

## RawMat2021 Conference

1<sup>st</sup> Announcement

# RawMat2021

International Conference on Raw Materials and Circular Economy

*“Technological Developments and Future Challenges”*

5-9 September 2021

4 September 2021: Pre-conference info/business day

Athens, Greece

It is our pleasure to announce the International Conference on Raw Materials and Circular Economy (*“RawMat2021”*) which will be held in Athens, Greece, from 5 to 9 September, 2021.

*RawMat2021* is organized by the Technical Chamber of Greece, the School of Mining and Metallurgical Engineering of the National Technical University of Athens and the Greek Raw Materials Cluster (GRawMat). Following the demands and trends of modern society, *RawMat2021* shall address *a wide range of technological developments and future challenges* regarding Raw Materials with emphasis given on Circular Economy aspects.

*RawMat2021* aims to bring together the Academic community, engineers, early-stage scientists as well as senior scientists, industry executives, stakeholders and policy makers, and other professionals in the field of raw materials for a comprehensive, cross-discipline exchange of knowledge.

*RawMat2021* shall provide an excellent opportunity for shared presentation of common interest that encompasses and promotes interactive dialogue on the recent advances, innovations and trends in

the field of raw materials. *RawMat2021* shall promote new tools, methods, research findings, methodological frameworks and hypotheses as well as innovative ideas to be presented in its scientific and technical sessions. More specifically, the following sessions shall take place:

- Keynote lectures
- Oral presentations
- Poster presentations
- Workshops
- Round tables
- Invited talks
- GRawMat Cluster General Assembly
- Info/business day (on 04/09/2021)

*Abstracts and full papers for oral presentations will be peer-reviewed by the Scientific Committee.*

*RawMat2021* covers a broad list of topics as follows (*tentative*):

### **1. Mineral exploration and resource characterization: new trends and advances**

- Minerals prospecting
- Hydrocarbons exploration
- Raw materials resource assessment
- Remote Sensing
- Advances on GIS applications and real time imaging
- Minerals and metals characterization: novel methods, techniques, instruments

### **2. Mining: trends and perspectives**

- Mine of the Future
- Smart Mining: advances in equipment and technology
- Mining in challenging environments
- Social and economic impact of mining
- Risk management in the mining sector
- Hydrocarbons extraction
- Aggregates: extraction, processing, uses and recycling

### 3. Mineral processing

- New instruments and methods for ore beneficiation
- Recovery of elements and constituents from urban waste
- Water management

### 4. Sustainable Metallurgy

- Advances in Pyro-, Hydro- and Biohydro-metallurgy
- Recovery of elements and constituents from waste and by-products
- Urban Mining - Metals recovery from urban metal resources
- Secondary metallurgy
- New trends on critical and noble elements recovery from mining, metallurgical and urban waste
- Refractories: innovations and advances
- Computational thermodynamics and kinetics
- Electrometallurgy (electrorefining and electrowinning)
- Industry 4.0

### 5. Industrial Minerals

- New products and applications
- Advanced technologies
- Non-metallics of the future

### 6. Environment, Energy and Sustainability

- Mining sites: environmental monitoring, assessment and management
- Mining on protected areas: ecosystems assessment, restoration and management
- Historical mine sites rehabilitation - Post-closure actions
- Risk analysis and Life-Cycle Assessment
- Social licensing for mining projects
- Mining and metallurgical waste management
- Water resource management and treatment
- Waste characterization and treatment options
- Best available techniques: current status and novel advances
- Treatment of soils and groundwater polluted by mining activities
- Nano-materials: technologies for environmental applications
- Carbon footprint of the raw materials value chain
- Energy savings in the mining and metallurgy sector

- Use of alternative fuels (renewables, hydrogen, etc.) in metallurgical plants

## 7. Recycling / Waste Valorisation

- Industrial symbiosis
- Construction waste management
- End-of-Life products recycling
- New and innovative uses for the by-products and waste of the mining and metallurgical Industry

## 8. Education

- Future of education: artificial Intelligence in education, ICT-based education
- Training and Lifelong Learning
- Classroom techniques, Curriculum design, E- Learning

## 9. EU Strategy / Circular economy

- Raw materials development strategies
- Supply risk of raw materials in the EU
- Critical and technologically important raw materials: current situation and prospects
- Roadmap for the transition to a circular economy
- Product design in the circular economy: substitution of critical and toxic raw materials
- Role of raw materials in the EU Green Deal and other initiatives
- Sustainable raw materials for key technologies
- Resource efficiency in mineral and metallurgical processes
- New regulatory framework for EIAs and Strategic EIAs

## 10. Occupational Health and Safety

## 11. Greece-specific issues

- Present state and future of the Greek Mining and Metallurgical Sector
- Role of SMEs and spin-offs in the Mining and Metallurgical sector

## IMPORTANT DATES

1 <sup>st</sup> Announcement	04 Dec 2020
2 <sup>nd</sup> Announcement	04 Jan 2021
Submission open	05 Jan 2021
Abstract submission deadline	31 Mar 2021
Early bird registration	31 Mar 2021
Abstract acceptance	15 Apr 2021
Registration deadline for authors	20 Jun 2021
Full paper submission deadline	30 Jun 2021
3 <sup>rd</sup> Announcement/preliminary program	05 Jul 2021
Conference opening	05 Sep 2021

## CO-ORGANIZERS CO-ΟΡΓΑΝΙΣΤΕΣ

RawMat2021 is co-organized by:

- Association of Greek mining companies (*tbc*)
- Hellenic Survey of Geology and Mineral Exploration
- Geotechnical Chamber of Greece (*tbc*)
- Geological Society of Greece
- Scientific Society of the Mineral Wealth Technologists of Greece
- School of Mineral Resources Engineering, Technical University of Crete
- Department of Mineral Resources Engineering, University of Western Macedonia
- Department of Geology, Aristotle University of Thessaloniki (*tbc*)
- Department of Chemistry, Aristotle University of Thessaloniki
- Department of Geology and Geo-environment, National and Kapodistrian University of Athens (*tbc*)
- Department of Geology, University of Patras
- Greek Ministry of Environment and Energy (*tbc*)

Planned technical sessions and all other events such as the welcome Cocktail, the Gala dinner as well as the field trips will be held in full compliance with the prevailing health and safety measures.

*More info will become available on the RawMat2021 website shortly.*

## CHAIRS CHAIRS

Prof. Anthimos Xenidis, National Technical University of Athens, *Chair*

Prof. Anastasios Zouboulis, Aristotle University of Thessaloniki, *Co-chair*

Prof. Konstantinos Komnitsas, Technical University of Crete, *Co-chair*

Prof. Michail Stamatakis, National and Kapodistrian University of Athens,  
*Co-chair*

## ORGANIZING COMMITTEE ORGANIZING COMMITTEE

Dr. Evangelos Tzamos, Ecoresources PC, *President*

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Athens, *Vice President*

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