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COMMAND d

# Capacity building materials on the use of IT platform with inclusive training on real-time data integration in North Macedonia



# The City of Skopje COMMANDd project

## The main goal

Develop a system to support an efficient protection and rescue system at the local level

## IT platform

- ❖ ability to collect and analyze the exchange of all data needed for successful preparedness for disasters and emergency situations at local level
- ❖ include the competent headquarters of the civil protection and other operational forces such as, for example firefighters, local authorities, private companies, public enterprises and NGO's.

# The City of Skopje

## COMMAND d IT PLATFORM

### COMMAND d platform

- ❖ one of the primary objectives was to make the system user-friendly so as to enable the user to independently explore and use the basic functions of the system
- ❖ the platform can be accessed through any web browser (Firefox, Google Chrome, etc.), via address: <https://commandd.pipgis.eu/>



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## COMMAND d IT PLATFORM

### COMMAND d platform – Login In



The screenshot shows a login form with the following elements:

- User login:** A label above the input fields.
- Username field:** A text input field with a user icon on the left and the placeholder text "username".
- Password field:** A text input field with a key icon on the left and the placeholder text "password".
- Login button:** A red button with the text "Login".
- Forgot password link:** A link with the text "Forgot your password?".
- Footer:** Logos for the European Union and COMMAND d, along with the text "Funded by the European Union" and "COMMAND d Connecting and Modernising Mechanisms for the Growth and Innovation of the Western Balkans".

# The City of Skopje COMMAND d IT PLATFORM

## Main menu and submenu

The main menu contains basic options for viewing, searching, activating and editing all layers in the system.

The options on the main menu bar include:

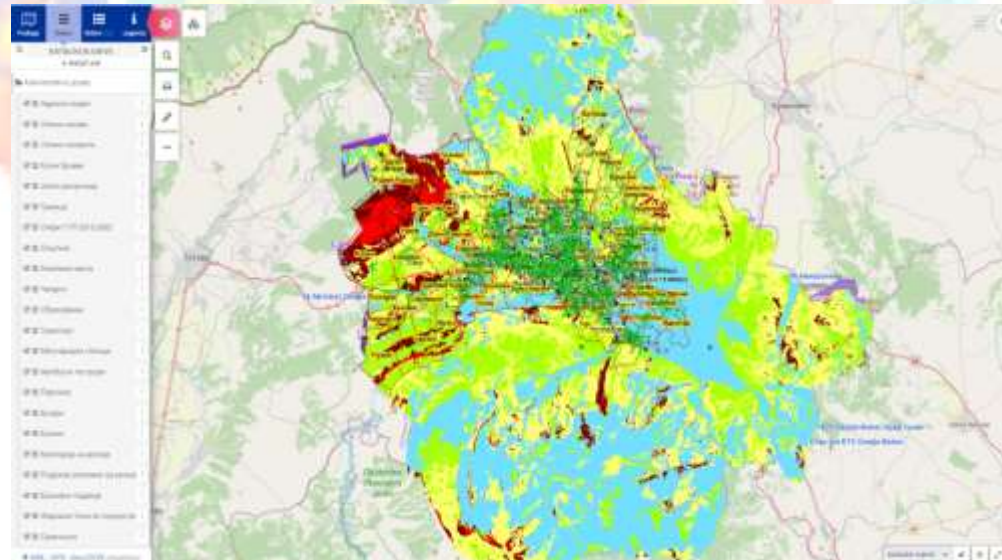
- layers
- search
- data
- print
- tools

# The City of Skopje COMMAND d IT PLATFORM

## Main menu option – layers at the section for the City of Skopje

By enabling the option „layers“ in the main menu, the following options can be managed in the submenu:

