



# **PREDSTAVLJANJE REGIONALNOG PROJEKTA TC RER/8/015**

**Nevenka Novosel**

**Seminar “Radijacijske metode u zaštiti kulturne baštine”  
Zagreb, 4.-5. listopada 2011.**

REPUBLIKA HRVATSKA  
DRŽAVNI ZAVOD ZA RADIOLOŠKU I  
NUKLEARNU SIGURNOST



# SADRŽAJ

- Općenito o DZRNS
- Tehnička suradnja s IAEA
- Regionalni projekt RER/8/015



# DRŽAVNI ZAVOD ZA RADIOLOŠKU I NUKLEARNU SIGURNOST



- Državni zavod za radiološku i nuklearnu sigurnost – tijelo državne uprave nadležno za poslove zaštite od ionizirajućeg zračenja i nuklearnu sigurnost
- Zakon o radiološkoj i nuklearnoj sigurnosti (Narodne novine 28/10):
  - “DZRNS koordinira poslove tehničke suradnje s Međunarodnom agencijom za atomsku energiju (IAEA) za sve sudionike iz Republike Hrvatske“.



# TEHNIČKA SURADNJA S IAEA



- IAEA: 151 zemlja članica, RH članica od 1993.
- Područja rada: sigurnost i zaštita, znanost i tehnologija i mjere jamstva i kontrola
- Program tehničke suradnje:
  - Nacionalni, regionalni i interregionalni projekti
  - Koordinirani istraživački projekti
  - Dvogodišnji programski ciklus
  - Country Programme Framework (CPF) – 4-6 godina
  - National Liaison Officer (NLO)



# PROGRAM TEHNIČKE SURADNJE



- Projekti tehničke suradnje
  - Stipendije i znanstvene posjete
  - Ekspertne posjete
  - Nabava opreme
- Regionalni projekti
  - Nacionalni koordinator
  - Suorganizacija tečajeva, radionica i sastanaka u RH
- IAEA tim
  - Programme Management Officer (PMO)
  - Technical Officer (TO)





# REGIONALNI PROJEKT RER/8/015



- Naslov “Using Nuclear Techniques for the Characterization and Preservation of Cultural Heritage Artefacts in the Europe Region”
  - Proširenje projekta RER/1/006 “Nuclear Techniques for the Protection of Cultural Heritage Artefacts in the Mediterranean Region”
- IAEA tim
  - Alessia Rodriguez y Baena - PMO
  - Andrzej Markowicz – TO (Analytical Techniques)
  - Maria Helena O. Sampa – TO (Radiation Processing Technology)
- RH nacionalni koordinatori
  - Branka Katušin- Ražem (IRB)
  - Mario Braun (HRZ)



## **CILJ PROJEKTA RER/8/015**



Objective: To improve the characterization and preservation of cultural heritage artefacts through the application of nuclear techniques with special emphasis on gamma irradiation treatment, making use of techniques including insect eradication and disinfection in various cultural heritage materials and consolidation of degraded materials with radiation-curing resins



# OČEKIVANI REZULTATI I POKAZATELJI



1. Outcome: Increased awareness and acceptance of nuclear techniques for characterization and preservation of cultural heritage artefacts  
Indicators: Increased number of cultural heritage artefacts objects treated or characterized by nuclear techniques (country reports)
2. Outcome: Optimized methodologies and techniques for characterization and preservation of cultural heritage artefacts  
Indicators: Extended number of applied nuclear techniques for cultural heritage (papers, booklets, media infos, audio-video materials)
3. Outcome: Strengthened national and regional network among conservators and nuclear institutes  
Indicators: Enhanced cooperation on both national and international levels (agenda content and participants at workshops dedicated to cultural heritage)





# OČEKIVANI UČINCI I POKAZATELJI 1.



1.1. Output: The inventory of data for characterization and preservation of cultural heritage objects established

Indicators: National data on application potential of nuclear techniques for cultural heritage

1.2. Output: Information materials on nuclear techniques capabilities for characterization and preservation of cultural heritage artefacts developed

Indicators: Inventory of scientific and technical data on national capabilities

1.3. Output: Awareness at national level increased

Indicators: Increased number of national projects

1.4. Output: Regional awareness increased

Indicators: International cooperation increased



## OČEKIVANI UČINCI I POKAZATELJI 2.



2.1. Output: Irradiation effects (side effects) on various materials of cultural heritage including artificial ageing of irradiated materials, and consolidation process for conservation of degraded materials and its long term behaviour evaluated

Indicators: Chapters in publications, papers, infos dedicated to irradiation side effects

2.2. Output: Knowledge transferred and Human Resources capacity enhanced

Indicators: Scientific visits and fellowships



# OČEKIVANI UČINCI I POKAZATELJI 3.



3.1. Output: Project planning and timely assessment of progress and results conducted

Indicators: Careful project planning

3.2. Output: Bilateral collaboration and cooperation among participating countries enhanced

Indicators: Concluded Memorandums of Understanding

3.3. Output: The results of the project and effectiveness of the nuclear techniques for cultural heritage protection applied

Indicators: Increased information on nuclear techniques applied in cultural heritage area (booklets, audio-visuals etc.)



# PRORAČUN PROJEKTA RER/8/015



2009. 190.400 USD

2010. 140.350 USD

2011. 154.225 USD

TOTAL 484.975 USD





**Hvala na pažnji**  
**[www.dzrns.hr](http://www.dzrns.hr)**

REPUBLIKA HRVATSKA  
DRŽAVNI ZAVOD ZA RADIOLOŠKU I  
NUKLEARNU SIGURNOST

