



RawMaterials
REGIONAL CENTER LEOBEN



ESEE Dialogue Conference

Impact Multiplied
East and South East Europe
Dialogue Conferences and their
impact on the region

Preface

“Raw materials are essential for the production of a broad range of goods and applications used in everyday life. They are intrinsically linked to all industries across all supply chain stages. They are crucial for a strong European industrial base, an essential building block of the EU’s growth and competitiveness”
(Report on Critical Raw Materials and the Circular Economy 2018)

For this reason the EIT RawMaterials Regional Center Leoben at Montanuniversitaet Leoben is dedicated to developing raw materials into a major strength of Europe. The ESEE region has played a role in this dedication since the very beginning. We believe that the region’s unique geological and secondary raw material potential is vital for the European Raw Materials Strategy. Furthermore, there is considerable innovation capacity, necessary for the development of the sector, in the region.

Therefore, the Regional Center Leoben has been organizing Dialogue Conferences to pursue the inclusion of the ESEE region into the EIT RawMaterials. It is our vision that today’s raw material challenges are best faced by joining our forces in pan-European networks. Thus, we have worked to reach out to raw material stakeholders to foster networking, collaboration and project ideation. Our impact has been multiplied by those who came to the first conferences and then began to generate their own impact on the ESEE region by using the EIT RawMaterials as a network. We are proud to see the network grow and this booklet gives an overview of our efforts. Looking back at what has been established motivates us to look ahead, improve and use our experience to further multiply our impact.



Susanne Feiel, BA MA
Head of EIT RawMaterials Regional Center Leoben

ESEE Dialogue Conferences

Initiated by the EIT RawMaterials Regional Center Leoben at Montanuniversitaet Leoben in Austria, the ESEE Dialogue Conferences aim to foster an international community in the raw materials sector by converging relevant stakeholders from industry, research and education in East and South East Europe. The ESEE Dialogue Conferences is a major raw materials conference series for East and South East Europe, which has successfully addressed issues in the raw materials sector in eight countries in the last four years. Integration into the EIT RawMaterials community, policy framework, education development, resource efficiency and innovation along the raw materials life cycle are the main topics of the conferences.



3rd ESEE Dialogue Conference, 2015, Leoben

1st
ESEE Dialogue
Conference

Report
on the initial
KIC proposal (RAW
MatTERS)

Idea
presentations,
kick-off ESEE Dialogue
Conference, an ESEE
community forms

2nd
ESEE Dialogue
Conference

Status
update KIC &
activities in the
ESEE region

4th
ESEE Dialogue
Conference

Joint
preparation for
the next calls, partner
forum to connect to
EIT RawMaterials

Strategic
meeting CLC EAST,
development of our ESEE
community, mineral resources
and their development in
the ESEE region

5th ESEE
Dialogue
Conference

Mineral
processing,
extractive metallurgy
and recycling covering
primary and secondary
resources

7th
ESEE Dialogue
Conference

Smart
Specialisation strategy
and related projects in Serbia,
challenges in the raw
materials sector

KAVA
proposals with focus
on Serbia, networking for a
EIT RIS Cross KIC Meeting
in Novi Sad

8th
ESEE Dialogue
Conference

Expert panel,
site visits: tour of fly
ash deposits Šljačište, tour
of the abandoned asbestos
deposit PK Delić Brdo –
Petrovo

Smart
innovation
strategies and raw
materials education



3rd ESEE Dialogue Conference

Strengthening of
the ESEE network,
part of the EUMICON
2015

Upcoming
calls Horizon2020,
global mining production,
ongoing activity on
WEEE

Conference as
the project pitching &
networking event of the
CLC East

ESEE Dialogue Conference

Conference
as part of the
Opportunities in Processing
of Metal Resources
Conference (OPMR 2016,
Budapest)

6th ESEE Dialogue Conference

ESEE DC
becomes a KAVA, EIT
RM Regional Center Adria
gets presented for the
first time

EIT
Regional Innovation
Scheme (RIS), local raw
material deposits, EIT RM
education projects for the
ESEE region

9th ESEE Dialogue Conference

National
media coverage, project
workshop on RM@Schools,
project workshop on RESEERVE,
cooperation on educational
projects

Raw
materials regional
innovation development,
raw materials
education

10th ESEE Dialogue Conference

EIT RM cross hub
meeting, science &
business fair "ESEE Connect",
site visit, education and
industry workshops



“In line with its Strategic Agenda, EIT RawMaterials aims at further extending its geographical outreach to those countries where it is not yet present. This will be achieved by establishing fruitful partnerships and sharing of knowledge, best practices and innovative technologies with the respective ecosystems. The starting points for this are ESEE Dialogue Conferences, where we try to address and activate the respective ecosystems. Due to its historic and up-to-date close connection to the region, Montanuniversitaet Leoben is ideally suited to facilitate such first approaches and to contribute to future success.”

