



DELIVERABLE XII

ACTION D.7

SCIENTIFIC AND TECHNICAL

PUBLICATIONS



1. INTRODUCTION

LIFE I+DARTS members have taken part in conferences, workshops and congresses related to contaminated soils. These events have made it possible to publicize the project and disseminate its objectives and actions at national and European level, as well as, to know the latest advances in remediation of contaminated soils and to establish new relationships with other European projects and institutions in order to exchange knowledge and improve the results of the project.

2. POSTERS AND PRESENTATIONS

In relation to Action D.7, the following list includes poster and presentations (oral communications) done:

- [International Congress Phytoremediation of Polluted Soils](#) (29th-30th July 2014, Vigo, Spain). Poster and oral communication: *“Feasibility study of phytostabilization strategies in an As-polluted soil”* and *“Phytoremediation capability of native plant species living in Pb-Zn and Hg-As mining wastes, Cantabrian range, north of Spain”*
- [Advocate Conference](#) (In Situ Remediation Conference, 2nd-4th September 2014, London). Two poster presentations were done: *“Sustainable in situ remediation for Arsenic polluted sites”* and *“Environmental forensics applied to define remediation targets in an abandoned Hg mining-metallurgical site”*.
- [Incuna2014](#) (XVI International Conference of Industrial Heritage, 24th – 28th September 2014, Gijón, España). Oral communication: *“Green technologies and environmental forensic science in industrial activities. Special cases: Nitrastur and Terronal in Asturias”*
- [11th International Phytotechnologies Conference](#) (30th-3rd October 2014, Heraklion, Crete, Greece). Poster presented was: *“Strategies for enhancing the phytoremediation of heavy metals contaminated industrial soils by native species of Principado de Asturias (Spain)”*
- [Course: Degradation processes and soil recovery](#) (6th 10th October 2014, CIEMAT, Madrid) where the project manager presented I+DARTS.
- [13th International UFZ-Deltares Conference on Sustainable Use and Management of Soil, Sediment and Water Resources](#) (9th –12th June 2015, Copenhagen, Denmark). Oral communication: *“Insight into a 20 ha multi-contaminated brownfield megasite an environmental forensics approach”*



- [Condegress2015](#) (23th – 26th June 2015). Oral presentation: “*Recuperación de suelos contaminados por cenizas de pirita mediante técnicas de lavado de suelos*”

3. SCIENTIFIC PUBLICATIONS

The scientific-technical papers totally or partially related to the project till the date are the following:

- Gallego, J.R., Esquinas, N., Rodríguez-Valdés, E., Menéndez-Aguado, J. M., & Sierra, C. (2015). Comprehensive waste characterization and organic pollution co-occurrence in a Hg and As mining and metallurgy brownfield. *Journal of Hazardous Materials*, 300, 561-571. <http://dx.doi.org/10.1016/j.jhazmat.2015.07.029>
- Gallego, J.R., T. Rodríguez, E. Rodríguez Valdés, A. González, A. Bertrand, A.I. Peláez, H. Sastre, R. Álvarez, A. Marqués, M.A. Álvarez, A. Colinas, P.L. Álvarez, L.M. Álvarez, A. Vázquez, E. Suárez (2015). Recuperación de terrenos contaminados con arsénico en antiguos emplazamientos mineros e industriales. *Revista PQ*, 1222, 40-44.
- Gallego, J.R., Rodríguez-Valdés, E., Esquinas, N., Fernández-Braña, A., & Afif, E. (2016). Insights into a 20-ha multi-contaminated brownfield megasite: An environmental forensics approach. *Science of the Total Environment*, 563-564, 683-692. <http://dx.doi.org/10.1016/j.scitotenv.2015.09.153>
- Gil-Díaz, M., Díez-Pascual, S., González, A., Alonso, J., Rodríguez-Valdés, E., Gallego, J. R., & Lobo, M. C. (2016). A nanoremediation strategy for the recovery of an As-polluted soil. *Chemosphere*, 149, 137-145. <http://dx.doi.org/10.1016/j.chemosphere.2016.01.106>
- Wcisło, E., Bronder, J., Bubak, A., Rodríguez-Valdés, E., & Gallego, J. L. R. (2016). Human health risk assessment in restoring safe and productive use of abandoned contaminated sites. *Environment International*, 94, 436-448. <http://dx.doi.org/10.1016/j.envint.2016.05.028>
- Boente, C., Sierra, C., Rodríguez-Valdés, E., Menéndez-Aguado, J.M., Gallego, J.R. Soil washing optimization by means of attributive analysis: case study for heavy metal(loid)s removal from a pyrite ashes contaminated soil. *Journal of Cleaner Production*, 142, 2693–2699. <http://dx.doi.org/10.1016/j.jclepro.2016.11.007>
- Fernández, S., Poschenrieder, C., Marcenò, C., Gallego, J. R., Jiménez-Gámez, D., Bueno, A., & Afif, E. (2017). Phytoremediation capability of native plant species living on Pb-Zn and Hg-As mining wastes in the Cantabrian range, north of Spain. *Journal of Geochemical Exploration*, 174, 10-20. <http://dx.doi.org/10.1016/j.gexplo.2016.05.015>
- Rumayor, M., Gallego, J. R., Rodríguez-Valdés, E., & Díaz-Somoano, M. (2017). An assessment of the environmental fate of mercury species in highly polluted brownfields by means of thermal desorption. *Journal of Hazardous Materials*, 325, 1-7. <http://dx.doi.org/10.1016/j.jhazmat.2016.11.068>



- Karlfeldt, K., Sierra, C., Gallego, J.R. Enhanced soil washing for the remediation of a brownfield polluted by pyrite ash. *Water, soil & air pollution* (under review).
- Mesa, V., Navazas, A., González-Gil, R., González, A., Weyens, N., Gallego, J.R., Sánchez, J., Peláez, A.I. Microbiological analysis and enhanced arsenic phytoremediation of highly-contaminated industrial soils by means of bioaugmentation with autochthonous endophytic and rhizospheric bacteria. *Applied & Environmental Microbiology* (under review)