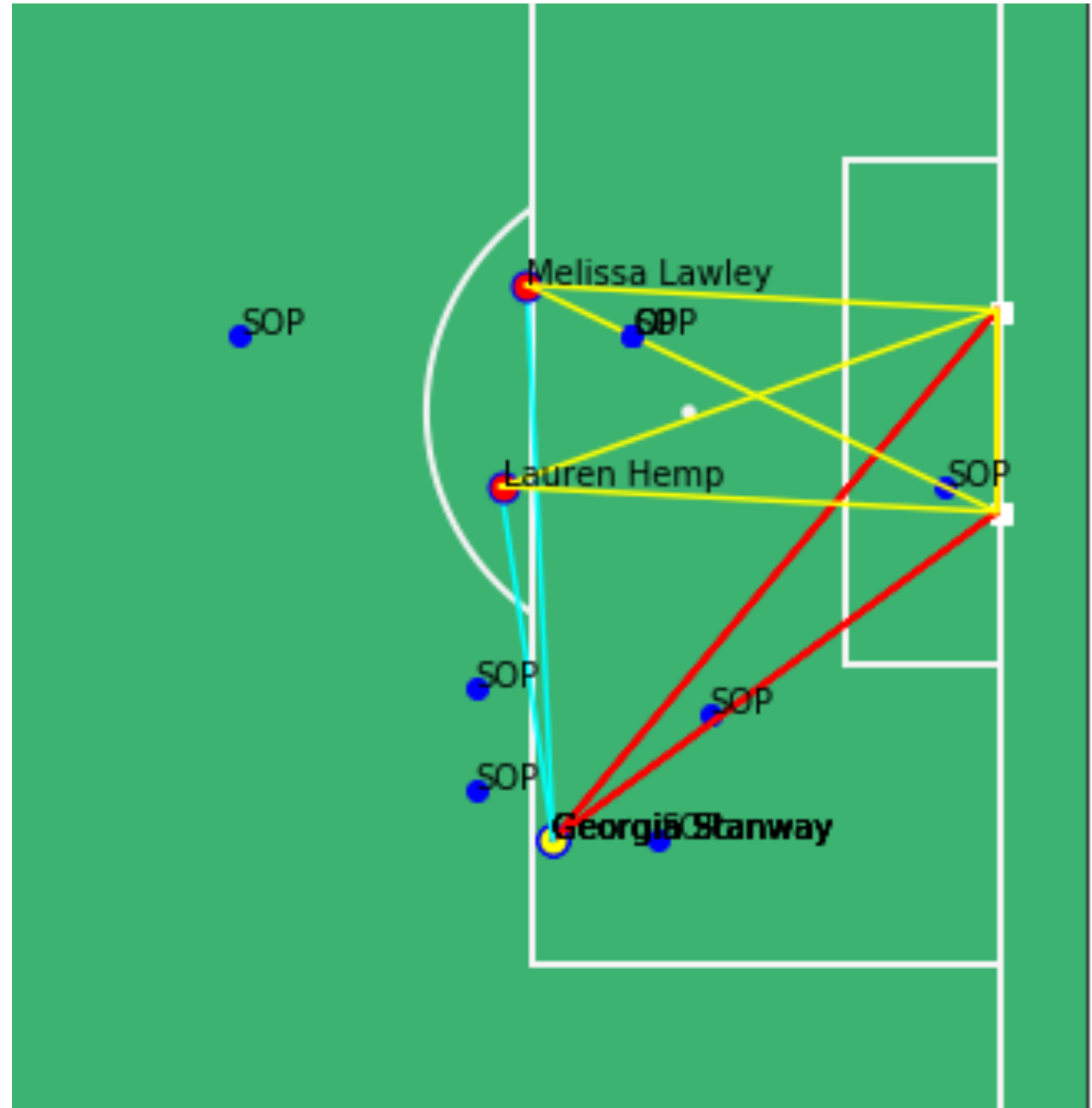
Kvinder & Fodbold Freeze-Frame

- Number of players in tri
- Distance of pass to teamplayer
- Distance to passline from opponent
- Teamplayer xG
 - Distance, angle

This frame:

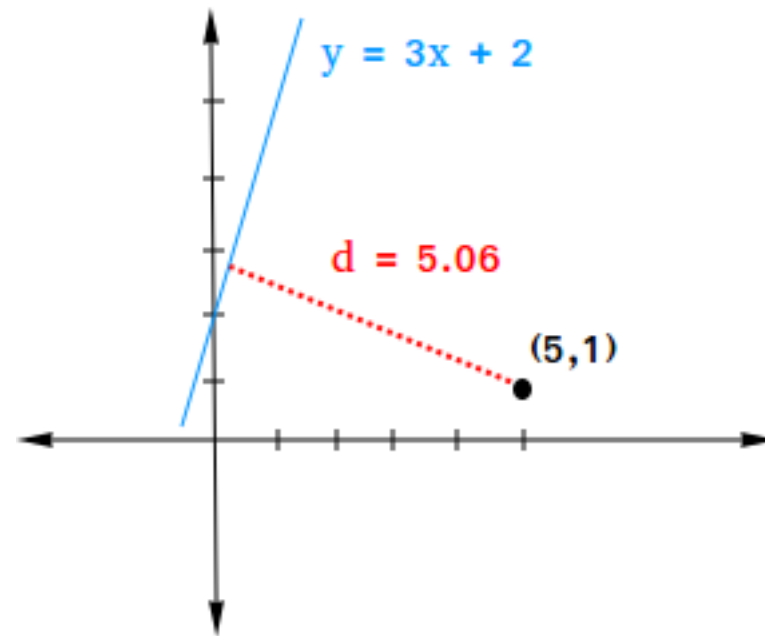
If for all team-others
shooter tri < other tri
AND
Other gdist < (shooter + tol)
AND
Passdist Shooter-Other-ratio > 0.2
Then
should have been a pass

Conclusion: Should have been a pass



Kvinder & Fodbold Freeze-Frame

- Distance to passline from opponent



If the problem is two-dimensional, the position of the points **a**, **b** and **c** can be defined by pairs of numbers which represent the points' **x** and the **y** coordinates. The following function can be used to calculate the distance **d** of the point **a** from the line defined by the two points **b** and **c** :

```
dist2d <- function(a,b,c) {  
  v1 <- b - c  
  v2 <- a - b  
  m <- cbind(v1,v2)  
  d <- abs(det(m))/sqrt(sum(v1*v1))  
}
```

Kvinder & Fodbold Freeze-Frame

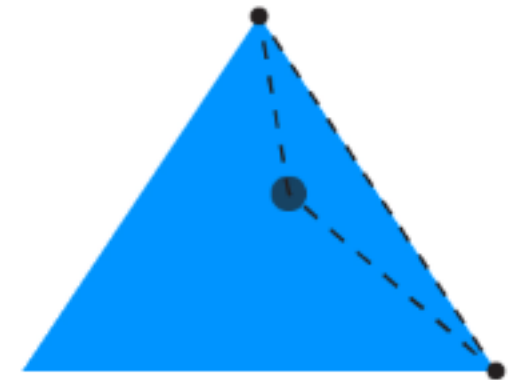
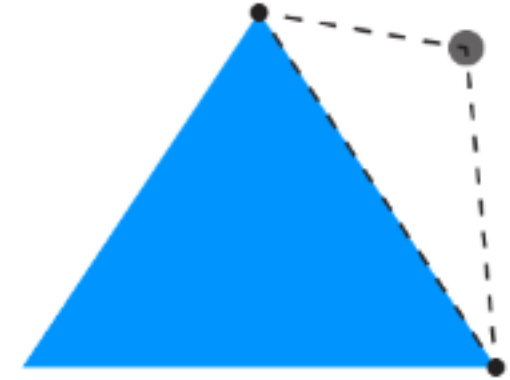
- Number of players in tri

To get the area, we use **Heron's Forumula**:

```
float areaOrig = abs( (x2-x1)*(y3-y1) - (x3-x1)*(y2-y1) );
```

We need to calculate the area of the three triangles made from the point as well:

```
float area1 = abs( (x1-px)*(y2-py) - (x2-px)*(y1-py) );  
float area2 = abs( (x2-px)*(y3-py) - (x3-px)*(y2-py) );  
float area3 = abs( (x3-px)*(y1-py) - (x1-px)*(y3-py) );
```

