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Assignment Name :

2020-2021 Project I Visual Analytics

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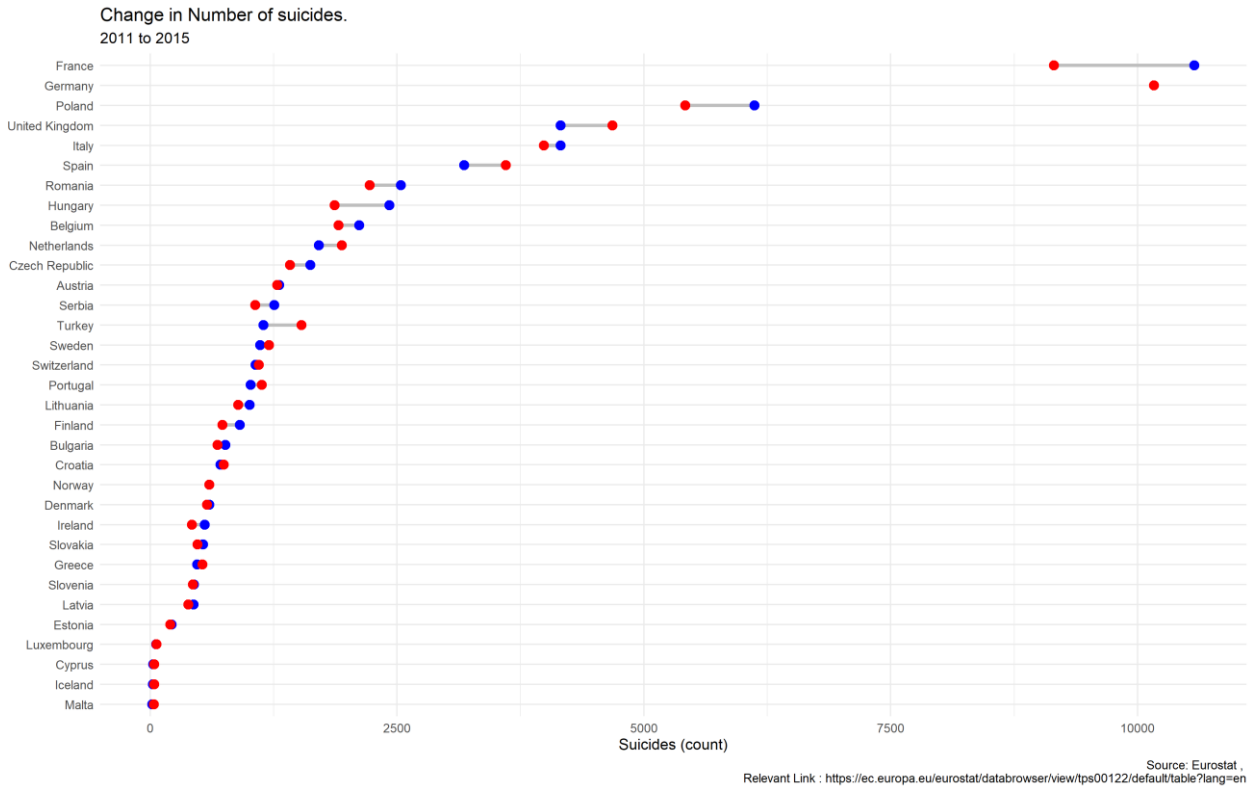
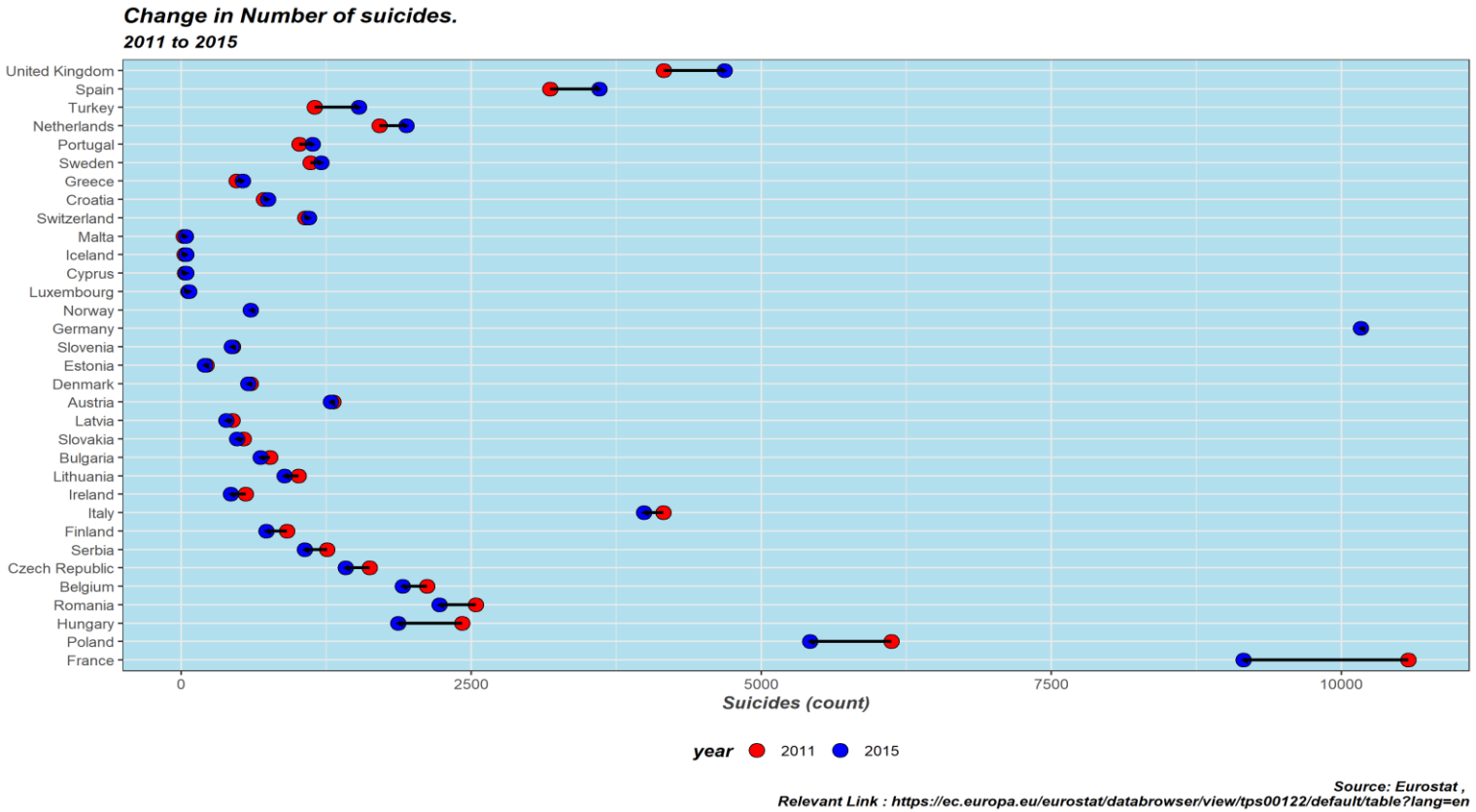
The idea is to identify if there is an increasing rate in suicides of Greece against the other countries of EE . Thus , using the graphs provided below , we can conclude that in Greece the numbers of suicides are significantly low , even in 2014 when it is the peek of suicides count for Greece . Also we that in every country there is a dependence on suicides and gender , but for Greece you can see that there is less dependence (smaller difference) . Eventually , we can infer that Greece is a country where it is seldom for a resident to commit a suicide .

