

jOiNEd For sUsTainability - bUilding climate REsilient
communities in WB and EU

Institution presentation

KICK-OFF MEETING

University of Tuzla

Faculty of Mining, Geology and Civil Engineering
Bosnia and Herzegovina

Date: May 3rd, 2023

Place: Tirana, Albania



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Tuzla and Tuzla Canton – facts and history



- Tuzla - administrative, economical, cultural and educational center of Tuzla Canton in Bosnia and Herzegovina
- The only city in Europe which has a **salt lake** (Pannonian Lake) in its narrowest historical urban area
- **Coal, salt** and **wood** - the basis of fast development (from 1960s until the second half of 1980s)
- **Chemical industry** for processing coal, salt and limestone grew into large companies - SODA SO in Tuzla, and Coke plant in **Lukavac**





University of Tuzla



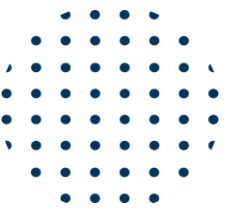
- Established in **1976**
- **12 faculties** and **1 academy**, around **10.000 students**, **680 academic** and administrative staff members
- **116 study** programs in bachelor, master's and doctoral studies
- leading higher education institution in the Northeast area of Bosnia and Herzegovina
- signed over **200** cooperation agreements with the universities worldwide
- focused on developing relationships with the academic community and strengthening the international process

More at: www.untz.ba



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Faculty of Mining, Geology and Civil Engineering



- Higher School of Mining - **1958**
- Faculty of Mining - **1960**
- Faculty of Mining and Geology - **1973** (establishment of the Department of Geology)
- **5 departments:**
 - Mining
 - Geology
 - Civil Engineering - established in **1998** (Faculty of Mining, Geology and Civil Engineering)
 - Drilling and Well Engineering - established in 2000
 - Safety Engineering - established in 2004
- **900 students**

More at: www.rggf.untz.ba



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Faculty of Mining, Geology and Civil Engineering



- more than:
 - 3000 students graduated
 - 420 completed master's thesis
 - 160 completed doctoral thesis

- **Teaching Staff (full time) and Experts from Industry:**

➤ Full Professor	17
➤ Associated Professor	15
➤ Assistant Professor	0
➤ Higher Assistant	1
➤ Assistant	2
➤ Lab Staff	2
➤ Experts	more than 30





Laboratory for Mineral Processing and Material Testing



Laboratory for Natural Hazards, Safety and Ventilation





Laboratory for Geomechanics



Laboratory for Optical Research of Mineral and Rocks





Laboratory for Mining Survey and Geodesy



Laboratory for Applied Geophysics, Seismic Survey and Non-destructive Testing of Structures



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K-FORCE ICT Educational LAB



Laboratory for Engineering Graphics and Numerical Modelling





Scientific projects and Expertise

- NATO SfP 983305 „ Development of a Monitoring System to Counter-manage the Risks of Subsidence Deformation on the Population of Tuzla“ 2009-2012
- NATO SfP 983828 „Seismic upgrading of Bridges in South-East Europe by Innovative Technologies“ 2009-2013
- TEMPUS BAEKTEL (544482-TEMPUS-1-2013-IT-TEMPUS-JPHES) 2013-2017
- safEarth Interreg – IPA CBC Croatia - Bosnia and Herzegovina – Montenegro / „Transnational advanced management of land use risk through landslide susceptibility maps design “ 2014-2020
- NIK - Youth Scientific and Research Camp (US Embassy) 2016-2019
- ERASMUS+ BESTSDI - 574150-EPP-1-2016-1-HR-EPPKA2-CBHE-JP, Western Balkan Academic Education Evaluation and Professional's Sustainable Training for Spatial Data Infrastructures 2016-2019
- ERASMUS+ K-FORCE - Knowledge For Resilient Society 2016-2019
- CP1-1 Mercury (Hg) soil and groundwater assessment at HAK 1, Chemical industrial complex, Tuzla, Bosnia & Herzegovina, UNEP 2022 - 2023
- RESPONSa - Response to landslide and flash flood risk with Early Warning System design (Interreg IPA Cross-border Cooperation Programme Croatia-Bosnia and Herzegovina-Montenegro) 2020-current





