SMART MATURE RESILIENCE

THE RESILIENCE INFORMATION PORTAL HANDBOOK

TECNUN / CIEM | October 2017

This document has been prepared in the framework of the European project SMR – SMART MATURE RESILIENCE. This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement no. 653569.

The sole responsibility for the content of this publication lies with the authors. It does not necessarily represent the opinion of the European Union. Neither the REA nor the European Commission is responsible for any use that may be made of the information contained therein.

Funded by the Horizon 2020 programme of the European Union

INDEX

1.1 Introduction 5
1.2 User Perspective 6
1.2.1 Accessing the SMR Portal 6
1.2.2 Selection of a Portal 6
1.2.3 The Start Page 6
1.2.4 Using the Menu 8
1.2.5 News and Newsroom 8
1.2.6 Registering for the Portal 8
1.2.7 Integration with the Other SMR Tools 9
1.2.8 Resilience Library 10
1.2.9 Map Mashups 11
1.2.10 Understanding Visualisations 12
1.2.11 Contact List 12
1.2.12 Related Portals and Data Sources 13
1.2.13 Commenting 13
1.2.14 Tips in Emergency 14
1.2.15 Emergency Mode 15
1.2.16 Using Social Media 15
1.3 Editor Perspective 17
1.3.1 LOgging In 17
1.3.2 Getting an Overview 17
1.3.3 Administrative Menu 17
1.3.4 Creating a Page 18
1.3.5 Editing a Page 19
1.3.6 Web Editor Detailed Functions 20
1.3.7 Advanced Configuration 21
1.3.8 Portal Security 22
1.3.9 List of Organizations 23
1.3.10 Creating a New Organization 24
1.3.11 Editing Organizations 24
1.3.12 Hierarchy of Organisations 25
1.3.13 Viewing and Using Past Versions 25

1.3.14 Listing and Showing Data Structures 27
1.3.15 Creating and Editing a Data Structure 28
1.3.16 Listing and Showing Administrative Pages 30
1.3.17 Creating an Administrative Page 31
1.3.18 Editing an Administrative Page 32
1.3.19 Listing Users 32
1.3.20 Creating a User 33
1.3.21 Editing a User 33
1.3.22 In-Portal Help 34
1.3.23 Searching 34
1.3.24 Setting the Emergency Page 34
1.3.25 Enabling Comments 35
1.3.26 Editing Public Comments 36
1.3.27 Including Twitter Feeds 37
1.3.28 Creating Map Mashups 40
1.3.29 Realizing Data Visualisation 40

1.1 INTRODUCTION

This handbook describes the SMR Resilience Information Portal usage. While it will be realized as a free-standing document, it is included in D4.4 to fill a gap: it is less technical and much more concrete than the functional specification, as presented in D4.2 and extended in D4.3; at the same time, it is more detailed and has broader coverage than the tutorial available on the portal and in Annex II (and the status page overview given in Annex I).

The handbook contains two main sections: the user perspective and the editor perspective. The first explains how the portal can be used, thereby also highlighting what is possible from a user's point of view. This should not only support the actual usage of the portal but also foster a better understanding of the functional specification, which describes the portal functionality in much details but – due to the nature of a specification – does not give advice how to practically realize it. The latter show how the portal can be editing, starting with simple functions but ranging to complex possibilities.

For better illustration, we heavily make use of screenshots. All screenshots have been made on the three exemplary portals that have been created as part of the SMR project for the three tier-1 cities. In general, the portal is written from the perspective of using the exemplary SMR portals; however, since these portals follow the functional specification that we encourage as the foundation for building Resilience Information Portals, the descriptions can be related to any portal generated (at least roughly) following the specification. Of course, the graphical design can be chosen freely and any screenshots should be seen as merely exemplarily in their graphical representation of functionality and content.

Individual sections are kept as short as possible and focus on single functions. This yields a strict separation of concerns and enables the manual not only to be used when read from beginning to end but also as a reference for reading about distinctive functionality. Words in Italics font present design principle related instruction.

1.2 USER PERSPECTIVE

1.2.1 ACCESSING THE SMR PORTAL

Any users can access the SMR Portal via the following URL:

http://smr-project-test.appspot.com/main.page

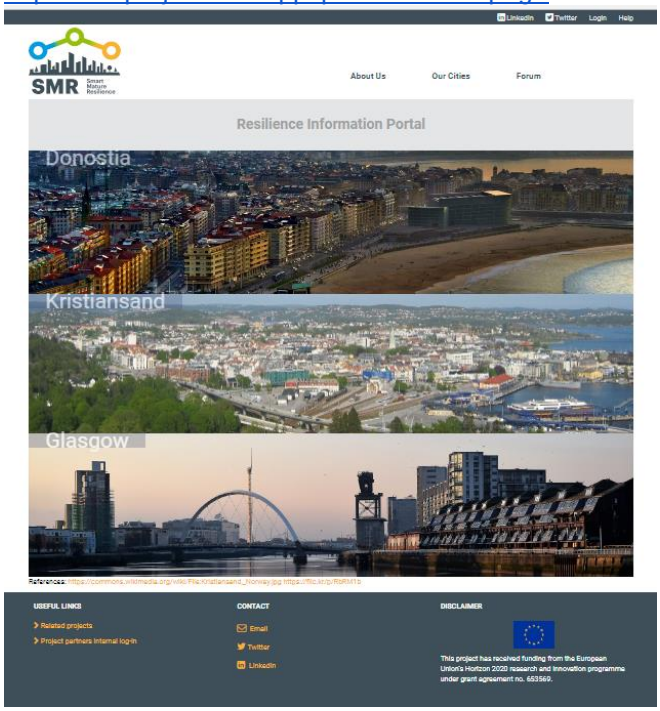


Figure 1 Entrance page to the portals

1.2.2 SELECTION OF A PORTAL

Users chose one portal from the following three by clicking the city's name or the image of the city.

Donostia: http://smr-project-test.appspot.com/RPDonostia.page

Kristiansand: http://smr-project-test.appspot.com/RPKristiansand.page

Glasgow: http://smr-project-test.appspot.com/RPGlasgow.page

1.2.3 THE START PAGE

Users can see the specific information about the city. For example, the home page of Kristiansand shows 1) short introduction of the city, 2) shocks and stresses towards city resilience, 3) emergency

contacts, 4) latest news, 5) related social media feeds, and 6) recent work. In other cities, the structure can be different.

Information is provided by each portal owner individually. Portal owner may follow the SMR portals or provide a selection of information on their own creation. However, it is encouraged to follow the SMR design principles and the portal's functional specification (cf. Deliverable 4.3).

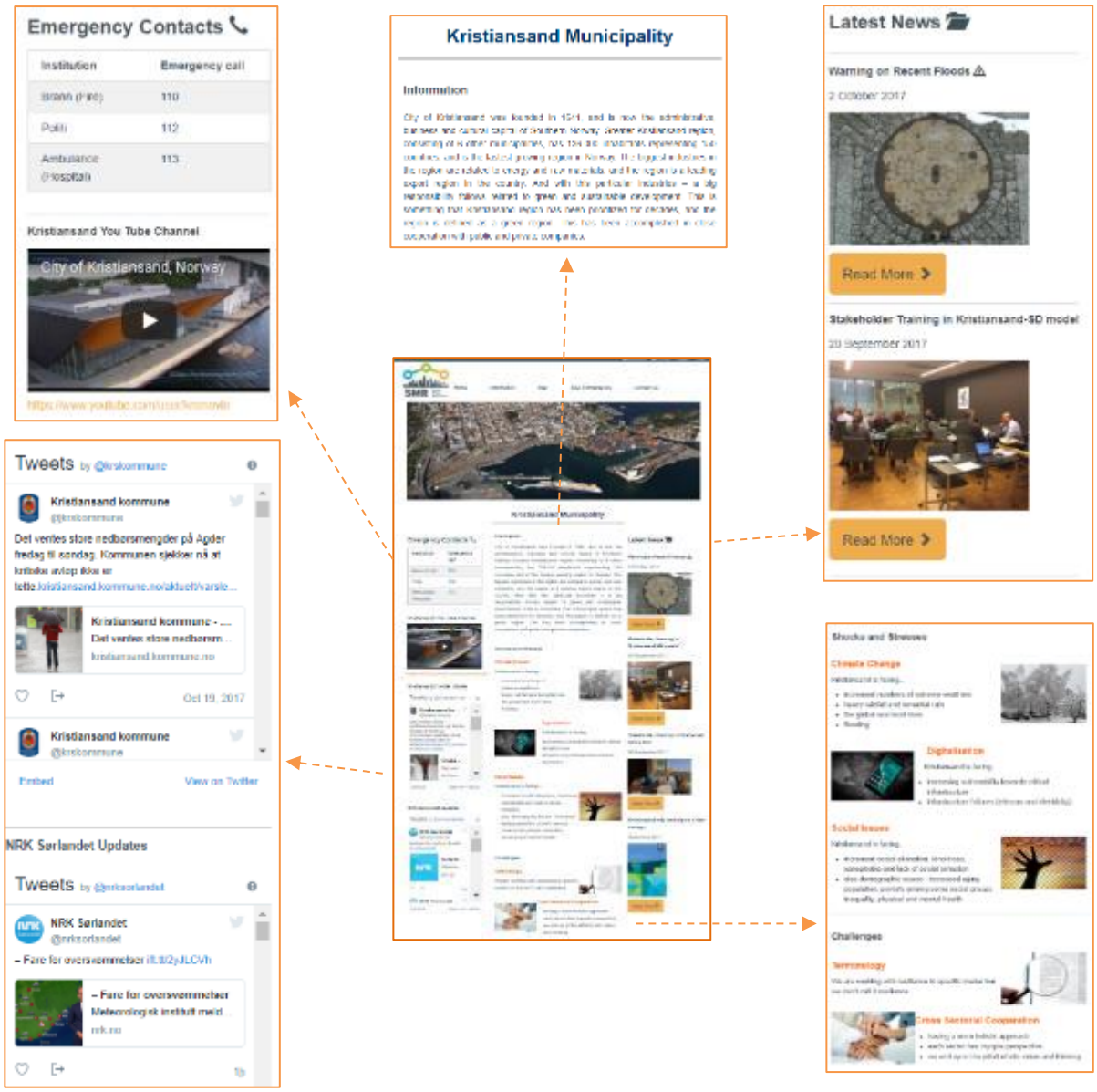


Figure 2 An example of implementation of Resilience Information Portal in Kristiansand –the main home page (in the middle). The figures in the left, right and upper parts are highlights from different section in the main page.

1.2.4 USING THE MENU

Users can access contents through the menu bar. The main menu bar contains “Home”, “Information”, “Map”, “Tips in Emergency” and “Contact”. Each menu has sub menus for instance, Kristiansand portal has “Related portals”, “Data sources”, “Media source”, “Newsroom” and “Emergency mode” under “Information” menu bar. Cities can change each sub menu according to their needs.

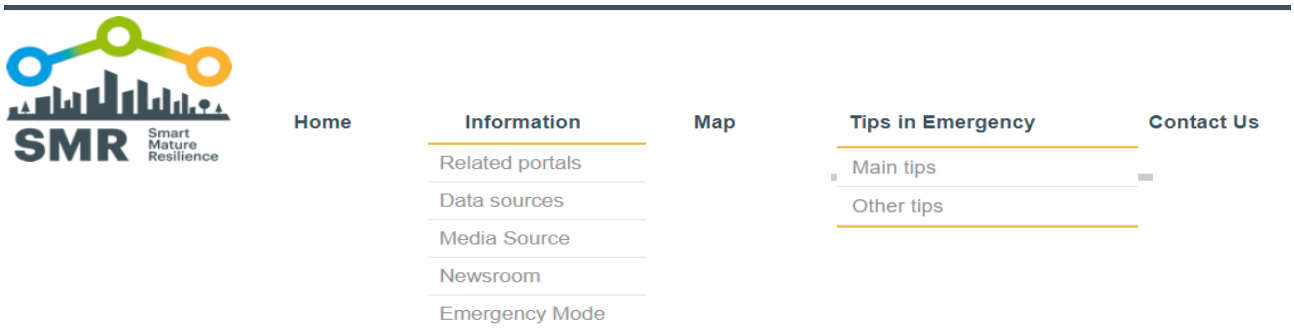


Figure 3 Example of the Menu bar in Kristiansand Portal

1.2.5 NEWS AND NEWSROOM

Cities can keep updated by *sharing information* with different departments and stakeholders.

Stakeholders and citizens can see the latest activities of cities.