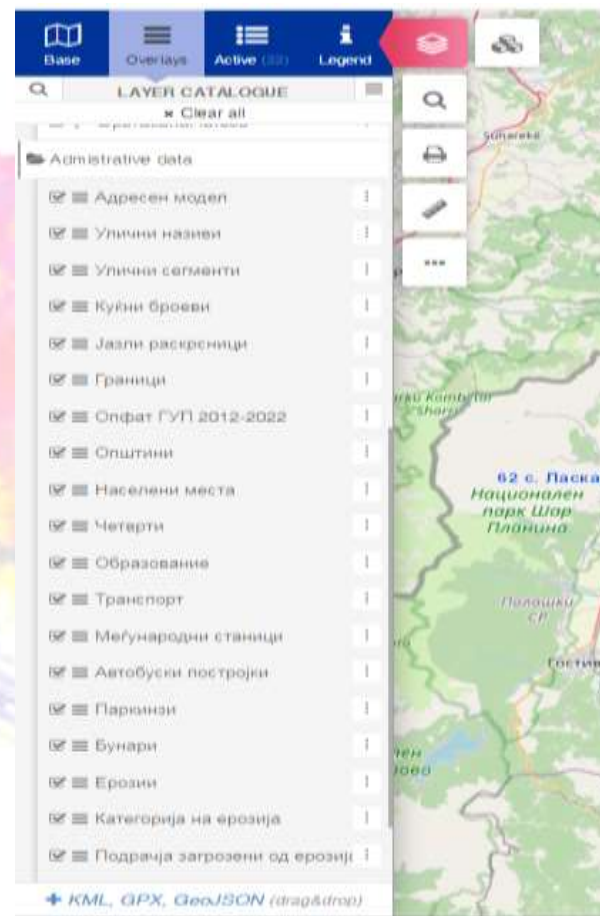
- ❖ Base maps
- ❖ Layers
- ❖ Active
- ❖ Map key



# The City of Skopje

Some examples of the database (layers) containing the following information's:

- Address model
- Street names
- Street segments
- House numbers
- Intersection nodes
- Borders
- Scope GUP 2012-2022
- Municipalities
- Settlements
- Fourth
- Education facilities
- Transportation
- International transport stations
- Bus facilities
- Parking lots
- Wells
- Erosions
- Category of erosions
- Areas threatened by erosion
- Erosive areas
- Flashpoints in torrential watercourses
- Lands slides



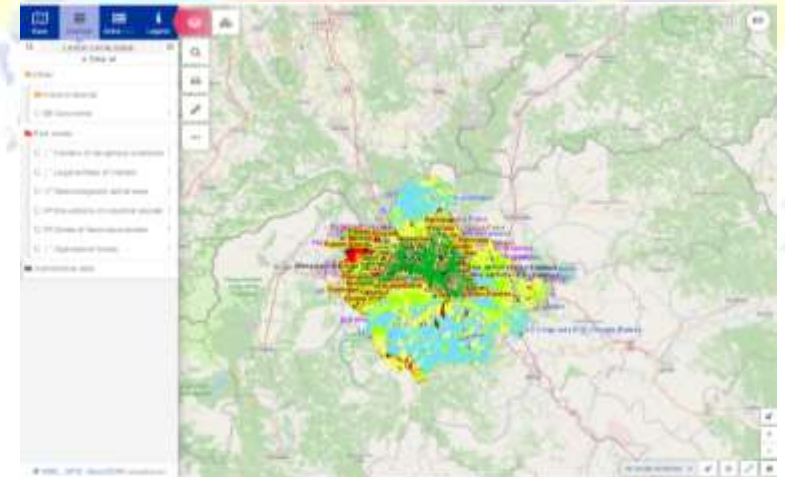
# The City of Skopje

## COMMAND d IT PLATFORM

### Basic part of the system in the section for the City of Skopje

Basic part of the system contains following information:

- ❖ Layer *Hazardous Substances* will contain the locations of all legal entities that dispose of hazardous materials in their warehouses
- ❖ Layer *Legal Entities* will provides an overview of all legal entities of interest for the protection and rescue system
- ❖ Layer *Seismological active areas* will provides information of the location of the earthquake
- ❖ Layer *Simulation of industrial accidents*
- ❖ Layer *Zone for floods* will provide information regarding the floods
- ❖ Layer *Protection and Rescue Service* lists all the services that are currently in the system.





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## COMMAND d IT PLATFORM

### REAL TIME INTEGRATION OF DATA

It is planned to deliver information in real time for the COOMMAND d data system from the following institutions:

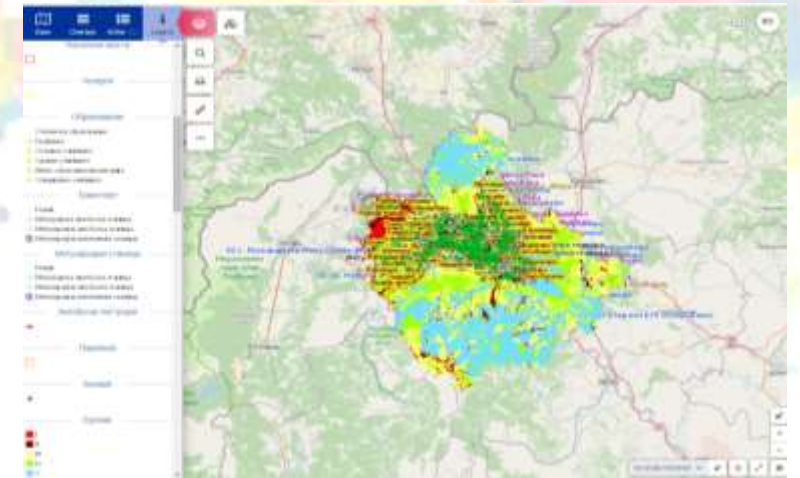
- ❖ Operation center 112
- ❖ Regional crisis management center 195
- ❖ Administration for hydro meteorological affairs
- ❖ Automotive Union of Macedonia
- ❖ EVN (data on interruption of electricity power )
- ❖ PE "Water supply and sewerage" - (data on interruption and field work for water supply)

