



FLOOD-serv Portal Functional and Technical Specifications Report

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List of abbreviations

API	Application Programming Interface
CDF	Citizen Direct Feedback
DOA	Description of Action
EMC	Emergency Management Console
FLOOD-serv	Public FLOOD Emergency and Awareness SERVICE
PHP	Hypertext Preprocessor (programming language)
SW	Semantic Wiki
TMS	Territory Monitoring System



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Executive summary

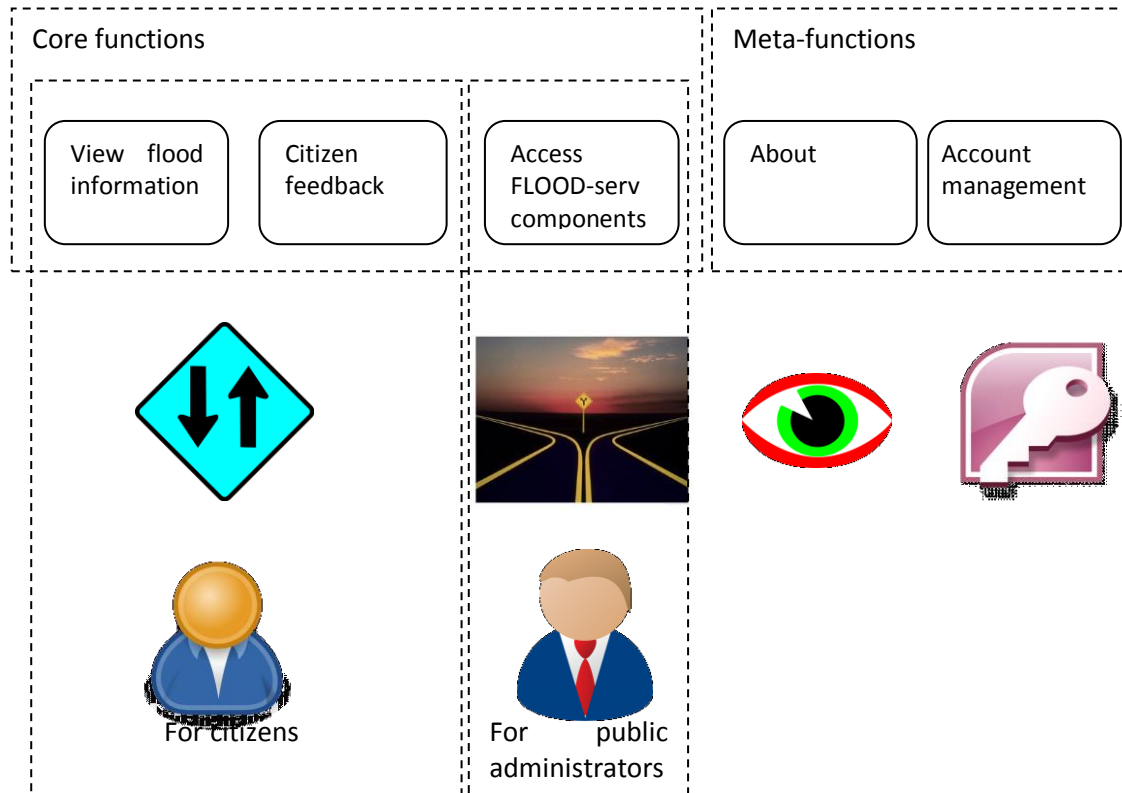
This document describes the “FLOOD-serv Platform”. However, this term has been used throughout the DOA and by the FLOOD-serv Consortium rather confusingly at the beginning as referring alternatively to either the FLOOD-serv Portal or to the FLOOD-serv (integrated) System. To clarify, this document is dedicated to the FLOOD-serv Portal, and describes it as a “Component” of the overall FLOOD-serv System. The entire integrated FLOOD-serv System is discussed in another deliverable report, D4.5. Also, each of the other Components of the FLOOD-serv System and their implementation are presented in deliverables D3.3-3.7.

The URL of the FLOOD-serv Portal is <https://floodserv.eu/>.

The objective of the FLOOD-serv Portal is the overall front of the FLOOD-serv System. It has two main roles:

1. It is the main citizen facing interface of the system with the role of:
 - a. Offering information to citizens about floods;
 - b. Allowing citizens to interact with public authorities by submitting information and entering dialogue.
2. It is the single point of entry for public administrators who can log in the System and have access to the various components of the System.

The figure below presents the overall conceptual view of the FLOOD-serv Portal.



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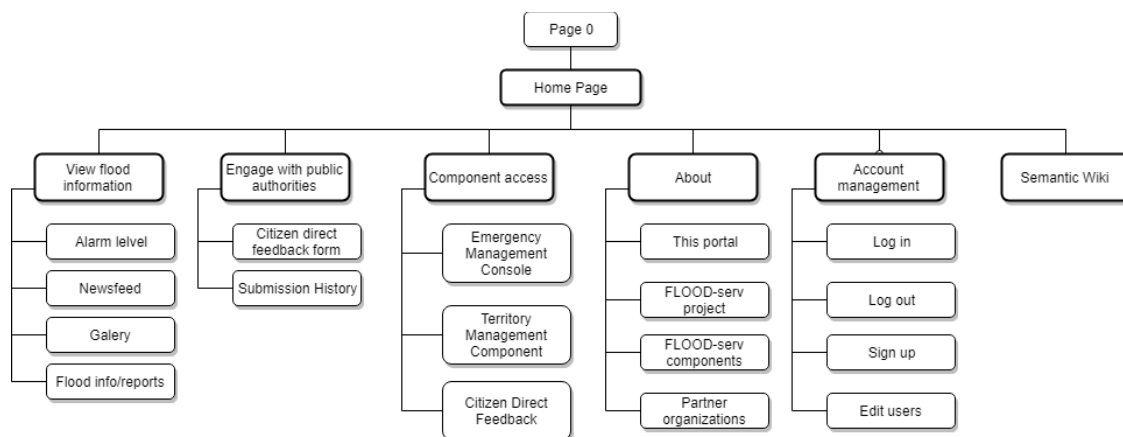
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The FLOOD-serv Portal is localized in 5 Pilot Cities: Bilbao, Bratislava, Genova, Tulcea and Vilanova de Famalicao, and in 6 languages Spanish, Slovak, Italian, Romanian and Portuguese.

The Portal was designed for the use of public administrators (employees of the Pilot Cities, performing various roles) and citizens.

The following picture presents the overall map/structure of content of the Portal.



A number of 18 User Requirements have been elicited in the analysis phase of the project. In the implementation phase these requirements/implemented functionalities have been expanded to 34, either because many were split into more detailed requirements or because a new functionality was added.

A client-server architecture was used for the Portal. JHipster technology was used to generate a first version of the application (a general overall structure with main entities, without the functionalities). For User Interface (UI) Angular JS was used while Spring Framework was used for backend. The technology of choice for database was PostgreSQL.

The Portal serves the role of SSO integrator of the FLOOD-serv System (with its SSO Module based on Keycloak technology) and a citizen facing interface for the Emergency Management Console (EMC) and Citizen Direct Feedback (CDF) Components.

All user requirements for the FLOOD-serv Portal have been implemented; no requirement was dropped/left unimplemented.



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1 Introduction

1.1 Document Scope and Objectives

This document is the result of Task 4.4 *Development of the FLOOD-serv Platform*. Initially, the deliverable of this task was considered not to be a report (in line with DoA requirements this deliverable was classified as type “Other”) but the proof of existence of the Platform itself. However, as requested by the review commission we have expanded this deliverable into a full report.

The terms used in this Project: FLOOD-serv Platform, FLOOD-serv System and FLOOD-serv Portal require some clarification.

- **The FLOOD-serv System** refers to the entire IT system developed within this project including all components as integrated into one whole.
- **The FLOOD-serv Portal** refers to the front end of the FLOOD-serv System which acts as a single point of entry and as the main citizen facing user interface.
- **The FLOOD-serv Platform** is a term that has been used in the DOA somewhat confusingly because sometimes it is used interchangeably with the FLOOD-serv System, referring to the system as a whole, while other times it refers to the portal side only, therefore used interchangeably with the FLOOD-serv Portal.

Given this situation, the FLOOD-serv Consortium has usually favored referring to either the FLOOD-serv System or the FLOOD-serv Portal in order to avoid the lack of clarity of the FLOOD-serv Platform term.

In this spirit, this document is focused on discussing the FLOOD-serv Portal and not the System as a whole. In doing so, we do not eschew from fulfilling the responsibility of talking about each component and the integrated System. It should be noted that each Component is presented in other deliverables of WP3 (D3.3-3.7) while the System as whole and its integration are presented in D4.5. What remained to be presented here is the FLOOD-serv Portal.

1.2 Target Audience

This document is Public. While it was written with the view to the Project Officer and Project Monitors, it is nevertheless available to the general public as presenting an output of a project funded by the European Commission.

1.3 How Final Review Observations Were Addressed

Table 1, below, provides explanations as to how reviewers’ observations were addressed in this deliverable or elsewhere.

Table 1: Changes in Response to Final Review Report

Reviewers’ observations	Explanations as to how observations are addressed
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<p>The document consists of one-page links to the prototype platform, which in addition do not work.</p>	<p>The DOA defines deliverables D4.4 and D4.5 as of type “Other” and “Demonstrator” respectively, and not as Reports. Our team understood that what needed to be provided is the Portal /Integrated System themselves.</p> <p>Following your observations, we agree that the implementation of the Portal and the Integrated System need more complete documentation, so we proceeded with developing these deliverables into full reports.</p>
<p>It is unclear what is the difference between the Platform and the integrated system (D4.5).</p>	<p>Indeed, this is an ambiguity of the DOA and was reflected somewhat in the terminological use of the Consortium, especially in the beginning phases of the Project. The term “FLOOD-serv Platform” was sometimes used interchangeably with “FLOOD-serv Portal” other times interchangeably with “FLOOD-serv (integrated) System”. A terminological explanation is now provided in Section 1.1, above.</p>
<p>The work of the FLOOD-serv system integration is insufficiently reported as the two deliverables D4.4 and D4.5 consist of one-page links to the prototype platform.</p>	<p>1.4 Integration of the Portal with other Components is presented in this document Chapter 8.1 Access Information</p> <p>The main Portal URL is: https://floodserv.eu/.</p> <p>After the user chooses a City and a Language, the user is directed to the URL for the 5 instances of the Portal (corresponding to the five Pilot Cities):</p> <p>Bilbao: https://bilbao.floodserv.eu/</p> <p>Bratislava: https://bratislava.floodserv.eu/</p> <p>Genova: https://genova.floodserv.eu/</p> <p>Villa Nova de Famalicao: https://vilanovafamalicao.floodserv.eu/</p> <p>Tulcea:</p>



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	<p style="text-align: center;">https://tulcea.floodserv.eu/</p> <p>Any Portal visitor can sign up (i.e. create an account) following the Sign Up procedure, described in the User Manual in APPENDIX I, Section 7.1. A self created account is given automatically the role of e-citizen.</p> <p>User roles for pilot city affiliated users can be created by the Pilot City following the steps described in Section 9.3 of the appended User Manual. A set of test user names and credentials was generated by Siveco and made available to Pilot Cities and sent to the Project Officer for access to be given to Project Monitors.</p> <p>1.5 Hardware Infrastructure</p> <p>The FLOOD-serv Portal is hosted on SIVECO's physical servers on a virtual machine.</p> <p>Resources allocated:</p> <p>CPU: 4 CPUs x 2.4GH x 16GB RAM</p> <p>Storage: HDD 150 GB</p> <p>Currently the Portal uses few of these resources, but in case of increased needs, resources can be expanded.</p> <p>1.6 Software and Development</p> <p>The standard development methodology followed by Siveco is a hybrid between Waterfall and Agile. On the one hand the broad framework (also determined by this Project's DoA) is Waterfall: with one large analysis phase at the beginning of the project, followed by implementation and then by testing and piloting. However, more Agile like shorter cycles of development, testing, revisiting analysis and improvement do occur during implementation and piloting, successive versions of the system being issued at shorter intervals of the order of weeks.</p> <p>User, technical and architectural requirements were transmitted to the Siveco FLOOD-serv</p>
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	<p>technical team. Following the analysis of integration requirements (see Task 5.4), the technical team decided that for the authentication and Single Sign On (SSO) integration, the best solution for SSO is a Java based open source solution, Keycloak. This has generated a department wide discussion as to whether the technological anticipated choice made in the <i>D4.3 System Architecture</i> document should not be revisited. In the end it was decided that for unity of technology within the Siveco Team to use for both the Portal and SSO integration Java as the base technology. PhP and Java are both mature languages equivalent in overall capabilities for developing Portals, therefore the technology change does not impact the capabilities of the System.</p> <p>A client-server architecture was used for the Portal. JHipster technology was used to generate a first version of the application (a general overall structure with main entities, without the functionalities). For User Interface (UI) Angular JS was used while Spring Framework was used for backend. The technology of choice for database was PostgreSQL.</p> <p>User and Technical Requirements were analysed by the technical team, often broken down into smaller tasks, introduced in the JIRA issue management system, assigned to team members and prioritized. As groups of tasks/requirements were implemented new versions of the application were generated.</p> <p>All functionalities not dependent on other Components were implemented in Task 4.4. Some, which were dependent on other Components, were developed up to the point where the interdependency had to be resolved during the integration phase. For example, charts of data were developed with test data; forms were graphically developed without backend integration.</p> <p>All functionalities implemented were subject</p>
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	<p>to repeated internal testing. Later, in the piloting phase (under WP5) the Portal and all the other Components went through repeated tests by end users (Pilot City employees, stakeholder representatives, citizens), as described in D5.1-D5.4).</p> <p>FLOOD-serv Portal Integration in the FLOOD-serv System, below.</p>
<p>The document does not contain more structured technical information on the developed system. Usual professional practice requires with the delivery of a software all the necessary documentation such as Technical Reference Manual, User Guide, installation guide, etc...</p>	<p>Chapter 7 below presents the technologies used.</p> <p>APPENDIX I contains the full FLOOD-serv Portal User Manual.</p> <p>No installation guide is provided since the Portal is provided as a Web Based Application meant to be installed and maintained by SIVECO.</p>
<p>The delivered FLOOD-serv demonstrator as presented during the Review Meeting allows the use of pre-crisis, crisis and post-crisis functionalities and displaying information from the testing period based on prepared scenarii, thoroughly validated by the flood management stakeholders for all five pilot sites.</p>	<p>All portal functionalities are such conceived that they can be used by citizens or public authorities during all phases of Flood Risk Management. A discussion of functionalities applicability in various phases of FRM is present in Chapter 6.</p>
<p>The system allows for a multilingual set-up including English, what sticks to the cultural constraints of the pilots.</p>	<p>In Chapter 3, we discuss how the portal was localized in terms of language, content structure and content for each of the Pilots.</p>
<p>Access to the public data is not indicated, what is in contradiction with D1.5 Data Management Plan – final Version and Open Research Data Pilot (ORDP) initiative the project has declared to follow.</p>	<p>Chapter 7, describes FLOOD-serv Portal related data use, and further references to D4.5 where data integration of the entire FLOOD-serv System is described in more detail.</p>
<p>It is also unclear how CDF, which creates time and space distributed information, can provide a support in the decision-making process, without a layer of data fusion, cross-validation and knowledge data base for a return of experience. Some of the components (SMC and TMS) have limitations of use : SMC is limited mainly to the post-crisis phase of flood emergency situation and allows post-event collection of</p>	<p>Observations related to CDF, TMS and SMC are addressed in D3.3, D3.6 and D3.7.</p>



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<p>social media publications during a crisis, while TMS is limited to a camera reading of a water level gauge at a given location, without a possibility of horizontal assessment of the flood extent.</p>	
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1.7 Document Structure

The document has the following structure:

Chapter 1 Introduction

Chapter 2 Objectives and Conceptual View of the Portal

Chapter 3 FLOOD-serv Portal Access Information

Chapter 4: FLOOD-serv Portal User Roles

Chapter 5: Portal Content Structure

Chapter 6: Portal Requirements /Functionalities Developed

Chapter 7: Technical Implementation

Chapter 8: Conclusions

APPENDIX I: FLOOD-serv Portal User Manual



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2 Objectives and Conceptual View of the Portal

The objective of the FLOOD-serv Portal is the overall front of the FLOOD-serv System. It has two main roles:

3. It is the main citizen facing interface of the system with the role of:
 - a. Offering information to citizens about floods;
 - b. Allowing citizens to interact with public authorities by submitting information and entering dialogue.
4. It is the single point of entry for public administrators who can log in the System and have access to the various components of the System.