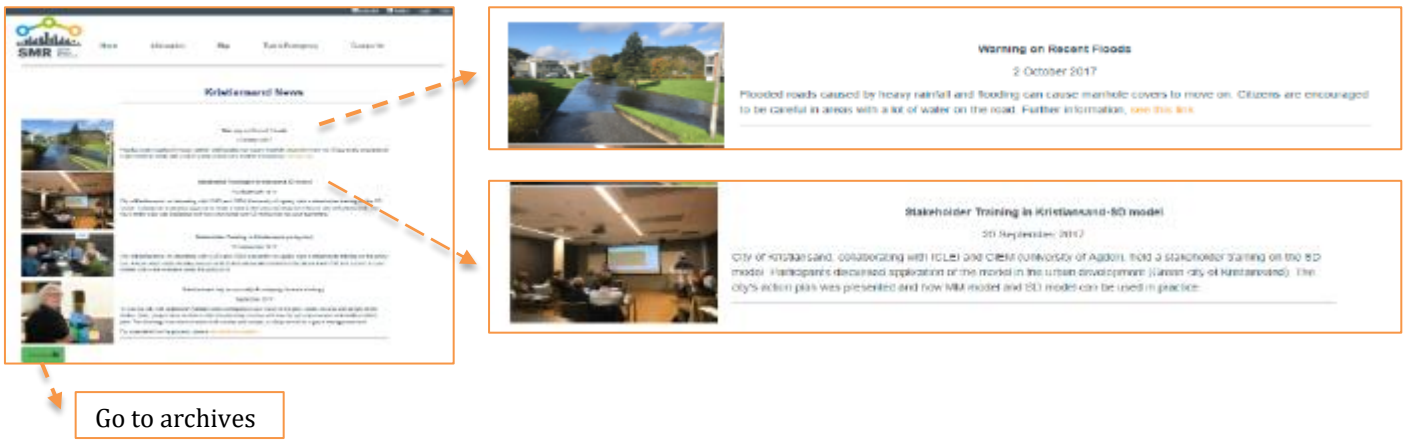


Figure 4 Example of Newsroom in Kristiansand Portal

1.2.6 REGISTERING FOR THE PORTAL

To register a new user to the portal, we need to go to Login > Admin > New user

The user should provide user name, email address, password and then press Submit button. Then the new user can start participating and developing the portal (although normal users only gain user access, not the role of an administrator). Currently, the portal only support registration of a new user who will participate in administering and developing the content of the portal, and not for general user. Email verification is supported. The new user receives an email with a link to confirm which will activate the new account.

Figure 5 Example of New User feature in Kristiansand Portal

1.2.7 INTEGRATION WITH THE OTHER SMR TOOLS

From the About Us entry of the Resilience Information Portal, the user can go to the different tools of SMR as seen in Figure 6.

Figure 6 Concept of the tool integration

1.2.8 RESILIENCE LIBRARY

Cities can see best practices of others. It enhances *knowledge sharing* in different levels (regional, national and Europe).

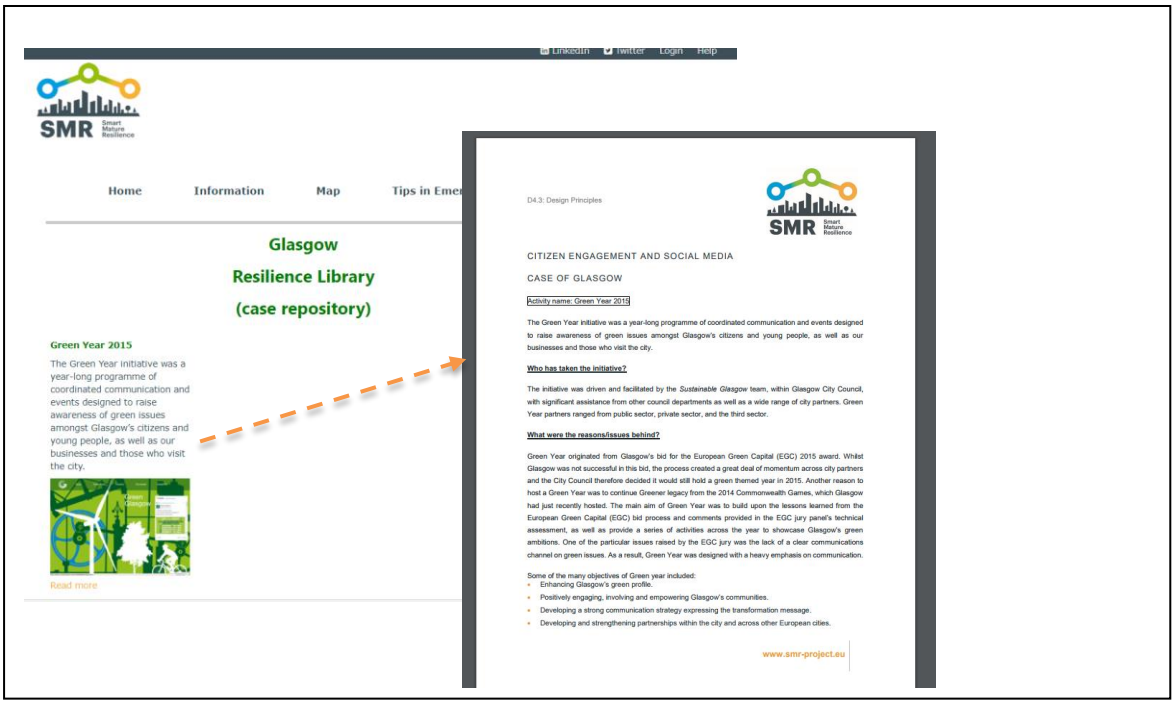


Figure 7 Example of Resilience Library in Glasgow Portal

1.2.9 MAP MASHUPS

Users can see a geographical map which integrated data from several sources and make use of already existing capabilities (such as using Google Maps, Open Street Maps or other available maps with added icons to highlight infrastructure).

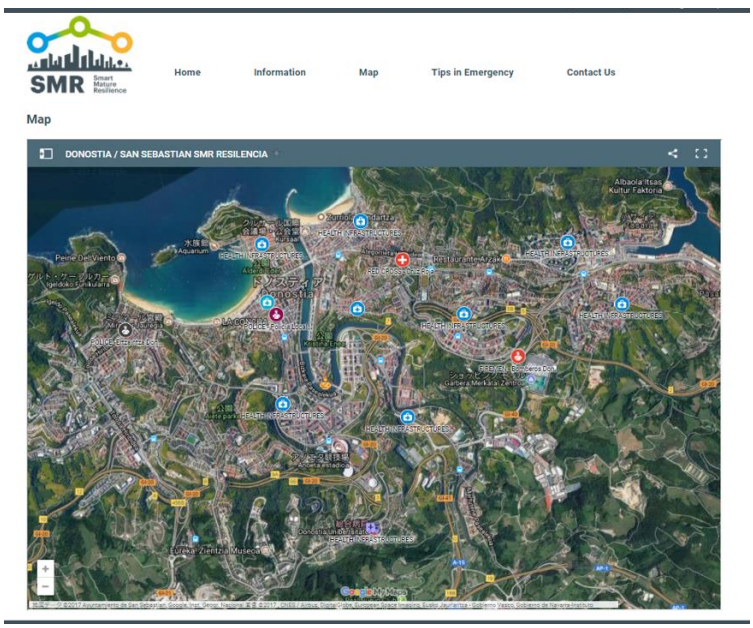


Figure 8 Example of the map implementation in Donostia Portal

1.2.10 UNDERSTANDING VISUALISATIONS

It is possible for the city to include data visualization in the portal, if the stakeholders have the need to include data defined in a data structure or external data that need to be presented or visualized in the information portal, as seen in Figure 9.

The data can be introduced in the data structures created with the portal or user external data. In both cases, the data is obtained with the available APIs to access the data; typically, the API are defined and implemented in JavaScript for their use on the Web.

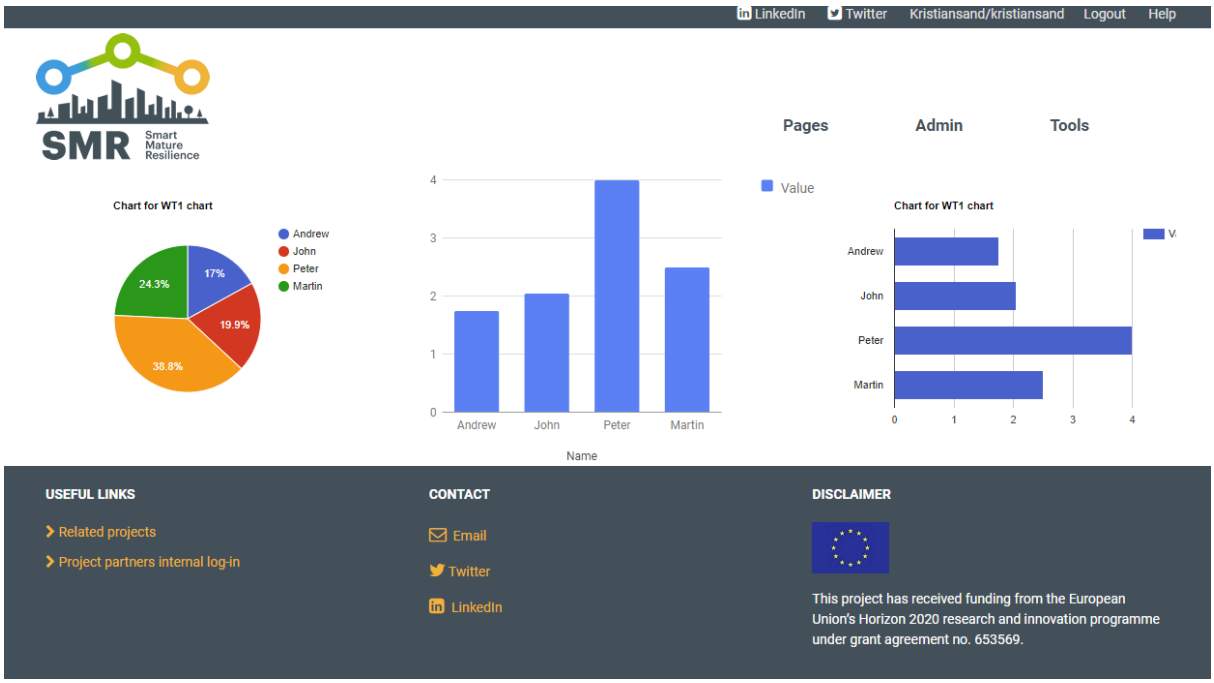
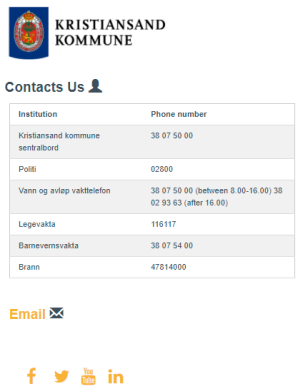


Figure 9 Fetching External Data and Visualizing them in the Information Portal, an Example

1.2.11 CONTACT LIST

Citizens can get where they should call based on their purpose.

Cities can establish a *communication structure*.



Institution	Phone number
Kristiansand kommune sentralbord	38 07 50 00
Politi	02800
Vann og avløp vakttelefon	38 07 50 00 (between 8.00-16.00) 38 02 93 63 (after 16.00)
Legevakta	116117
Barnevernsvakta	38 07 54 00
Brann	47814000

Figure 10 Example of the contact list in Kristiansand Portal

1.2.12 RELATED PORTALS AND DATA SOURCES

Cities, stakeholders and citizens can see related portals, data source, and media source as a reference.