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## COMMAND d IT PLATFORM

### MAP

- In cartography, a map is a two- dimensional graphic presentation of the spatial relationships of a part or the whole world.
- In digital cartography, such as COMMAND d, a map consists of overlapping layers of geographic data with styles and data frames.
- The map also contains some additional elements such as legend and scale.

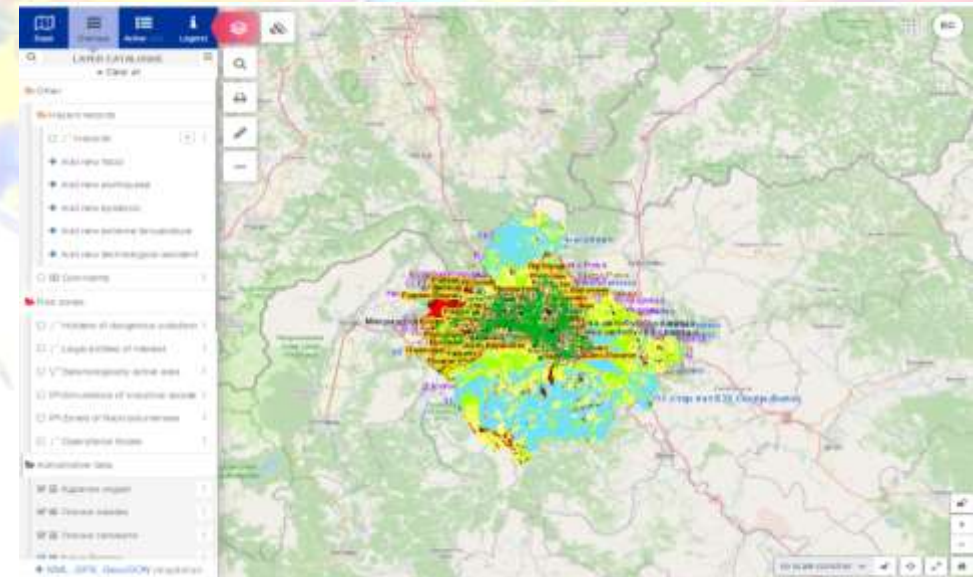


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## COMMAND d IT PLATFORM

The map consists of a several blocks:

- ❖ The layer control in those that contains layers, layer groups and tools for those management
- ❖ Overview of active layers
- ❖ Data search, printing, measurement and various additional tools
- ❖ Map navigation tools
- ❖ Background map menu
- ❖ A data frame that displays the active layers