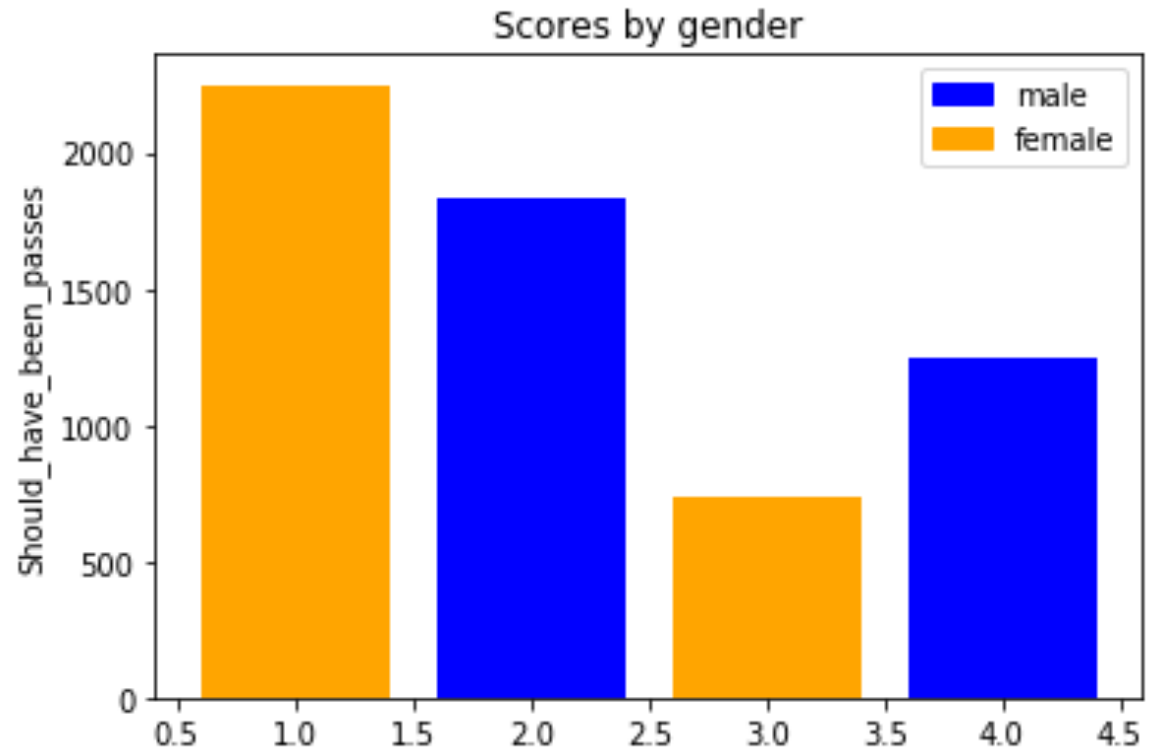


Kvinder & Fodbold



Bias ..

```
find({"type.name":"Shot", "gender":"female",  
"position.id" : {"$in":"striker_player}})
```


```
find({"type.name":"Shot", "gender":"male",  
"position.id" : {"$in":"def_player}})
```





Statsbomb


 Search or jump to... 


statsbomb / open-data Public

 events

 lineups

 matches


 three-sixty


 competitions.json



Course: mathematical modelling of football ▶ AFSPIL AI

This series of videos (combination of live videos and prerecorded) take in data in to Python, through plotting data, expected goals, evaluating

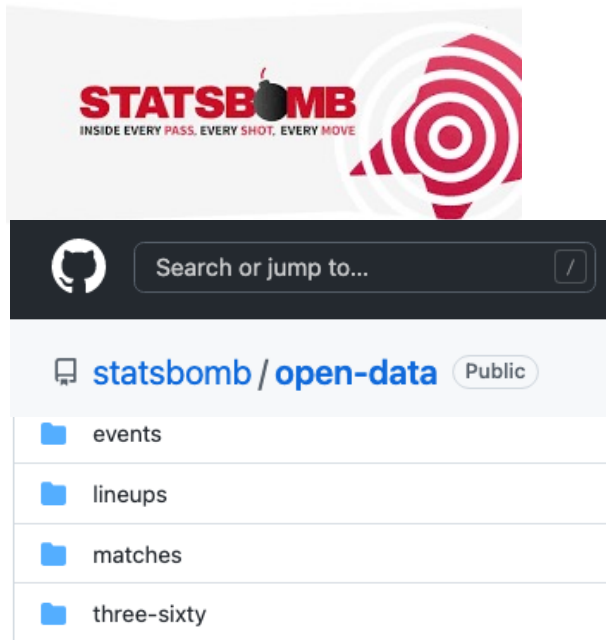
**UPPSALA** 48.54

 19.51

Lecture 1: Mathematical Modelling of Football
Friends of Tracking
15.677 visninger •
Blev streamet for 1 år siden

Setting Up to do Data Science
Friends of Tracking
9.893 visninger • for 1 år siden

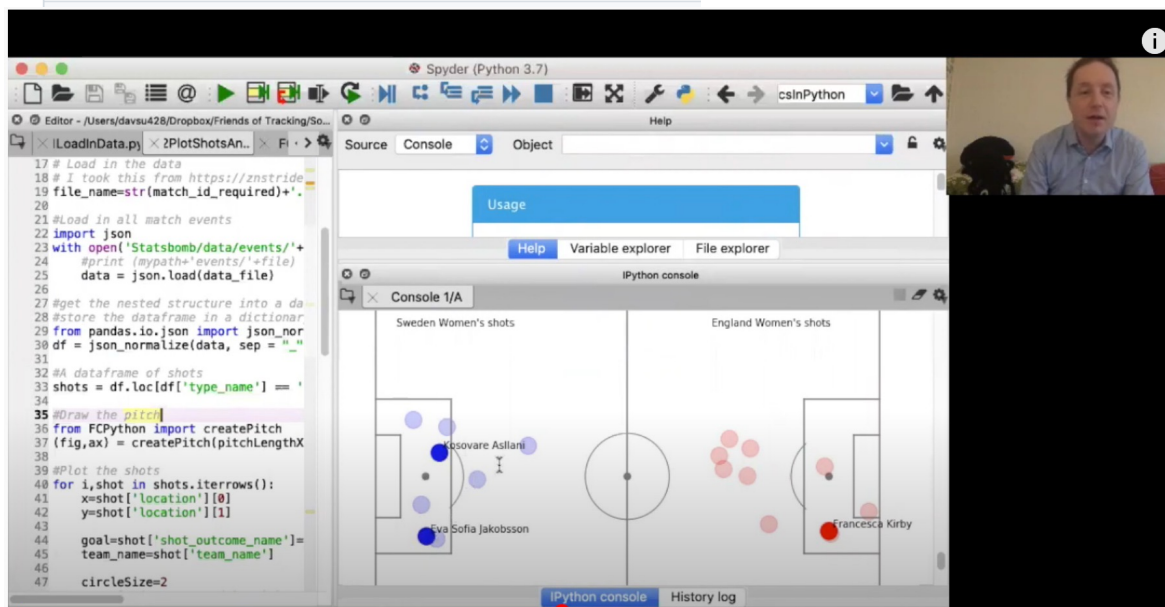
 Friends-of-Tracking-Data-FoTD / SoccermaticsForPython Public



Sample event from
69301.json with
3291 events

David laver

- 1) Shots map
- 2) Passes map



```

495 },
496   id : ecec23b8-f03d-4bee-80df-9fabec558187,
497   index : 9,
498   period : 1,
499   timestamp : 00:00:05.143,
500   minute : 0,
501   second : 5,
502   type : {
503     id : 30,
504     name : Pass
505   },
506   possession : 2,
507   possession_team : {
508     id : 865,
509     name : England Women's
510   },
511   play_pattern : {
512     id : 9,
513     name : From Kick Off
514   },
515   team : {
516     id : 865,
517     name : England Women's
518   },
519   player : {
520     id : 4641,
521     name : Francesca Kirby
522   },
523   position : {
524     id : 15,
525     name : Left Center Midfield
526   },
527   location : [ 82.6, 37.6 ],
528   duration : 1.173625,
529   related_events : [ ebb46045-f1ab-4c25-88b8-fc7ea165b52d ],
530   pass : {
531     recipient : {
532       id : 10178,
533       name : Lucy Bronze
534     },
535     length : 21.317833,
536     angle : 1.7691119,
537     height : {
538       id : 1,
539       name : Ground Pass
540     },
541     end_location : [ 78.4, 58.5 ],
542     body_part : {
543       id : 40,
544       name : Right Foot
545     }
546   }