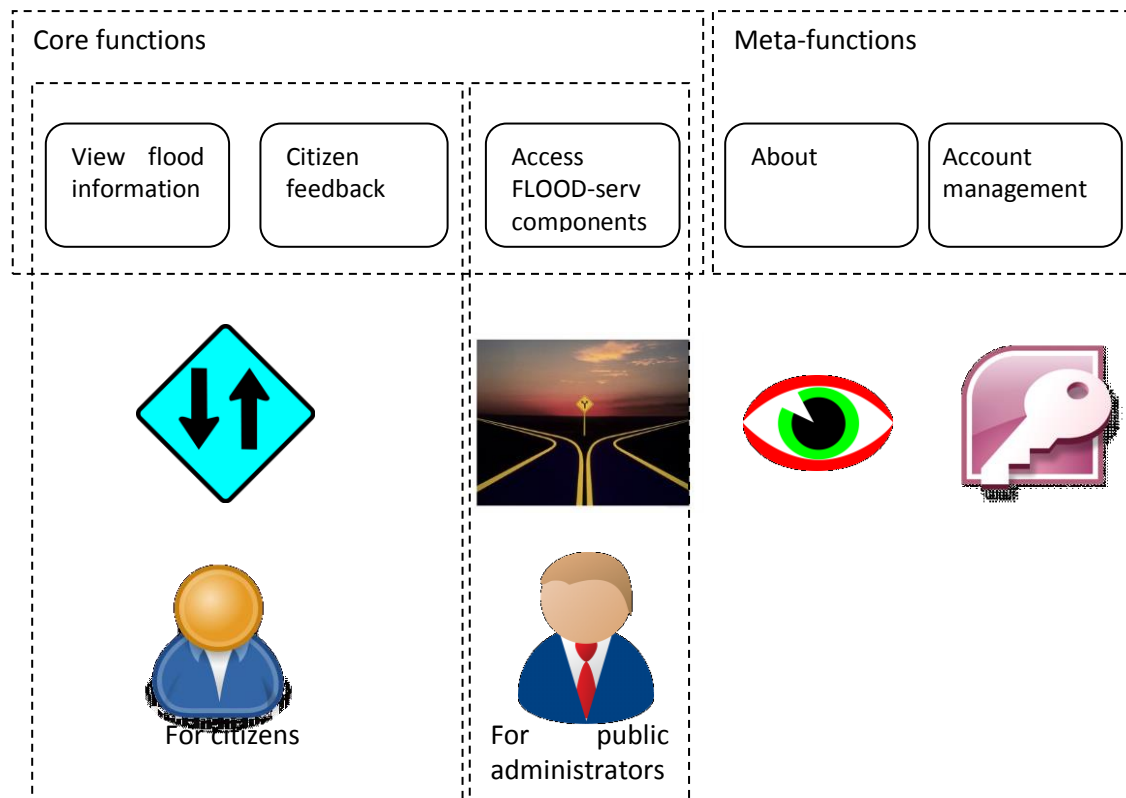


Figure 1: Conceptual View of the FLOOD-serv Portal

Figure 1, above, displays the conceptual view of the FLOOD-serv Portal. There are 3 groups of core functions. For citizens the FLOOD-serv platform acts as a two-way information street, where the citizen can (1) view flood information, or (2) submit information/feedback. For institutional users (public administrators affiliated with relevant institutions involved in flood management) the Portal acts as (3) a quick gate toward the various tools/components the FLOOD-serv project makes available. Aside from these core functions, meta functions offer all users(4) general information about the FLOOD-serv portal and project and (5) account management tools. These 5 groups of functions become major sections of the portal, discussed below with the various functionalities and features fitting within.



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3 Languages and Portal Localization

The FLOOD-serv Portal is localized for the five Pilot Cities of the Project. The technical solution chosen for accomplishing this was the installation of separate instances of the Portal, one for each Pilot City.

The Portal is also multilingual. Each portal instance exists in two languages, the national language (e.g. Italian for Genova) and English.

The user chooses their City and Language from Page 0 or the header of any page:

Language options	City options
English	
Italian	Genova
Portuguese	Vila Nova de Famalicão
Romanian	Tulcea
Slovakian	Bratislava
Spanish	Bilbao

Table 2: Language and city/country options

Thus, overall the Portal exists in 5 instances and 6 languages.

The Portal requirements/functionalities were designed to be implemented in a flexible way for different Pilot Cities or prospective clients. Requirements were elicited in such a way that take into account various possibilities and needs of the different Cities, to arrive at a common framework/structure of content. Then the Portal was implemented to account for the differences between cities at the level of what functionalities are available and what content is present. Thus, some functionalities can be deactivated and hidden for some Cities. For example the City of Bilbao was not interested in the CDF component and therefore in the CDF related functionalities in the Portal (the entire menu section related to “Engage with Public Authorities”). As a consequence, those functionalities are made unavailable for that instance of the portal. Other customizations are related to what data-based flood reports are available in the portal and what data sources are used for them. Different reports and different data sources are used for each instance of the portal. Finally, differences exist at the level of user editable content present in the portal, and are implemented by presenting similar or different content for each instance as is the case.



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4 FLOOD-serv Portal User Roles

As defined in D4.1 there are two broad categories of users:

1. *Institutional users*: represent institutionally affiliated users who are employees of institutions/organizations involved in the FLOOD-serv project, whether public institutions (municipalities, etc.), or industry partners.
2. *Non-institutional users*: represent users who are not institutionally affiliated to institutions involved in the project. They are citizens (e-citizens) who are directly interested in information or involvement with regard to emergency management in case of flood.

Table 3, below (reproduced from D4.1, but with updates for the Semantic Wiki: all users were given access to the SW) presents the user roles fitting those two categories and their access rights to the various components. Changes from D4.1 are presented in blue. The differences are related to the Semantic Wiki Component: access was extended to all users as it was decided that the SW needs to be publicly accessible

More detailed access rights by Component functionalities were presented in D4.2, Section 2.3.

Table 3: User Roles and Component Access

User Category	User Type	Component					
		EMC	SMC	SW	TMS	CDF	FLOOD-serv Portal
Non-institutional users	Unregistered user			✓			✓
	E-Citizen			✓		✓	✓
	Certified citizen/ observer			✓		✓	✓
Institutional users	Decision Maker	✓	✓	✓	✓		✓
	Facilitator (or platform operator)	✓	✓	✓	✓	✓	✓
	Flood Emergency Expert	✓	✓	✓	✓	✓	✓
	Emergency responder	✓	✓	✓	✓		✓
	Content editor			✓			✓
	System Administrator		✓	✓	✓	✓	✓



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Implementation of authorization and authentication protocols and technology are presented in D4.5.

On the Portal side it should be said that access to certain sections of the portal depends on user role and associated rights. Particularly to implement access to Components as shown in Table 3, only registered institutional users have access to the menu items related to (back end) Component Access, and only to those components to which their role has rights. The Portal Administrator has also additional rights to certain areas like editing Portal Entities. Table 4, below, displays the Portal User Stories by User Roles Matrix.

Table 4: Portal User Stories by User Roles Matrix

US Code	User stories name	Unregistered user	E-Citizen	Certified citizen/ observer	Decision Maker	Facilitator	Flood Emergency Expert	Emergency responder	Content editor	System Administrator
USFP01A	View newsfeed	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP01B	Add news				✓	✓	✓	✓	✓	✓
USFP01C	Edit news				✓	✓	✓	✓	✓	✓
USFP01D	Delete news				✓	✓	✓	✓	✓	✓
USFP01E	Share news	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP02	View general alarm level	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP03A	View multimedia galleries	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP03B	Create new gallery				✓	✓	✓	✓	✓	✓
USFP03C	Edit gallery details				✓	✓	✓	✓	✓	✓
USFP03D	Delete gallery				✓	✓	✓	✓	✓	✓
USFP03E	Upload picture or video into existing gallery				✓	✓	✓	✓	✓	✓
USFP03F	Edit picture or video related details				✓	✓	✓	✓	✓	✓
USFP03G	Delete picture or video from an existing gallery				✓	✓	✓	✓	✓	✓
USFP04	Visualization of information/reports concerning floods	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP05	Communicate flood-related information to authorities		✓	✓	✓	✓	✓	✓	✓	✓
USFP06	Two way messaging between citizen and public authorities.		✓	✓	✓	✓	✓	✓	✓	✓
USFP07	View feedback status		✓	✓	✓	✓	✓	✓	✓	✓
USFP08	View history of feedback submission									



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USFP09	Component access				✓	✓	✓	✓	✓	✓
USFP10A	About This Portal	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP10B	About FLOOD-serv project	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP10C	About FLOOD-serv components	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP10D	About Partner Organizations	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP10E	About Consortium Organizations	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP11	Manage FLOOD-serv portal roles									✓
USFP12	Log-in/ Single sign-on	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP13	Log out		✓	✓	✓	✓	✓	✓	✓	✓
USFP15	Edit profile	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP16	View users list									✓
USFP17	Add user									✓
USFP18	Delete users									✓
USFP19	Inactivate users									✓
USFP20	Page 0	✓	✓	✓	✓	✓	✓	✓	✓	✓
USFP21	Home Page	✓	✓	✓	✓	✓	✓	✓	✓	✓



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5 Portal Content Structure

The Portal Content structure matches all user requirements and groups those elements of content into several areas according to the conceptual view presented in Section 2 above. Figure 2, below, presents the overall structure of content of the portal in a site map. The Home Page and main groups of items (which became main menu items) are displayed in bold edge rectangles. Some changes to the site map (compared to the initial one presented in D4.1) were operated and displayed distinctly:

- Content elements that moved or merged with another element are represented by crosscutting the old element and a blue arrow to the new location;
- New elements are represented by blue rectangles.

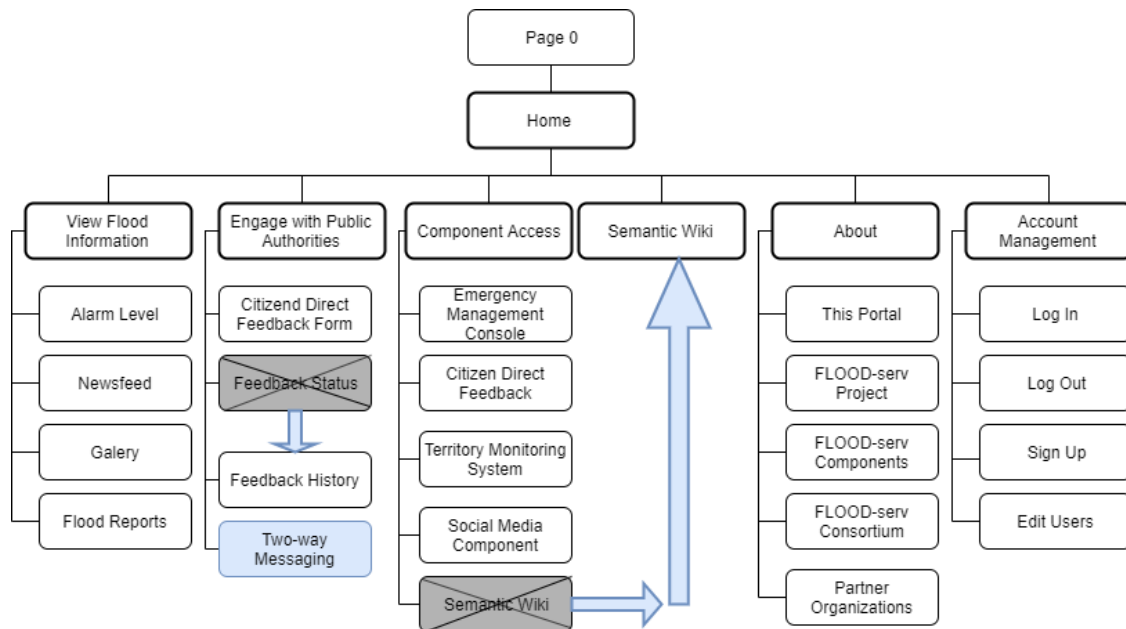


Figure 2: FLOOD-serv Portal Map

This structure is represented as such in the implemented FLOOD-serv Portal Menu as shown below in Figure 3, below.



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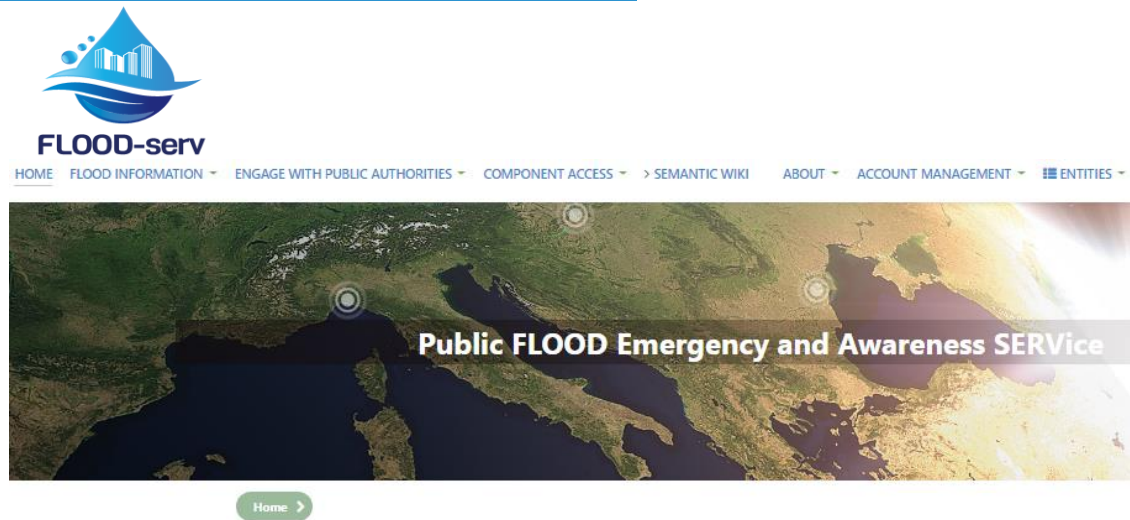


Figure 3: FLOOD-serv Portal Main Menu

Note that this is the most complete version of the menu available to system administrators. For other users the “Entities” menu item is not present. Also, for citizens and unregistered users the “Component Access” menu item is unavailable.



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6 Portal Requirements/Functionalities Developed

The development of the FLOOD-serv Portal proceeded from the set of user and technical requirements as elicited in Tasks 4.1-4.3 and presented in the corresponding deliverables D4.1-4.3. In D4.2 a list of 18 functional requirements were presented. However, during implementation these requirements were further detailed: several were split into more, two were merged, some were added, others were recoded. Table 5, below, lists all user requirements as they were initially coded and named and then also the new user requirements/user stories codes and names, such that it can be easily understood by the reader how these requirements changed. In addition, we show the applicability of these requirements/user stories by each of the Pilot Cities. The main city that differs from others is Bilbao who was not interested in the set of requirements related to citizens communicating with public authorities. Thus, the number of requirements evolved from 18 initially to 34 in the end for all cities except Bilbao with 31.

A step by step description of the use of each Portal Functionality is presented in the FLOOD-serv Portal User Manual present in APPENDIX I.

All Portal functionalities are designed such that they can be used in all Flood Risk Management phases: mitigation, preparedness, response and recovery. Some functionalities are not necessarily phase specific but applicable in all (e.g. a user can edit his/her account at any time/phase).

The main functionalities for Public Administrators are related to log in and the Portal acting as a single point of entry for the entire system. The portal can be accessed for these purposes in all FRM phases, and the user can proceed to access the component in which they are interested/have access.

Citizens can consume information or submit information (signal issues) to public authorities through the FLOOD-serv Portal in all phases of FRM. It should be noted that during crisis situations (response phase) citizens are advised to not use the information submission functions (in the Citizen Involvement Form) for dialogue with public authorities if their life or property are in danger. The Portal is explicit that it does not try to substitute in any way to 112 emergency services. Citizens can, however, from a safe position inform the authorities about various issues even during crisis situations. They can also consume information e.g. follow news, the alert level or data reports (e.g. water level).



