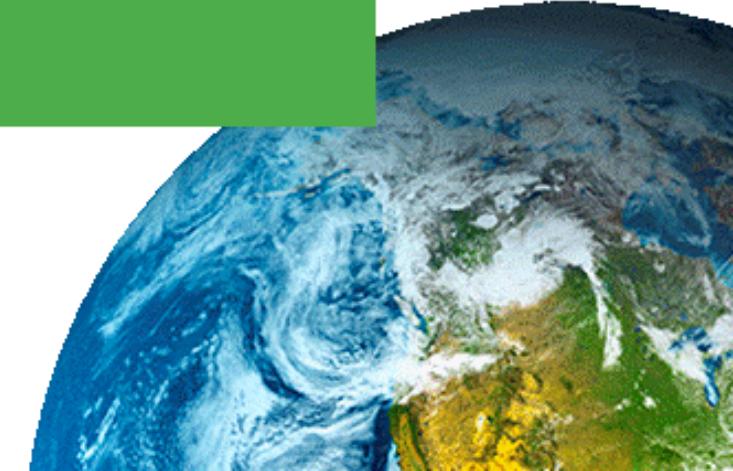


# MapStore at *geOcom 2022*

Tobia Di Pisa  
*GeoSolutions*



# About GeoSolutions

- Founded in late 2006
- Offices in Italy & US
- Supporting/Developing FOSS4G projects
  - MapStore, GeoServer, GeoNode , GeoNetwork, CKAN
- Offer
  - Enterprise Support Services
  - Deployment Warranty
  - Professional Training
  - End-To-End Projects (Integration)
- Clients
  - UN FAO (CIOK, FIGIS, NRL, FORESTRY, ESTG), UN WFP, World Bank, DLR, EUMETSAT, JRC, NATO CMRE, UNESCO, UNEP, etc..
  - BAYER, DigitalGlobe, MDA, TOPCON, SwissRE, Halliburton, etc..
- <https://www.geosolutionsgroup.com>





# Agenda



- What is MapStore ?
- Who uses MapStore ?
- MapStore at work
- MapStore roadmap

## What is MapStore?

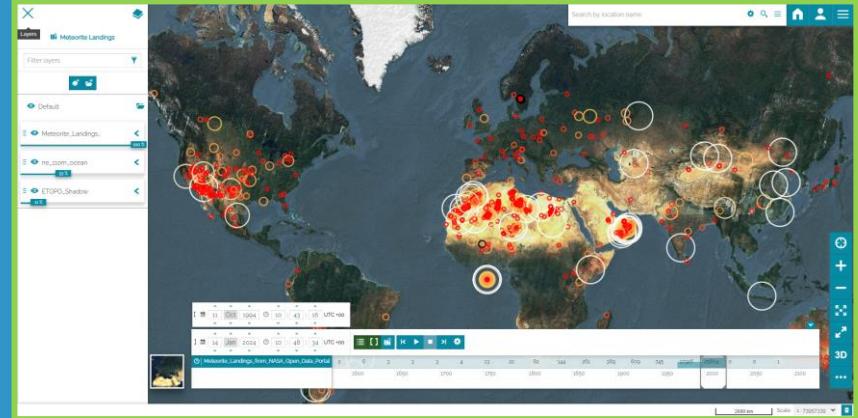
17th of May 2022 - geOcom



# What is MapStore?



- Create and share maps, charts, dashboards and stories online
- Mobile first | Responsive
- Mapping engine agnostic
  - OpenLayers|Leaflet|Cesium
- Leveraging React ecosystem
- Pluggable Look & Feel
- Consume data from many sources
  - OSM, Bing, WFS, CSW, WMS, WMTS
- License is Simplified BSD
  - Commercial friendly!



# What is MapStore?



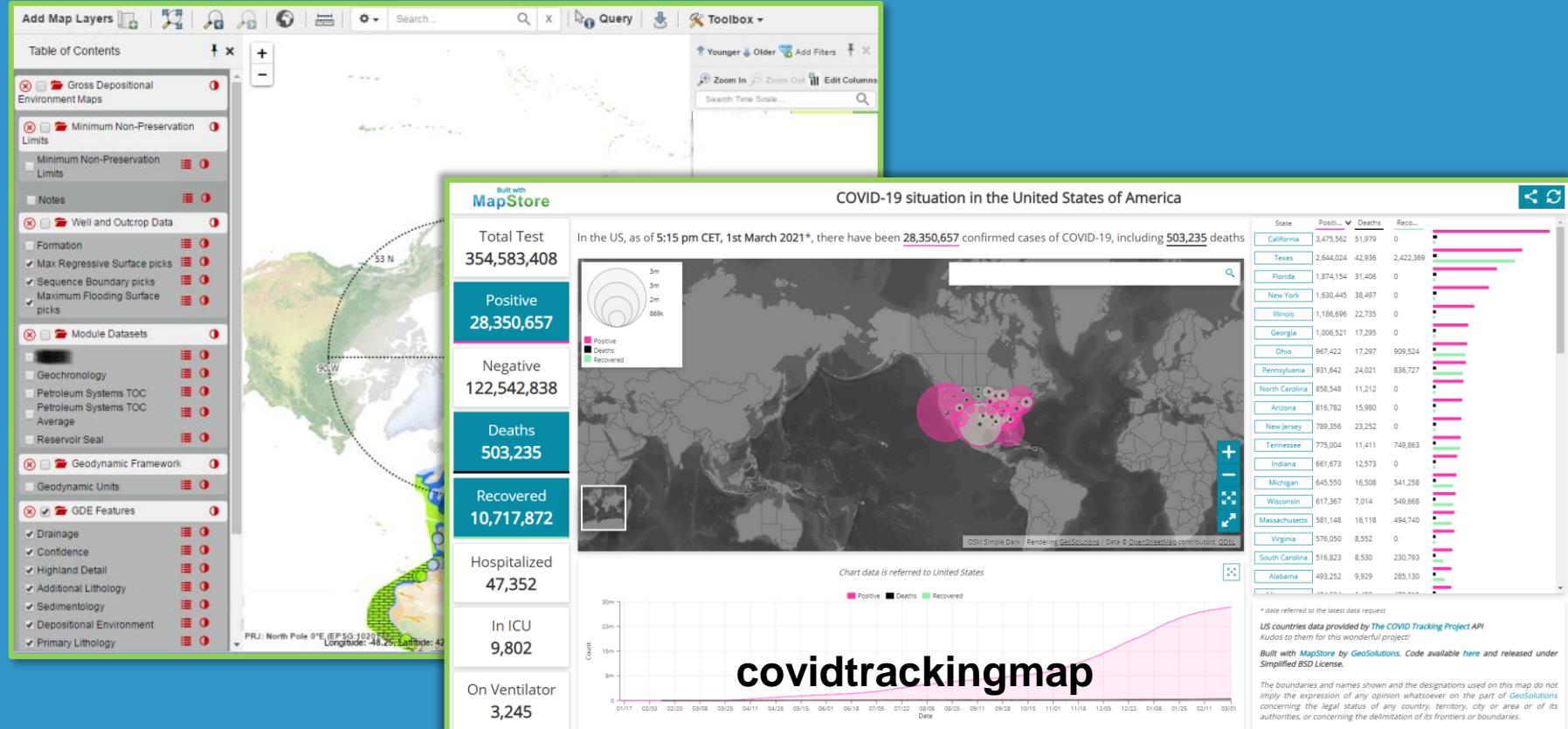
# It is a Product

The screenshot shows the MapStore application interface. At the top, there is a navigation bar with the city coat of arms, 'Featured' and 'Contents' links, a search bar, and a user profile icon. Below the navigation bar, there is a 'Featured' section with four cards: 'Livello 3 del Piano Urbanistico Comunale - P...', 'Interventi LLPP da luglio 2017', 'EMERGENZA MORANDI', and 'Protezione Civile per il cittadino'. The main area contains a large satellite map of Genoa. On the left, there is a sidebar titled 'Contents' with 'Maps (30)' and 'Dashboards (0)' options selected. The 'Maps' section shows thumbnails for 'Anagrafe' (population data) and 'Geologia' (geological data). A central panel displays a detailed map of a specific urban area with red dashed lines and dots indicating 'ZONA ROSSA', 'STRADE INTERDET.', and 'CIVICI SOGGETTI A SGOMBERO'. A legend at the bottom right defines these symbols. The bottom right corner of the map area shows a small globe icon and the text 'Elaborazione: Direzione Sistemi Informativi - Ufficio ICD'.

Use it as is and customize the look&feel

# What is MapStore?

# It is a Framework



You can build many different applications with its plugins (and by developing your own)



# Who uses MapStore?



# Who uses MapStore?

- Halliburton
- Austrocontrol
- MapStand
- UN FAO
- EMSA
- World Bank (via GeoNode)
- Unesco (via GeoNode)
- EARTH-I
- Arno river basin authority
- Region of Tuscany (Hydrologic Service)
- Region of Tuscany (Urbanistic Department)
- LaMMA
- BRGM
- City of Munich
- City of Florence
- City of Genova
- City of Bozen
- City of Brussels
- IGB (via GeoNode)
- **Rennes Métropole (via geOrchestra)**

As well as many other  
clients and users around  
the world!



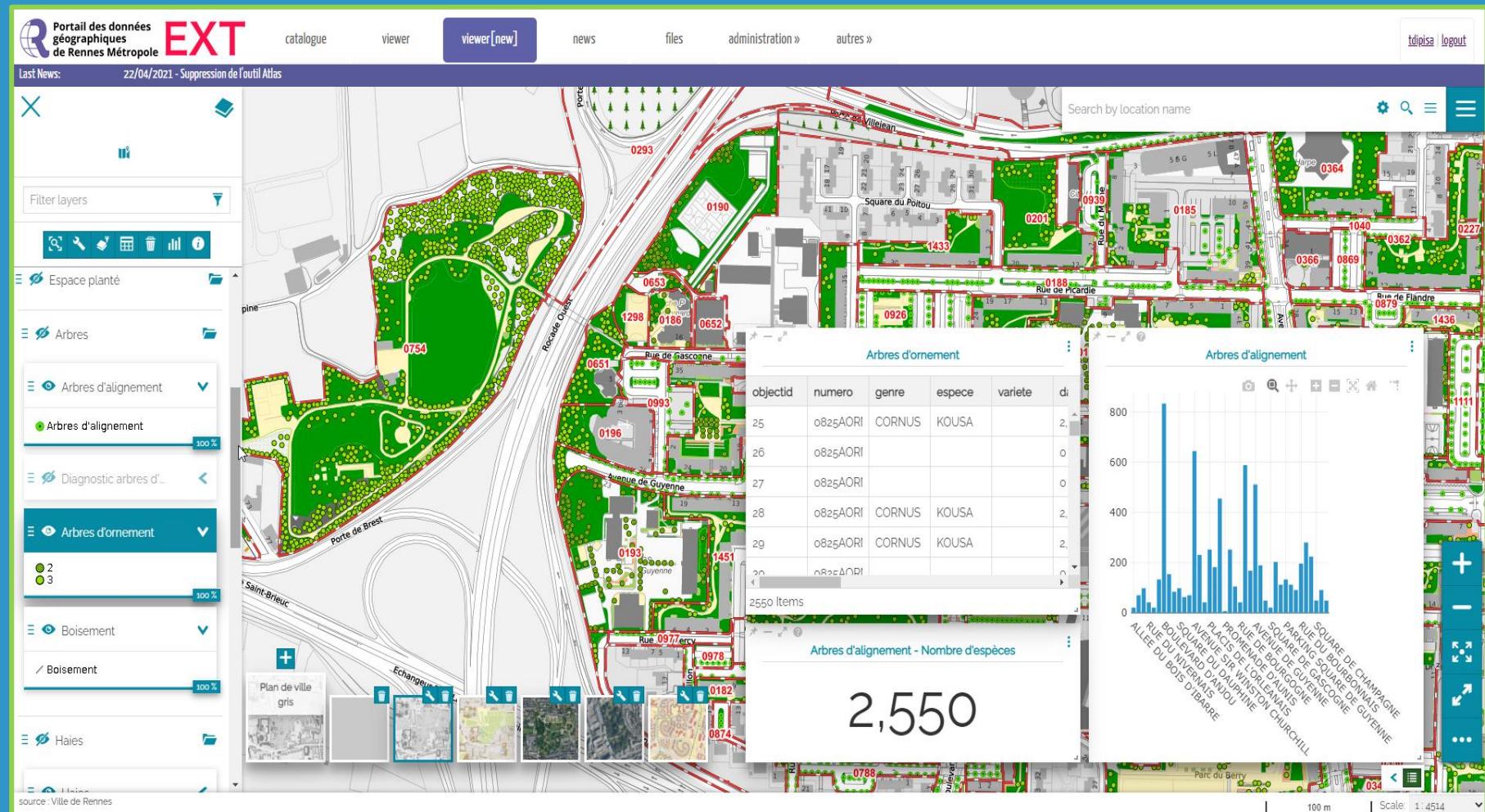
# Who uses MapStore?

# GeoSolutions

your one-stop-shop for geospatial open source software



## Rennes Métropole - geOrchestra

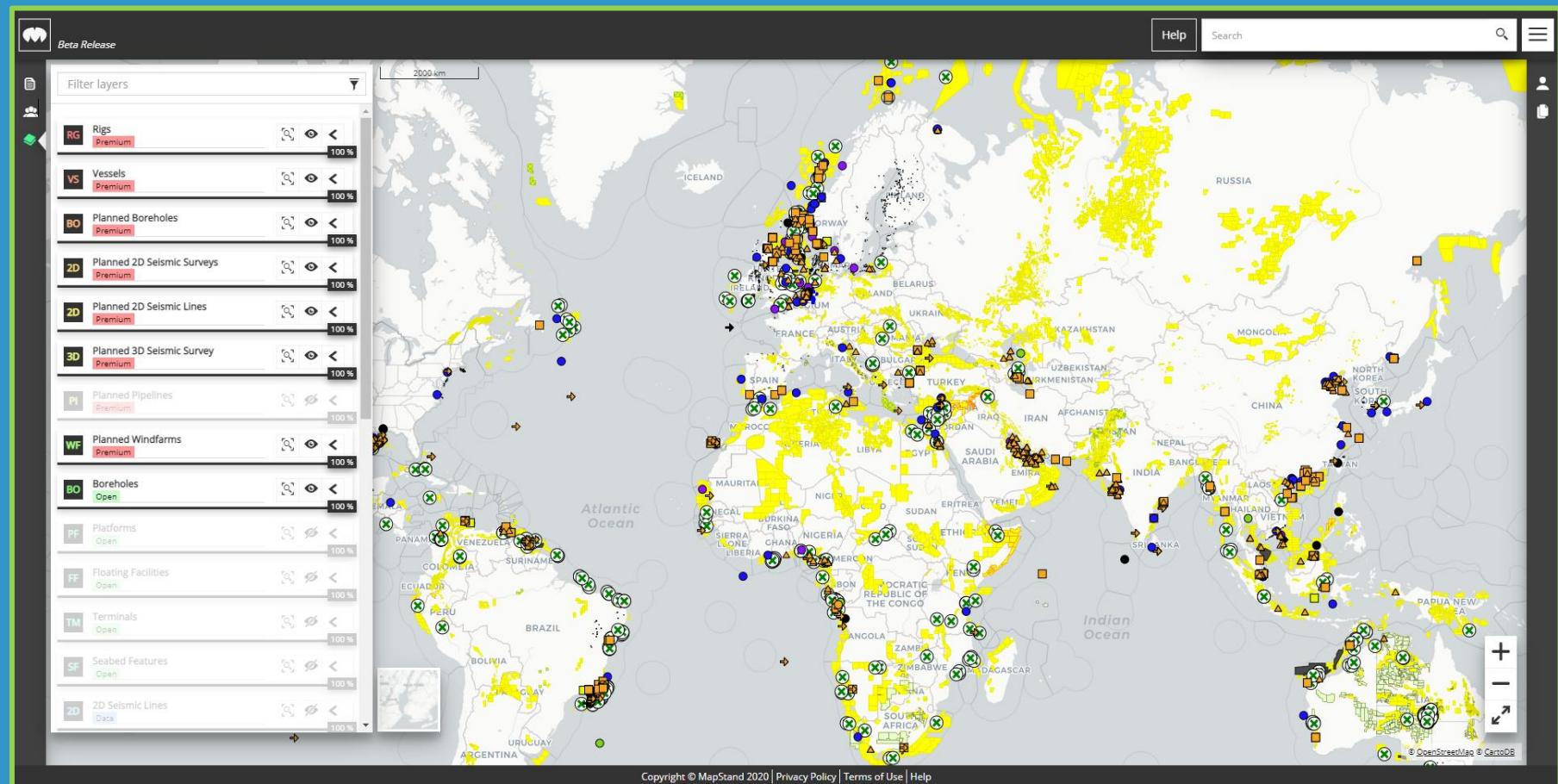


17th of May 2022 - geOcom

# Who uses MapStore?

# GeoSolutions

your one-stop-shop for geospatial open source software



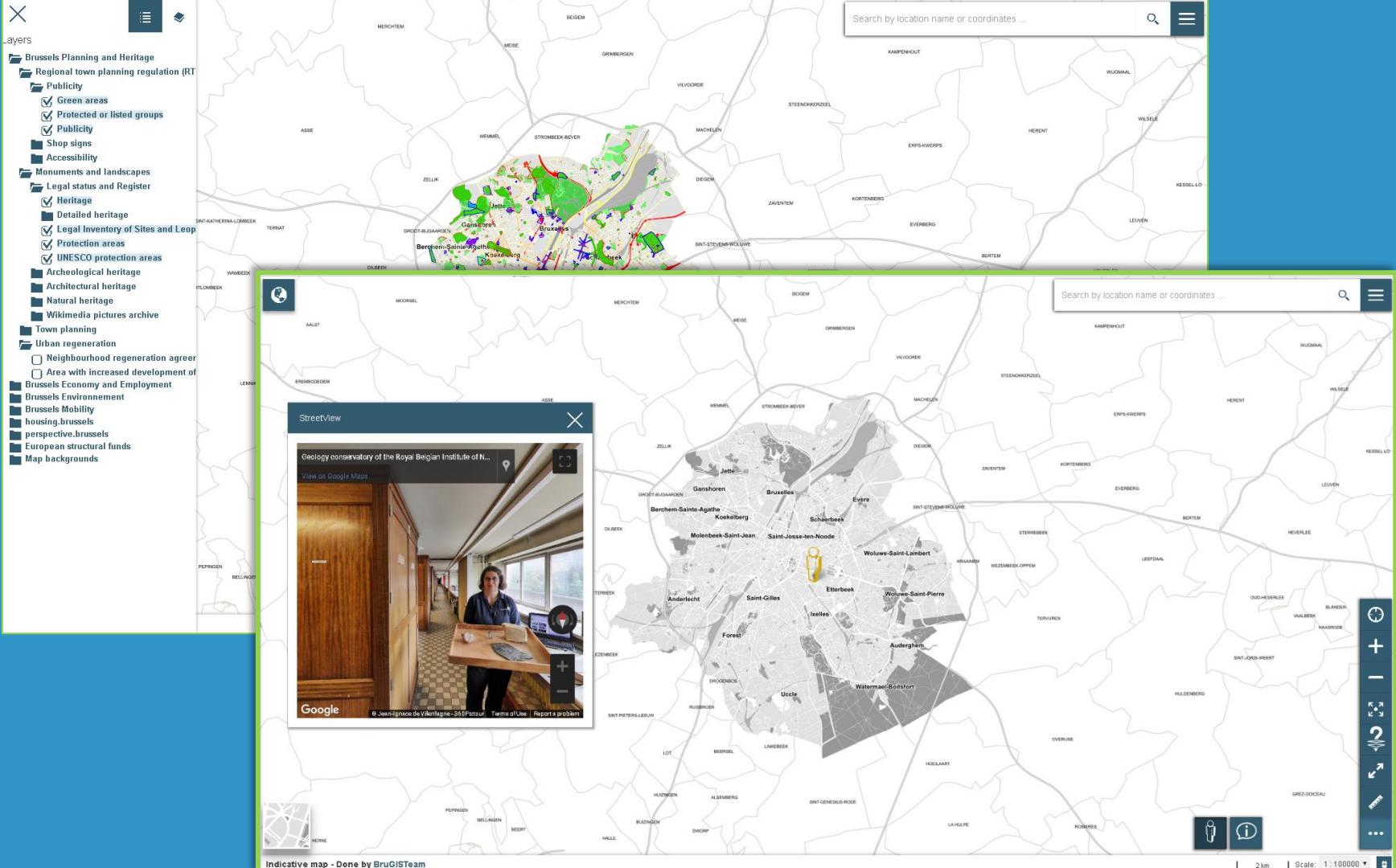
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# Who uses MapStore?

