

Program description:

CEEPUS III Application 2015/2016 Abstract: The network focuses on improving the quality in teaching geosciences in Central and SE Europe, as the main objective. Eighteen universities from ten countries (Austria, Albania, Czech Republic, Croatia, Hungary, Poland, Romania, Serbia, Slovenia and Slovakia) are involved in the project. The objective will be achieved by: a) diversifying teaching topics and methods, b) active collaboration among students and teachers and c) increasing the scientific quality of both, learning and teaching. The universities involved in the network are located within the large and complex Alpine-Carpathian-Balkan-Dinaride mountain belt which offers the possibility to study many geological aspects. The planned activities include regular mobilities and a short-term excursion (combined with summer school). A number of 71 months are envisaged for exchange in the academic year 2015-2016. From these, 25 months are for 25 short-term students (PhD) and 16 months are for 4 long-term students (diploma/master). The teacher mobilities include 30 months. For the short-term excursion, 15 months are necessary. Mobilities within joint supervising of PhD thesis will get a special attention. The management of the network will be done by a close contact (E-mail, telephone) between the partners, as well as the yearly meeting of all coordinators. The latter provides the occasion for sharing the problems, redistribution of not applied months and establishing new joint cooperation.

1. Network title: Earth-Science Studies in Central and South-Eastern Europe

2. Participating units: The network includes 18 participating units, covering 10 CEEPUS countries:

- Babes-Bolyai University Cluj-Napoca (Romania), Department of Geology (Coordinator)
- Polytechnic University of Tirana (Albania), Faculty of Geology and Mining;
- University of Vienna (Austria), Center for Earth Sciences;
- Karl-Franzens University of Graz (Austria), Institute for Earth Sciences;
- University of Innsbruck (Austria), Institute of Mineralogy and Petrography;
- Paris Lodron University of Salzburg (Austria), Department Geography and Geology;
- Montan University of Leoben (Austria), Department Applied Geosciences and Geophysics;
- Masaryk University in Brno (Czech Republic), Department of Geological Sciences;
- University of Zagreb (Croatia), Faculty of Science;
- Eötvös Lorand University Budapest (Hungary), Institute of Geology;
- University of Silesia in Katowice (Poland), Branch Sosnowiec, Faculty of Earth Sciences;
- Jagiellonian University in Cracow (Poland), Institute of Geological Sciences;
- University of Wroclaw (Poland), Institute of Geological Sciences;
- Alexandru Ioan Cuza University of Iasi (Romania), Department Geology and Geochemistry;
- Belgrade University (Serbia), Division of Geology;
- University of Ljubljana (Slovenia), Department of Geology;
- Comenius University in Bratislava (Slovakia), Department of Mineralogy and Petrology;
- Technical University in Košice (Slovakia), Department of Geology and Mineralogy.

3. Silent Partner: For the time being, we have no silent partner.

4. Planned Activities

4.1. Planned mobility activities include students and teachers mobilities, as well as a short term excursion combined with summer school.

4.1.1. Student and Teacher months, amount and distribution

The total amount of months asked for students and teachers in the frame of the planned CEEPUS III exchange program in the network is 41 student months and 31 teacher months (72 months in total for regular exchange). To this quota, additional 15 months will be added, for the short term excursion/summer school. Thus, the total amount of months requested is 87. Table 1 refers to the general exchange program among the participating CEEPUS countries (without short excursion). Tables 2a and 2b show the combined months for student and teachers. We agreed to exchange Master/Diploma students on four months basis and PhD students on a one month basis. Diploma/Master students will stay one total semester (i.e. 4 months) and will be incorporated into the normal teaching program. For these students lectures will be in part given in English. For some countries e.g. Slovenia, Croatia and Serbia there is no problem to understand each-other language i.e. courses. The PhD students are exchanged preferentially in the frame of joint/co-supervising the thesis. This will be an important part of their

mobility, working with the supervisors, learning to interpret the data and to edit papers. A number of 25 PhD students (short-term students) will be exchanged on a one-month basis and 4 diploma/master students (long-term students) will be exchanged on 4 months basis (6 x 4 = 24 months). The exchange for the PhD students is devoted to special lectures (including short-courses/seminars), certain analytical techniques and other skills. Among the teachers, there will be a total of 31 months, distributed as shown in table 2b. Additionally, for a short term excursion/summer school which will be organized by Montan University in Leoben (see below, subchapter 4.1.2), a number of 15 months will be added as incoming to Austria. Table 1: Total incoming/outgoing requested months for the regular exchange in each participating country in 2015-2016. The quota for the short term excursion/summer school is given at the end of the table. Country Incoming Outgoing