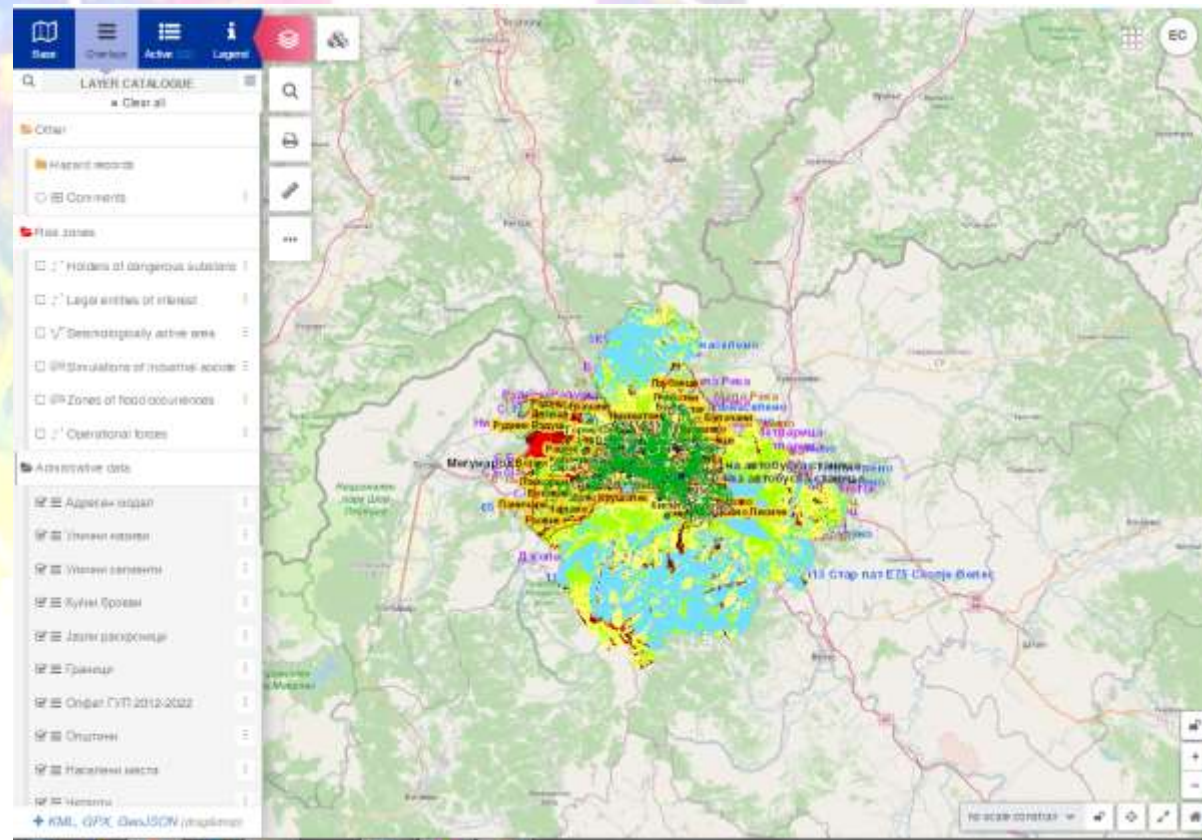
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## COMMAND d IT PLATFORM

### LAYER CONTROL

There are two groups of the layers on the Layers tab:

- ❖ Risk zones – infrastructure and
- ❖ Local data



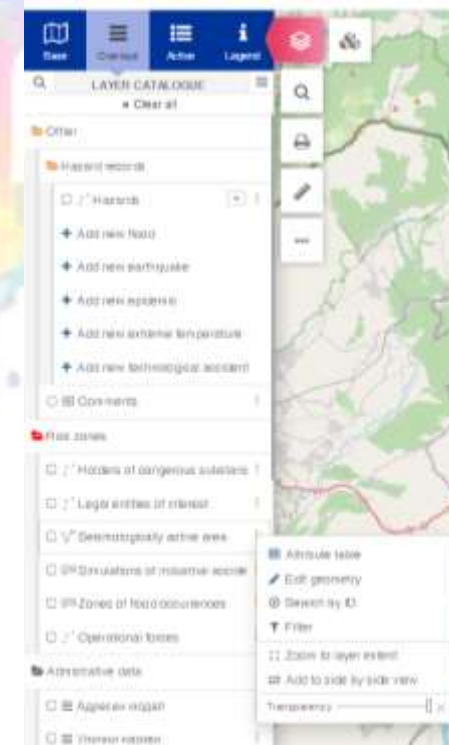
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## COMMAND d IT PLATFORM

### LAYERS MANAGEMENT

After adding a layer, it is possible to manage it and to perform analysis via the layer control. Clicking to the three vertical dots at the right of the layer name opens a set of tools related to zoom, management, access to attribute data, etc.

- ❖ View attribute table
- ❖ Search by ID
- ❖ Layer filtering
- ❖ Zoom to the entire extent of the layer
- ❖ Parallel display of background layer and active layers
- ❖ Adjust layer transparency