**GeoSolutions**  
your one-stop-shop for geospatial open source software



## City of Brussels



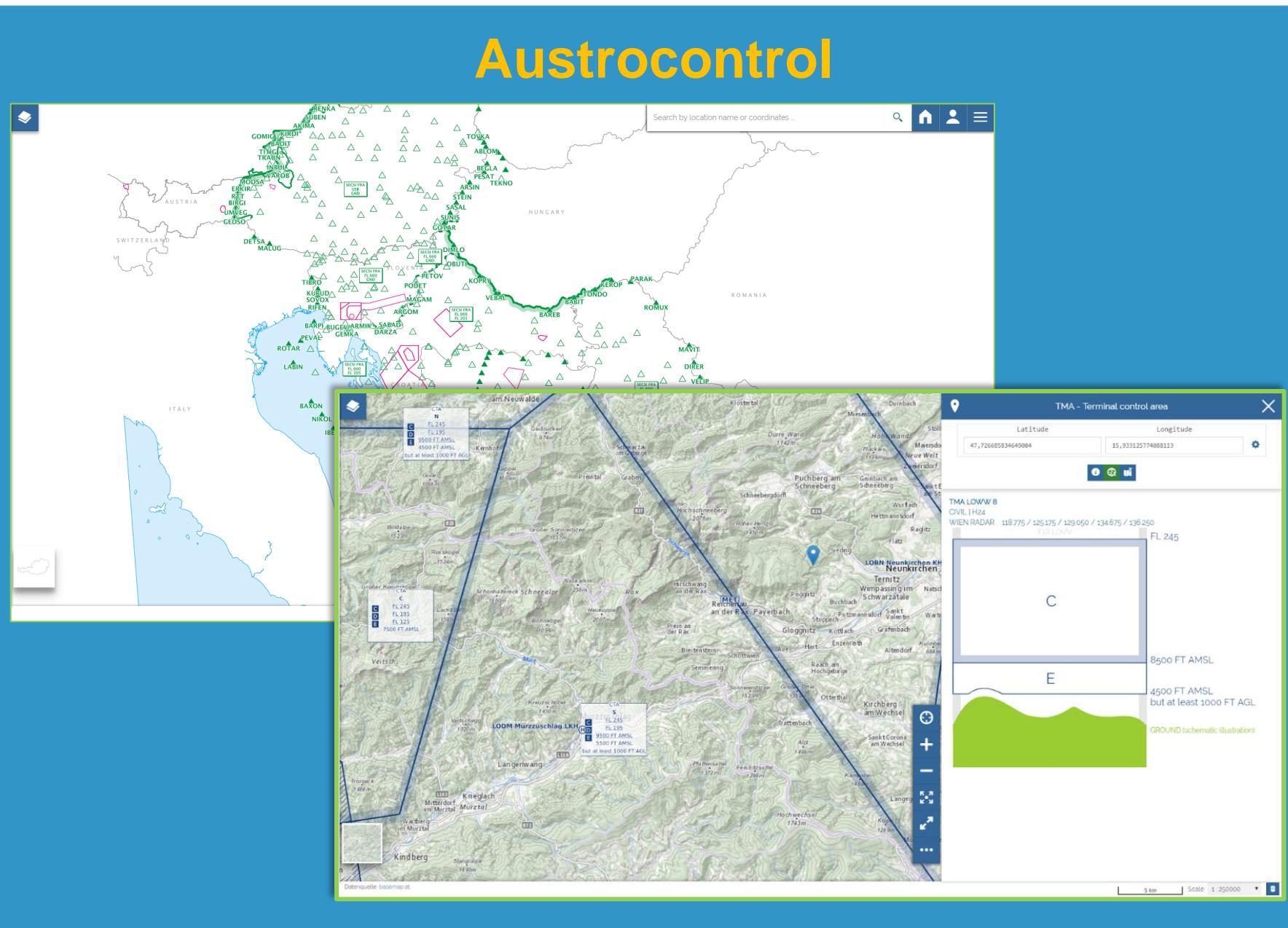
The screenshot displays the City of Brussels MapStore interface. The map shows the city of Brussels and its surrounding municipalities. Several layers are visible, including:

- Brussels Planning and Heritage
- Regional town planning regulation (RT)
- Publicity
  - Green areas
  - Protected or listed groups
  - Publicity
  - Shop signs
  - Accessibility
- Monuments and landscapes
- Legal status and Register
  - Heritage
  - Detailed heritage
  - Legal Inventory of Sites and Leop
  - Protection areas
  - UNESCO protection areas
  - Archaeological heritage
  - Architectural heritage
  - Natural heritage
  - Wikimedia pictures archive
- Town planning
- Urban regeneration
  - Neighbourhood regeneration agree
  - Area with increased development of
- Brussels Economy and Employment
- Brussels Environment
- Brussels Mobility
- housing.brussels
- perspective.brussels
- European structural funds
- Map backgrounds

A StreetView window is overlaid on the map, showing a person standing in a hallway with wooden cabinets, likely a museum or historical site. The map includes a search bar, a legend, and various navigation controls.

# Who uses MapStore?

# **GeoSolutions**

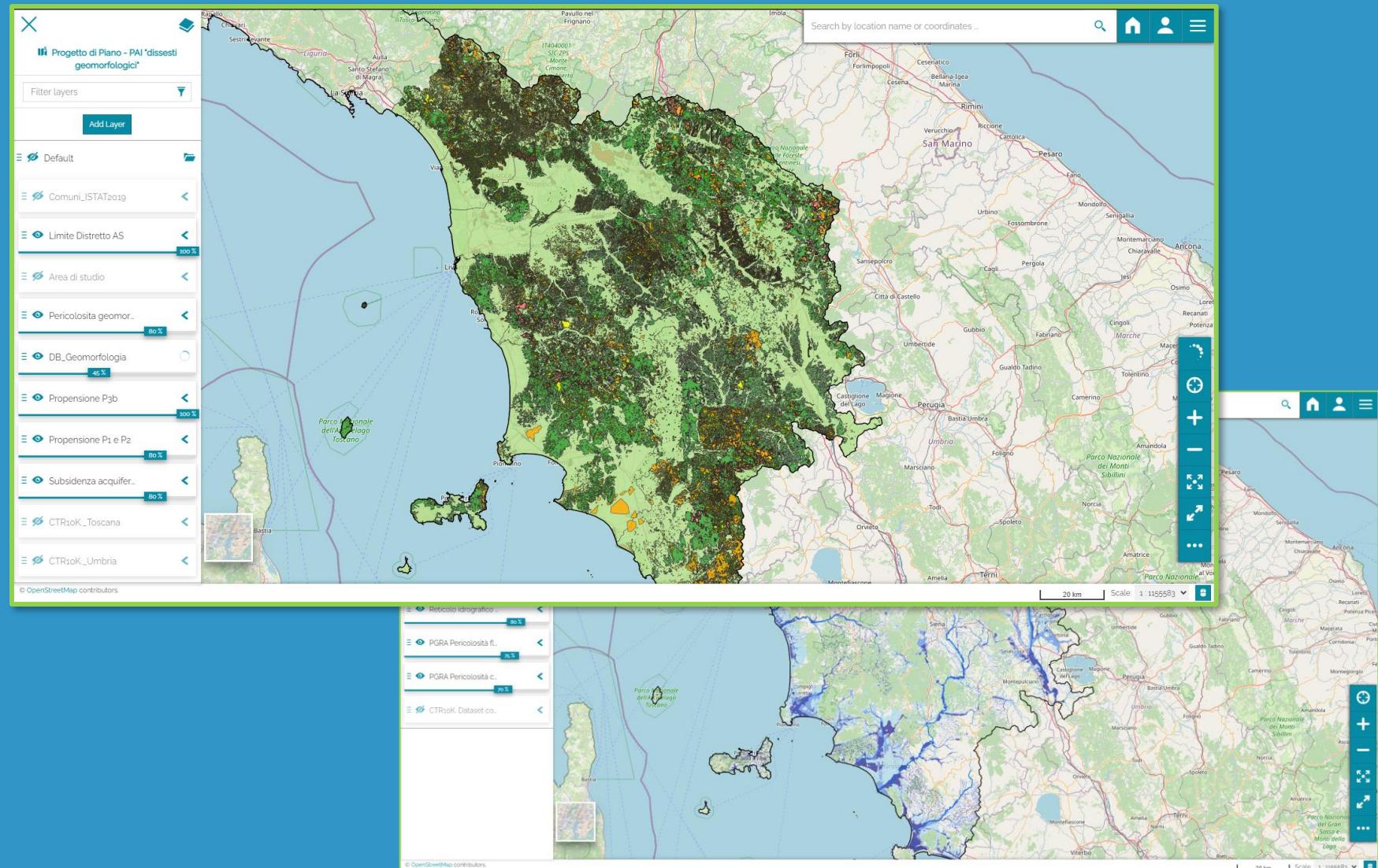


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# Who uses MapStore?

# GeoSolutions

your one-stop-shop for geospatial open source software



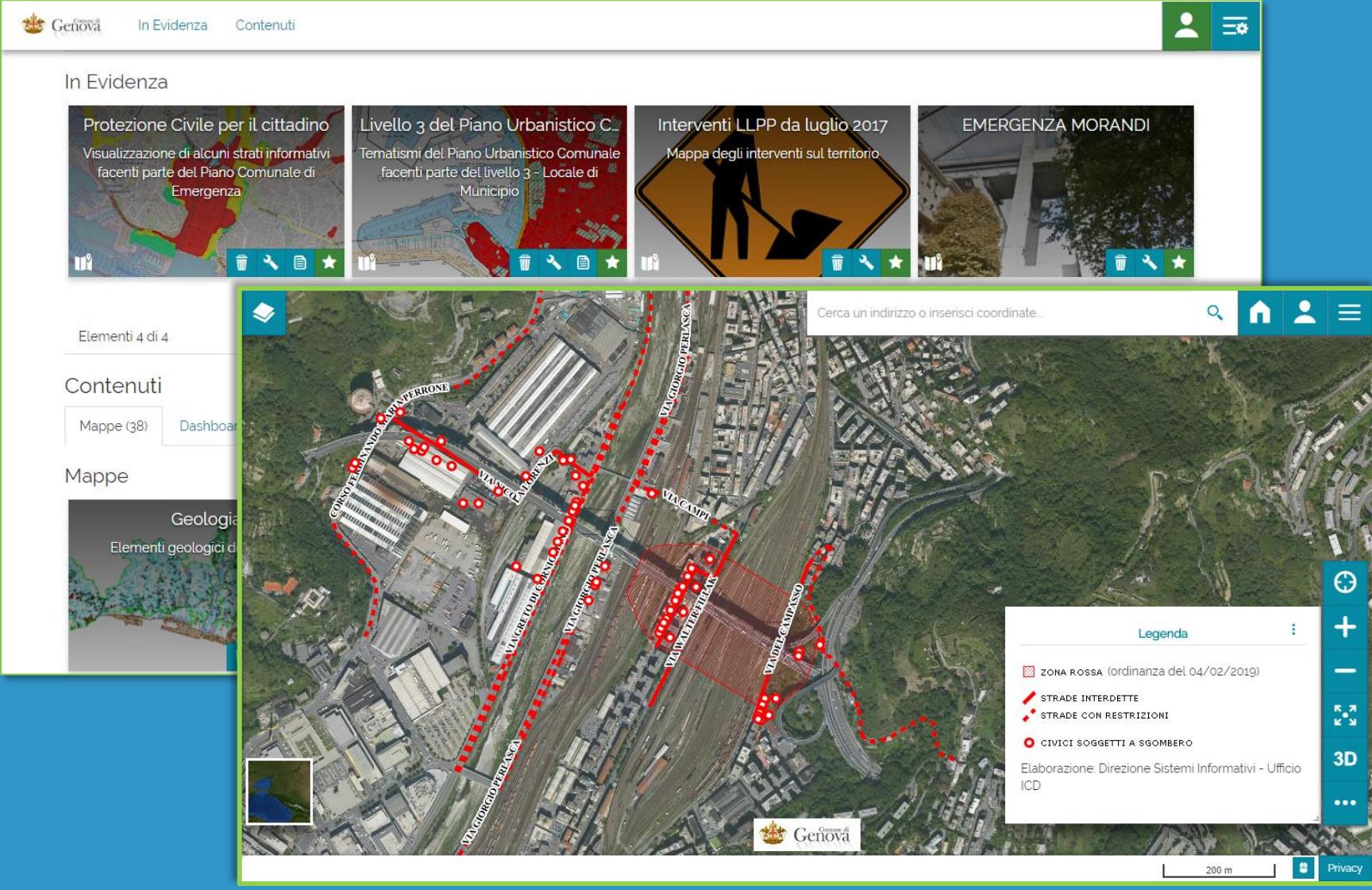
# Who uses MapStore?

# GeoSolutions

your one-stop-shop for geospatial open source software



## City of Genova



The screenshot shows the City of Genova's MapStore application. At the top, there are four cards: "Protezione Civile per il cittadino" (Civil Protection for citizens), "Livello 3 del Piano Urbanistico C..." (Level 3 of the Urbanistic Plan), "Interventi LLPP da luglio 2017" (Interventions from July 2017), and "EMERGENZA MORANDI" (Morandi Emergency). Below these is a search bar and a map of the city center. The map features several red dashed lines and red dots, indicating restricted roads and citizens subject to demolition. A legend on the right side defines these symbols. The map also includes labels for streets like CORSO FERNANDO DE' ROSSI, VIA PERRONE, VIA GENZI, VIA CAMPAGNA, VIA GIORGIO PERASCA, VIA CAMPI, VIA DEL CAMPASO, and VIA BALTELLI PIKAR. A small inset map is visible in the bottom left corner.

In Evidenza

Protezione Civile per il cittadino  
Visualizzazione di alcuni strati informativi facenti parte del Piano Comunale di Emergenza

Livello 3 del Piano Urbanistico C...  
Tematismi del Piano Urbanistico Comunale facenti parte del livello 3 - Locale di Municipio

Interventi LLPP da luglio 2017  
Mappa degli interventi sul territorio

EMERGENZA MORANDI

Elementi 4 di 4

Contenuti

Mappe (38) Dashboard

Mappe

Geologica  
Elementi geologici d...

Cerca un indirizzo o inserisci coordinate...

ZONA ROSSA (ordinanza del 04/02/2019)

STRADE INTERDETTE

STRADE CON RESTRIZIONI

CIVICI SOGGETTI A SGOMERO

Elaborazione: Direzione Sistemi Informativi - Ufficio ICD

200 m

Privacy

- **Demo** → <https://mapstore.geosolutionsgroup.com>
- **User Docs** → <https://mapstore.readthedocs.io/en/latest/user-guide/home-page/>
- **Dev Docs** → <https://mapstore.readthedocs.io/en/latest/developer-guide/requirements/>
- **GitHub Repo** → <https://github.com/geosolutions-it/MapStore2>
- **Youtube Videos** →  
[https://www.youtube.com/playlist?list=PLe2yzutVrnZ5tjYGYYYcKmZzo\\_M9ku5I9X](https://www.youtube.com/playlist?list=PLe2yzutVrnZ5tjYGYYYcKmZzo_M9ku5I9X)
- **Mailing Lists** → <https://groups.google.com/g/mapstore-users>  
<https://groups.google.com/g/mapstore-developers>



## MapStore at work

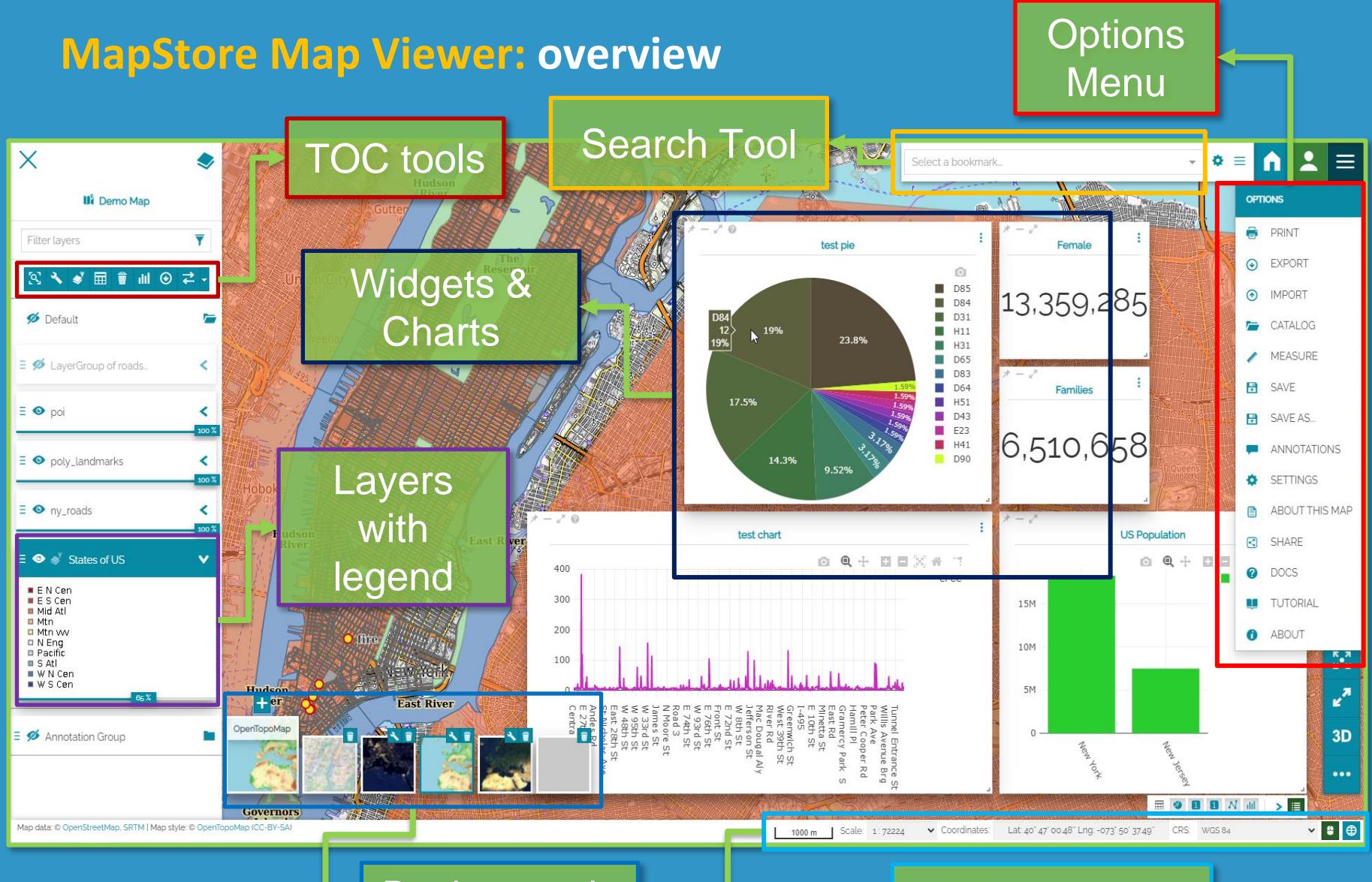
17th of May 2022 - geOcom



- Many features available out-of-the box
- Many scenarios are covered
- Works with of OGC standards
- Easy to set up and configure
- Easy to customize and extend
- Open Source project
- Compatible with the most common browsers: FF, Edge, Chrome and Safari