TOTAL Student Teachers	TOTAL Student Teachers	Austria	Albania	Czech Rep.	Croatia	Hungary	Poland	Romania	Serbia	Slovakia	Slovenia	Total regular months	Short term excursion/Summer school in Austria	TOTAL
19	14	5	9	1	8	4	1	3	2	1	1	72	15	87

Table 2a: Compilation of the incoming and outgoing student months and their distribution among the participating universities. The scheme is to read like that: horizontally (rows): incoming months; vertically (column): outgoing months. Shaded cells show incompatibility for mobility.

(IN)	CLU	TIR	GRA	VIE	IBK	LEO	SBG	BRN	ZAG	BUD	CRA	WRO	SOS	IAS	BEL	LJU	BRA	KOS	TOT
CLU	1	1	0	1	1	1	1	1	4	1	1	1	4	1	1	1	1	1	1
TIR	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GRA	0	0	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
VIE	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
IBK	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
LEO	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
SBG	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
BRN	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
ZAG	4	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
BUD	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
CRA	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
WRO	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1
SOS	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
IAS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BEL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LJU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BRA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
KOS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot (OUT)	1	1	0	1	0	0	0	0	1	4	4	2	9	4	5	4	3	2	41

Table 2b: Compilation of the incoming and outgoing teacher months and their distribution among the participating universities: The scheme is to read like that: horizontally (rows): incoming months, vertically (column): outgoing months. Shaded cells show incompatibility for mobility.

(IN)	CLU	TIR	GRA	VIE	IBK	LEO	SBG	BRN	ZAG	BUD	CRA	WRO	SOS	IAS	BEL	LJU	BRA	KOS	TOT
CLU	1	1	1	3	1	1	1	1	3	0	0	0	0	0	0	0	0	0	0
TIR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
GRA	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VIE	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
IBK	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LEO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SBG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BRN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ZAG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BUD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
CRA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
WRO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SOS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
IAS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BEL	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
LJU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BRA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
KOS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tot (OUT)	2	1	0	3	1	2	2	0	2	2	4	2	3	1	1	2	2	1	31

Addendum: Abbreviations for the towns-universities (in the order from tables) CLU CLUJ (Babes-Bolyai University in Cluj-Napoca, Romania) TIR TIRANA (Polytechnical University in Tirana, Albania) VIE VIENNA (University of Vienna, Austria) GRA GRAZ (Karl-Franzens University in Graz, Austria) IBK INNSBRUCK (University of Innsbruck, Austria) SBG SALZBURG (Paris Lodron University in Salzburg, Austria) LEO LEOBEN (Montan University in Leoben, Austria) BRN BRNO (Masaryk University in Brno, Czech Republic) ZAG ZAGREB (University of Zagreb, Croatia) BUD BUDAPEST (Eötvös Lorand University in Budapest, Hungary) SOS SOSNOWIEC (University of Silesia in Sosnowiec, Poland) CRA CRACOW (Jagiellonian University in Cracow, Poland) WRO WROCLAW (University of Wroclaw, Poland) IAS IASI (Alexandru Ioan Cuza University in Iasi, Romania) BEL BELGRADE (Belgrade University, Serbia) LJU LJUBLJANA (University of Ljubljana, Slovenia) BRA BRATISLAVA (Comenius University in Bratislava, Slovakia) KOS KOSICE (Technical University in Kosice, Slovakia)

4.1.2. Short excursion/Summer school in the field of Oil geology (petroleum)

Title: "Source and reservoir rocks in the Mesozoic sedimentary successions of the northwestern Tethyan realm" Place: Montan University in Leoben and the Alpine area in Austria Period: Summer 2016. Leaders: Prof. Dr. H.-J. Gawlick, Dr. A. Bechtel, Dr. R. Gratzner, Dr. S. Missoni, Prof. Dr. R. Sachsenhofer