```




Search or jump to...



statsbomb / open-data

Public



events



lineups



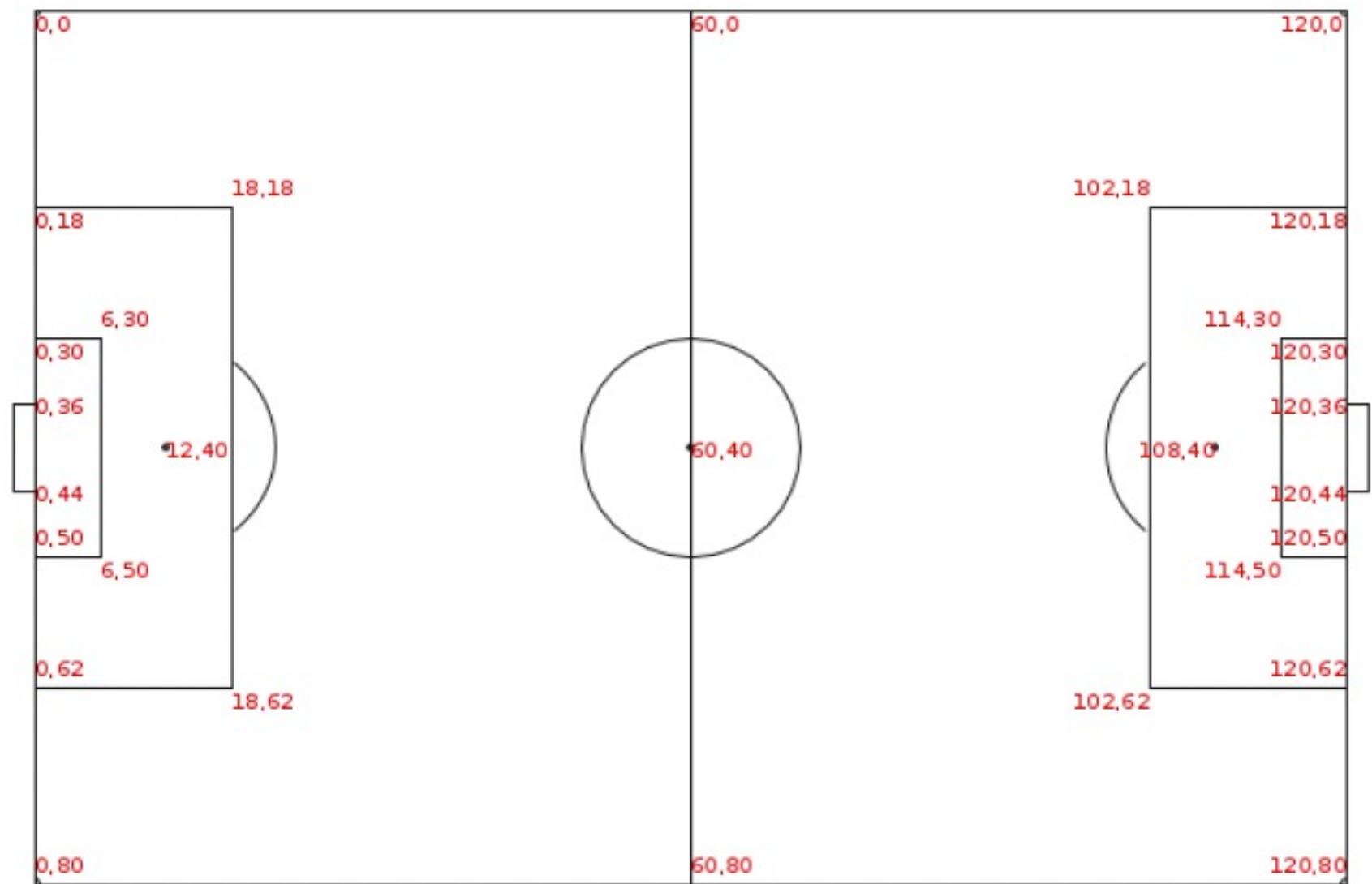
matches



three-sixty

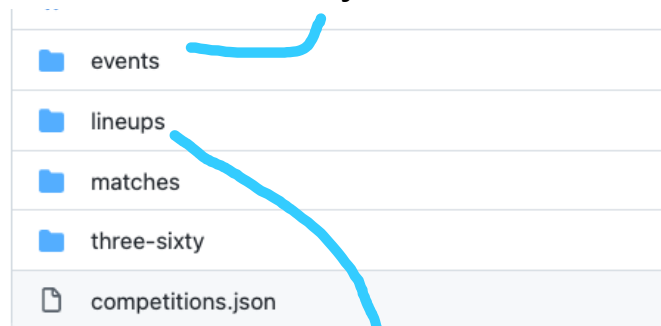


competitions.json

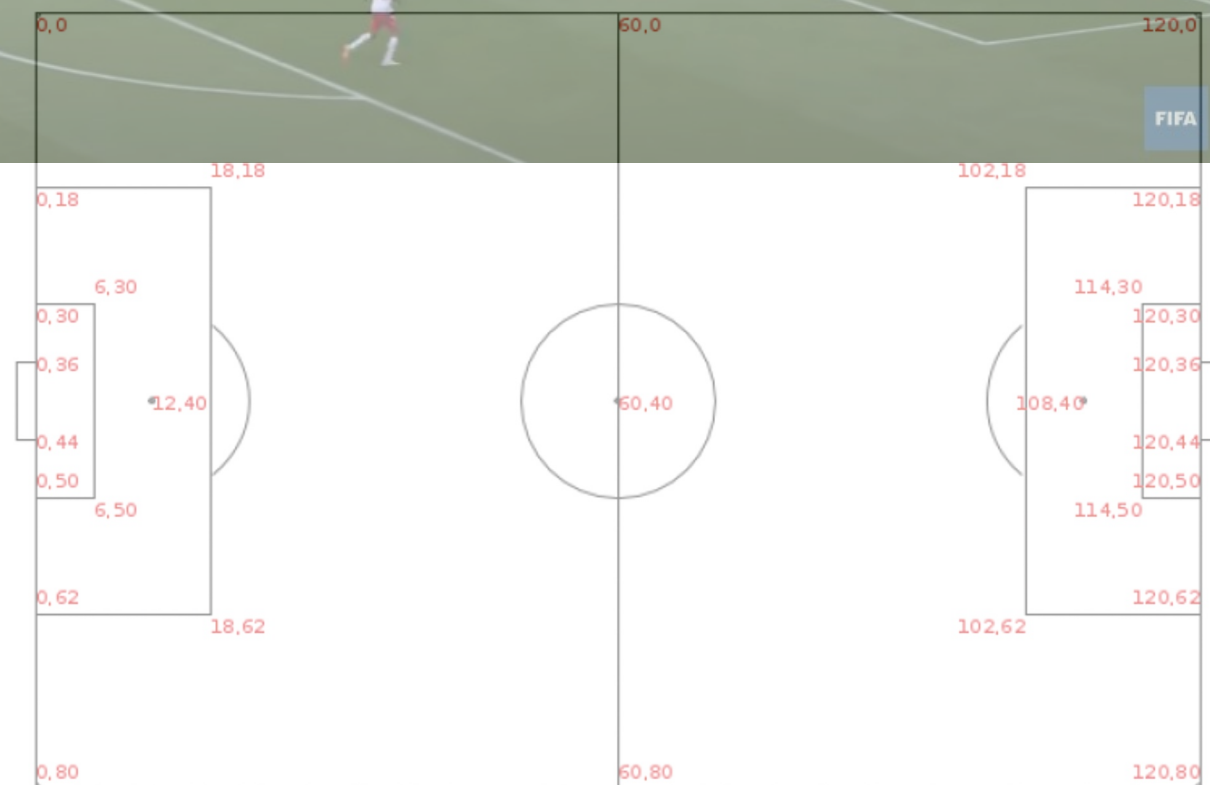
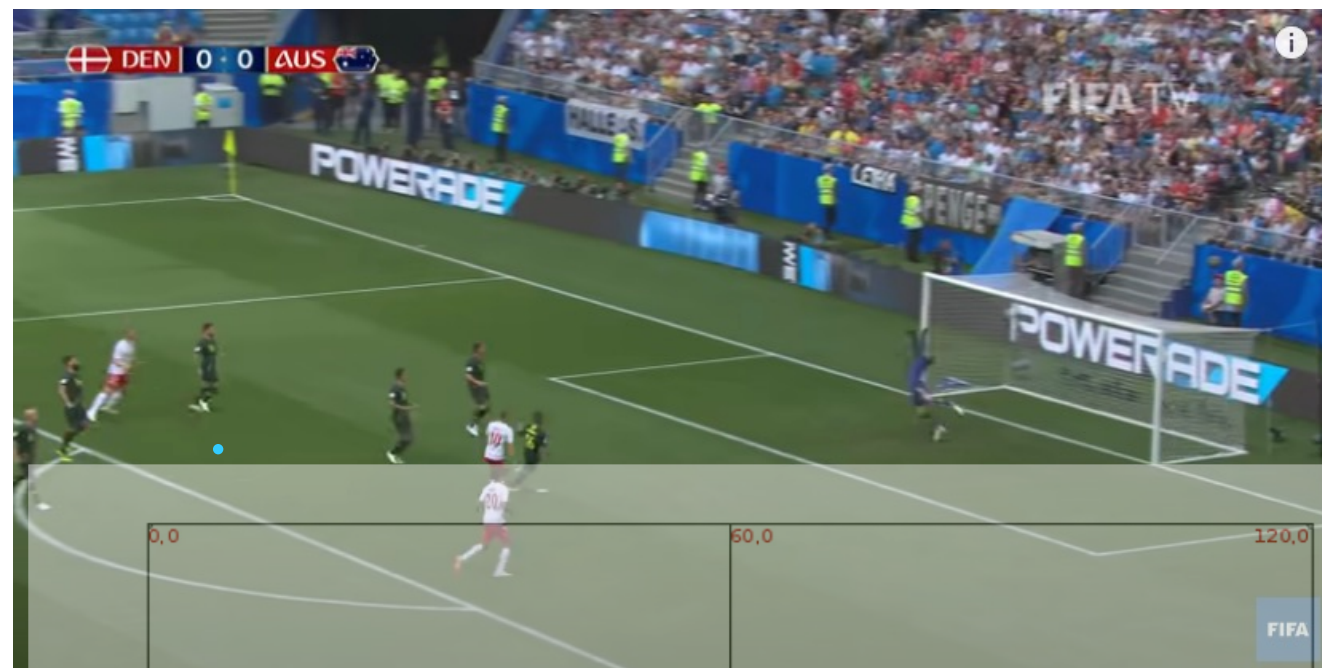




