

## Preface

In the frame of the FWF Translational Brainpower project **TEMPEL** (Goelectric properties: temporal change as failure indicator - TRP 175-N21), the Austrian Geological Survey hosted the **“Second International Workshop on Geoelectrical Monitoring - GELMON 2011”**. The workshop was held in the Presentation Hall of the Austrian Ministry of Science and Technology (BMWF) from December 4<sup>th</sup> to 6<sup>th</sup> 2013. 80 participants from 17 different countries attended the workshop.

After the big success of the “1<sup>st</sup> Workshop on Geoelectrical Monitoring”, which was held in Vienna in 2011, many voices demanded a second scientific meeting. This proves that geoelectrical monitoring established as one of the most innovative emerging branches in the area of applied geophysics within recent years. It is now applied to solve problems in key areas of public and political interest, such as natural hazard mitigation, groundwater exploration and questions of energy budget and climatic change.

On December 3<sup>rd</sup>, a Special Course on Geoelectrical Monitoring (4D data inversion and monitoring instrumentation) was held at the Geological Survey of Austria in the frame of the GELMON Conference (17 participants). Within the consecutive three days of the conference, more than 50 speakers presented state-of-the-art results on geoelectrical monitoring. The scientific topics comprised applications at landslides and in agriculture, questions of CO<sub>2</sub>-storage, applications in geothermal and permafrost monitoring, as well as new inversion algorithms and applications in hydro(geo)logy.

An important aspect was the discussion of the presentations, the exchange of ideas on special topics and the development of international scientific relations. Two discussion groups focused on the topics “Temperature correction of geoelectrical monitoring data” and “Quality assessment of monitoring data”, respectively. Especially the topic “Quality assessment” raised a lively debate. A Panel Discussion on future perspectives of geoelectrical monitoring, and especially possible applications to hydrocarbon exploration, closed the workshop.

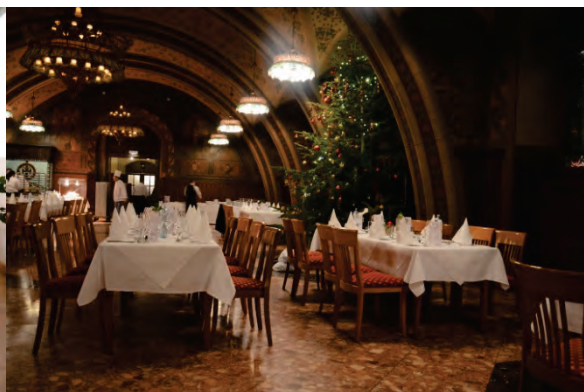
This time the meeting was held in the Presentation Hall of the Austrian Ministry of Science and Technology (BMWF). The central position in the 1<sup>st</sup> district of Vienna, as well as the Christmassy atmosphere in the Austrian capital imparted an amazing flair to the conference. Social highlight was the Conference Dinner in the “Wiener Rathauskeller”, where delicious food and atmospheric music could be enjoyed in a magnificent ambience.

GELMON 2013 could tie in to the success of the first workshop and the quality of the meeting was even improved. This was proven by a questionnaire, which was anonymously answered by about

2/3 of the workshop participants. Approximately 95 % of the respondents rated the quality of the presentations as well as the benefit for their research as high or very high. All respondents voted for a continuation of the GELMON workshop in a 2-year cycle and therefore the next workshop will be held in Vienna in December 2015.



Impressions from the GELMON Conference



Conference Dinner at the "Wiener Rathauskeller"

As a product of the 1<sup>st</sup> GELMON workshop, a collection of contributions was published in a special issue on geoelectrical monitoring in the journal „Near Surface Geophysics“ (*Near Surface Geophysics*, 2014, 12). A similar contribution is also planned as a result of the 2<sup>nd</sup> workshop, probably in the “Journal of Applied Geophysics”.

This book contains the collection of abstracts summarizing the content of the talks and is intended to be a compendium of the GELMON 2013 workshop.

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