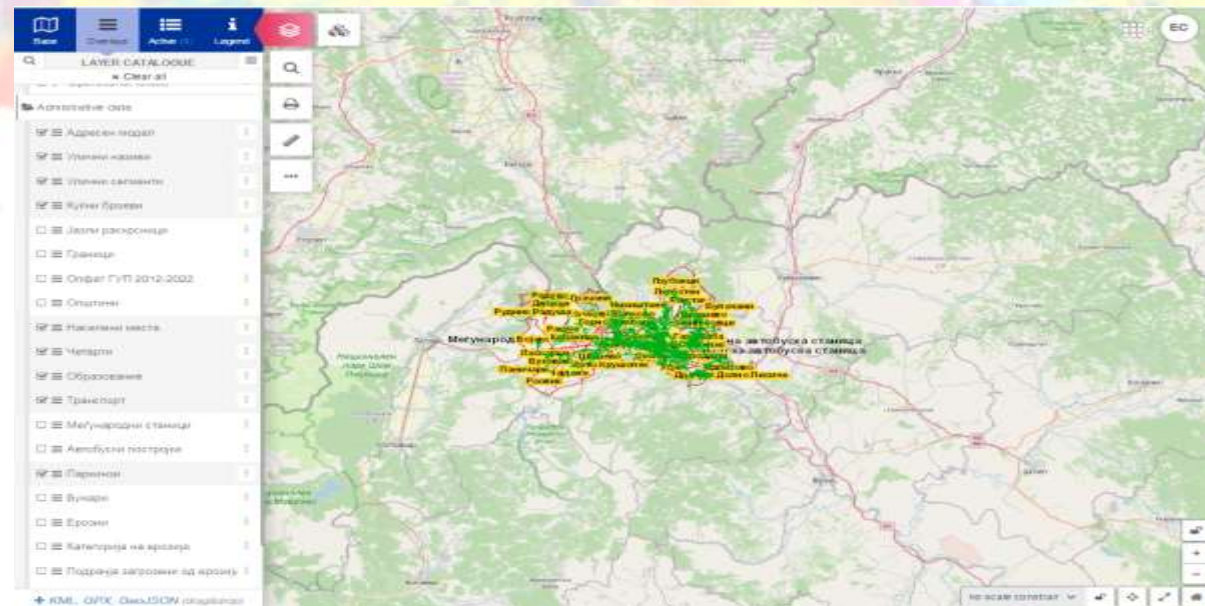


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## COMMAND d IT PLATFORM

### LAYERS MANAGEMENT

- ❖ Clicking to the arrow at the right side of the layer group name it expands the group name and displays the types of geometry it contains (points, lines, or polygons)
- ❖ By clicking on the square at the front of the layer name, the display of that layer is activated

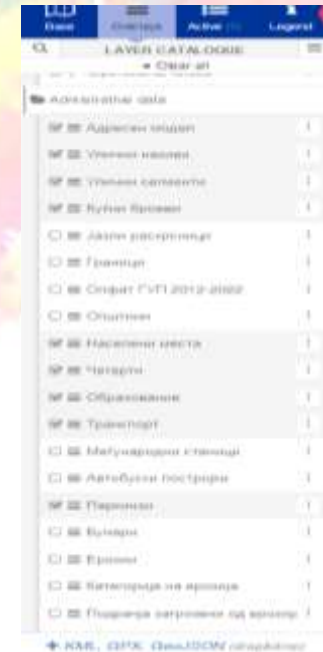


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## COMMAND d IT PLATFORM

### LAYER MANAGEMENT

- ❖ The layer control is location where all the map layers are kept. It is possible to change the order and visibility of added layers. In addition, this block contains tools for analysing and editing layers.
- ❖ A tab at the top of the layer control guides the user through a selection of background layers (background) to view all layers, view only active layers or view legends.
- ❖ Layer visibility can be turned off and on by clicking on the checkbox in front of the layer name
- ❖ The legend is open by clicking on the legend tab



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### ATTRIBUTE TABLE

- ❖ In GIS, the attribute table related to the vector layer represents numerical or textual information referred to the geometry.
- ❖ Each record in the table corresponds to a certain geometry on the layer. With support of this tool, it is possible to edit attribute data and geometry, execute queries and create filters.
- ❖ Attribute table is accessible by clicking on the three dots to the right of the layer name and by selecting the Attribute table option, it opens attribute table and it could be sort, search, etc.