Plot 1 : Change in number of years from 2011 to 2015



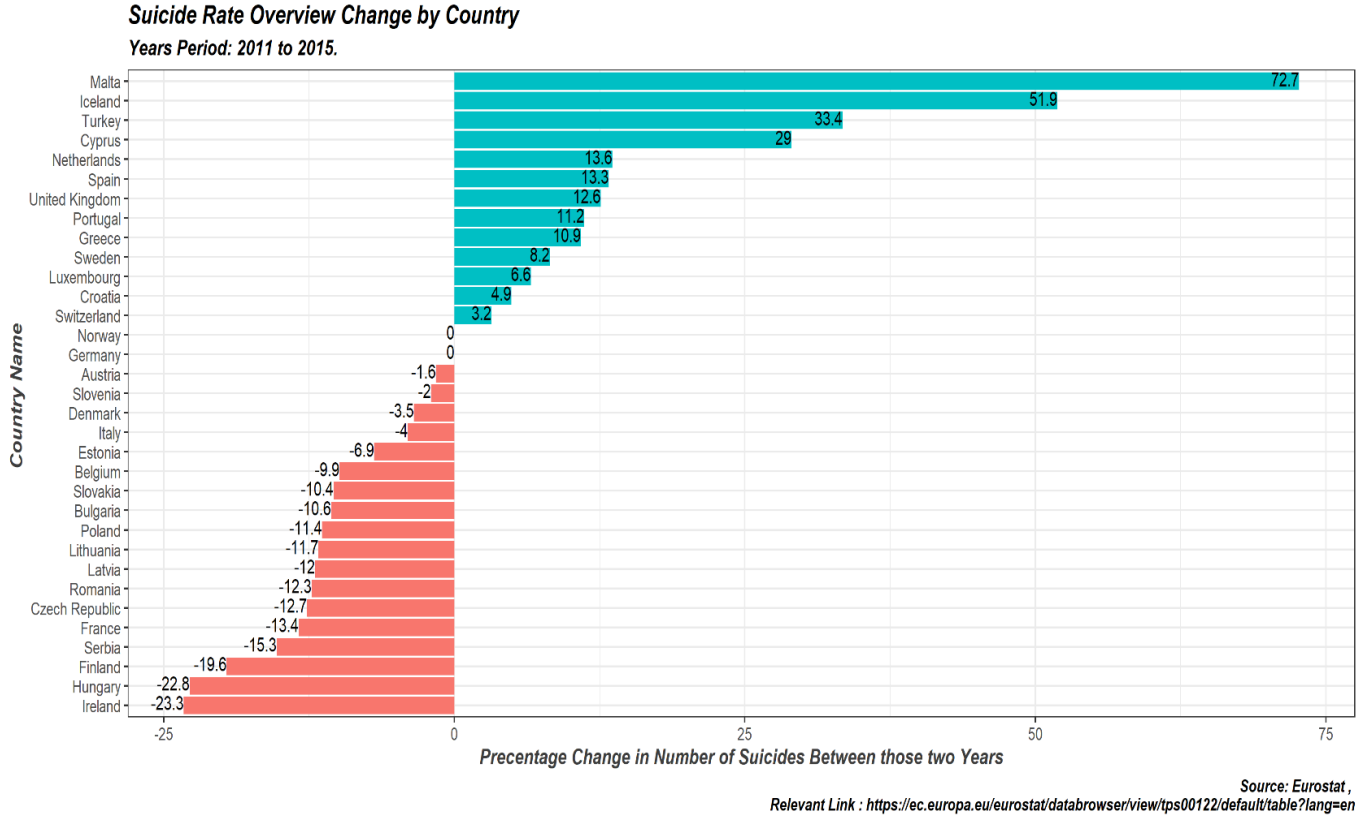
Using Eurostat data , we can see the change in total number of years having as starting point year 2011 and moving to 2015 . The red bullet depicts the value concerning total number of suicides on 2011 , and the blue one suicides on 2015 respectively . The line between those bullet points depicts the difference . The longer the line , the bigger the difference in absolute value . Where you see the line starting with a blue bullet and ending to a red , we have increment in suicide count . On the contrary , when the red color comes first , we have decrease, when you see only the red bullet the number stays the same (e.g. Germany) . Again , we see that Greece has a small increase in suicides , therefore , suicides number of 2015 , is greater than 2011.

Plot 2 : Orientation of change in number of years from 2011 to 2015



The above plot is equivalent to the previous one . The difference is that the arrow denotes the orientation of the change , i.e. if the arrow pointers to the right we have an increase in total number of suicides during that time interval of 4 years , and respectively , if it points to the left , we have a decrease .

Plot 3 : 2011 from 2015 Total suicides difference :

