



FCT, 29th February 2012

Dear Colleagues,

Project ELECTROACROSS started 1st March 2011 and will last for 48 months. During this 4 year period, Steering Committee (SC) meetings with all Team leaders of the 10 participating institutions are preview. As we still did not have the chance to meet everybody at the same time, we have been having several meetings, with as much participants as possible (**Table 1**), with the following **Agenda**. In total we are 40 researchers, 27 considered Experienced Researchers (ER) and 13 Early Stage Researchers (ESR). Can you imagine how far can we go with all these brains working together? I do think we have been doing a nice job!

Table 1 - Meetings

Nº	Team	Participant	Place	Date	Observations/in connection with
1	1) FFCT-UNL (PT) 5) USM (CL)	1) Alexandra Ribeiro (ER1) 1) Eduardo Mateus (ER2) 5) Henrik Hansen (ER14)	University of Vigo, Vigo, Spain	12 th April 2011	- Meeting of <i>Red Iberoamericana RIARTAS - Red IberoAmericana de Aprovechamiento de Residuos Industriales para el Tratamiento de Suelos y Aguas Contaminadas</i> , CYTED, to which 1) and 5) belong, with presentation of two oral communications by invitation at the Conference the organized. - Preparation of the Secondment of Henrik from USM to DTU (July 11)
2	1) FFCT-UNL (PT) 2) UALG (PT)	1) Alexandra Ribeiro (ER1) 2) Margarida R. Teixeira (ER5)	1) FFCT-UNL, Portugal	12 th May 2011	- Meeting of the Portuguese project PTDC/ECM/111860/2009, that 1) and 2) have together. - Preparation of the Secondments of Margarida and Luís from UALG to USM (23 rd May to 24 th July 11)
3	1) FFCT-UNL (PT) 3) UMA (ES) 4) DTU (DK) ESAC (PT)	1) Alexandra Ribeiro (ER1) 1) Eduardo Mateus (ER2) 1) Helena Gomes (ESR1) 1) Marco Silva (ER3) 1) Ana Luísa Fernando (ER4) 1) Nazaré Couto (ESR2) 3) Maroto (ER7) 4) Lisbeth Ottosen (ER11) Celia Ferreira	1) FFCT-UNL, Portugal	3 rd June 2011	- Helena Gomes presented her PhD Working Plan, having Lisbeth, Maroto, Alexandra and Celia as Follow up Commission. - Preparation of Helena Gomes Secondment from FFCT-UNL to LehighU (1 st September 2011 to 31 st August 2012).
4	1) FFCT-UNL (PT) 7) MonashU (AU)	1) Alexandra Ribeiro (ER1) 1) Eduardo Mateus (ER2) 1) Marco Silva (ER3) 1) Nazaré Couto (ESR2) 7) Philip Marriott (ER18)	1) FFCT-UNL, Portugal	14 th June 2011	- Secondment from MonashU to FFCT-UNL of Philip Marriott (June-July 2011), preparation of the Course entitled "Hot and Cold" gas chromatography for molecular discovery", carried out on the 22-06-2011, at FCT-UNL. - Preparation of the Secondments from FFCT-UNL to MonashU of Alexandra and Eduardo (23 rd June 2011 to 9 th January 2012)

Table 1 - Meetings (cont.)

Nº	Team	Participant	Place	Date	Observations/in connection with
5	5) USM (Chile) 4) DTU (DK) 10) LehighU (US)	5) Henrik Hansen (ER14) 4) Lisbeth Ottosen (ER11) 4) Pernille Jensen (ER 13) 4) Juan Paz Garcia (ESR 6) 10) Sibel Pamukcu (ER26)	Utrecht University, Netherlands	18 th July 2011	During EREM2011 - 10 th International Symposium on Developments in Electrokinetic Remediation of Soils, Sediments and Construction Materials, preparation of the Secondments from USM to DTU for Henrik (July 2012) and from LehighU to DTU for Sibel (July 2012)
6	4) DTU (DK) 5) USM (Chile) 10) LehighU (US)	4) Lisbeth Ottosen (ER11) 4) Pernille Jensen (ER 13) 4) Juan Paz Garcia (ESR 6) 5) Henrik Hansen (ER14) 10) Sibel Pamukcu (ER26)	4) Technical University of Denmark, Denmark	25 th July 2011	- During the Secondments of Henrik and Sibel at DTU July 2012, a meeting was carried out discussing in more detail joint projects/experiments within the scope of the ELECTROACROSS project
7	1) FFCT-UNL (PT) 7) MonashU (AU)	1) Alexandra Ribeiro (ER1) 1) Eduardo Mateus (ER2) 7) Philip Marriott (ER18) 7) Sung Chin (ESR 10)	7) Monash University, Australia	3 rd August 2012	- During the Secondments of Alexandra and Eduardo at Monash University (June 2011 to January 2012), several meetings were carried out, discussing in more detail joint projects/experiments within the scope of the ELECTROACROSS project
8	1) FFCT-UNL (PT) 2) UALG (PT) 5) USM (Chile)	1) Alexandra Ribeiro (ER1) 1) Eduardo Mateus (ER2) 1) Nazaré Couto (ESR2) 2) Margarida R. Teixeira (ER5) 2) Luís Nunes (ER6) 5) Henrik Hansen (ER14) 5) Claudia Cordova (ESR 7)	1) FFCT-UNL, Portugal	3 rd February 2012	- During the Secondments of Henrik and Claudia from USM to FFCT, their work was carefully organized previously to this meeting. - The results of the Secondments of Margarida and Luís from UALG to USM (May-July 2011) were presented, in order to establish an on going procedure among the work carried out by partners 1), 2) and 3).
9	1) FFCT-UNL (PT) 2) UALG (PT) 5) USM (Chile)	1) Alexandra Ribeiro (ER1) 1) Eduardo Mateus (ER2) 1) Nazaré Couto (ESR2) 2) Margarida R. Teixeira (ER5) 2) Luís Nunes (ER6) 5) Henrik Hansen (ER14) 5) Claudia Cordova (ESR 7)	1) FFCT-UNL, Portugal	17 th February 2012	- Margarida and Luís from UALG brought membrane concentrate samples to carry out Electrokinetic experiments on them, at FFCT. - Detail discussions for future joint projects and publications within the scope of the ELECTROACROSS. - Detailed preparation of the Secondment of Núria Salvador (ESR 4) from UALG to USM (April -June 2012).