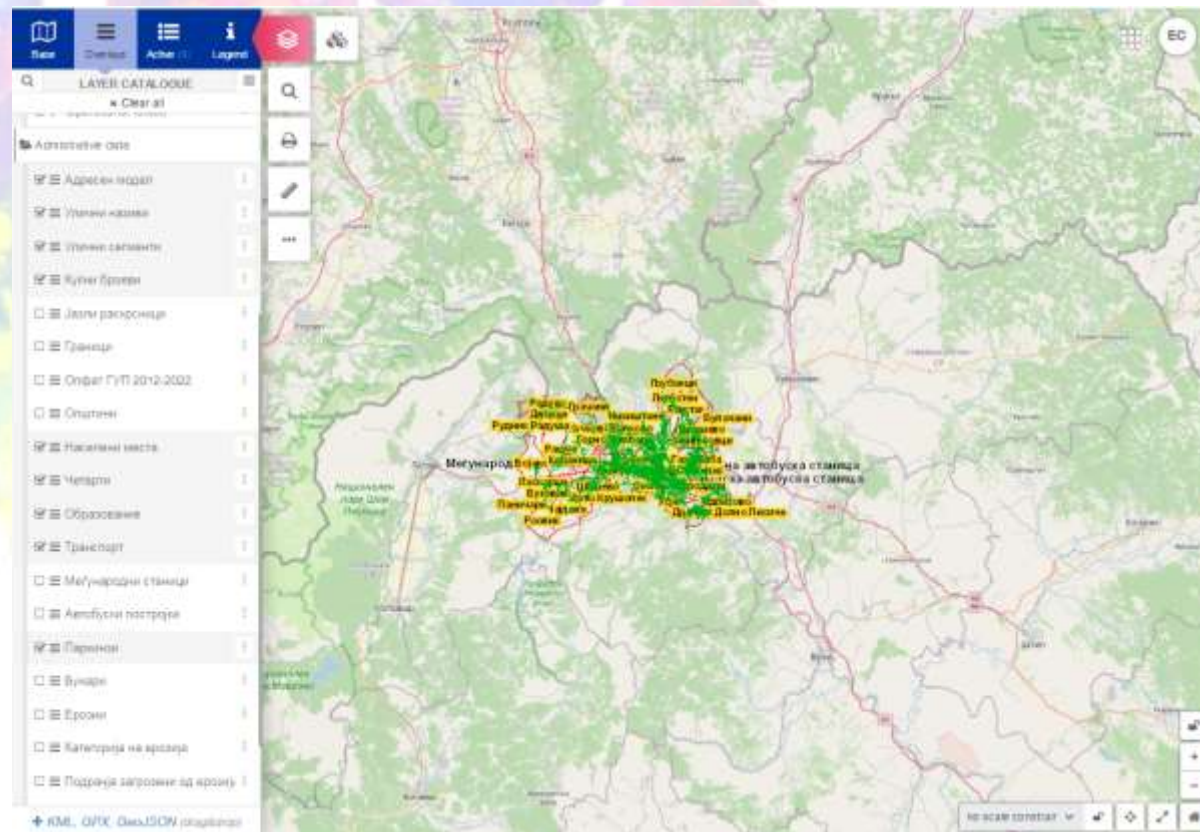


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## COMMAND d IT PLATFORM

### ACTIVE LAYERS

❖ The Active Layers tab shows only the active layers

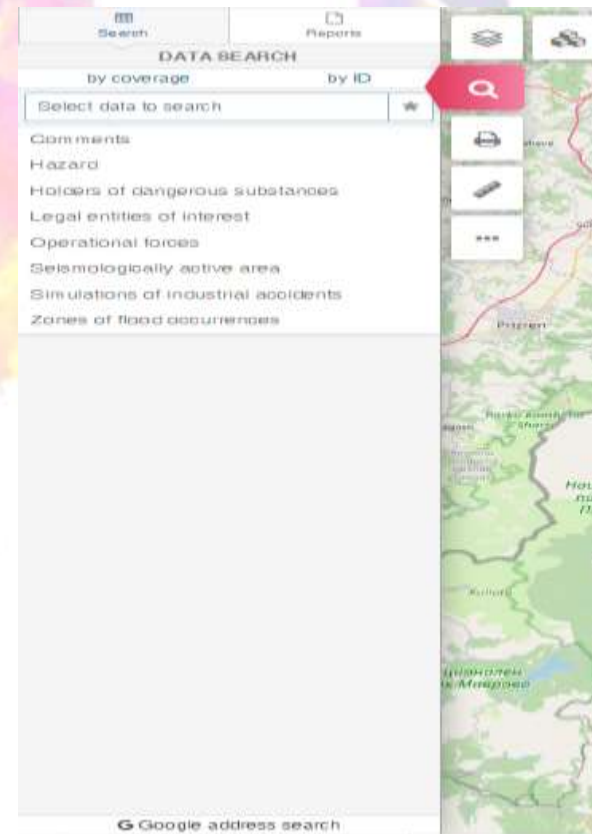


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- DATA SEARCH

- ❖ By clicking the Search button, data searching is enabled:
- ❖ By coverage or
- ❖ By ID



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## COMMAND d IT PLATFORM

### FILTERING THE DATA

- ❖ Clicking on the three dots to the right of the layer name, we select the Filter option.
- ❖ Attribute filter enables search based on attribute data with option and/or logical operations.
- ❖ First, we choose the attribute by which we want to filter the data, then we choose one of the log operators (equal, different, similar, ...)
- ❖ After defining the filtering parameters, click the option +Add filter.
- ❖ We can add more filters in a similar way.

