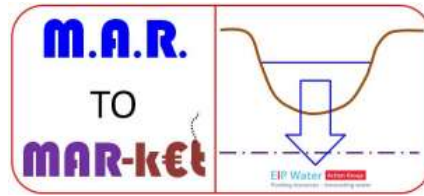


MAR to MAR-k€t AG/WG along 2015. Activities report



By Enrique Fernández Escalante

2015. MARSOL(utions) ACTIVITIES

PROYECTO MARSOL. NEWSLETTERS

After three bulletins, last November was released the fourth exemplar collecting activities on MAR.

More info:

<http://www.marsol.eu/31-0-News.html>



MARenales training workshop



Between 2015 March 9 and 11th has been celebrated the training Workshop “MARenales” in Arenales aquifer, Castille and Leon, Spain, within the framework of MARSOL project (FP-7 Water inno-demo call) and organized by Tragsa.

The members participating in this Project and related to water management in large irrigation areas have shared their expertise with assistants, as well as other experts from the MARSOL Project and invited experts from Korea, Israel and from the Spanish Geological Survey.

The workshop has had two sessions, one doors closed where have been accepted all the technicians who requested assistance, and another one opened session, involving farmers from the irrigation community and other end-users. Session were held in Coca castle (Segovia); and Gomezserracín (Valladolid).

The field trip, apart from visiting MAR facilities, visited some agro-industries, as a vegetables packaging and exportation factory. This company is related to MAR to MAR-k€t AG (they provided letter of support).

There were 50 assistants from seven European countries, Korea and Israel, technicians from the river basin authorities and from the regional government, as well as invited from other European projects closely related.



This activity was specifically designed to involve end-users in the dissemination of the research results, making technology transfer from it, according with the line started in the preceding workshop [MAR4FARM](#) held in the same context in October 2014.

Feedback and conclusions are published in MARSOL deliverable 13-1.

[Gallery](#)

New lines of action has been included in the scope such as MAR and water footprint (according to MAR to MAR-k€t WG targets), risk and impact assessment, water harvesting in urbanized areas (rural and urban), water-energy nexus (including calculations on irrigation energy savings in pumping after raising the water table by means of MAR during 10 year time), ICT solutions for MAR to monitor and collect datasets in areas with poor telephone coverage, as well as the experiences from the Spanish Geological Survey deploying MAR in Spain.

Metal dissemination posters were set up in the field.



Metal dissemination posters installed in Arenales Demo Site

MAR to MAR-k€t logo at the bottom.

MARenales training workshop. Presentations available on the Internet.

Presentations are available at dina-mar website <http://goo.gl/XTM32b> and in the MARSOL project site. EIP water mentioned this event in their summer Newsletter.



MARenaes MOVIE PREMIERE

"MARenaes movie" was presented in the last training Workshop <http://goo.gl/dlqhQz> hold last month in Arenales aquifer (Spain) specially directed to practitioners, technicians, advanced students and researchers. MARenaes movie. (mp4, 92 Mb, it might take a while to start) <http://goo.gl/f0EAwZ> Mirror site in youtube <https://youtu.be/Dw22rcEQdiw>
MAR to MAR-k€t WG logo at the bottom



A full week on MAR: MARSOL midterm meeting

The MARSOL internal mid-term meeting took place in Lisbon, Portugal, on 22. and 23. of June, 2015, on the premises of [LNEC](#). All partners of the MARSOL project presented the status and first results of their work, according to the work plan and work package structure.



<http://www.marsol.eu/70-0-Past-Events.html#marenales>

MAR IN PERU. CONFERENCE IN A CONTEXT OF HIGH MAR CULTURE: 21/08/2015

Last August 21th took place a conference in Lima, Peru, titled: *“Técnicas de Recarga Gestionada (=artificial) de Acuíferos: Experiencias en España y soluciones tecnológicas aprendidas”*.

The presentation exposed the Spanish expertise on MAR or artificial recharge with the aim of info exchange, experiences and error learnt from management, to be shared with Peruvian technicians. MAR is speeding up in this Andes country, pioneer on Mar in the American continent thanks to incas “amunas”. The conference, organized by ANA with the collaboration of the World Bank, presented also IAH MAR Commission and MAR to MAR-két in this country.

Announce and program: [Anuncio Conferencia Recarga agosto2015-ANA.pdf \(298,01 kb\)](#)
[PROGRAMA CONFERENCIA RECARGA 3PM.pdf \(208,36 kb\)](#)



SUDS book presented at Korea WWF



“La Gestión Integral del Agua de Lluvia en Entornos Edificados” or “The comprehensive management of rainwater in built-up areas”. During Korea World Water Forum, 2015 April, a new book on urban hydrogeology was presented focusing water harvesting in cities and MAR systems to increase infiltration in urban areas by means of enhanced architectonic designs. It has been written by 21 technicians (most of them architects and hydrogeologists) from Tragsa Group, a MAR to MAR-két first row member. The publication (in Spanish and in English) will be published soon on the Internet.