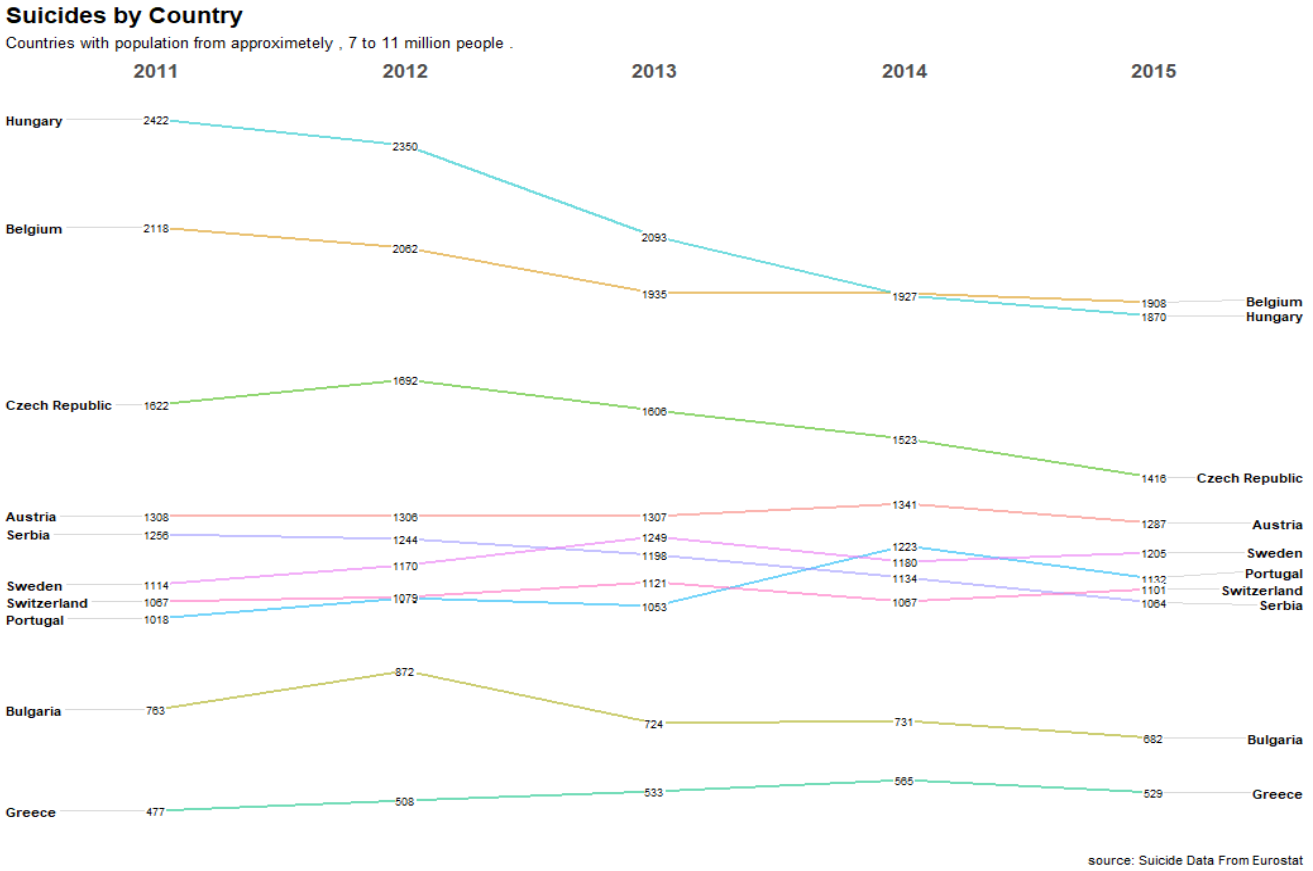


The barplot above contains information about the percentage change in suicides number between suicides in 2015 and 2011. You can understand that countries that are colored red have decreased their total number of suicides from 2011 to 2015 on total , on the contrary , those colored blue have increased their number of suicides in 2015 , compared to 2011 . Thus , I can infer that Greece , has slightly increased its total number of suicides in 2015 , compared to 2011 by almost 11 % . Thus , in total we have more suicides on 2015 compared to 2011 , and we can say that Greece belongs in the minority of Countries that did not manage to reduce their total number of deaths related with suicides .

Plot 4 : Facetted plots per 100k Population .

