Instructions for replicating Figure 1, Figure A1.1 and Figure A1.2

The databases needed to replicate the three cartograms from the article are included in the folder titled "**bdsend**". This contains three projects of the type "**ArcGIS ArcMap Document**" with the names "**dezveuroLHDT4**"; "**DISTRIBfilialeUSR**"; "**farapenali5**" and a folder "**db**" with the shapefiles used in making the maps.

Thus, after opening the first project in ArcGis, related to "**Figure 1: Distribution of signatures at locality level**", with the name "**farapenali5**", you will see on the left in the "**Table Of Contents**" the Layers that are needed for the creation of the first cartogram. It should be noted that these layers have the sign "**!**" in red, indicating that these documents must be linked to the shapefiles in the "**db**" folder:

- you must right-click on the first layer named "**Cities over 250,000 inhabitants**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**" -> "**Set Data" Source**" -> select the "**loc250k.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- then right-click on the second layer with the name "**Romania_jud**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source**" -> select the "**Romania_jud.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- then right-click on the third layer with the name "**Bnoua**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source**" -> select the "**Bnoua.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**". In this way, the related values from the "**Sign_Percent**" column in the "**Open Attribute Table**" will be represented.

- next, right-click on the fourth layer with the name "**bucurestiDiss**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source**" -> select the shapefile "**bucurestiDiss.shp**" from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- finally, right-click on the fifth layer with the name "**Other countries**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source** " -> select the "**CNTR_RG_03M_2016_3035.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

The second project in ArcGis, corresponds to **"Figure A1.1: USR local branches as of April 2020",** and has the name **"DISTRIBfiliale USR".** After opening it in ArcGis, you will see on the left in the **"Table Of Contents"** the Layers needed for the creation of the cartogram. It should be noted that these layers have the sign **"!"** in red, indicating that these documents must be linked to the shapefiles in the **"db"** folder:

- you must right-click on the first layer named "**Cities over 250,000 inhabitants**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**" -> "**Set Data" Source**" -> select the "**loc250k.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- then right-click on the second layer with the name "**Romania_jud**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source**" -> select the "**Romania_jud.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- then right-click on the third layer with the name **"devEuroparlamentare"** and perform the following steps: select **"Properties"** and a window will open with the name **"Layer Properties" -> "Source"-> "Set Data Source"** -> select the **"dezvEuroparlamentare.shp"** shapefile from the **"db"** folder, click on it and click **"Add"->"Apply"->"OK"**. Thus, the related values from the **"Branch"** column in the "Open Attribute Table" will be represented.

- next, right-click on the fourth layer with the name "**bucurestiDiss**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source**" -> select the shapefile "**bucurestiDiss.shp**" from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- finally, right-click on the fifth layer with the name "**Other countries**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source** " -> select the "**CNTR_RG_03M_2016_3035.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

The third project in ArcGis, corresponds to **"Figure A1.2: Local Human Development Typology Index"**, and has the name **"dezveuroLHDT4"**. After opening it in ArcGis, you will see on the left in **"Table Of Contents**" the Layers needed for the creation of the cartogram. It should be noted that these layers have the sign **"!"** in red, indicating that these documents must be linked to the shapefiles in the **"db"** folder:

- you must right-click on the first layer named "**Cities over 250,000 inhabitants**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**" -> "**Set Data" Source**" -> select the "**loc250k.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- then right-click on the second layer with the name "**Romania_jud**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source**" -> select the "**Romania_jud.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- then right-click on the third layer with the name **"devEuroparlamentare"** and perform the following steps: select **"Properties"** and a window will open with the name **"Layer Properties" -> "Source"-> "Set Data Source"** -> select the **"dezvEuroparlamentare.shp"** shapefile from the **"db"** folder, click on it and click **"Add"->"Apply"->"OK"**. Thus, the related values from the **"ind1"** column in the **"Open Attribute Table"** will be represented.

- next, right-click on the fourth layer with the name "**bucurestiDiss**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source**" -> select the shapefile "**bucurestiDiss.shp**" from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".

- finally, right-click on the fifth layer with the name "**Other countries**" and perform the following steps: select "**Properties**" and a window will open with the name "**Layer Properties**" -> "**Source**"-> "**Set Data Source** " -> select the "**CNTR_RG_03M_2016_3035.shp**" shapefile from the "**db**" folder, click on it and click "**Add**"->"**Apply**"->"**OK**".