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Table 5: User Requirements and Their Evolution by Pilot City

<i>Initial US Code</i>	<i>Name</i>	<i>New US Code</i>	<i>User stories name</i>	<i>Bilbao</i>	<i>Bratislava</i>	<i>Genova</i>	<i>Tulcea</i>	<i>CNVNF</i>
USFP01	Visualization of newsfeed	USFP01A	View newsfeed	✓	✓	✓	✓	✓
		USFP01B	Add news	✓	✓	✓	✓	✓
		USFP01C	Edit news	✓	✓	✓	✓	✓
		USFP01D	Delete news	✓	✓	✓	✓	✓
		USFP01E	Share news	✓	✓	✓	✓	✓
USFP02	View general alerts/ warnings concerning floods in an area of concern	USFP02	View general alarm level	✓	✓	✓	✓	✓
USFP03	View multimedia gallery	USFP03A	View multimedia galleries	✓	✓	✓	✓	✓
		USFP03B	Create new gallery	✓	✓	✓	✓	✓
		USFP03C	Edit gallery details	✓	✓	✓	✓	✓
		USFP03D	Delete gallery	✓	✓	✓	✓	✓
		USFP03E	Upload picture or video into existing gallery	✓	✓	✓	✓	✓
		USFP03F	Edit picture or video related details	✓	✓	✓	✓	✓
		USFP03G	Delete picture or video from an existing gallery	✓	✓	✓	✓	✓
USFP04	Visualization of information/reports concerning floods	USFP04	Visualization of information/reports concerning floods	✓	✓	✓	✓	✓
USFP05	Communicate flood-related information to authorities	USFP05	Communicate flood-related information to authorities		✓	✓	✓	✓
None	None	USFP06	Two-way messaging between citizen and public authorities.		✓	✓	✓	✓
USFP06	Follow feedback status	USFP07	View feedback status		✓	✓	✓	✓
USFP07	View history of feedback submission							
USFP08	Single point of access	USFP09	Component access	✓	✓	✓	✓	✓
USFP09	View information about the portal and	USFP10A	About This Portal	✓	✓	✓	✓	✓



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	project	USFP10B	About FLOOD-serv project	✓	✓	✓	✓	✓
		USFP10C	About FLOOD-serv components	✓	✓	✓	✓	✓
		USFP10D	About Partner Organizations	✓	✓	✓	✓	✓
		USFP10E	About Consortium Organizations	✓	✓	✓	✓	✓
USFP10	Manage FLOOD-serv portal roles	USFP11	Manage FLOOD-serv portal roles	✓	✓	✓	✓	✓
USFP11	Log-in/ Single sign-on	USFP12	Log-in/ Single sign-on	✓	✓	✓	✓	✓
USFP12	Log out	USFP13	Log out	✓	✓	✓	✓	✓
USFP13	Sign up	USFP13	Sign up	✓	✓	✓	✓	✓
USFP14	Edit profile	USFP15	Edit profile	✓	✓	✓	✓	✓
USFP15	View users list	USFP16	View users list	✓	✓	✓	✓	✓
USFP16	Add user	USFP17	Add user	✓	✓	✓	✓	✓
USFP17	Delete users	USFP18	Delete users	✓	✓	✓	✓	✓
USFP18	Inactivate users	USFP19	Inactivate users	✓	✓	✓	✓	✓
None	None	USFP20	Page 0	✓	✓	✓	✓	✓
None	None	USFP21	Home Page	✓	✓	✓	✓	✓
Total				31	34	34	34	34



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7 Data Use

The Portal uses several sources of data to perform its functionalities:

1. User Editable Content: such content like news pages, media galleries, and “static” pages like the “About” pages are editable by users and corresponding data is saved locally.
2. Automated Dynamic Content: to generate dynamic and automated content the Portal relies on the EMC and CDF to produce various data based pages for citizens:
 - a. EMC Produced Data: For Generating the FLOOD-Alert pages, the Portal display the latest flood-alert as generated by users (public administrators) in the EMC Component.
 - b. CDF data: the Portal has a two way communication with the CDF component, on the one hand the portal submits to the CDF data introduced by citizens (in the Citizen Involvement Form or the Two Way Messaging page), and on the other hand, the Portal accesses data from the CDF to produce the “Submission History” page and the “Citizen Involvement History” report.
 - c. Internal sensor data: “Internal Sensors” i.e. sensors implemented within the Project by Project Partners, (namely a hydrological indicators monitoring sensor implemented by DDNI in Tulcea) are accessed directly by the EMC. The Portal accesses data from this sensor from the EMC (via the EMC API).
 - d. Data from external sources: The Portal does not access directly data from external sources, but the EMC performs this function. What sources and how they are accessed is described in D4.5 Section 4.2.1.6.2. Based on these data, the Portal generates a series of “Flood Reports” related to water level, rainfall, current weather and weather forecast.

The Data source for all Flood Reports are presented in the report, with a hyperlink to the data source institution. Figure 4, below, displays an example of data based “flood report” for Danube water level in Devin (Bratislava region). The indication of the data source is circled in red.

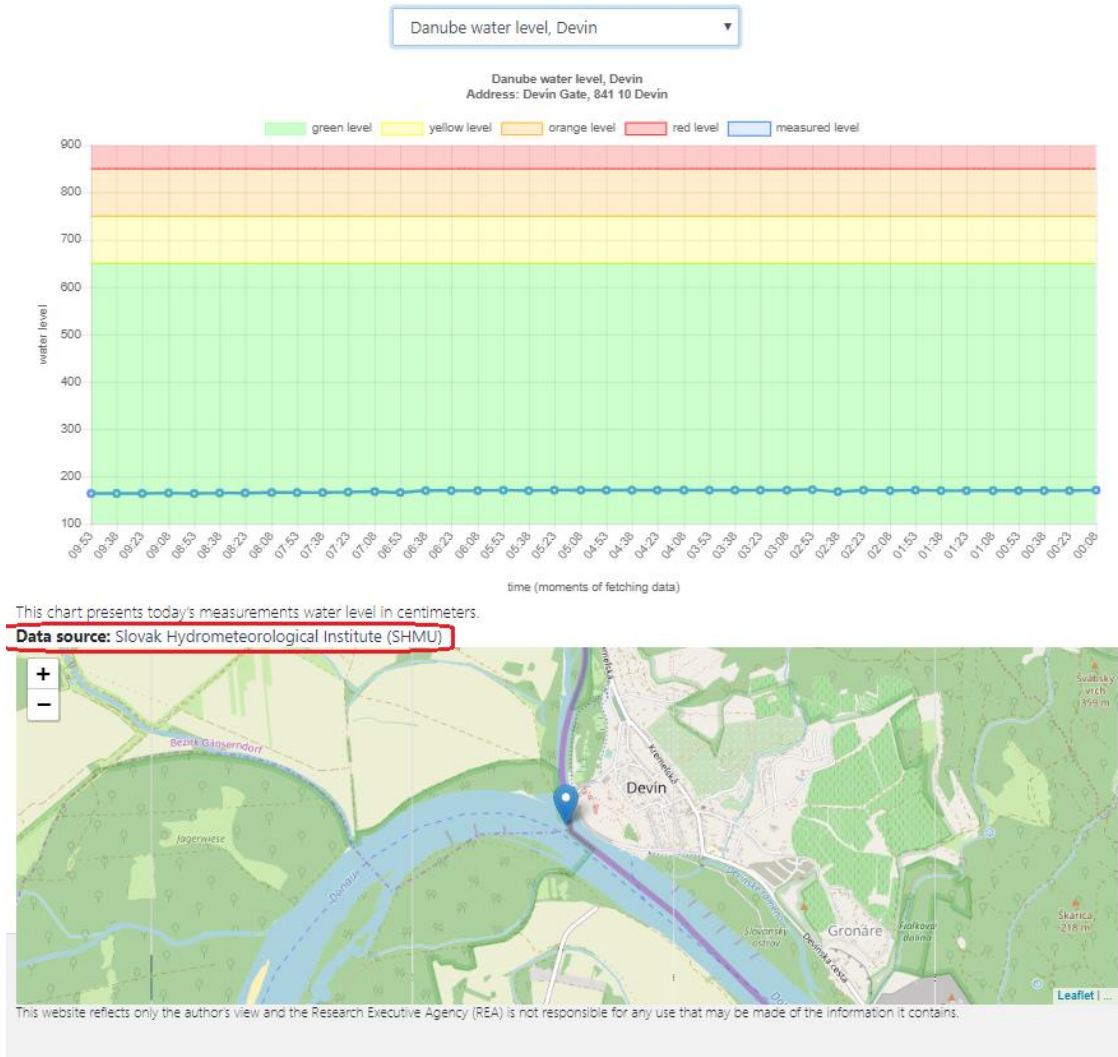


Figure 4: Example of Flood Related Report (data source circled in red)

8 Technical Description

8.1 Access Information

The main Portal URL is: <https://floodserv.eu/>.

After the user chooses a City and a Language, the user is directed to the URL for the 5 instances of the Portal (corresponding to the five Pilot Cities):

Bilbao: <https://bilbao.floodserv.eu/>

Bratislava: <https://bratislava.floodserv.eu/>

Genova: <https://genova.floodserv.eu/>

Villa Nova de Famalicao: <https://vilanovafamalicao.floodserv.eu/>

Tulcea: <https://tulcea.floodserv.eu/>

Any Portal visitor can sign up (i.e. create an account) following the Sign Up procedure, described in the User Manual in APPENDIX I, Section 7.1. A self created account is given automatically the role of e-citizen.

User roles for pilot city affiliated users can be created by the Pilot City following the steps described in Section 9.3 of the appended User Manual. A set of test user names and credentials was generated by Siveco and made available to Pilot Cities and sent to the Project Officer for access to be given to Project Monitors.

8.2 Hardware Infrastructure

The FLOOD-serv Portal is hosted on SIVECO's physical servers on a virtual machine.

Resources allocated:

CPU: 4 CPUs x 2.4GH x 16GB RAM

Storage: HDD 150 GB

Currently the Portal uses few of these resources, but in case of increased needs, resources can be expanded.

8.3 Software and Development

The standard development methodology followed by Siveco is a hybrid between Waterfall and Agile. On the one hand the broad framework (also determined by this Project's DoA) is Waterfall: with one large analysis phase at the beginning of the project, followed by implementation and then by testing and piloting. However, more Agile like shorter cycles of development, testing, revisiting analysis and improvement do occur during implementation and piloting, successive versions of the system being issued at shorter intervals of the order of weeks.

User, technical and architectural requirements were transmitted to the Siveco FLOOD-serv technical team. Following the analysis of integration requirements (see Task 5.4), the technical team decided that for the authentication and Single Sign On (SSO) integration, the best solution for SSO is a Java based open source solution, Keycloak. This has generated a department wide discussion as to whether the technological anticipated choice made in the *D4.3 System Architecture* document should not be revisited. In the end it was decided that for unity of technology within the Siveco Team to use for both the Portal and SSO integration

Java as the base technology. PHP and Java are both mature languages equivalent in overall capabilities for developing Portals, therefore the technology change does not impact the capabilities of the System.

A client-server architecture was used for the Portal. JHipster technology was used to generate a first version of the application (a general overall structure with main entities, without the functionalities). For User Interface (UI) Angular JS was used while Spring Framework was used for backend. The technology of choice for database was PostgreSQL.

User and Technical Requirements were analysed by the technical team, often broken down into smaller tasks, introduced in the JIRA issue management system, assigned to team members and prioritized. As groups of tasks/requirements were implemented new versions of the application were generated.

All functionalities not dependent on other Components were implemented in Task 4.4. Some, which were dependent on other Components, were developed up to the point where the interdependency had to be resolved during the integration phase. For example, charts of data were developed with test data; forms were graphically developed without backend integration.

All functionalities implemented were subject to repeated internal testing. Later, in the piloting phase (under WP5) the Portal and all the other Components went through repeated tests by end users (Pilot City employees, stakeholder representatives, citizens), as described in D5.1-D5.4).

9 FLOOD-serv Portal Integration in the FLOOD-serv System

This chapter gives an overview of the integration of the FLOOD-serv Portal with other components in terms of SSO Integration and Data integration. More information on the overall integration of the FLOOD-serv System and all of its Components is given in D4.5.

The FLOOD-serv Portal serves several functions in the integration of the FLOOD-serv System:

- It acts as a single point of entry for all users to the FLOOD-serv System;
- It (together with the SSO Module) implements the Single Sign On function, managing user authorization, authentication and user role management.
- It is the main citizen facing component of the FLOOD-serv System, acting as an interface for citizens to view and interact with other components (which act in the back end).

9.1 SSO Integration

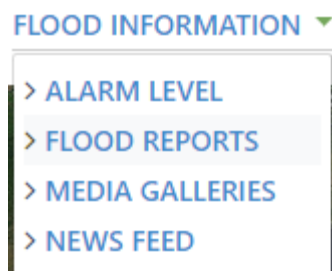
To achieve these roles the Portal is closely integrated with the SSO module; in fact for many purposes the two are treated together as a single component “the Portal”. The integration with the SSO module (based on Keycloak technology, described in more detail in D4.5, Section 4.1) is achieved at both front end (some forms from the SSO module appear in the Portal) and back end (the Portal communicates with the SSO module accessing its API).

9.2 Data Integration


The FLOOD-serv Portal is a consumer of data in relation to other Components of the FLOOD-serv System. While initially a separate module for obtaining sensor data was conceived, this function was actually moved to the EMC Component. The Technical Partners of the Consortium considered that the EMC is the main consumer of data within the project, therefore it made sense that this component was to also act as a *data repository* for the whole System.

The portal only needs a subset of data from the EMC.

The Portal consumes data from the EMC in order to produce a series of data reports aimed at informing citizens about floods. By going in the Main Menu/Flood Information/Flood reports or Main Menu/Flood Information/Alarm Level, the user can access such information (see also the FLOOD-serv Portal User Manual in APPENDIX I).



An example of Alarm Level is shown in Figure 5, below.



Rain's flood

Start:28/08/2019 12:11:50 End:

ORANGE- Flood alert II

Flood alert level II is declared a) when the water level of water flow defined in the flood plan is reached and when the water l... art 11 of Act No. 7/2010 Coll. on protection against floods as amended

Read more

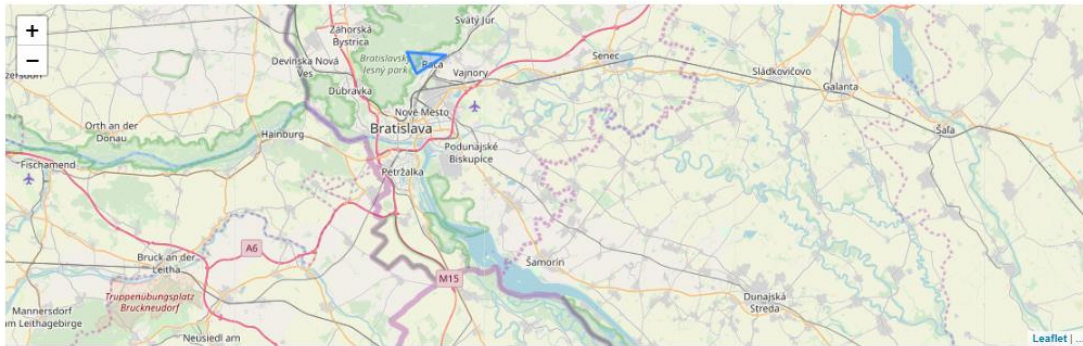
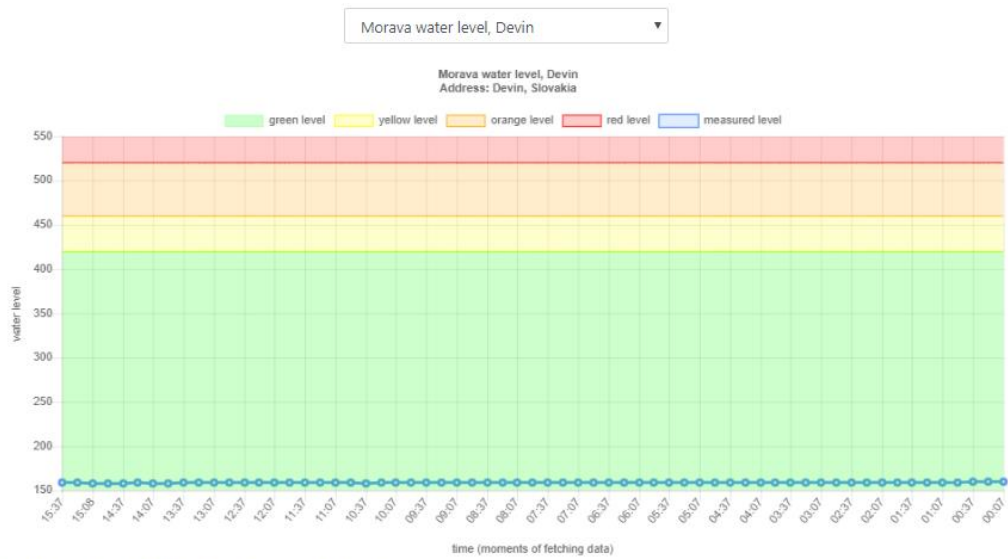


Figure 5: Example of Alarm Level Published on the Portal

Examples of data reports are shown in Figure 6 and Figure 7 below.



This chart presents today's measurements water level in centimeters.

Data source: Slovak Hydrometeorological Institute (SHMU)



Figure 6: Example of Water Level Report

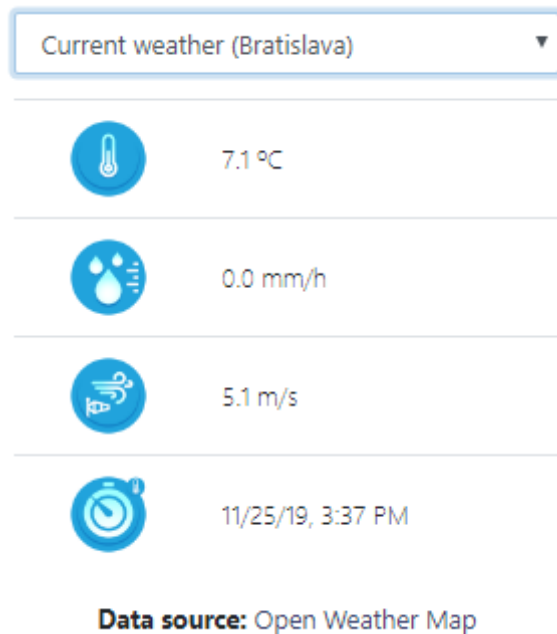


Figure 7: Example of Current Weather Report

To produce these reports the Portal accesses the EMC, API, presented in D4.5, APPENDIX I.