# MapStore at work

## MapStore Map Viewer: overview

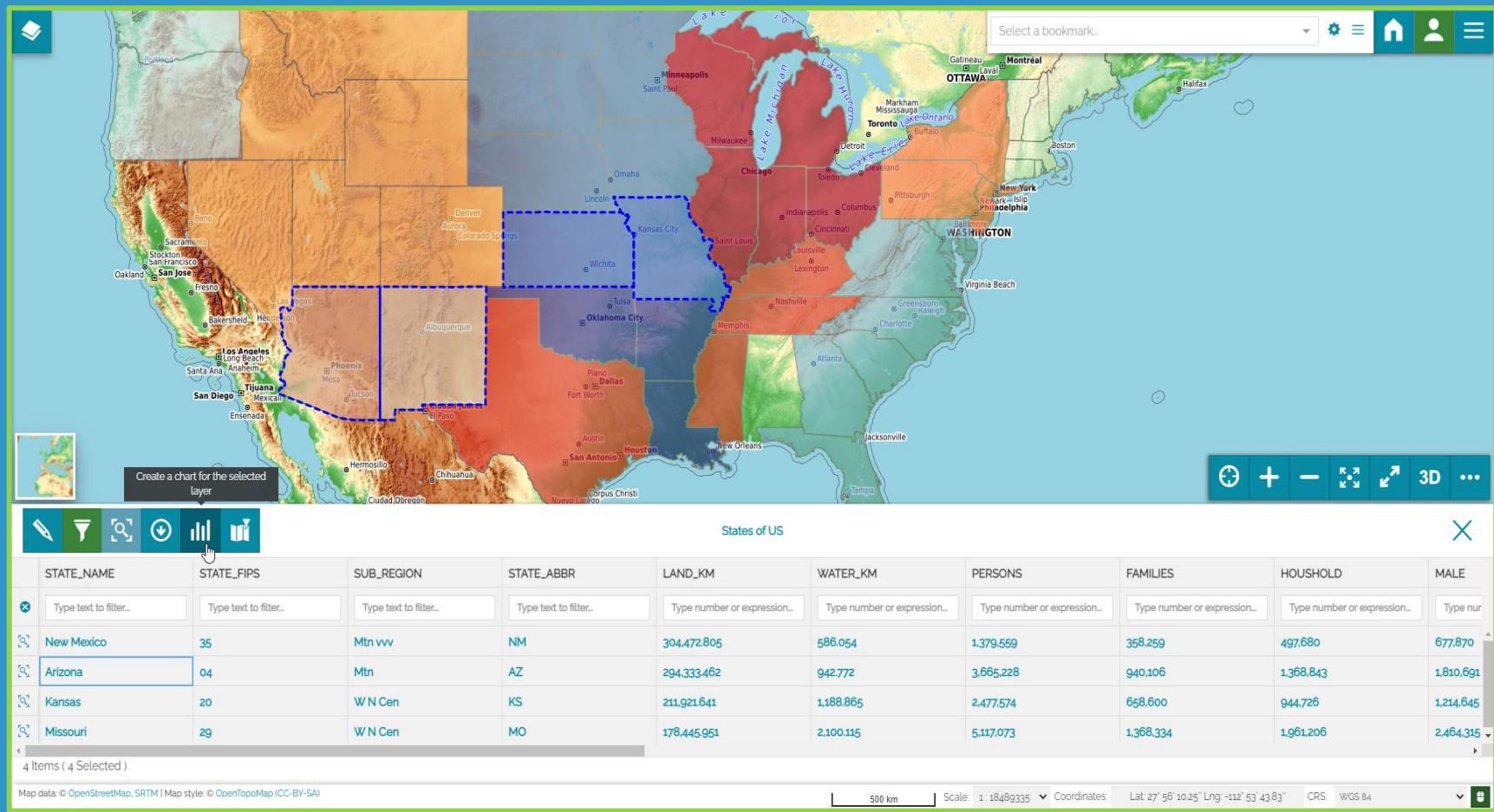


The screenshot illustrates the MapStore Map Viewer interface with several key components highlighted:

- TOC tools**: Tools for managing layers, located in the top-left corner of the map area.
- Widgets & Charts**: A chart titled "test pie" showing percentages for categories D85, D84, D31, H11, H31, D65, D83, D64, H51, D43, E23, H41, and D90. It also includes a bar chart for "Female" population and another for "US Population".
- Layers with legend**: A legend for "States of US" layers, including categories like E N Cen, E S Cen, Mid Atl, Mtn, Mtn wv, N Eng, Pacific, S Atl, W N Cen, and W S Cen.
- Backgrounds**: Options for selecting different map backgrounds, including OpenStreetMap, SRTM, and various satellite imagery providers.
- Search Tool**: A search bar labeled "Select a bookmark..." in the top-right corner.
- Options Menu**: A red-bordered box highlighting the "OPTIONS" menu on the right side, which contains links for PRINT, EXPORT, IMPORT, CATALOG, MEASURE, SAVE, SAVE AS, ANNOTATIONS, SETTINGS, ABOUT THIS MAP, SHARE, DOCS, TUTORIAL, and ABOUT.
- Footer tools**: Tools for scale, coordinates, and other map settings located at the bottom of the interface.

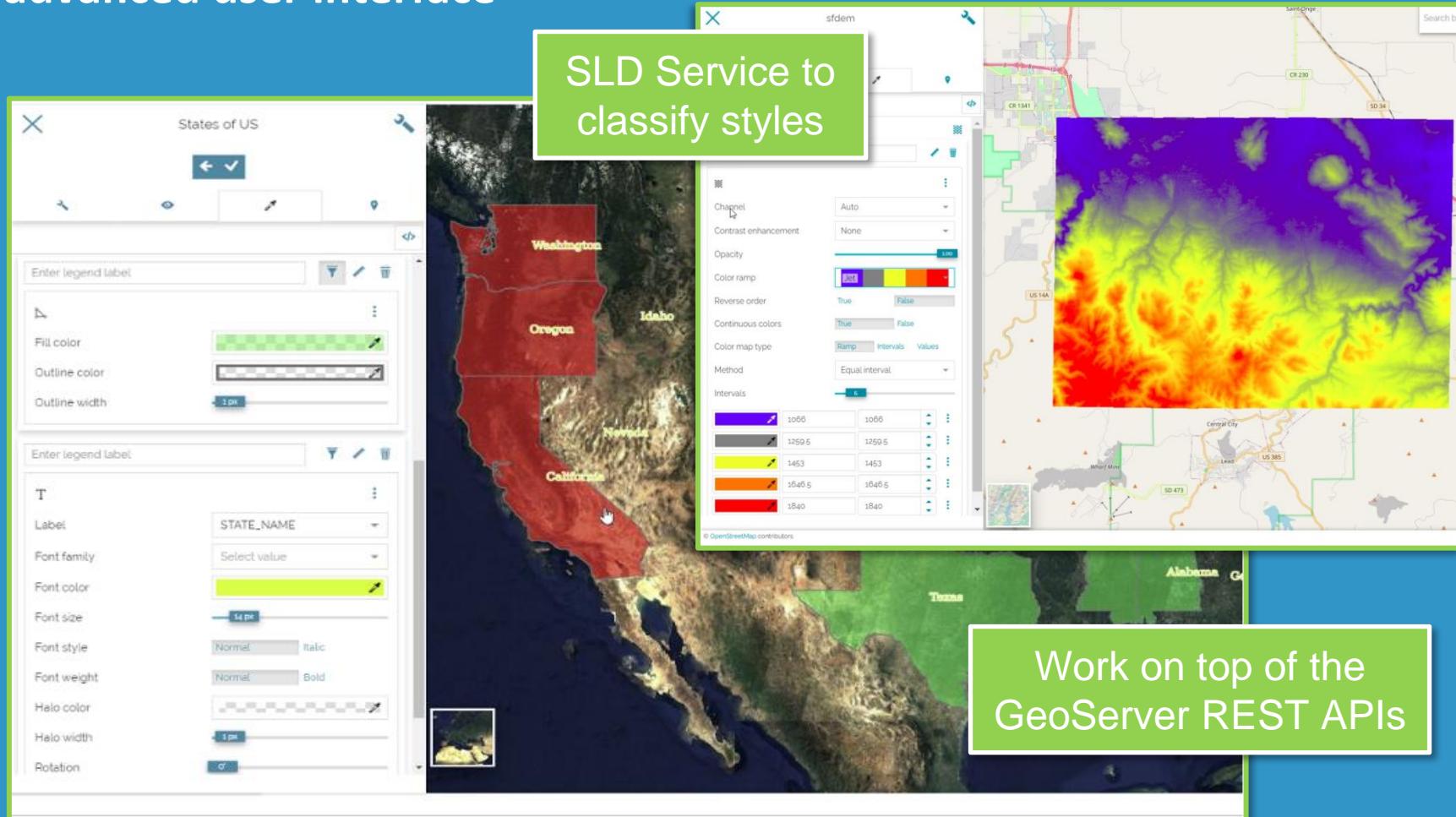
# MapStore at work

**Attribute Table:** browse features of a vector layer through a tabular view and access advanced utilities (**Filters**, **Data Exports**, **Charts**, **Editing of features** and more).



# MapStore at work

**Visual Style Editor:** editing layers styles in MapStore with an advanced user interface



The screenshot displays the MapStore Visual Style Editor interface. On the left, there are two panels for styling vector layers: one for 'States of US' and another for 'STATE\_NAME'. The 'States of US' panel includes controls for 'Fill color' (green), 'Outline color' (white), and 'Outline width' (1px). The 'STATE\_NAME' panel includes controls for 'Label' (STATE\_NAME), 'Font family' (Select value), 'Font color' (yellow-green), 'Font size' (14px), 'Font style' (Normal), 'Font weight' (Normal), 'Halo color' (white), 'Halo width' (3px), and 'Rotation' (0°). In the center, a map of the United States shows the styled state boundaries. To the right, a detailed map of a specific area shows a raster layer with a color ramp from purple to red, representing elevation or another variable. A green callout box points to the raster styling panel with the text 'SLD Service to classify styles'. Another green callout box points to the bottom right of the map with the text 'Work on top of the GeoServer REST APIs'. A third green callout box at the bottom points to the text 'Both Vector and Raster styles!'.

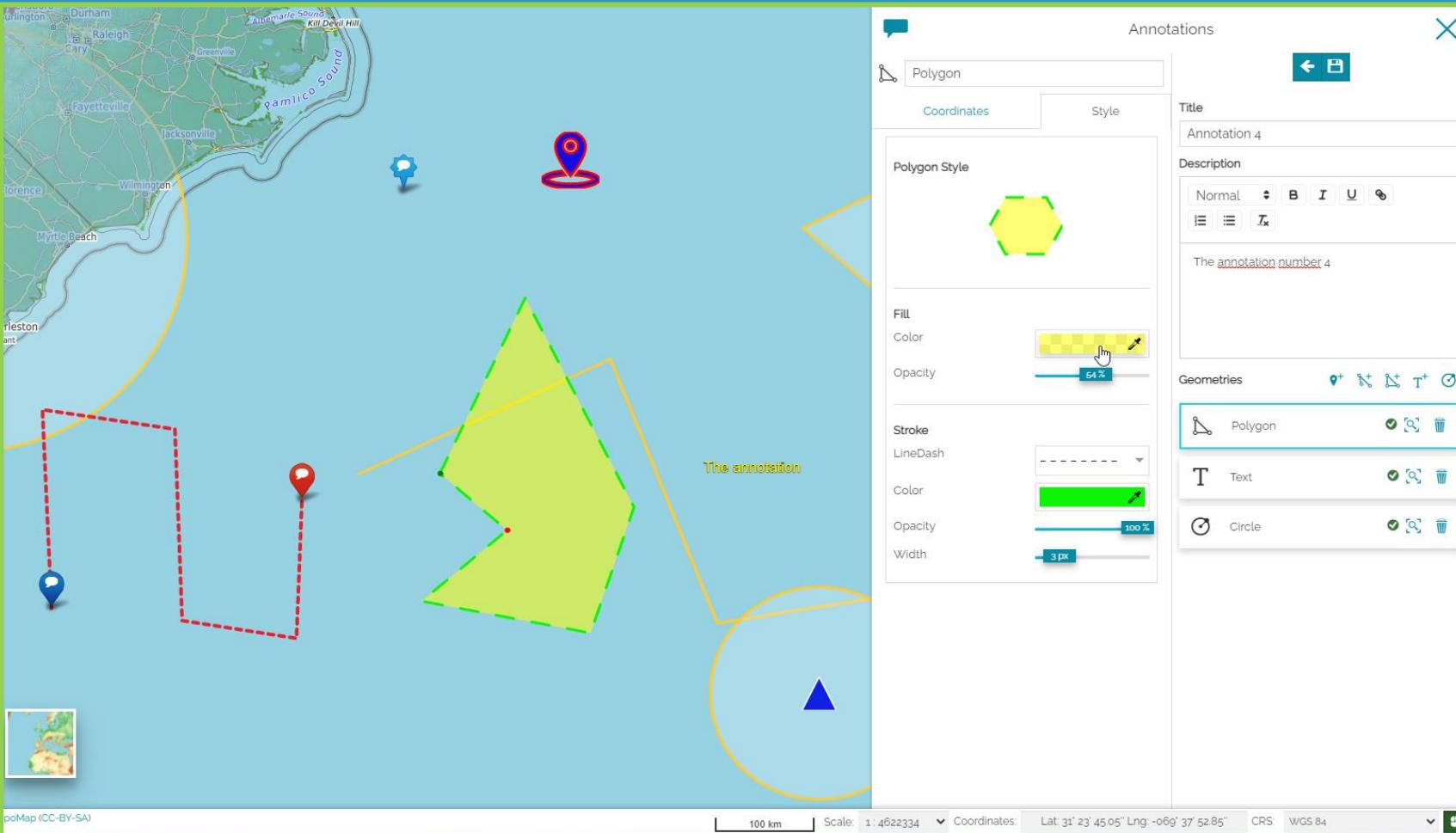
SLD Service to classify styles

Work on top of the GeoServer REST APIs

Both Vector and Raster styles!

# MapStore at work

**Annotations tool:** provide a great user experience in creating/drawing map annotations with a powerful user interface and styling capabilities.



The screenshot illustrates the MapStore interface with several annotations:

- A yellow polygon with a dashed red border and a blue fill.
- A red point annotation with a dashed red line extending from it.
- A green polygon with a dashed green border and a yellow fill.
- A blue point annotation with a dashed blue line extending from it.
- A red location pin icon.
- A blue location pin icon.
- A blue triangle icon.
- A yellow circle icon.

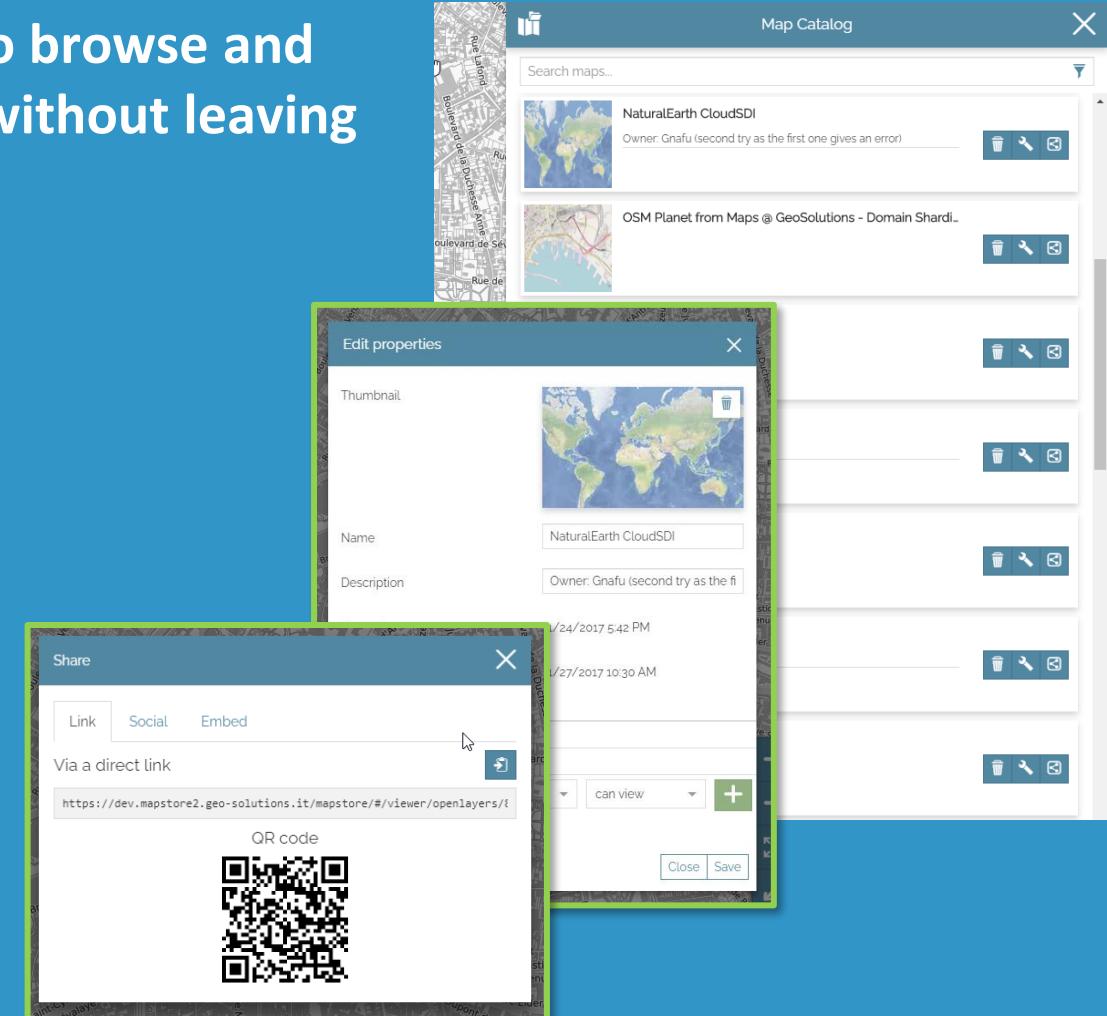
The right panel shows the "Annotations" configuration dialog:

- Polygon:** Selected annotation type.
- Title:** Annotation 4.
- Description:** The annotation number 4.
- Polygon Style:** Hexagonal shape with a yellow fill and a green stroke.
- Fill:** Color (yellow), Opacity (64%).
- Stroke:** LineDash (dashed), Color (green), Opacity (100%), Width (3 px).
- Geometries:** Options for Polygon, Text, and Circle.