7547.json



7547.json

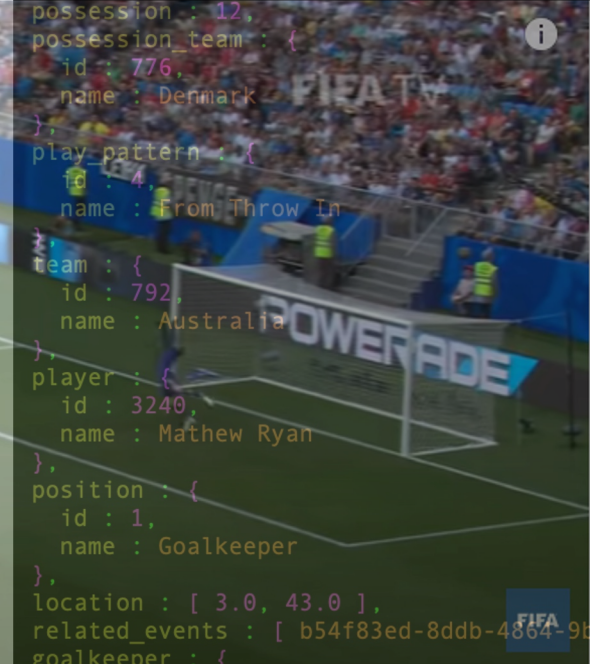


- events
- lineups
- matches
- three-sixty
- competitions

```
id : b54f83ed-8ddb-4864-9b0b-ccc1f4f95da0,
index : 214,
period : 1,
timestamp : 00:06:07.640,
minute : 6,
second : 7,
type : {
  id : 16,
  name : Shot
},
possession : 12,
possession_team : {
  id : 776,
  name : Denmark
},
play_pattern : {
  id : 4,
  name : From Throw In
},
team : {
  id : 776,
  name : Denmark
},
player : {
  id : 3043,
  name : Christian Dannemann Eriksen
},
position : {
  id : 19,
  name : Center Attacking Midfield
},
location : [ 104.0, 39.0 ],
duration : 0.6,
related_events : [ ef2b6ad0-caf8-47c8-b086-d252fc7834aa ],
shot : {
  statsbomb_xg : 0.20277502,
  end_location : [ 120.0, 37.8, 2.5 ],
  key_pass_id : 9eac306c-fadb-4bf3-bcc2-592e03882bd5,
  first_time : true,
  technique : {
    id : 93,
    name : Normal
  },
  type : {
    id : 87,
    name : Open Play
  },
  outcome : {
    id : 97,
    name : Goal
  },
  body_part : {
    id : 38,
    name : Left Foot
  },
}
```



```
, {
  id : ef2b6ad0-caf8-47c8-b086-d252fc7834aa,
  index : 215,
  period : 1,
  timestamp : 00:06:08.240,
  minute : 6,
  second : 8,
  type : {
    id : 23,
    name : Goal Keeper
  },
  possession : 12,
  possession_team : {
    id : 776,
    name : Denmark
  },
  play_pattern : {
    id : 4,
    name : From Throw In
  },
  team : {
    id : 792,
    name : Australia
  },
  player : {
    id : 3240,
    name : Mathew Ryan
  },
  position : {
    id : 1,
    name : Goalkeeper
  },
  location : [ 3.0, 43.0 ],
  related_events : [ b54f83ed-8ddb-4864-9b0b-ccc1f4f95da0 ],
  goalkeeper : {
    technique : {
      id : 45,
      name : Diving
    },
    type : {
      id : 26,
      name : Goal Conceded
    },
    outcome : {
      id : 55,
      name : No Touch
    },
    position : {
      id : 44,
      name : Set
    },
  },
}
```

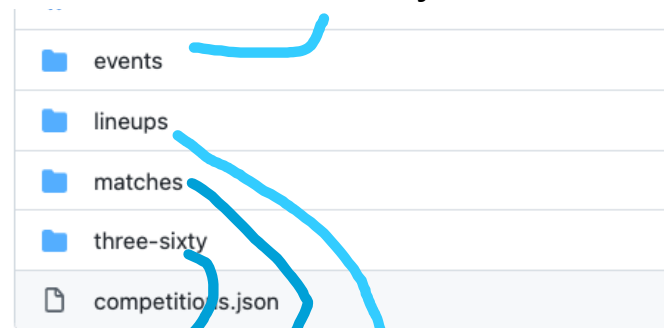




Three-sixty folderen rummer trackingdata for 51 kampe.
Desværre ikke for DK's kampe.
3788753 er Rusland vs Finland

```
{ {  
  "match_id" : 3788753,  
  match_date : 2021-06-16,  
  kick_off : 15:00:00.000,  
  competition : {  
    competition_id : 55,  
    country_name : Europe,  
    competition_name : UEFA Euro  
  },  
}
```

3788753.json har ca 3800 events



3788753.json opstillingen for de to hold

55/43.json has a record for matchid 3788753 (and 49 other games)