The FLOOD-serv Portal acts also as a citizen facing interface of the CDF Component in relation to citizen users. Thus the section [ENGAGE WITH PUBLIC AUTHORITIES](#) contains the Citizen Involvement Form where citizens can signal issues to public authorities and engage in dialogue with them. To allow citizens to submit information in the Citizen Involvement Form, generate the Submission History report, or Write Messages, the Portal accesses the CDF API, as presented in D4.5 APPENDIX I.

10 Conclusions

In this report we have explained the implementation of the FLOOD-serv Portal. We proceeded from reviewing design information like objectives, conceptual view, user roles and content structure and proceeded to show in comparison requirements and actually implemented functionalities.

All user requirements for the FLOOD-serv Portal have been implemented:

- Some requirements were split into several more detailed ones in the implementation phase,
- Two requirements were merged into one (because they were both performed/satisfied in the same page);
- One requirement (two way messaging between citizens and public authorities) was added after the initial analysis, following the first review meeting;
- *No requirement was dropped/left unimplemented.*

The FLOOD-serv Portal and all Components of the FLOOD-serv System were repeatedly tested by the internal teams of each technical partner and by pilot cities employees, stakeholders and citizens in 3 cycles of piloting, as described in D5.1-D5.4.

APPENDIX I

FLOOD-serv Portal User Manual

V1.0



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1 Introduction

Overview

The overview or site map of the FLOOD-serv Portal is presented in Figure 8, below.

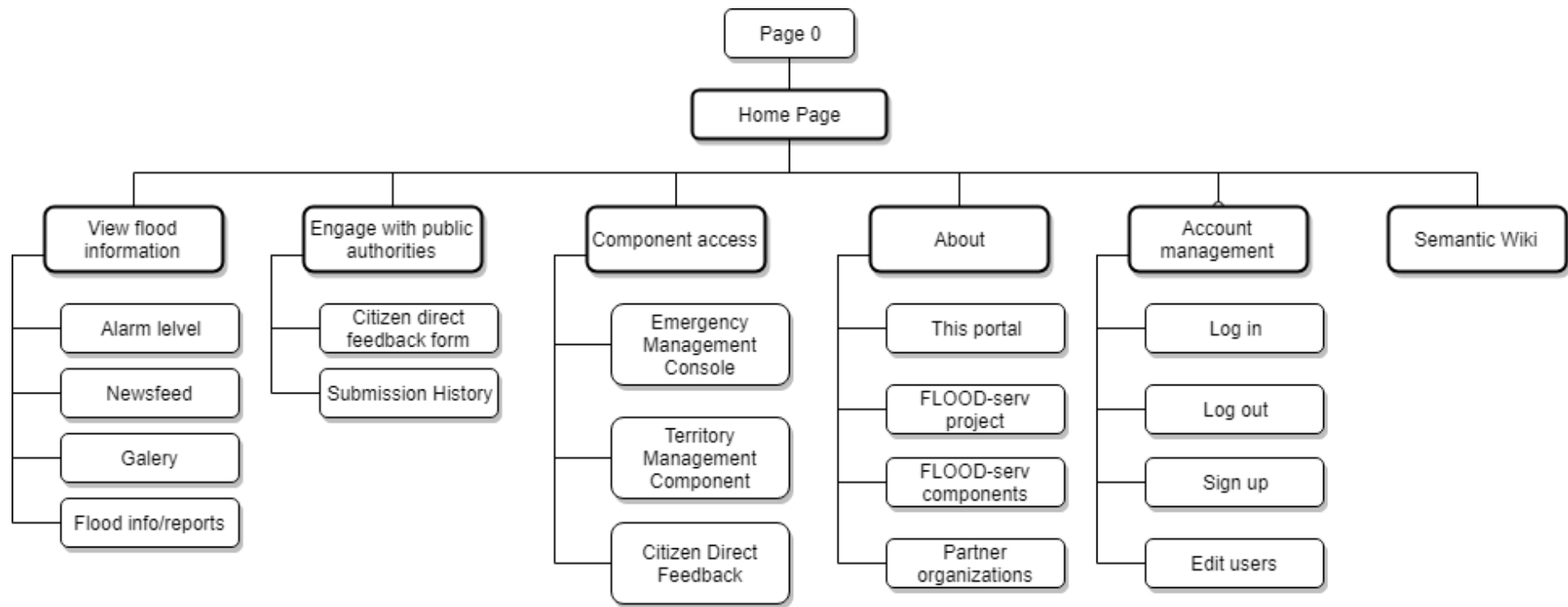


Figure 8: FLOOD-serv Portal Map

2 Entering the Portal

2.1 Page 0

User Story Code: USFP20

User Types: All

Prerequisites: Enter the FLOOD-serv Portal for the first time.

Description:

Page 0 is a portal page where the user chooses his/her language and country/pilot city. For each city there are two language choices: English or the language of the country where the city is located.

Steps to follow:

1. Type in <https://floodserv.eu/> in the address bar of your browser. Page 0 appears only the first time you visit the FLOOD-serv Portal Domain: <https://floodserv.eu/>. To check it again you can delete the corresponding cookies of the FLOOD-serv Portal, or more simply enter the Portal using an *Incognito* (Google Chrome) or *InPrivate* (Microsoft Edge) mode of your browser.
2. Select City:



Public FLOOD Emergency and Awareness SERVICE

Please select the city pilot and then the language

City

Genova

Select city

Tulcea

Genova

Vila Nova de Famalicão

Bratislava

Bilbao

Languages

Select language

ENTER

3. Select Language. Note that only the languages for the previously selected city are available.





Public FLOOD Emergency and Awareness SERVICE

Please select the city pilot and then the language

City

Languages

ENTE Italiano

Note. Steps 1 and 2 can also be performed in reversed order, first select language and then city.

4. Click on the “Enter” button on the screen.



Public FLOOD Emergency and Awareness SERVICE

Please select the city pilot and then the language

City

Languages

ENTER

Once you press “Enter” the Home Page of the Portal should open corresponding to the selected City and Language.

Note, Page 0 should appear only the first time you enter the Portal. After that, each time you enter the Portal you should be directed straight to the Home Page. If you want to revisit your Language and City choices, you can do so from the Home Page.

2.2 Home Page

User Story Code: USFP21

User Types: All

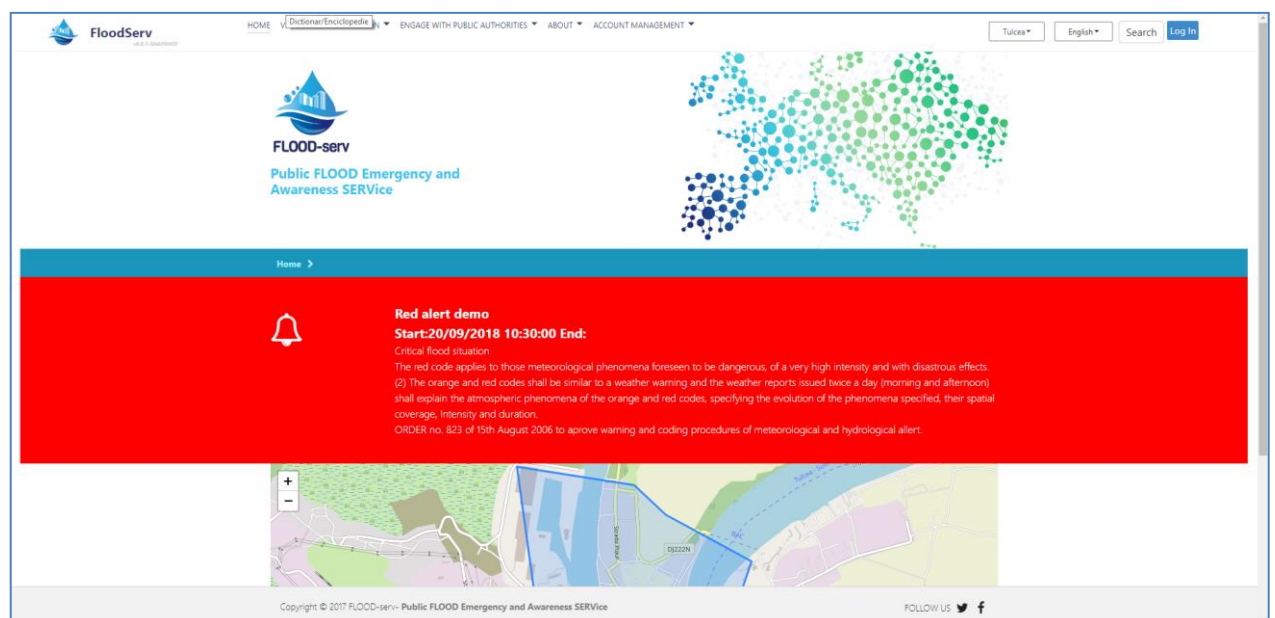
Prerequisites: the steps corresponding to Page 0 have been followed.

After you performed the steps indicated above related to Page 0, each time you access the FLOOD-serv Internet Domain: <https://floodserv.eu/> you should reach the FLOOD-serv Portal Home (or Main) Page.

Steps:

1. Type in <https://floodserv.eu/> in the address bar of your browser. If it is not the first time you visit the FLOOD-serv Portal, then you should see the Home Page, otherwise you will be directed to Page 0, and follow the steps indicated above.

The Home Page should have the following general aspect:



The Home page will contain the following functional elements

1. Menu with the 5 main portal sections. The sub-menu options are drop down by hovering with the mouse pointer above the menu section.
 - a. View flood information
 - b. Engage with public authorities
 - c. Component access (this menu section only available to logged-in institutional users)
 - d. About
 - e. Account management
2. Alarm level: this element presents the level of alarm as established by proper authorities in the city. Similar to the Alarm level page within the View Flood Information Page. By clicking on the alarm level element the user is directed to the more detailed alarm level page.
3. Log in form: if the user is not logged in a mini-log in form is present containing two fields: user name and password, and an Enter/Go button.
4. Log out: if the user is logged in, in place of the Log in form a log out button is present.

5. Language and city choice: The user can change his/her choice of language and city from this element on the main page.
6. Search form: a search form is present for searching the content of the portal (only the local instance). The form contains a search box and a Go button.
7. Newsfeed: an element where the last news in the newsfeed are presented. By clicking on particular news items the user is directed to the full news piece. By pressing elsewhere on the element (e.g. on its title, or on a “More news” item at the end) the user is directed to the full newsfeed page (in the View Flood Information section).

3 (View) Flood Information

This is a group of pages and a Main Menu Item. The objective of this section is to present to citizens various types of information about floods.

3.1 Flood Alarm Level

User Story Code: USFP02

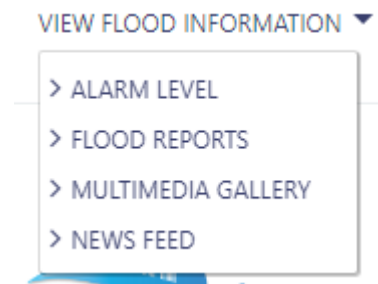
User Roles: All

Prerequisites: None

Description: This page presents the current alarm level as declared by proper authorities related to the pilot city in question. It displays:

Steps to follow:

1. From any page of the Portal (except Page 0), click on the View Flood Information or Flood Information Main Menu Item. A rectangle showing a list of sub menu items is opened.

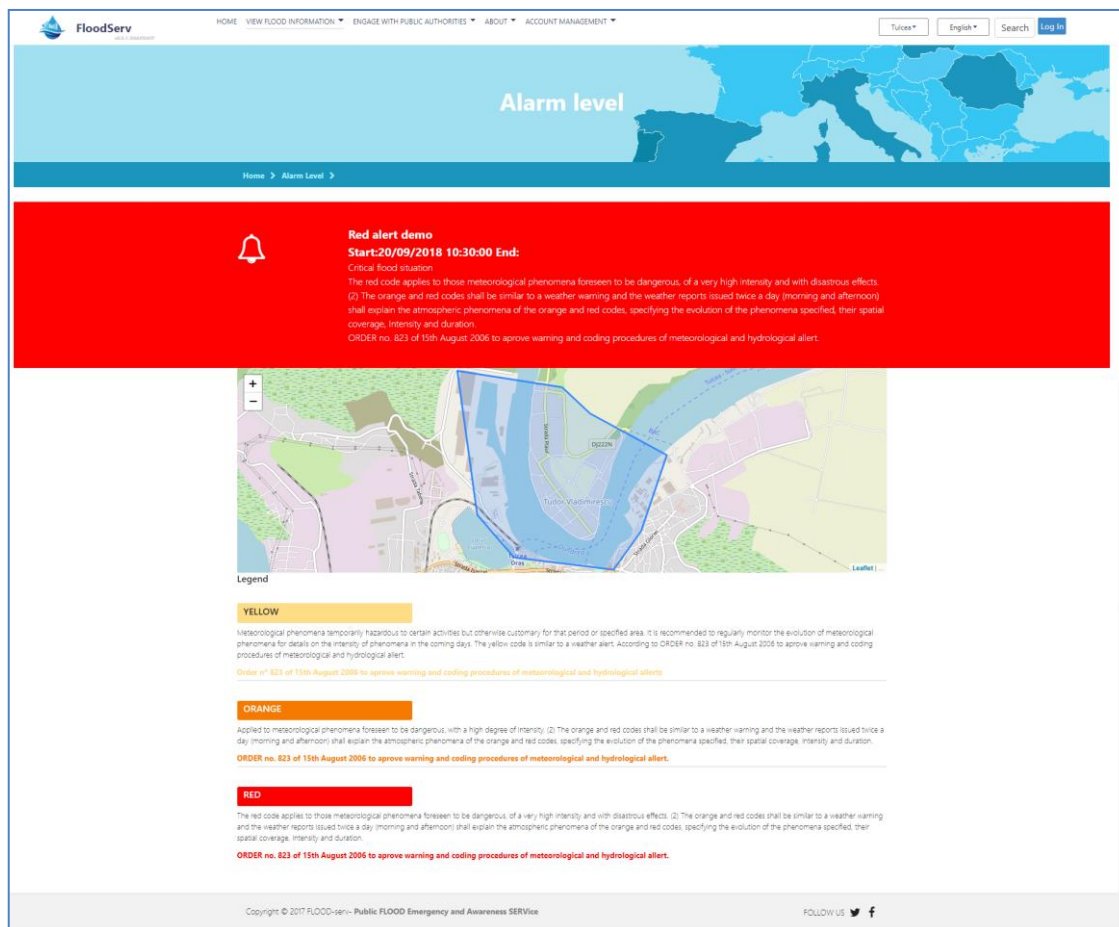


2. Click on the *Alarm Level* Menu item.

The page contains the following elements:

- a. A rectangle displaying the current alarm level by means of color code and/or key word (as defined by law).
- b. Brief description of alarm level.
- c. Below the current alarm level, on the same page, all alarm levels are described and full legal definitions presented.

The figure below shows the general aspect of the Alarm Level page.



3.2 Newsfeed

User Story Code: USFP01A

User Roles: All

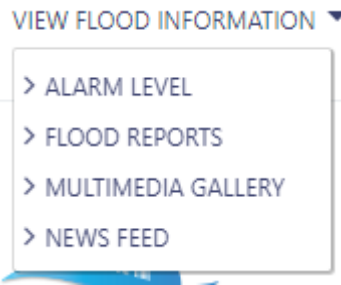
Prerequisites: None

Description:

This page is dedicated to keep citizens informed by public authorities involved in flood management. While these communiqués/messages may be also transmitted via social media and possibly press releases, this is an additional channel of presentation where citizens/journalists can easily see all public communication released by relevant public authorities.

