



City of Ljubljana

Emergency training and exercises in the City of Ljubljana

Luka Novak

19th PSCE Conference
Bled, 12th of December 2018

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FACTS ABOUT CITY OF LJUBLJANA

- capital of Slovenia
- political, cultural, financial and scientific centre
- pop. 289,518 (source: SURS, 1.1.2018; ~14% of SI pop.)
- area ~14 km N-S axis, ~22 km E-W axis,
- medium-sized European city
- additional 360.000-480.000 (students, tourists, daily workers from neighbouring municipalities and regions)



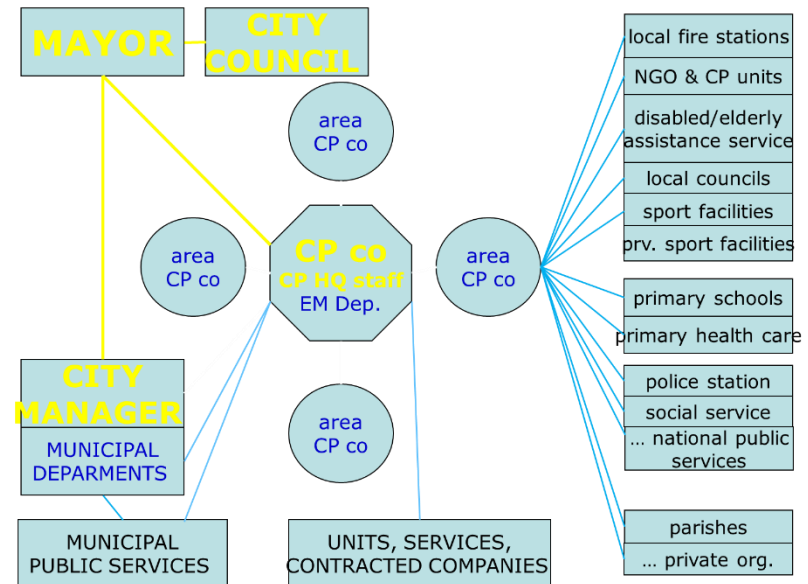
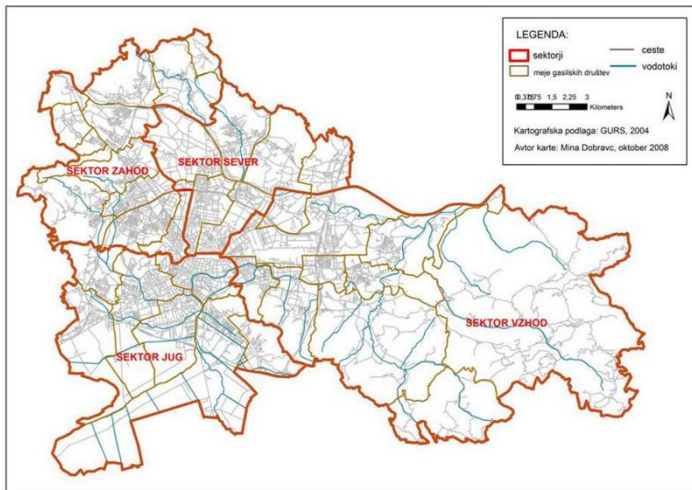
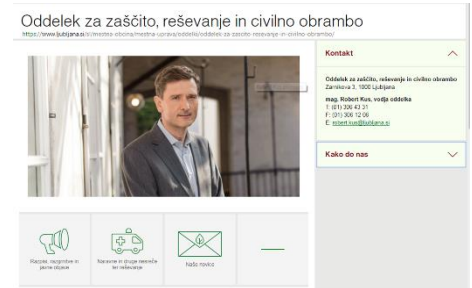
BASIC MUNICIPAL TASKS

- urban planning (but not issuing building licenses & exercising construction control)
- kindergartens, primary schools, primary health care,
- local roads,
- household waste disposal,
- potable water,
- sewage, heating, gas, cemetery, parking,
- public fire service & emergency management,
- public parks, public sport facilities ...



