

Pilot Deployment Methodology and Plan

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List of abbreviations and terms

(if applicable)

LP Lead Partner

PP Project Partner

AF Application Form

WP Work Package

Executive Summary

Background and context: E-CITIJENS main goal is to significantly enhance Civil Protection's capacity in reducing disasters, so improving both countries' safety from risk. The achievement of the above goal contributes to the PILLAR 1: – Blue growth. Actually an enhanced safety of coastal territories from natural and man-made hazards contributes to protect and preserve their sustainable development (economic, sociocultural and environmental). It contributes also to the PILLAR 3: ENVIRONMENTAL QUALITY, Topic 2 – “Transnational terrestrial habitats and biodiversity of EUSAIR Macro-regional Strategy”. Actually, the actions addressed to improve the monitoring and emergency management measures, foreseen in the project, provide to better withstand and contain the catastrophes on ecosystems of involved regions, contributing so to protect and preserve their habitats and landscape elements.

Description: E-CITIJENS aims at increasing the safety of the Croatian and Italian Adriatic basin from natural and man-made disasters by improving emergency prevention and management measures and instruments. It pursues the above target through cross-border cooperation to: (i) reinforce the Civil Protection (including Coast Guard) chain of command in both countries with an advanced and efficient decision support system to more efficiently monitor risks, manage emergencies and co-ordinate the involved forces during emergency interventions; (ii) keep open a real-time update channel on risk occurrences by collecting and using citizens information voluntarily provided via Social Media (citizen journalism) to report hazardous situations and events and signal their progress. The above objective will be sought by promoting cross border policies that can harmonize and improve both countries' risk management current legislations and their overall efficiency.

Work Package 4: Development, testing and release of “social media based” Emergency Decision Support System platform

WP Leader: PP2 Veneto Region

Description: The WP aims at developing, testing and release a web enabled Emergency DSS platform, which can aggregate heterogeneous data sources (coming from involved territories, actual national measurement networks and social networks). The above target will be achieved by developing application software modules according the technical specifications (WP3) and test through simulation and exercises and enhancing CP chain of command rooms with ICT equipment. At the beginning (Act 4.1) LP and PP4, supported by PP3 and PP5, develop the software application modules, test and correct any bugs by applying the resulting web enabled platform to simulation cases then release technical, user and training manuals. In meantime, PP2 jointly with LP, PP1, PP6, PP8 and PP10 prepares (act 4.2) a Pilot (run parallel to the existing systems) Operational Plan, including emergency simulations and exercises that involve citizens. The plan and platform will be examined in a dedicated workshop during the Project & SC meeting in Pescara and approved by SC for adoption. At a later time PP2 coordinates (Act 4.3) LP, PP1, PP6, PP8 and PP10 in activating a Training Campaign for CP operators and an (WP2) Awareness Raise campaign for citizens and later deploying pilot projects (according the above plan) and monitors periodically the carried out activities. At the end each PP evaluates the technical performances of EDSS Platform and its operational modes by Works Cafès with citizens and CP units and reports malfunctions, achieved results and faced critical issues. PP2, PP3 and PP5 will integrate the above reports in an overall “Report on implementation and evaluation of pilot deployment” that will be proposed and discussed in a dedicated workshop during the 4th Project & SC meeting in Venezia and approved by SC for releasing.

WP expected outputs: - Emergency Services Regulatory (ESR) Framework

It consists in a set, addressed to local, regional, national and EU policy makers and notable stakeholders (mainly Civil Protection National Department and Regional Agencies in Italy and National Protection and Rescue Directorate and County/City Protection and Rescue Departments in Croatia), contains a set of recommendations and guidelines how to enhance CP legislations and emergency operational rules coherently with enhanced operational effectiveness of Crossborder Functional Centers (CFC) and CP chain of command supported by EDSS platform which takes in account the experiences, learnt lessons and faced issues reached during the test of emergency decision support platform.

WP 4.3 Pilot Projects Deployment

Pilot deployment aims at carrying out a period of parallel running of the platform at both CFCs and CP chain of command regional and local sites to ensure its right functionality with practical feedback. To this end, LP, PP1, PP2, PP6, PP8 and PP10 will activate a Training Campaign to train CP operators and volunteers in operating the EDSS platform and an Awareness Raise campaign (WP2) to citizens to point out their role as "active sensor" of emergencies.