# MapStore at work

The **Map Catalog** allows to browse and manage MapStore maps without leaving the viewer

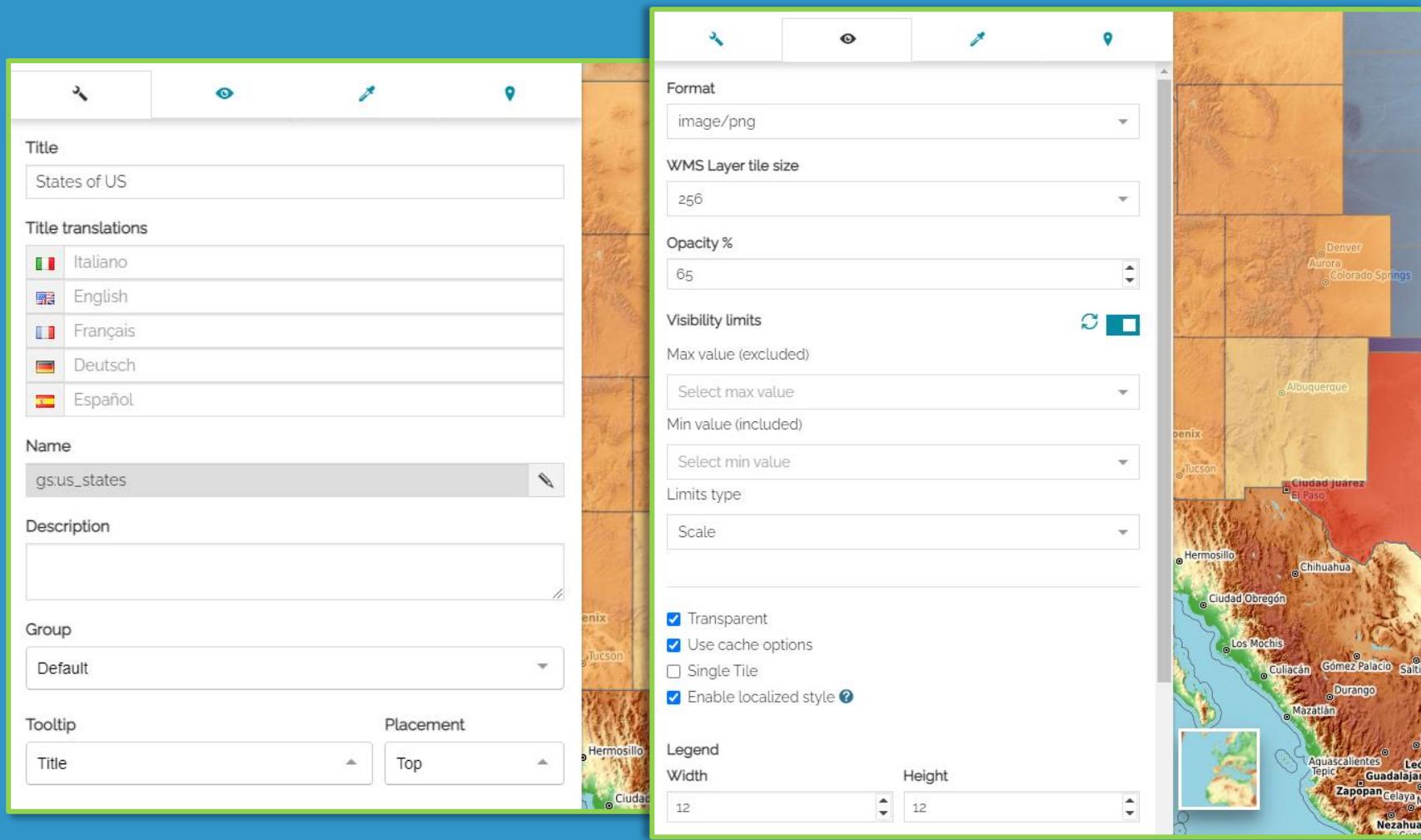
- **Search for maps you have access to**
- **Manage map properties and permissions**
- **Share a map**



Thanks to Rennes Métropole and geOrchestra ! 😊

# MapStore at work

Layer Settings: tune the layer settings in terms of *general information, display mode, style* and *feature Info*



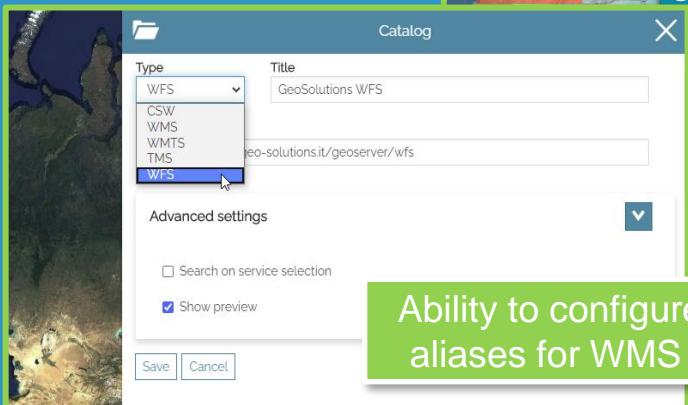
The screenshot displays the MapStore interface with two main panels. On the left, a configuration panel for a layer titled 'States of US' (gs.us\_states). It includes fields for Title, Title translations (Italiano, English, Français, Deutsch, Español), Name, Description, Group (Default), Tooltip Placement (Title, Top), and a preview of the map. On the right, a detailed layer settings panel for the same layer. This panel allows tuning various parameters such as Format (image/png), WMS Layer tile size (256), Opacity % (65), Visibility limits (Max value excluded, Min value included, Limits type: Scale), and checkboxes for Transparent, Use cache options, Single Tile, and Enable localized style. A legend section shows width and height settings (Width: 12, Height: 12). To the right of these panels is a map of the US Southwest, specifically showing Arizona, New Mexico, and parts of Colorado and California. The map uses a color-coded elevation or terrain style, with major cities labeled.

# MapStore at work



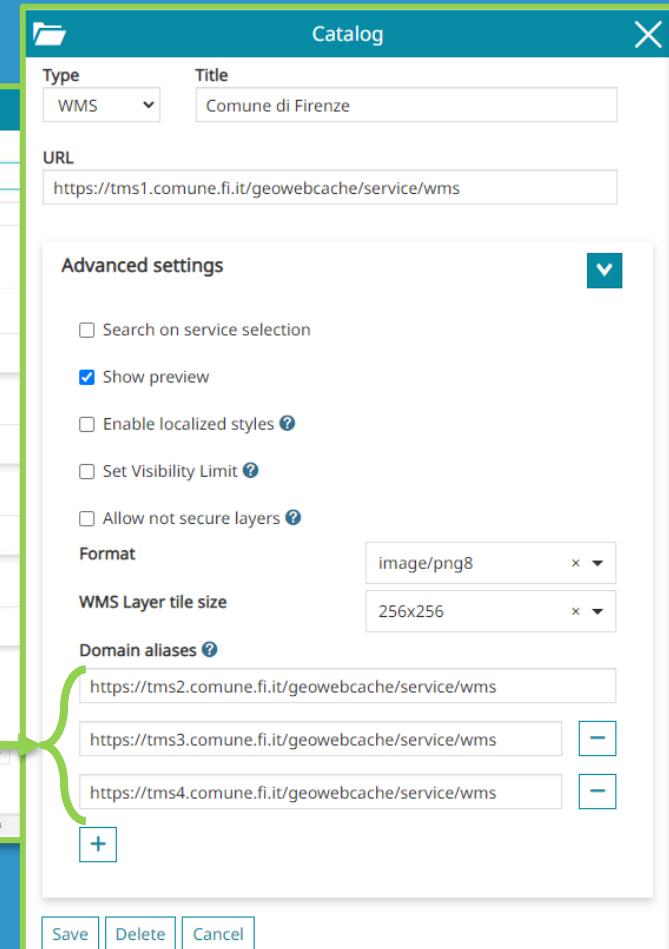
**Catalog Tool:** browse contents from external sources to add layers to the map. Supported catalog types are:

- WMS
- WMTS
- WFS
- TMS
- CSW
- Now also 3D Tiles



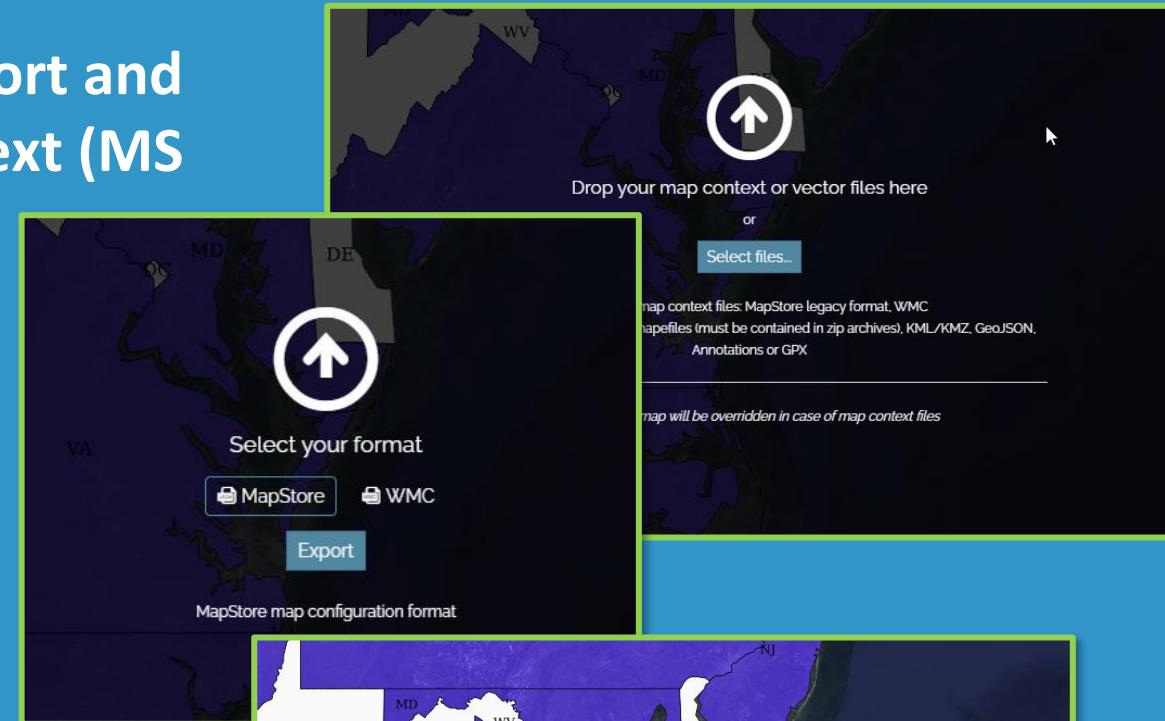
Ability to configure domain aliases for WMS sources

Thanks to Rennes Métropole and geOrchestra ! ☺

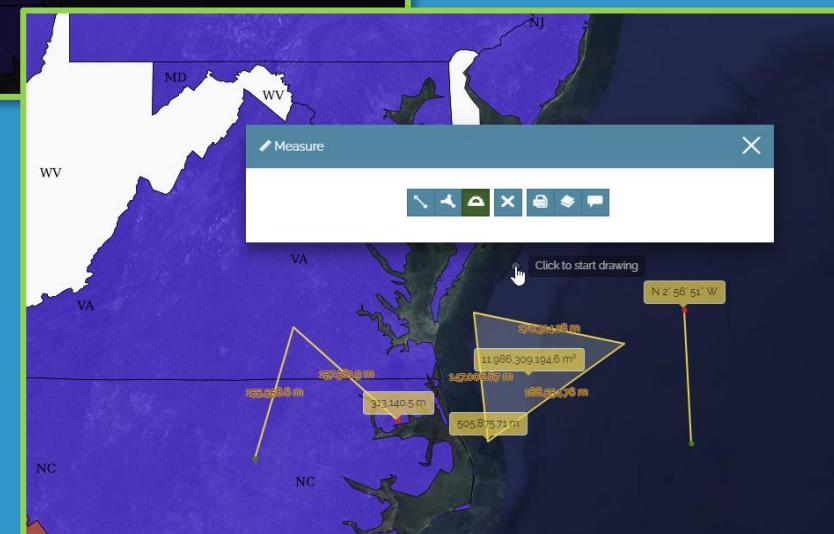


# MapStore at work

- **Import/Export:** import and export of map context (MS JSON and WMC are supported)

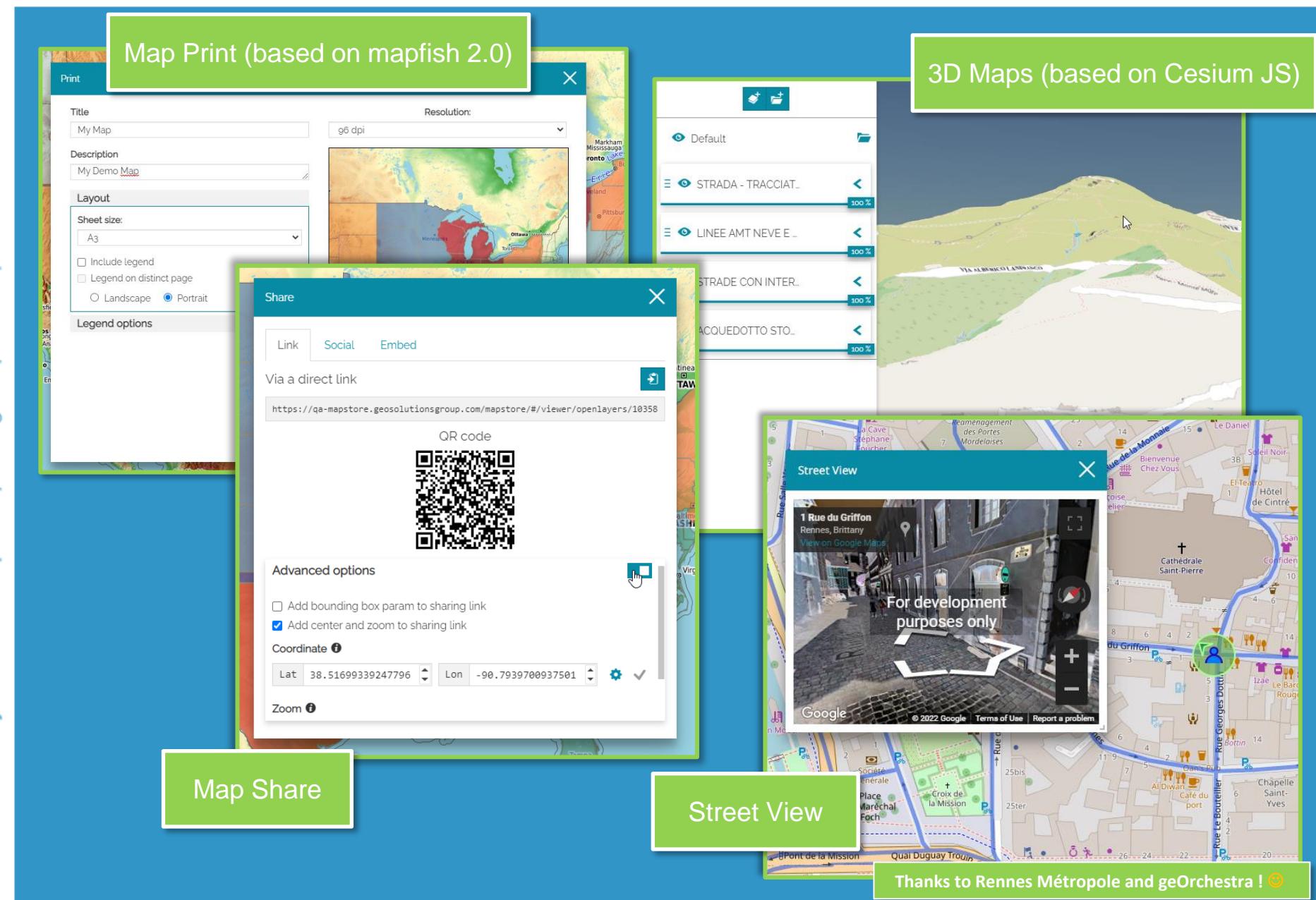


- **Measurements:** perform your measurement in map and export or convert them to be used with other tools



Thanks to Rennes Métropole and geOrchestra! 😊

# MapStore at work



Map Print (based on mapfish 2.0)

3D Maps (based on Cesium JS)

Map Share

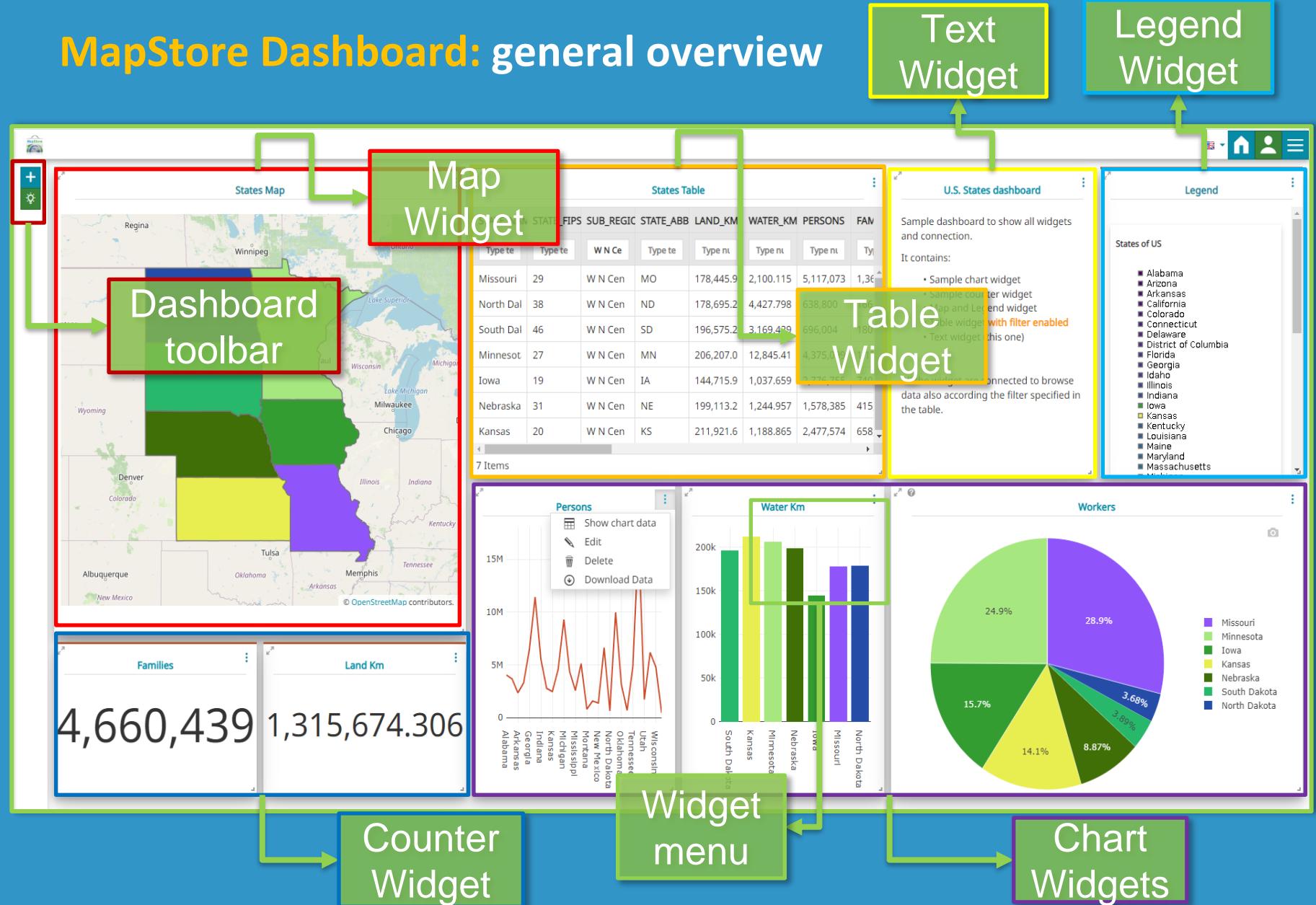
Street View

Thanks to Rennes Métropole and geOrchestra ! ☺

# MapStore at work



## MapStore Dashboard: general overview



The screenshot illustrates the MapStore Dashboard interface with several widgets:

- Map Widget:** Displays a map of the United States with state boundaries and names. A red box highlights the "Dashboard toolbar" area.
- Table Widget:** Shows a table titled "States Table" with columns: STAT, FIPS, SUB\_REGIC, STATE\_ABB, LAND\_KM, WATER\_KM, PERSONS, and FAM. A yellow box highlights the "Text Widget" and "Legend Widget" areas.
- Counter Widget:** Displays two large numbers: 4,660,439 and 1,315,674.306.
- Chart Widgets:** Includes a line chart for "Persons" and a bar chart for "Water Km".
- Widget menu:** Located at the bottom center, it provides options like "Show chart data", "Edit", "Delete", and "Download Data".
- Text Widget:** A sample dashboard containing text and links to other widgets.
- Legend Widget:** A legend for the states of the US, showing color-coded boxes for each state.
- Dashboard toolbar:** Located in the top left corner of the map area.