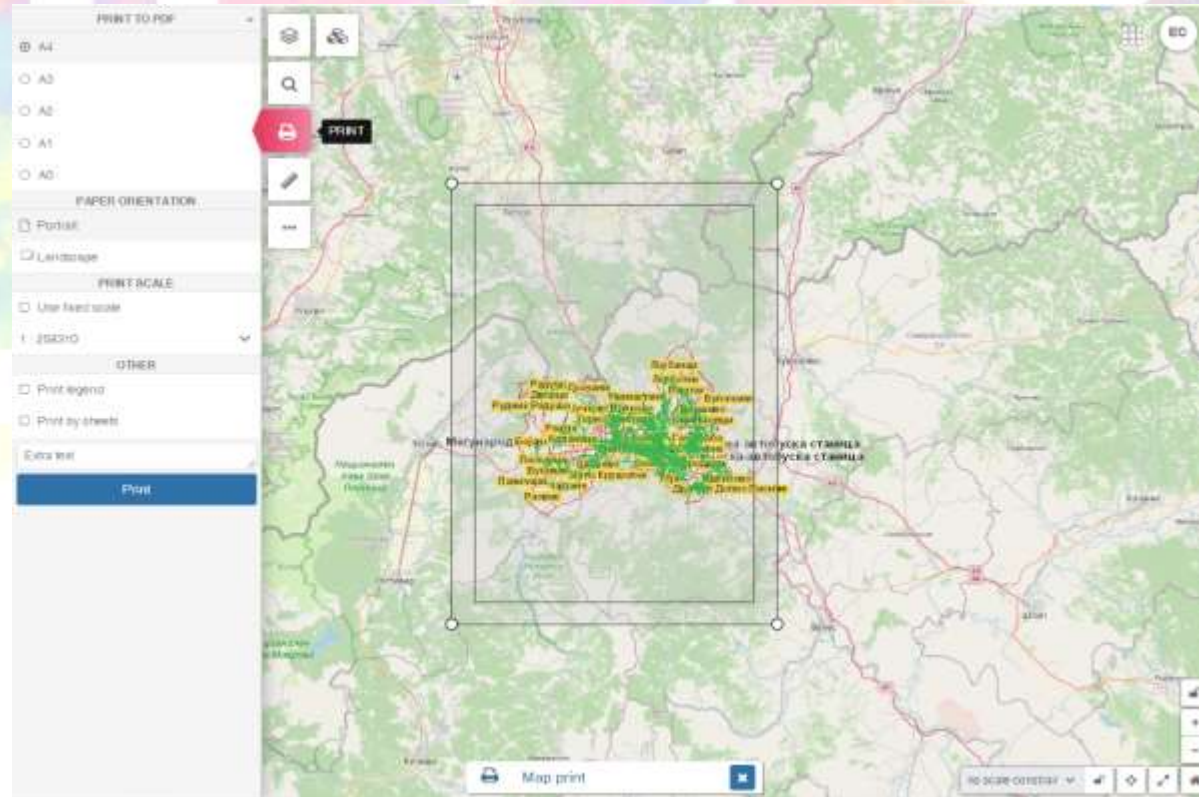
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## COMMAND d IT PLATFORM

### PRINT

By clicking the Print button, options for printing data are included, such as:

- ❖ Paper size
- ❖ Orientation
- ❖ Print scale
- ❖ Legend



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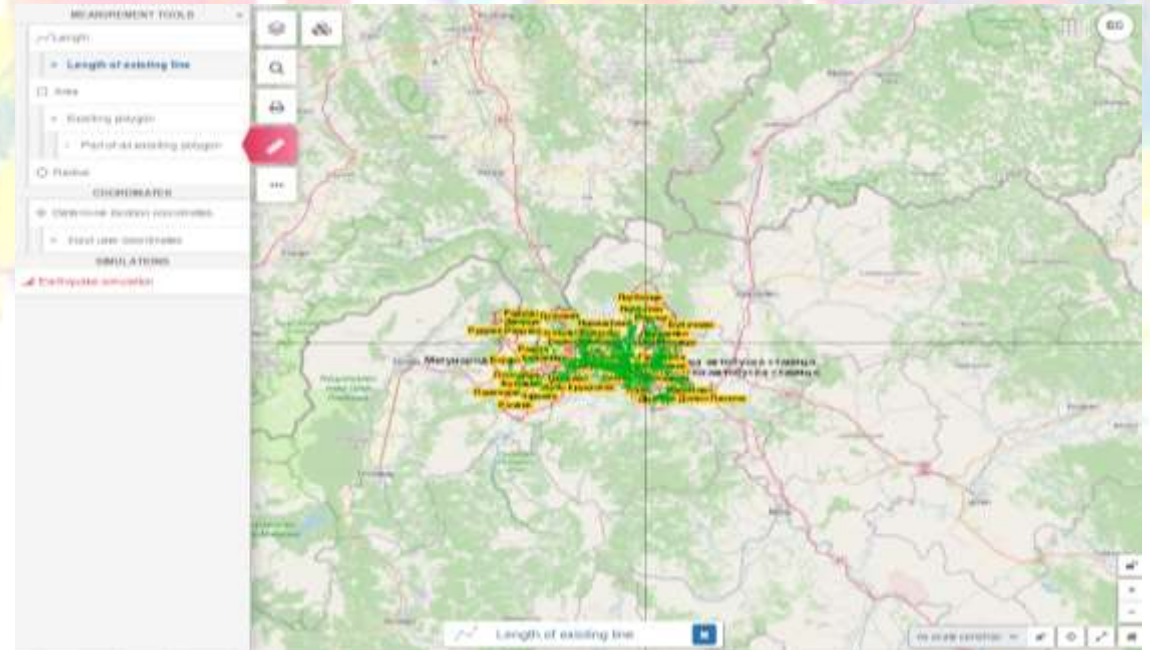
## COMMAND d IT PLATFORM