Pilot deployment will test the platform and the degree of compatibility of its operational modes with in use at present ones, running it in parallel with in use emergency systems and performing exercises/simulations related to emergency event scenarios (such as flood, earthquake, fire, oil spill, industrial and marine incidents, etc..) to which the citizens, along with volunteer CPs and operators, will actively participate.

Periodic feedbacks will be used to tune the EDSS Platform's functionality and to correct prospective bugs.

Activity deliverables: n° 6 Pilot Deployment

It will drive n° 6 pilot deployments in the partner territories, aiming at directly proactively involving a total of n° 400 Children and school-age youths and 1200 Adult citizens per each Partners involved. The common approach followed takes into account diversification of pilot sites and proposes common capitalized solutions.

Partners' Task

Partners involved in this activity have to realize a kind of communication plan where it is specify for each target (adult/young/children):

- How the testing phase is structured;
- How they will get in touch with the pre-set target;
- A precise timetable with every step well defined;

E-CITIJENS – PILOT DEPLOYMENT PLAN - PARTNER N.

MONTH: NOVEMBER	
TARGET	
NUMBER OF PERSONS INVOLVED	
ACTIVITY	Please define as specific as possible how the testing phase will be realized (e.g. –civil protection events, Social campaign, voluntary organisation mailing list, schools, Universities etc..)
TERRITORY/AREA INVOLVED	
PLATFORM ADMINISTRATOR (name and email	

address for each Partner)	
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On the website each Partner will upload :

- Case Studies realized by the Partner and related to the territory involved;
- Graphic illustrations concerning the specific case studies and realized by the Partner;
- List of the municipalities involved, considering the three severity levels. (The shape files have to be sent to Veneto Region as soon as possible).
- The invitation mail for the participants.

4.2) Pilot Deployment Methodology and Plan (PP2 + LP, PP1, PP6, PP8 e PP10)

According to Covid-19 protocols, the risk management has changed and it has underlined how important is the link between Social media and technology.

Through Social media, Citizens can give fast information to the Civil Protection System.

These data can be used by Civil Protection officers to manage and plan in a more efficient way the procedures and the distribution of the resources on the territory. At the same time Citizens can interact with the emergency organizations and be updated on the ongoing risk mitigation measures.

In this framework E-Citijens aims at creating a new emergency decision support system (EDSS Platform) based on Social media.

According to this worldwide situation, the Pilot Deployment will be made online on a Webpage which highlights a scenario with the three case studies above, like in a Serious game methodology.

The EDSS Platform is more effective when the user’s location is employed. For this reason, after the inclusion of the data’s participant , the user is automatically associated with a “simulated” geographic point situated in one of the provinces related to the Project (Venezia, Padova, Rovigo, Split, Dubrovnik..), so as to avoid the User’ s real geographic position.

To each Municipality chosen by the System, a use case is randomly combined with a different severity of the event, following the match indicated in the next paragraph.

The System proposes to fill the activity according to the case study and the scene correlated, which can have three severity levels (low, medium, high), as described in the paragraph “Features of the Web Social Platform demo and operation”.

Within the period dedicated to this activity, each Partner will autonomously carry out the planned online Pilot Deployments, trying to involve the same target audience for the Exercises, in the same period dedicated to this activity with its case study (forest fire, flooding, earthquake). Each Partner will insert their own case studies through a specific interface.

The online Pilot Deployment execution date will be communicated by email to as many people as possible, given the high numbers of requests required by the Project.

To enter the online Pilot Deployment, the users will fill an application form with general data.

This is a way to have numerical data and a kind of participant's segmentation, useful for the accountability.

Participants will receive an invitation by email with the activity's description and they will directly fill the application form in the website (this email is sent by the Partner through the website).

With the application of one or more parameters, the webpage will allow the association between the user and the project Partner, in other words, with the list of municipalities and with the language employed. These parameters will be in the invitation mails that each Partner will send to the participant to this testing phase.

Example:

The invitation e-mail will have this participation link:

<https://websitename.com/PP=Veneto>.

In this case the email is sent to a user from Veneto Region and it will be linked to a Venetian city, taken from a specific list of Venetian municipalities. The web page will suggest a case use given from Veneto Region in Italian language.