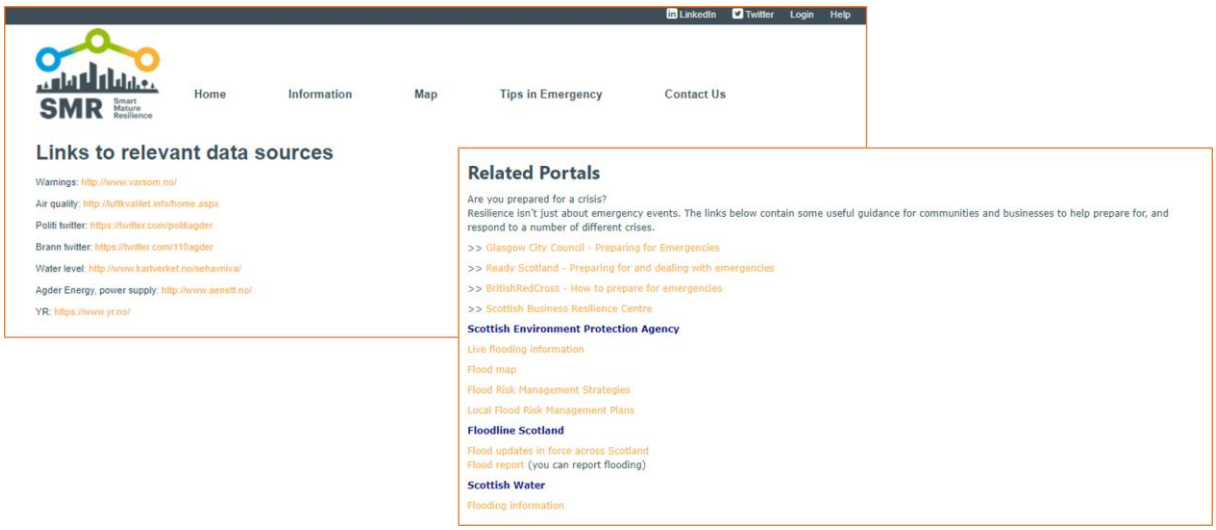


Figure 11 Example of the source list in Kristiansand (left) and Glasgow (right) Portal

1.2.13 COMMENTING

Users can add comments directly through the portal as one means of two-way communication.

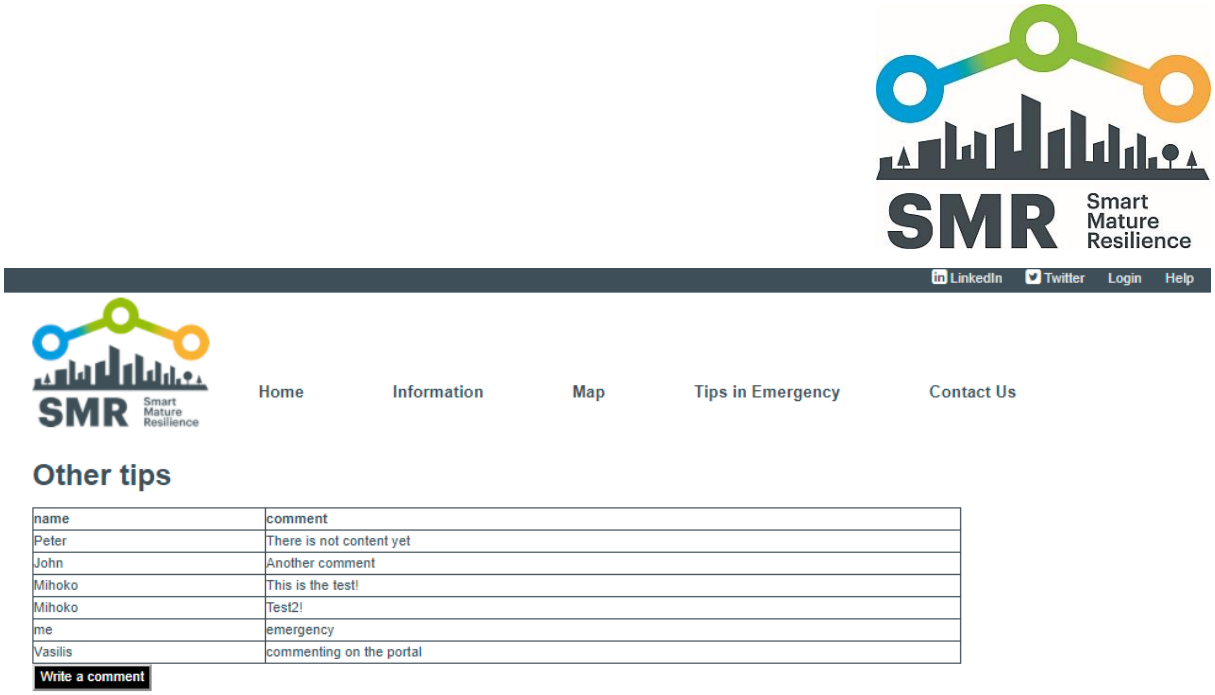


Figure 12 Example of the commenting function

1.2.14 TIPS IN EMERGENCY

Citizens can gain useful information how to prepare for an emergency. This is a part of *citizen engagement*.

Figure 13 Example of the Tips in Emergency in Donostia Portal which explains the meaning of alert level

1.2.15 EMERGENCY MODE

The Emergency mode allows to the administrator to change the default page to a predefined (or created ad hoc) Emergency Page.

This page may offer functionality such as:

- Citizens can get a simple message to citizens on how to react once an emergency happens.
- Media can get a link for related information from cities.
- Citizens can contact cities through social media.
- All users can see twitter posts from disaster relief related organizations.

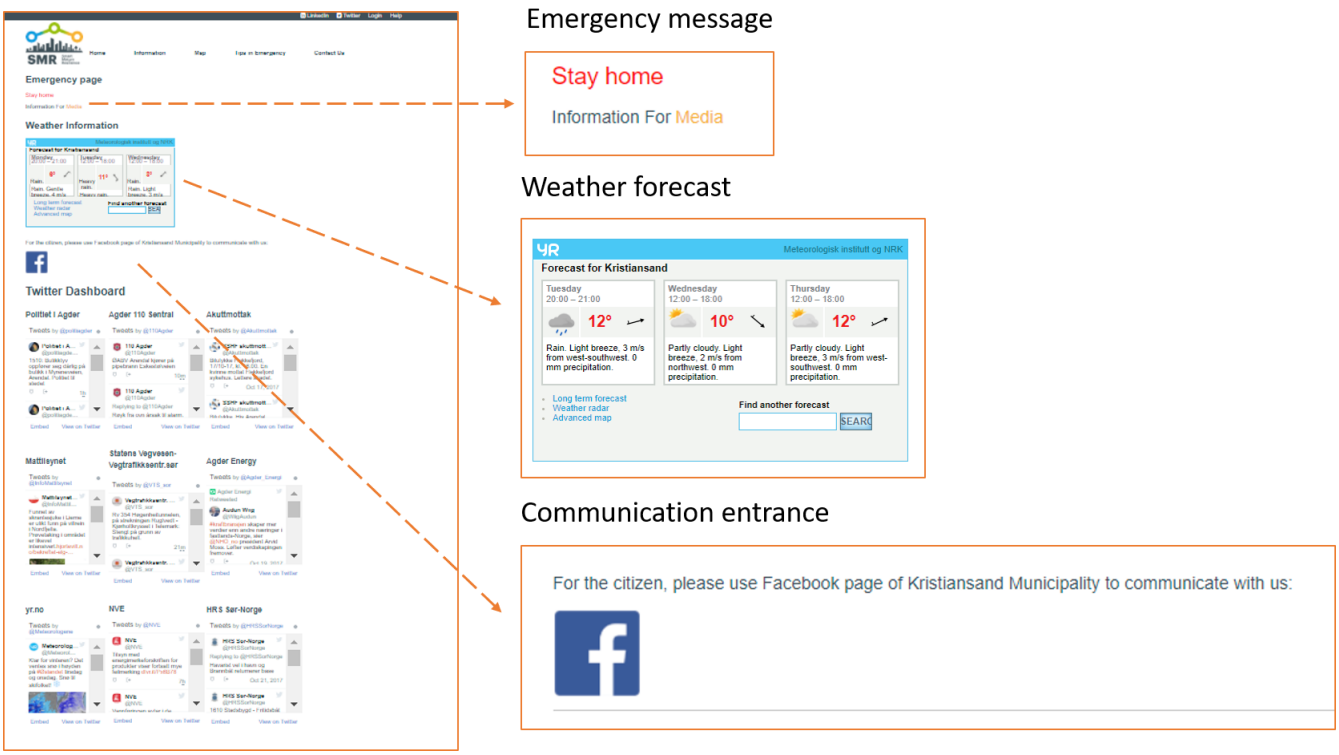


Figure 14 Example of the Emergency mode page in Kristiansand Portal

1.2.16 USING SOCIAL MEDIA

Social media on the portal is used in an integrative manner. The portal embeds existing social media services, as these are the ones that citizens typically use. The usage follows the established ways of

the well-known services such as Facebook, Instagram, LinkedIn and Twitter as provided both on the Web sites of the services directly and on any other site that integrates content from them.

1.3 EDITOR PERSPECTIVE

1.3.1 LOGGING IN

To log in:

1. Click Login button
2. Registered user can directly type the email address and password in the available spaces
3. Press Submit button

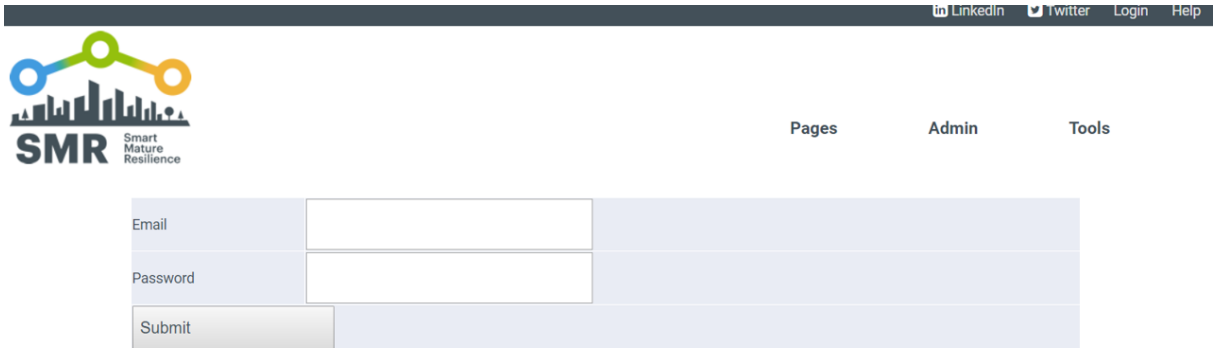


Figure 15 Example of log-in page

1.3.2 GETTING AN OVERVIEW

The overview of the content of the webpages can be seen in the UserPage List.

UserPage_List

New	GoToPage	name	logged
Detail	UserPage	City of Donostia	false
Detail	UserPage	City of Donostia (model1)	false
Detail	UserPage	City of Kristiansand	false
Detail	UserPage	Climate change	false
Detail	UserPage	Create user	true
Detail	UserPage	Digitalization	false
Detail	UserPage	Example of menu three levels	false
Detail	UserPage	Form data	false

Figure 16 List of UserPage

1.3.3 ADMINISTRATIVE MENU

The editor page has three menus, Pages, Admin, Tools. Each menu contains sub-menu which enables editors to create new page, new organization, set emergency page and the other administrative tasks.

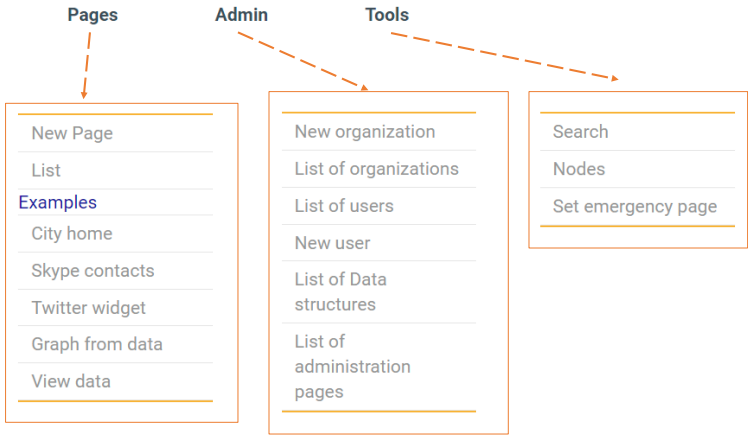


Figure 17 Menu list of the administrative page

1.3.4 CREATING A PAGE

To create a new page (also called a *User Page*):

1. Go to **Pages**
2. Click **New Page**, and the following interface will appear (See Figure 18)
3. Give the **name** of the page inside the space in the upper left.
4. Click Submit button. And then a new page will be created
5. Go to List, to see the newly created page. The names of the pages are alphabetically ordered in the list. See also Figure 16 that shows user page list.

