

# Local nuclear safety monitoring

For local nuclear partnership,  
prepared by: Sanja Rokvić and  
Leo Šešerko

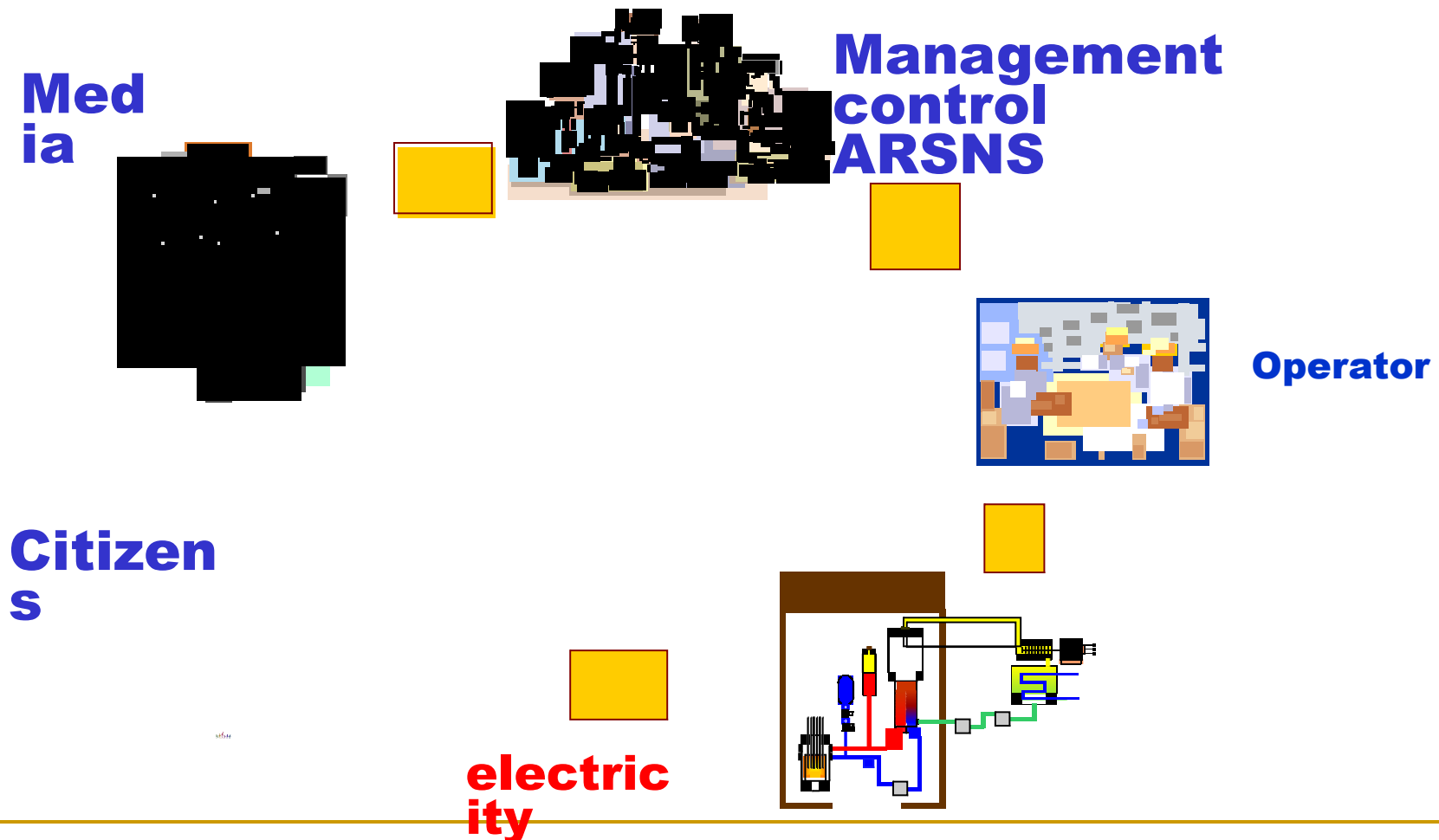