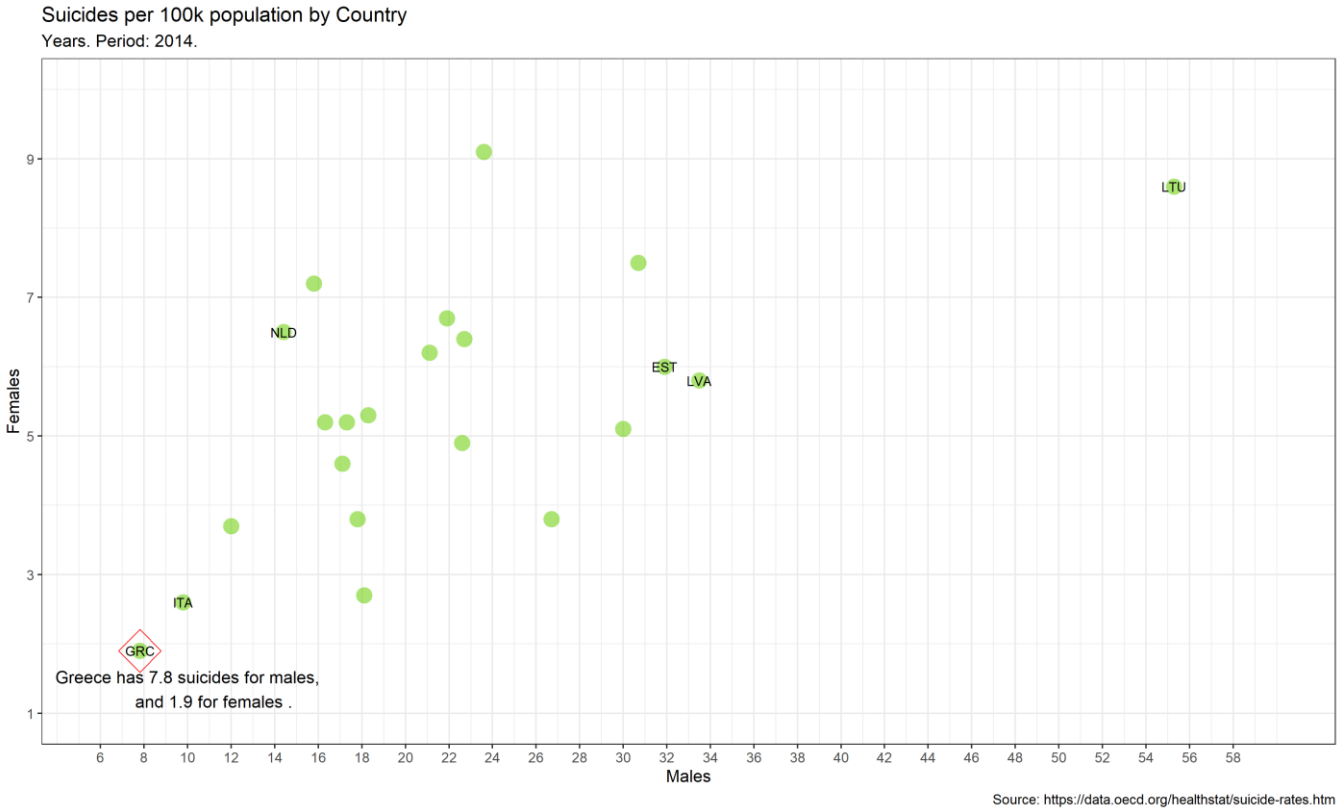
Now my primary goal is to explore the trend between Countries per 100k residents . Faceting is often an efficient way to explore trends in data. Here we can infer that Greece has a small number of suicides , compared to other countries of EE and it is comparable , as we have suicides on the same scale (per 100k population) . It is obvious that we can infer that Greece is a country that does really well , as it looks to have small number of suicides compared to the other countries in our data , but we see that there is an increasing trend .

Plot 5 : Zoom in some countries with similar population .



