This activity has received funding from the European Institute of Innovation and Technology (EIT), a body of the European Union, under the Horizon 2020, the EU Framework Programme for Research and Innovation

VI EUROPEAN RM@SCHOOLS CONFERENCE

WEBINARS, WORKSHOPS AND ON-LINE GAMES

PROGRAME FOR THE AFTERNOON SESSIONS

1st of December	2nd of December	3rd of December
15:00-15:30 Circular economy: creating a world without waste (interactive quiz), VITO, Belgium	15:00-16:00 Mineral resources, sustainability and history in Congo, SGU, Sweden	15:00 – 15:30 Historical mining adventure through Europe, NOVA, Portugal
15:00 – 15:30 RockCheck you rock the rocks, GeoZS, Slovenia	15:15-16:00 WEEE jungle: the (electronic) urban mining, ERION, Italy	15:00 - 15:30 A word without waste? The challenge of circular economy, CNR- Bologna, Italy
15:30 – 16:30 Mineral resources, sustainability and history in Congo, SGU, Sweden	16:00-16:30 How can we mine using plants?, TalTech, Estonia	15:00-16:30 How project management can be introduced in schools? – for teachers, IFAM, Germany
15:40-16:20 An Overview of Silicon Photovoltaic Panels – from basic theory of functioning to their end of life, University of Milano Bicocca, Italy	16:00-16:45 Shape our future on an interactive poster, MyClimate, Switzerland	15:30 – 16:10 SORT-IN-LIEGE, Why robots sort better than humans, University of Liege, Belgium
16:30-17:00 Polymers in everyday life-Curriculum for effective recycling, University of Banja Luka, Bosnia & Herzegovina	16:00-17:00 Mixed Reality in Teaching – for teachers, RWTH, Germany	15:30 - 16:15 Who wants to be a RM-ambassador (game), NTUA, Greece
16:40-17:30 Digital EcoCEO (game), VITO, Belgium	16:30-17:00 Introduction to Sustainability, MUL, Austria	16:15-17:15 Sustainable crosswords (with interactive quiz), CNR –Palermo, Italy
17:00 – 17:40 Electronic waste or raw material?, University of Miskolc, Hungary	16:50 – 17:50 Repository of ideas: A few words about circular economy, AGH, Poland	16:15 - 16:45 Energy futures: the past, present and future of battery technology, Trinity College Dublin, Ireland
17:40 – 18:00 Choose your own adventure (with game), LPRC, Spain (ENGIE)	17:00 -18:00 RAWsiko – Materials around us (game), CNR - Bologna, Italy	16:45- 17:30 Let's know the geological processes of Earth University of Miskolc, Hungary (ENGIE)
17:40 – 18:20 Great extinction events, University of Miskolc, Hungary (ENGIE)	18:00 – 19:00 Circular economy and electric car batteries, Universidad Politecnica de Madrid, Spain	17:15 -18:15 RAWsiko – Materials around us (game), CNR- Bologna, Italy

1st of December			
Time	**15:00-15:30**	**15:00-15:30**	**15:30-16:30**
Title	**Circular economy: creating a world without waste (interactive quiz)**	**RockCheck you rock the rocks**	**Mineral resources, sustainability and history in Congo**
Organiser	VITO, **(B)**	Geological Survey of Slovenia GeoZS **(SI)**	Geological Survey of Sweden SGU **(SE)**
Abstract	This online workshop offers a combination of informative content and interactivity by means of a quiz. The aim is to present the raw material challenges that are a consequence of our wasteful linear economy and to outline the principles of circular economy using everyday products and services. Participants are invited to think about an economy that manages materials in a linear way and propose solutions.	Did you know that rocks have an enormous influence on your life? From sources of water and energy to different metals and minerals, even our buildings and infrastructure are made of them. Have you ever picked up a rock and stored it somewhere in your home? It is a good time to find it again. Join a webinar and learn more about your rock and its use with the RockCheck app on your mobile phone.	The Democratic Republic of Congo has been in active conflict during several hundred years, many times due to the country's rich natural resources – i.e. minerals like cobalt, copper and uranium. This webinar is focused on complex societal issues about human rights, sustainability and mineral resources and sustainable development based on Congo history.
Suitable for:	All	All	All
Duration	30 min	30 min	1h
Register to the meeting:	https://www.eventbrite.com/e/215797645567	https://www.eventbrite.com/e/212388980157	https://www.eventbrite.com/e/216394510807