---

Krško, Ljubljana November  
2016

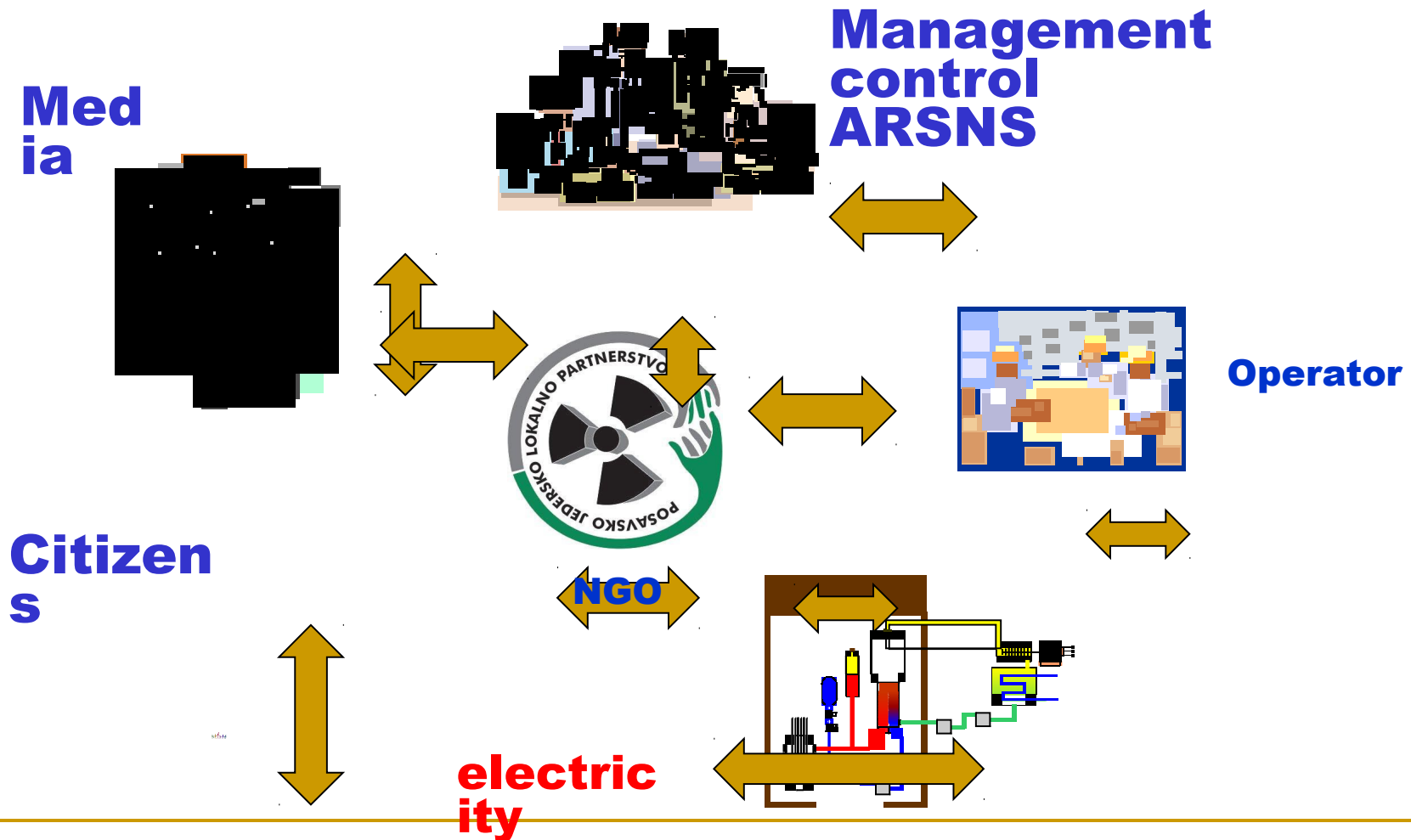
# Aarchur convention and Nuclear safety preparedness