Support of MtoM for the ISMAR10 conference candidacy application

Last July Tragsa Group-IGME-IWRA have officially presented their application to host ISMAR 10 in Madrid in the spring of 2019. The first preparatory meeting was held in Lisbon, after MARSOL midterm meeting. June 2015.



Despite there are more applicants to host ISMAR 10, the preparatory stage has been very fruitful, due to the fact that a new network has been created:

Creation of a pan-European network of EU funded projects working on MAR

Whether ISMAR 10 application in Madrid succeeds or not, a new platform has been created within this framework, involving all coordinators and partners working on **13 EU funded projects related to MAR**, either directly or collaterally, plus Mar to MAR-k&t AG. The new platform starts sharing information and activities since 2015 July:



MARSOL Training Workshop “Modeling” in Pisa, Italy

21.04.2015: Workshop "Advantages of using Numerical Modeling in Water Resources Management and Managed Aquifer Recharge Schemes". An international workshop on numerical modelling of hydrological processes and groundwater flow and solute transport in aquifers, held in synergy with the new EU HORIZON 2020 project [FREEWAT](#) ("Free and Open Source Software for Water Resource Management"). About 130 persons attended the free workshop, both from the academy and the professional world.



22.04.2015: Indoor session on modelling in MAR, focusing on MARSOL partners presentations, followed by a field trip to the Sant'Alessio demo site and the San Niccolò phyto-treatment experimental site.

<http://www.marsol.eu/70-0-Past-Events.html>

MARSOL /MAR TO MAR-k€t Workshop "Water Quality Aspects of Managed Aquifer Recharge" in Faro, Algarve, Portugal, 24. - 26. June 2015

The MARSOL Workshop on "Water Quality Aspects of Managed Aquifer Recharge" was held at MARSOL's demonstration site in the Algarve region in June 2015.

The overall objective of the Workshop was to collect research results, practical experience, and innovative ideas related to water quality issues in MAR activities, and through this to contribute to the training of project participants' staff and researchers as well as other stakeholders in the water sector such as industry/SMEs, authorities, and end users. The workshop topic of "Water Quality" addressed changes and associated risks in the chemical status and hydraulic properties of water bodies due to infiltration of various water sources in MAR installations.



<http://www.marsol.eu/70-0-Past-Events.html>

MARSOL Workshop "Legal Issues, Policy and Governance of MAR Activities".Malta, October 2015

The MARSOL Workshop on "Legal Issues, Policy and Governance of MAR Activities" was held in October 21-23th in Malta. Presentation have not been posted on the Internet yet except isolated contributions:

<http://www.dina-mar.es/post/2015/11/10/Workshop-on-Legal-Issues-Policy-and-Governance-of-MAR-Activities-Malta-21-23-October-Gallery.aspx>

<http://www.dina-mar.es/post/2015/11/06/Workshop-sobre-aspectos-legales-legislacion-y-gobernanza-de-actividades-relacionadas-con-la-recarga-artificial-Malta-21-a-23-de-octubre-Workshop-on-Legal-Issues-Policy-and-Governance-of-MAR-Activities-21-23-October.aspx>



Do not give back to M.A.R. technique...

MAR technology transfer for MENA countries.

SWIM project receives technical information from Arenales aquifer technical aspects. A field trip guide was specifically designed for this project's members. 2015 November.

Sustainable Water Integrated Management Programme (SWIM), a Regional Technical Assistance Programme launched by the European Commission to contribute to the extensive dissemination and effective implementation of sustainable water management policies and practices in the Southern Mediterranean Region. <http://swim-sustainable.eu/index.php?id=251>

A MAR to MAR-k€t member provides a real support for a Spanish R&D and water publication (2015 Dec)

Spanish Water technological platform, an official MtoM member since the beginning has a survey in their 100 associated willing to prepare the publication recently released by the Spanish agriculture and environment Ministry (MAGRAMA) related to R&D and water.

<http://www.dina-mar.es/post/2015/12/23/La-recarga-e2809cartificiale2809d-o-gestionada-de-acuiferos-en-el-documento-e2809cIDIAGUAe2809d-recientemente-publicado-por-el-MAGRAMA.aspx>

RECENT ACTIVITIES

Recently the Tragsa Team of MARSOL and mar to mark€t are preparing a list of industries and companies "MAR water dependent" in Arenales aquifer, including agroindustry, balneary, hotels... from different sectors. The statistical treatment of this information will be exposed in the MtoM meeting in the next EIP conference in Holland.