<https://websitename.com/PP=Croazia>

In this case the email is sent to a user from Croatia and it will be linked to a Croatian city, taken from a specific list of Croatian municipalities. The web page will suggest a case use given from the Croatian Partner in Croatian language.

Simulation of an association between user and geographical position - event severity level:

Municipality	Reference Partner	Severity Level	Geometry
Municipality 1	Partner X	High	format geometry shp
Municipality 2	Partner X	Medium	format geometry shp
Municipality n	Partner X	Low	format geometry shp
Municipality z	Partner Y	High	format geometry shp

Examples for Veneto Region

30 Municipalities in the Provinces of Venice, Padua, Rovigo: high level of severity;

30 Municipalities in the Provinces of Venice, Padua, Rovigo: medium level of severity;

30 Municipalities in the Provinces of Venice, Padua, Rovigo: low level of severity

The severity level of the event will be proposed to the simulated geographical position and it will be matched to a use case, chosen between these typologies: forest fire, flood and earthquake.

The exemple above is related to PP2, the other Partners will autonomously decide the number of the territories and how to subdivide them in the severity levels.

The list of the municipalities and the geographic borders must be sent to PP2 for the next delivery to the enterprise who will develop the software

“Social Demo” Web platform features and functioning:

The web page for the Pilot Deployment activities will have an initial access mask where participants will put their data, such as sex, age group, role (student, teacher, member of an association, Expert in Emergency services/Civil Protection, citizen), e-mail address before starting the drill.

The language used in the access mask will be the one referred to the web site address employed (link sent by email from each Partner by the webpage).

After the information insertion in the access mask, the user will be associated to a geographical point (latitude and longitude) within one of the municipalities indicated for the Partner and associated to a case use, as explained in the previous paragraph. This process will be automatic, and at random.

At this point, the user will be able to read his/her “use case” in a page subdivided in two sections. The upper section will show a window with the use case chosen for him/her, in a textual form, corresponding to the paragraphs “What’s going on?” “Where am I” etc, abovementioned. There will be the possibility to scroll through text thanks to dedicated buttons in a way to make less likely the reuse of the information already read in the post.

The lower section will indicate these logos: Twitter, Instagram, Facebook or a free choice Social. This section will be clickable just after the user will already have read all the upper section’s paragraphs.

The user will choose the Social he wants to use to communicate the emergency , just with a click on the logo. A page similar to the chosen Social will open. It will have the same features, layout and limits (e.g. Twitter limits the number of characters).

Then the user will choose if he wants to use the text format or if he/she wants to add an image, from the ones suggested. Three graphic illustrations, associated with the scene, will be proposed and the user will choose one of them as an attach to his/her textual answer.

After the text, or the text and the image transmission, a new insertion window will open where the user will insert the number of his/her followers for the chosen Social (the numeric field will accept numerical values from 1 to 25.000 for Twitter and Facebook and from 1 to 50.000 for Instagram).

If the user will follow the iter related to the “free choice Social”, a window will appear where the user will indicate in a specific box the name of the preferred Social (considering the ones who employ a textual component too) and it will appear another insertion box where it will be possible to write the message, without specific limits, with the same syntax of the chosen Social.

For both iter followed, the user is kindly invited to add one or more hastag # at the end of the message e.g. #hearthquake. During the post drill analysis the more employed hashtag will be collected to verify the more significant categories.

If the user has decided to attach an image, not just the text, there will be three kinds of illustration related to the described scene. These illustrations will be visualized together with the text. They have a growing adequacy level with the matched scene with a range from 1 to 3 points (this value is not communicated to the users, but it can be recovered during the data analysis). In other words, each illustration will represent the scene more or less likely.

During the data analysis, the illustration chosen will be considered for the evaluation as score for the post analysis data.

At the end of the chosen iter, there will be a confirmation button which will register the data in a specific database to allow the post drill analysis and the transmission to the EDSS Platform. These data concern: sex, age group, type of user, latitude, longitude, municipality, scene, description text, the picture if available, date and insertion time, written by the user.

After the message delivery, a dialog box will appear and the user will have the possibility to do a new compilation with a different case study. This case study will be chosen at random between them with the same severity risk as the one already suggested.

This possibility will be presented to the user till the compilation of all case studies with the same severity risk of the one at the beginning.