### MEASUREMENT

By clicking the Tools button, it opens measuring options such as:

- ❖ Distance
- ❖ Surface
- ❖ Radius
- ❖ Coordinates

With the option of using snap for more precise drawing

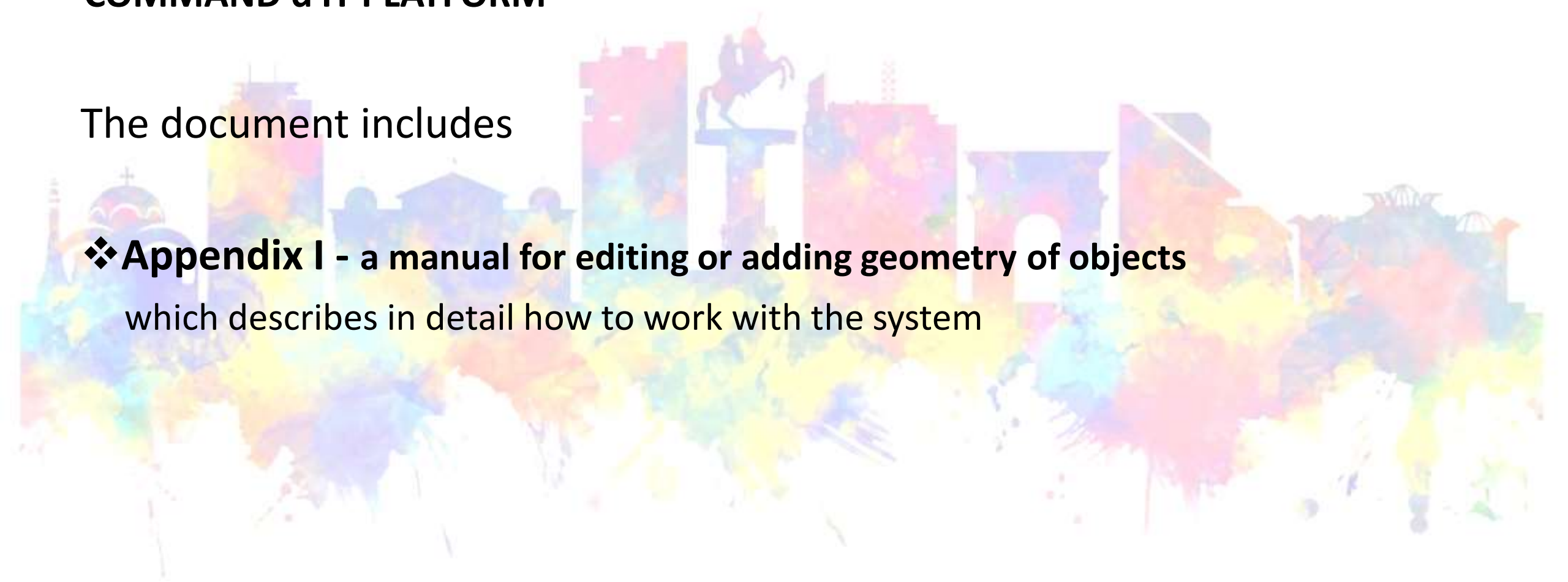


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## COMMAND d IT PLATFORM

The document includes

- ❖ **Appendix I - a manual for editing or adding geometry of objects**  
which describes in detail how to work with the system



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## COMMAND d IT PLATFORM

### CONCLUSIONS

- ❖ The possibility of fast communication and data exchange through the IT platform represents a step forward in dealing with (major) crises and accidents
- ❖ Receiving information through the IT platform for a crisis situation, provides security for the all the partners (for City of Skopje) that will received support and quick response of the regional partners