EMERGENCY MANAGEMENT DEPARTMENT

- 9 personnel
- public service
- responsible for system as a whole
- 24/7 duty officer



PROFESSIONAL AND VOLUNTARY ORGANIZATIONS



GASILSKA ZVEZA LJUBLJANA
Vojkova cesta 19, 1000 Ljubljana

E info@gzl.si
S gzl.si



OBMOČNO ZDRUŽENJE RK
LJUBLJANA



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LJUBLJANA: MESTO/CITY OF/ГЛАВНЫЙ ГОРОД ...
UNESCO Creative City
in 2015



HAZARDS



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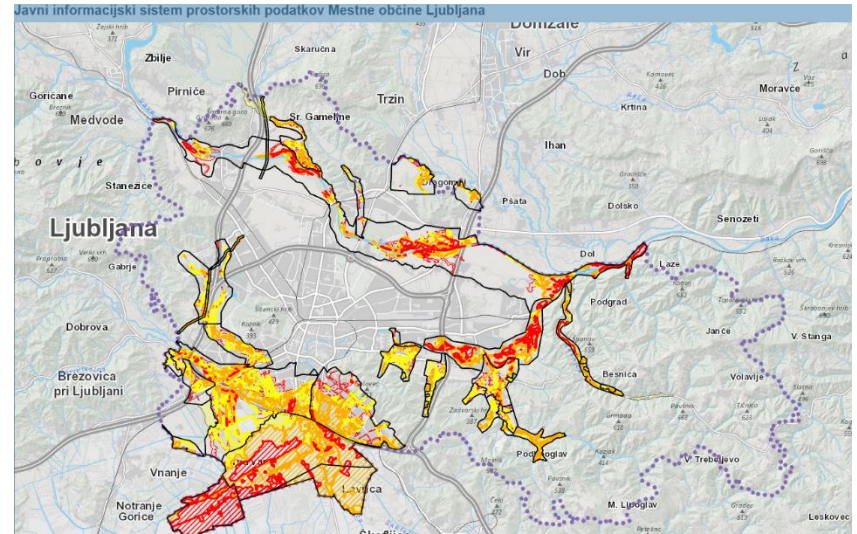
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LJUBLJANA:
MESTO/CITY
CIVILITRA-
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UNESCO Creative City
in 2015



HAZARDS



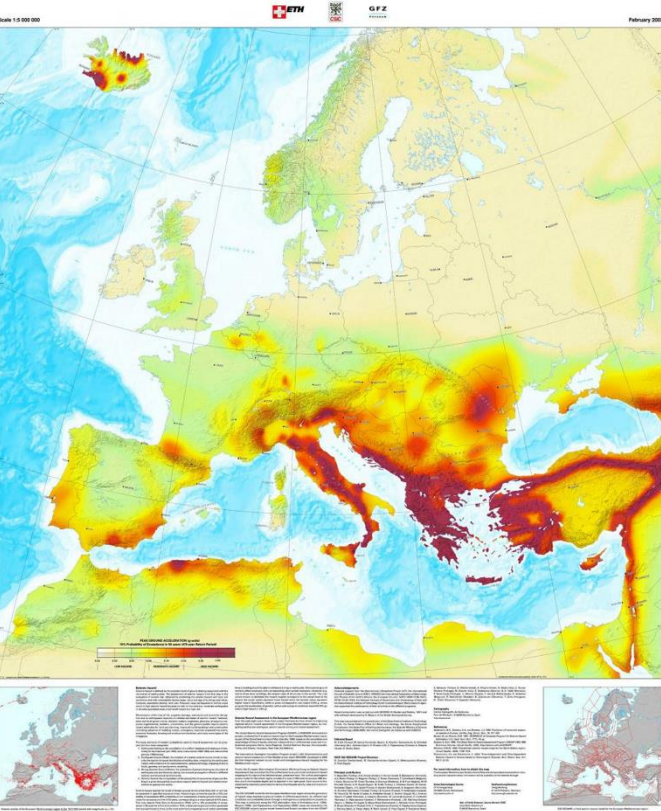
Compared to the flood in 1926, the 2010 was smaller in scale, but it affected far more buildings and people.