3788753.json has the tracking of that match



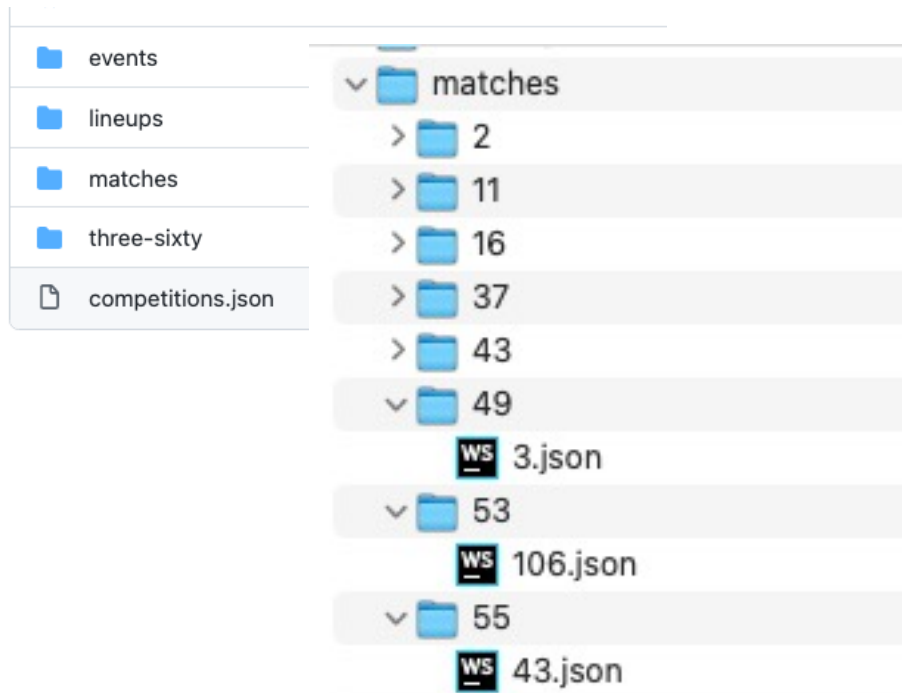
- events
- lineups
- matches
- three-sixty
- competitions.json

Lineups

```
[> jql '.[1].lineup[9]' 3788753.json
{
  "player_id": 15416,
  "player_name": "Jukka Raitala",
  "player_nickname": null,
  "jersey_number": 22,
  "country": {
    "id": 77,
    "name": "Finland"
  },
  "cards": [],
  "positions": [
    {
      "position_id": 7,
      "position": "Right Wing Back",
      "from": "00:00",
      "to": "74:26",
      "from_period": 1,
      "to_period": 2,
      "start_reason": "Starting XI",
      "end_reason": "Substitution - Off (Tactical)"
    }
  ]
}
```




