



CHALLENGE

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WHAT

An initiative with the aim to explore innovative solutions in the field of Sonic Drilling coupled with Automated mineralogy and chemistry. Teams of young talents in the course of 10 weeks will develop solutions for automation, characterisation and marketing that will be selected from a commission of experts.



HOW

Groups of students with different backgrounds will have from April to June to analyze and redesign real products and plan the market adoption. The Challenge is designed for industrial and materials engineering, physics, math, economics and management students (even if anyone can apply).

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RawMaterials
Connecting matters



Co-funded by the
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WHY PARTICIPATE

During the SOLSA Challenge you will apply digital and business tools to existing products with relevant companies in the mining sector. You will learn how to solve real industrial problems and market the results. You have the opportunity to earn F-type ECTS credits (ask your institute). Additionally, the winning team will be awarded an e-ink device as a prize.



WHO

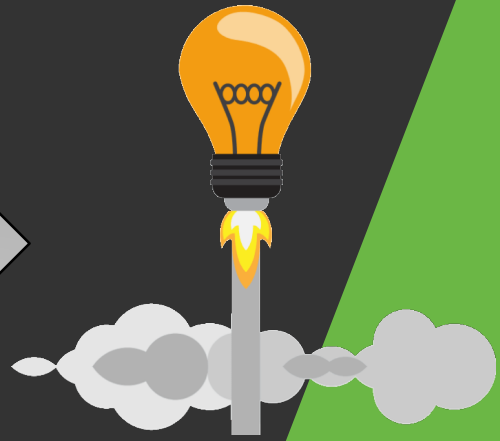
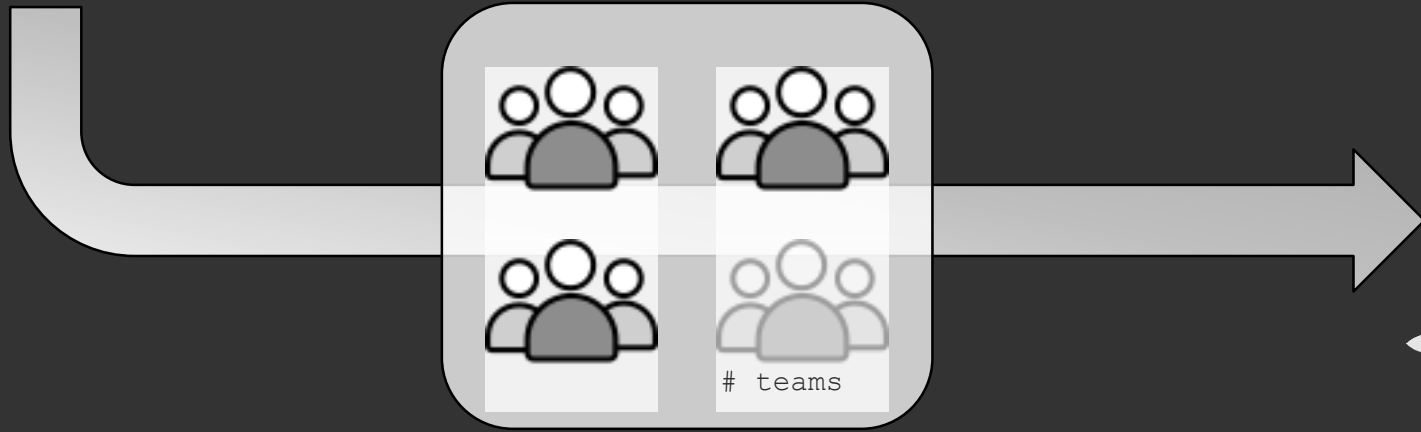
Applications are open to all students and doctoral candidate enrolled at a higher educational institution based in EU Member States or Third countries associated to Horizon Europe. A commission appointed by SOLSA partners will identify students (Solvers) who will be able to participate in the Challenge. The criteria are specified in the Notice.

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SOLSA CHALLENGE

Expert System



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RULES

During the Final Event each team will present their results achieved and an expert commission will evaluate the results based on the following criteria:

- Criterion 1: innovativeness of the results produced (from 1 to 5 points).
- Criterion 2: potential business impact of product results (from 1 to 5 points).
- Criterion 3: effectiveness of the presentation of the results (from 1 to 5 points).

All Solvers will receive a **certificate of participation** and they have the possibility of having acknowledged **F-type ECTS credits** (verify with your institute).

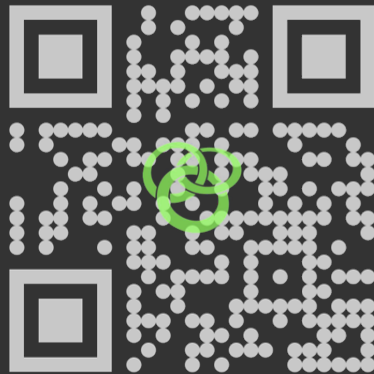
The members of the winning team will be awarded with an **e-ink device**.



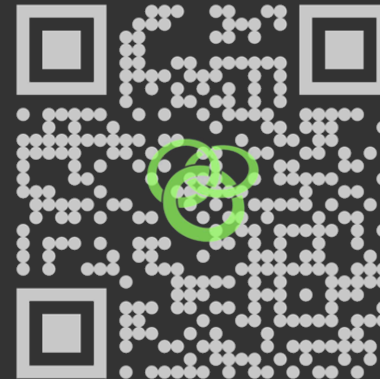
application deadline: March 28, 2023


The challenge will run from middle April to middle June 2023

Selection notice



Apply HERE



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important dates

12 April 2023	Deadline for applicants
18 April 2023	Challenge Kick-Off meeting
20 June 2023	Challenge End
June/July 2023	Final Event Presentation and prize assignment

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PEOPLE INVOLVED

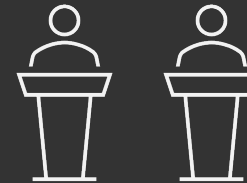
SOLVERS ~x5 per team

Solvers are university students (Bachelor-Master-Doctorate students) mainly with a background related to area of the challenge proposed.



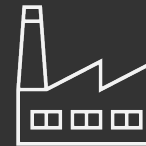
Mentor x2 per team

Professionals in the field of the challenge theme that will support the teams in the execution of the Challenge.



Owner of the Challenge

Companies that have industrial/business problems and that are seeking innovative solutions.



1st Challenge

Title: Efficient Automatic Sampling

Owner: Eramet – Le Guen Monique

Challenge: Design a solution that could automatically handle the drilled core. The objective is to provide samples of the drilled core to three different instruments in 10 minutes timeframe and make easy as possible the reload phase.

2nd Challenge

Title: Intelligent Core Drill Characterization

Owner: UniTN – Stefano Gialanella

Challenge: Develop an intelligent exploitation of the material features provided by the drilling equipment, as concerns in particular the mechanical properties and core drill constituents. The pin pointed usage of this information may provide important guidelines to the core handling and for its effective characterization.

3rd Challenge

Title: Conception of a high-impact marketing tool for the SOLSA MODULAB

Owner: BRGM / INEL INNOV – Delchini Sylvain / Henry Pilliere

Challenge: Develop a digital marketing campaign with the objective to reach the most appropriate, high-impact tool and develop a roadmap, including expertise required, typical subcontractors, scenario and recommendations.

4th Challenge

Title: GeoWhileDrilling – Rock Classification

Owner: Royal Eijkelpkamp – Gustavo Hamu

Challenge: develop correlation between MWD (measurement while drilling) information and rock properties (lithology + geotechnical), including proposal to validate these findings + validation of theoretical model and development of in-situ empirical model.