# MapStore at work

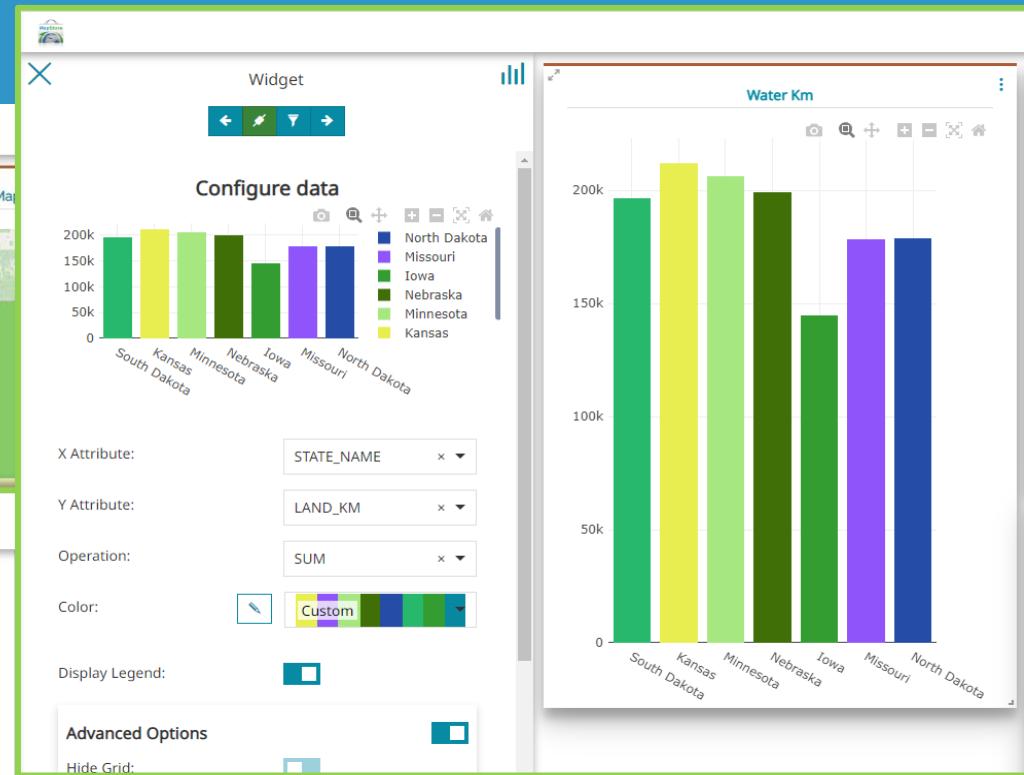
- Widget Editors

**Configure map options**

**Configure table options**

**Columns**

	STATE_NAME	STATE_FIPS	SUB_REGION	STATE_ABBR	LAND_KM	WATER_KM	PERSONS	FAMILIES	HOUSHOLD
<input type="checkbox"/>	South Dak	46	WN Cen	SD	196,575.21	3.169			
<input type="checkbox"/>	Minnesota	27	WN Cen	MN	206,207.0	12,84			
<input type="checkbox"/>	Iowa	19	WN Cen	IA	144,715.08	1,037			
<input type="checkbox"/>	Nebraska	31	WN Cen	NE	199,113.20	1,244			
<input type="checkbox"/>	Kansas	20	WN Cen	KS	144,715.08	1,037			



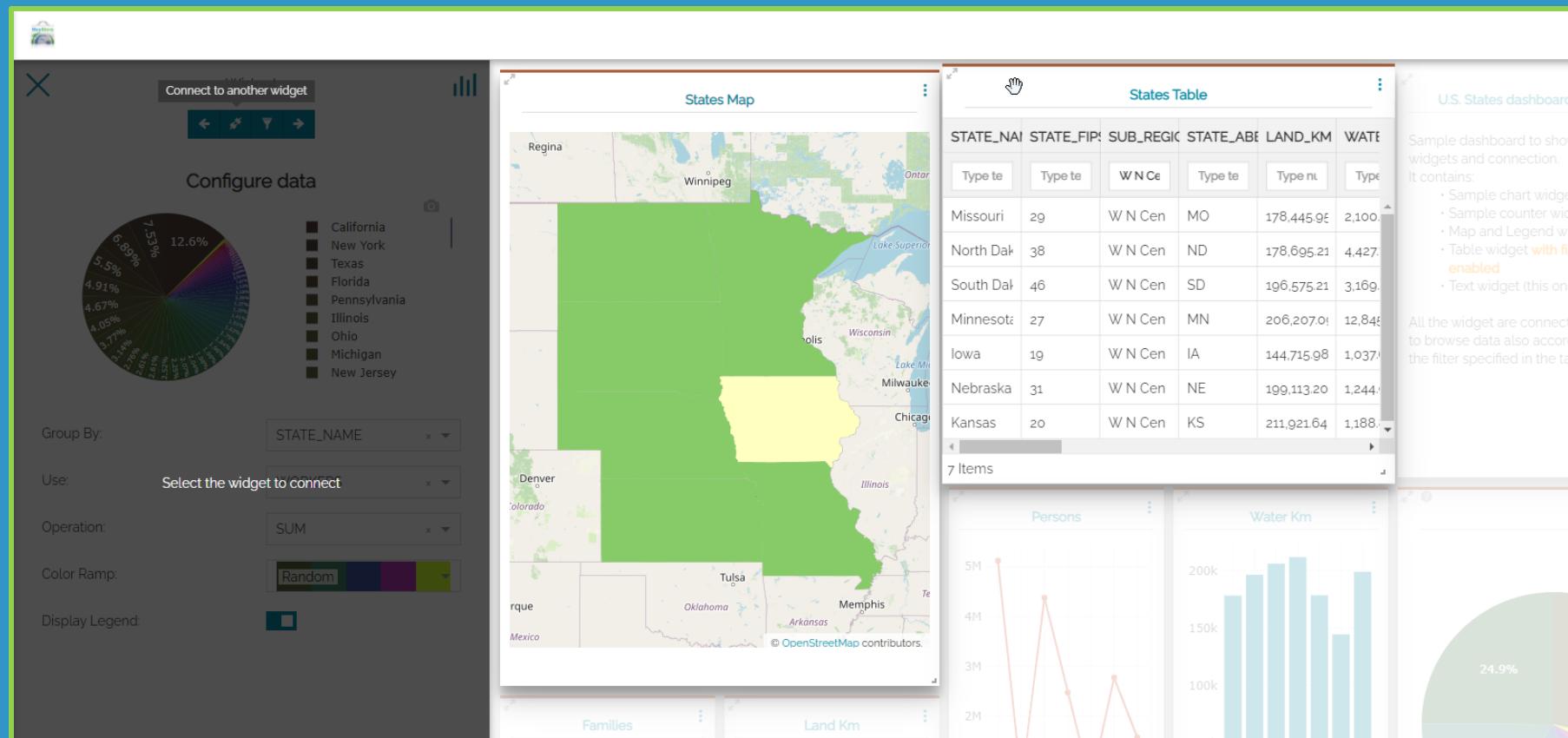
4,660,439 1,315,674.306

Fine tuning of all widgets based on OGC standards



# MapStore at work

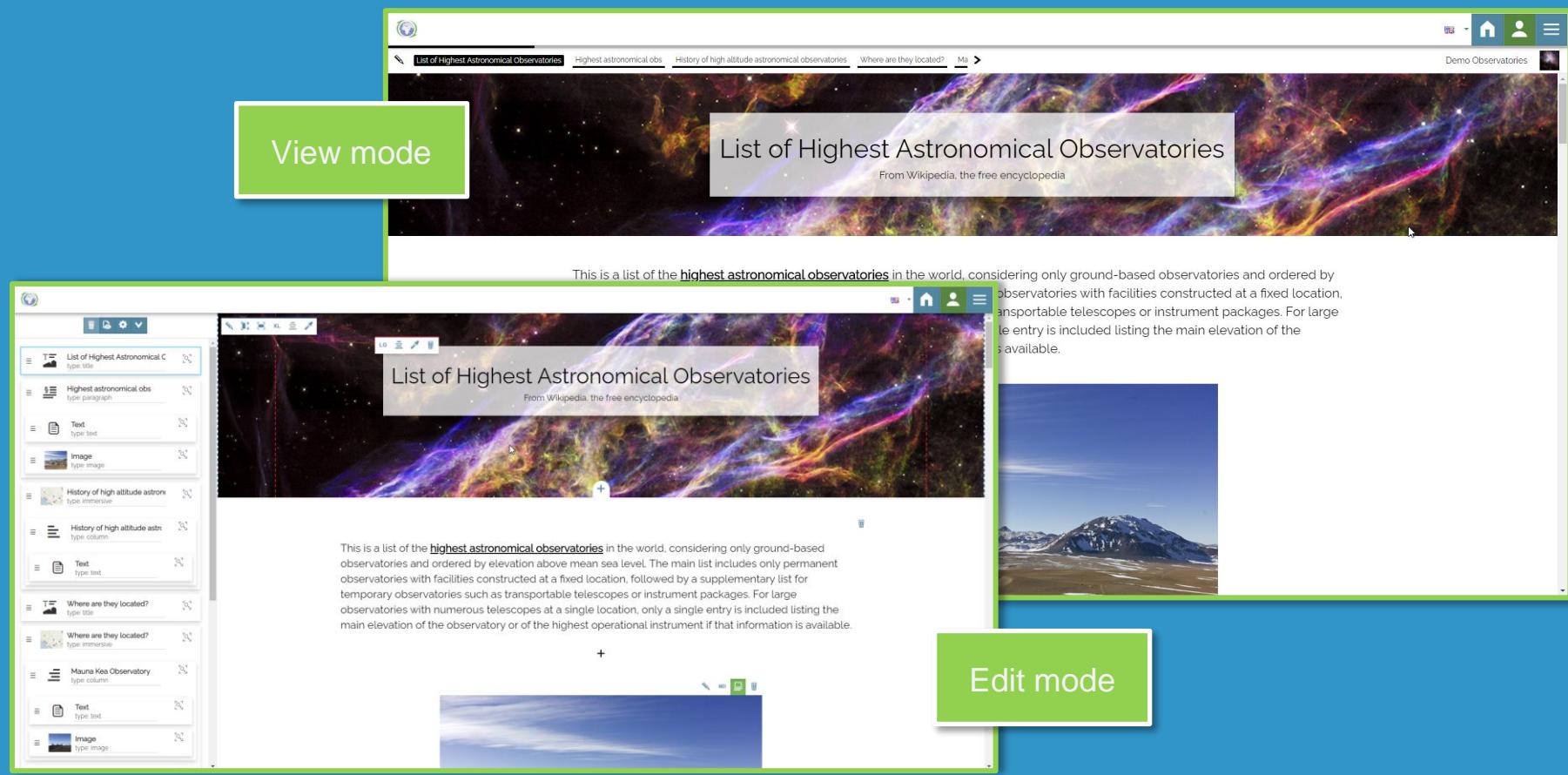
You can connect widgets to other widgets: **Maps** or **Tables** widgets



A connected widget updates its content according to the parent one!

# MapStore at work

**MapStore GeoStory:**  
create inspiring and immersive stories by combining **text, interactive maps and multimedia content** (e.g. images, video or other third party content).



The screenshot illustrates the MapStore GeoStory interface in two modes: View mode and Edit mode.

**View mode:** This mode displays a rich, interactive story. It features a header with the title "List of Highest Astronomical Observatories" and a subtitle "From Wikipedia, the free encyclopedia". Below the header is a descriptive text block: "This is a list of the [highest astronomical observatories](#) in the world, considering only ground-based observatories and ordered by elevation above mean sea level. The main list includes only permanent observatories with facilities constructed at a fixed location, followed by a supplementary list for temporary observatories such as transportable telescopes or instrument packages. For large observatories with numerous telescopes at a single location, only a single entry is included listing the main elevation of the observatory or of the highest operational instrument if that information is available." To the right of the text is a large, colorful image of a nebula or galaxy. Below the text and image is a smaller image of a snowy mountain peak.

**Edit mode:** This mode provides a behind-the-scenes look at the story's structure. On the left, a sidebar lists the components of the story, each with a preview icon and a delete button. The components include:

- List of Highest Astronomical C (type list)
- Highest astronomical obs (type paragraph)
- Text (type text)
- Image (type image)
- History of high altitude astr (type immersive)
- History of high altitude astr (type column)
- Text (type text)
- Where are they located? (type list)
- Where are they located? (type immersive)
- Mauna Kea Observatory (type column)
- Text (type text)
- Image (type image)

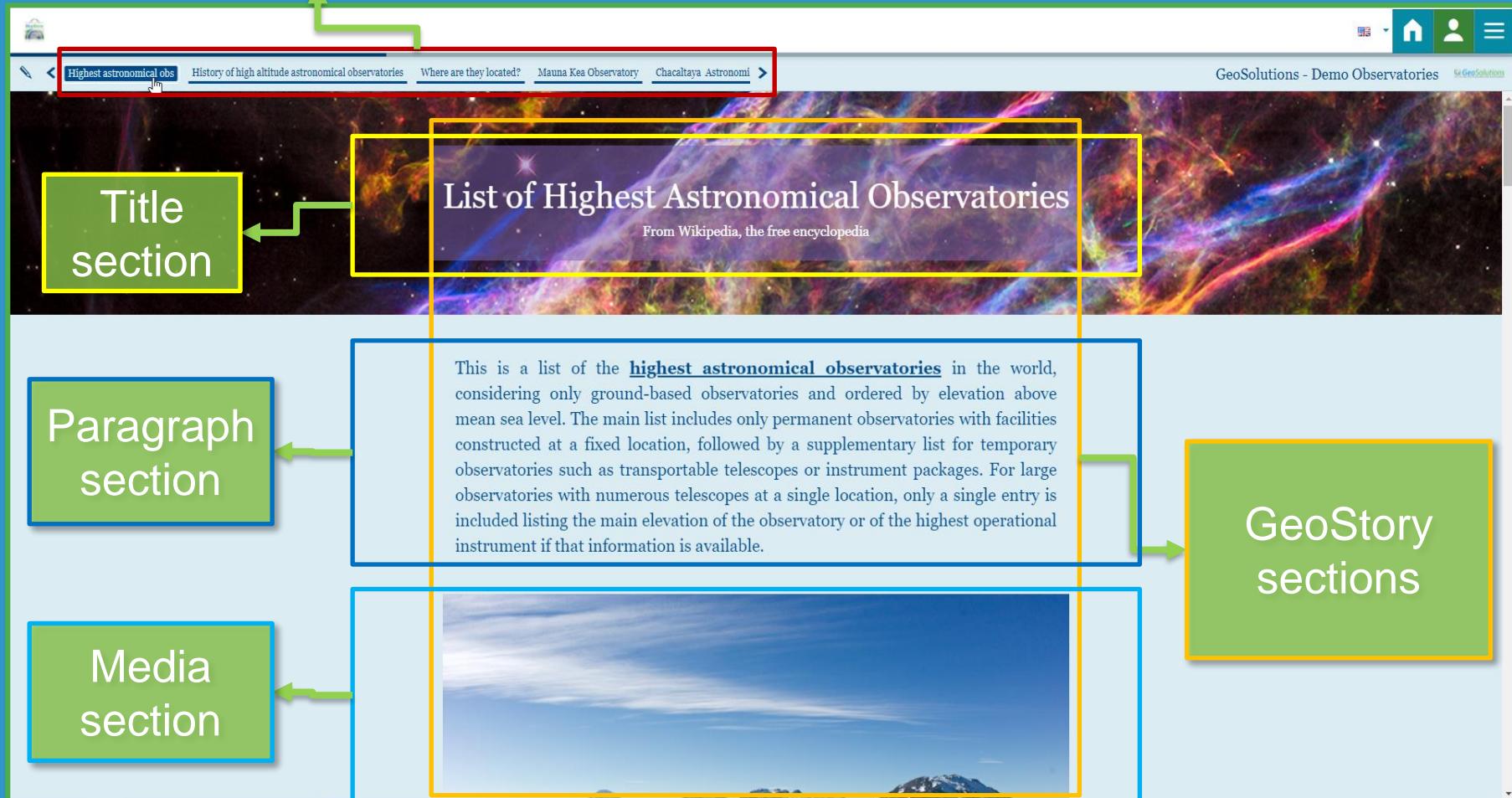
The central area shows the same story content as View mode, but the nebula image is partially obscured by a dashed red rectangle, indicating it is currently being edited.

# MapStore at work



## Navigation toolbar

Tell your story with a modern look !



The screenshot shows a web application interface for "GeoSolutions - Demo Observatories". At the top, there's a navigation toolbar with links like "Highest astronomical obs", "History of high altitude astronomical observatories", "Where are they located?", "Mauna Kea Observatory", and "Chacaltaya Astronomi". To the right of the toolbar is a user icon and a menu icon. The main content area has a dark background with a colorful nebula image. It features several sections:

- Title section**: A yellow-bordered box containing the title "List of Highest Astronomical Observatories" and a subtitle "From Wikipedia, the free encyclopedia".
- Paragraph section**: A blue-bordered box with text explaining the list of observatories.
- Media section**: A blue-bordered box containing a photograph of a snowy mountain peak under a blue sky.
- GeoStory sections**: A green-bordered box on the right side.

Green arrows point from the labels on the left to their corresponding sections in the screenshot.