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1st of December

Time	15:40-16:20	16:30-17:00	16:40-17.30
Title	**An overview of Silicon Photovoltaic Panels – from basic theory of functioning to their end of life**	**Polymers in everyday life - Curriculum for effective recycling**	**Digital EcoCEO (game)**
Organiser	University of Milano Bicocca **(IT)**	University of Banja Luka, **(BiH)**	VITO, **(B)**
Abstract	The activity is an interactive lesson about silicon PV panels during which students and teachers can acquire knowledge from their functioning to their end of life with recycling. In the second part of the online activity, students and teachers will see a simplified way of assembling and disassembling a silicon PV mini-panel though the thermal approach (from the toolkit "Recycling silicon-based PV modules").	In this webinar the basic facts about the origin, types and properties of polymers will be presented as well as their forms in everyday life, and recycling methods, advantages and disadvantages in relation to other materials and comparative analysis of thermoplastics, elastomers and resins and recyclability of each of them.	ecoCEO is an interactive and engaging educational game! It increases awareness and transfers knowledge about circular economy strategies and circular business models in a hands-on and fun way. During this workshop we will present you with the just finished, digital version and you will be first to play it!
Suitable for:	All	All	All
Duration	40 min	30 min	50 min
Registration/link to meeting:	https://www.eventbrite.it/e/biglietti-an-overview-of-silicon-photovoltaic-panels--214645559647	https://www.eventbrite.com/e/216298122507	https://www.eventbrite.com/e/215815559147

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1st of December

Time	17:00-17:40	17:40-18:00	17:40-18:20
Title	**Electronic waste or raw material?**	**Choose your own adventure (game)**	**Great extinction events**
Organiser	University of Miskolc **(HU)**	LPRC, Spain, ENGIE project, **(ES)**	University of Miskolc, ENGIE project, **(HU)**
Abstract	Nowadays the amount of Waste of Electrical and Electronic Equipment is increasing due to the increasing variety of equipment types, increasing number of users and decreasing lifetime of EEEs. High-tech equipment contains valuable materials, processing of such end of life equipment is the elemental environmental and economic target of the society.	In this interactive game, Hope and Knoop come from the future to ask future geologists to help save the world but before they need to visit this future to find out how they will do it! Walk around the spaceship Earth and get to know all the different branches of geo-sciences, from mining engineering to policy and teaching and discover which of these branches you can be a part of.	During the 40 min webinar, the great extinction events will be discussed: their causes and consequences. At the end of the webinar, the audience will get familiar with the biggest, the best-known and other less-known extinction events
Suitable for:	All	All	All
Duration	40 min	20 min	40 min
Registration/link to meeting:	https://www.eventbrite.com/e/electronic-waste-or-raw-material-tickets-213530333977	https://www.eventbrite.es/e/216940533977	https://www.eventbrite.com/e/rmschools-6th-european-conference-great-exctinction-event-tickets-215191462457

2nd of December			
Time	**15:00-16:00**	**15:15-16:00**	**16:00-16:30**
Title	**Mineral resources, sustainability and history in Congo**	**The WEEE jungle: the (electronic) urban mining**	**How can we mine using plants?**
Organiser	Geological Survey of Sweden SGU **(SE)**	ERION, **(IT)**	TalTech, **(EE)**
Abstract	The Democratic Republic of Congo has been in active conflict during several hundred years, many times due to the country's rich natural resources – i.e. minerals like cobalt, copper and uranium. This webinar is focused on complex societal issues about human rights, sustainability and mineral resources and sustainable development based on Congo history.	Do you want to discover more about what e-waste (electronic waste), officially known as WEEE, are? And to follow their entire value chain? Join this webinar and you will also find out that both your video-game console and your smartphone are "pocket mines" and how many important materials there are in this waste stream too! In addition, there will be a few interactive questions via Mentimeter.com.	Phytoremediation is a way of fixing environmental problems using plants. An example is picking plants that are able to mine different elements from the soil. They pick these elements either as nutrients, or as elements that can be used for other purposes. We can burn these to produce ash that contains the element.
Suitable for	All	All	All
Duration	1h	45 min	30 min
Registration/ link to meeting:	**https://www.eventbrite.com/e/216917414827**	https://www.eventbrite.it/e/213611907967	https://www.eventbrite.it/e/how-can-we-mine-using-plants-registration-215713834887