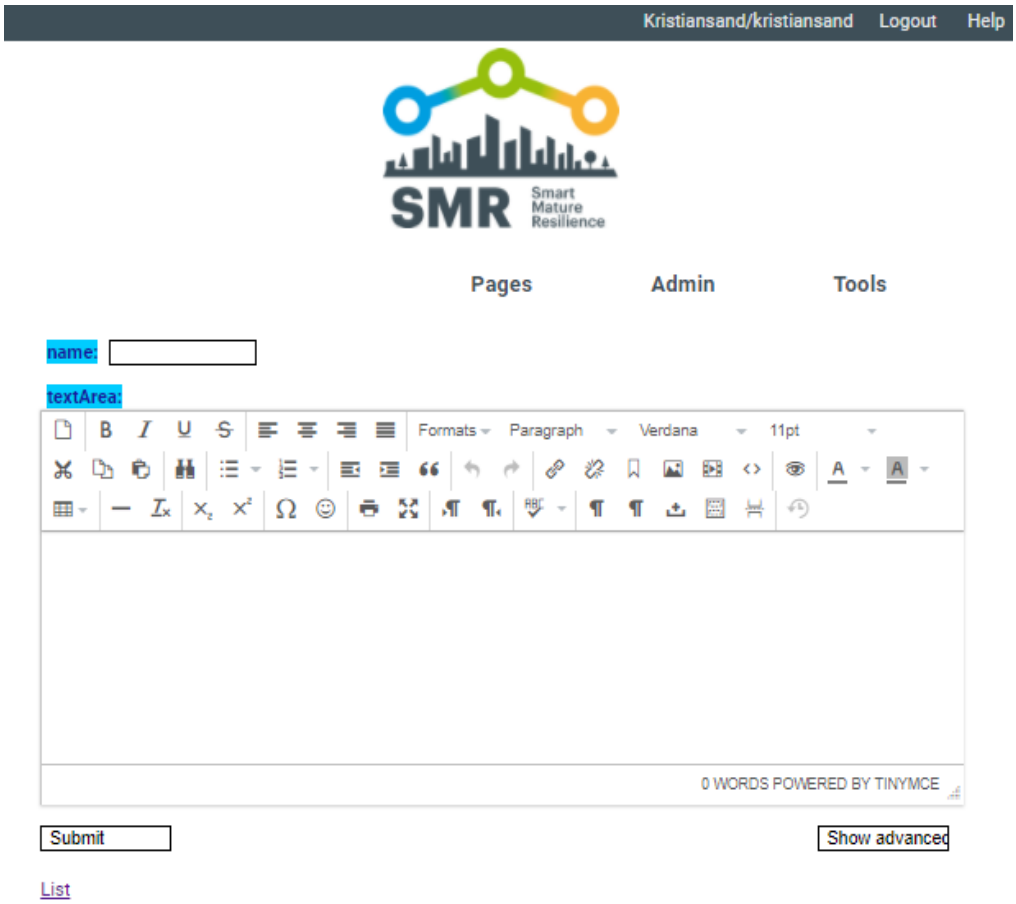


Figure 18 Interface of new page creation

1.3.5 EDITING A PAGE

To edit a page, the user can go to **List** and find the new created page in the **UserPage List**.

1. Click **Detail**
2. Click **Edit**
3. Start typing and formatting content **in the text area**
4. To finish and save the work, click **Submit**

The user can also insert the content in the process of creating a New page (1.3.4)

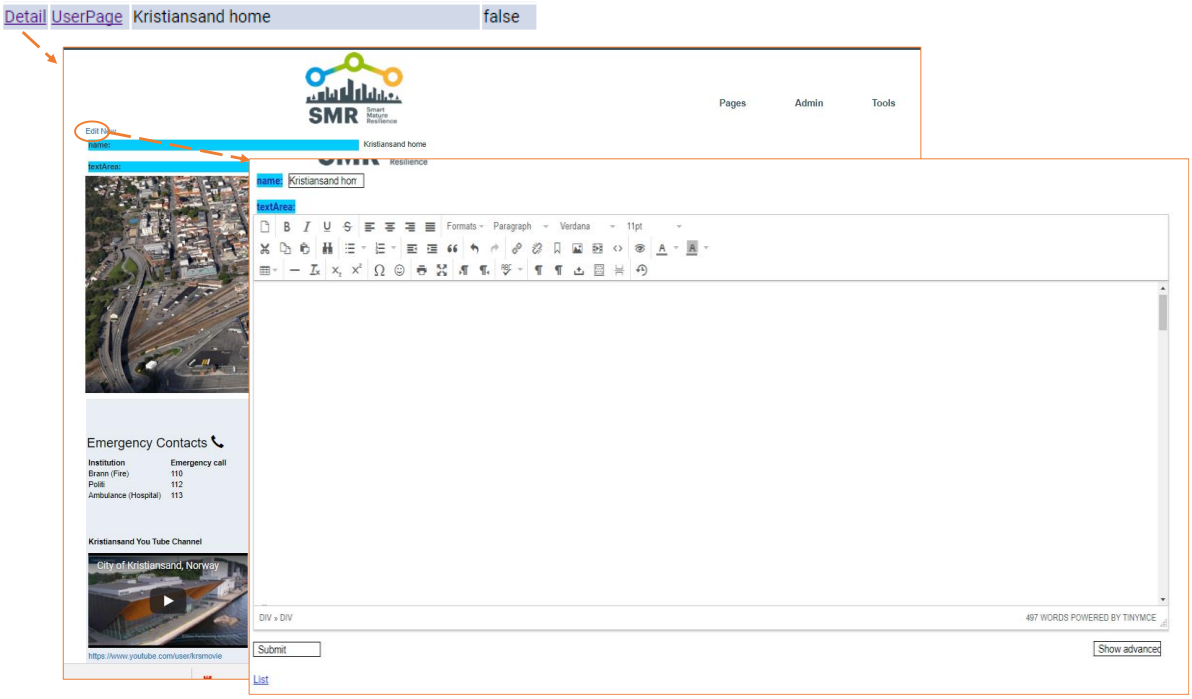


Figure 19 Entrance to the editing page

1.3.6 WEB EDITOR DETAILED FUNCTIONS

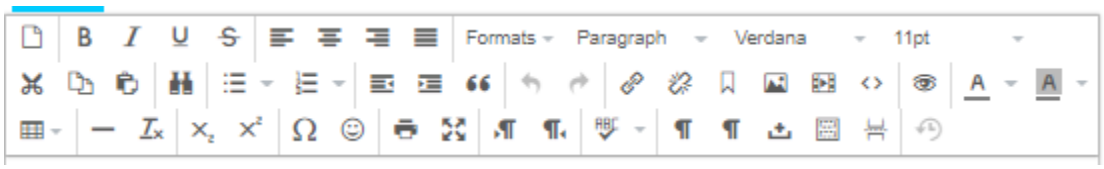


Figure 20 Editing functions

The Web Editor Detailed functions contain the following feature:

- Create a new document
- Format the text (Bold, Italic, Underline, Strikethrough
- Format paragraph (Align left, Align centre, Align right, Justify)
- Format Fonts (Overall text Headings, Paragraph, Font Family, Font Size, Text colour, background colour, subscript, superscript)
- Cut, Copy Paste, Find and Replace
- Make bullet or numbered list

- Increase-decrease indent
- Make block quote
- Undo-Redo button
- Insert/Remove external link, making anchor, insert figure and video and embed source code
- Insert table
- Clear formatting
- Insert line, special characters, emoticons, template
- Restore the last draft
- Print
- Full-screen
- Spell check
- Making text right to left or left to right,
- Show/hide invisible characters
- Page break

1.3.7 ADVANCED CONFIGURATION

When you click the "Show advanced" button in the bottom of the editing page, advanced configuration will appear.

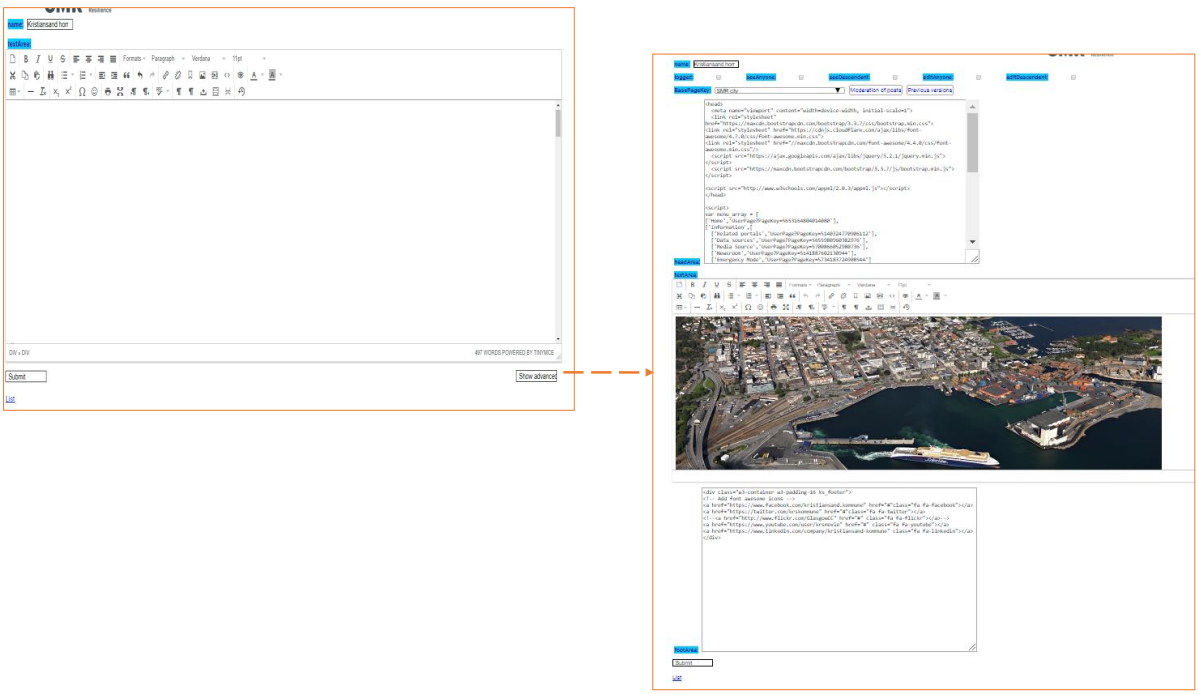


Figure 21 Advanced configuration page

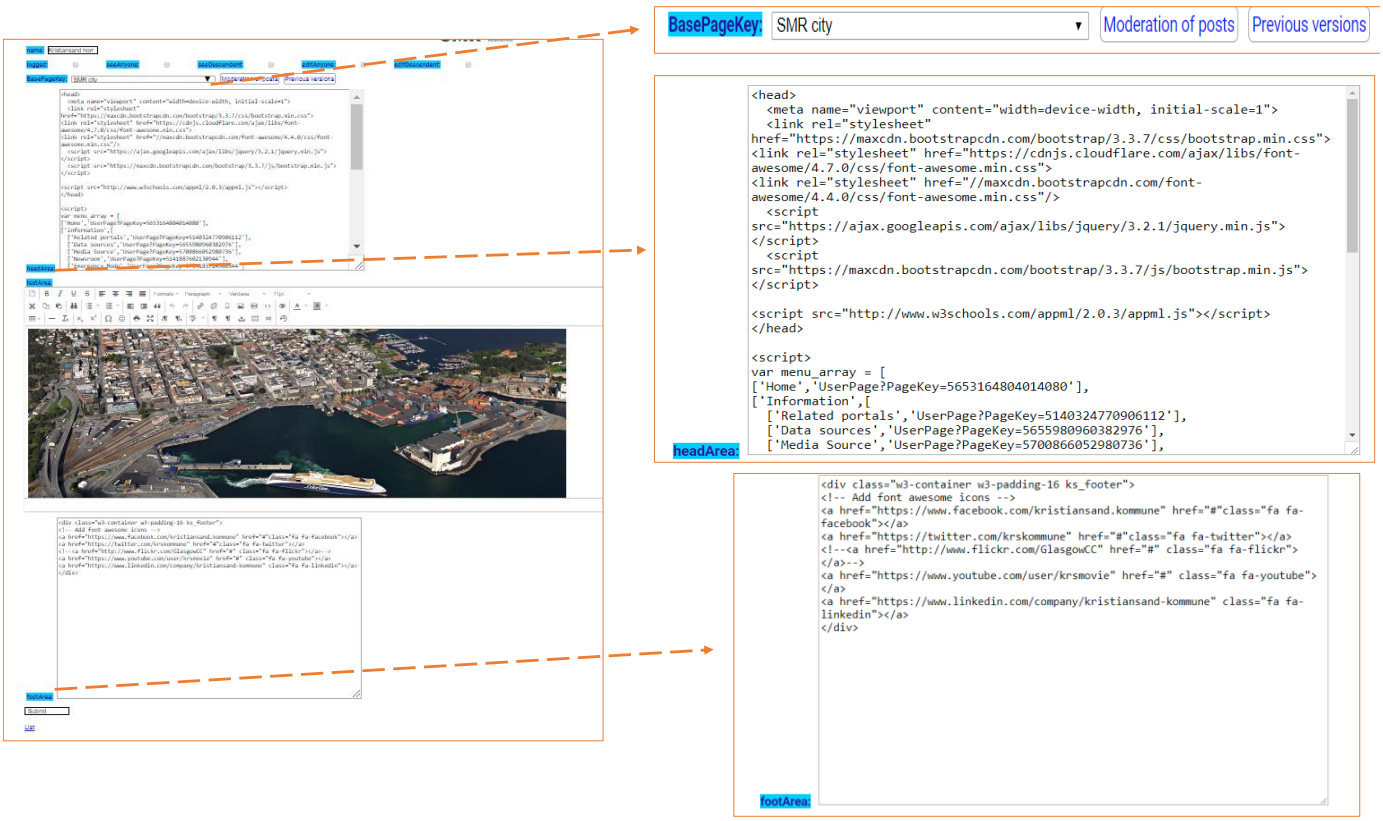


Figure 22: Detail of advanced configuration

- *BasePageKey* (the top on the right): defines the page to be used as template. (technically: the page can use the head area and foot area of a previous page, usually defined for this purpose. It works in a recursive way.)
- *Head area* (the middle of the right): the code included in the web page, previous to your content (usually here is the style of the page or / and elements that appear in all the pages such as tool bars, menus, etc.)
- *Foot area* (the bottom of the right): the conde included in the web page after your content (usually here is the elements that appear in all the pages at the bottom of the page)

1.3.8 PORTAL SECURITY

Every Page has its own security about who can see and edit these pages. This can be edited through the advanced configuration page.