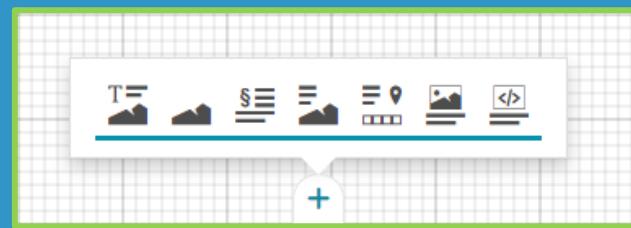
Other kind of sections are available, like **Maps** and **Immersive!** 😊

# MapStore at work



Build your **story** by adding different kind of sections, one after the other with an **advanced web editor**:

- Title/Cover
- Paragraph
- Immersive
- GeoCarousel
- Media (Map, Image, Video)
- Web Page



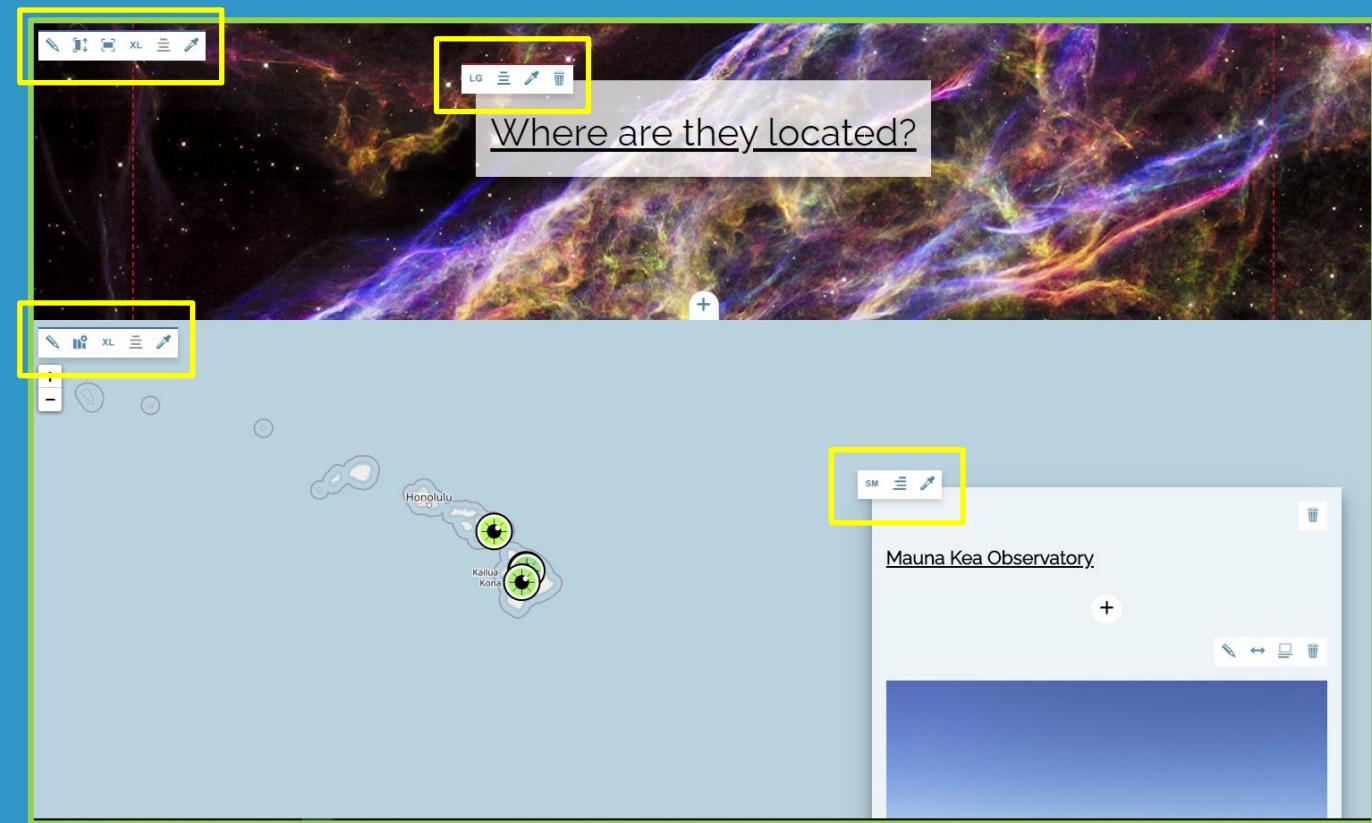
The screenshot displays a continuous scrolling layout of various content sections:

- A large image of a mountainous landscape.
- A map of Northern India with a callout to the Chacaltaya Astrophysical Observatory.
- A media section showing a night sky over an observatory with a rocket icon.
- A text section about the highest astronomical observatories in the world.
- A map of the Indian Astronomical Observatory location.

Sections are organized in a **continuous scrolling layout!**

# MapStore at work

GeoStory gives control over the sections through an **action toolbar**, one per section or sub-section

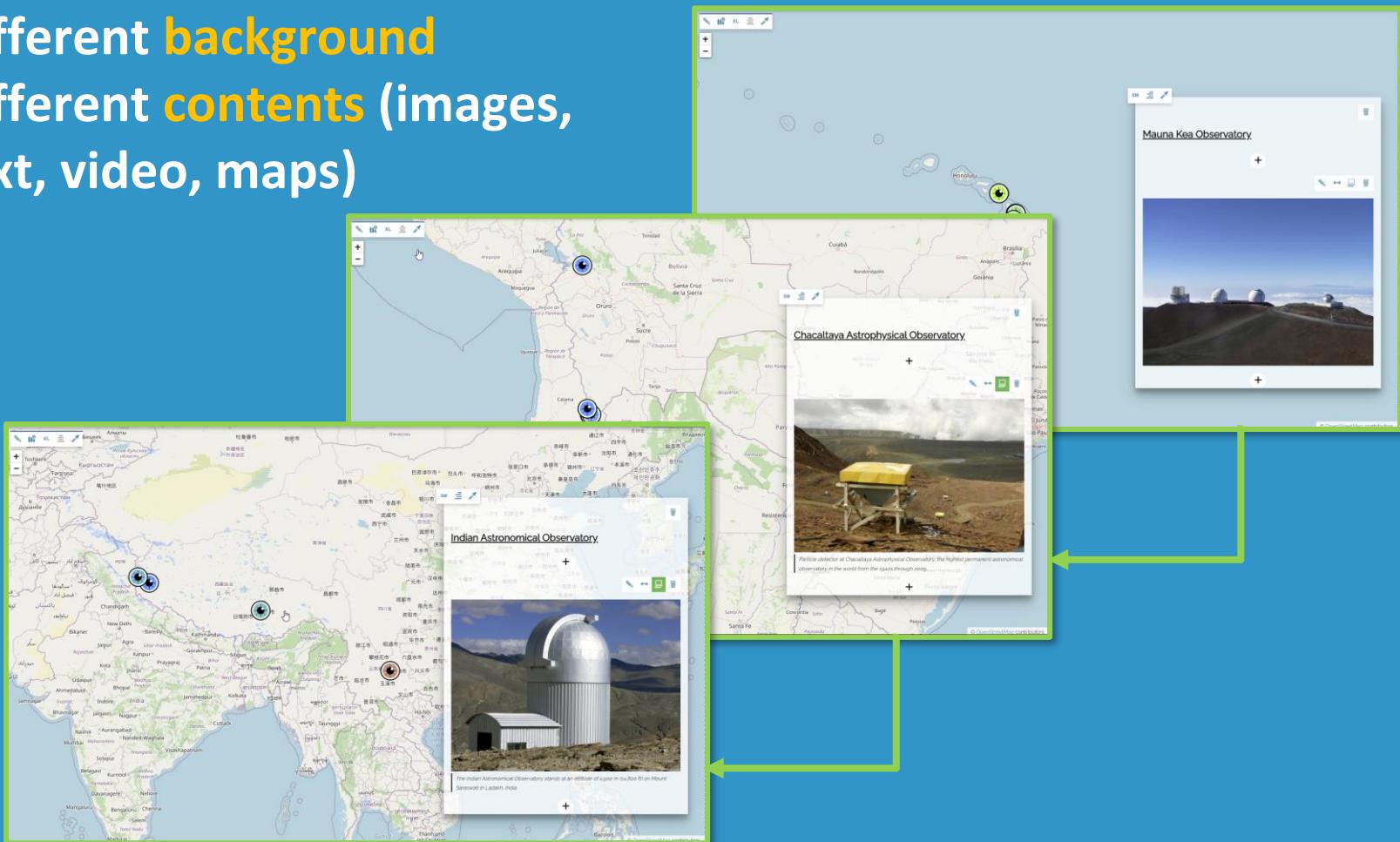


Perform **quick actions** on your section contents to place, align and configure them as you prefer!

# MapStore at work

Browse connected topics vertically in your story with the **Immersive section**

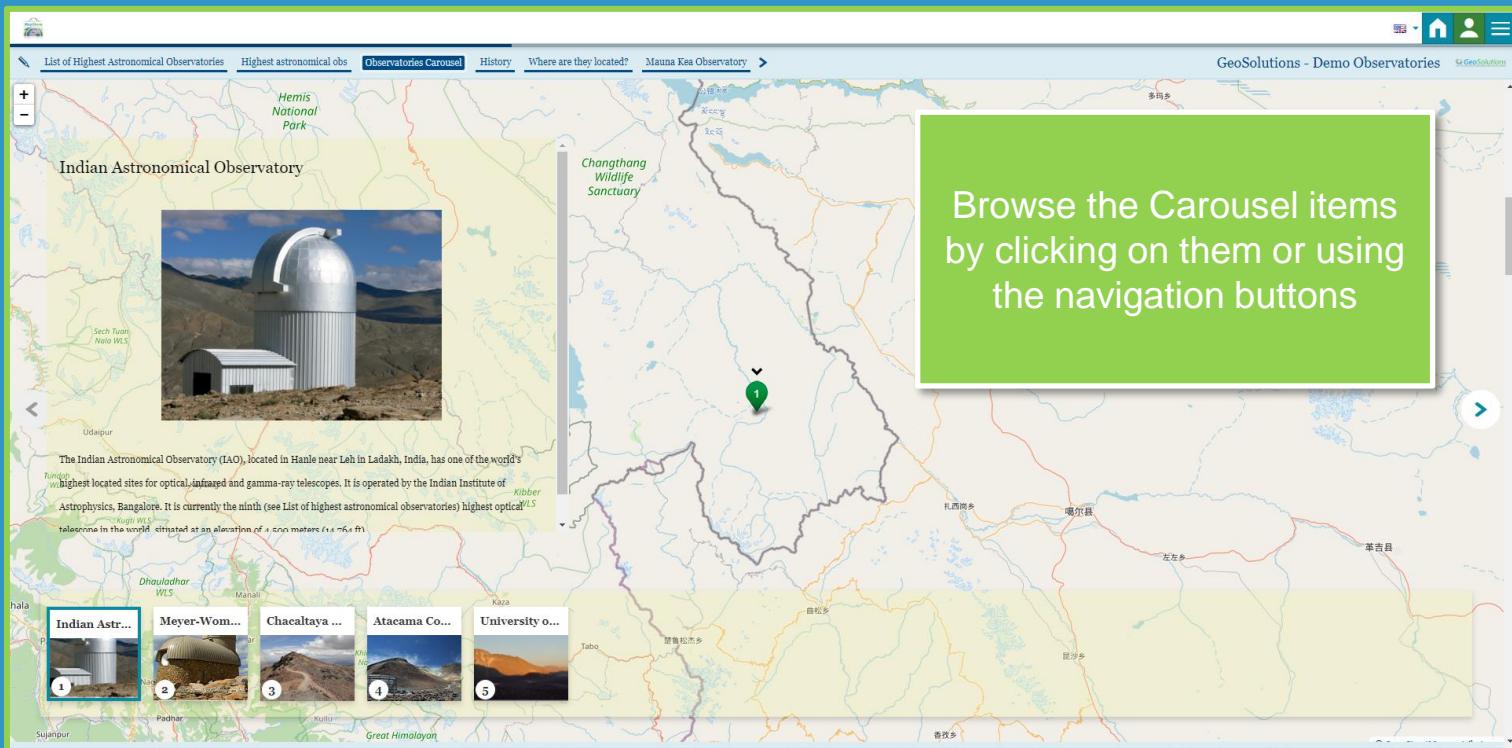
- Different **background**
- Different **contents** (images, text, video, maps)



# MapStore at work

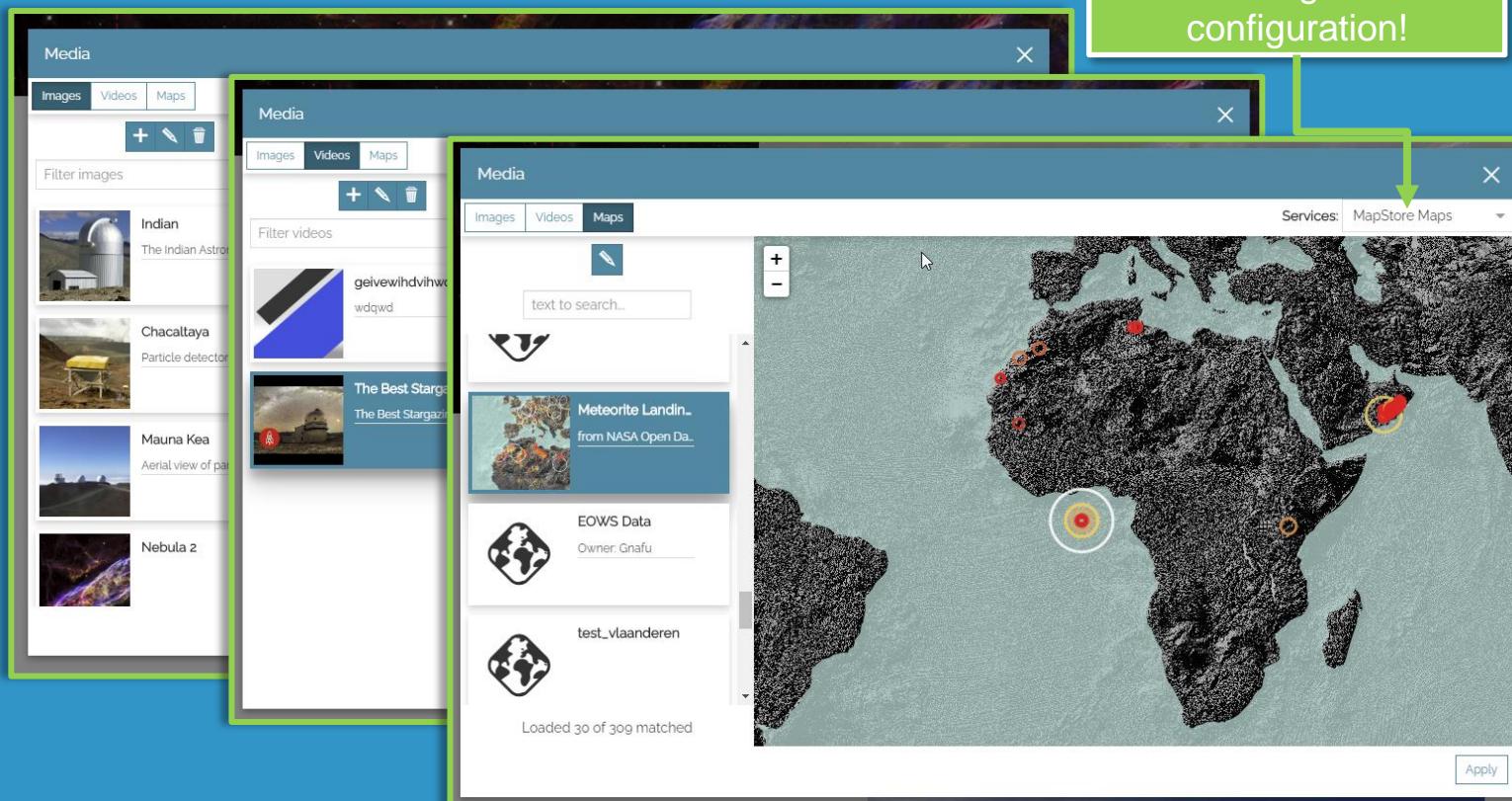
Browse connected topics horizontally in your story with the **Carousel section**

- Define **different locations** that help to tell your story
- Customize each location with its own **descriptive content** in overlay (images, text, video, maps)



# MapStore at work

What should you do if you want to **change multimedia content** in your story?



The **Media Editor** gives you control over different multimedia contents!  
Images, Videos and Maps



# MapStore at work

A Toolbar on top of the side panel provides additional settings for the story

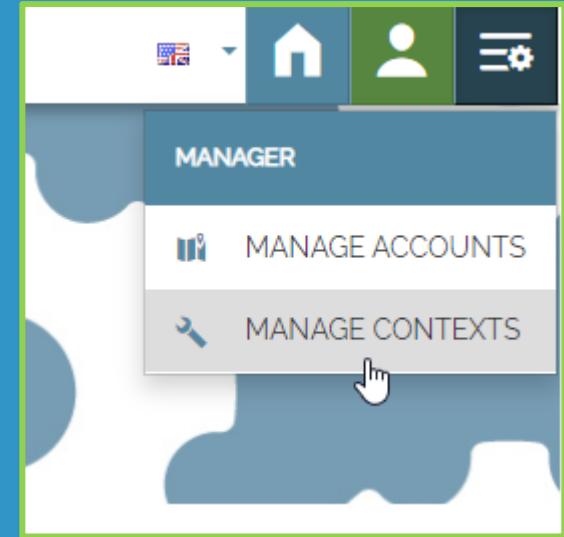
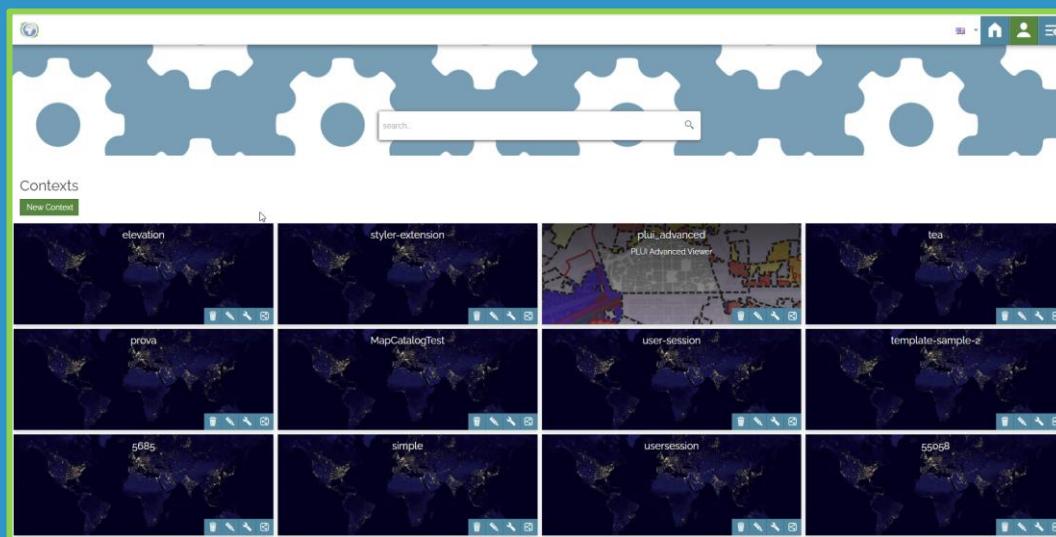
## Changing the story theme

- Background color
- Text color
- All sections can inherit the above or have their own custom theme

The screenshot shows a "List of Highest Astronomical Observatories" story card. The card has a dark background with a colorful nebula image. A tooltip message "Warning: the selected text color could be not readable on this background." appears over a text input field, with a button "Use alternative text color" below it. To the right is a "Story Settings" panel with tabs for "Default Theme", "Overlay", "Links", and "Story Header". The "Default Theme" tab is active, showing settings for "Background" (dark gray), "Text" (white), "Font Family" (Georgia), and "Overlay" (black). The "Story Header" tab shows a yellow background color. A green arrow points from the "Text" section of the story card to the "Text" section in the "Default Theme" panel.