Science and Research - projects

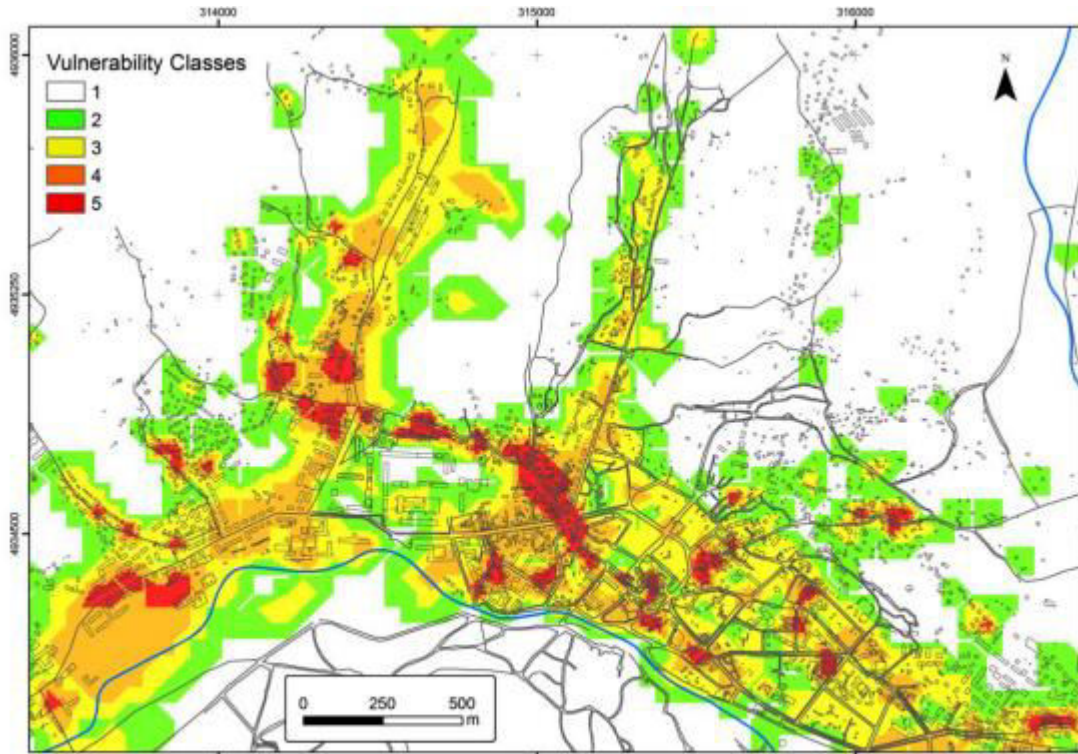


Fig. 2: Vulnerability map produced by the ELECTRE methodology

NATO Sfp 983305 „ Development of a Monitoring System to Counter-manage the Risks of Subsidence Deformation on the Population of Tuzla“ 2009-2012

- Industrial production of salt water started in 1886
- Massive exploitation from 150 wells at an average depth of 400-500 meters
- Demolition of about 2.700 buildings during the last 60 years
- About 15.000 people had to move
- Useful information for understanding the deformation phenomenon in the city of Tuzla