- Only 1 conference with round table on this issue in October 2014, Brežice, prepared by NTW and REC. (+1 eco night)
  - Some local NGO's and civil initiatives participated and we came to conclusion we need local organisation, that would monitor current situation, future plans..
  - Few months later PJLP had first meeting
-

# Nuclear safety supervision, by Slovenian Administration of Nuclear safety



# The way (we think) it should be:



# Evacuation plan

- Municipality Krško in project with Zagreb and Cernavoda.
  - Hierarchy of plans (The National Protection and Rescue Plan nuclear or radiological accident, Regional plan, Municipal plan)
  - Areas of planned protection measures:
    - 1.area of preventive protective measures, 3km
    2. area of planning immediate protective measures, 10km
    3. long- range planning protective measures, 25 km
    - 4.range of generic preparedness the entire national territory 100km
  - Protection measures: immediate, food, long-term (At assuming nuclear emergency in NPP the municipality planned following precautions: sheltering, ingestion of potassium iodide tablets, evacuation)
  - Evacuation practice- Sept 2013, 2 locations, 350 people participated mainly uniformed (firemen, police officers, doctors, emergency teams..), -deficit participation of civils, schools were not involved?
  - In January 2015 brochure published and sent to households within a radius of 10km (Raka square-NEK 9,89km air distance, Vel. dol Koprivnica 10-10,80km)
-

From: Nuklearna elektrarna Krško To: Osnovna šola Raka

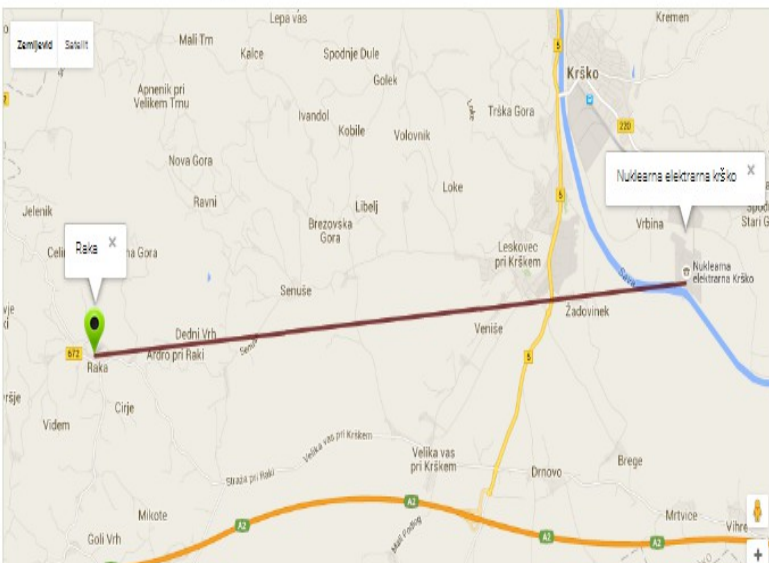
☒ Air distance ☐ Driving distance [Measure](#)

Distance in km: 10.38 km Distance in miles: 6.45 miles Distance in nautical miles: 5.61 nmi

[12K](#) [2,279](#) [Like](#) [+1](#)