Filen 43.json
med 51 kampe

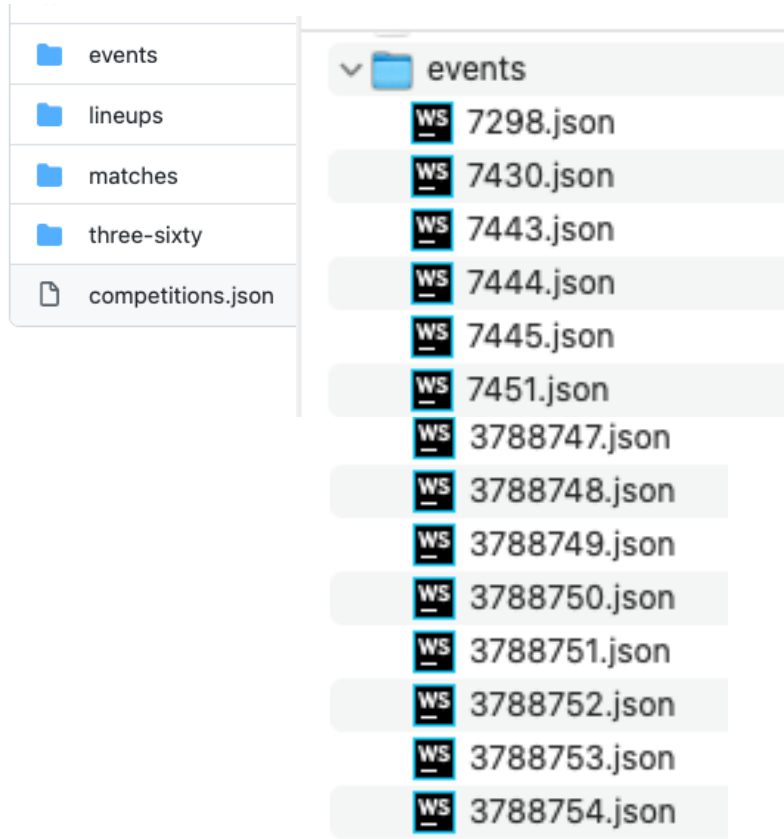


```

2295 }
2296 }, {
2297   match_id : 3788753,
2298   match_date : 2021-06-16,
2299   kick_off : 15:00:00.000,
2300   competition : {
2301     competition_id : 55,
2302     country_name : Europe,
2303     competition_name : UEFA Euro
2304   },
2305   season : {
2306     season_id : 43,
2307     season_name : 2020
2308   },
2309   home_team : {
2310     home_team_id : 1835,
2311     home_team_name : Finland,
2312     home_team_gender : male,
2313     home_team_group : Group B,
2314     country : {
2315       id : 77,
2316       name : Finland
2317     },
2318     managers : [ {
2319       id : 3622,
2320       name : Markku Kanerva,
2321       nickname : null,
2322       dob : 1964-05-24,
2323       country : {
2324         id : 77,
2325         name : Finland
2326       }
2327     } ]
2328   },
2329   away_team : {
2330     away_team_id : 796,
2331     away_team_name : Russia,
2332     away_team_gender : male,
2333     "away_team_group" : "Group B",
2334     country : {
2335       id : 188,
2336       name : Russia
2337     },
2338     referees : [ {
2339       id : 293,
2340       name : Danny Desmond Makkellie,
2341       country : {
2342         id : 160,
2343         name : Netherlands
2344       }
2345     } ]
2346   },
2347   match_week : 4,
2348   competition_stage : {
2349     id : 10,
2350     name : Group Stage
2351   },
2352   stadium : {
2353     id : 4726,
2354     name : Saint-Petersburg Stadium,
2355     country : {
2356       id : 188,
2357       name : Russia
2358     }
2359   },
2360   referee : {
2361     id : 293,
2362     name : Danny Desmond Makkellie,
2363     country : {
2364       id : 160,
2365       name : Netherlands
2366     }
2367   }
2368 }, {
2369   match_id : 3788754,
2370   match_date : 2021-06-16,
2371   kick_off : 15:00:00.000,
2372   competition : {
2373     competition_id : 55,
2374     country_name : Europe,
2375     competition_name : UEFA Euro
2376   },
2377   season : {
2378     season_id : 43,
2379     season_name : 2020
2380   },
2381   home_team : {
2382     home_team_id : 1835,
2383     home_team_name : Finland,
2384     home_team_gender : male,
2385     home_team_group : Group B,
2386     country : {
2387       id : 77,
2388       name : Finland
2389     },
2390     managers : [ {
2391       id : 3622,
2392       name : Markku Kanerva,
2393       nickname : null,
2394       dob : 1964-05-24,
2395       country : {
2396         id : 77,
2397         name : Finland
2398       }
2399     } ]
2400   },
2401   away_team : {
2402     away_team_id : 796,
2403     away_team_name : Russia,
2404     away_team_gender : male,
2405     "away_team_group" : "Group B",
2406     country : {
2407       id : 188,
2408       name : Russia
2409     },
2410     referees : [ {
2411       id : 293,
2412       name : Danny Desmond Makkellie,
2413       country : {
2414         id : 160,
2415         name : Netherlands
2416       }
2417     } ]
2418   },
2419   match_week : 4,
2420   competition_stage : {
2421     id : 10,
2422     name : Group Stage
2423   },
2424   stadium : {
2425     id : 4726,
2426     name : Saint-Petersburg Stadium,
2427     country : {
2428       id : 188,
2429       name : Russia
2430     }
2431   },
2432   referee : {
2433     id : 293,
2434     name : Danny Desmond Makkellie,
2435     country : {
2436       id : 160,
2437       name : Netherlands
2438     }
2439   }
2440 }, {
2441   match_id : 3788755,
2442   match_date : 2021-06-16,
2443   kick_off : 15:00:00.000,
2444   competition : {
2445     competition_id : 55,
2446     country_name : Europe,
2447     competition_name : UEFA Euro
2448   },
2449   season : {
2450     season_id : 43,
2451     season_name : 2020
2452   },
2453   home_team : {
2454     home_team_id : 1835,
2455     home_team_name : Finland,
2456     home_team_gender : male,
2457     home_team_group : Group B,
2458     country : {
2459       id : 77,
2460       name : Finland
2461     },
2462     managers : [ {
2463       id : 3622,
2464       name : Markku Kanerva,
2465       nickname : null,
2466       dob : 1964-05-24,
2467       country : {
2468         id : 77,
2469         name : Finland
2470       }
2471     } ]
2472   },
2473   away_team : {
2474     away_team_id : 796,
2475     away_team_name : Russia,
2476     away_team_gender : male,
2477     "away_team_group" : "Group B",
2478     country : {
2479       id : 188,
2480       name : Russia
2481     },
2482     referees : [ {
2483       id : 293,
2484       name : Danny Desmond Makkellie,
2485       country : {
2486         id : 160,
2487         name : Netherlands
2488       }
2489     } ]
2490   },
2491   match_week : 4,
2492   competition_stage : {
2493     id : 10,
2494     name : Group Stage
2495   },
2496   stadium : {
2497     id : 4726,
2498     name : Saint-Petersburg Stadium,
2499     country : {
2500       id : 188,
2501       name : Russia
2502     }
2503   },
2504   referee : {
2505     id : 293,
2506     name : Danny Desmond Makkellie,
2507     country : {
2508       id : 160,
2509       name : Netherlands
2510     }
2511   }
2512 }, {
2513   match_id : 3788756,
2514   match_date : 2021-06-16,
2515   kick_off : 15:00:00.000,
2516   competition : {
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2518     country_name : Europe,
2519     competition_name : UEFA Euro
2520   },
2521   season : {
2522     season_id : 43,
2523     season_name : 2020
2524   },
2525   home_team : {
2526     home_team_id : 1835,
2527     home_team_name : Finland,
2528     home_team_gender : male,
2529     home_team_group : Group B,
2530     country : {
2531       id : 77,
2532       name : Finland
2533     },
2534     managers : [ {
2535       id : 3622,
2536       name : Markku Kanerva,
2537       nickname : null,
2538       dob : 1964-05-24,
2539       country : {
2540         id : 77,
2541         name : Finland
2542       }
2543     } ]
2544   },
2545   away_team : {
2546     away_team_id : 796,
2547     away_team_name : Russia,
2548     away_team_gender : male,
2549     "away_team_group" : "Group B",
2550     country : {
2551       id : 188,
2552       name : Russia
2553     },
2554     referees : [ {
2555       id : 293,
2556       name : Danny Desmond Makkellie,
2557       country : {
2558         id : 160,
2559         name : Netherlands
2560       }
2561     } ]
2562   },
2563   match_week : 4,
2564   competition_stage : {
2565     id : 10,
2566     name : Group Stage
2567   },
2568   stadium : {
2569     id : 4726,
2570     name : Saint-Petersburg Stadium,
2571     country : {
2572       id : 188,
2573       name : Russia
2574     }
2575   },
2576   referee : {
2577     id : 293,
2578     name : Danny Desmond Makkellie,
2579     country : {
2580       id : 160,
2581       name : Netherlands
2582     }
2583   }
2584 }, {
2585   match_id : 3788757,
2586   match_date : 2021-06-16,
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2588   competition : {
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2590     country_name : Europe,
2591     competition_name : UEFA Euro
2592   },
2593   season : {
2594     season_id : 43,
2595     season_name : 2020
2596   },
2597   home_team : {
2598     home_team_id : 1835,
2599     home_team_name : Finland,
2600     home_team_gender : male,
2601     home_team_group : Group B,
2602     country : {
2603       id : 77,
2604       name : Finland
2605     },
2606     managers : [ {
2607       id : 3622,
2608       name : Markku Kanerva,
2609       nickname : null,
2610       dob : 1964-05-24,
2611       country : {
2612         id : 77,
2613         name : Finland
2614       }
2615     } ]
2616   },
2617   away_team : {
2618     away_team_id : 796,
2619     away_team_name : Russia,
2620     away_team_gender : male,
2621     "away_team_group" : "Group B",
2622     country : {
2623       id : 188,
2624       name : Russia
2625     },
2626     referees : [ {
2627       id : 293,
2628       name : Danny Desmond Makkellie,
2629       country : {
2630         id : 160,
2631         name : Netherlands
2632       }
2633     } ]
2634   },
2635   match_week : 4,
2636   competition_stage : {
2637     id : 10,
2638     name : Group Stage
2639   },
2640   stadium : {
2641     id : 4726,
2642     name : Saint-Petersburg Stadium,
2643     country : {
2644       id : 188,
2645       name : Russia
2646     }
2647   },
2648   referee : {
2649     id : 293,
2650     name : Danny Desmond Makkellie,
2651     country : {
2652       id : 160,
2653       name : Netherlands
2654     }
2655   }
2656 }, {
2657   match_id : 3788758,
2658   match_date : 2021-06-16,
2659   kick_off : 15:00:00.000,
2660   competition : {
2661     competition_id : 55,
2662     country_name : Europe,
2663     competition_name : UEFA Euro
2664   },
2665   season : {
2666     season_id : 43,
2667     season_name : 2020
2668   },
2669   home_team : {
2670     home_team_id : 1835,
2671     home_team_name : Finland,
2672     home_team_gender : male,
2673     home_team_group : Group B,
2674     country : {
2675       id : 77,
2676       name : Finland
2677     },
2678     managers : [ {
2679       id : 3622,
2680       name : Markku Kanerva,
2681       nickname : null,
2682       dob : 1964-05-24,
2683       country : {
2684         id : 77,
2685         name : Finland
2686       }
2687     } ]
2688   },
2689   away_team : {
2690     away_team_id : 796,
2691     away_team_name : Russia,
2692     away_team_gender : male,
2693     "away_team_group" : "Group B",
2694     country : {
2695       id : 188,
2696       name : Russia
2697     },
2698     referees : [ {
2699       id : 293,
2700       name : Danny Desmond Makkellie,
2701       country : {
2702         id : 160,
2703         name : Netherlands
2704       }
2705     } ]
2706   },
2707   match_week : 4,
2708   competition_stage : {
2709     id : 10,
2710     name : Group Stage
2711   },
2712   stadium : {
2713     id : 4726,
2714     name : Saint-Petersburg Stadium,
2715     country : {
2716       id : 188,
2717       name : Russia
2718     }
2719   },
2720   referee : {
2721     id : 293,
2722     name : Danny Desmond Makkellie,
2723     country : {
2724       id : 160,
2725       name : Netherlands
2726     }
2727   }
2728 }, {
2729   match_id : 3788759,
2730   match_date : 2021-06-16,
2731   kick_off : 15:00:00.000,
2732   competition : {
2733     competition_id : 55,
2734     country_name : Europe,
2735     competition_name : UEFA Euro
2736   },
2737   season : {
2738     season_id : 43,
2739     season_name : 2020
2740   },
2741   home_team : {
2742     home_team_id : 1835,
2743     home_team_name : Finland,
2744     home_team_gender : male,
2745     home_team_group : Group B,
2746     country : {
2747       id : 77,
2748       name : Finland
2749     },
2750     managers : [ {
2751       id : 3622,
2752       name : Markku Kanerva,
2753       nickname : null,
2754       dob : 1964-05-24,
2755       country : {
2756         id : 77,
2757         name : Finland
2758       }
2759     } ]
2760   },
2761   away_team : {
2762     away_team_id : 796,
2763     away_team_name : Russia,
2764     away_team_gender : male,
2765     "away_team_group" : "Group B",
2766     country : {
2767       id : 188,
2768       name : Russia
2769     },
2770     referees : [ {
2771       id : 293,
2772       name : Danny Desmond Makkellie,
2773       country : {
2774         id : 160,
2775         name : Netherlands
2776       }
2777     } ]
2778   },
2779   match_week : 4,
2780   competition_stage : {
2781     id : 10,
2782     name : Group Stage
2783   },
2784   stadium : {
2785     id : 4726,
2786     name : Saint-Petersburg Stadium,
2787     country : {
2788       id : 188,
2789       name : Russia
2790     }
2791   },
2792   referee : {
2793     id : 293,
2794     name : Danny Desmond Makkellie,
2795     country : {
2796       id : 160,
2797       name : Netherlands
2798     }
2799   }
2800 }, {
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2802   match_date : 2021-06-16,
2803   kick_off : 15:00:00.000,
2804   competition : {
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2806     country_name : Europe,
2807     competition_name : UEFA Euro
2808   },
2809   season : {
2810     season_id : 43,
2811     season_name : 2020
2812   },
2813   home_team : {
2814     home_team_id : 1835,
2815     home_team_name : Finland,
2816     home_team_gender : male,
2817     home_team_group : Group B,
2818     country : {
2819       id : 77,
2820       name : Finland
2821     },
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2824       name : Markku Kanerva,
2825       nickname : null,
2826       dob : 1964-05-24,
2827       country : {
2828         id : 77,
2829         name : Finland
2830       }
2831     } ]
2832   },
2833   away_team : {
2834     away_team_id : 796,
2835     away_team_name : Russia,
2836     away_team_gender : male,
2837     "away_team_group" : "Group B",
2838     country : {
2839       id : 188,
2840       name : Russia
2841     },