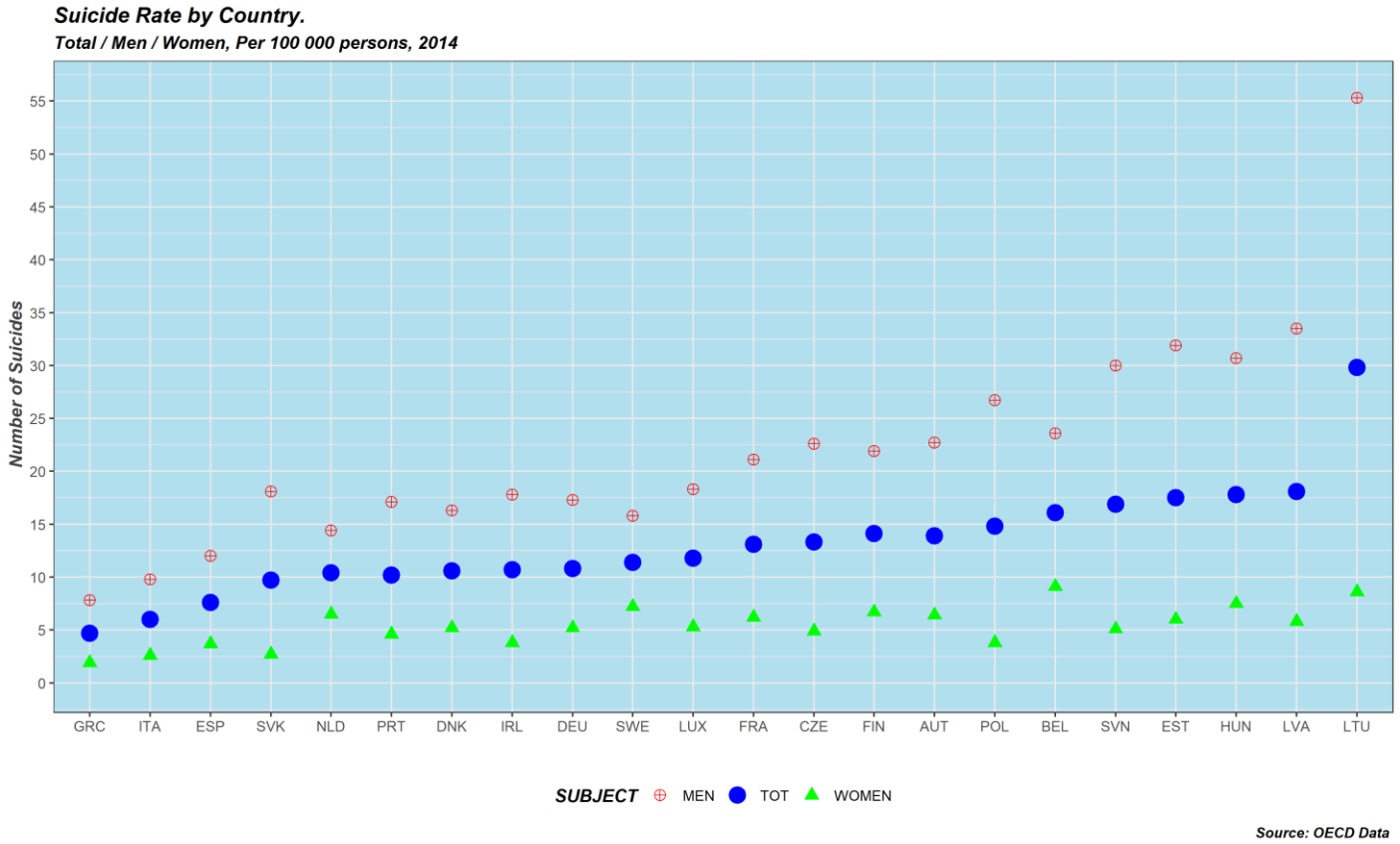
Using some information driven by wikipedia (you can find that on https://en.wikipedia.org/wiki/List_of_European_countries_by_population) , concerning countries' population , I wanted to zoom in to some countries with similar population amount . So comparing countries between 7 and 11 million people , we can see that Greece does better than every other country in that category , in total amount of suicides , even though it is on top 3 countries regarding number of residents . There is an increase till 2014 and then we can see a small decrease .