HAZARDS

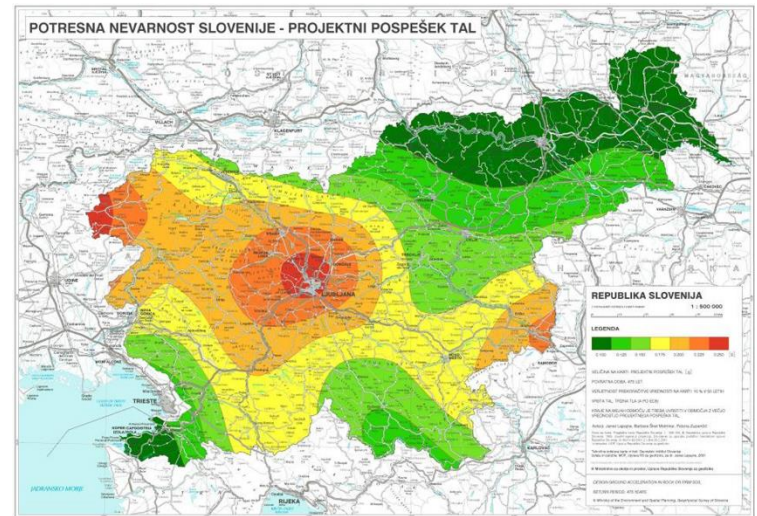


EUROPEAN-MEDITERRANEAN SEISMIC HAZARD MAP

European Seismological Commission
International Geological Correlation Program
Project no. 382: SESAME
Editors: D. Giardini, M. J. Jiménez and G. Grünthal



Ljubljana's earthquake 1895 $M = 6,1$
 $I_0 = VIII-IX$



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LJUBLJANA: MESTO/CITY OF LITERATURE ...
United Nations
Educational, Scientific and
Cultural Organization
Designated
UNESCO Creative City
in 2015



LJUBLJANA
2015
EUROPEAN
GREEN CAPITAL

HAZARDS



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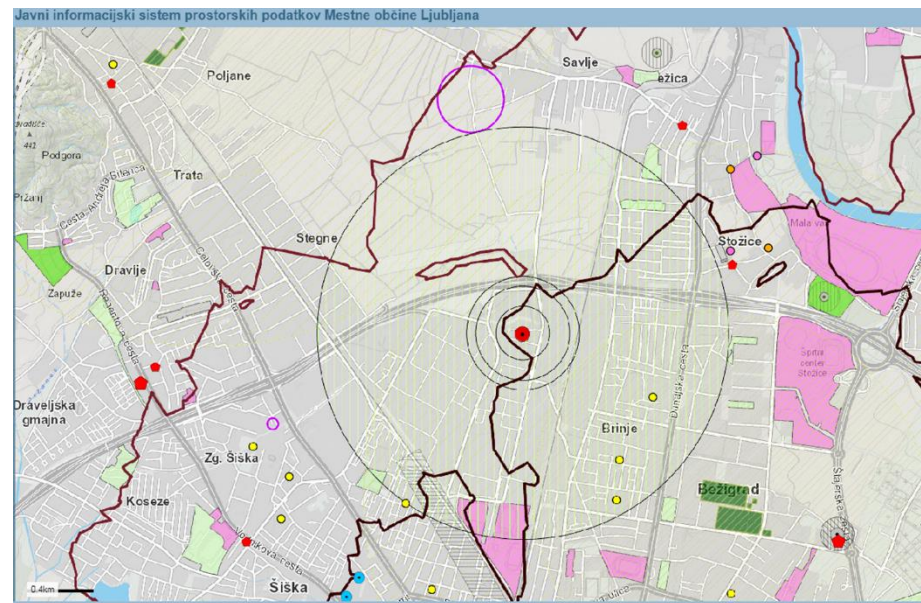
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HAZARDS



HAZARDS



TRAINING AND EXERCISES

- part of preparedness chapter
- within comprehensive emergency management
- repetitio est mater studiorum or is it?