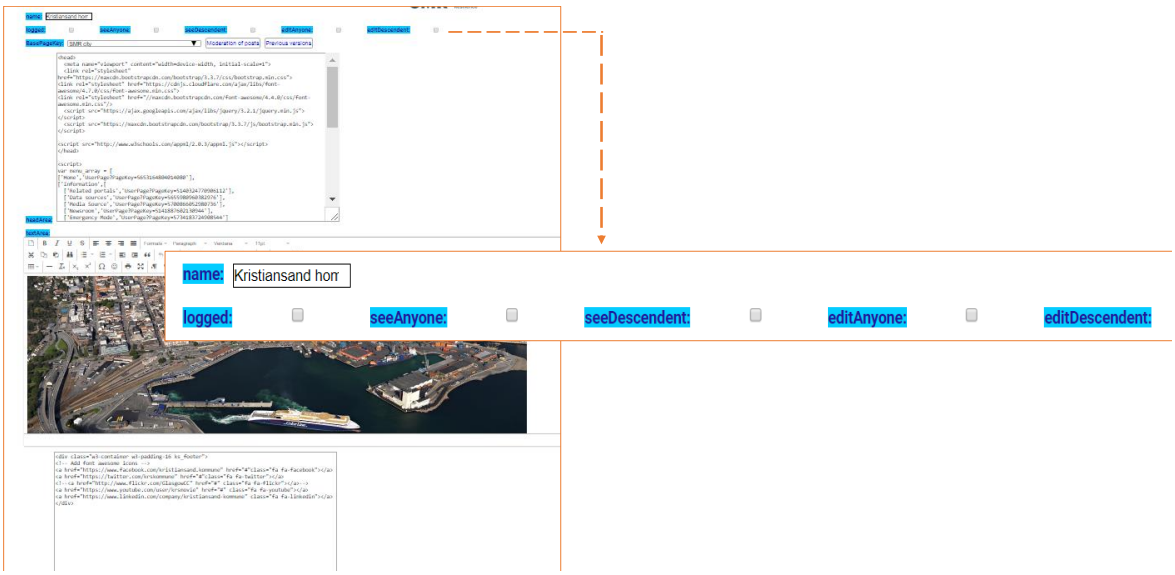
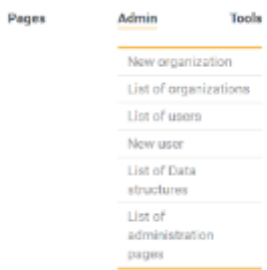


Figure 23 Portal security selection

- Logged: anyone logged can see the page
- See Anyone: anyone logged can see the page
- See descendent: Users of the pages below to this page (in the node tree) can see the page
- Edit Anyone: anyone logged can edit the page
- Edit descendent: Users of the pages below to this page (in the node tree) can edit the page

1.3.9 LIST OF ORGANIZATIONS

To show the List of Organizations, go to **Admin** menu and chose **List of Organizations.** The list will appear.



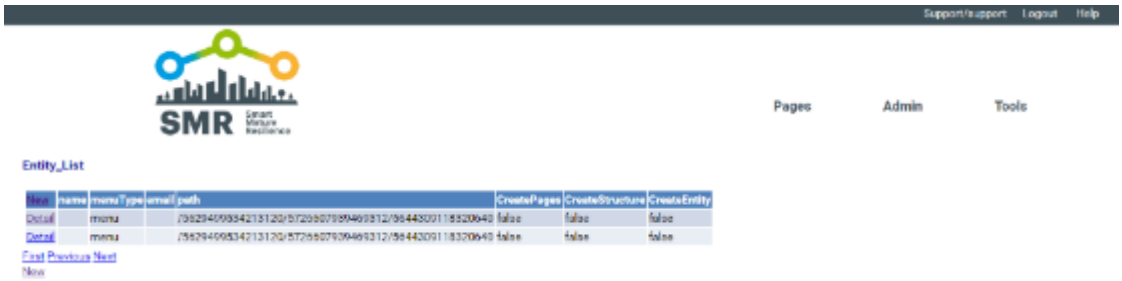


Figure 24 The list of organization

1.3.10 CREATING A NEW ORGANIZATION

To create a New Organization, go to **New organization.** Fill the fields (name and email) and select the permissions of organization (whether the users of this organization can create pages/structures/entities). Click submit bottom. The new organization will be created with the email as username and a default password.

Figure 25 Page of new organization creation

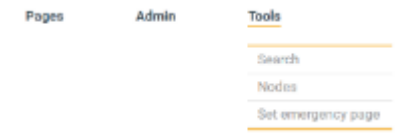
1.3.11 EDITING ORGANIZATIONS

To Edit an existing Organization, go to **Detail** in the list of Organization. Then click **Edit.** After finishing with the edition of the Organization, to save the changes, users must click **submit.**

Figure 26 Page of organization edits

1.3.12 HIERARCHY OF ORGANISATIONS

Users can see the hierarchy of organizations by clicking **Nodes** in the **Tool** menu.



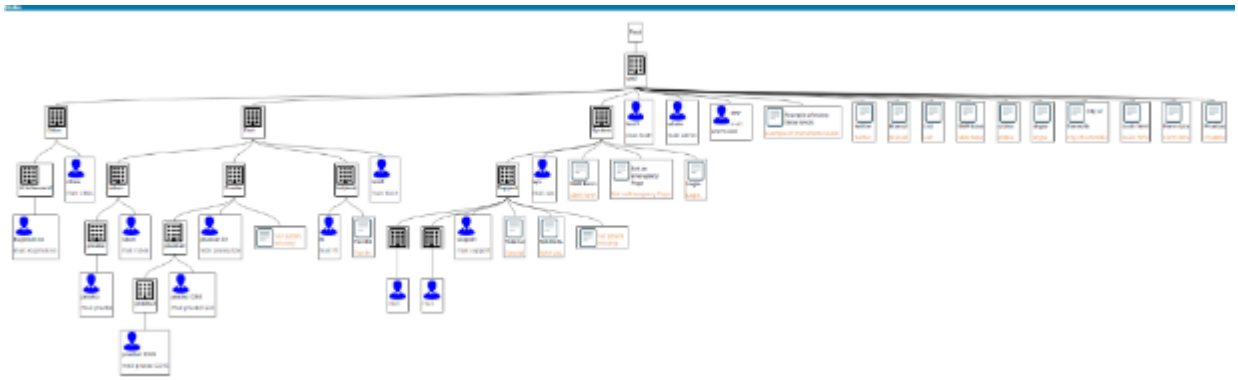


Figure 27 Structure of organization

1.3.13 VIEWING AND USING PAST VERSIONS

Users can see the past editions and how it was changed by clicking **previous versions** in advanced configuration view. Then chose **Detail** > **Edit** > **Compare**.

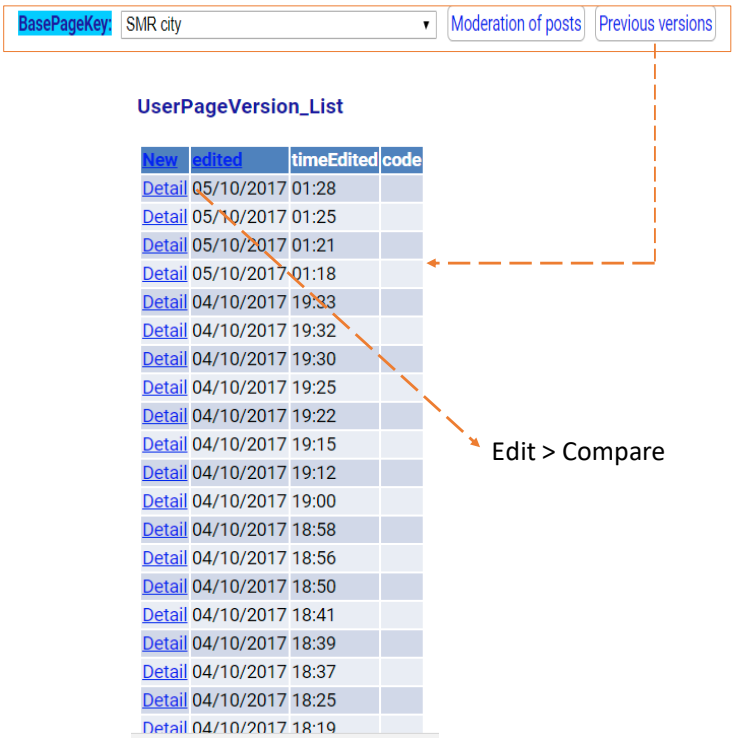


Figure 28 How to see the previous version

The user can see the previous version, the current version and its differences.

Figure 29 Comparison of past edits

1.3.14 LISTING AND SHOWING DATA STRUCTURES

To show the List of Data structures, go to **Admin** and chose **List of Data structures**. Users can see the structures of data, by clicking **ViewData.**

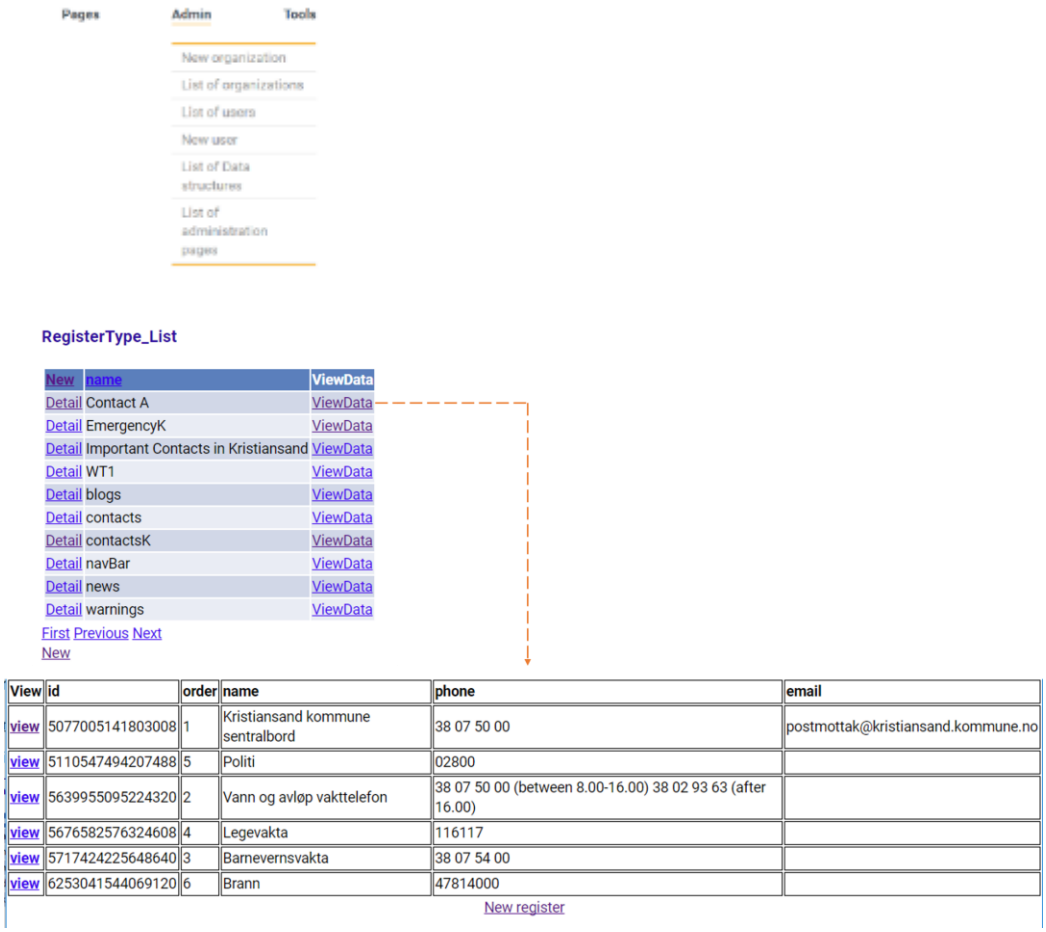


Figure 30 Data structure list

1.3.15 CREATING AND EDITING A DATA STRUCTURE

To create a new data structure, click **New** in the data structure list. To edit the name of an existing data structure, go to Detail in the list and click Edit. Finish with clicking **submit** bottom.