Steps to follow:

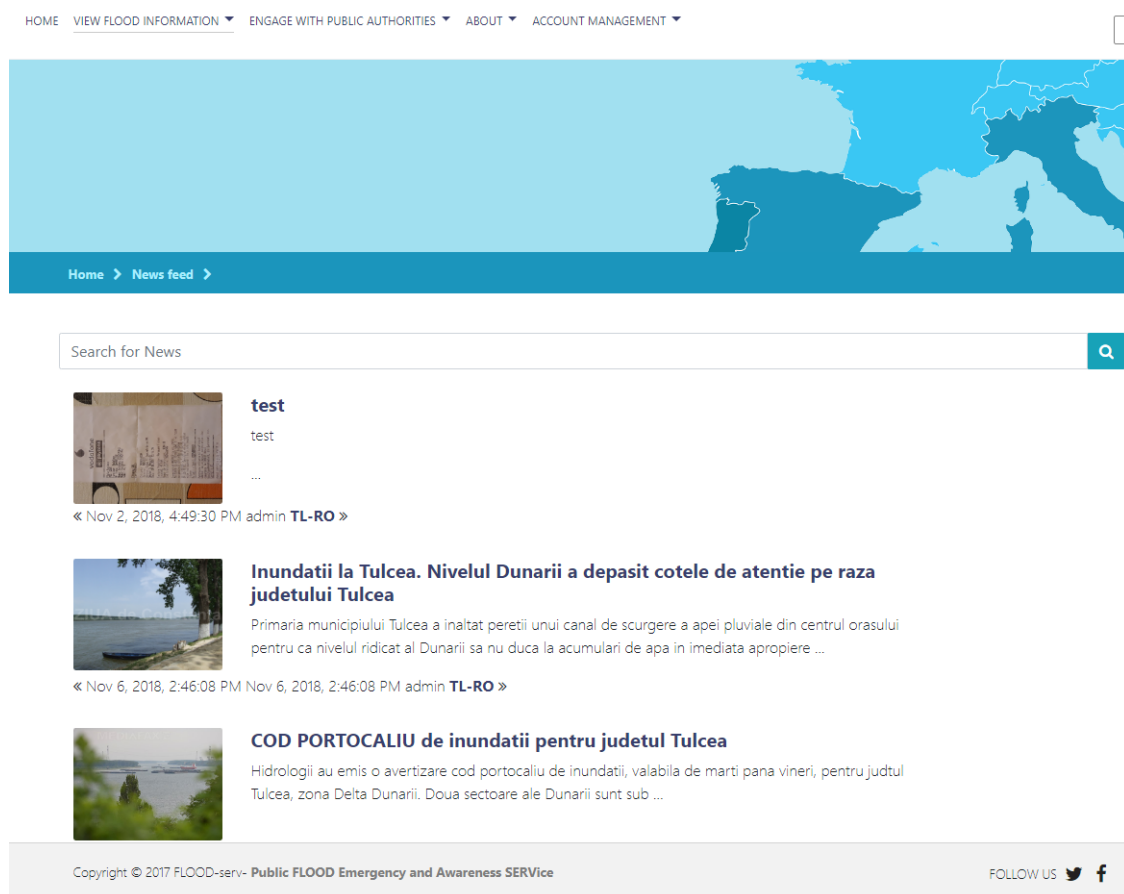
1. From any page of the FLOOD-serv Portal, click on the *(View) Flood Information* Main Menu Item.



2. Click on the “Newsfeed” menu item.
3. A Newsfeed page appears. It will include news items (title plus part of the text) ordered reverse chronologically.

Note: News are only in the language of the country of the Pilot City, and not in English. On the English version of the Portal the news in the local language are displayed (with menu items in English)

A Newsfeed example page is displayed below



3.3 View News Item

User Story Code: USFP01A

User Roles: All

Prerequisites: None

Description: News item pages contain pieces of news with Title, text and possibly an associated picture.

Steps:

1. From the *Newsfeed* described above, click on one of the news items to fully see the news.

An example news item page is shown below. It displays text and an associated picture.



The screenshot shows a news item page on the FloodServ portal. The page title is "Inundatii la Tulcea. Nivelul Dunarii a depasit cotele de atentie pe raza judetului Tulcea". The main image shows a flooded area with a boat on the water and trees on the bank. The page includes a navigation menu, search bar, and social media links.

3.4 Add News

User Story Code: USFP01B

User Roles: Content Editor, Flood Emergency Expert, Facilitator, Decision Maker

Prerequisites: User is logged in.

Description: This functionality allows a selected number of users to add news to the newsfeed.

Steps:

1. Go to the Newsfeed page (see above how to reach it). For the selected users (see above User Roles) the page has additional options. See figure below.

The screenshot shows the 'News' section of the FLOOD-serv Portal. At the top, there is a blue navigation bar with 'Home > News feed >' and a '+ Create a new News' button. Below this is a search bar labeled 'Search for News' with a magnifying glass icon. The main content area displays three news items, each with a thumbnail image, a title, a short description, and a date/time stamp. Each item also has 'Edit' and 'Delete' buttons. The first item is a 'test' post. The second item is titled 'Inundatii la Tulcea. Nivelul Dunarii a depasit cotele de atentie pe raza judetului Tulcea' and describes a situation where the Danube level has exceeded attention thresholds. The third item is titled 'COD PORTOCALIU de inundatii pentru judetul Tulcea' and mentions a flood warning for Tulcea county.

Home > News feed >

News

+ Create a new News

Search for News

test
test
...
« Nov 2, 2018, 4:49:30 PM admin **TL-RO** »

Inundatii la Tulcea. Nivelul Dunarii a depasit cotele de atentie pe raza judetului Tulcea
Primaria municipiului Tulcea a inaltat peretii unui canal de scurgere a apei pluviale din centrul orasului pentru ca nivelul ridicat al Dunarii sa nu duca la acumulari de apa in imediata apropiere ...
« Nov 6, 2018, 2:46:08 PM Nov 6, 2018, 2:46:08 PM admin **TL-RO** »

COD PORTOCALIU de inundatii pentru judetul Tulcea
Hidrologii au emis o avertizare cod portocaliu de inundatii, valabila de marti pana vineri, pentru judtul Tulcea, zona Delta Dunarii. Doua sectoare ale Dunarii sunt sub ...
« Nov 6, 2018, 2:46:08 PM Nov 6, 2018, 2:46:08 PM admin **TL-RO** »

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2. Click on the “Create new news” button”, in the top right side of the page.

The following form appears:

The screenshot shows a web form titled "Create or edit a News". It contains the following fields and elements:

- Title:** A text input field with a red vertical bar on the left side.
- Body:** A rich text editor with a toolbar containing options for font style (Normal, Sans Serif), bold (B), italic (I), underline (U), text color (A), background color, bulleted list, numbered list, indent, link, unlink, image, code, and source.
- Thumbnail URL:** A text input field.
- Thumbnail:** A file selection field with a "Choose File" button and the text "No file chosen".
- Author:** A dropdown menu with "admin" selected.
- City:** A dropdown menu with "Tulcea" selected.

3. Fill in the form with required information including: Title, Body (text) and optionally choose a file (picture).

3.5 Edit news

User Story Code: USFP01C

User Roles: Content Editor, Flood Emergency Expert, Facilitator, Decision Maker

Prerequisites: User is logged in.

Description: This functionality allows a selected number of users to edit (i.e. change) existing news items in the newsfeed.

Steps:

Route 1.

1. Go to the Newsfeed page (see above how to reach it). For the selected users (see above User Roles) the page has additional options. See figure below.

Home > News feed >

News

+ Create a new News

Search for News

test
test
...
« Nov 2, 2018, 4:49:30 PM admin **TL-RO** »

Inundatii la Tulcea. Nivelul Dunarii a depasit cotele de atentie pe raza judetului Tulcea
Primaria municipiului Tulcea a inaltat peretii unui canal de scurgere a apei pluviale din centrul orasului pentru ca nivelul ridicat al Dunarii sa nu duca la acumulari de apa in imediata apropiere ...
« Nov 6, 2018, 2:46:08 PM Nov 6, 2018, 2:46:08 PM admin **TL-RO** »

COD PORTOCALIU de inundatii pentru judetul Tulcea
Hidrologii au emis o avertizare cod portocaliu de inundatii, valabila de marti pana vineri, pentru judtul Tulcea, zona Delta Dunarii. Doua sectoare ale Dunarii sunt sub ...
« Nov 6, 2018, 2:46:08 PM Nov 6, 2018, 2:46:08 PM admin **TL-RO** »

Copyright © 2017 FLOOD-serv- Public FLOOD Emergency and Awareness SERVICE FOLLOW US

2. Click on the Edit button for the news item you want to edit. The following form appears (similar to the Add News form above)

Create or edit a News
✕

Title

Inundatii la Tulcea. Nivelul Dunarii a depasit cotele de atentie pe raza judetului Tulcea

Body

Normal ▾ Sans Serif ▾ **B** *I* U **A** 🗑️ ☰ ☷ ☰ 🔗 🖼️ </> *T_x*

Primaria municipiului Tulcea a inaltat peretii unui canal de scurgere a apei pluviale din centrul orasului pentru ca nivelul ridicat al Dunarii sa nu duca la acumulari de apa in imediata apropiere a unei statii de autobuz. Lucrarea a fost efectuata saptamana trecuta, potrivit primarului Constantin Hogeia.

Thumbnail URL

<https://www.ziuaconstanta.ro/images/stories/2018/04/03/Daniela/dunare.jpg>

Thumbnail

Choose File No file chosen

Author

admin

City

Tulcea ▼

3. Make your changes to the title, body (text), or choose a different picture.
4. Click the Save button.

Route 2.

1. View a news item of your choice(see above View News Item page). For the selected users it has additional options below including an Edit button.



2. Press the Edit button.
3. Follow steps 2 to 4 of Route 1 above.

3.6 Delete News

User Story Code: USFP01D

User Roles: Content Editor, Flood Emergency Expert, Facilitator, Decision Maker

Prerequisites: User is logged in.

Description: This functionality allows a selected number of users to delete existing news items in the newsfeed.

Steps:

1. Go to the Newsfeed page (see above how to reach it). For the selected users (see above User Roles) the page has additional options. See figure below.

The screenshot shows the 'News' section of the FLOOD-serv Portal. At the top, there is a blue navigation bar with 'Home' and 'News feed' links. Below this, the 'News' title is displayed on the left, and a '+ Create a new News' button is on the right. A search bar labeled 'Search for News' is positioned below the title. The news feed contains three items:

- test**: A news item with a placeholder image, the text 'test', and a timestamp of 'Nov 2, 2018, 4:49:30 PM admin TL-RO'. It has 'Edit' and 'Delete' buttons.
- Inundatii la Tulcea. Nivelul Dunarii a depasit cotele de atentie pe raza judetului Tulcea**: A news item with a photo of a river, a title, a short description, and a timestamp of 'Nov 6, 2018, 2:46:08 PM admin TL-RO'. It has 'Edit' and 'Delete' buttons.
- COD PORTOCALIU de inundatii pentru judetul Tulcea**: A news item with a photo of a river, a title, a short description, and a timestamp of 'Nov 6, 2018, 2:46:08 PM admin TL-RO'. It has 'Edit' and 'Delete' buttons.

At the bottom of the page, there is a footer with copyright information: 'Copyright © 2017 FLOOD-serv- Public FLOOD Emergency and Awareness SERVICE' and social media links for 'FOLLOW US' on Twitter and Facebook.

2. Click on the Delete button for the news item you want to delete. The following confirmation box appears.

The screenshot shows a confirmation dialog box titled 'Confirm delete operation'. The main text asks 'Are you sure you want to delete News 2?'. At the bottom right, there are two buttons: 'Cancel' (with a circular arrow icon) and 'Delete' (with an 'X' icon).

3. Press Delete if you are sure you want to delete the news item, or press Cancel if you changed your mind.

3.7 Share News

User Story Code: USFP01E


User Roles: All



Prerequisites: None

Description: The user can share a piece of news from the Portal/Newsfeed section on one of his social media accounts (either Facebook or Twitter).

Steps:

1. The user first accesses a news item: see instructions in section 3.3 *View News Item*.
A page with the news item (text plus picture) is displayed.

2. In the lower part of the page the user sees the following buttons:  for sharing

 on Twitter, and  for sharing on Facebook. The user clicks on one of the buttons.

- a) If the user is not already logged in that social media account, then a window asking the user to log in opens. If the user is logged in then point b below occurs.
- b) In the separate newly opened window, the user is asked to confirm whether they want to post the piece of news in their social media account. By, confirmint, the news item (Title of the news and link to it) is posted.

3.8 (View) Multimedia Galleries

User Story Code: USFP03A

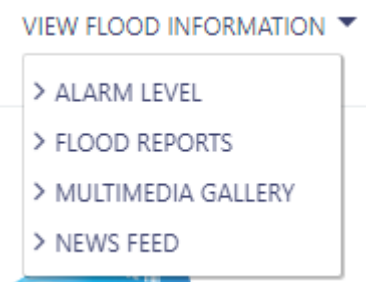
User Roles: All

Prerequisites: None

Description: This page presents multimedia galleries relevant to floods in the (pilot) city.

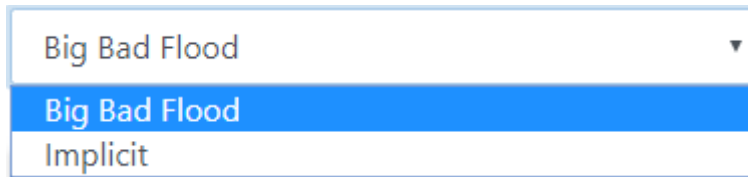
Steps to follow:

1. From any page of the Portal (except Page 0), click on the View Flood Information or Flood Information Main Menu Item. A rectangle showing a list of sub menu items is opened.



2. Click on the  **MULTIMEDIA GALLERY** menu item.

A Media Galleries page appears with a drop box for selecting the gallery of interest.



3. In the drop down box choose the gallery of your interest.

The gallery is displayed with picture thumbnails shown. By pressing the thumbnails the picture is enlarged.

3.9 Create new gallery

User Story Code: USFP03B

User Roles: Content Editor, System Administrator, Facilitator, Emergency Expert, Emergency Respondent, Decision Maker

Prerequisites: User needs to be logged in.

Description: This function allows the creation of new gallery in the Multimedia Gallery section.

Steps:

3.10 Go to Share News

User Story Code: USFP01E

User Roles: All


Prerequisites: None


Description: The user can share a piece of news from the Portal/Newsfeed section on one of his social media accounts (either Facebook or Twitter).


Steps:

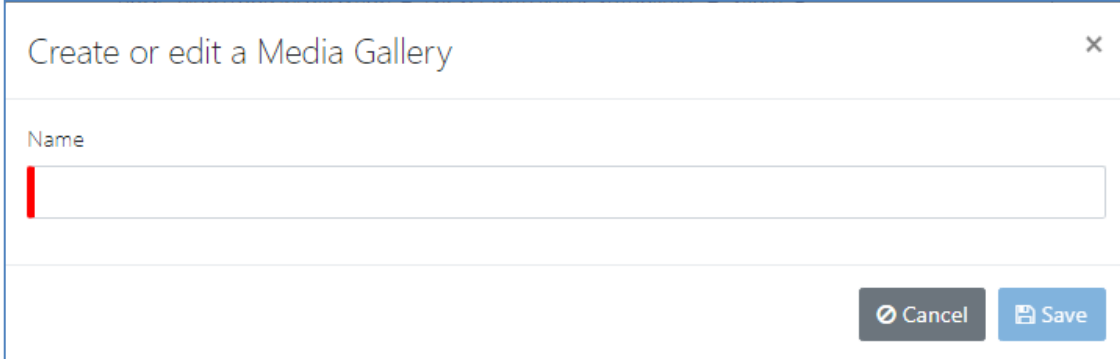
3. The user first accesses a news item: see instructions in section 3.3 *View News Item*.

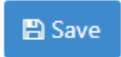
A page with the news item (text plus picture) is displayed.

4. In the lower part of the page the user sees the following buttons:  for sharing

- a)  on Facebook. The user clicks on one of the buttons.
- b) on Twitter, and
- c) If the user is not already logged in that social media account, then a window asking the user to log in opens. If the user is logged in then point b below occurs.
- d) In the separate newly opened window, the user is asked to confirm whether they want to post the piece of news in their social media account. By confirmint, the news item (Title of the news and link to it) is posted.

1. (View) Multimedia Galleries page (see above).
2. In the right side you should see the button  - "Add". Click on it. You should see a small form as below:



3. Type the name of the new gallery in the text box.
4. Click "Save" 

You have now created a new gallery. To add content to it see *Upload picture or video into an existing gallery*, below.

3.11 Edit gallery details

User Story Code: USFP03C

User Roles: Content Editor, System Administrator, Facilitator, Emergency Expert, Emergency Respondent, Decision Maker

Prerequisites: User needs to be logged in.

Description: This function allows selected users to edit/change the details of a gallery.

Steps:

3.12 Go to Share News

User Story Code: USFP01E

User Roles: All


Prerequisites: None



Description: The user can share a piece of news from the Portal/Newsfeed section on one of his social media accounts (either Facebook or Twitter).

Steps:

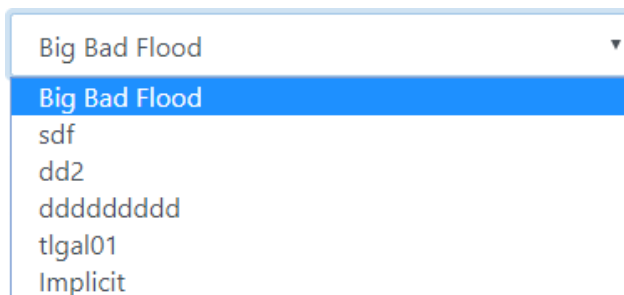
5. The user first accesses a news item: see instructions in section 3.3 *View News Item*.

A page with the news item (text plus picture) is displayed.