Plot 6 : Differences between Males and Females .



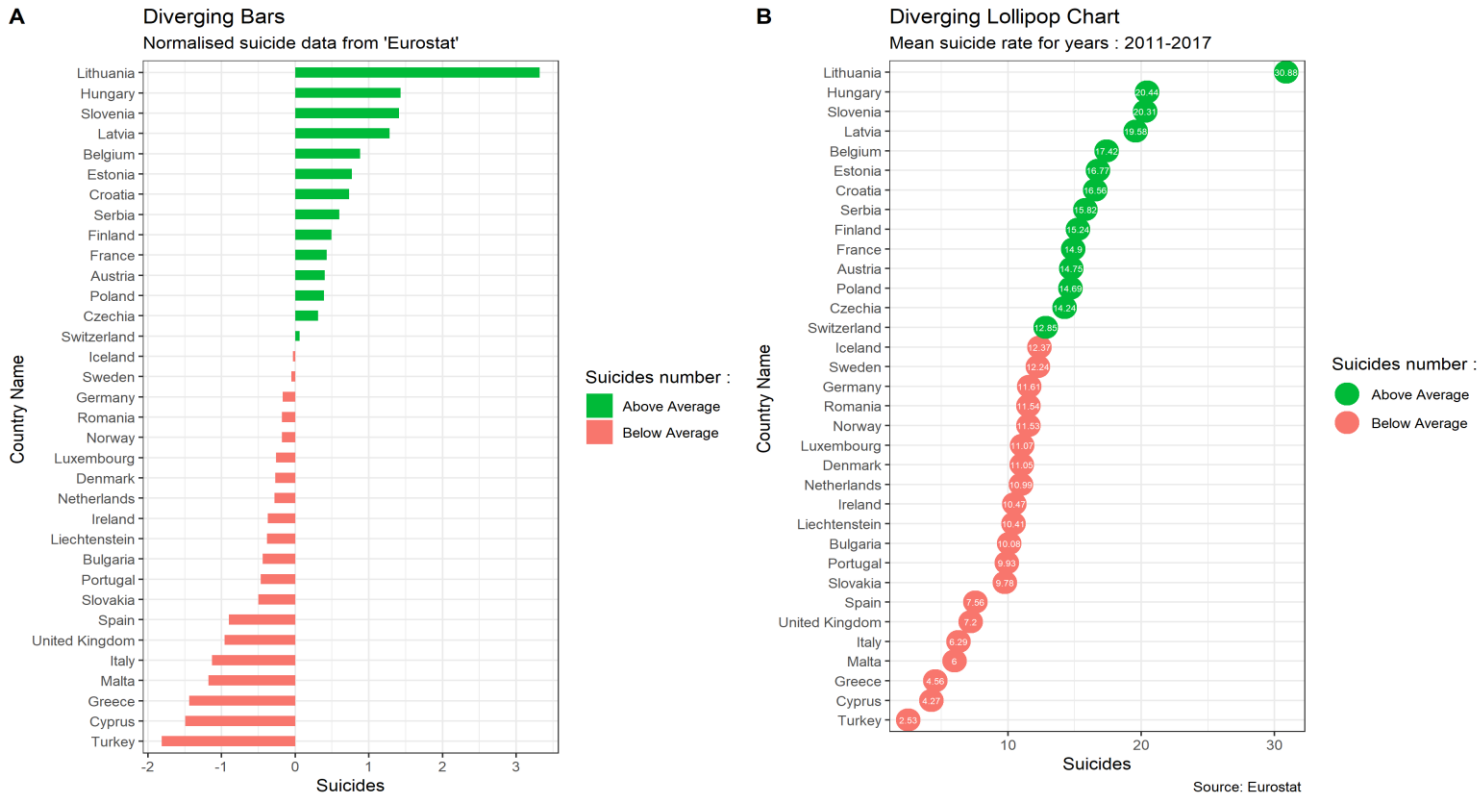
This is a scatter plot that takes as arguments suicides concerning genders , i.e. Males on x`x axis and Females on y`y axis . The idea is to highlight remarkable countries , and not every country on the scatter plot . I will label some points of our plot with the name of its corresponding country, I want to draw attention to some special countries where the suicides between men and women (per 100k) is significantly high. You can see that Greece , Italy and Netherlands are countries with the insignificant difference , but on the other hand Lithuania has the biggest difference by far , Latvia and Estonia are runners-up. Greece is the country with the smallest difference actually , compared to every other country . So we can say that gender is a significant factor concerning the number of suicides per 100K individuals , but in Greece there is a better balance .