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2nd of December			
Time	**16:00-16:45**	**16:00-17:00**	**16:30-17:00**
Title	**Shape our future on an interactive poster**	**Mixed Reality in Teaching- for teachers**	**Introduction to Sustainability**
Organiser	MyClimate, **(CH)**	RWTH, **(DE)**	Montanuniversität Leoben (MUL) **(A)**
Abstract	What actions can we take to shape a more sustainable future? Based on an interactive poster you will first discover possible fields and then change this virtual world with solution cards. Who has the power to make this change? Why is it easier on the poster than in the real world? Where would you like to start?	Are you a teacher and interested in boosting the learning experiences of your pupils and students? In an interactive session we will explore the world of Mixed Reality and how this innovative technology can be used in teaching. In addition to theoretical inputs and insights into our current projects and experiences with Mixed Reality in teaching, we will discuss together what opportunities and limitations the technology brings in the context of Teaching 4.0.	Environmental protection and sustainability have gained massive interest in political and societal discussions in the past years and decades. Various sustainability concepts have been introduced in industry, as well as many different areas of our everyday life. Sustainability related jobs have been created and the concept of circular economy has gained a strong focus in order to ensure a sustainable growth of individual companies, industries, and even whole economies. However, what does sustainability actually mean and how can everybody contribute to the preservation of resources, avoidance of unnecessary emissions, mitigation of climate change, facilitation of circular economy, and related issues? These questions will be addressed and answered using simple examples of our everyday life with actual figures to understand the impact of our individual decisions to the global concept of sustainability.
Suitable for	All	Teachers	All
Duration	45 min	1 h	30 min
Registration/ link to meeting::	https://www.eventbrite.com/e/shape-our-future-on-an-interactive-poster-tickets-214635319017	https://www.eventbrite.de/e/mixed-reality-in-teaching-rmschools-annual-conference-tickets-212349060757	https://www.eventbrite.co.uk/e/215558008807

2nd of December			
Time	**16:50-17:50**	**17:00-18:00**	**18:00-19:00**
Title	**Repository of ideas: A few words about circular economy**	**RAWsiko-Materials around us, game**	**Circular economy and electric car batteries**
Organiser	University of Science and Technology (AGH) **(PL)**	National Research Council of Italy (CNR), **(IT)**	Universidad Politecnica de Madrid, UPM, **(ES)**
Abstract	A Circular Economy is an economic concept in which products, materials and raw materials should remain in circulation for as long as possible, thereby seeking to minimise the amount of waste generated. The concept covers all stages of a product's life cycle - from design, through production, consumption, to waste. Its main objective is to move away from a linear economy (where waste is treated as the last stage of the life cycle) and shift towards the circular economy model where that the resulting waste is treated as secondary raw materials.	RAWsiko is a variation of the classic game "Risiko!" structured around Critical Raw Materials. The game is set in a future where China decided to put embargo on export of its raw materials. In the face of this decision, a desperate "raw materials rush" has begun. You are the head of a company and you have to secure access to the Critical Raw Materials for your business!	Introduction to critical raw materials and circular economy, focused on the problem of electronic waste and electric batteries
Suitable for	All	All	All
Duration	1h	1h	1h
Registration/ link to meeting:	https://www.eventbrite.com/e/215031684557	https://www.eventbrite.com/e/rawsiko-materials-around-us-game-tickets-211693941277	https://www.eventbrite.com/e/circular-economy-and-electric-car-batteri

