For the freedom to profess religion in the contemporary world.

Counteracting the causes
of discrimination and helping
the persecuted based on the example
of Christians

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Development of interactive maps for the research project

In this document we describe the work performed by Demetris Avraam, for the development of interactive maps under the research project "**For the freedom to profess religion in the contemporary world. Counteracting the causes of discrimination and helping the persecuted based on the example of Christians**". The development process had three stages which are described below:

1st **stage:** Initially we have developed 6 maps in Tableau to visualise the responses of people for 6 questions related to religions. The data we had access to, include information for the responses of people from the following 11 European countries: Belgium, Denmark, Finland, Great Britain, Hungary, Italy, Netherlands, Norway, Poland, Portugal and Sweden. In each of the six maps, each country is represented by a different colour depending on the mean value of the responses of people in that country in each particular question. In addition, the mean value of the country-specific responses in each question is shown as a label on the country. Also, while a user hovers the mouse over a particular country, he/she can see the name of the country and the mean value of the responses in the particular question. To create these maps, we have used the names of the countries to define their geographical loactions (latitude and longitude) that were used for the visualisation of the maps in Tableau. Then we have used the mean value of the responses to define the colour and the label of each country. A brief description of each of the six maps is given below.

The first map (Fig. 1A) shows the mean value of the responses in the question "How many of your friends have different religious views?" with the answers lying on the scale 1 to 5 (1=none of them, 5= all of them). The second map (Fig. 1B) shows the mean value of the responses in the question "Do you agree to allow girls cover their heads?" with the answers lying on the scale 1 to 7 (1=strongly disagree, 7=strongly agree). The third map (Fig. 1C) shows the mean value of the responses in the question "Do you agree to allow to take soft drugs in your country?" with the answers lying on the scale 1 to 7 (1=strongly disagree, 7=strongly agree). The fourth map (Fig. 1D) shows the mean value of the responses in the question "Do you agree with religious groups enrichment?" with the answers lying on the scale 1 to 7 (1=strongly disagree, 7=strongly agree). The fifth map (Fig. 1E) shows the mean value of the responses in the question "Do you agree with religious groups cause of conflict?" with the answers lying on the scale 1 to 7 (1=strongly disagree, 7=strongly agree). The sixth map (Fig. 1F) shows the mean value of the responses in the question "Do you agree with financial support for religious schools?" with the answers lying on the scale 1 to 4 (1=yes completely, 4=I don't mind).
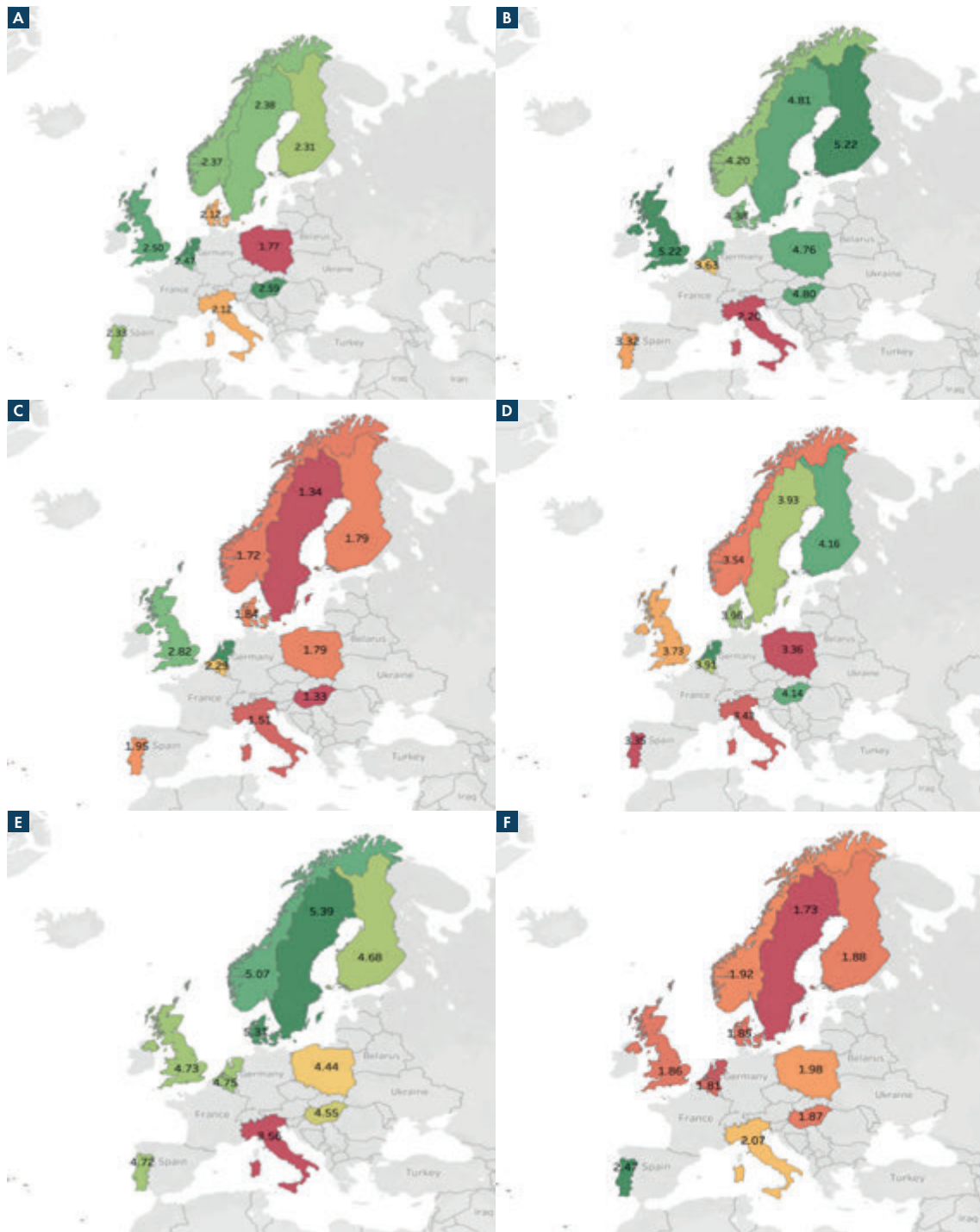
Fig 1: Interactive maps in Tableau to indicate the mean value of responses in religious related questions in 11 European countries. For bigger visualisation, you can follow the link: https://public.tableau.com/profile/demetris#!/vizhome/religious_index/Story1