Motivation. In geological sciences field work/practice play an important role in the daily routine work of the practical geologist, in the geological research as well as in teaching. The field practice is essential for the students and that it should play the most important and prominent part within the CEEPUS network. It provides the basic knowledge of how the earth works and thus is a most important and integral part of student curricula. Organization. It will combine course training with field practice. To organize this properly we need approximately 15 incoming stipend months for Austria in addition. The according value should cover the total expenses for approximately 25-30 participants. The 15 stipend months will be distributed in the following way: 1 from Cluj, 2 from Tirana, 1 from Brno, 1 from Zagreb, 2 from Budapest, 1 from Cracow, 1 from

Wroclaw, 1 from Iasi, 1 from Belgrade, 2 from Ljubljana and 2 from Bratislava. Planned program: Days 1-3: training course; Days 4-10: field practice 4.2. Special contribution of each institution Each participating unit offers various teaching methods and a high scientific background, thus enabling a wide field of collaboration. The fundamental geosciences are taught in all partner universities as the main and compulsory part of the curricula. Among the most important subjects are: Geology, Mineralogy, Petrology, Stratigraphy, Sedimentology, Tectonics and Geophysics. The applied geosciences have as subject: Mineral deposits, Industrial minerals, Engineering geology, Material science and Petroleum systems. The interdisciplinary domains are important issues at the frontier between Geosciences and: a) Archaeology and Cultural heritage (e.g. Archaeometry, Geoarchaeology), b) Chemistry (e.g. Applied mineralogy) and c), Constructions (e.g. Building stones). Below there is a selection of the most characteristic teaching and research subjects offered by each partner. The basic subjects such as Petrology, Mineralogy, Paleontology are provided by all partner universities. Cluj: Ophiolites, Stratigraphy, Micropalaeontology, Archaeometry. Tirana: Stratigraphy, Geophysics, Environmental geology, Mineral deposits. Vienna: Sedimentology, Environmental geology, Structural geology, Experimental petrology, Geochronology. Graz: Stratigraphy, Structural geology, Hydrogeology. Innsbruck: Experimental petrology, Archaeometry, Geodynamics, Quaternary geology, Tectonics. Salzburg: Hydrogeology, Quaternary geology, Structural geology, Geochronology, Archaeometry. Leoben: Mineral deposits, Oil geology, Engineering geology. Brno: Stratigraphy, Sedimentology, Environmental geology. Zagreb: Sedimentology, Geochemistry, Mineral deposits, Oil geology. Budapest: Sedimentology, Geophysics, Structural geology, Hydrogeology, Archaeometry. Sosnowiec: Quaternary geology, Stratigraphy, Environmental geology, Geophysics, Hydrogeology. Cracow: Sedimentology, Micropalaeontology, Mineral deposits, Geodynamics, Applied mineralogy. Wroclaw: Stratigraphy, Structural geology, Geochemistry, Archaeometry, Hydrogeology, Environmental geology Iasi: Stratigraphy, Geochemistry, Planetary geology, Environmental geology. Belgrade: Geophysics, Geochemistry, Stratigraphy, Mineral deposits, Applied mineralogy. Ljubljana: Sedimentology, Structural geology, Stratigraphy, Hydrogeology, Archaeometry. Bratislava: Sedimentology, Structural geology, Stratigraphy, Archaeometry, Hydrogeology. Kosice: Sedimentology, Tectonics, Mineral deposits, Hydrogeology, Technical mineralogy.

5. Selection Criteria

5.1. Long term student mobility (4 months). The Master (Diploma) students are only eligible if they fulfill the following criteria:

- They have to be enrolled officially in a masters/diploma study program.
- They have to prove their knowledge of English and/or German;
- They should not exceed the age of 27.
- The duration of visits for master (diploma) students should be generally on the 4 months model to enable students to take part in courses over a whole semester. For these students lectures will be given in German and English. For some countries e.g. Slovakia, Poland, Slovenia and Serbia there is no problem to understand each-other language i.e. courses.