Start Download

Get Maps, Directions, Street Views & Traffic w/ Free



From: Nuklearna elektrarna Krško To: Gradšče pri Raki

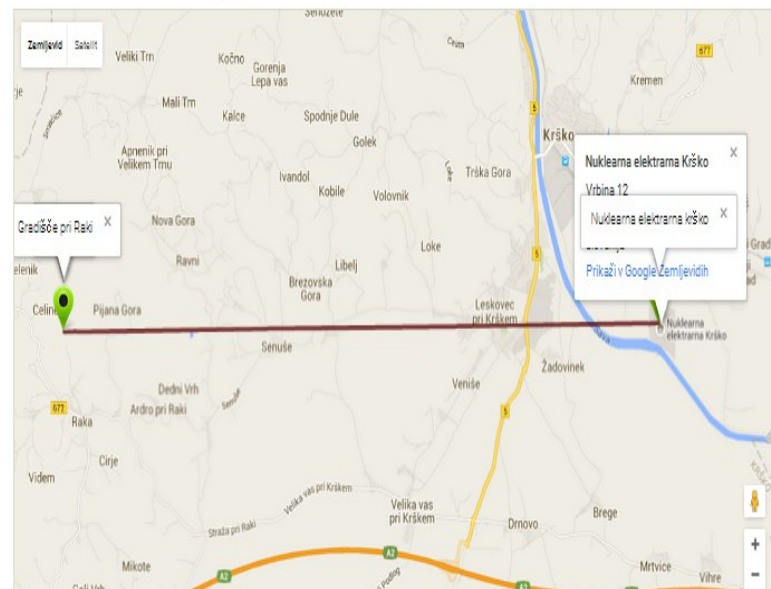
☒ Air distance ☐ Driving distance [Measure](#)

Distance in km: 10.62 km Distance in miles: 6.60 miles Distance in nautical miles: 5.73 nmi

[12K](#) [2,279](#) [Like](#) [+1](#)

Start Download

Get Maps, Directions, Street Views & Traffic w/ Free



# A major deficiency of the Aarhus convention

Governments and other governmental bodies (including local communities) are able to prevent financial support to be given to NGOs opposing governmental institutions and nuclear energy. In many countries, including Slovenia, anti-nuclear NGOs are often suppressed and silenced, thereby a dialog between governmental institutions and civic society is obstructed.

---

# Questionnaire- research subscribed by municipality Krško

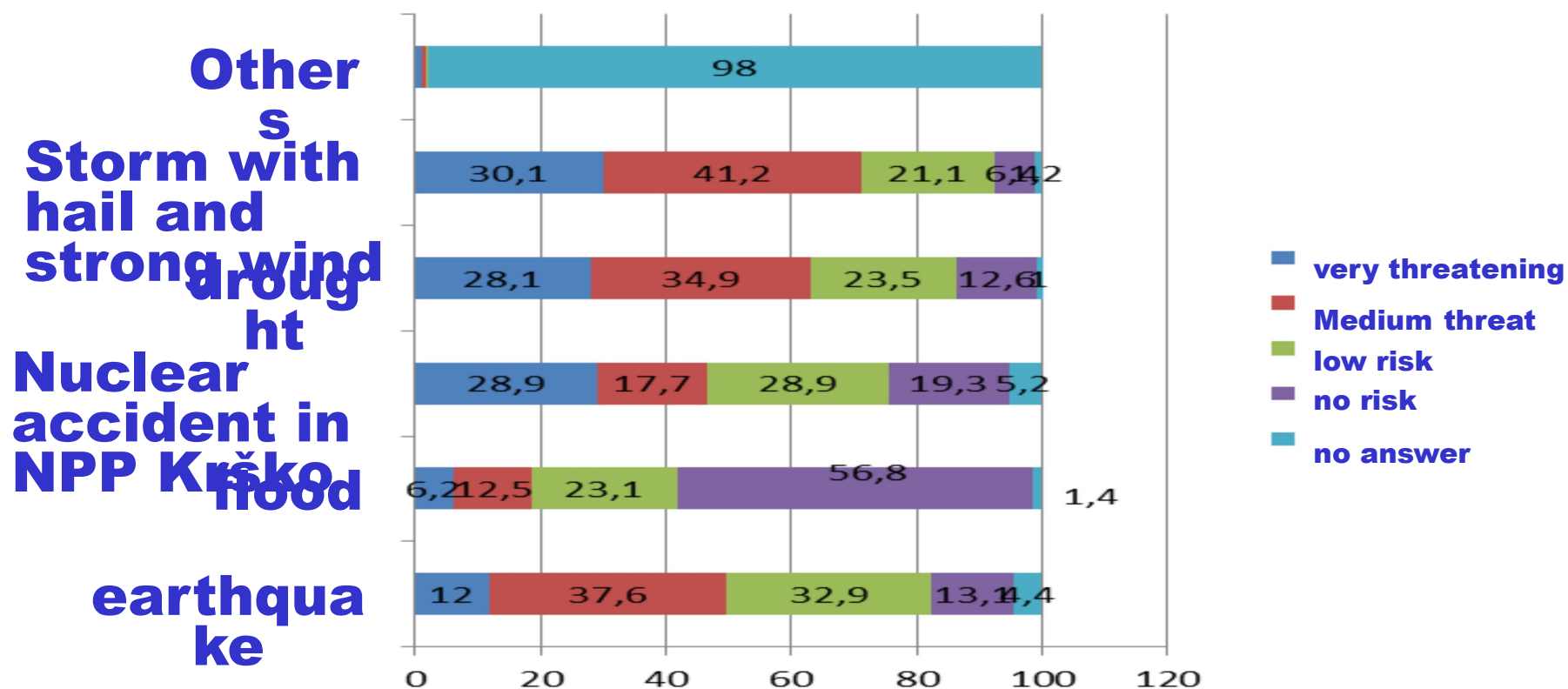
In the sample of the interviews were selected groups from health care institutions, educational institutions and enterprises located within 3 km zone around the NPP, which have a specific role of the population evacuation and responsibilities either they are located directly next to the NPP or not .

