

Introduction

Welcome to Groundwater Nitrate Representation, a powerful data visualization tool designed to provide insightful representations of groundwater nitrate levels. Our application offers a comprehensive suite of charts and graphs, allowing users to analyze and understand groundwater nitrate data with ease.

By leveraging various visualization techniques such as Line Charts, Bar Charts, Bubble Charts, and more, our app empowers users to explore complex datasets and uncover meaningful patterns and trends. Whether you're a researcher, environmentalist, or policymaker, Groundwater Nitrate Representation offers valuable insights into groundwater quality.

To get started, users can upload their own datasets in the correct format, ensuring accurate representation of their specific data. Alternatively, users can explore and visualize existing datasets within the application, providing a convenient way to gain insights without the need for manual data entry.

Discover the story hidden within your groundwater nitrate data and gain a deeper understanding of environmental impacts with Groundwater Nitrate Representation.

Importing Dataset:

Firstly by default you can see the master data representing different charts and you can change the filter on the basis of Districts, Cities, Seasons and Years (From 1984 till 2023) and see the result in all the Visualizing charts accordingly.

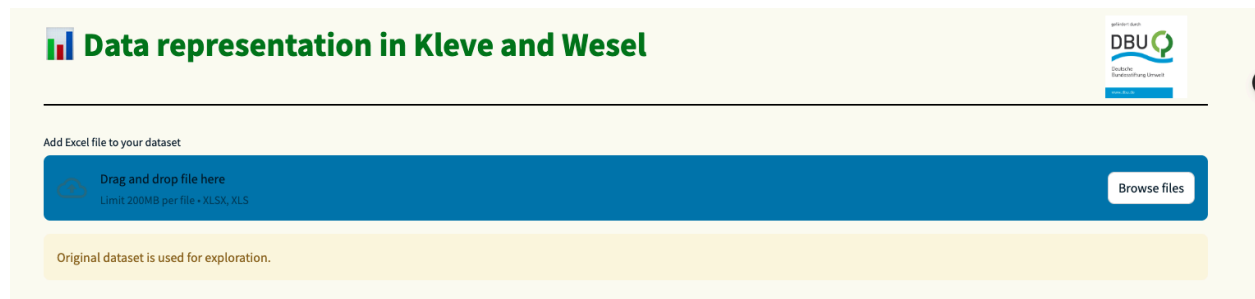


Figure 1: Upload Section of database

Secondly, if you want to visualize the new or your own dataset you have to click or **Browse files** or simply drag and drop your file in the blue section.

- To see the structure of excel sheet and data resources > Click in **Resources** tab as shown in Figure3 and Click To **Download Excel sheet** button and confirm it will download the sample excel sheet with a small chunk of datasets and you can upload and visualize it again.

Note : If you tried to import invalid dataset it will throw the error message

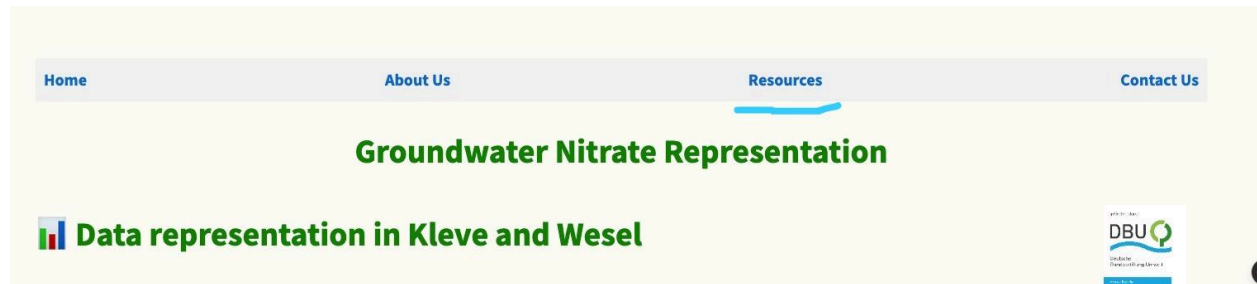


Figure 2: Available menus and highlighting resources

Figure 2, represents the Menus of the Application like **Home**, **About Us**, **Resources** and **Contact Us**, As the Resources menu is highlighted ,if the user click to Resources it will be redirected to resources page as shown in Figure 3 below.