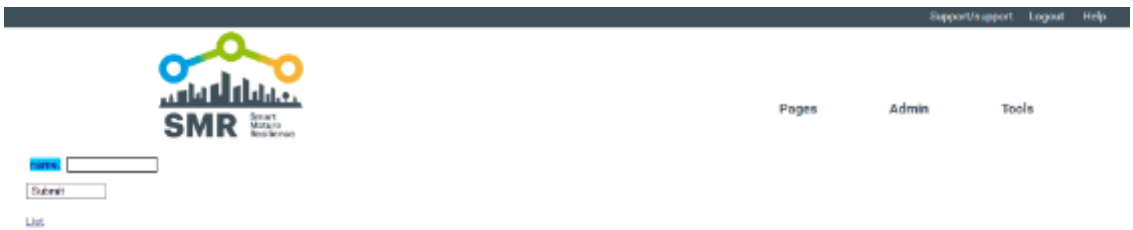


Figure 31 New data structure creation page

To edit the new data structure, back to the list and click **Detail**. When you click “New” button on the left-top of the list, new item (name, phone, and email in Figure 32) can be created.

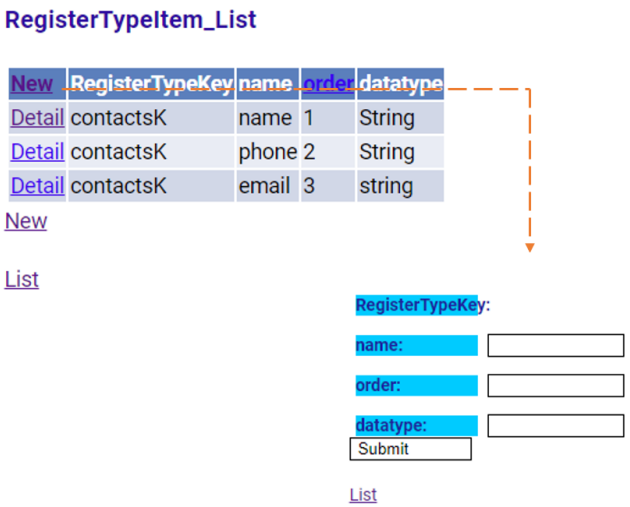


Figure 32 New ítem creation to the existing data structure

To create new register, back to the list and click “**ViewData**” and select **new register** in the bottom of the page. Fulfill the register form.

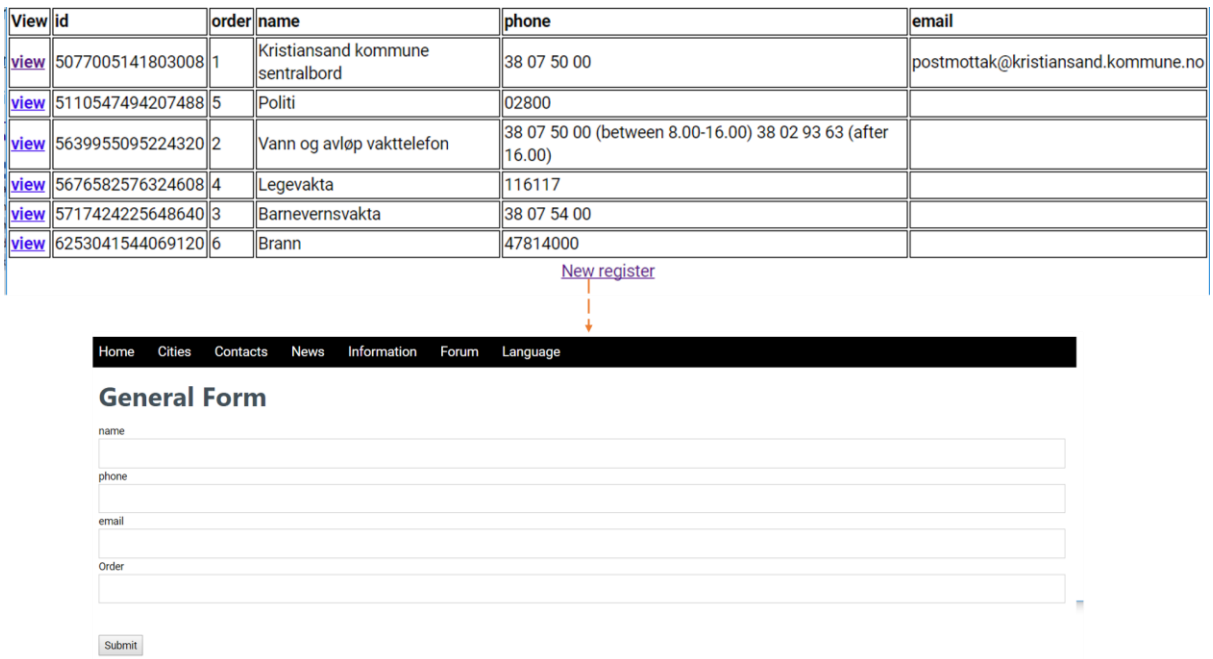
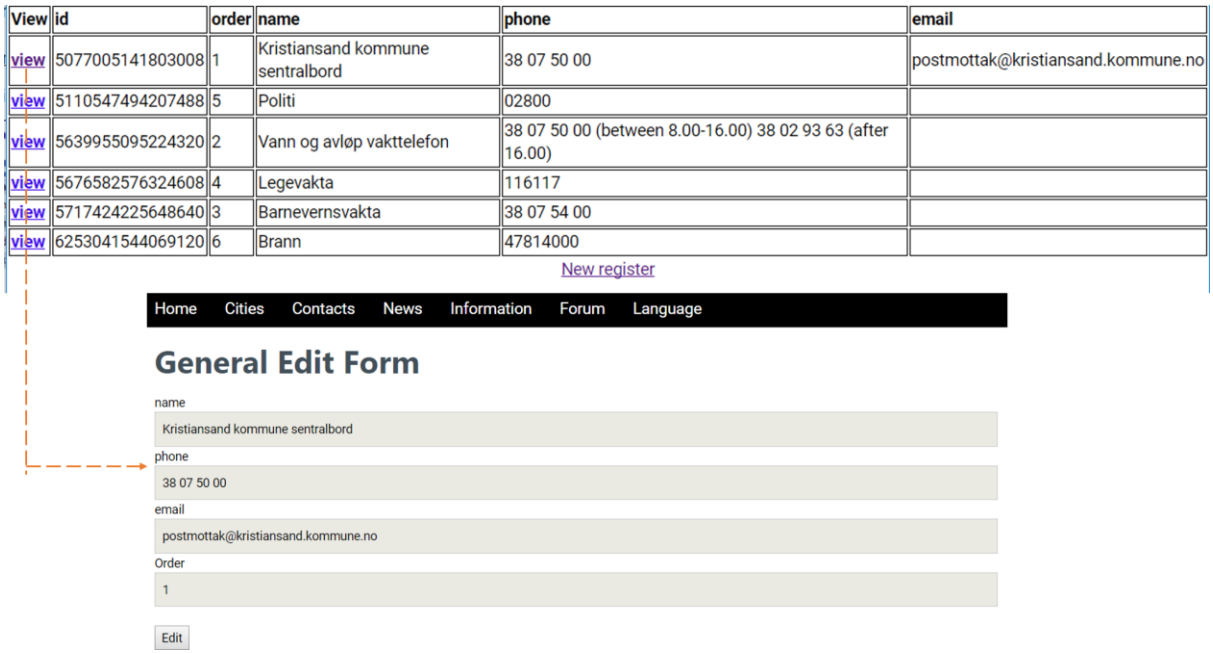


Figure 33 New register creation

To edit an existing data, click View and select Edit.



View	id	order	name	phone	email
view	5077005141803008	1	Kristiansand kommune sentralbord	38 07 50 00	postmottak@kristiansand.kommune.no
view	5110547494207488	5	Politi	02800	
view	5639955095224320	2	Vann og avløp vakttelefon	38 07 50 00 (between 8.00-16.00) 38 02 93 63 (after 16.00)	
view	5676582576324608	4	Legevakta	116117	
view	5717424225648640	3	Barnevernsvakta	38 07 54 00	
view	6253041544069120	6	Brann	47814000	

New register

Home Cities Contacts News Information Forum Language

General Edit Form

name

Kristiansand kommune sentralbord

phone

38 07 50 00

email

postmottak@kristiansand.kommune.no

Order

1

Edit

Figure 34 Edit of existing data

1.3.16 LISTING AND SHOWING ADMINISTRATIVE PAGES

To show the List of Administration pages, go to **Admin** and chose **List of Administration pages**. Administrative Pages are similar in the way they are edited to User pages, but they have other features, like the option to use the code of the page as a friendly URL, or redirect the URL of an administrative Page to a specific User Page. Users can see the page by clicking **detail** bottom in the list.

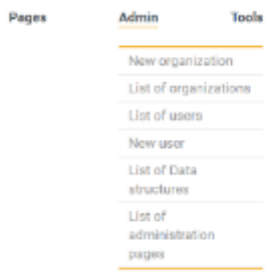


Figure 35 List of administration page

1.3.17 CREATING AN ADMINISTRATIVE PAGE

To create a New Administration page, click **New** in the list of Administration pages. Fill the fields and click **submit**.

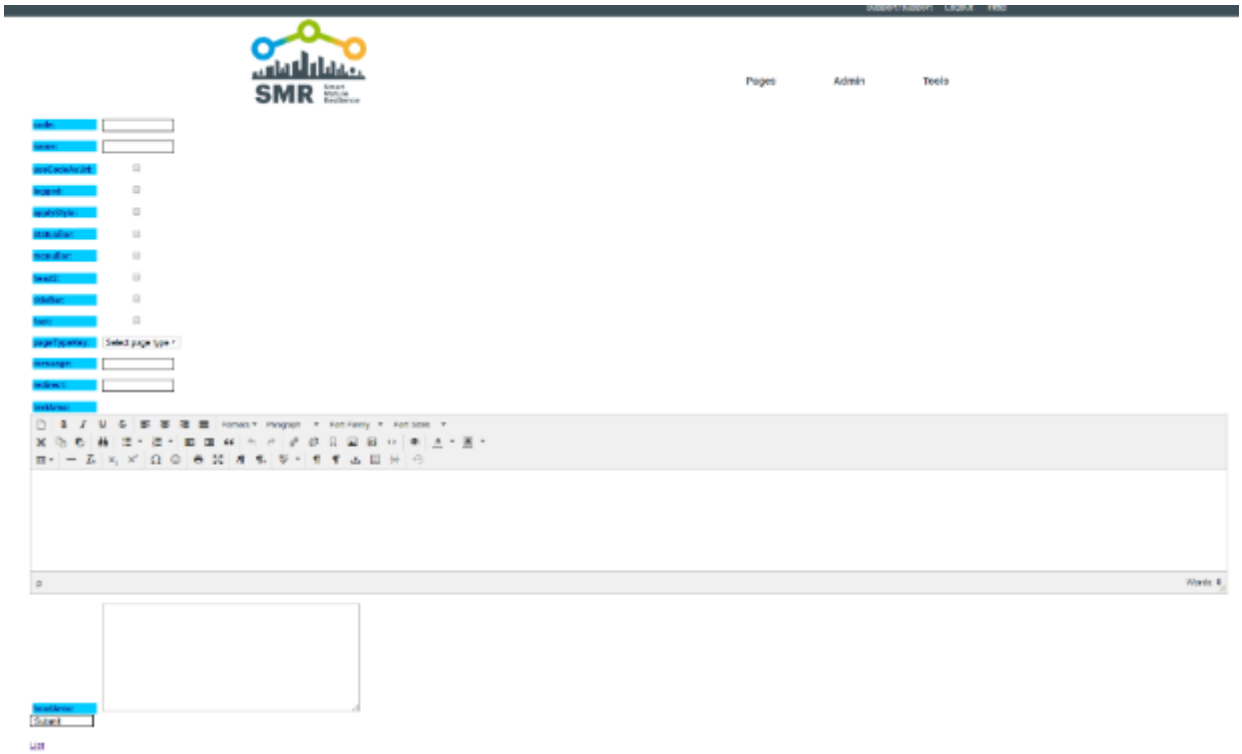


Figure 36 New administration page creation

- Code: The code allows to create links with this name.
- useCodeAsUrl: it allows to activate the code to create a link.
- useAsTemplate: the page can be used as template for other web pages.
- pageType: can be Message, Redirection or Text.