Researchers:

dr Samo Uhan, dr Iztok Prezelj, dr Marko Polič, dr Jelena Juvan,  
dr Marjan Malešič, coordinator

---

# Detecting threats in the surveyed population ( in % )

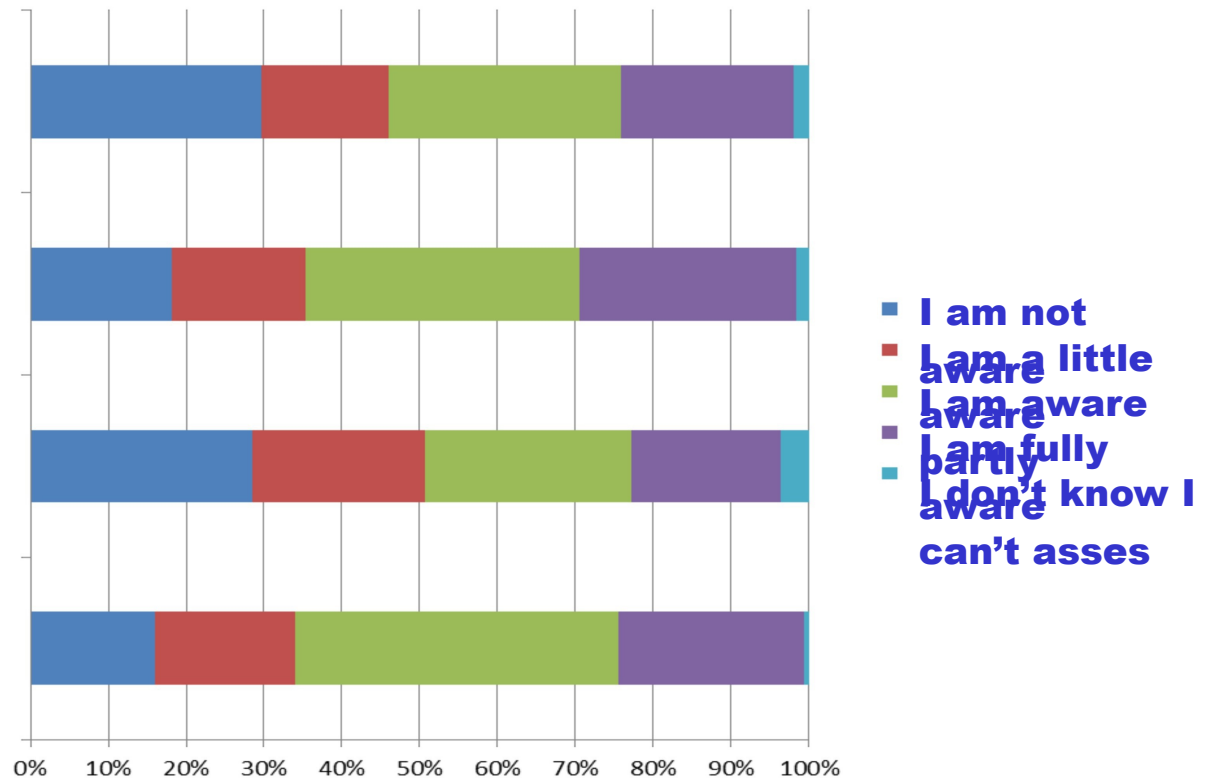


# Self-assessment of knowledge of the measures

**Temporary accommodation outside the surveillance zone**  
**Evacuation (evacuation of threatened areas)**

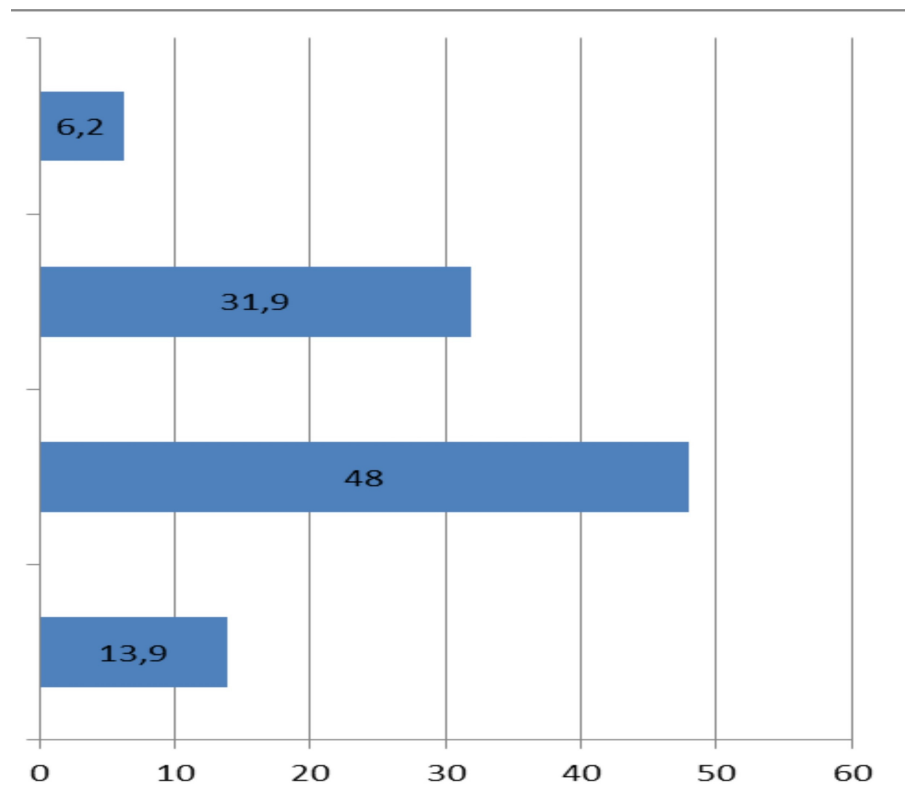
**Ingestion of potassium iodide tablets**

**Sheltering (retreat indoors)**



Implementation of measures if there was an extramural event in NPP Krško and the competent institutions did not yet declared the protection measures (in%)

- I don't know**
- I would evacuate immediately (go to another location)**
- I would immediately retreat indoors (sheltering) and wait for official instructions**
- I would not implement protective measures, i would wait for official instructions**



# Warning facts

## ■ THE EVACUATION PLAN:

### People are not properly informed:

“In which registered admission you must report at?” 55.4% do not know 44,6 % knows and chooses one of the three admission but verification of the correctness of the selection indicates that 16 of them specify the wrong location (more than 70 % of people do not knows the true location)

### Evacuation paths are very complicated:

“Knowing the planned direction of evacuation” : 51.2% do not know, Of those who believe that they know the way : 64.8 % indicating the correct direction depending on their location of residence , 26.4 % and 8.6% are incorrect unclear ; the sum is two-thirds of people do not know the intended direction of evacuation.

