Sustainable Low Impact Mining solution for exploitation of small mineral deposits based on advanced rock blasting and environmental technologies

Scheda informativa

Informazioni relative al progetto

SLIM

ID dell’accordo di sovvenzione: 730294

Sito web del progetto

Stato

Progetto in corso

Data di avvio

1 Novembre 2016

Data di completamento

31 Ottobre 2020

Obiettivo

The main economic, technological and environmental challenges of small mining include reducing high investment costs, reducing generation of waste and large tailings, identifying and addressing environmental impacts, and improving flexibility, automation and safety of operations. However, at the moment, there is no quick-fix available to reduce the environmental impact from mines, and it is neither realistic to expect production solutions very distant from today’s technologies. Considering that the present mining technology is based on rock blasting and mobile mining equipment for loading and transportation, the major challenge is to generate a new sustainable systemic solution that affects positively the relevant mining value chain.

SLIM aims to develop a cost-effective and sustainable selective low impact mining solution based on non-linear rock mass fragmentation by blasting models, airborne particulate matter, vibration affections and nitrate leaching mitigation actions for exploitation of small mineral deposits (including those with chemically complex ore-forming phases) through a new generation of explosives and an advanced automatic blast design software based on improved rock mass characterisation and fragmentation models for optimum fragmentation and minimum rock damage and far-field vibrations.
SLIM consortium is led by UPM (es), with LTU (se), MUL (at) and TUG (at) as Research Institutions, 3GSM (at - Rock fragmentation and blasting software), MAXAM (es - Explosives), ORGIVA (es - Fluorite mine) and ERZBERG (at - Iron mine) and ARNO (es - Quarry) as validators in relevant environment. BRGM (fr), INVESTORNET (dk), MINPOL (at), and ZABALA (es) complement the Environmental and Economic assessments, the Communication and Dissemination activities and Social Awareness actions.

SLIM addresses the following issue: a) Sustainable selective low impact mining (2016), it has a planned duration of 48 months and a budget of €6,979,200 requesting €6,979,200 of EU funding.

**Campo scientifico**

/sociales/ciencias y econimica y negocios/economia/sostenible economía

/scienze naturali/informatica e scienze dell'informazione/software

**Programma(i)**

H2020-EU.3.5.3. - Ensuring the sustainable supply of non-energy and non-agricultural raw materials

**Argomento(i)**

SC5-13-2016-2017 - New solutions for sustainable production of raw materials

**Invito a presentare proposte**

H2020-SC5-2016-OneStageB

Vedi altri progetti per questo bando

**Meccanismo di finanziamento**

RIA - Research and Innovation action

**Coordinatore**
### UNIVERSIDAD POLITECNICA DE MADRID

**Indirizzo**
Calle Ramiro De Maeztu 7
Edificio Rectorado
28040 Madrid
España

**Tipo di attività**
Higher or Secondary Education Establishments

**Contributo UE**
€ 798 212,50

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### Partecipanti (12)

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<th>Organizzazione</th>
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**Indirizzo**
PlÜDdemanngasse 77
A-8010 Graz

**Tipo di attività**
Private for-profit entities (excluding Higher or Secondary Education Establishments)

**Contatta l'organizzazione**

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**Indirizzo**
Ensenyanca 1
25002 Lleida

**Tipo di attività**
Private for-profit entities (excluding Higher or Secondary Education Establishments)

**Contatta l'organizzazione**

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<td>Francia</td>
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**Indirizzo**
3 Av Claude Guillemin
45060 Orleans

**Tipo di attività**
Research Organisations

**Sito web**

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ZABALA INNOVATION CONSULTING, S.A.

Spagna

Indirizzo
Paseo Santxiki 3 Bis
31192 Mutilva Alta Navarra

Tipo di attività
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Sito web
Contatta l’organizzazione

Ultimo aggiornamento: 28 Ottobre 2019
Numero di registrazione: 206220