The aim of the Pilot Deployment is to register the user's communicative choice to employ during the post event analysis and also to verify how the platform can receive and visualize the information inside the operator dashboard.

The web page will register the user's data which could also be downloaded. These data will be interoperable with the EDSS Platform which is in progress. The most significant data will be at the operator's disposal.

The database shall also be reusable for function tests (e.g. simulations in the operation rooms, training, other specific tests during the development stage and post event analysis with subdivision of the users' answers). Operator side, the EDSS Platform in the development stage must implement and represent the data during the Pilot Deployment so that the operators can see the representation of the results in the platform itself.

The web Platform interface will be multilingual Italian/Croatian/English in all the web pages dedicated to the Pilot Deployment drill and in the ones with the use case. Every Partner, as Administrators, could have access to the Platform for the textual editing and could enter their use cases.

Other useful features for the Platform (PP2)

- Connector able to acquire data from the ARPAV sensors situated in the territory;

- Visualization CAP Viewer data employed at the Fire department, with data storage in a specific database;
- Data delivery function to the EDSS Platform which can be activated or deactivated from the Administrator page with a reading range or a delivery range of 5 minutes.

Attached A
Case Studies' types (PP2)

Forest Fire

Scene A)

What's going on?

A big Forest fire developed on a mountainside (an accurate geographic description is needed). The fire spreads very fast because of the wind. Grass and weeds of a close forest are burning. Very near to the fire there is a street.

Help is on the way.

Where am I?

I am on the opposite side of the valley, compared to the fire. I am safe but I can see the scene perfectly.

What can I see/hear

I can see a column of white smoke; the wind brings away the smoke, high flames move fast to the sky.

I can smell the smoke and I can hear the flames' noise. I can see cars stopping in the street.

I can hear sirens of emergency vehicles closer.

Graphic illustration

N. 3 graphic illustration for each scene

Scene B)

What's going on?

From the street I can see several plumes of smoke in the mountain area. Three or four plumes are far from each other a few hundred meters.

A big Forest fire developed on a mountainside (an accurate geographic description is needed). The fire spreads very fast because of the wind. Grass and weeds of a close forest are burning. Very near to the fire there is a street.

Where Am I?

I am in my car, on the street at the foot of the mountain. I can see the scene very well but I feel safe, even if I notice that the plumes of smoke are growing very fast.

What can I see/hear?

I can see a column of white smoke; the wind brings away the smoke, high flames move fast to the sky.

I can smell the smoke and I can hear the flames' noise. I can see cars stopping in the street.

I can not see emergency vehicles coming or on the spot

Graphic illustration

N. 3 graphic illustration for each scene

Scene C)

What's going on?

From my window I can see a column of flames along the street halfway up the mountain. It's evening and in the dark I can clearly see the fire and some blue flashings in the street at the base of the mountain, other flashings are in the streets situated a little bit higher in the mountain..

There is a mild wind blowing from the mountain, the scent of burning wood is very strong.

Where Am I?

At home. I can see the mountain not far from me, close to a small stream along the valley

What can I see/hear

I can see a column of flames. It is dark so it is not easy to understand how big it is, probably a hundred meters white smoke column.

I can smell the scent of burning smoke on the wind. I can see here and there some blue flashings along the mountain streets. I am worried the fire can join my home.

Graphic illustration

N. 3 graphic illustration for each scene

Flooding

Scene A)

What's going on?

From my window's kitchen I can see a flooded street. In front of my front door there is a driveway that leads directly to a sidewalk and a street situated in a perpendicular position where cars usually go. Both the driveway and the street are flooded by several centimeters. I can not see if the surrounding streets are flooded.

Where Am I?

I am at home, I feel safe but I can see the water level rising and I am worried to be stuck at home.

What can I see/hear?

The water level is rising in every minute, garbage cans are floating in the street. Cars in the street stop and I can hear sirens in the distance.

Graphic illustration

N. 3 graphic illustration for each scene

Scene B)

What's going on?

From my kitchen's window I can see the flooded street. It is raining so heavily that I can not see the underpass which is 100 mt far from my home. I can just see two red lights, maybe it is a car at the end of the underpass.

The main road who leads to the underpass is flooded, the water is at the sidewalk level.

