

Winter school

Sustainable mineral exploration

9 – 12 March 2020

International University of Andalucía, Huelva, Spain



INFACT **PACIFIC**



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Internacional
de Andalucía
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This short course is organised in collaboration with the Master "Geology and Environmental Management of Mineral Resources"



Horizon 2020 PACIFIC and INFACT projects are organising a 4-day school on sustainable methods and practices for mineral exploration for geoscience students and early career professionals

We offer full catering and accommodation during the winter school & you may also apply for a travel grant to join us in Andalusia (up to 400€ to cover flight tickets)!

Send your CV and cover letter by **17 January 2020** to winter_school_huelva@eurtd.com.

Register now to benefit from this exclusive opportunity to learn from EU specialists on mineral exploration!

Keynote speakers

Nick Arndt

President - Sisprobe

Louis Fontboté

Professor Mineral Resources and Geofluids Group - University of Geneva

Marcin Sadowski

Head of Sector - Raw Materials at European Commission - Executive Agency for SMEs

Cathryn MacCallum

Principal Social Scientist - SRK Consulting

Patrick Nadoll

Senior Advisor - Exploration and Resource Assessment - EIT RawMaterials

Manuel Vazquez Mora

Technical Advisor - General Direction of Industry, Energy and Mines of Andalusia

Irene Benito Rodriguez

Responsible for RawMaterials Copernicus Programme - EIT Raw Materials

Vitor Correia

Secretary General - International Raw Material Observatory

How to participate?

Register online at <http://bit.ly/winter-school-huelva>

What is included in your registration?

- Accommodation on site (15 double rooms with bathroom available)
- Full catering (breakfast, lunch and dinner) and coffee breaks on the four days of the Winter School
- Transport to the field trips during the Winter School (at closing, some shuttles will go directly to the airport – please make sure to book a flight not earlier than 17:00; otherwise you can stay at the University in Huelva for one more night)



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Programme

9 March (afternoon)

Introduction on mineral exploration in the EU

- Sustainable Mineral Exploration in the EU – Richard Gloaguen (HZDR)
- General overview of mineral resources – Nick Arndt (Sisprobe)
- Regional perspective of exploration and mining in Andalucía – Manuel Vazquez Mora (DGIEM)
- European minerals programs and education initiatives – Marcin Sadowski (EASME) – Irene Benito Rodriguez (EIT Raw Materials) – Patrick Nadoll (EIT Raw Materials)
- Current status of research on ore deposits in Europe – Lluís Fontboté (University of Geneva) – Vitor Correia (International Raw Materials Observatory)

Note that this is a provisional program – slight changes are possible until the school takes place

10 March

New sustainable exploration techniques: *Theory and practice*

- Overview of PACIFIC and INFACT H2020 EU projects – Florent Brenguier (UGA) and Leila Ajjabou (HZDR)
- Introduction to Passive seismic (Sisprobe/DIAS), Drone borne surveys – Rene Booyesen (HZDR), Airborne EM – Gianluca Fiandaca (Aarhus / University of Milan), Gravity – Isla Fernandez (Geognosia)
- Other EU initiatives: Using Satellite data for Mineral Exploration – Louis Andreani (HZDR-RawMatCop)
- Case studies on Responsible Social and Environmental Practices – Cathryn MacCallum (SRK) and Virginia Del Rio (AT Clave)

11 March

Field trip

- Visit of the Rio Tinto copper mine (Atalaya Mining)
- Field demonstration of techniques developed by INFACT and PACIFIC: Passive Seismic – Dan Hollis (Sisprobe), Gravity – Isla Fernandez (Geognosia), Drone mag/hyperspectral – Rene Booyesen (HZDR)

12 March

Social and Environmental Aspects of Exploration

- Engagement practices and role of Geological Surveys: Aoife Braiden (GSI), Cathryn MacCallum (SRK) and Virginia Del Rio (AT Clave)
- Visit of Cobre Las Cruces copper mine (First Quantum)
- Closing of the Winter School at 14:30 on the mine site



» Apply for a travel grant to join us in Andalusia (up to 400€ to cover flight tickets)! Send your CV and cover letter by **17th January 2020** to winter_school_huelva@eurtd.com



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Venue: International University of Andalucía, Huelva, Spain

Venue – about Sta. María La Rábida campus Paraje de La Rábida, 21819 Palos de la Frontera, Huelva

The Sta. María La Rábida Ibero-American Campus of the International University of Andalusia is located in the natural and historical site of La Rábida, at the confluence of the Tinto, Odiel and the Atlantic Ocean rivers, located in the surroundings of the municipality of Palos de la Frontera, ten kilometres from Huelva, capital of the province and less than 100 kilometres from Seville, capital of Andalusia in the Southwest of Spain. To get to La Rábida, you must first go to Huelva capital and there you can take a taxi (fixed rate of about 13 euros and recommended if you go with luggage) or take a bus, direction Palos de la Frontera and Moguer, and get off at the La Rabida stop.

Venue – on site

- 15 double rooms with bathroom available for students (included in the participation)
- Restaurant on-site including breakfast, lunch and dinner (included in the participation)
- Reception open 24 hours a day
- Wi-Fi available on the whole campus

Venue – how to get there

From Seville

While flying with an international trip, the inner flight Seville-Madrid may have no cost, if you travel by IBERIA or associated lines so traveling to Seville is a good option to be valued. From Seville Airport you can take the Airport Bus until your last stop at the Plaza de Armas Bus Station, recommended, or you can take a taxi, with a fairly expensive fare, around 25 euros. From the Plaza de Armas de Sevilla Bus Station, a bus leaves to Huelva every hour, Damas, SA www.damas-sa.es with a journey of 1 hour and an approximate price of 9 euros.

From Madrid

Madrid is a good option to travel to Huelva, both by train and by bus.

By bus: There is a bus service from Madrid Barajas Airport to Huelva, with two daily departures at 21:15 and at 23:15 and about 8 hours of travel. From Huelva towards the Madrid Barajas Airport there are three daily departures, so you can purchase a one-way ticket with an open return for just over 40 euros, both trips. Confirm data at www.socibus.es (Route Barajas T1 - Huelva)

By train: From Barajas Airport you can use TREN (the best option) by Metro, taxi and bus to the Puerta de Atocha Train Station in Madrid, from which you take the train to Huelva.

1.- From Madrid you reach Huelva by train, with five daily departures (two are direct routes and three with transfers in Seville). Depending on the train, the trip time is between 3h45 and 4h50 and the round trip ticket is with discount.

2.- From Madrid you can also go to Seville on the AVE, high-speed train, with a train every hour and only 2h30, and then go by bus or train to Huelva. See prices and confirm schedules at www.renfe.com



Organising committee: Noélie Bontemps (Université Grenoble Alpes), Nick Arndt (Sisprobe), Adeline Paul (ARTTIC), Leila Ajjabou and Richard Gloaguen (Helmholtz-Zentrum Dresden-Rossendorf), Isabel Fernández (European Federation of Geologists) and Isla Fernández (Geognosia).



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