3rd of December			
Time	**15:00-15:30**	**15:00-15:30**	**15:00-16:30**
Title	**A historical mining adventure through Europe**	**World without waste? The challenge of circular economy**	**How project management can be introduced in schools?**
Organiser	NOVA, **(PT)**	National Research Council of Italy (CNR), **(IT)**	Fraunhofer IFAM, **(DE)**
Abstract	In a synergy between the EIT projects RM@Schools and MineHeritage, this webinar intends to demonstrate the importance of mining throughout the European History, its impact on the development of new technologies and also on local societies. It will count with an interactive online quiz.	Circular Economy is a new concept of development based on a sustainable and efficient management of the resources and waste. It takes into account all stages of a products' life from the design, through production, consumption, until the end of use while minimizing the production of waste. Join the webinar to learn more.	In this webinar, a method combing RM@schools learning pathways with the topic of project management and self-organisation will be presented and discussed. The competences that can be acquired via this method with regard to planning and structured procedures in the processing of a project can also be regarded as a preparatory course for scientific work.
Suitable for	All	All	Teachers only
Duration	30 min	30 min	1,5 h
Registration/link to meeting:	https://www.eventbrite.com/e/historical-mining-adventure-through-europe-tickets-213814654387	https://www.eventbrite.it/e/215628268957	https://www.eventbrite.it/e/215600485857

3rd of December			
Time	**15:30-16:10**	**15:30-16:15**	**16:15-17:15**
Title	**SORT - IN – LIEGE** **Why robots sort better than humans**	**Who wants to be a RM-ambassador**	**Sustainable crosswords with interactive quiz**
Organiser	University of Liege, **(B)**	National Technical University of Athens, Mineralogical Museum gaio-ORAMA **(GR)**	National Research Council of Italy (CNR) **(IT)**
Abstract	Interactive webinar with a quiz and a live demonstration. In this activity we will challenge the audience with a series of materials and objects that need to be sorted into separate bins for efficient recycling. We will discover which properties are being used by machines and robots to sort plastics, metals or alloys which all look the same to our human eyes. We will demonstrate robots in action in the "plant of the future".	The on-line quiz game ''who wants to be an RM-ambassador'' includes questions of increasing difficulty on RM with emphasis on minerals concerning their origin, their identification, the everyday products made by RM etc. The main objectives of the game are to provide knowledge about the origin, properties, uses etc of RM, to highlight their importance in our everyday lives and to test the acquired knowledge through a quiz (based on the concept of the well-known TV quiz "Who wants to be a millionaire?")	Waste is everywhere! Water is polluted! Oil reserves are about to run out! What can chemistry do for the planet where we live? And what can you do? Let's start from sustainable chemistry! Come and play with our sustainable crosswords!
Suitable for	All	All	All
Duration	40 min	45 min	1 h
Registration/ link to meeting:	https://www.eventbrite.com/e/211989535407	Registration: https://docs.google.com/forms/d/e/1FAIpQLSezeqUuEKk_-wbnj6XyDHXygvaSok_oR3xvndTfpW-7upgR_A/viewform?usp=sf_link Link to meeting: https://centralntua.webex.com/centralntua/j.php?MTID=m71564de36e3e4df4cb7f462e9cf51518	https://www.eventbrite.com/e/214515460517

3rd of December			
Time	**16:15-16:45**	**16:45-17:30**	**17:15-18:15**
Title	**Energy futures: the past, present and future of battery technology**	**Let's know the geological processes of the Earth!**	**RAWsiko-Materials around us, game**
Organiser	Trinity College Dublin, **(IE)**	University of Miskolc, **(HU),** ENGIE	National Research Council of Italy (CNR) **(IT)**
Abstract	How we power our society is a key question for our times. In this webinar you will meet scientists and engineers in Ireland who are tackling this challenge designing batteries based on nanotechnology - so that in the future energy storage won't cost the earth.	Interesting experiments and their interpretations will be shown related to processes in our environment. The topics will cover the water cycle including the importance of underground water, its protection and modelling the spreading of contaminants; and the soil erosion and slope slips including the importance of plants covering the slopes.	RAWsiko is a variation of the classic game "Risiko!" structured around Critical Raw Materials. The game is set in a future where China decided to put embargo on export of its raw materials. In the face of this decision, a desperate "raw materials rush" has begun. You are the head of a company and you have to secure access to the Critical Raw Materials for your business!
Suitable for	All	All	All
Duration	30 min	45 min	1h
Registration/ link to meeting:	https://www.eventbrite.com/e/energy-futures-the-past-present-and-future-of-battery-technology-tickets-215790564387	https://www.eventbrite.com/e/rmschools-6th-european-conference-lets-know-the-process-of-earth-tickets-215196868627	https://www.eventbrite.it/e/215615250017