5.2. Short term student (PhD) mobility (1 month). The PhD students are only eligible if they fulfill the following criteria:

- They have to work officially on a PhD thesis.
- They have to prove their knowledge of English and/or German;
- They should not exceed the age of 35.

5.3. Teacher mobility (1 month)

- A completed PhD for teachers is required.
- Teachers are only eligible if they have a working contract with the sending university at the time of the mobility.
- Regarding the language, see chapter Student mobility.

6. Coordination

6.1. The proper coordination (management) of the network is ensured by several ways:

- a. A regular meeting once a year in October to discuss, based on a list of topics, the exchange program of the following summer term and the preparation of the next year's application. Minutes of the meeting inform also those who were absent.
- b. The meeting is already scheduled with one year before. The next coordination meeting is already scheduled for Saturday, 17th of October 2015, 14:00 in Vienna.
- c. Use of e-mail to ensure a fast communication and full exchange of information between all participants and their coordinator. A permanently updated list of all important communication data (e-mail, tel., fax etc.) circulates among the participants.
- d. There exists a close research relationship between many partners. This enables a wealth of personal contacts and

discussions during mutual visits. Furthermore, the participants are instructed to communicate all activities to the coordinator.

6.2. Monitoring the performances of the network.

The mobilities, the development of the PhD studies etc. are permanently monitorized. The deadlines and the fulfillment of each step within mobility applications are regularly checked by the network and by the local coordinators.

7. Recognition

To ensure the mutual recognition, all network partners use the ECTS point system as listed below (in the order from tables 1 and 2a,b). All web sites have specific information about ECTS. The outcome and results of the students are officially recognized.

Cluj-Napoca (Coord): Homepage: <http://bioge.ubbcluj.ro/geologie/> ECTS: <http://bioge.ubbcluj.ro/planuride-invatamant/>

Tirana: Homepage: <http://www.upt.al/index.php/en/> ECTS: <http://www.upt.al/index.php/kreditet-frekuentimi>

Vienna: Homepage: <http://earth-sciences.univie.ac.at/home/> ECTS: <http://ssc-geo-astronomie.univie.ac.at/spl-28-geowissenschaften/>
http://earth-sciences.univie.ac.at/fileadmin/user_upload/serv_earthsciences/studienplan_07.pdf

Graz: Homepage: http://erdwissenschaften.uni-graz.at/index_de.php ECTS: http://erdwissenschaften.uni-graz.at/lehre/index_de.php
<http://erdwissenschaften.uni-graz.at/lehre/wbMitteilungsblaetter.pdf>

Innsbruck: Homepage: http://www.uibk.ac.at/fakultaeten/geo_und_atmosphaerenwissenschaften/ ECTS: <http://www.uibk.ac.at/studium/angebot/ma-erdwissenschaften/infos-pruefungsreferate.html>

Salzburg: Homepage: http://www.unisalzburg.at/portal/page?_pageid=139,94438&_dad=portal&_schema=PORTAL ECTS: http://www.unisalzburg.at/portal/page?_pageid=73,1043665&_dad=portal&_schema=PORTAL
http://www.unisalzburg.at/portal/page?_pageid=73,1044449&_dad=portal&_schema=PORTAL

Leoben: Homepage: <http://www.unileoben.ac.at/content/view/18/388/lang,de/>
<http://www.unileoben.ac.at/content/view/530/1175/lang,de/> ECTS: http://www.unileoben.ac.at/de/2884/?tx_ttnews%5Bpointer%5D=2&cHash=ef9a51dc00e4d4ef63849655b4023ba4

Brno: Homepage: <http://www.muni.cz/sci/315010> ECTS: <http://www.sci.muni.cz/en/BcMgrStudium/Studijni-katalogy>

Zagreb: Homepage: <https://www.pmf.unizg.hr/geol/en> ECTS: https://www.pmf.unizg.hr/geol/en/study_programs
<http://www.rgn.unizg.hr/en/studies/graduate-study/graduate-study>

Budapest: Homepage: http://geosci.elte.hu/en_szervezeti.htm ECTS: <http://157.181.174.19/kredit/index.htm>

Sosnowiec (Katowice): Homepage: <http://english.us.edu.pl/faculty-earth-sciences> ECTS: <http://www.wnoz.us.edu.pl/>
<http://www.wnoz.us.edu.pl/ects.php>