Plot 7 : Zoom In 2014 , Depict Value Per Subject



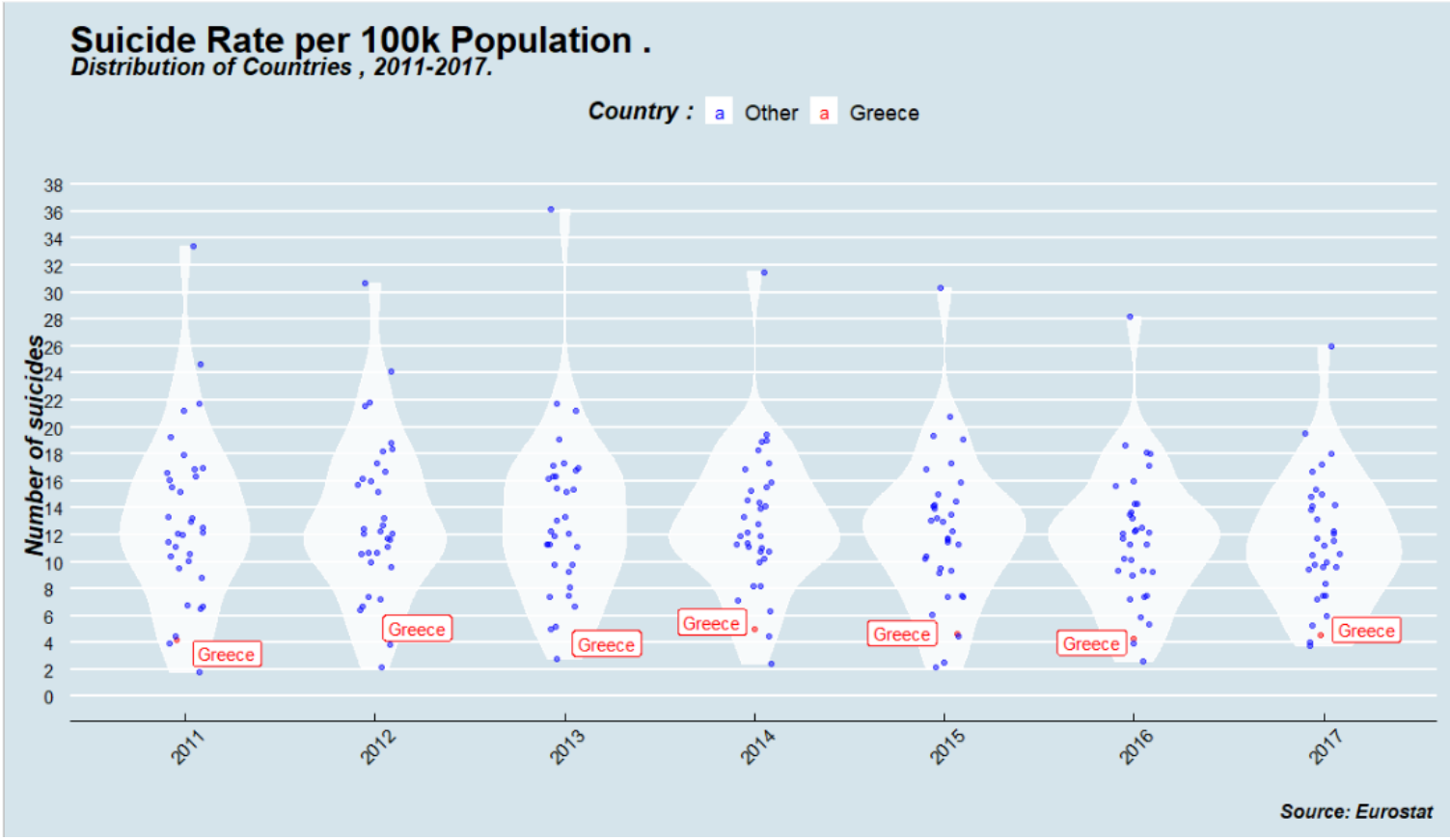
Now , let's use data about suicides per 100k population residents per country on 2014 where we saw that we have a small increase in suicides for Greece . I have combined data from OECD site , referring to suicides per gender , on 100k individuals again . So we can see that Greece is the country with the lowest number of suicides for every different subject (MEN , TOT , WOMEN) . As we have suicides , per the same number of people , it is reasonable to infer that Greece does better than the rest of competitors in every category for 2014.