More at: www.nato.int/science/2010-02-04-presentations/Rijad%20Sisic_cmp.pdf



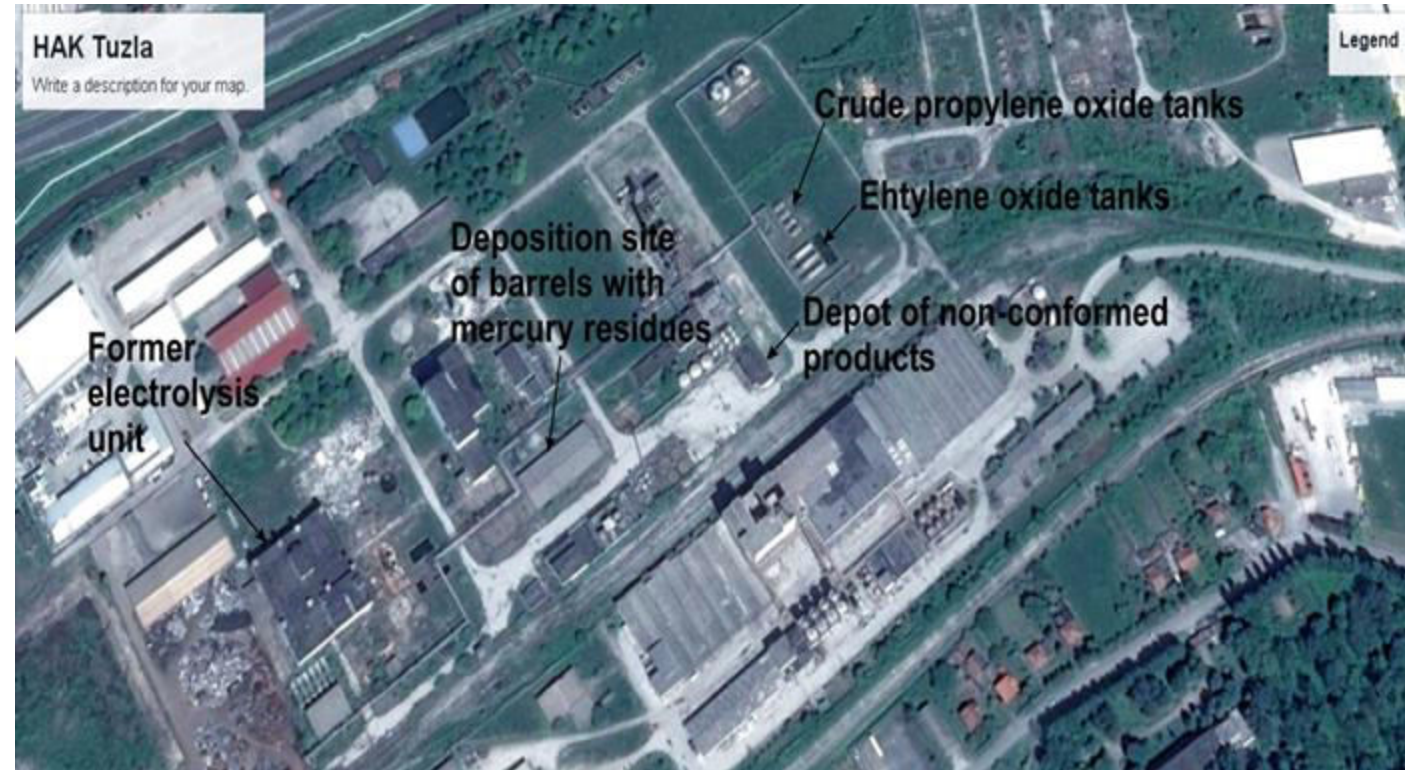
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Science and Research - projects

Mercury (Hg) soil and groundwater assessment at HAK 1, Chemical industrial complex, Tuzla, Bosnia & Herzegovina, UNEP 2022 – 2023

- to identify possible mitigation measures and viable technical and feasible remediations/treatment plans
- Hg assessment also provides a preparatory step towards the national ratification of the Minamata Convention





Electrolysis plant - current condition (HAK)





Science and Research - projects

Response to landslide and flash flood risk with Early Warning System design RESPONSa (Interreg IPA Cross-border Cooperation Programme Croatia-Bosnia and Herzegovina-Montenegro) 2020-present

- Establishment of landslides and flash floods early warning system
- Operative procedures for various geohazard scenarios