6. In the lower part of the page the user sees the following buttons:  for sharing

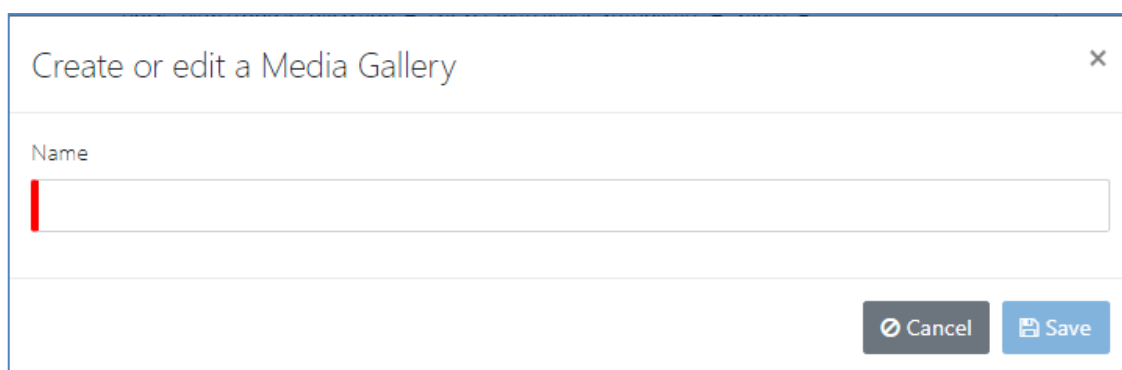
-  on Twitter, and  for sharing on Facebook. The user clicks on one of the buttons.
- e) If the user is not already logged in that social media account, then a window asking the user to log in opens. If the user is logged in then point b below occurs.
 - f) In the separate newly opened window, the user is asked to confirm whether they want to post the piece of news in their social media account. By confirmint, the news item (Title of the news and link to it) is posted.

- 1. (View) Multimedia Galleries page (see above).
- 2. From the top left drop down menu select the gallery you want to edit.




A screenshot of a dropdown menu. The top item is 'Big Bad Flood' with a downward arrow. Below it, the same item 'Big Bad Flood' is highlighted in blue. Other items in the list include 'sdf', 'dd2', 'ddddddddd', 'tlgal01', and 'Implicit'.

3. In the right side you should see the button  - "Edit". Click on it. You should see a small form as below:



A screenshot of a form titled 'Create or edit a Media Gallery' with a close button (X) in the top right corner. The form has a 'Name' label above a text input field. At the bottom right of the form, there are two buttons: 'Cancel' and 'Save'.

- 4. Change the text or title associated with the gallery.
- 5. Click 

Done.

3.13 Delete gallery

User Story Code: USFP03D

User Roles: Content Editor, System Administrator, Facilitator, Emergency Expert, Emergency Respondent, Decision Maker

Prerequisites: User needs to be logged in.

Description: This function allows selected users to delete a gallery.

Steps:

3.14 Go to Share News

User Story Code: USFP01E

User Roles: All


Prerequisites: None



Description: The user can share a piece of news from the Portal/Newsfeed section on one of his social media accounts (either Facebook or Twitter).

Steps:

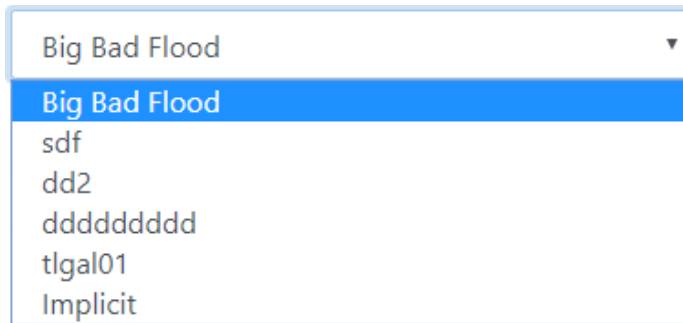
7. The user first accesses a news item: see instructions in section 3.3 *View News Item*.


A page with the news item (text plus picture) is displayed.

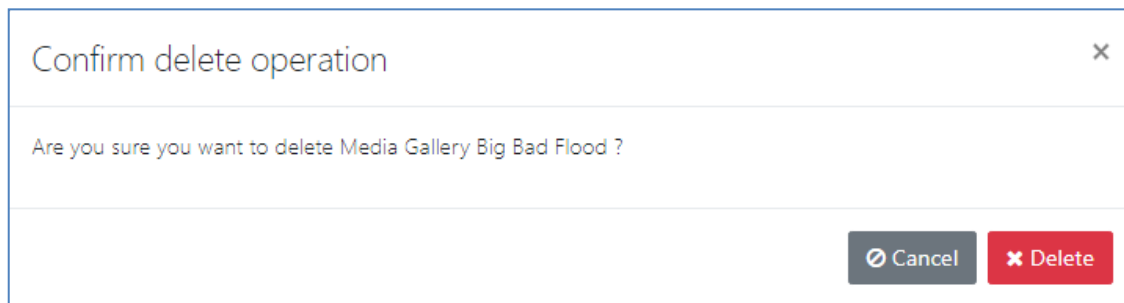
8. In the lower part of the page the user sees the following buttons:  for sharing


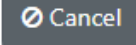
- g)  on Twitter, and  for sharing on Facebook. The user clicks on one of the buttons.
- h) If the user is not already logged in that social media account, then a window asking the user to log in opens. If the user is logged in then point b below occurs.
- h) In the separate newly opened window, the user is asked to confirm whether they want to post the piece of news in their social media account. By confirmint, the news item (Title of the news and link to it) is posted.

1. (View) Multimedia Galleries page (see above).
2. From the top left drop down menu select the gallery you want to delete.



3. In the right side you should see the button . Click on it. You should see a small form as below:



4. Click  if you want to delete it. Or click  if you changed your mind.

3.15 Upload picture or video into an existing gallery

User Story Code: USFP03E

User Roles: Content Editor, System Administrator, Facilitator, Emergency Expert, Emergency Respondent, Decision Maker

Prerequisites: User needs to be logged in.

Description: This function allows selected users to add multimedia (pictures or videos) content to a gallery.

Steps:

3.16 Go to Share News

User Story Code: USFP01E

User Roles: All


Prerequisites: None



Description: The user can share a piece of news from the Portal/Newsfeed section on one of his social media accounts (either Facebook or Twitter).

Steps:

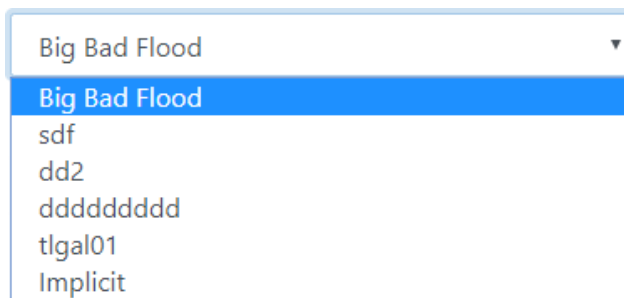
9. The user first accesses a news item: see instructions in section 3.3 *View News Item*.

A page with the news item (text plus picture) is displayed.

10. In the lower part of the page the user sees the following buttons:  for sharing


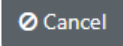
-  on Twitter, and  for sharing on Facebook. The user clicks on one of the buttons.
- i) If the user is not already logged in that social media account, then a window asking the user to log in opens. If the user is logged in then point b below occurs.
 - j) In the separate newly opened window, the user is asked to confirm whether they want to post the piece of news in their social media account. By confirmint, the news item (Title of the news and link to it) is posted.

- 1. (View) Multimedia Galleries page (see above).
- 2. From the top left drop down menu select the gallery you want to add content to.



- 3. Click on the  button to the right.

The following form will appear:

4. Fill in the form with the following information: Title (of multimedia file), Description (optional), Chose File type and choos/browse for the file on your computer.
5. Click  if you want to upload the picture/video into the gallery, or click  if you changed your mind

3.17 Edit picture or video related details

User Story Code: USFP03F

User Roles: Content Editor, System Administrator, Facilitator, Emergency Expert, Emergency Respondent, Decision Maker

Prerequisites: User needs to be logged in.

Description: This function allows selected users to edit/change multimedia (pictures of videos) content and associated details from a gallery.

Steps:

1. Go to *Share News*
2. **User Story Code:** USFP01E

User Roles: All


Prerequisites: None


Description: The user can share a piece of news from the Portal/Newsfeed section on one of his social media accounts (either Facebook or Twitter).

Steps:

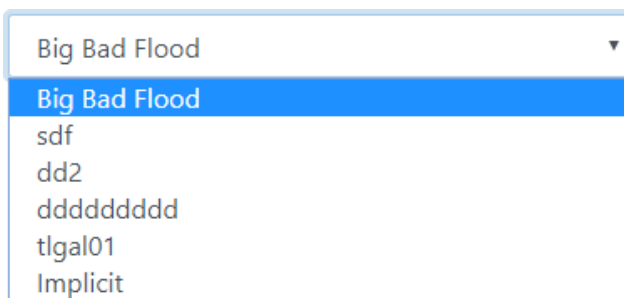
11. The user first accesses a news item: see instructions in section 3.3 *View News Item*.


A page with the news item (text plus picture) is displayed.

12. In the lower part of the page the user sees the following buttons:  for sharing


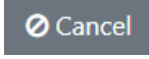
- on Twitter, and  for sharing on Facebook. The user clicks on one of the buttons.
- k) If the user is not already logged in that social media account, then a window asking the user to log in opens. If the user is logged in then point b below occurs.
 - l) In the separate newly opened window, the user is asked to confirm whether they want to post the piece of news in their social media account. By confirmint, the news item (Title of the news and link to it) is posted.

- 3. (View) Multimedia Galleries page (see above how).
- 4. From the drop down menu, select the gallery to which you want to make changes



- 5. On the picture thumbnail click on the Edit button 

The Create or Edit Media File form appears:

6. You can now change the Title, Description, File Type and the File.
7. Click on  to save the changes, or on  if you changed your mind.

3.18 Delete picture from gallery

User Story Code: USFP03G

User Roles: Content Editor, System Administrator, Facilitator, Emergency Expert, Emergency Respondent, Decision Maker

Prerequisites: User needs to be logged in.

Description: This function allows selected users to edit/change multimedia (pictures of videos) content and associated details from a gallery.

Steps:

1. Go to *Share News*
2. **User Story Code:** USFP01E


User Roles: All



Prerequisites: None


Description: The user can share a piece of news from the Portal/Newsfeed section on one of his social media accounts (either Facebook or Twitter).

Steps:

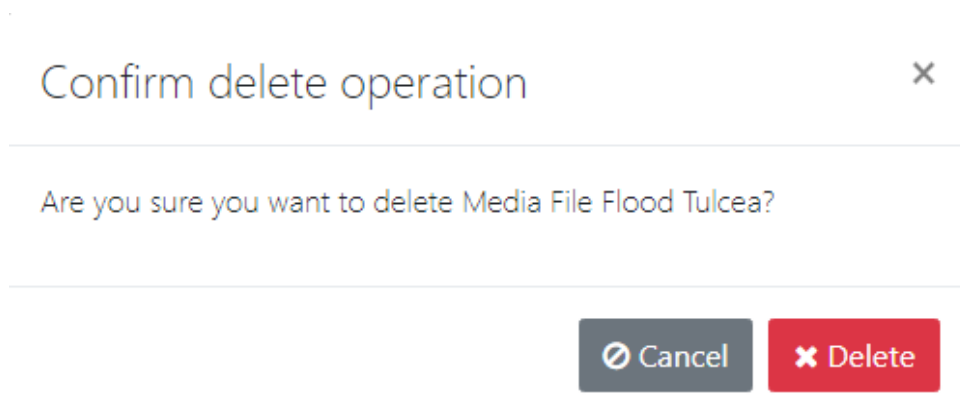
13. The user first accesses a news item: see instructions in section 3.3 *View News Item*. A page with the news item (text plus picture) is displayed.

14. In the lower part of the page the user sees the following buttons:  for sharing

-  on Twitter, and  for sharing on Facebook. The user clicks on one of the buttons.
- m) If the user is not already logged in that social media account, then a window asking the user to log in opens. If the user is logged in then point b below occurs.
 - n) In the separate newly opened window, the user is asked to confirm whether they want to post the piece of news in their social media account. By confirmint, the news item (Title of the news and link to it) is posted.

- 3. (View) Multimedia Galleries page (see above how).
- 4. From the drop down menu, select the gallery to which you want to make changes
- 5. The gallery displays pictures thumbnails. On the lower part of the picture you want to delete press the  button.

A confirmation pop up appears:



- 6. Click on  to confirm deletion or on  to cancel action.

3.19 (View) Flood Reports

User Story Code: USFP04

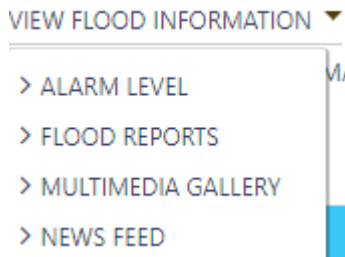
User Roles: All

Prerequisites: None.

Description: On this page the user can see reports (charts, tables, maps, etc) show based on data relevant to floods (water levels, rainfall, etc.)

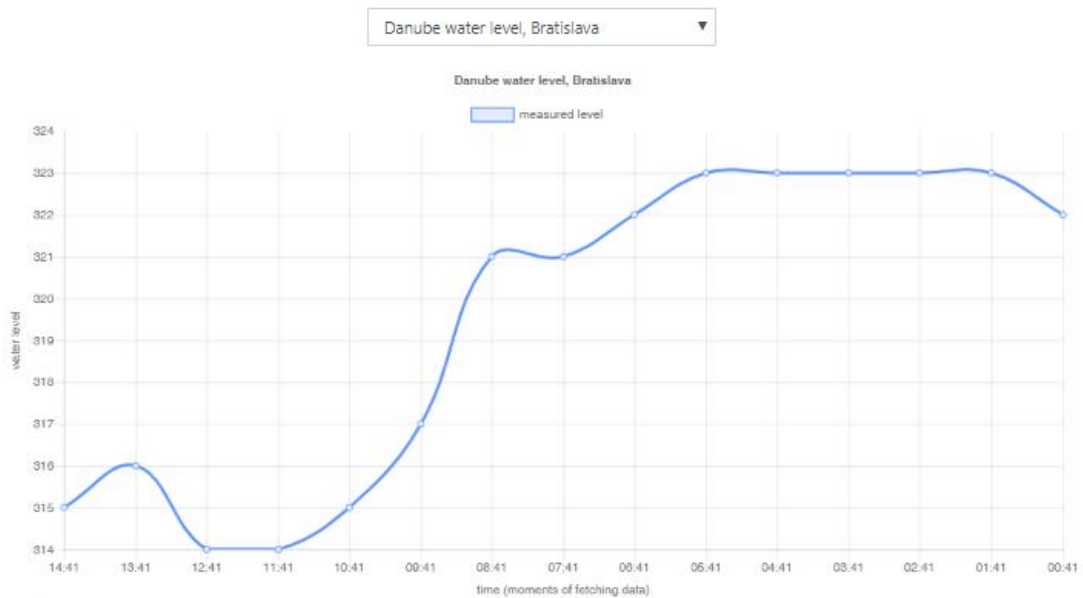
Steps:

1. In the main menu, click on [VIEW FLOOD INFORMATION](#) . More options open, see in the picture below:



2. Click on [> FLOOD REPORTS](#)

A page is opened where a (default) report is shown like in the example below.

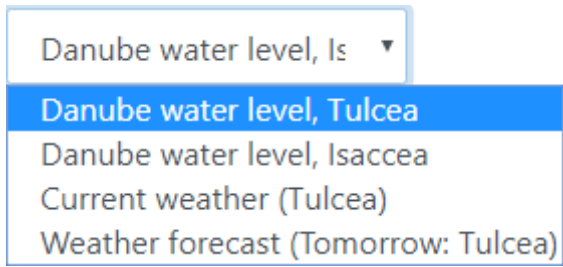


This chart presents today's measurements water level in centimeters.

Data source: <https://backend.bratislava.floodservansware-tech.com/api/emc/v1.0/sensors/1/data/today>



3. From the drop down box on top choose and click on a report that interests you:



The report you have chosen should now show on the page.

4 Engage with public authorities

This section is dedicated to citizens who want to communicate with and submit information about floods to public authorities.

4.1 Citizen Involvement Form – Communicate with Public Authorities

User Story Code: USFP05

User Roles: e-Citizen, Certified Citizen

Prerequisites: User must be logged in.

Description: On this page the user can fill in and submit information (including multimedia) to public authorities involved in flood management.