Resources/Ressourcen

Here you can download and preview the datasets / Hier können Sie die Datensätze herunterladen und in der Vorschau anzeigen

messstelle_id	datum_jr	stoff_nr	messergebnis_e	maeinheit	n52	n52	gemeinde_id	landkreis	straßen	städte	season
80201556	23.02.87	1244	0.8854 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	winter
80201556	18.06.84	1244	4.427 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	02.09.86	1244	0.8854 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	autumn
80201556	13.11.89	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	autumn
80201556	01.03.85	1244	4.427 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	spring
80201556	22.04.86	1244	0.8854 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	spring
80201556	11.05.89	1244	1.10675 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	spring
80201556	11.03.88	1244	1.10675 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	spring
80201556	15.10.87	1244	1.10675 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	autumn
80201556	08.08.85	1244	0.8854 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	19.01.93	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	winter
80201556	22.05.90	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	spring
80201556	06.06.91	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	12.06.95	1244	11.9529 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	06.01.94	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	winter
80201556	25.06.96	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	16.10.90	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	autumn
80201556	04.06.92	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	05.01.95	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	winter
80201556	04.06.97	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	10.01.96	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	winter
80201556	19.07.94	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	27.01.92	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	winter
80201556	14.07.93	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	summer
80201556	07.01.97	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	winter
80201556	05.01.98	1244	1.54945 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	winter
80201556	18.05.98	1244	1.3281 mg/l	mg/l	510317	5693030	55154052	Kleve	Straßen	städte	spring

Download Image / Bilder herunterladen

Download Excel Sheet

DBU

Figure 3: Filter option by districts

Figure 3 Illustrate mandatory fields in Excel Sheets to make the successful imports of datasets.

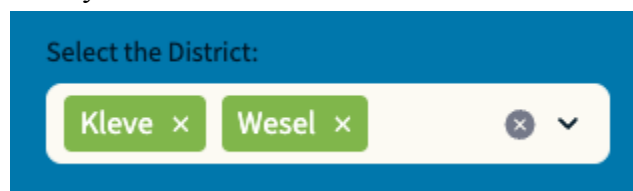


Figure 4: Filter option by districts

Figure 4 represent the available district from the dataset to perform the filter according to the District like Kleve and Wesel

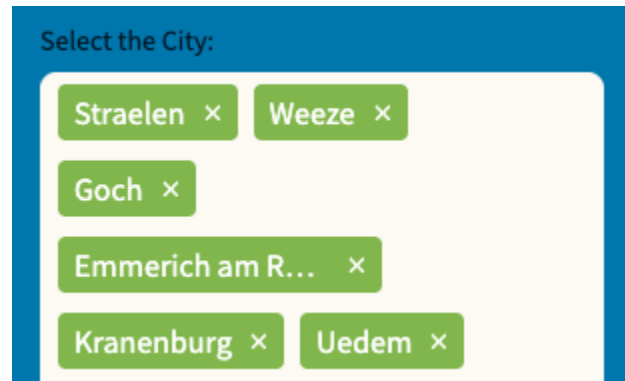


Figure 5: Filter option by Cities

Figure 5 represent the available Cities from the dataset to perform the filter according to the Cities and they are depend on the district you have selected



Figure 6: Filter option by Seasons

Figure 6 represents the available Seasons from the dataset to perform the filter according to the Seasons. You can select and remove and see the visualization effect on the various chart

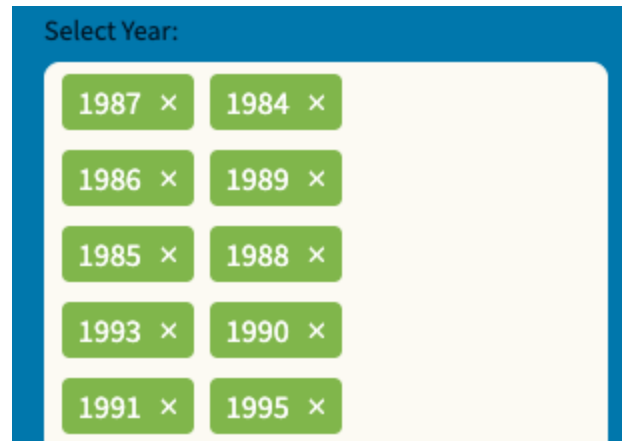


Figure 7: Filter option by Years

Figure 7 represents the available years from the dataset to perform the filter according to the specific years. You can select and remove the years accordingly and see the visualization effect on the various chart