Plot 8 : Combination of plots



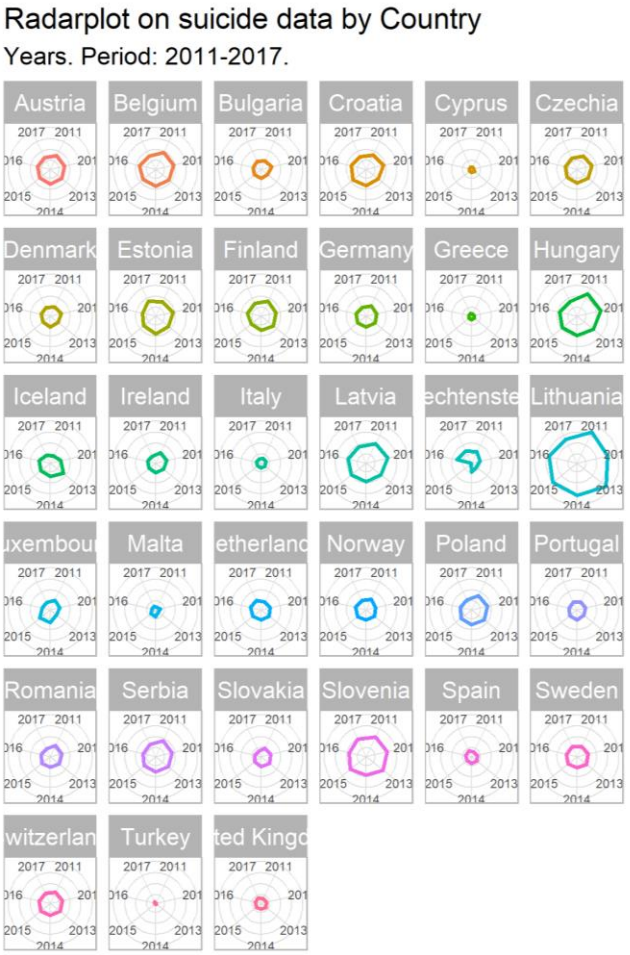
These are two plots that have equivalent interpretation . The first plot (A) , has normalized mean values for suicides , between 2011 – 2017 . The second one (B) , depicts the mean value for all the countries . So we can infer that Greece does better than the leftovers , concerning the number of suicides in those years per 100k residents .

Plot 9 : Adding a little jitter to the data.



Violin plots are included here, this plot is like box plots, except it is using a kernel density to show where you have the most data. Giving some jitter to the points , we see again that Greece does better than most of EE countries .

Plot 10 : Radar plot on Data by country .



This is a radar plot for suicide data per Country for all those 6 years , that are provided in our dataset . Again we can see that Greece is a country that can is described by low suicide numbers for their residents . Only Turkey looks to have less suicides .