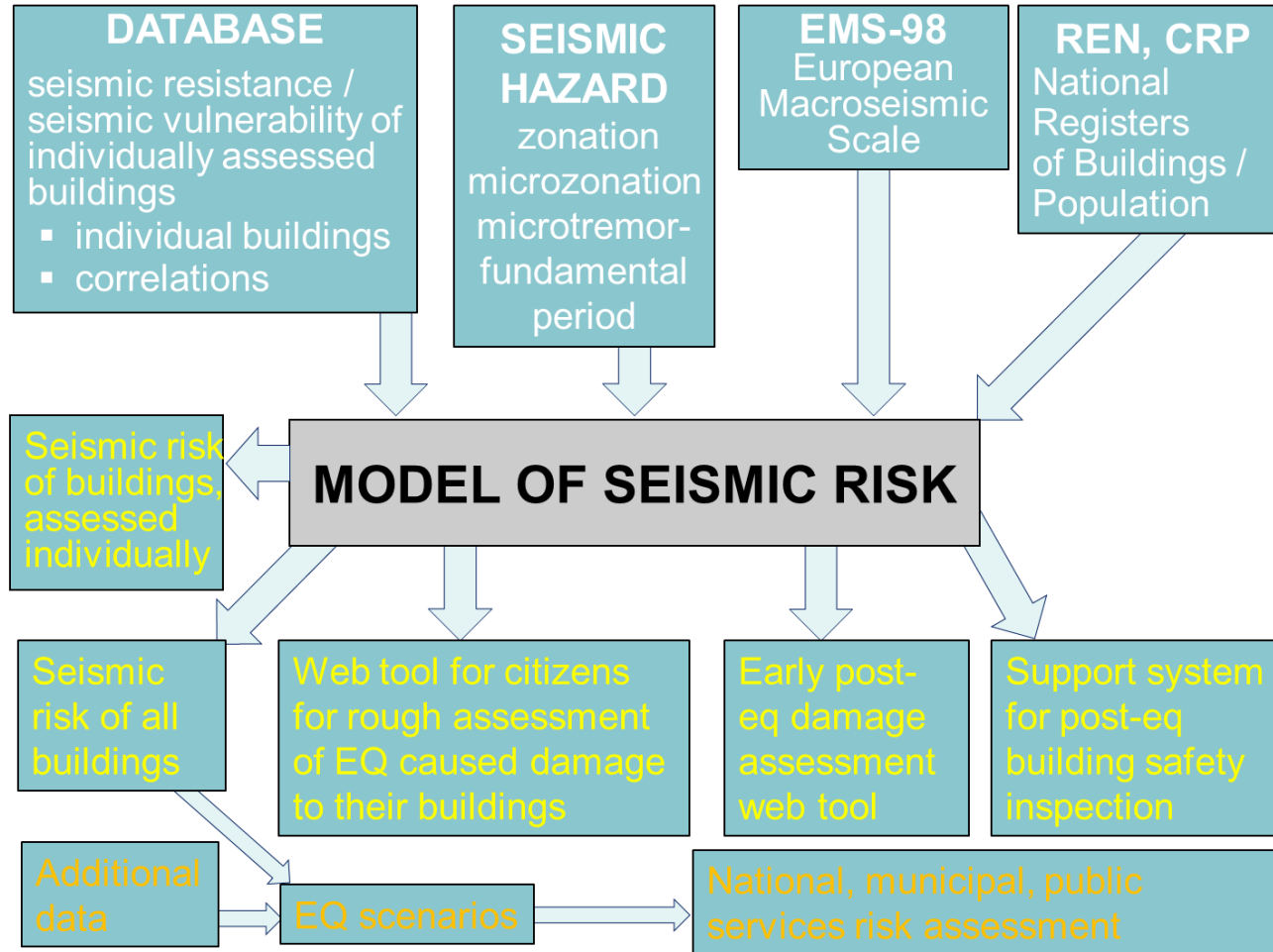
TRAINING

Table top exercises

- Earthquake 2012, 2015
- EU ModTTX
- real life data
- case studies



TRAINING - POTROG



TRAINING - POTROG

Nazaj Naprej

Podatki o stavbi

Korak 1 / 9

Leto zgraditve stavbe
1956

Število kletnih etaž:
0

Kletne etaže so tiste, ki so vsaj deloma vkopane.



Število etaž nad pritličjem:
P + 4

Pritličje je prva etaža, ki je v celoti nad nivojem zemljišča. Mansarda se šteje za nadstropje, če je nad njo pohodna stropna konstrukcija, sicer ne. Upoštevajte tudi nadstropja, ki pokrivajo le del tlorisa.

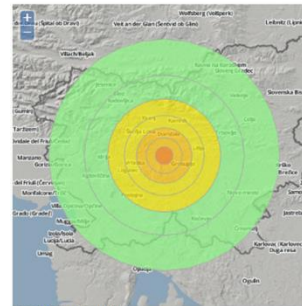


Nazaj Naprej

Analiza za potres: 30.06.2014 ob 04:09 5 km J od Ljubljane, intenziteta 8

VIII (možne poškodbe) Ocena obsega Ocena obsega drugega potresa

Ocenjeno padanje intenzitete izbranega potresa. Prikazano so območja, v katerih so možne poškodbe stavb.