According to the filter on the left side of Landing Page ,you will feel and see the changes on the following graphs and charts. You can enjoy the filter and see the live changes in chart and graphs present in right side

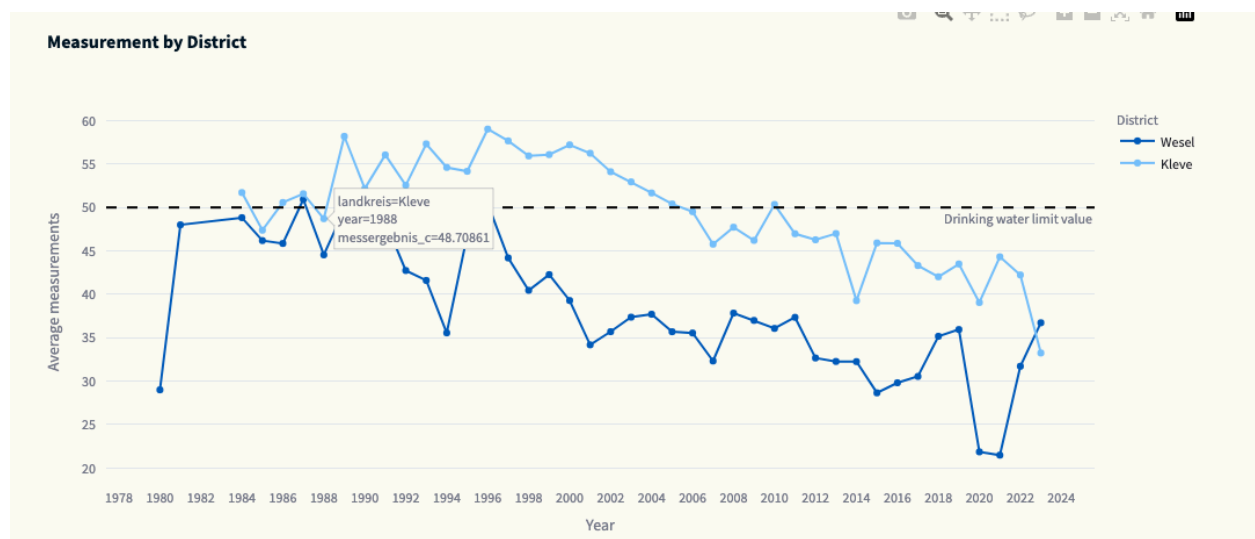


Figure 8 : Line Chart

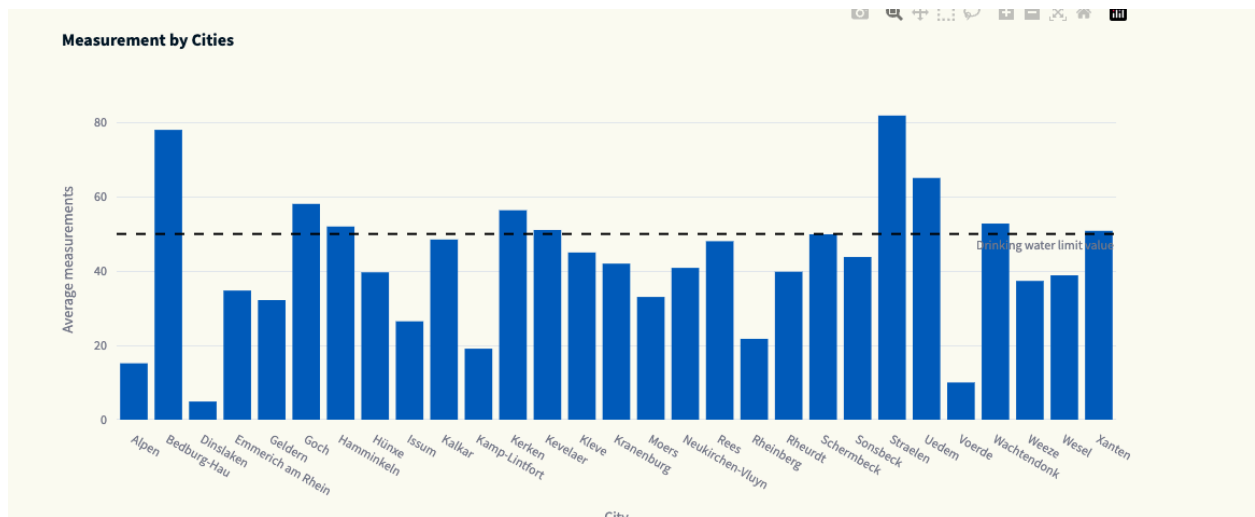


Figure 9: Bar Chart