# MapStore at work

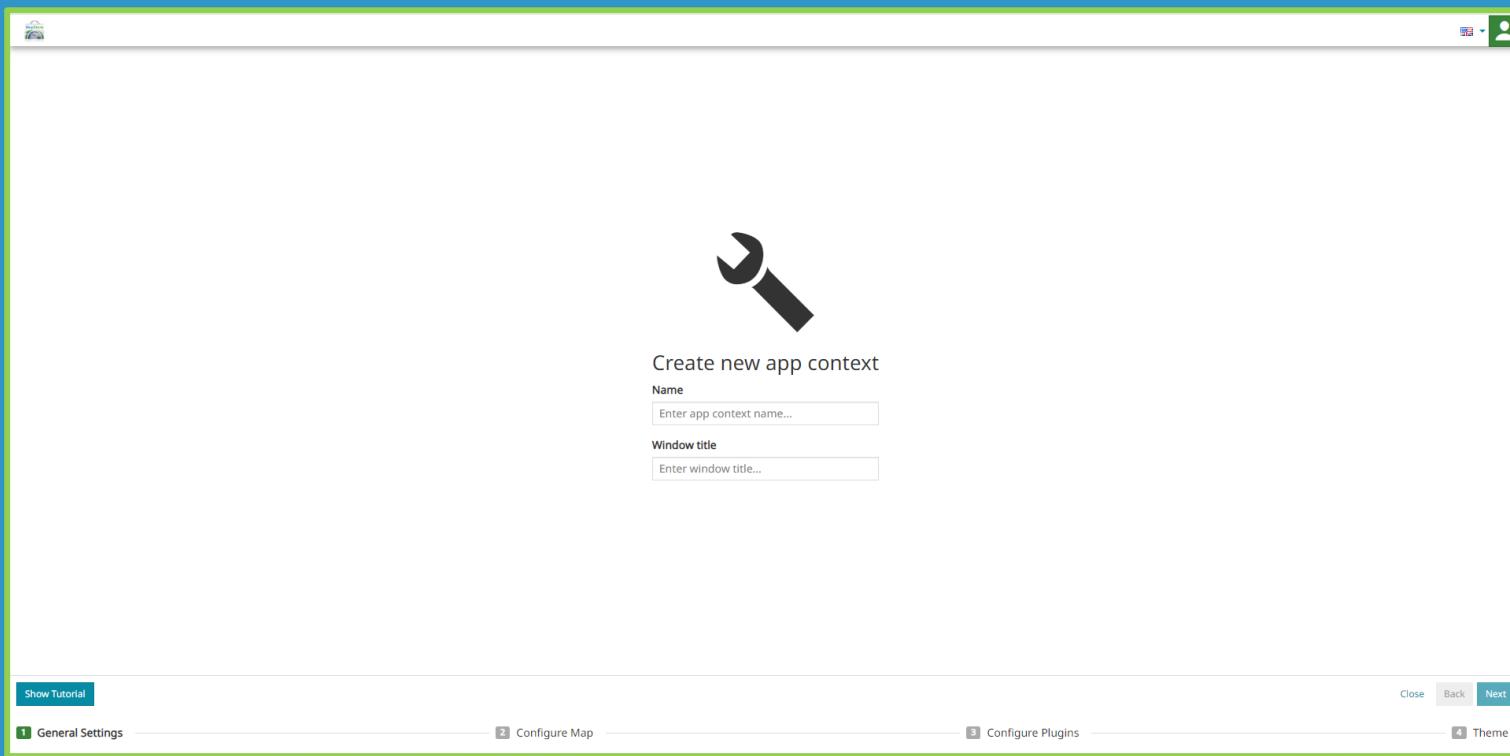
The **ApplicationContext Manager** is an administrative tool designed to build and configure different MapStore viewer configurations for the same MapStore installation



A **multisteps wizard** allows the administrator to configure a custom MapStore viewer

Thanks to Rennes Métropole and geOrchestra ! 😊

- Step #1: configure the name of the context and the window title



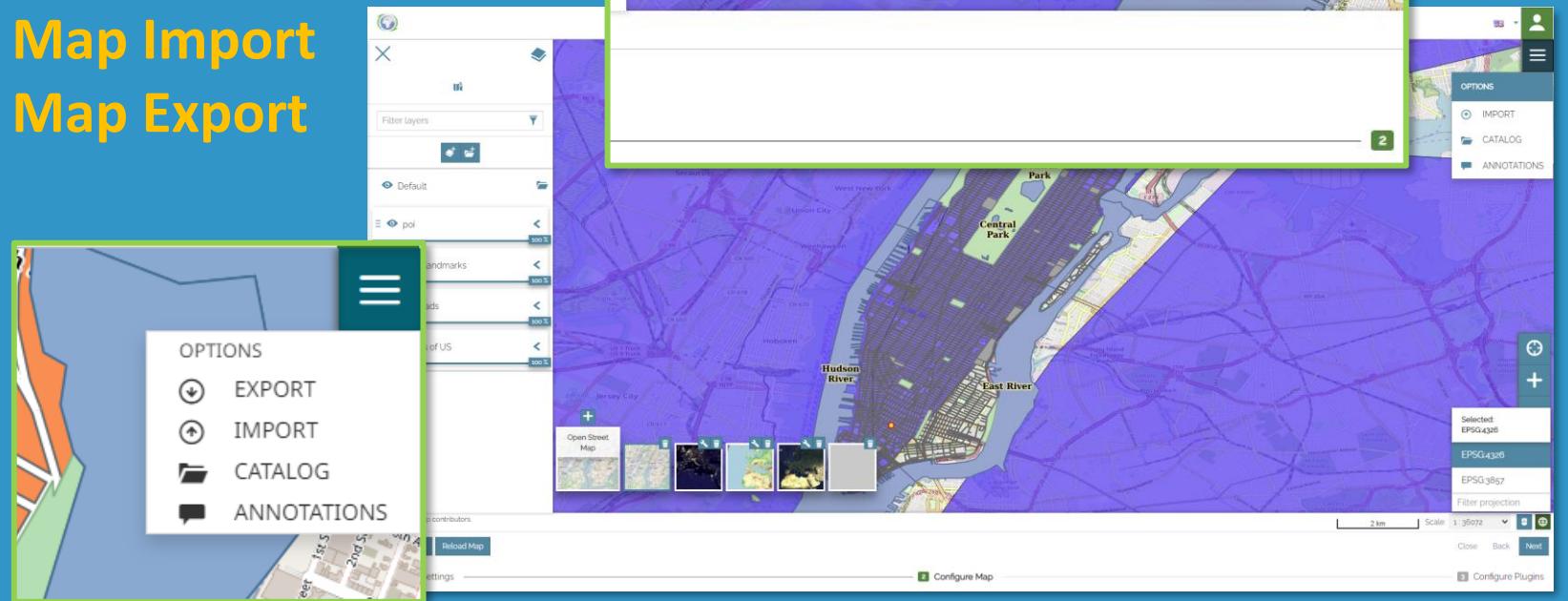
## The Context URL:

<https://mapstore.geosolutionsgroup.com/mapstore/#/context/newyorkcity>

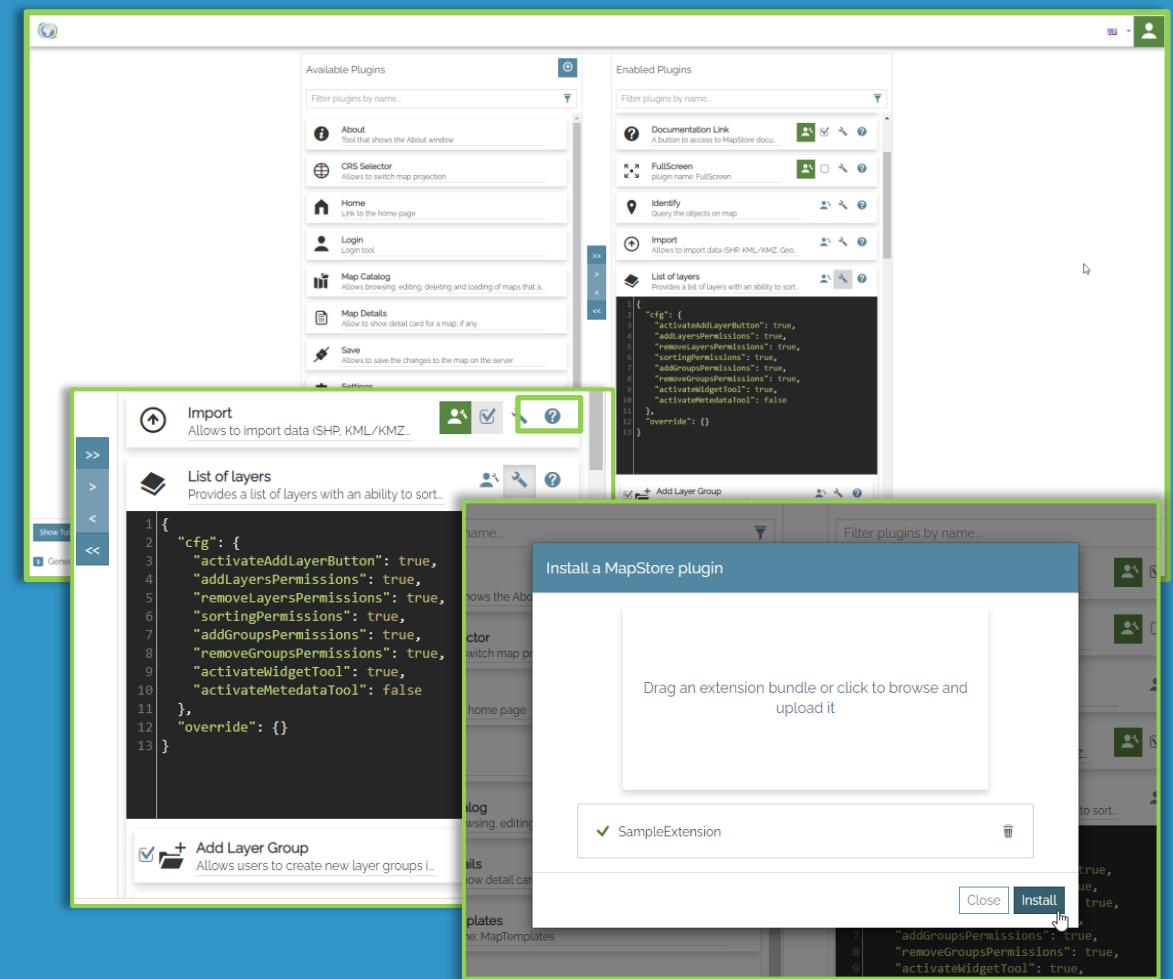


# MapStore at work

- Step #2: configure the default map state and map contents
  - Layers in TOC
  - Backgrounds
  - Catalog sources
  - CRS
  - Annotations
  - Map Import
  - Map Export

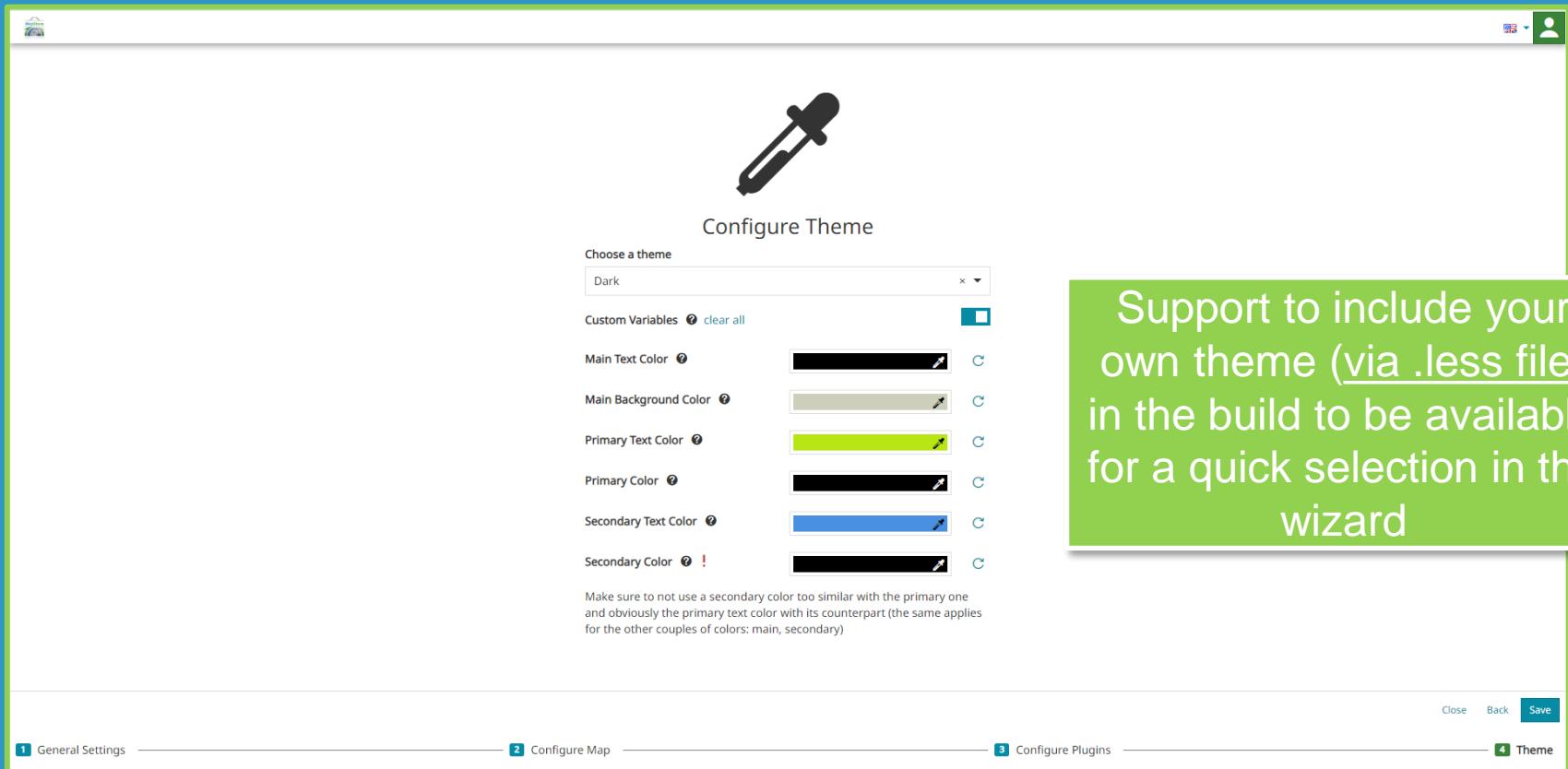


- Step #3: configure the set of plugins to include in the context viewer
  - Select plugins to include
  - Configure each plugin
  - Make plugins ready to be activated by users on the fly
  - Install a custom plugin
  - Direct link to the plugin online doc



# MapStore at work

- Step #4: customize the **Theme** of your context



Yes, you can do it from the **User Interface!** 😊

# MapStore at work

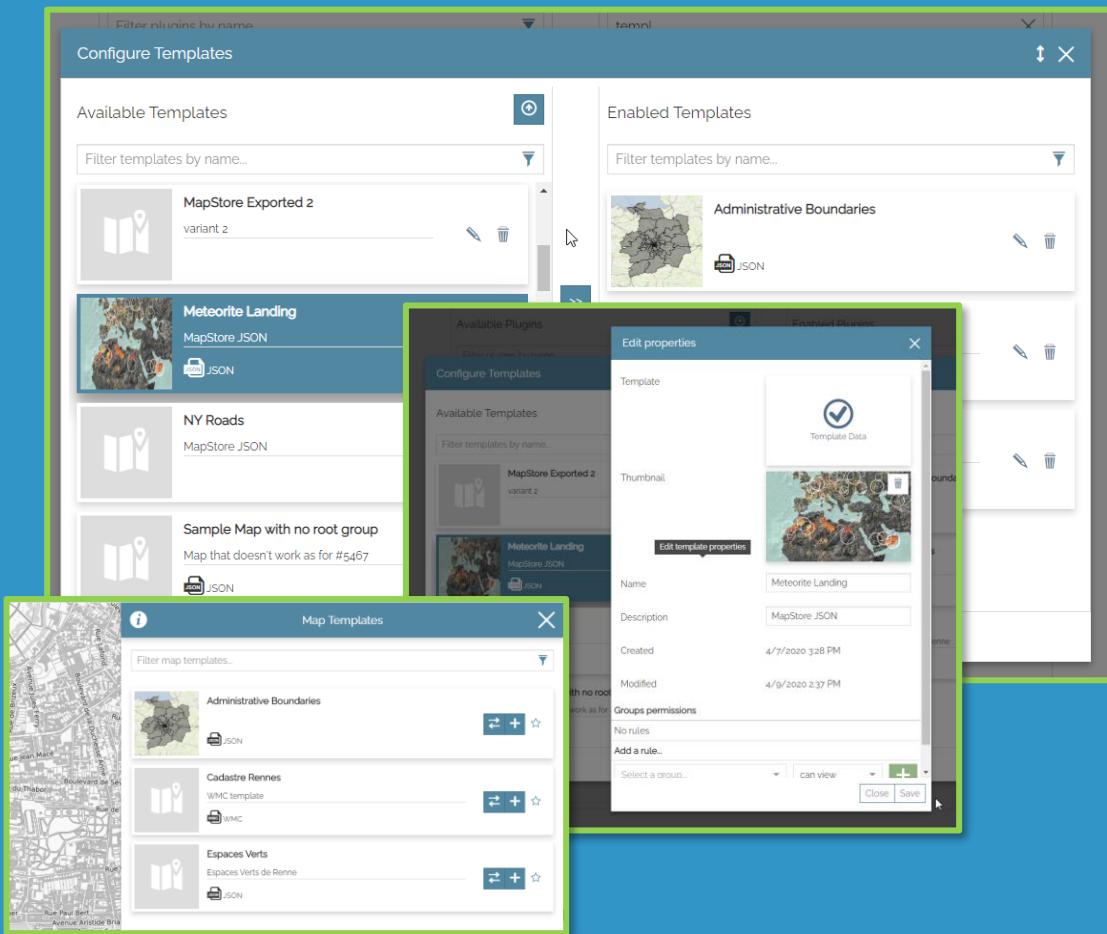
- Step #5: share the context and manage permissions 😊

The screenshot illustrates the MapStore interface for managing contexts. On the left, a sidebar titled "Contexts" features a "New Context" button. Below it is a map titled "newyorkcity" with the subtitle "Context of NY". The map shows the New York City area with the Hudson River and East River labeled. To the right of the map is a "Share" dialog box, which displays a direct link (<https://mapstore2.geo-solutions.it/mapstore/#/context/newyorkcity>) and a QR code. At the bottom of the MapStore window, a message indicates "1 item of 1". On the far right, an "Edit properties" dialog box is open, showing details for the "newyorkcity" context, including its name, description, creation date, modification date, and group permissions. The "Groups permissions" section lists "everyone" with "can view" selected.

# MapStore at work

The **Map Templates** tool is also available for Application Contexts

- Ready-made map contents that can be added to a Map
- Two formats supported (both MapStore JSON and WMC)



Thanks to Rennes Métropole and geOrchestra ! ☺

# MapStore at work

- Easy to customize and extend: customize the theme and develop your own plugins to be uploaded and installed in one or more application contexts!

The screenshot displays two separate MapStore applications side-by-side.

**Urbanisme Application:**

- Header:** Urbanisme
- Map View:** Shows a cadastral map with plot numbers (e.g., 150, 149, 689, 985) and a highlighted plot labeled 161.
- Pop-up Window:** "Land Planning" details:
  - Commune: Rennes
  - Section: BP
  - Plot number: 161
  - Cadastral address: RUE DE CHATEAUDUN
  - DGFIP capacity (m²): 246
  - Calculated area (m²): 248
  - Owner account
  - Owner(s)
  - Date of production of RU: 24/09/2020
- Buttons:** Print, Cancel, 3D.

**Cadastrapp Application:**

- Header:** Cadastrapp
- Map View:** Shows a cadastral map with colored parcels (yellow, red, green) and a detailed info box for a parcel labeled 18.
  - Parcelle:** 350238000AB0010  
Town: Rennes  
County: 35  
Town's INSEE: 228  
Prefix:  
Section: AB  
Plot: 18  
Address: 8 RUE ROBELIN  
DGFIP: 225 m²  
GIS: 230 m²
  - Land Unit:** DGFIP UF: 225 m²  
GIS UF: 230 m²
- Tools:** Cadastre tools, Plots research, Reference, Cadastral address, Cadastral identifier, Lot.
- Search:** Town, Municipality: Rennes (350238), Reference(s): Click to add a new reference, AB, 10.
- Plots selection:** Rennes (350238), Information form, Clear, Search.

# News For Developers

**MapStore Extensions:** leveraging on the Application Context system MapStore gives you the ability to build custom extensions in a structured and standard way

- **Dedicated repository:** so that you can manage versioning and keep your extension inline across different versions of MapStore
- **Ready to be installed:** following the guidelines your extension can be uploaded and installed in a running MapStore instance
- **Well documented:** we are trying to keep the online documentation always in line at each MapStore release
- **Extension Template:** we provided a template project as a quick start to encourage developers to use this system and improve it

<https://github.com/geosolutions-it/MapStoreExtension>

Thanks to Rennes Métropole and geOrchestra ! ☺



Check out the updated **User and Developer** guides of the release v2022.01.01

<https://mapstore.readthedocs.io/en/v2022.01.01/user-guide/home-page/>

<https://mapstore.readthedocs.io/en/v2022.01.01/developer-guide/requirements/>

# Ongoing work



We are actively working on interesting new features and improvements for existing tools to be available in next releases!