1.3.18 EDITING AN ADMINISTRATIVE PAGE

To edit an existing administration page, click **Detail** in the list of Administration pages and select **Edit** bottom**.**

1.3.19 LISTING USERS

To show the List of Users, go to **Admin** and chose **List of Users**.

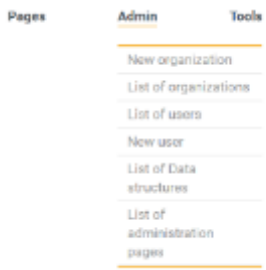


Figure 37: User list

1.3.20 CREATING A USER

To create a new user, go to **Admin** and chose **New Users**.

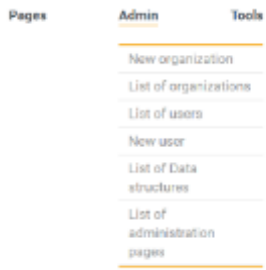


Figure 38 New user creation page

1.3.21 EDITING A USER

To Edit an already generated user, click **Detail** in the user list then chose **Edit.**

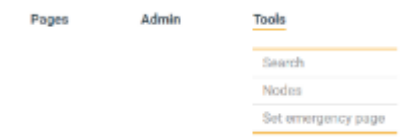
Figure 39 User editing page

1.3.22 IN-PORTAL HELP

By clicking **Help** on the top bar, users can see online tutorials of the portal.

1.3.23 SEARCHING

To search something in the Internet, go to **Tools** and chose **Search**.



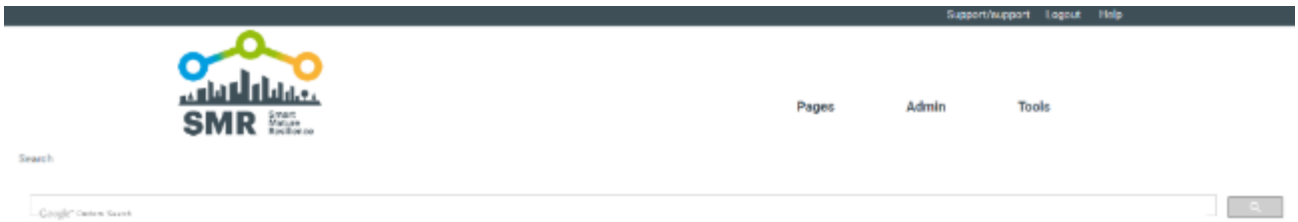


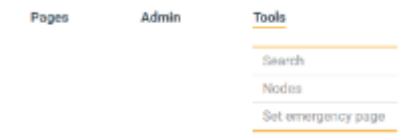
Figure 40 Serching function

1.3.24 SETTING THE EMERGENCY PAGE

When there is an emergency. the administrator can set an emergency page.

The administrator must follow these steps:

- 1st in the menu go to **Tools**-> **Set emergency page**



- 2nd Copying the emergency page URL in the box and pushing the button -> **submit**

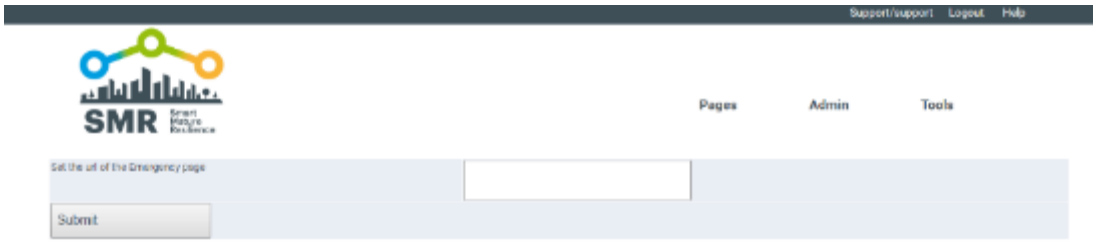


Figure 41 Setting emergency page

1.3.25 ENABLING COMMENTS

The advances features of Pages and Data Structures allow to users with Edit permissions to create new functionalities. For example, we have created the ability to include an area for comments in any page.

To add a comment section in a page, you can do it adding in the foot (1.3.7) of a page the following line:

<script src='PageComments.js.page'></script>

The behavior is: the user clicks the “Write a comment” button. A form is presented with the name and comments text boxes. The user enters the information and click submit. The comment is saved and shown after the existing comments. When the page is loaded again, the comments appear whit the previous comments.

This is done for example in the Portal of Kristiansand in **Tips in Emergency**-> **Other tips**.

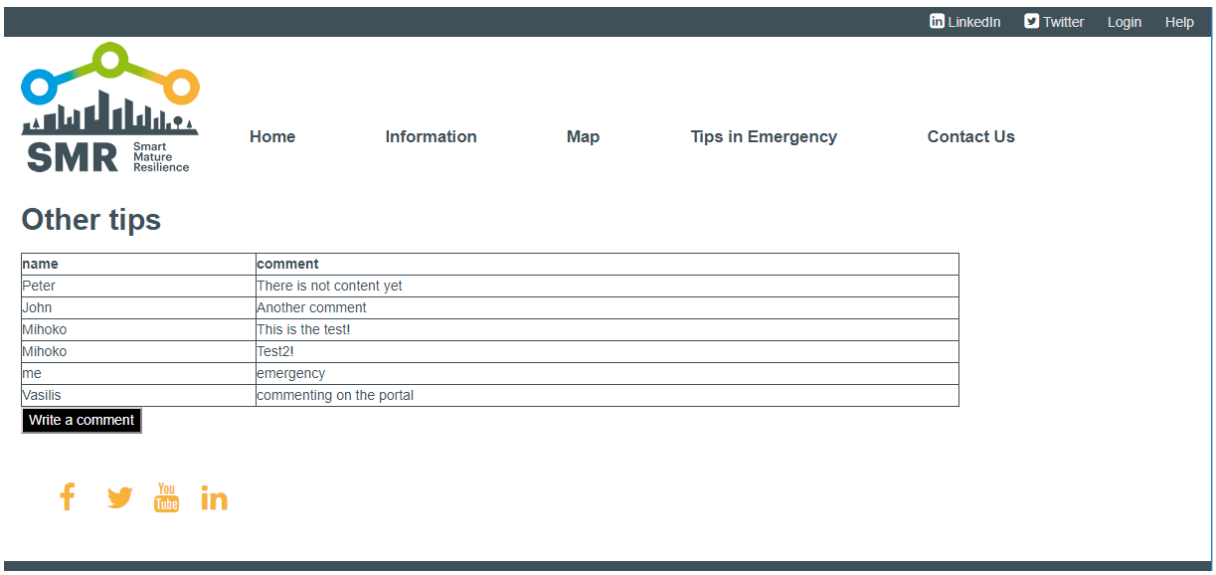


Figure 42 Example of the commenting function

If you insert this code in a page that is base (*BasePageKey* in 1.3.7) for other pages, all the pages inherit this behaviour and each page has its own set of comments.

For advanced users that want to create similar functionalities, they can create similar code based in the present functionality and can access the code to see how it is implemented and build their own functionalities also inside the portal. The current functionality is accessible at:

http://smr-project-test.appspot.com/PageComments.js.page

Note that it's the line of configuration that the administrator has included in the foot area of their user page.

1.3.26 EDITING PUBLIC COMMENTS

When an administrator is logged in the application, it can administer the comments of a specific page.

From the list of "**User pages**", the user selects a page to Edit. (Go to **Detail**, and from Detail, click the **Edit** link).

In the Edit window, the user can do the changes to the page.

To moderate comments, in the Edit window, click "Show advanced mode", and the user can see the "Moderation of posts" button, besides the "Previous versions" button (They are located after the BasePageKey select).

Clicking in the button, the window shows the existing comments and the registered user can delete them.

In the figure the administrator of the portal of Kristiansand can moderate the comments in the previous shown page of "**Other tips**".

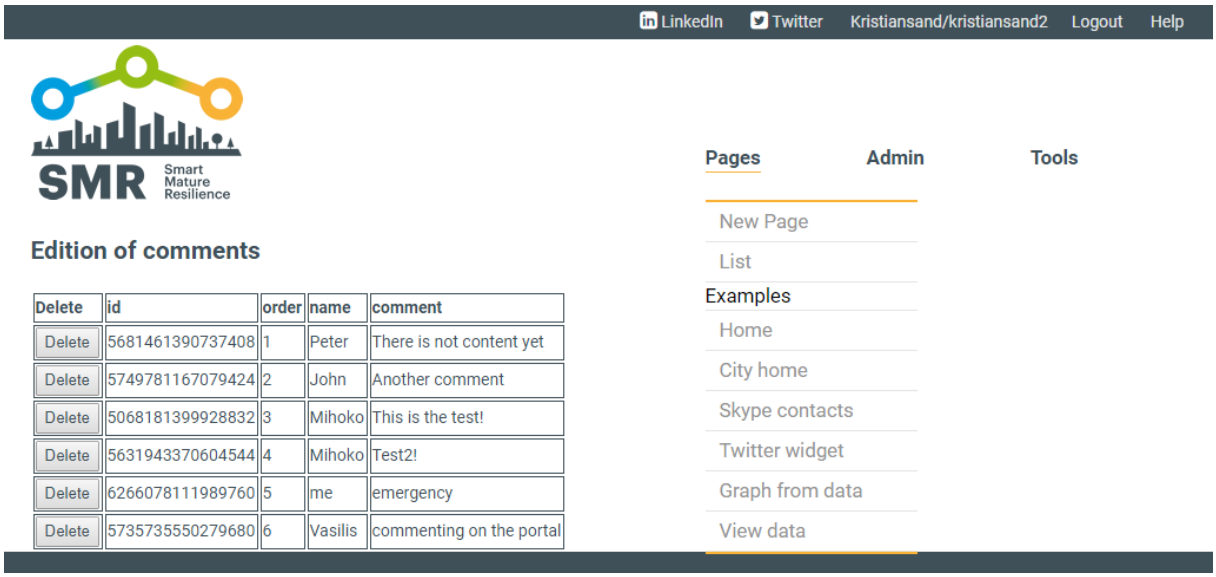


Figure 43 Edit comments

1.3.27 INCLUDING TWITTER FEEDS

User can embed Twitter in the Information Portal. Below is the example of Twitter Dashboard of Kristiansand's Information Portal:

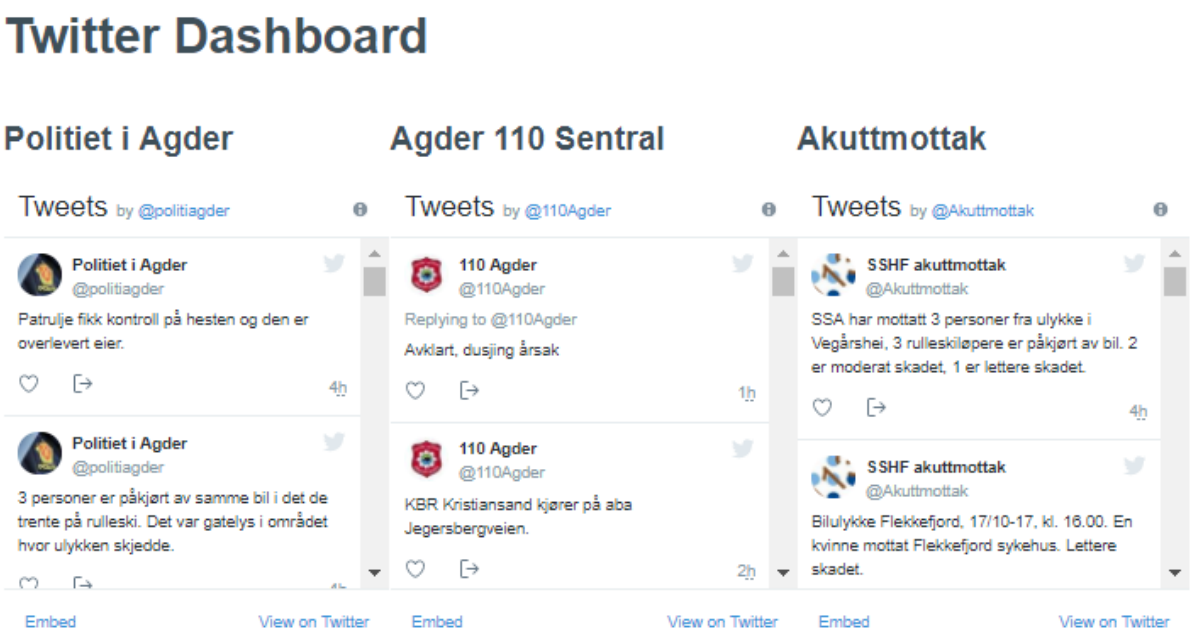


Figure 44 Twitter Dashboard in Kristiansand's Information Portal

To embed Twitter message into the information portal, user can do the following steps:

1. Go to the following link: https://publish.twitter.com/#

2. Enter the Twitter URL to be embedded in the following field. We use https://twitter.com/SMR_Project_eu as an example.

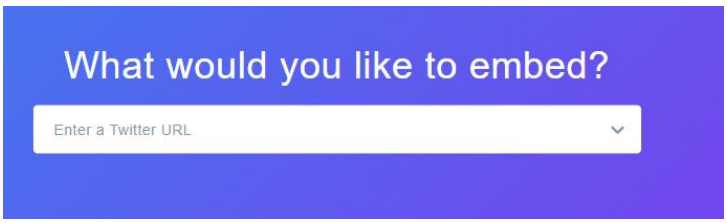


Figure 45 Enter the URL

3. Choose the display option. We recommend to choose Embedded Timeline.

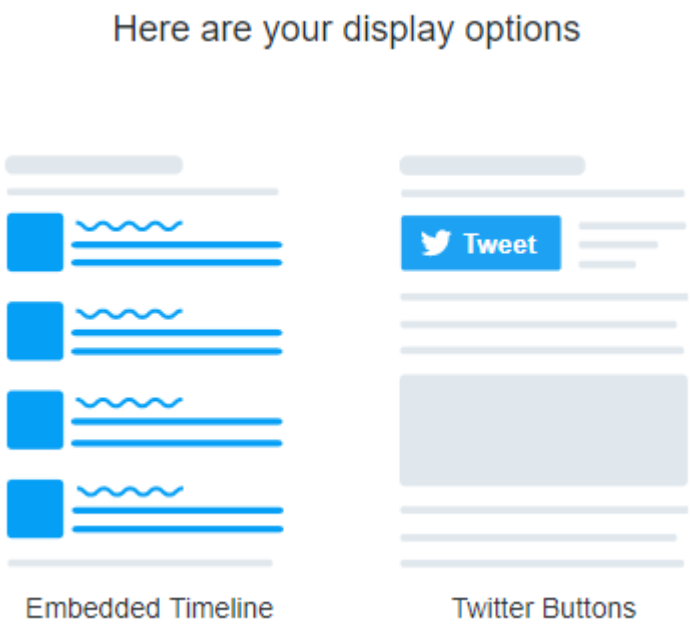


Figure 46 Select display options

4. Click set customization, especially if the user would like to adjust the colour (light or dark), adjust the colour link to be in line with the main theme colour of the website. The user also can decide the height and the width of the Twitter feed.

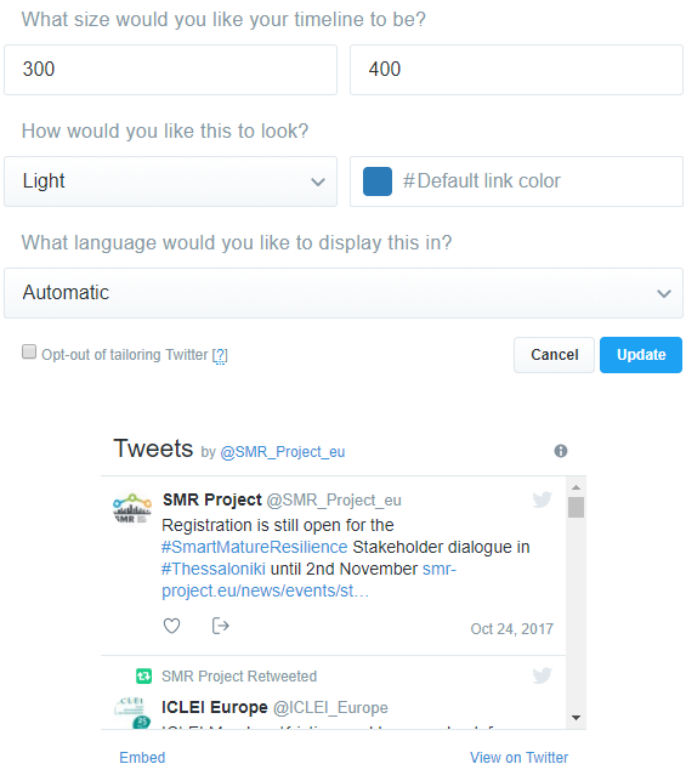


Figure 47 Customization

5. Click *Update* button.
6. Click *Copy Code* button

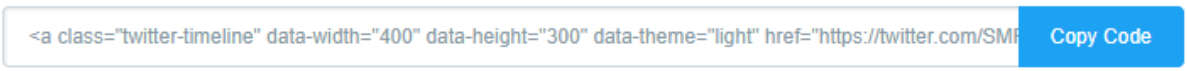


Figure 48 Click Copy Code

7. The code is copied. It will look like the following:
   Tweets by SMR_Project_eu
   <script async src="https://platform.twitter.com/widgets.js" charset="utf-8"></script>
8. Click the source code, and paste the code in the intended location of the Information Portal. The Twitter feed will appear in the portal.

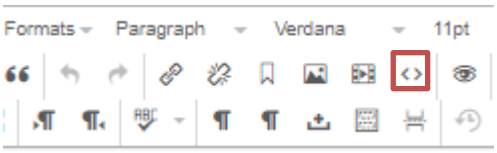


Figure 49 Click source code sign

1.3.28 CREATING MAP MASHUPS

To create custom Map Mashup, there are many alternative maps that can be used as a basis. For advanced user, there are many Maps APIs that can be used as a basis for the Mashups, such as:

- Google Maps APIs (https://developers.google.com/maps/documentation/javascript/)
- OpenStreetMap API (http://wiki.openstreetmap.org/wiki/API)
- Mapbox (https://www.mapbox.com/)
- ArcGIS API (https://developers.arcgis.com/javascript/)

The user can follow the documentations that are provided in each map's API. The choice of maps is depending upon the plan. Google Maps APIs, for example has usage limits, and one need to pay beyond this limit. Mapbox, for example, free up to 50,000 map views per month. To use this, some knowledge on JavaScript and HTML will be needed.

As an easier alternative, we can use, for example, regular Google Map.

1. Go to Menu
2. Create Map
3. Add location by clicking the marker symbol
4. Add all locations that should be in the map
5. Click share button
6. Click embed on my site and copy the code
7. Click source code in the Information Portal, and paste the embed map code in the intended location.

Beware that in this option, the private identity will appear in the map.

1.3.29 REALIZING DATA VISUALISATION

Users that can create User Pages, can create advances features inside the portal. One example is the explained about inserting comments and editing them (1.3.25). Another example is to create Graphs like the example of 1.2.10. In this case, there are two steps. First one is to create a Data Structure

(1.3.15). Second one is to use an API to show the results in a graphical way. In this case, we have used the Google Chart API (https://developers.google.com/chart/interactive/docs/quick_start).

We've created a page (http://smr-project-test.appspot.com/UserPage?PageKey=5677751478517760) that get the data from the Data Structure and render them in different charts using the Google Chart API. This Graph page has the code in JavaScript in the head area of the specified User Page. The user with the knowledge to use the API can create similar pages inside the portal.

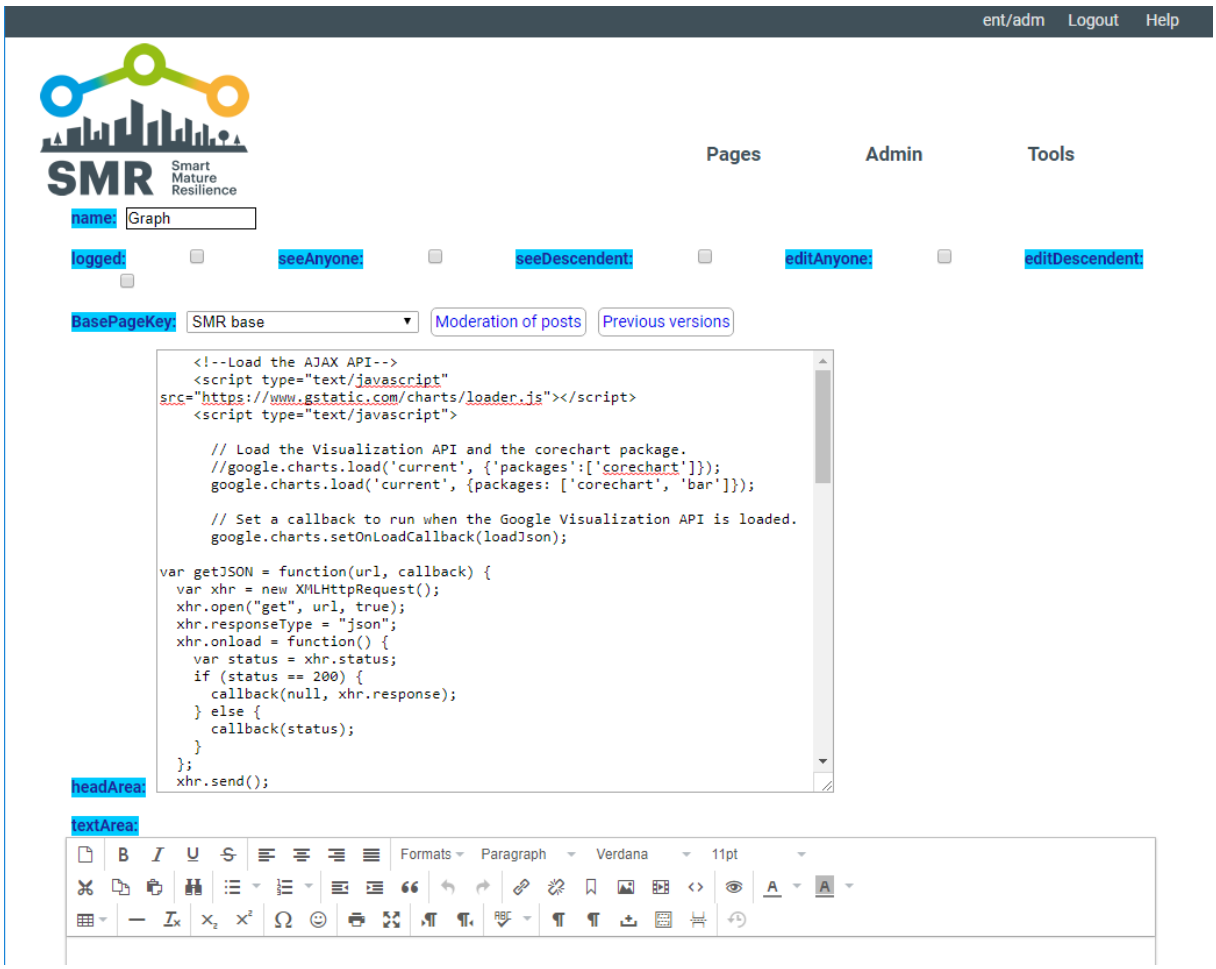


Figure 50 Data visualization function