2nd **stage:** At the second stage of the process, we have developed 3 maps for indices related to the feeling of discrimination due to religion amongst people in the following 22 countries: Austria, Belgium, Switzerland, Czechia, Germany, Estonia, Spain, Finland, France, United Kingdom, Hungary, Ireland, Israel, Iceland, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Sweden and Slovenia. The first map (Fig. 2A) indicates the percentage of citizens declared as Catholics in each of the 22 countries. The

colour scaled from red (low percentage) to green (high percentage). Also, the country-specific percentage is shown as label in each country. The second map (Fig. 2B) indicates the percentage of Catholics that feel discriminated in each of the 22 countries. The colour is also scaled from red (low percentage) to green (high percentage). The third map (Fig. 2C) represents a binary indicator which is equal to 0 and the country is coloured by red if the Catholicism is not the main religion in the country, and is equal to 1 and the country is coloured by green if the Catholicism is the main religion in the country.
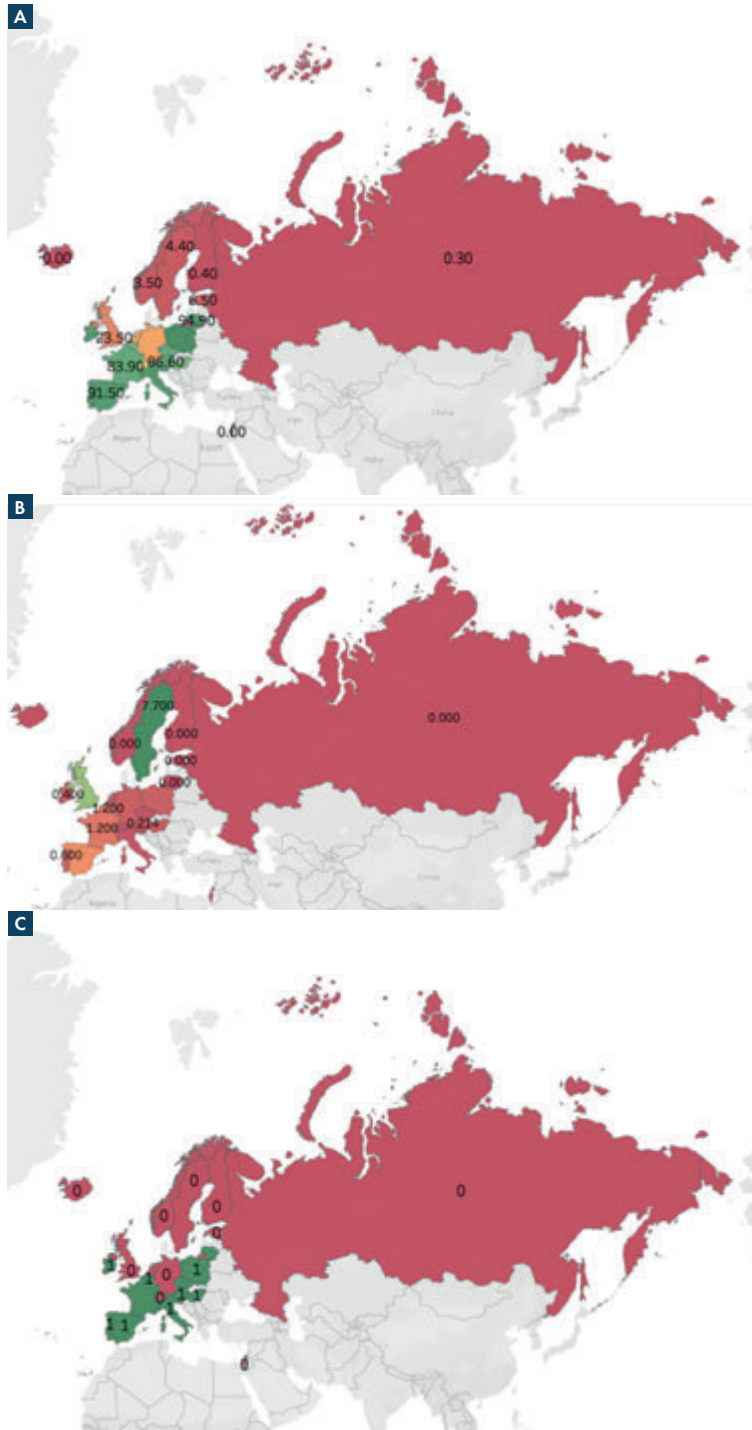

Fig 2: Interactive maps in Tableau to visualise the feeling of discrimination due to religion in 22 countries. For bigger visualisation, you can follow the link: https://public.tableau.com/profile/demetris#!/vizhome/religious_index/Story1

3rd stage: We have developed one dashboard in Tableau for each of the 9 maps and then we have combined the 9 dashboards in a Tableau story. A story in Tableau is a sequence of visualisations. In our case we have added right and left arrows on the story to allow users moving forward and backward to the different maps. We have also added the features of (i) zoom in and zoom out where a user can zoom on any area of a map, (ii) hover the mouse over a country and see the country's name and the label (the label is either the mean value of a response in a specific question or a derived index), and (iii) click on a country to keep only that specific country and exclude all the others. The story is available online at the following link: https://public.tableau.com/profile/demetris#!/vizhome/religious_index/Story1?publish=yes. The link can be shared through the research group's website. We have also submitted a Tableau Workbook File, that you can import in Tableau software and make any further developments.