



SALTGIANT ETN – Early Stage Researcher in Geology of Evaporitic Deposits – ESR 3

Title	Balearic promontory architecture and history since the formation of the Mediterranean Salt Giant (MSG)
Duration	36 months
Expected start date	October 2018
Host Institution	CNRS, University of Montpellier, Montpellier (France) - http://www.gm.univ-montp2.fr/ (doctoral degree to be awarded by the University of Montpellier)
Primary Supervisor(s)	Johanna Lofi, Philippe Pezard (Univ. Montpellier), Agnès Maillard (Univ. Toulouse)
Objectives	<p>To understand the geological evolution of the Balearic promontory (Western Mediterranean) since the formation of the MSG by studying onshore and offshore sedimentary records and their post-deposition deformation. The Balearic promontory is probably the only place in the Mediterranean basin where well-defined MSG deposits have been preserved. These MSG deposits are trapped in small basins lying at the present time at different depths between the present day coastline (including onshore outcrops) and the deep salt basins. ESR3 will focus on studying the MSG sedimentary records, both onshore and offshore, and on the post-MSG deformation (faults, vertical loading) over the promontory. ESR3 will carry out a multidisciplinary research including sedimentary, petrophysical and geophysical investigations on a diverse dataset including onshore outcrops, core data (laboratory measurements), borehole geophysics (Techlog, Wellcad softwares), and seismic profiles (Petrel software). In collaboration with ESR 4, ESR 3 will compare the MSG records of the Balearic promontory with the ones from the Sicilian basin, a reference basin studied for a long time. ESR 3 will also work in collaboration with ESR 2 to restore the original depth of deposition of the evaporitic units on the promontory through 3D backstripping.</p>
Expected results	<p>1) reconstruction of the paleo-environmental evolution of the promontory; 2) petrophysical characterization (downhole and on cores) of the MSG deposits; 3) update maps of the MSG markers and main structural features; 4) quantification of the post-MSG vertical deformation through backstripping (with ESR 2).</p>
Planned secondments	<p>S1 (months 10-12): OGS Trieste, Italy (A. Camerlenghi for the interpretation of the 2016 Balearic basin seismic data); S2 (months 22-24): Université Paul Sabatier, Toulouse (France) (A. Maillard for investigation of onshore Balearic geology and for seismic interpretation); S3 (months 32-33): G.E.Plan Consulting (Ferrara, Italy) (A. Ricciato for the analysis of Balearic seismic data).</p>
Specific requirements	<p>Completed MSc or Diploma degree in Geophysics, Geology, Earth Sciences, or related fields; independent, motivated and hard-working student, with basic knowledge in seismic reflection interpretation, core petrophysics and borehole geophysics; good geological background in basin analysis and evolution; a good knowledge of oral and written English and a good team spirit are indispensable.</p>
Keywords	Basin analysis, evaporites, seismic reflection, field work, downhole geophysics, core petrophysics
Application	Send application via : www.ipgp.fr/saltgiant

**For further
information**

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