2842     referees : [ {
2843       id : 293,
2844       name : Danny Desmond Makkellie,
2845       country : {
2846         id : 160,
2847         name : Netherlands
2848       }
2849     } ]
2850   },
2851   match_week : 4,
2852   competition_stage : {
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2854     name : Group Stage
2855   },
2856   stadium : {
2857     id : 4726,
2858     name : Saint-Petersburg Stadium,
2859     country : {
2860       id : 188,
2861       name : Russia
2862     }
2863   },
2864   referee : {
2865     id : 293,
2866     name : Danny Desmond Makkellie,
2867     country : {
2868       id : 160,
2869       name : Netherlands
2870     }
2871   }
2872 }, {
2873   match_id : 3788761,
2874   match_date : 2021-06-16,
2875   kick_off : 15:00:00.000,
2876   competition : {
2877     competition_id : 55,
2878     country_name : Europe,
2879     competition_name : UEFA Euro
2880   },
2881   season : {
2882     season_id : 43,
2883     season_name : 2020
2884   },
2885   home_team : {
2886     home_team_id : 1835,
2887     home_team_name : Finland,
2888     home_team_gender : male,
2889     home_team_group : Group B,
2890     country : {
2891       id : 77,
2892       name : Finland
2893     },
2894     managers : [ {
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2896       name : Markku Kanerva,
2897       nickname : null,
2898       dob : 1964-05-24,
2899       country : {
2900         id : 77,
2901         name : Finland
2902       }
2903     } ]
2904   },
2905   away_team : {
2906     away_team_id : 796,
2907     away_team_name : Russia,
2908     away_team_gender : male,
2909     "away_team_group" : "Group B",
2910     country : {
2911       id : 188,
2912       name : Russia
2913     },
2914     referees : [ {
2915       id : 293,
2916       name : Danny Desmond Makkellie,
2917       country : {
2918         id : 160,
2919         name : Netherlands
2920       }
2921     } ]
2922   },
2923   match_week : 4,
2924   competition_stage : {
2925     id : 10,
2926     name : Group Stage
2927   },
2928   stadium : {
2929     id : 4726,
2930     name : Saint-Petersburg Stadium,
2931     country : {
2932       id : 188,
2933       name : Russia
2934     }
2935   },
2936   referee : {
2937     id : 293,
2938     name : Danny Desmond Makkellie,
2939     country : {
2940       id : 160,
2941       name : Netherlands
2942     }
2943   }
2944 }, {
2945   match_id : 3788762,
2946   match_date : 2021-06-16,
2947   kick_off : 15:00:00.000,
2948   competition : {
2949     competition_id : 55,
2950     country_name : Europe,
2951     competition_name : UEFA Euro
2952   },
2953   season : {
2954     season_id : 43,
2955     season_name : 2020
2956   },
2957   home_team : {
2958     home_team_id : 1835,
2959     home_team_name : Finland,
2960     home_team_gender : male,
2961     home_team_group : Group B,
2962     country : {
2963       id : 77,
2964       name : Finland
2965     },
2966     managers : [ {
2967       id : 3622,
2968       name : Markku Kanerva,
2969       nickname : null,
2970       dob : 1964-05-24,
2971       country : {
2972         id : 77,
2973         name : Finland
2974       }
2975     } ]
2976   },
2977   away_team : {
2978     away_team_id : 796,
2979     away_team_name : Russia,
2980     away_team_gender : male,
2981     "away_team_group" : "Group B",
2982     country : {
2983       id : 188,
2984       name : Russia
2985     },
2986     referees : [ {
2987       id : 293,
2988       name : Danny Desmond Makkellie,
2989       country : {
2990         id : 160,
2991         name : Netherlands
2992       }
2993     } ]
2994   },
2995   match_week : 4,
2996   competition_stage : {
2997     id : 10,
2998     name : Group Stage
2999   },
3000   stadium : {
3001     id : 4726,
3002     name : Saint-Petersburg Stadium,
3003     country : {
3004       id : 188,
3005       name : Russia
3006     }
3007   },
3008   referee : {
3009     id : 293,
3010     name : Danny Desmond Makkellie,
3011     country : {
3012       id : 160,
3013       name : Netherlands
3014     }
3015   }
3016 }, {
3017   match_id : 3788763,
3018   match_date : 2021-06-16,
3019   kick_off : 15:00:00.000,
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3021     competition_id : 55,
3022     country_name : Europe,
3023     competition_name : UEFA Euro
3024   },
3025   season : {
3026     season_id : 43,
3027     season_name : 2020
3028   },
3029   home_team : {
3030     home_team_id : 1835,
3031     home_team_name : Finland,
3032     home_team_gender : male,
3033     home_team_group : Group B,
3034     country : {
3035       id : 77,
3036       name : Finland
3037     },
3038     managers : [ {
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3040       name : Markku Kanerva,
3041       nickname : null,
3042       dob : 1964-05-24,
3043       country : {
3044         id : 77,
3045         name : Finland
3046       }
3047     } ]
3048   },
3049   away_team : {
3050     away_team_id : 796,
3051     away_team_name : Russia,
3052     away_team_gender : male,
3053     "away_team_group" : "Group B",
3054     country : {
3055       id : 188,
3056       name : Russia
3057     },
3058     referees : [ {
3059       id : 293,
3060       name : Danny Desmond Makkellie,
3061       country : {
3062         id : 160,
3063         name : Netherlands
3064       }
3065     } ]
3066   },
3067   match_week : 4,
3068   competition_stage : {
3069     id : 10,
3070     name : Group Stage
3071   },
3072   stadium : {
3073     id : 4726,
3074     name : Saint-Petersburg Stadium,
3075     country : {
3076       id : 188,
3077       name : Russia
3078     }
3079   },
3080   referee : {
3081     id : 293,
3082     name : Danny Desmond Makkellie,
3083     country : {
3084       id : 160,
3085       name : Netherlands
3086     }
3087   }
3088 }, {
3089   match_id : 3788764,
3090   match_date : 2021-06-16,
3091   kick_off : 15:00:00.000,
3092   competition : {
3093     competition_id : 55,
3094     country_name : Europe,
3095     competition_name : UEFA Euro
3096   },
3097   season : {
3098     season_id : 43,
3099     season_name : 2020
3100   },
3101   home_team : {
3102     home_team_id : 1835,
3103     home_team_name : Finland,
3104     home_team_gender : male,
3105     home_team_group : Group B,
3106     country : {
3107       id : 77,
3108       name : Finland
3109     },
3110     managers : [ {
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3112       name : Markku Kanerva,
3113       nickname : null,
3114       dob : 1964-05-24,
3115       country : {
3116         id : 77,
3117         name : Finland
3118       }
3119     } ]
3120   },
3121   away_team : {
3122     away_team_id : 796,
3123     away_team_name : Russia,
3124     away_team_gender : male,
3125     "away_team_group" : "Group B",
3126     country : {
3127       id : 188,
3128       name : Russia
3129     },
3130     referees : [ {
3131       id : 293,
3132       name : Danny Desmond Makkellie,
3133       country : {
3134         id : 160,
3135         name : Netherlands
3136       }
3137     } ]
3138   },
3139   match_week : 4,
3140   competition_stage : {
3141     id : 10,
3142     name : Group Stage
3143   },
3144   stadium : {
3145     id : 4726,
3146     name : Saint-Petersburg Stadium,
3147     country : {
3148       id : 188,
3149       name : Russia
3150     }
3151   },
3152   referee : {
3153     id : 293,
3154     name : Danny Desmond Makkellie,
3155     country : {
3156       id : 160,
3157       name : Netherlands
3158     }
3159   }
3160 }, {
3161   match_id : 3788765,
3162   match_date : 2021-06-16,
3163   kick_off : 15:00:00.000,
3164   competition : {
3165     competition_id : 55,
3166     country_name : Europe,
3167     competition_name : UEFA Euro
3168   },
3169   season : {
3170     season_id : 43,
3171     season_name : 2020
3172   },
3173   home_team : {
3174     home_team_id : 1835,
3175     home_team_name : Finland,
3176     home_team_gender : male,
3177     home_team_group : Group B,
3178     country : {
3179       id : 77,
3180       name : Finland
3181     },
3182     managers : [ {
3183       id : 3622,
3184       name : Markku Kanerva,
3185       nickname : null,
3186       dob : 1964-05-24,
3187       country : {
3188         id : 77,
3189         name : Finland
3190       }
3191     } ]
3192   },
3193   away_team : {
3194     away_team_id : 796,
3195     away_team_name : Russia,
3196     away_team_gender : male,
3197     "away_team_group" : "Group B",
3198     country : {
3199       id : 188,
3200       name : Russia
3201     },
3202     referees : [ {
3203       id : 293,
3204       name : Danny Desmond Makkellie,
3205       country : {
3206         id : 160,
3207         name : Netherlands
3208       }
3209     } ]
3210   },
3211   match_week : 4,
3212   competition_stage : {
3213     id : 10,
3214     name : Group Stage
3215   },
3216   stadium : {
3217     id : 4726,
3218     name : Saint-Petersburg Stadium,
3219     country : {
3220       id : 188,
3221       name : Russia
3222     }
3223   },
3224   referee : {
3225     id : 293,
3226     name : Danny Desmond Makkellie,
3227     country : {
3228       id : 160,
3229       name : Netherlands
3230     }
3231   }
3232 }, {
3233   match_id : 3788766,
3234   match_date : 2021-06-16,
3235   kick_off : 15:00:00.000,
3236   competition : {
3237     competition_id : 55,
3238     country_name : Europe,
3239     competition_name : UEFA Euro
3240   },
3241   season : {
3242     season_id : 43,
3243     season_name : 2020
3244   },
3245   home_team : {
3246     home_team_id : 1835,
3247     home_team_name : Finland,
3248     home_team_gender : male,
3249     home_team_group : Group B,
3250     country : {
3251       id : 77,
3252       name : Finland
3253     },
3254     managers : [ {
3255       id : 3622,
3256       name : Markku Kanerva,
3257       nickname : null,
3258       dob : 1964-05-24,
3259       country : {
3260         id : 77,
3261         name : Finland
3262       }
3263     } ]
3264   },
3265   away_team : {
3266     away_team_id : 796,
3267     away_team_name : Russia,
3268     away_team_gender : male,
3269     "away_team_group" : "Group B",
3270     country : {
3271       id : 188,
3272       name : Russia
3273     },
3274     referees : [ {
3275       id : 293,
3276       name : Danny Desmond Makkellie,
3277       country : {
3278         id : 160,
3279         name : Netherlands
3280       }
3281     } ]
3282   },
3283   match_week : 4,
3284   competition_stage : {
3285     id : 10,
3286     name : Group Stage
3287   },
3288   stadium : {
3289     id : 4726,
3290     name : Saint-Petersburg Stadium,
3291     country : {
3292       id : 188,
3293       name : Russia
3294     }
3295   },
3296   referee : {
3297     id : 293,
3298     name : Danny Desmond Makkellie,
3299     country : {
3300       id : 160,
3301       name : Netherlands
3302     }
3303   }
3304 }, {
3305   match_id : 3788767,
3306   match_date : 2021-06-16,
3307   kick_off : 15:00:00.000,
3308   competition : {
3309     competition_id : 55,
3310     country_name : Europe,
3311     competition_name : UEFA Euro
3312   },
3313   season : {
3314     season_id : 43,
3315     season_name : 2020
3316   },
3317   home_team : {
3318     home_team_id : 1835,
3319     home_team_name : Finland,
3320     home_team_gender : male,
3321     home_team_group : Group B,
3322     country : {
3323       id : 77,
3324       name : Finland
3325     },
3326     managers : [ {
3327       id : 3622,
3328       name : Markku Kanerva,
3329       nickname : null,
3330       dob : 1964-05-24,
3331       country : {
3332         id : 77,
3333         name : Finland
3334       }
3335     } ]
3336   },
3337   away_team : {
3338     away_team_id : 796,
3339     away_team_name : Russia,
3340     away_team_gender : male,
3341     "away_team_group" : "Group B",
3342     country : {
3343       id : 188,
3344       name : Russia
3345     },
3346     referees : [ {
3347       id : 293,
3348       name : Danny Desmond Makkellie,
3349       country : {
3350         id : 160,
3351         name : Netherlands
3352       }
3353     } ]
3354   },
3355   match_week : 4,
3356   competition_stage : {
3357     id : 10,
3358     name : Group Stage
3359   },
3360   stadium : {
3361     id : 4726,
3362     name : Saint-Petersburg Stadium,
3363     country : {
3364       id : 188,
3365       name : Russia
3366     }
3367   },
3368   referee : {
3369     id : 293,
3370     name : Danny Desmond Makkellie,
3371     country : {
3372       id : 160,
3373       name : Netherlands
3374     }
3375   }
3376 }, {
3377   match_id : 3788768,
3378   match_date : 2021-06-16,
3379   kick_off : 15:00:00.000,
3380   competition : {
3381     competition_id : 55,
3382     country_name : Europe,
3383     competition_name : UEFA Euro
3384   },
3385   season : {
3386     season_id : 43,
3387     season_name : 2020
3388   },
3389   home_team : {
3390     home_team_id : 1835,
3391     home_team_name : Finland,
3392     home_team_gender : male,
```