More at www.hgi-cgs.hr/responsa



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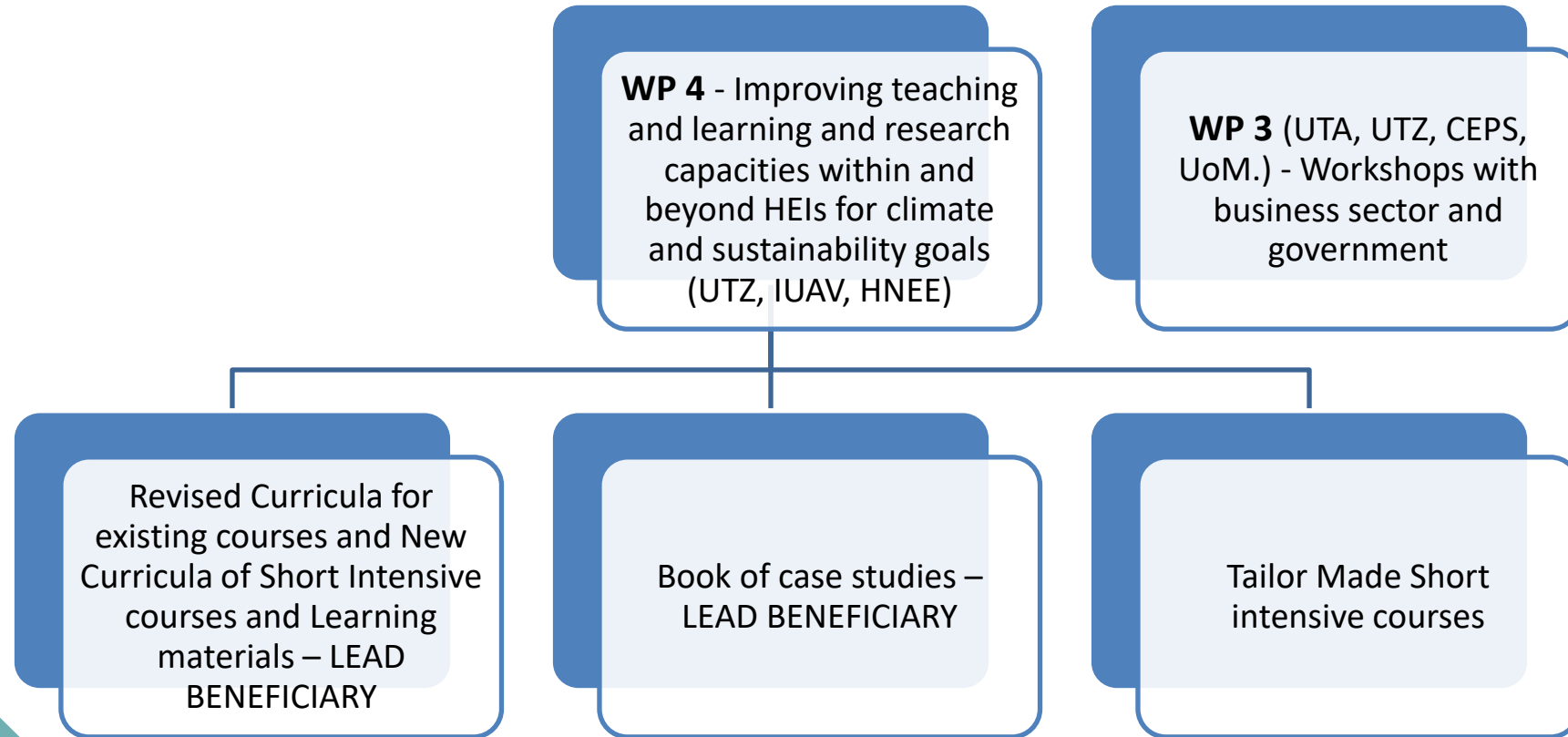


International Cooperation





UTZ role in 1FUTURE





Revision of content and methodology – Selected Courses

Master Study:

- Risk Analysis in Decision Making Process
- Disaster Management
- Risk Management in Mining And Thermoenergetics

Bachelor Study:

- Energy Resources and Energetics
- Physical Hazards

Note: all mandatory courses





Future vs past





Thank you for your attention

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