Steps:

1. From the main menu on top, click on **ENGAGE WITH PUBLIC AUTHORITIES** ▼ and then click on **> CITIZEN INVOLVEMENT FORM**

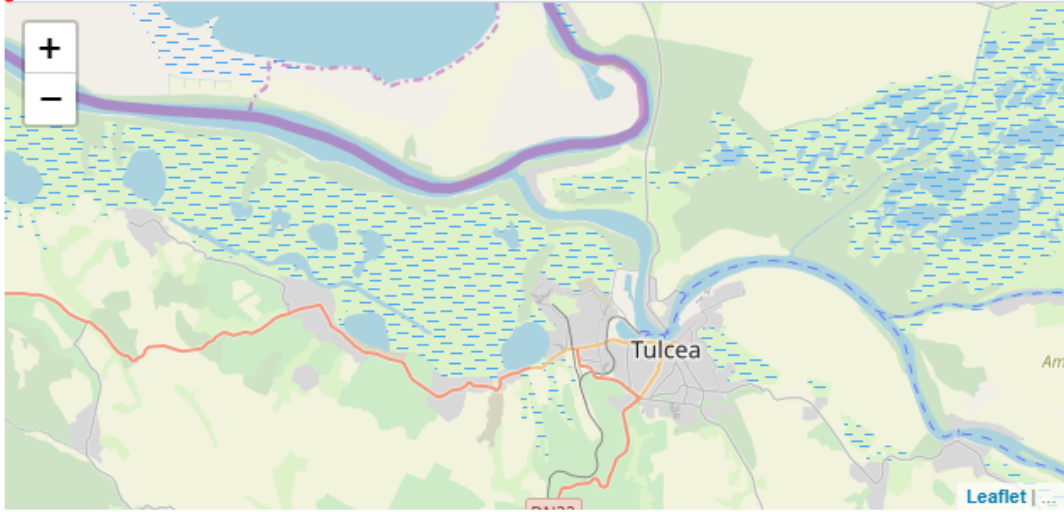


You should now see a form like the one below:

Issue Type

Issue Description

Location



Address

Attachment

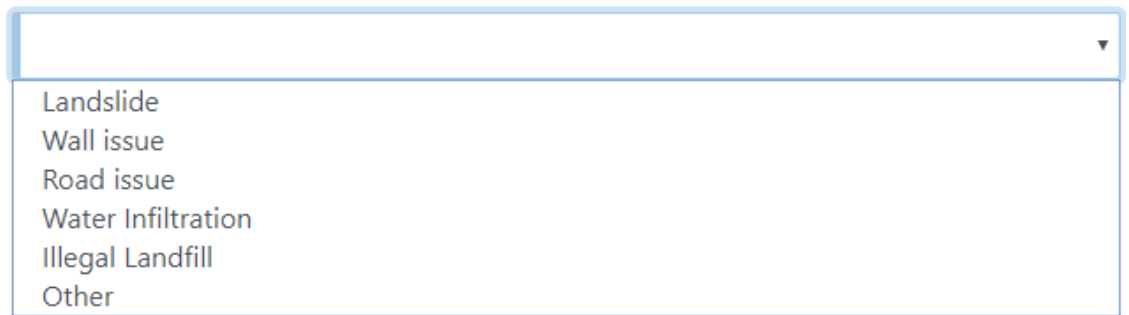
Choose File No file chosen

Back Submit

The form contains several input fields: a dropdown menu for 'Issue Type', a text area for 'Issue Description', a map for 'Location' (showing Tulcea and surrounding areas with flood zones), a text box for 'Address', and a file upload section for 'Attachment' with a 'Choose File' button and the text 'No file chosen'. At the bottom right, there are two buttons: 'Back' and 'Submit'.

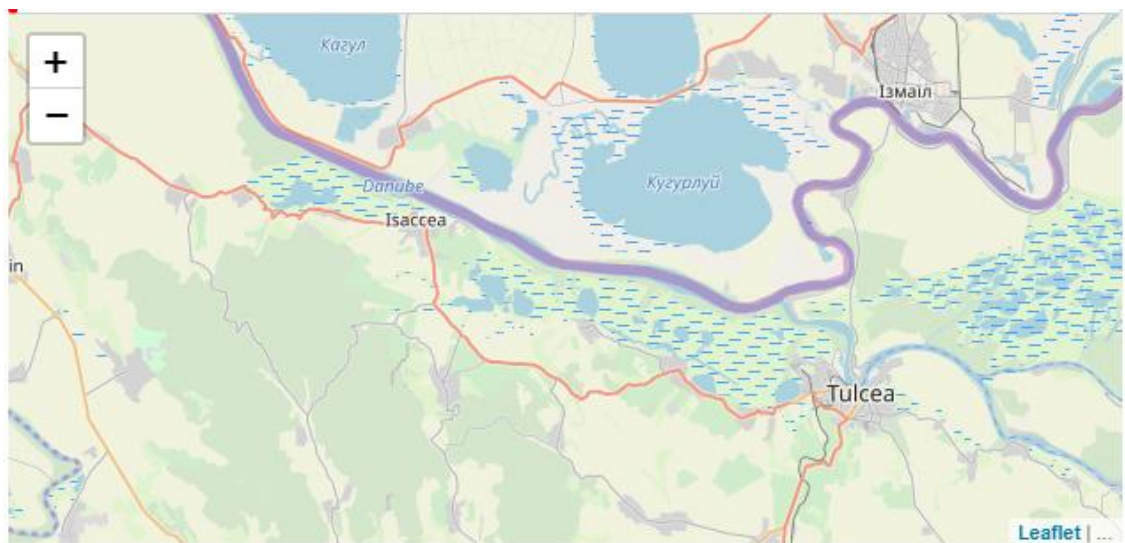
2. Fill in the following information:
 - a. Choose Issue type from the drop down box:

Issue Type

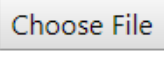



A dropdown menu with a white background and a blue border. The text 'Issue Type' is positioned above the menu. The menu is currently open, showing a list of six options: 'Landslide', 'Wall issue', 'Road issue', 'Water Infiltration', 'Illegal Landfill', and 'Other'. A small downward-pointing arrow is visible in the top right corner of the menu box.

- b. Type in an issue description.
- c. Choose the location of the issue using the map



or Type in the address in the Address box.

- d. Click on  to choose a picture or video file to attach.
- e. Click on  to finalize submission.

4.2 Submission history

User Story Code: and USFP07

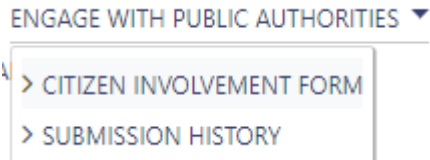
User Roles: e-Citizen, Certified Citizen

Prerequisites: User must be logged in.

Description: This page allows users to view the history of their past Citizen Involvement Form submissions, and some information associated with them including the status of their processing.

Steps:

1. From the main menu on top, click on [ENGAGE WITH PUBLIC AUTHORITIES](#) and then click on [> CITIZEN INVOLVEMENT FORM](#)



A table like the following will appear:

Report Number ↕	Issue Type ↕	Issue Description ↕	Submission Date ↕	Location ↕	Status ↕	Status Comment ↕	Resolution Message ↕	Resolution Date ↕
1190	Landslide	Test atasamente 4	26/11/2018 15:34:57	44.505102,26.080408	SENT	issue_state_full_SENT		
1189	Illegal Landfill	Test Atasamente 3	26/11/2018 15:19:43	44.505108,26.080410	SENT	issue_state_full_SENT		
1188	Illegal Landfill	Test Atasamente 2	26/11/2018 15:16:58	44.505108,26.080410	SENT	issue_state_full_SENT		
1187	Other	Test Atasamente	26/11/2018 15:15:20	44.505091,26.080423	SENT	issue_state_full_SENT		
1186	Road issue	Test	26/11/2018 14:57:44	44.505074,26.080440	SENT	issue_state_full_SENT		
1185	Landslide	in zona	26/11/2018 13:49:56	45.087346,29.090738	SENT	issue_state_full_SENT		
1184	Wall issue	ewwwwrf	21/11/2018 12:30:59	44.510799,26.012192	SENT	issue_state_full_SENT		

5 Component Access

This section is dedicated to the single point of access role of the FLOOD-serv portal. Authorized users can use the Log in function in the Portal and then access the component of their choice.

5.1 Component access

User Story Code: USFP09

User Roles: Content Editor, Flood Emergency Expert, Facilitator, Decision Maker, Flood Emergency Respondent,

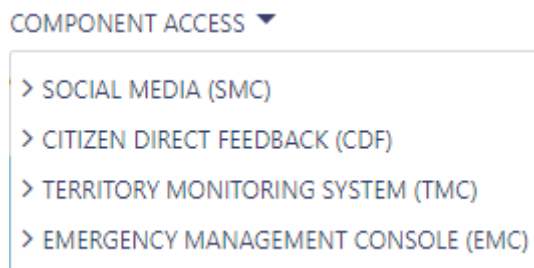
Prerequisites: User is logged in.

Description: This functionality allows selected users to access the FLOOD-serv Component of their choice. Note, the general menu item [COMPONENT ACCESS](#) is only visible to the selected user roles indicated above. Sub menu items are visible depending on each role's access.

Steps:

1. Click on the [COMPONENT ACCESS](#) main menu item.

A submenu like the one below should open (Note not all users can see all items).



2. Click on the name of the FLOOD-serv Component of your choice.

The main page of the component you have chosen should now appear in your browser.

6 About

This section presents information about the FLOOD-serv Portal, FLOOD-serv Project, FLOOD-serv Components, and the FLOOD-serv Partner Institutions.

6.1 About

User Story Codes: USFP10A-D

User Types: All

Prerequisites: None.

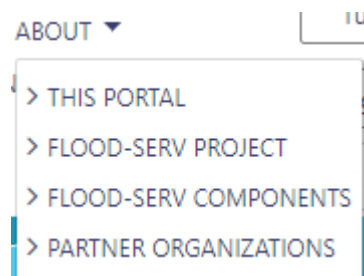
Description:

The user can view information about the FLOOD-serv Portal, FLOOD-serv Project, FLOOD-serv Components, and the FLOOD-serv Partner Institutions.

Steps:

1. In the main menu click on the [ABOUT](#) item.

A sub menu opens as shown below:



2. In the submenu click the item of your choice.

A page appears with information about the selected item

Repeat for each sub menu item

7 Account Access and Management

7.1 Sign Up

User Story Codes: USFP14

User Types: Unregistered user

Prerequisites: The user does not have an account with FLOOD-serv

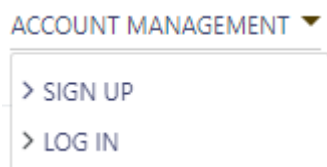
Description:

The user can create an account with FLOOD-serv.

Steps:

1. In the Main Menu, press **ACCOUNT MANAGEMENT** ▼

A submenu opens as shown:



2. Click on **> SIGN UP**

A form appears asking for your data to create an account.

7.2 Log in

User Story Codes: USFP12

User Types: All users except Unregistered users

Prerequisites: The user must have an account on FLOOD-serv

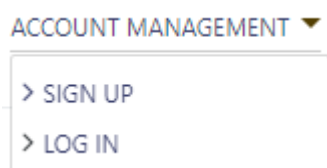
Description:

The user logs in the FLOOD-serv platform. If the user has rights of access to FLOOD-serv Components he/she also is logged in those components.

Steps:

1. In the Main Menu, click **ACCOUNT MANAGEMENT** ▼

A submenu opens as shown:




2. Click on **> LOG IN**

The following form appears:



The screenshot shows a login form with the following elements:

- Email input field
- Password input field
- Remember me
- Log in button
- [Forgot Password?](#)
- [New user? Register](#)

3. Fill in the required information: user name and password.
4. Click 

7.3 Log out

User Story Codes: USFP13

User Types: All users except Unregistered users

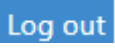
Prerequisites: The user must be logged in FLOOD-serv


Description:

The user logs out, i.e. quits a session on the FLOOD-serv Portal or its components.

Steps:

Route 1:


1. On any page of the FLOOD-serv Portal, in the header, on top-right click on 


You are now logged out. The home page appears with the  button active.

Route 2:

1. In the Main Menu, press **ACCOUNT MANAGEMENT** ▼

A submenu opens as shown:

2. Click on 

You are now logged out. The home page appears with the  button active.

7.4 Edit profile

User Story Codes: USFP15

User Types: All users except Unregistered users

Prerequisites: The user must be logged in FLOOD-serv

Description:

The user can edit/change information on his FLOOD-serv profile

Steps:

1. In the Main Menu, press **ACCOUNT MANAGEMENT** ▼

A submenu opens

2. In the submenu click on: > **EDIT PROFILE**


The following form appears filled in with your account's information

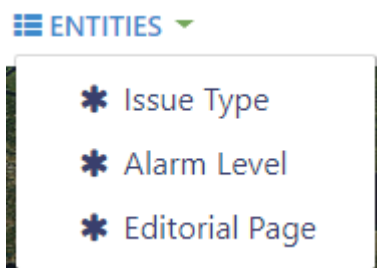
The screenshot shows the 'Edit Account' form. On the left, a sidebar menu is visible with 'Account' selected. The main form area has the title 'Edit Account' and a '* Required fields' note. There are three input fields: 'Email *', 'First name *', and 'Last name *'. At the bottom right, there are 'Cancel' and 'Save' buttons.

3. Edit/change information that needs to be corrected. Note on the left side there are several tabs (not all of them may be visible as in this example) depending on your rights). By clicking on them you can edit different kinds of information e..g. you can click on **Password** to change your password.
4. Click on **Save** to save the changed information or on **Cancel** if you changed your mind.

8 Advanced Administrator's Functionalities on the Portal: Entities Menu Item

As a user with the role system administrator, you have access to a few extra functionalities on the Portal. Mainly these are related to the capability of editing certain content on the Portal which is unavailable for editing by other users. These make the subject of this chapter. Please note also that account administration can also be done by the system administrator. However these functionalities are treated separately in Section 9 below, as they are executed in a separate interface from the Portal itself.

The main element available to System Administrators as opposed to other users is the  ENTITIES item in the main menu. If you click on the item you see the following sub-menu items:



These “entities” are elements of information that represent some underlying content of the Portal. In the following sub-sections we discuss each by turn.

8.1 Issue Type

User Story Codes: None. No user stories were collected for this element, however it was a necessary step to implement the Citizen Involvement Form, described in Section 4.1, above.



User Types: System Administrator

Prerequisites: None



















Description:

In the Citizen Involvement Form, the user has to choose an “Issue” type when filling in the form. The Issue Type Page under “Entities” allows system administrators to edit the possible list of issue types.

Steps:

1. Log in with a user with system administrator role.
2. In the main menu you should see the  ENTITIES menu item. Click on it and then click on  Issue Type .

A page opens containing the issue types as they are currently defined for your City:

ID	Code	Description	Creation Date	Last Update Date	City	
7	LNDIFILL	Illegal Landfill	Jun 24, 2018, 12:04:50 PM	Apr 18, 2019, 9:16:53 AM	TL-RO	 View  Edit  Delete
24	LNDISLD	Landslide	Nov 6, 2018, 3:44:20 PM	Nov 6, 2018, 3:44:20 PM	TL-RO	 View  Edit  Delete
8	ROADISS	Road issue	Jun 24, 2018, 12:04:50 PM	Jun 24, 2018, 12:04:50 PM	TL-RO	 View  Edit  Delete
26	WALLISS	Wall issue	Nov 6, 2018, 3:44:20 PM	Nov 6, 2018, 3:44:20 PM	TL-RO	 View  Edit  Delete
9	WTRINF	Water Infiltration	Jun 24, 2018, 12:04:50 PM	Jun 24, 2018, 12:04:50 PM	TL-RO	 View  Edit  Delete
27	OTHER	Other	Nov 6, 2018, 3:44:20 PM	Nov 6, 2018, 3:44:20 PM	TL-RO	 View  Edit  Delete

- You can view, edit or delete the issue types, by pressing the buttons to the right of each issue type.



8.2 Alarm Level

User Story Codes: None. However it is a prerequisite to displaying correctly the alarm level as described in section 3.1, above.


User Types: System Administrator

Prerequisites: None

Description:

In the Flood Information/Alarm Level page the user sees the current alarm level as well as a legend describing the possible alarm levels as defined by national legislation in the country of the Pilot City. That information is not editable there, but in the Entities/Alarm Level page. In case of change of legislation you can use this page to add or delete alarms, or edit/change information about existing alarms.

Steps:

- Log in with a user with system administrator role.
- In the main menu you should see the  ENTITIES menu item. Click on it and then click on  Alarm Level .

A page opens containing a table with information about each alarm level as defined for the Pilot City.

Alarm Levels

[+ Create a new Alarm Level](#)

ID	Code	Internal Code	Brief Description	Description	Legal Reference	Brief Description En	Description En	Legal Reference En	Creation Date	Last Upd Date
8	YELLOW	YELLOW	Atenție	Fenomene meteorologice temporar periculoase pentru anumite activități, dar altfel obișnuite pentru perioada respectivă sau zonal specificată. Se recomandă urmărirea periodică a evoluției fenomenelor meteorologice pentru detalii cu privire la intensitatea fenomenelor în zilele următoare.	ORDIN Nr. 823/1427 din 15 august 2006 pentru aprobarea procedurilor de codificare a atenționărilor și avertizărilor meteorologice și alertelor hidrologice	Attention	Meteorological phenomena temporarily hazardous to certain activities but otherwise customary for that period or specified area. It is recommended to regularly monitor the evolution of meteorological phenomena for details on the intensity of phenomena in the coming days. The yellow code is similar to a weather alert. According to ORDER no. 823 of 15th August 2006 to approve warning and coding procedures of meteorological and hydrological	Order n° 823 of 15th August 2006 to approve warning and coding procedures of meteorological and hydrological allerts	Jun 24, 2018, 12:04:50 PM	Jun 2 2018, 12:04 PM

Please note that this only shows one row in the table. Also, the table continues to the right, to see further information to the right you need to scroll to the right (scroll bar in the lower part of the page).