Analiza obsega (vključene so le stavbe Republike Slovenije). Ocena ogroženih stavb in prebivalcev.

Vsote Po občinah (RDEČE) Po občinah (RUMENO) Ali si želiš

Analiza za območje celotne Slovenije

	Ogrožene stavbe	Ogroženi prebivalci (nočni scenarij)
Potrebna stalna namestitve	127 (0%)	5552 (0%)
Potrebna začasna namestitve	8627 (2%)	68784 (11%)
Bivanje v stavbi je možno	246254 (83%)	448914 (73%)
Neocenjene stavbe	39890 (13%)	89943 (14%)
Skupaj	294898 (100%)	613193 (100%)

Analiza po občinah

Zanesljivost ocene pri občinah označene z * je bistveno manjša od ostalih.

Občina	Stavbe (RD)	Stavbe (ZE)	Stavbe (NIA)	Preb. (RD)	Preb. (RU)	Preb. (ZE)	Preb. (NIA)
BOROVNICA	0	6	1917	374	0	110	2961
BREZOVICA	1	432	5321	861	8	677	8861
IG	2	415	3645	682	9	676	4636
KRANJ	0	105	14799	1141	0	3525	41682
LITJA *	0	33	7443	983	0	579	11133
LJUBLJANA	124	6271	53240	12551	5535	55476	115312
LOG-DRAGOMER	0	57	1517	177	0	73	3210
LOGATEC	0	36	5792	832	0	283	9948
MEDVODE	0	28	6683	1068	0	285	12842
VODICE	0	5	2264	310	0	10	4132
VRHNIKA	0	38	6767	965	0	382	12062

Scenario for the earthquake of the VII – IX EMS intensity with the epicenter in the middle of the City of Ljubljana

Damage degree	unknown	0	1	2	3	4	5 destruction
Buildings	12,551	25,074	19,026	9,136	4,953	1,339	107
Permanently registered citizens	58,683	38,626	74,055	40,867	54,538	25,293	6,912
							Urban search and rescue
							Medical assistance
							Dead
							Temporary sheltering
							Mid to long term temporary housing
							Rebuilding
Rescue personnel		49%	19%	20%	10%	2%	0%
Cultural heritage buildings	385	342	218	202	332	73	6

Nazaj Ponovna ocena

Rezultati

Korak 9 / 9

Rezultati so prikazani za naslednjo stavbo:

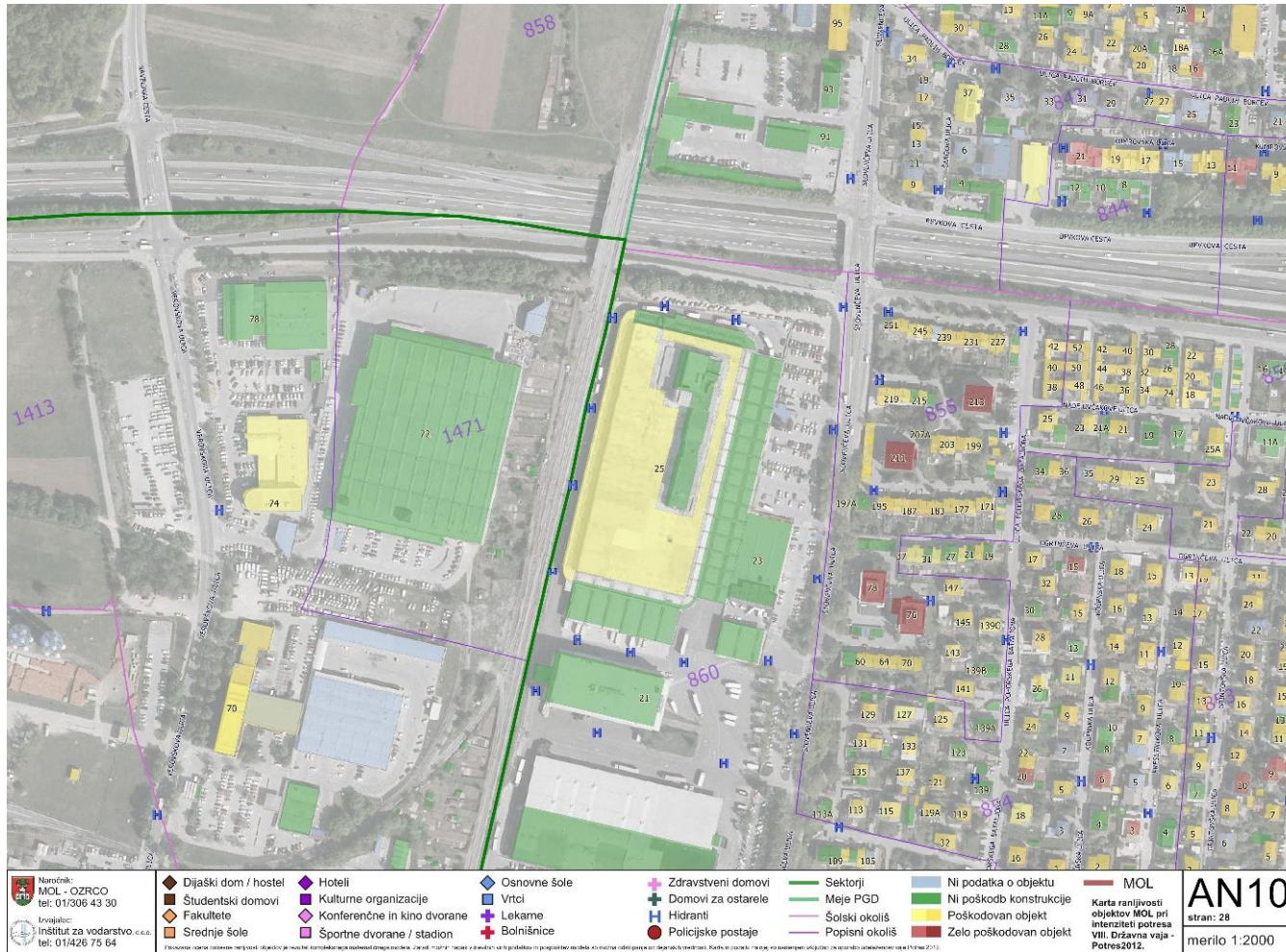
Leto izgradnje: 1956
konstrukcija: OPEKA
št. etaž: P + 4

dejanska intenziteta: VIII

Kategorija poškodovanosti



TRAINING - POTROG



TRAINING

- as realistic as possible
- gradual
- assessing the needs of the system
- basic knowledge
- special knowledge and techniques



TRAINING – WORKING WITH PUBLIC



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LJUBLJANA: MESTO/CITY
OZ/ATCERBA-
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EUROPEAN GREEN CAPITAL

TRAINING – FIRST AID, PREHOSPITAL TREATMENT



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LJUBLJANA:
BEST/CITY
CIVILITARIAN
TURN ...
Designated
UNESCO Creative City
in 2015



LJUBLJANA
2016
EUROPEAN
GREEN CAPITAL



TRAINING – PREAPERDENS WORKSHOPS



TRAINING – FIRST PSYCHOLOGICAL AND SOCIAL AID

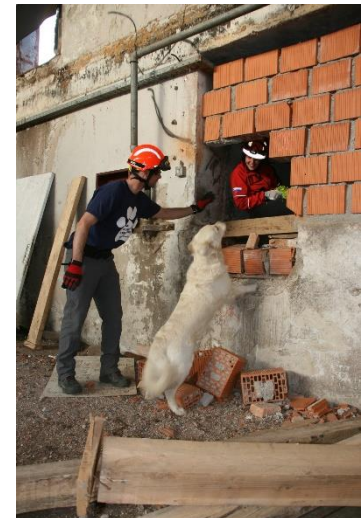
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EXERCISES – IRO