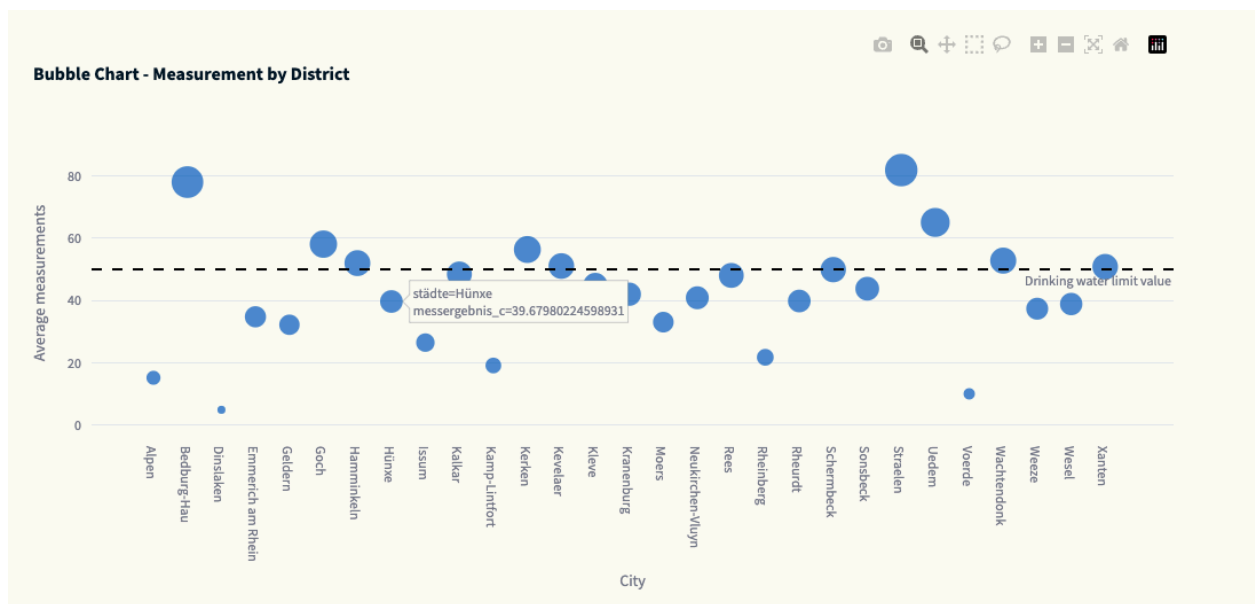


Figure 10: Bubble Chart

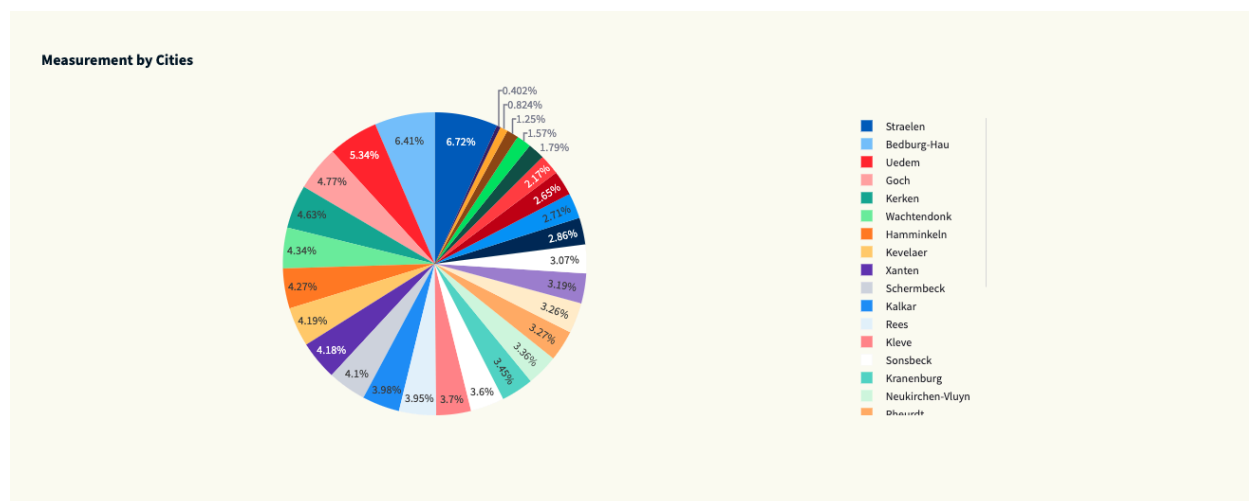


Figure 11: 2D Pie Chart

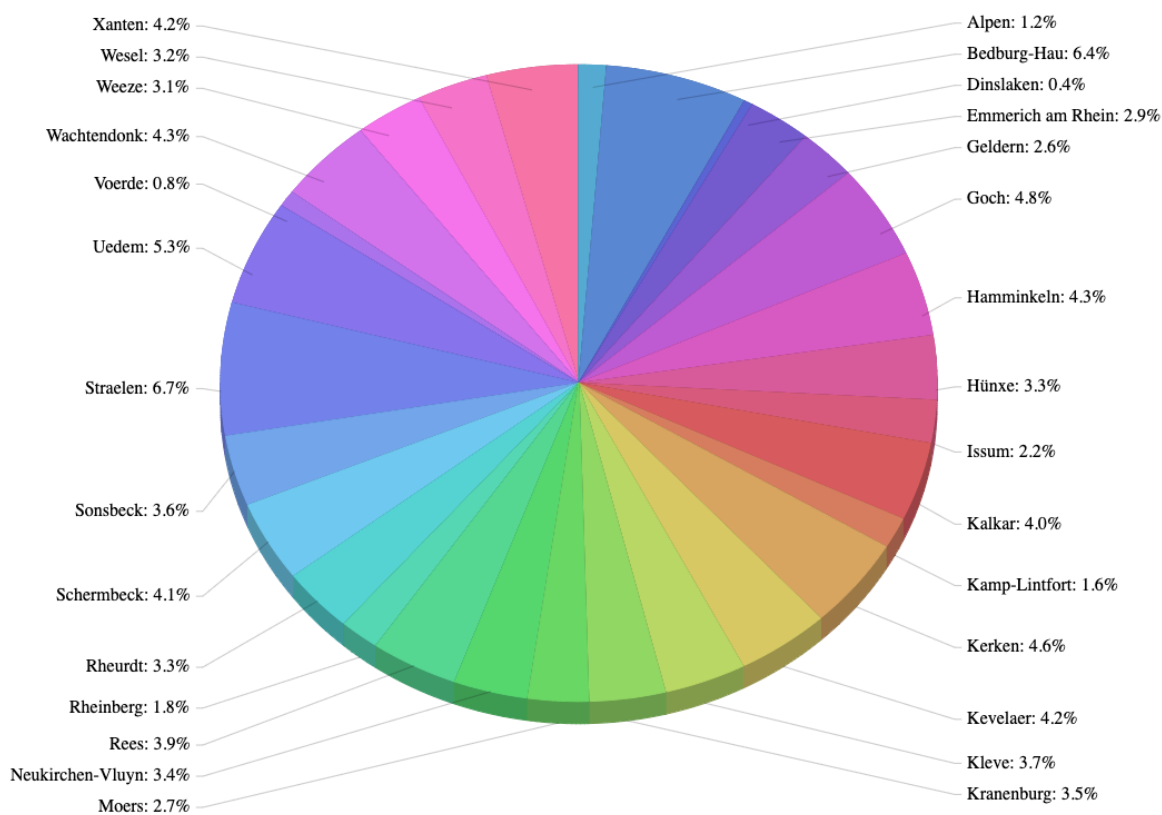