3. By scrolling to the right of each item (alarm level) you can see the buttons:



. You can view, edit or delete those items by clicking on the corresponding button.

4. You can add new alarm level by clicking the [+ Create a new Alarm Level](#) button.

8.3 Editorial Pages

User Story Codes: None. No user story was collected regarding this element. However, it is a prerequisite to displaying correctly the About Pages (see Section 6, above) and the Cookie Policy.



User Types: System Administrator

Prerequisites: None

Description:


This page allows the user to edit the content of the “About” Pages or the Cookie Policy. Note that if you are logged in as System Administrator you can also edit the “About” Pages but going under the About menu and visiting each page (editing buttons will appear for System Administrators).











Steps:


1. Log in with a user with system administrator role.
2. In the main menu you should see the  menu item. Click on it and then click on  **Editorial Page** button.

A page appears with a table of Editorial Pages, as shown below:

Editorial Pages

Search for Editorial Page 

ID	Name	Menu Entry	Menu Entry En	Last Update Date	City	
44	thisPortal	Acest Portal	This Portal	Apr 12, 2019, 2:57:36 PM	TL-RO	 View  Edit
13	thisComponents	Componente Flood-serv	Flood-serv components	Dec 14, 2018, 10:45:39 AM	TL-RO	 View  Edit
14	thisMPI	Membrii Consorțiului	Consortium Members	Apr 10, 2019, 3:10:41 PM	TL-RO	 View  Edit
12	thisProject	Proiect Flood-serv	Flood-serv project	Dec 13, 2018, 10:23:21 AM	TL-RO	 View  Edit
47	cookieConsent	Politica de cookie-uri	Cookies Policy	Dec 20, 2018, 12:34:39 PM	TL-RO	 View  Edit

3. You can view or edit each page by clicking the  buttons. (Note that you cannot delete or add new pages).

9 Advanced Account Management Functions

These are more advanced account management functions performed by System Administrators.

NOTE: These Advanced Account Management Functions are not performed from the Portal interface but from a special interface, named Keycloak, which manages the users, their roles and the single sign on process. To access this interface see Section 9.1, below.

9.1 Access the Administration Console

User Story Codes: None. It's a prerequisite of several user roles

User Types: System Administrator

Prerequisites: None

Description:

To access this console you need to:

- go to the link corresponding to your city, from the following list:

Pilot City	URL
Bilbao	http://195.82.131.162:9080/auth/admin/bilbao.flood-serv.eu/console
Bratislava	http://195.82.131.162:9080/auth/admin/bratislava.flood-serv.eu/console
Genova	http://195.82.131.162:9080/auth/admin/genova.flood-serv.eu/console
Tulcea	http://195.82.131.162:9080/auth/admin/tulcea.flood-serv.eu/console
Vilanova de Famalicao	http://195.82.131.162:9080/auth/admin/vilanova.flood-serv.eu/console

- Then log in with the administrator user name and password that was given to you by Siveco.

9.2 View users list

User Story Codes: USFP16

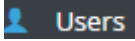
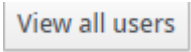
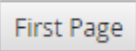
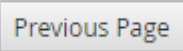
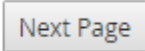
User Types: System Administrator

Prerequisites: The user must log in the Keycloak Administration Console by following the steps indicated in section 9.1 *Access the Administration Console* above.

Description:

The System Administrator can see the list of all users.

Steps:

1. In the left pane click on 
2. A table appears with all users. If the list is not populated click on 
3. If the list is long (takes several pages) you can navigate it by pressing the buttons in the lower left part of the screen:   

9.3 Add user

User Story Codes: USFP16

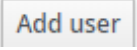
User Types: System Administrator

Prerequisites: The user must log in the Keycloak Administration Console by following the steps indicated in section 9.1 *Access the Administration Console* above.

Description:

The System Administrator can add new users.

Steps:

1. Follow the steps indicated in section 9.2 *View users list*, above.
2. In the User list, on the top right side click on 

The Add user form appears:

Add user

ID	<input type="text"/>
Created At	
Username *	<input type="text"/>
Email	<input type="text"/>
First Name	<input type="text"/>
Last Name	<input type="text"/>
User Enabled ?	<input checked="" type="checkbox"/> ON <input type="checkbox"/>
Email Verified ?	<input type="checkbox"/> OFF <input type="checkbox"/>
Required User Actions ?	<input type="text" value="Select an action..."/>
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>

3. Fill in the information required: Username, Email, First Name, Last Name.
4. Leave the *User Enabled* button on the On position.
5. Click on to create the new user or on if you changed your mind.
6. By editing the user the Administrator can manage other details, credentials or roles of users.

9.4 Delete users

User Story Codes: USFP18

User Types: System Administrator

Prerequisites: The user must log in the Keycloak Administration Console by following the steps indicated in section 9.1 *Access the Administration Console* above.

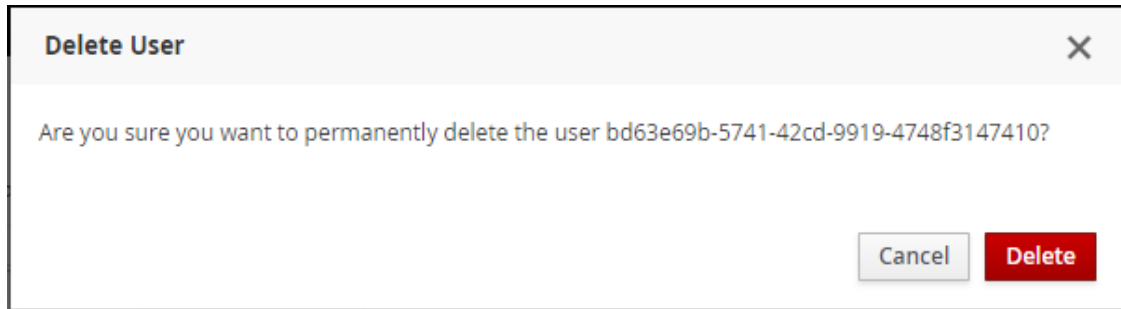
Description:

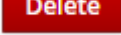
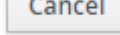
The System Administrator can delete users.

Steps:

1. Follow the steps indicated in section 9.2 *View users list*, above.
2. In the list of users choose one and press the button associated with it.

A confirmation pop up appears:



3. Click on the  button to confirm deletion or on  if you changed your mind.

9.5 Inactivate users

User Story Codes: USFP19


User Types: System Administrator

Prerequisites: The user must log in the Keycloak Administration Console by following the steps indicated in section 9.1 *Access the Administration Console* above.

Description:

The System Administrator can inactivate/disable users.

Steps:

1. Follow the steps indicated in section 9.2 *View users list*, above.
2. In the list of users choose one and press the  button associated with it.

The following form appears:

[Details](#)
[Attributes](#)
[Credentials](#)
[Role Mappings](#)
[Groups](#)
[Consents](#)
[Sessions](#)

ID

Created At 11/27/18 10:37:00 AM

Username

Email

First Name

Last Name

User Enabled

Email Verified

Required User Actions

Impersonate user

- In the "User Enabled" field click on the switch to change it from to

9.6 Edit Users

User Story Codes: None

User Types: System Administrator

Prerequisites: The user must log in the Keycloak Administration Console by following the steps indicated in section 9.1 *Access the Administration Console* above.

Description:


While no user requirement was elicited about this functionality, this is broadly presented here so that the System Administrators can know what is available to them in terms of editing existing users. This functionality allows them to edit/change some of the user account information and settings.

Steps:

- In the User List (see Section 9.2 *View users list*, above) find a user you want to edit.

Click in the row corresponding to your user of choice.

A table like the following appears:

Tulcea_e-citizen 

[Details](#)
[Attributes](#)
[Credentials](#)
[Role Mappings](#)
[Groups](#)
[Consents](#)
[Sessions](#)

ID: b4e336f8-78c9-4482-9e07-b02616523a4f

Created At: 11/22/18 1:18:55 PM

Username: tulcea_e-citizen

Email: tulcea_e-citizen@floodserv.eu

First Name:

Last Name:

User Enabled: ON

Email Verified: OFF

Required User Actions:

2. Note that there are several tabs which you may click on to see various types of information. These are :

[Details](#)
[Attributes](#)
[Credentials](#)
[Role Mappings](#)
[Groups](#)
[Consents](#)
[Sessions](#)

- a) The default one that opens is [Details](#) which contains user basic information (email, user name, etc.).
- b) In the [Credentials](#) tab you can change a user’s password.
- c) In the [Role Mappings](#) tab you can assign roles to users (detailed in Section 9.7,below).
- d) In the [Groups](#) tab you can assign users to groups (detailed in Section 9.9, below)

9.7 Manage FLOOD-serv Portal Roles

User Story Codes: USFP11

User Types: System Administrator

Prerequisites: The user must log in the Keycloak Administration Console by following the steps indicated in section 9.1 *Access the Administration Console* above.

Description:

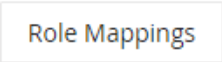
The system administrator can add or remove user roles from users. By assigning them roles you also grant them access in the FLOOD-serv System and its Components in accordance with their roles.

The following table presents the list of roles that were generated in the Keycloak Administration Console.

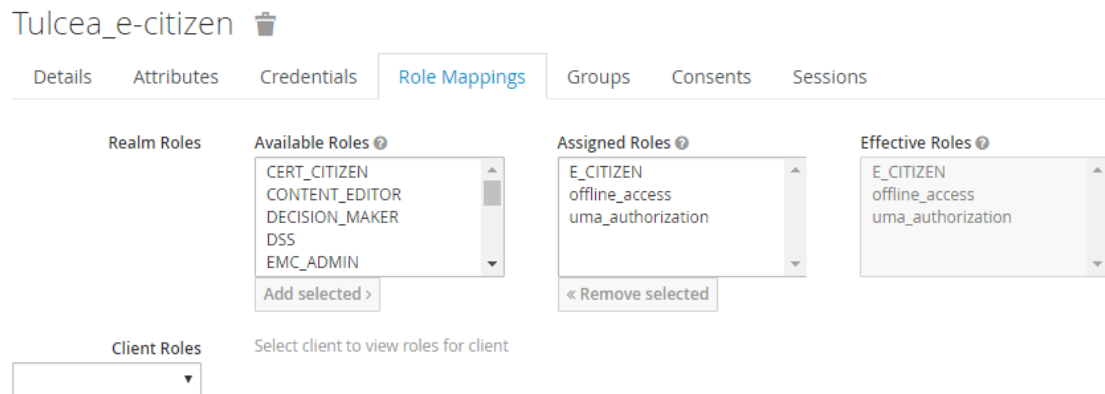
Role name in Keycloak	Role Name according to documentation	Observation
E-CITIZEN	E-Citizen	This role was created in accordance to analysis deliverables: D3.1, D4.1, D4.2. Note

		this user role is automatically assigned to any new user.
CERT_CITIZEN	Certified citizen/observer	This role was created in accordance to analysis deliverables: D3.1, D4.1, D4.2.
DECISION_MAKER	Decision Maker	This role was created in accordance to analysis deliverables: D3.1, D4.1, D4.2.
FACILITATOR	Facilitator (or platform operator)	This role was created in accordance to analysis deliverables: D3.1, D4.1, D4.2.
FLOOD_EXPERT	Flood Emergency Expert	This role was created in accordance to analysis deliverables: D3.1, D4.1, D4.2.
EMERGENCY_RESPONDER	Emergency responder	This role was created in accordance to analysis deliverables: D3.1, D4.1, D4.2.
CONTENT_EDITOR	Content editor	This role was created in accordance to analysis deliverables: D3.1, D4.1, D4.2.
ROLE_ADMIN	System Administrator	This role was created in accordance to analysis deliverables: D3.1, D4.1, D4.2. Note for system administrator there are two technical roles that need to be assigned simultaneously: SYSTEM_ADMINISTRATOR and ROLE_ADMIN.
offline_access	None	This role was added by the technical team in the implementation process. This role is automatically assigned to any new user. Do not remove it from users!
uma_authorization	None	This role was added by the technical team in the implementation process. This role is automatically assigned to any new user. Do not remove it from users!
EMC_ADMIN	None	This role was created ad hoc in implementation. It allows users of EMC to access all EMC functionalities that may otherwise be only partially accessible with one role or another.
Other roles you may encounter	None	Do not remove them from existing users, do not add them to new users.

Steps:

1. Follow the steps described in Section 9.6 *Edit Users*, above to arrive in the user editing interface.
2. Click on the  tab.

The following page opens:



3. To assign new roles to a user select those roles from the **Available Roles** box, then click on **Add selected >** button under the box.

Now those roles appear in the **Assigned Roles** box.

4. To remove roles from a user, select those roles from the **Assigned Roles** tab, then click on the **<< Remove selected** button. Now those roles are removed from assigned roles and appear back in the Available roles box.

9.8 Manage User Groups

Intro:

This Section discusses how to create groups and the next one how to assign users to groups. This is a general capability of Keycloak Console. We discuss it because in the process of piloting it emerged as being useful in conjunction with the Emergency Management Console (a Component of the FLOOD-serv System). Specifically, when assigning missions and make report requests to the Emergency Responders in the EMC you can assign this mission and report requests to a specific group of users. While mission and report requests occurs in the EMC, in order for this to work, you need to manage users' assignment to groups from the Keycloak Console.

User Story Codes: None

User Types: System Administrator

Prerequisites: The user must log in the Keycloak Administration Console by following the steps indicated in section 9.1 *Access the Administration Console* above.

Description:

This functionality allows System Administrators to create or delete groups of users.

Steps:

1. In the Keycloak Interface, click on the **Groups** tab in the left side menu.

The following table appears.

User Groups



2. To add a new group, click the **New** button in the top right.

The following form appears:

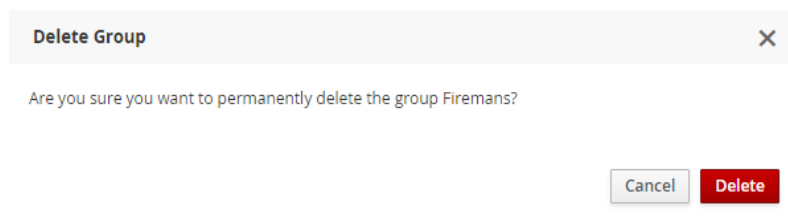
Create group

Name *

Save **Cancel**

3. Type in the name of the new group, then click on **Save**.
4. To remove a group, in the table described a point 1, above, select the group you want deleted by clicking on it.
5. Click **Delete**.

A confirmation box appears:



6. Click **Delete** if you want it deleted, or **Cancel** to cancel deletion.

9.9 Assign Users to Groups

Intro:

To understand the context of this functionality please read the Intro of Section 9.8, above.

User Story Codes: None

User Types: System Administrator

Prerequisites: The user must log in the Keycloak Administration Console by following the steps indicated in section 9.1 *Access the Administration Console* above.

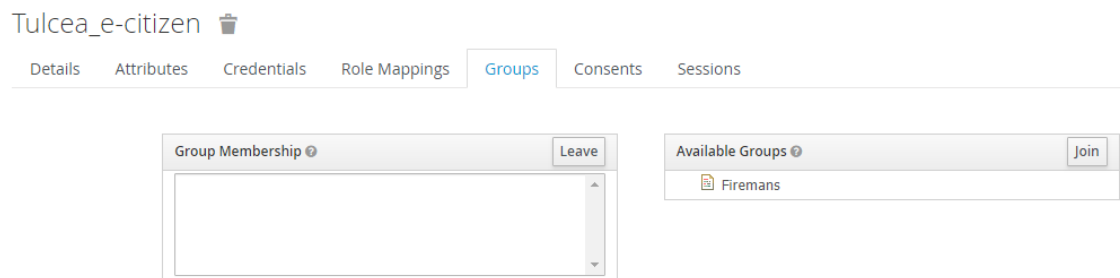
Description:

This functionality allows System Administrators to assign users to groups.

Steps:

1. Follow the steps indicated in Section 9.6 *Edit Users*, above.
2. In the user editing interface select the **Groups** tab.

The following screen appears:



3. In the **Available Groups** box (to the right), click to select a group. Then click on the **Join** button.

Now the user has joined the group and the group appears in the **Group Membership** box.

4. To have a user leave a group, in the **Group Membership** box, select the group by clicking on it. Then click on the **Leave** button.

Now the user has left the group, and the group is removed from the **Group Membership** box and appears in the **Available Groups** box.