I watch the scene for a few minutes, no cars are driving in the main road.

Where am I?

I am at home, I feel safe but I can see the water level rising. It is heavily raining so I can not understand what's going on outside. I am worried to be stuck at home.

What can I see/hear

The water level is rising in every minutes, garbage cans are floating in the street. I can not see cars in the street and I can hear sirens in the distance.

Graphic illustration

N. 3 graphic illustration for each scene

Scene C)

What's going on?

A very strong summer storm, with strong gusts of wind. I am in my mountain house, situated along the municipal road which leads to the high hamlet of the village.

Few houses and many meadows are along the street, in steep slope.

I watch the street and I can see a kind of small stream from the high hamlet of the village. Some small pebbles of gravel are washed out by the water along the street and stop on the roadside

It's been raining for some time now and it doesn't stop. Along the way the water comes down more and more abundant and in some areas pebbles and big stones have piled by now

Where am I?

I am at home, in a mountain street. I feel safe but I am worried water could go in the garage, situated in the basement. I can not see because of the big rain, but I can hear the wind blowing very strong.

What can I see/hear?

Along the road down the high hamlet, the water flows plentifully, like a small stream.

I can see some pebbles and some stones rolling along the street. I can clearly hear the wind blowing between the trees on the mountain.

Graphic illustration

N. 3 graphic illustration for each scene

Earthquake

Scene A)

What's going on?

The floor is shaking and I can see the lamp moving. I don't think it is such a big earthquake. I look out of the window and I notice a leak on the main facade of the old church of the village which was not there before.

Where am I?

I am at home, a modern building with a beautiful view in the historic center of the village.

What can I see/hear?

The floor is shaking for some seconds and I can see the lamps of my house moving.

Graphic illustration

N. 3 graphic illustration for each scene

Scene B)

What's going on?

The floor is strongly shaking, the lamp of the room is moving and some small vases fall from the bookcase. In my house, a modern building, a crack runs all over the wall, parallel to the ceiling.

Where am I?

I am at home, at the first floor of a modern building of five floors.

What can I see/hear?

When the earth tremor stops, I go out in the street, where there are a lot of people. Some chimneys are in the ground. People are scared in the middle of the street, avoiding to stay close to the houses

Graphic illustration

N. 3 graphic illustration for each scene

Scene C)

What's going on?

I feel a strong tremor of the floor, the lamp moves and some small vases fall from a bookcase. In my house, a modern building, a crack runs all over the wall, parallel to the ceiling.

Where am I?

I am at home, at the first floor of a modern building of five floors.

What can I see/hear?

When the earth tremor stops, I go out in the street, where there are a lot of people. Some chimneys are on the ground. People are scared in the middle of the street, avoiding to stay close to the houses. A cloud of dust is scattering and I can see a collapsed wall of the abandoned house, down the street.

Graphic illustration

N. 3 graphic illustration for each scene

Attached B

Evaluation Form – partner
(to be filled in digital form)

Partner: _____ Pilot Deployment Beginning: ____ End: _____

Total number of messages received during the Pilot Deployment drill:

Number of messages correctly interpreted by the EDSS Platform (please indicate in brackets the Social related to the number):

Total number of recognized emergencies (please indicate in brackets the groups to which the Social refers between Forest fire, flooding, earthquake):

Observations concerning the correctly interpreted messages by the EDSS Platform:

Total number of messages interpreted in an incorrect way by the EDSS Platform (Please indicate in brackets the Social related to the number):

Observations concerning the messages incorrectly interpreted:

Other observations concerning the Pilot Deployment activity:

Other observations concerning the EDSS Platform by Civil Protection Operators:

Attached C

Activity evaluation form – Participants
Pilot Test’s overview

(to be filled in digital form)

Pilot Deployment Beginning: _____ End: _____

N. Students _____ N. Adults _____

Number of Emergency types proposed by the system during the drill (Forest fire, Flooding, Earthquake):

Forest fire: _____

Flooding: _____

Earthquake: _____

Social channel chosen to communicate during the drill:

N. Facebook posts : _____

N. Twitter posts: _____

N. Instagram posts: _____

N. Other Social Networks post: _____

Participants' feedback about the problems encountered during the activity:

Synthesis of participants' observations concerning the Pilot Deployment activity.