Cracow: Homepage: <http://www.ing.uj.edu.pl/> ECTS: <http://www.ing.uj.edu.pl/studia/2-stopnia/program-studiov>

Wroclaw: Homepage: <http://international.uni.wroc.pl/en/faculty-earth-science-and-environmental-management> ECTS: <http://international.uni.wroc.pl/en/master/geology-and-environmental-geosciences>

Iasi: Homepage: <http://geology.uaic.ro/> ECTS: <http://www.geo.uaic.ro/index.php/programe-studii/departament-geologie/seria-2012-2016/domeniul-geologie/seria-2012-2015/164-anul1-12>

Belgrade: Homepage: <http://www.rgf.bg.ac.rs/?lang=en#> ECTS: <http://www.rgf.bg.ac.rs/index.php?menu=programstudija&id=53&stepen=M&lang=en>

Ljubljana: Homepage: <http://www.ntf.uni-lj.si/og/index.php?page=static&item=130> ECTS: <http://www.ntf.uni-lj.si/og/index.php?page=predmetnik&item=523>

Bratislava: Home: <http://www.fns.uniba.sk/index.php?id=geology> ECTS: http://www.fns.uniba.sk/index.php?id=studijny_program

Kosice: Homepage: <http://www.ugv.fberg.tuke.sk/> ECTS: http://www.ugv.fberg.tuke.sk/departament/_studium.php?IdLang=0&id_menu_studium=54
<http://web.tuke.sk/ECTS/> http://www.ugv.fberg.tuke.sk/departament/_study.php?IdLang=0

8. Special merits

8.1. The CEEPUS activities fit very well within the rest of activities (teaching, research) an all partner universities. Below is selection of the lectures offered within CEEPUS exchange program. - Geochemical analysis in petrology, at Cluj-Napoca University, by Prof. Dr. V. Hoeck - Electron

microprobe analysis in archaeometry, at Al.I. Cuza University Iasi, by Prof. Dr. V. Hoeck - Sedimentary environments at Belgrade University, by Prof. Dr. H.-J. Gawlick - Mineralogy and petrography of ancient ceramics, at Salzburg University, by Prof. Dr. C. Ionescu - Basin evolution in Alpinotype Europe, at Babes-Bolyai University by Prof. Dr. H.-J. Gawlick. - Development and Geodynamics of Pannonian basin, at Ljubljana University, by Dr. Laszlo Fodor. - Research in Neotectonics – examples from the Pannonina basin, at Ljubljana University, by Dr. Laszlo Fodor. - From Cretaceous nappe stacking to Miocene extension in the SW Pannonian Basin (NE Slovenia, SW Hungary), at Ljubljana University, by Dr. Laszlo Fodor.

8.2. Special merits are due to the general bilateral agreements (partnership) in respect to teaching and science, among two universities, e.g. Vienna – Brno, Salzburg – Cracow, Bratislava – Graz, Bratislava – Vienna, Salzburg – Cluj, Budapest – Vienna, Leoben – Bratislava, Leoben – Ljubljana, Ljubljana – Belgrade, Belgrade – Innsbruck.

9. Further Information

9.1. CEEPUS posters and announcements. The CIII-RO-00038 network has a webpage hosted by the Babes-Bolyai University in Cluj-Napoca: <http://bioge.ubbcluj.ro/ceepus/>. It contains links to the main CEEPUS page and partner universities, as well as details on the network: Objectives, Subjects, Partners, Summer schools, Events. Also local partners have special posters, e.g. Kosice (http://ugv.fberg.tuke.sk/departament/files/sk/download/Plagat-Ceepus_BERG.pdf).

9.2. In the last year numerous joint lectures and posters resulted from CEEPUS mobilities and cooperation were presented at national and international congresses. More than 10 joint papers were published as outcome of the teaching and research co-operations at student as well as at teacher level. This reflects the enhancement of the PhD students ability to write papers and greatly helps them in finalizing the PhD thesis.

Koppa, M., Koller, F., Putiš, M., 2014: Petrology and geochemistry of a peridotite body in Central-Carpathian Paleogene sediments (Sedlice, eastern Slovakia). *Geol. Carpath.* 65, 5, 387-399.