### Better to inform more people than less (chart)

SHC (Belgium) proposes 100km for distribution of potassium iodide tablets- we had problems by proposing 15.

They propose 20km for evacuation exercise, so do we.

### Studies detected 3 critical points of evacuation

1.Organizing transport of children,  
2.retirement home (type inadequacy: of residents, facility, nighttime), 3.transport infrastructure in town.

## ■ CLIMATE CHANGE:

Earthquake in Krško November 1. 2015. (4,2 Richter scale). (media low time response)

## ■ POLITICAL SITUATION: Refugee crisis.

## ■ AGING OF NPP Everything has a shelf life.

- 
- Everyone in the process **MUST** cooperate as (equal) **PARTNERS.**
  - **NGO** would monitor the situation and have a function as a mediator that would connect all partners in need (providing informations, increasing public awareness...)
  - Citizens should be included in these actions (events for local citizens to provide them informations)- by NGO's.
  - Every building should have a map of evacuation routes hung on the wall of the corridor, with names of appropriate shelters.
-

- Brochures which shows evacuation routes and information in case of nuclear emergency should be simplified.
  - All schools in the area should carry out several evacuation exercises (once a year as they do for fire safety)
  - Health care centers should provide informations for local citizens about potassium iodide pills (lectures, presentations..)
  - **Preventive action:** collect baby teeth from the most vulnerable groups of people - children, the analysis for the amount of strontium in the bones (teeth)- radius 20 km. (indicator of exposure of nuclear radiation)
  - Financial problems!
-

# Conclusion

## *IN MEMORIAM*

2016 is the year of 30th anniversary of Chernobyl and 5th anniversary of Fukushima.

As a responsible society we must do all in our power that similar events never occur again and in case of danger WE MUST adequately react.

---

# The Slovenian Nuclear Safety Commission

The head of the Slovenian Nuclear Safety Commission (NSC), Andrej Stritar, is not acting as an unbiased official. He is of the opinion that no safety assessment for the planned nuclear fuel waste repository at the NPP Krško is needed as it will be situated within the borders of the NPP site, and existing operation licences for the NPP also “include” the licence for the fuel waste repository, though it is not even mentioned there. He is acting as he was employed at the NPP Krško and not a representative of a public body that oversees the NPP operations.

---

# An evacuation exercise

In 2014, there was an evacuation exercise for the case of an accident in the NPP Krško. The exercise included fire workers, NPP workers, community representatives etc. but not the residents in the vicinity of the NPP. Because they were not motivated to be present as they were told by the officials and the NPP personnel a nuclear accident would never happen. This is the consequence of politics ignoring or minimising the health risks of nuclear accidents.

---

## Public discussions on the issue of the nuclear safety are being suppressed

Public discussions on the issue of nuclear safety are being suppressed, and NPP personnel or local government employees that speak out publicly about their nuclear safety concerns are in danger of being fired. A resident of the municipality close to the NPP, who prefers not to be named, said that NPP officials treat the population near the NPP as children. They tell them nuclear accident can never happen, so evacuation exercises are not needed. The result is a complete disinterest of the population.

---

## The evacuation plans are not conform with the interest of the population

The existing evacuation plans do not conform with the interest of the population. As an example, evacuation is planned by public transport from schools, enterprises, institutions, etc., while people wish to evacuate with their families in their private cars. However, due to the poor state of the infrastructure, e.g. roads and bridges, evacuation in private cars would end in a chaotic situation. People are not even informed where to evacuate.

---

## Major shortcomings in the preparation

A research by Marjan Malešič et al. (2013) found major shortcomings in the preparation for an evacuation in the event of a nuclear accident at the NPP Krško. As a consequence, a resident of the population close to the NPP mentioned above said that people should be trained for emergency evacuations several times a year.

---



Thank You for Your attention!

---