Legend

- 1) Fundacao da Faculdade de Ciencias e Tecnologia, Universidade Nova de Lisboa, Portugal (FFCT-UNL)
- 2) Universidade do Algarve, Portugal (UALG)
- 3) Department of Chemical Engineering, University of Malaga, Spain (UMA)
- 4) Department of Civil Engineering, Technical University of Denmark, Denmark (DTU)
- 5) Department of Chemical and Environmental Engineering, Universidad Tecnica Federico Santa Maria, Chile (USM)
- 6) StateKey Lab of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, China (ISSCAS)
- 7) Green Chemistry Centre, School of Chemistry, Monash University, Australia (MonashU)
- 8) Peoples Friendship University of Russia, Russia (PFUR)
- 9) Department of Chemistry, ICEx, Federal University of Minas Gerais, Brazil (UFMG)
- 10) Department of Civil and Environmental Engineering, Lehigh University, USA (LehighU)

**SC Meeting
Work AGENDA**

- Welcome to the Team Leaders and our participants of the ELECTROACROSS project
- Presentation of the Project and Inventory of national available projects of the different teams

- Main questions to discuss:

- Experimental activities envisaged
- Which matrices to submit to EK
- Secondments in the GANTT chart: arrangements, deliverables, milestones
- External aids to the project (e.g. Red RIARTAS, envisaged submission of project applications)
- Organization of common events with other projects and Networks
- Suggestion dates and locals for next meetings
- Elaboration of the project site: contends, host institution, etc.
- Bereaucratic matters: secondment form for signature, report periods, etc.

- Other suggested topics

Table 2 Please have a look at our: **National available projects** of our different partners. Eventually we can all multiply their own achievements working together;

Table 3 **List and schedule of Milestones** (table 3). We will have soon to present some of them (month 14);

Table 4 **Gantt chart of secondments** execution (attached).

Publications (annex 1) So far we have achieved the following:

Book chapters.....	2
Peer-reviewed international journals.....	11
Peer-reviewed national journals.....	4
International conference proceedings.....	18
National conference proceedings.....	7
Oral communications by invitation.....	5
Participation in Conferences, Meetings, Courses.....	17

Site Please also have a look at our site <http://sites.fct.unl.pt/electroacross>, kindly prepared by Paula Guedes, with the help of Nazaré Couto and Helena Gomes, all ESR from FFCT-UNL. You are all very welcome to contribute to it (just send me your contributions and I will pass them to Paula).

Thank you. In case you have some comment or thing to add please do not hesitate in contacting me. This will be the base of our first year ELECTROACROSS report to Brussels.
OBRIGADA! Best regards,