Neumeister, S., Banjac, N., Bechtel, A. & Gawlick, H.-J., 2013: Source rock investigations and organic geochemistry of a Cretaceous succession of the Outer Dinarides (Mokra Gora, Tara Mountains, SW Serbia). In: R. SCHUSTER (ed.): 11th Workshop on Alpine Geological Studies & 7th European Symposium on Fossil Algae. Abstract & Field Guides. Schladming, Sept. 2013.

Missoni, S., Gawlick, H.-J., Plasienska, D., Prochaska, W. & Aubrecht, R., 2013: Carnian-Norian tectonics and seawater from the Western Carpathians, Neotethys realm. 5th National Conference of Sedimentology: Sedimentology Innovation and Energy, Abstract volume, 670, Hangzhou.

Gawlick, H.-J., Missoni, S., Aubrecht, R., Schlagintweit, F. & Plasienska, D., 2014: Ophiolite obduction as cause for the Middle to Late Jurassic tectonic processes in the Northern Calcareous Alps – ophiolitic detritic material in Kimmeridgian calcareous basin sediments (Saalach zone). *Berichte Institut Erdwissenschaften Karl-Franzens Universität Graz, PANGEO 2014*, 20: 58, Graz.

Missoni, S., Gawlick, H.-J., Kronome, K., Plasienska, D., Prochaska, W. & Aubrecht, R., 2013: Carnian-Norian tectonic and seawater from Silicka Brezova, Western Carpathians. In: R. SCHUSTER (ed.): 11th Workshop on Alpine Geological Studies & 7th European Symposium on Fossil Algae. Abstract & Field Guides. Schladming, Sept. 2013.

Fodor, L., Márton, E., Vrabec, M., Jelen, B., Koroknai, B., Rifelj, H., Vrabec, M., 2014: Multiple phases of ductile and brittle deformation and paleomagnetic rotation within a few million years interval in the Pohorje area, Slovenia. 9th ESSEWECA Conference (Environmental, Sedimentary and Structural Evolution of the Western Carpathians), November 5-7 Smolenice, Slovakia. Abstract Book (Bucová, J., Puškelová, L. eds), Geophysical Institute, Slovak Academy of Sciences, 18–19.

Fodor, L., Márton, E., Vrabec, M., Jelen, B., Koroknai, B., Rifelj, H., Trajanova, M., Vrabec, M., 2015: Phases of extensional deformation and rotations within a few million years interval: an integrated paleomagnetic and structural study (Pohorje, Slovenia). Tectonic Studies Group Annual Meeting, Edinburgh, January 2015.

Kryza, R., Beqiraj, A., 2014: Palaeoproterozoic (1.83 Ga) zircons in a Bajocian (169 Ma) granite within a Middle Jurassic ophiolite (Rubiku, central Albania): a challenge for geodynamic models. *Int. J. Earth Sci.*, 2014.

Ionescu, C., Hoeck, V., Gruian, C., Simon, V., 2014: Insights into the EPR characteristics of heated carbonate-rich illitic clay. *Applied Clay Science*, 97-98: 138-145;

Ionescu, C., Hoeck, V., Crandell, O.N., Šarić, K., 2015: Burnishing versus smoothing in

ceramic surface finishing: A SEM study. *Archaeometry*, 57 (1): 18-26. Jurje, M., Ionescu, C., Hoeck, V., Kovacs, M., 2014: Geochemistry of Neogene quartz andesites from the Oas and the Gutai Mountains, Eastern Carpathians (Romania): A complex magma genesis. *Mineralogy and Petrology*, 108 (1): 13-32.