Figure 12: 3D Pie Chart

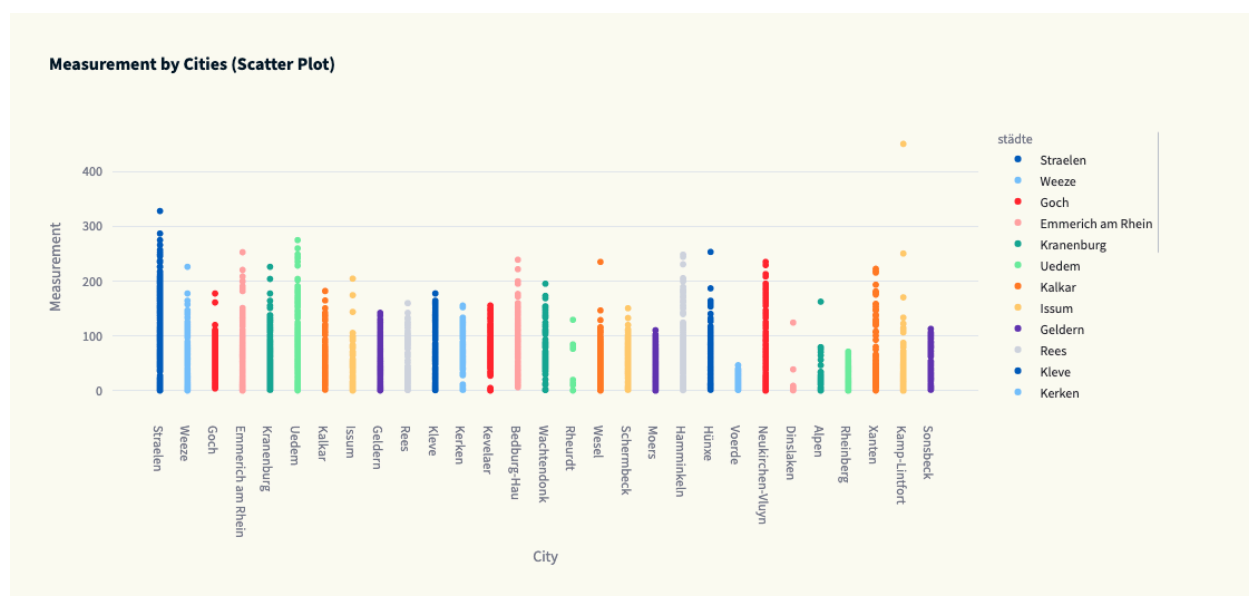


Figure 13: Scatter Plot

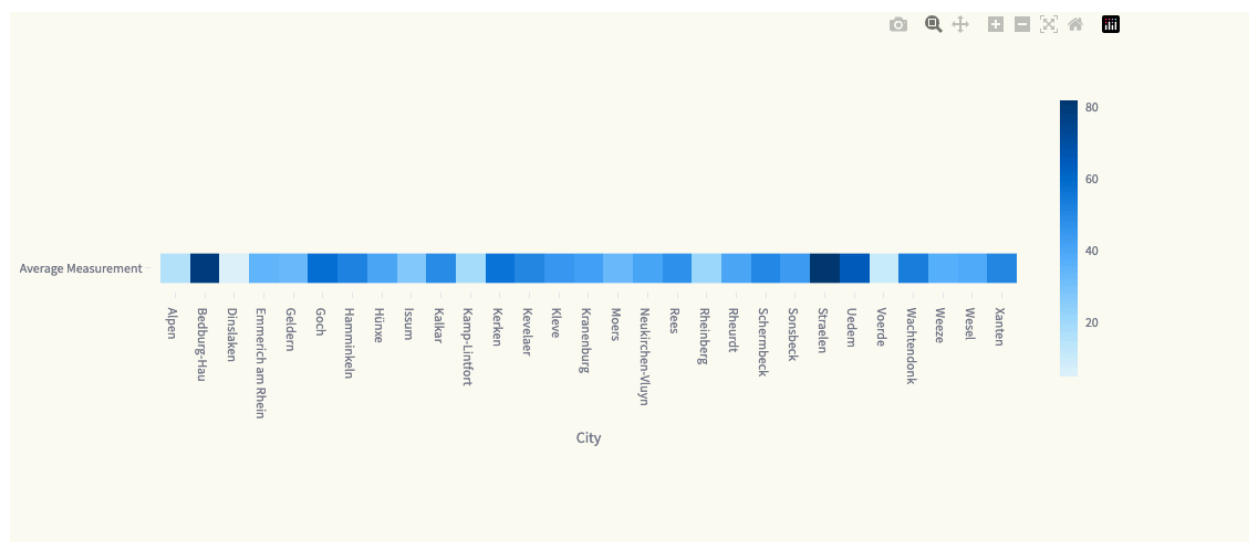


Figure 14 : Intensity Graphs

Thank you !!