Alexandra Ribeiro

Table 2 – ELECTROACROSS Partners Projects

Research Project								
Partner	Title	Sigla	Begin	End	Financing entity	Coordinator	Colaboration	Financed human resources
1) FFCT-UNL	Trace gas emissions from Portuguese irrigated rice fields in contrasting soils, by the influence of crop management, climate and increase concentration of CO ₂ in the atmosphere	PTDC/AGR-AAM/102529/2008	March 2010	March 2013	Portuguese Foundation of Science & Technology		X	18 months MSc students
1) FFCT-UNL	Electrokinetic treatment of sewage sludge and membrane concentrate: phosphorus recovery and dewatering	PTDC/ECM/111860/2009	March 2011	March 2014	Portuguese Foundation of Science & Technology	Alexandra B. Ribeiro X		36 months PhD students
2) UALG	idem	idem	idem	idem	idem		X	6 months student
3) UMA	Electrokinetic treatment for the selective Removal of Heavy Metals from contaminated Soils. ERHMES	CTM2010-16824	Jan 2011	Dec 2013	Ministry of Science and Innovation	J.M.Rodríguez Maroto X		24 months PhD student
3) UMA	Use of Renewable Energies in the Generation Electrochemistry of Fe (III) for its use like coagulant in the potable water treatment	8.06/5.32.3497	Jun 2010	Jun 2013	EMASA	J.M.Rodríguez Maroto X		36 months PhD student
5) UTFSM	Application of low voltage electrochemical processes in the treatment of copper smelter wastewater and slag leachates	Proyecto Fondecyt 1100440	March 2010	March 2012	CONICYT, Chile	Henrik K. Hansen X		2 pre-graduate students (12 months each)
6) ISSCAS	Study of electrokinetic remediation of heavy metal and POPs compound polluted soil	NSFC 20807044	Jan 2009	Dec 2011	National Natural Science Foundation of China	X		36 months students
6) ISSCAS	Remediation technology and equipment research of chromium contaminated sites	863-2009AA063101	Sep 2009	Dec 2012	National 863 Program	X		39 months students

Table 3: List and schedule of Milestones

Milestone N.	Milestone name	WPs	Lead Beneficiary/ Participant org. Short name	Delivery (month)
1	EK system for recovery of nutrients from particulate wastes	1	FFCT-UNL/USM; DTU	48
2	SS selected, sampled and characterized	1, 2	FFCT-UNL/ USM; DTU; MonashU; UFMG	14
3	Efficiency of EK P recovered from SS, evaluated & results presented as a matrix. Model of task 1.6 developed, incorporating the experimental data	1	FFCT-UNL/ USM; DTU; PFUR; UMA	48
4	Efficiency of EK dewatering from SS evaluated & results in a matrix	1	FFCT-UNL/USM; DTU; PFUR	
5	MC selected, sampled and characterized	1	UALG/MonashU; UFMG; FFCT-UNL	14
6	Efficiency of EK P recovered from MC, evaluated & results presented as a matrix. Model of task 1.6 developed, incorporating the experimental data	1	FFCT-UNL/USM; UALG; PFUR;UFMG; UMA	27
7	Efficiency of EK dewatering of MC evaluated & results in a matrix	1	FFCT-UNL/USM; UALG; PFUR; UFMG	27
8	Bio-ashes selected, sampled and characterized	1	FFCT-UNL/USM; DTU; MonashU; UFMG	14
9	Efficiency of EK nutrient recovered from bio-ashes evaluated & results presented as a matrix. Model developed, using experimental data	1	FFCT-UNL/ USM; DTU; MonashU; UFMG; UMA	37
10	EK system for multiclass chemical SS contaminant removal	2	FFCT-UNL/MonashU; USM; DTU; UFMG	48
11	Procedure(s) for testing ashes and relating their characteristics to the properties of cement based materials	2	DTU/PFUR; USM; FFCT-UNL	48
12	Chemical characterization & contaminant monitorization of SS and bioashes by Comprehensive Chromatography as a key tool in the EK process	2	FFCT-UNL/MonashU; UFMG	33
13	One day training activity at FFCT-UNL to present Comprehensive Chromatography as a key tool in the EK process	2	FFCT-UNL/MonashU	15
14	Inventory of panel layouts and associated materials is concluded	3	FFCT-UNL/UFMG; DTU	20
15	Evaluation of efficiency concluded, and the results presented as a matrix	3	FFCT-UNL/DTU	26
16	Experimental walls are built and tile panels applied	3	FFCT-UNL/DTU	26
17	Leaflet for the Conservator is ready to distribute	3	FFCT-UNL/DTU	40
18	Nanoparticles are selected	4	FFCT-UNL/LehighU	9
19	Methodology to determine nanoparticles in the soil is defined	4	FFCT-UNL/LehighU/DTU	15
20	EK cell for coupling EK+Nanoparticles is ready	4	FFCT-UNL/LehighU	22
21	EK cell for coupling EK+Phytorem is ready	4	FFCT-UNL/ISSCAS	32
22	Experimental data to develop the model in task 4.3 is acquired	4	FFCT-UNL/ISSCAS/ LehighU	32
23	Environmental impact of EK+Nanorem and of EK+Phytorem is assessed	4	FFCT-UNL	42
24	Organization of the Final Conf. and its book of Abstracts	5	All 10 partners	40

Table 4 - Gantt chart of secondments of ELECTROACROSS at 17 March 2012

[illegible]

😊 Done or on its way

→ Already asked to Project Officer to be postponed and accepted

☹ Not being executed