The MapStore community is also growing a lot,  
Thank you all! ☺

# Ongoing work

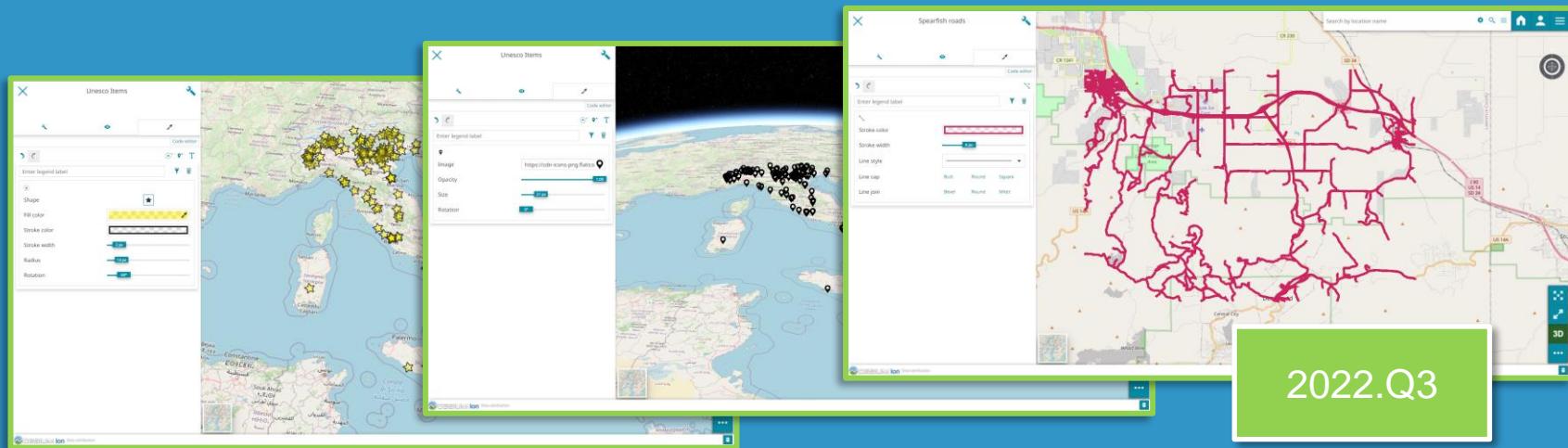
- **3D Tiles:** we are working to improve the MapStore 3D viewer through the inclusion of new interesting updates:
- Update of the Cesium JS library to the latest version. This helps to solve also some performance issues present in the older version

2022.Q1  
2022.Q2

- Support for a new catalog source and layer type for 3D Tiles
- Support for 3D Tiles styling
- More work in progress to support more styling capabilities

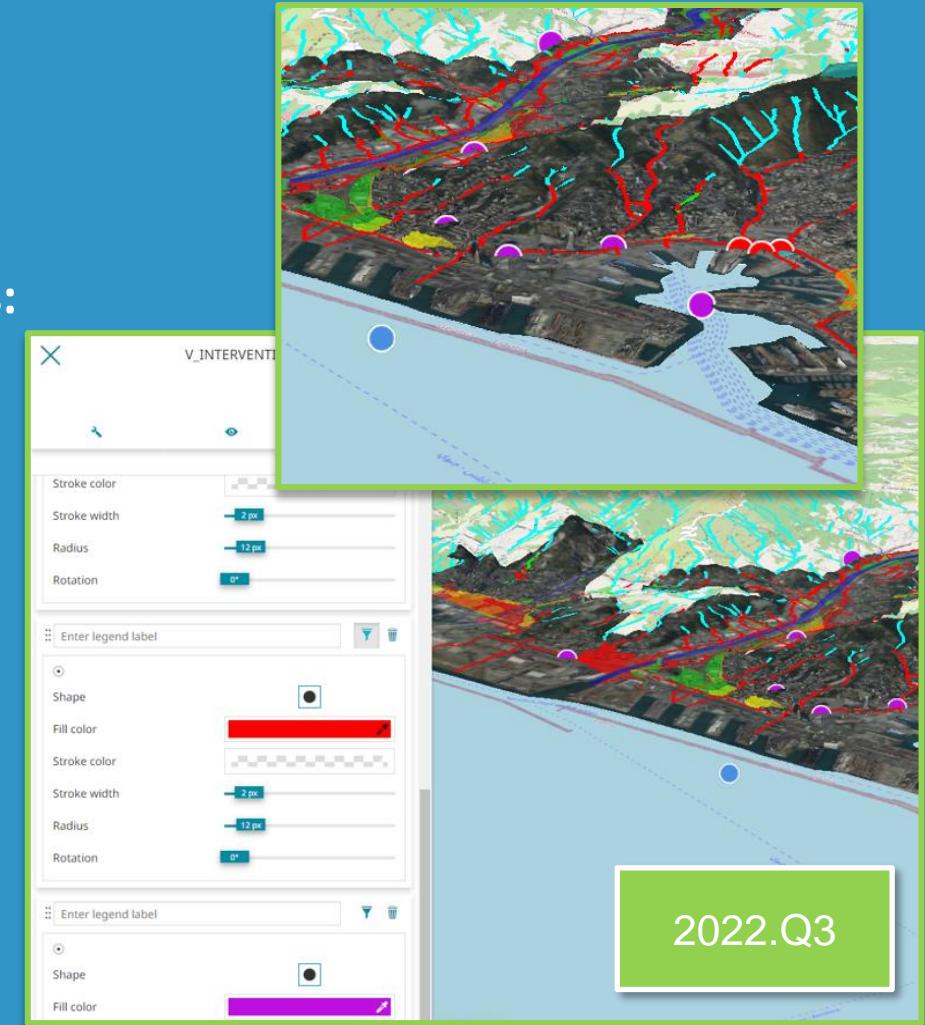
# Ongoing work

- More on 3D: we are working to move further steps on the 3D functionalities
- Some experiments aimed to support 3D geometries in the Cesium map (in GeoJSON format)
- Support of WFS layers also in Cesium map
- Enhancements aimed to evolve the styling of client side vector features with an improved Visual Style Editor (both 2D and 3D maps)



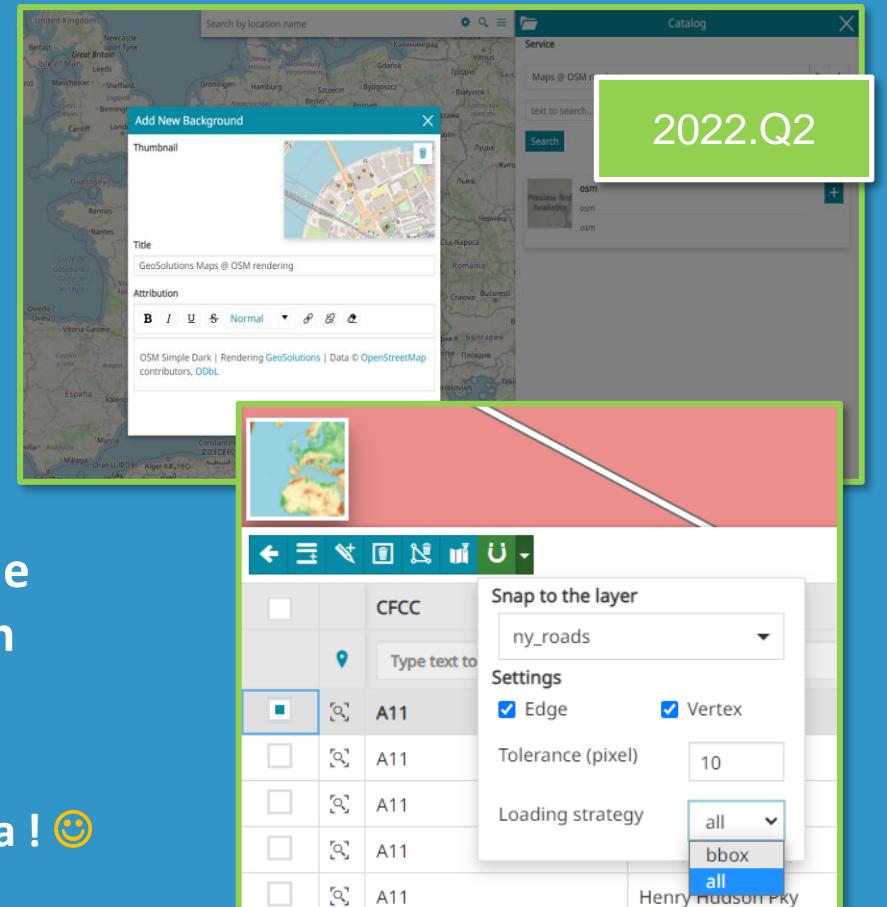
# Ongoing work

- More on 3D: we are working to move further steps on the 3D functionalities
- More experiments aimed to enrich the styling capabilities of 3D Tiles (based on the OGC Styling specifications 1.0) such as: labels, alignment of Graphics (Marks/Icons) and labels, clamp to ground and extrusion properties and more
- Some investigations to possibly support experimental styling properties
- Some experiments aimed to include the selection of multiple Terrain layers for in the 3D map



# Ongoing work

- Additional capabilities added to existing tools: in v2022.01 some interesting enhancements and new features have been included
- Improved the WMTS support: more support of WMTS layers in GeoStory and added Attributions for WMTS background layers
- Snapping function for Attribute Table: in edit mode it is now possible to snap features to other ones when editing geometries

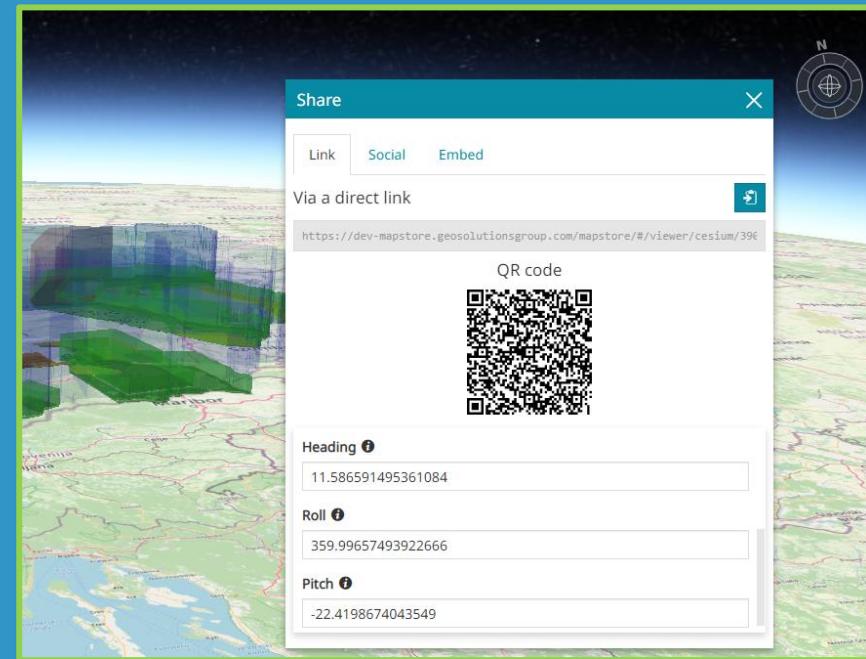


Thanks to Rennes Métropole and geOrchestra ! 😊

Loading strategy included! Support to implement additional strategies in addition to the default ones

# Ongoing work

- Additional capabilities added to existing tools: in v2022.01 some interesting enhancements and new features have been included
- 3D query parameters: enhanced sharing capabilities for the 3D map providing the support for additional options for the camera orientation
- Map Viewer query parameters: enhanced the support to viewer query parameters (also via POST)

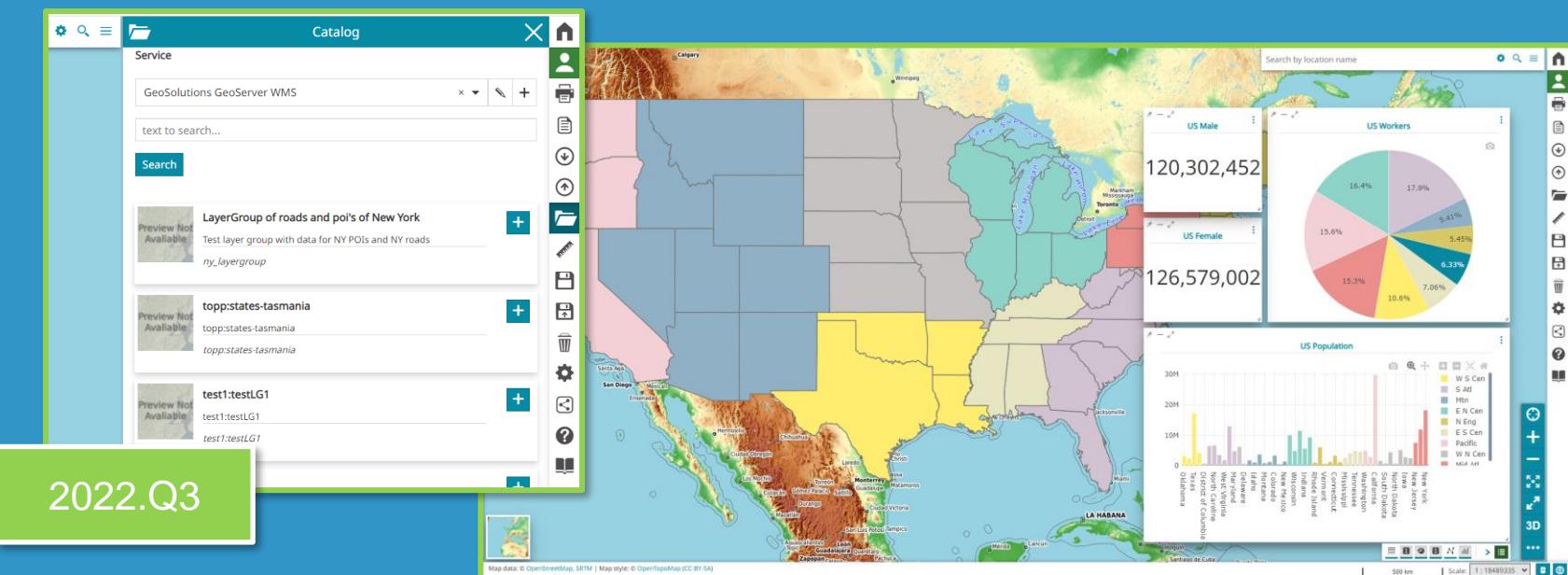


Thanks to Rennes Métropole and geOrchestra ! 😊

2022.Q2

# Ongoing work

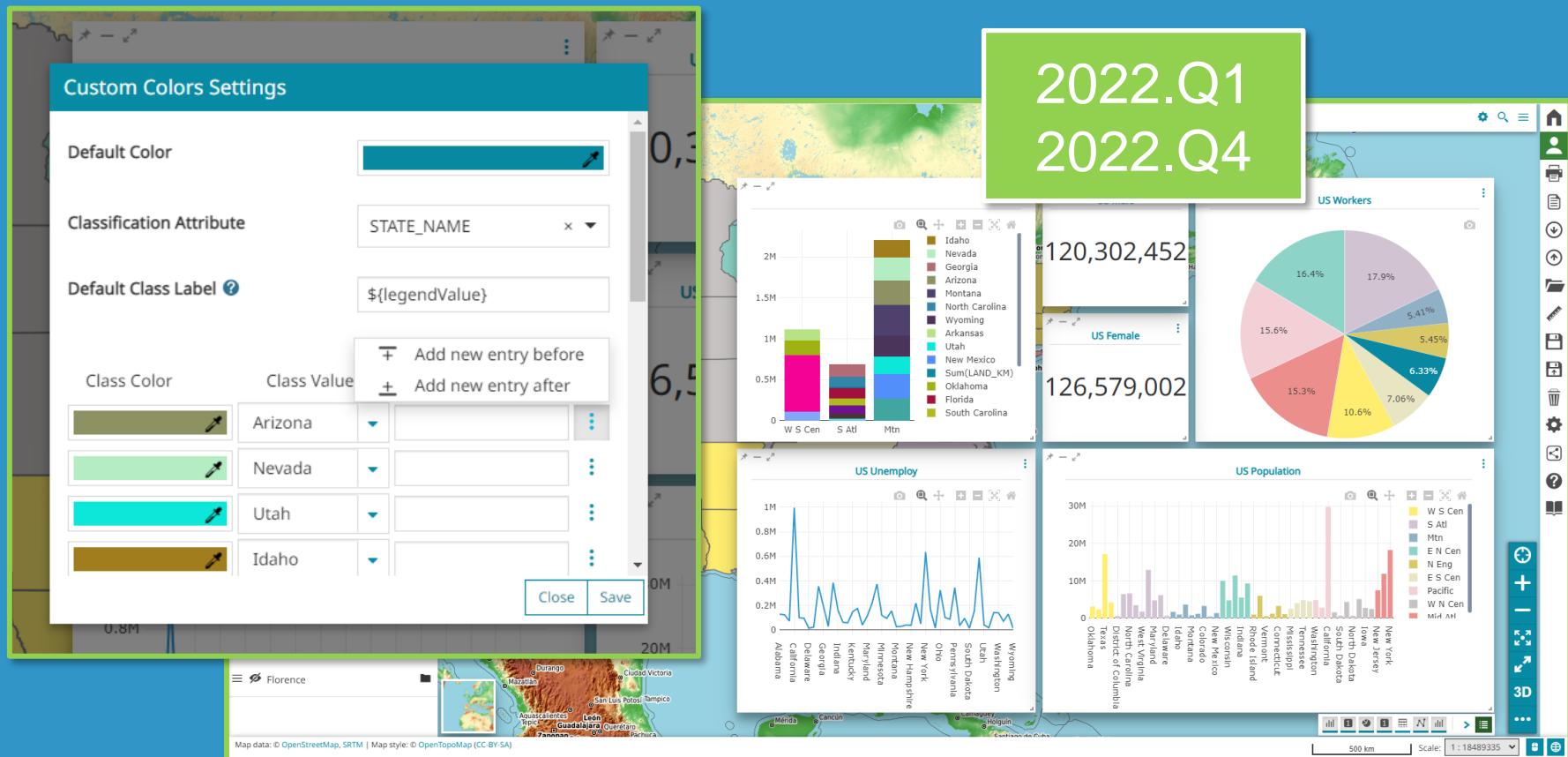
- **Layout enhancements:** in v2022.02 some interesting improvements will also be provided for the new MapStore layout where:
  - The Options menu will be replaced by a Sidebar
  - Other layout changes such as: smaller buttons and reduces size of side panels on the right



Thanks to Rennes Métropole and geOrchestra ! ☺

# Ongoing work

- **MapStore Charts:** we are working to improve charts
  - In v2022.01 MapStore widgets have been enhanced with classification capabilities for Bars (staked and grouped) and Pie charts



Both **MapViewer** and **Dashboard** are supported!

# Ongoing work

- **Downstream projects:** we are working on a new project system that helps to maintain and update existing projects and new ones. We are going to separate gradually the core from the product to have the core library in **npm package(s)**
- **Performances:** MapStore is growing very quickly. For this reason, we are working to keep it as optimized as possible to:
  - Reduce the loading time at startup by reviewing and reducing the bundle size
  - Optimize build time and resource consumption

2022.Q4

2022.Q3  
2022.Q4

# That's all folks!



## Questions?

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