3788753.json indeholder 3806 events for kampen Rusland – Finland.



```
1 "Tactical Shift"
2 "50/50"
2 "Referee Ball-Drop"
2 "Starting XI"
3 "Player Off"
3 "Player On"
4 "Half End"
4 "Half Start"
8 "Substitution"
14 "Injury Stoppage"
19 "Dispossessed"
20 "Dribbled Past"
25 "Shot"
26 "Interception"
26 "Miscontrol"
27 "Foul Won"
28 "Foul Committed"
28 "Goal Keeper"
34 "Block"
34 "Dribble"
67 "Clearance"
86 "Duel"
108 "Ball Recovery"
355 "Pressure"
841 "Carry"
1001 "Ball Receipt*"
1038 "Pass"
```



3788753.json – eksempel på skud-event.

- events
- lineups
- matches
- three-sixty
- competitions.json

events

- 7298.json
- 7430.json
- 7443.json
- 7444.json
- 7445.json
- 7451.json
- 3788747.json
- 3788748.json
- 3788749.json
- 3788750.json
- 3788751.json
- 3788752.json
- 3788753.json
- 3788754.json

```

864 {
865   {
866     id: 1ce72d1b-a7c5-4eb
867     index: 865,
868     period: 1,
869     timestamp: 00:20:38.7
870     minute: 20,
871     second: 38,
872     type: {
873       id: 16,
874       name: Shot
875     },
876     possession: 38,
877     possession_team: {
878       id: 1835,
879       name: Finland
880     },
881     play_pattern: {
882       id: 2,
883       name: From Corner
884     },
885     team: {
886       id: 1835,
887       name: Finland
888     },
889     player: {
890       id: 26939,
891       name: Joona Toivio
892     },
907     shot: {
908       statsbomb_xg: 0.014892562,
909       end_location: [
910         120,
911         30.9,
912         5.9
913       ],
914       key_pass_id: e8a6376e-ba9d-49d
915       body_part: {
916         id: 37,
917         name: Head
918       },
919       type: {
920         id: 87,
921         name: Open
922       },
923       aerial_won: 1,
924       technique: {
925         id: 93,
926         name: Normal
927       },
928       outcome: {
929         id: 98,
930         name: Off Target
931       },
932       freeze_frame: {
933         location: [
934           112.7,
935           42,
936           1158
937         ],
1158     {
1159       location: [
1160         111.7,
1161         36.2
1162       ],
1163       player: {
1164         id: 38196,
1165         name: Daniel O'Shaughnessy
1166       },
1167       position: {
1168         id: 5,
1169         name: Left Center Back
1170       },
1171       teammate: true
1172     }
1173   ]
1174 }
1175 {
1176   id: 7aa54ce6-106a-4e26-9fb1-77aa0d7

```