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EXERCISES – 6inAction



EXERCISES – STOŽICE 2016



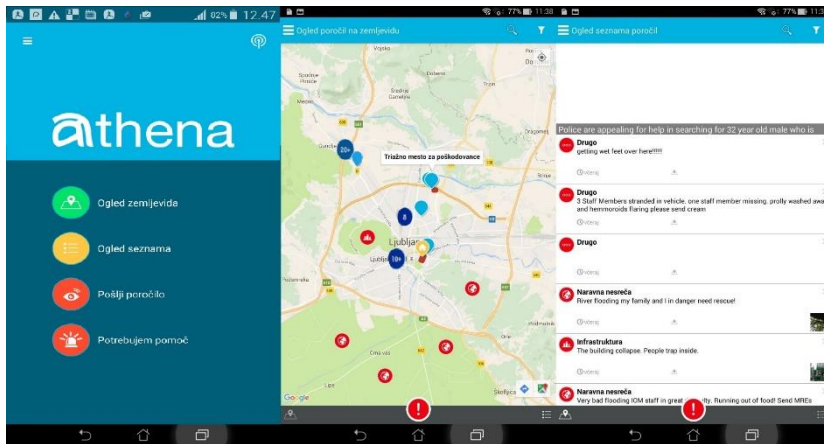
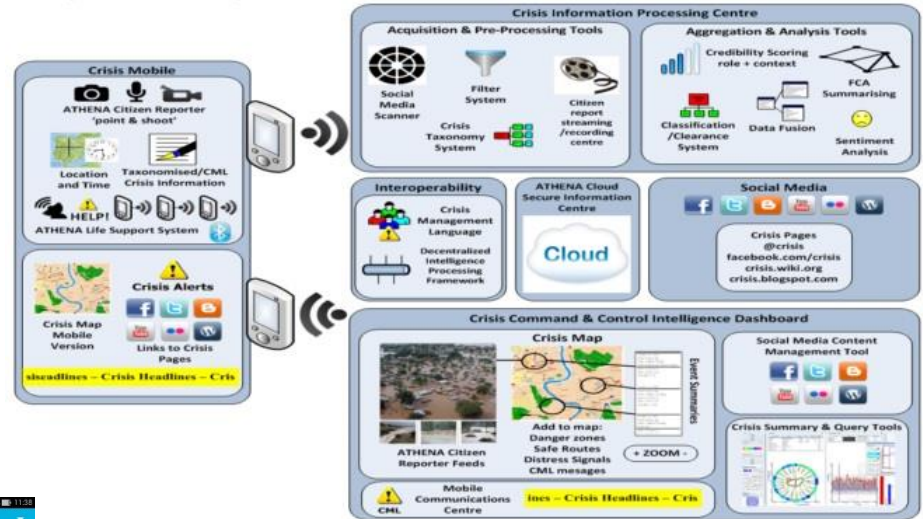
EXERCISES – STOŽICE 2016

Athena app

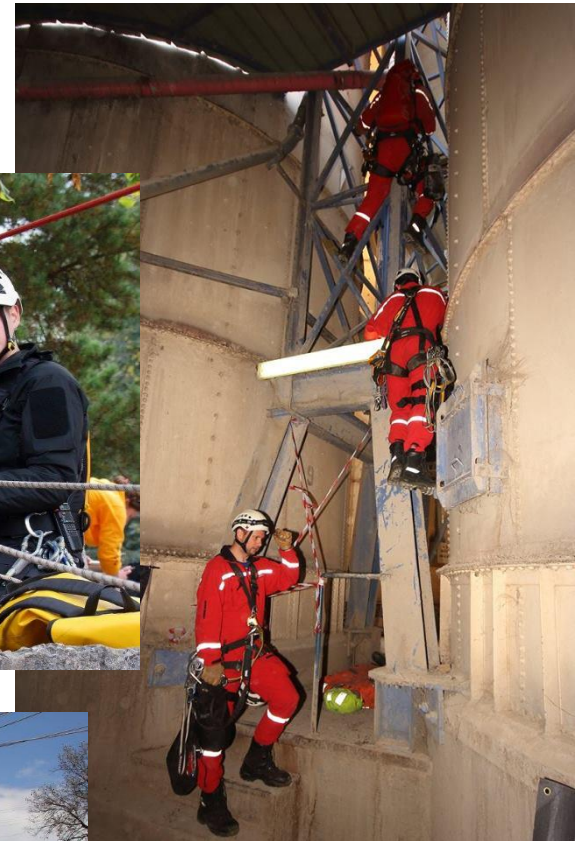


EXERCISES – STOŽICE 2016

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EXERCISES – RRR



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Thank you,
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