10. Type of Instruction Planned: Assistance with work on a (doctoral) thesis, Courses, Laboratory work Internship, Others (specified in Network activities) 11. Language of Instruction Planned: English, German, Polish 12. Network Activities Other activities are: - Seminars - Field work - Mapping courses - Summer school with excursions The main network activities are described in Chapter 4 Planned activities. Efforts will be made to teach in English, but a considerable amount of lectures will be also held in German and the native language of the host country. The personal cooperation between the co-supervisors and the PhD students takes place generally either in English or in German. For some countries e.g. Slovakia, Poland, Slovenia, Croatia and Serbia there is no problem to understand each-other language i.e. courses. 13. Background Information We heard about CEEPUS long time ago, via the bilateral agreement between universities of Cluj and Salzburg. The network proved to be the single one in Europe offering such wide opportunities in teaching, learning in geosciences. For example, other programs are focused on narrower subjects and have limited duration in time (1-2-3 years). Additionally, other programs are devoted mainly to diploma students and not so much to PhD students or teachers. 14. Index Physical science Mining and extraction Building and civil engineering Environmental protection History, philosophy and related subjects (Cultural Heritage investigation, protection, restoration and preservation) 15. Joint Programs Many of the joint programs developed within CEEPUS III are successfully finalised. Others are ongoing. According to the legal and administrative difficulties to develop joint Master/PhD degrees, we focus on co-supervision of Master/PhD theses (thèse en cotutelle). Presently six projects are running under co-supervision among network partners. These programs include presently ten universities: Cluj, Salzburg, Vienna, Leoben, Innsbruck, Bratislava and Belgrade. All are in various states of development. Several programs which started with CEEPUS III are already finished and the final defence was successful. The following programs are ongoing: 1. Sediments and artefacts in archaeological sites located in caves from Hunedoara County (Romania): paleoclimatic and technological reconstructions Ph.D. student: Alexandra Giurgiu (Cluj) Supervisors: Prof. Dr. C. Ionescu (Cluj), Prof. Dr. V. Hoeck (Salzburg) 2. Reflexion of Jurassic convergence tectonics in the Meliatic, Silicic and Hronic rocks PhD student: Lucia Ledvényiová (Bratislava) Supervisors: Prof. Dr. R. Aubrecht (Bratislava), Prof. Dr. H.-J. Gawlick (Leoben) 3. Mineralogical-petrological and petrotectonic study of ultramafic rocks in Gemeric area Master student: Brigitta Snarska (Bratislava), Supervisors: Prof. Dr. Marian Putis (Bratislava), Prof. Dr. F. Koller (Vienna) 4. New constraints on the thermal history of Jarandol Basin (S Serbia) PhD student: Nevena Andric (Belgrade) Supervisors: Assist. Prof. Dr. K. Šaric, Dr. B. Trivic (Belgrade), Prof. Dr. B. Fuegenschuh (Innsbruck) 5. Jurassic Granitoids from the Southern Apuseni Mountains, Romania Ph.D. student: Mihai Pop (Cluj) Supervisors: Prof. Dr. C. Ionescu (Cluj), Prof. Dr. V. Hoeck (Salzburg) 6. Mineralogical-petrological study of serpentinites and rodingites in the Western Carpathians PhD student: Peter Šmál (Bratislava) Supervisors: Prof. Dr. M. Putiš (Bratislava), Prof. Dr. F. Koller (Vienna) 16. Objectives The network focuses on improving the quality in teaching geosciences in Central and SE Europe, as the main objective. Eighteen universities from ten countries (Austria, Albania, Czech Republic, Croatia, Hungary, Poland, Romania, Serbia, Slovenia and Slovakia) are involved in the project. The objective will be achieved by: a) diversifying teaching topics and methods, b) active collaboration among students and teachers and c) increasing the scientific quality of both, learning and teaching. As a general view, the objectives of the network are included in the general frame of geosciences and related subjects. However, the basic teaching and scientific domains are followed i.e. Fundamental geosciences, Applied geosciences, and Interdisciplinary domains (see Chapter 4.2). The biggest achievements of our network during the last academic year: 1. Successful cooperation in academic teaching and training (at diploma, MSc and PhD levels), in particular joint programs for PhD studies: several such co-supervising theses were defended, others

are ongoing and new agreements are at the beginning; 2. High number of lectures (see Chapter Special merits) during CEEPUS mobilities; 3. Joint scientific research in contemporary problems of the Earth sciences and Geology of Central Europe (documented by recognized publications, see chapter Further Information). The biggest obstacles encountered during the last academic year were due to:

1. Too few months awarded by some NCO e.g. Hungary and Serbia, compared with the requests regarding the ongoing joint programs;
2. Small chance to organize short field excursions, which are elementary in our topic.