

## **Common interes of partner countries in the project and justification of cooperation between the**

The interes of countries and partners team in the field of project results from nexts aspects:

- **numerous tailing ponds** existing on Baia Mare and Johannesburg areas, strongly impact they represent on environment and human communities around them required and application of viable solution for ecological rehabilitation

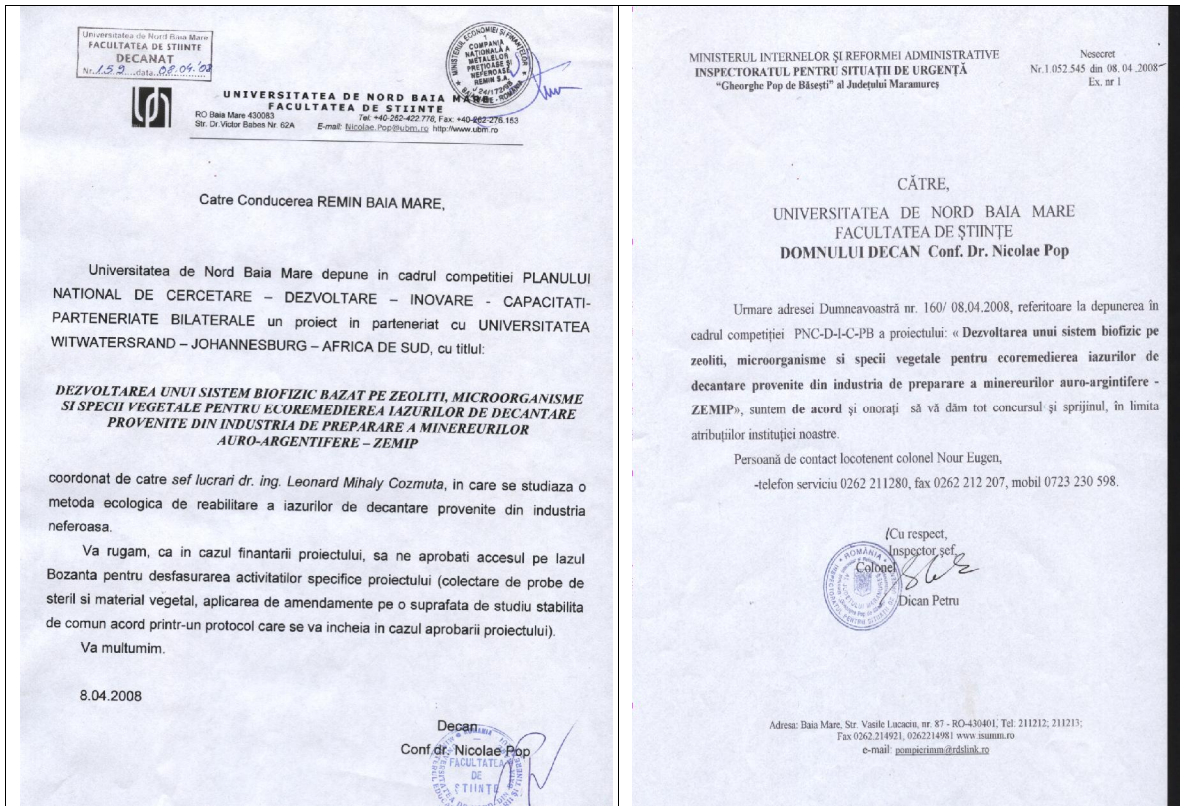
- previous research activities *developed by the both teams in the field of project*: research project, scientific publication, research mobilities (according annexed CVs)

- signing of Cooperation Agreement between partners and Agreement for start the project

- interest in the field of the project expressed by the Baia Mare local authorities, directly involved in management of tailing ponds respectively in management of technological hazards

- National Company of Non-Ferrous and Precious Metals REMIN-Baia Mare, the institution which manage the Bozanta Tailing Pond on which surface will be developed the project

- Inspectorate for Emergency Situations – institution abilitate to manage the technological hazards which express the availability to elaborate the Guide for good practices in technological hazards, it dissemination to population in order to inform about the actions should be developed in cases of such hazards to avoid human casualties



● **new and complexity elements of ZEMIP project which will contribute to develop of international scientific knowledge in eco-rehabilitation issue of soil polluted with heavy metals:**

- utilisation of biophysical system zeolit-microorganism-vegetal species to adsorption of heavy metals and cyanides
- the role of carbon source (biomass inactivated by sterilization) for fungus, cyanobacteria and microalgae when they are supported by zeolit
- metallic ion bond's kinetics of isolated or in combination of metallic ions
- adaptability of vegetal species on a layer gangue-zeolit-microorganism-carbon source
- correlation and symbiose between the components of system gangue-zeolit-biomass-vegetal species

● complementarity of results obtained by both partners allows establishing of a more complete strategy for eco-remediation; it can be consider the behavior of biophysical system zeolit-microorganisms-vegetal species in geo-chemically-biologically-climate different conditions and generation of complete scientific conclusions

- **developing of project create the condition for a future cooperation** between teams: the intelligent biophysic system zeolit-microorganism allows the recovery of precious metals from infiltration waters, from drainage coming from gold pond or from wastewaters treatment plants; in a future cooperation (FP 7, INTERREG) of two teams, who is familiarized with characteristics of biosystem zeolit-microorganism will be studied the practical application for recovery of precious metals after the saturation of systems

- developing of the project and the dissemination actions represent a way for mutual promote of countries and institutions, their contribution to scientific research to national and international socio-economic environment