Markus Klein, Business Developer
EIT RawMaterials Eastern CLC

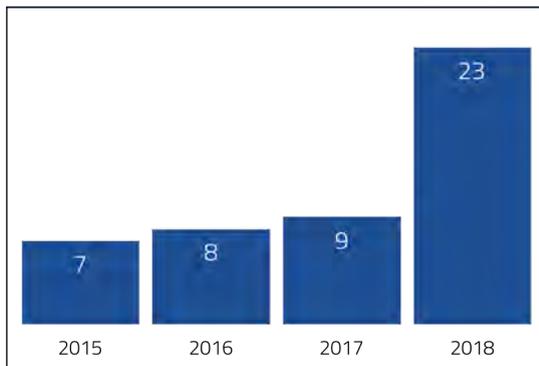


4th ESEE Dialogue Conference, 2016, Zagreb

ESEE Strategy

Raw materials are vital for future technologies and will continue to play a major role in the development of solutions for present challenges. For example, great challenges such as the shift to renewable energy can only be reached via innovative technologies dependent on the use of materials. Rising demand and need for sustainable supply in Europe are to be balanced. The aim of the EIT RawMaterials is to take action and develop raw materials into a major strength for Europe.

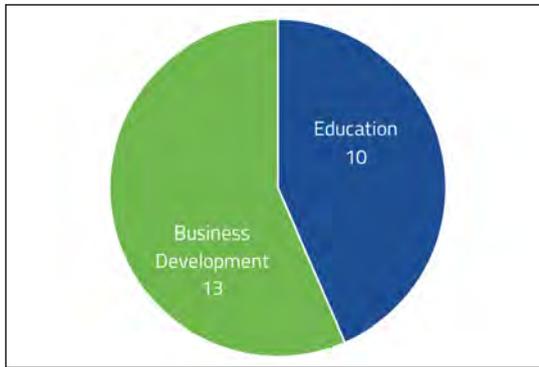
In this context, the region East and South East Europe (ESEE) is of particular interest to the EIT RawMaterials, due to its unique geological potential and unique potential on secondary raw materials, which also makes it highly relevant with regard to the European Raw Materials Strategy. Furthermore, a significant number of business idea holders relevant to the overall objectives of EIT RawMaterials are coming from this region.



EIT RawMaterials membership development in the ESEE region

Additionally, EIT RawMaterials is committed to support the overarching objective of the EIT Regional Innovation Scheme (EIT RIS). The aim of EIT RIS is to enhance the innovation capacity of the countries and regions that are modest and moderate innovators, which brings the ESEE region into focus again. The ESEE region (approx. 100 million Europeans in the countries Albania, Austria, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Hungary, Kosovo, Montenegro, Macedonia, Romania, Serbia, Slovakia and Slovenia) is of utmost importance to the European Union from a political point of view (cohesion, regional development, „candidate countries“ and „potential candidates“) and from an economic point of view (security of supply, economic value and employment). Raw materials have a huge potential to leverage economic development in the region and in this way strengthen the European raw materials base and economy.

Montanuniversitaet Leoben is a core partner of the EIT RawMaterials. The university is founding member of the EIT RawMaterials and a successful, excellent and implementation-oriented university with its core competence in the value cycle mining, metals, materials, manufacturing and recycling. The Regional Center Leoben at Montanuniversitaet Leoben has developed significant strategic themes as contribution to the Innovation Community EIT RawMaterials. On the one hand, the Center has a special responsibility for the ESEE region, through outreach, integration and community building activities, such as the annual ESEE Dialogue Conferences. On the other hand, education projects have evolved to be a special strength of the Center. Therefore, the Center contributes to the ESEE Education Working Group, which works towards development of the education sector in the ESEE region. In the course of the Working Group a strategy of interlinked projects and initiatives was developed and forms the basis of the new ESEE Education



Projects in the ESEE region at Montanuniversitaet Leoben

Concept Note, a document written by Imre Gombkötő, Education Officer at the CLC East with input from the Working Group.

The ESEE region is geographically and culturally in the immediate and logical scope of the Regional Center Leoben. The promotion of sustainable development in the ESEE raw materials sector is a specific and motivating task for the team at Montanuniversitaet Leoben. The university also serves as an expert in raw materials, recognizes the global commodity challenges, is partner in many European initiatives on raw materials and will therefore make a substantial contribution to the solution of key challenges in the raw materials sector.

Thus, Montanuniversitaet Leoben is strongly involved in these European raw materials initiatives and has been working on an effective ESEE strategy within the EIT RawMaterials. This includes activities like:

- Forming a community of industry, research and universities in the ESEE Region
- Working together with ESEE Education stakeholders to develop education in order to counteract brain drain

- Aiming at a comprehensive inventory of primary and secondary deposits, abandoned mines, mining enterprises, universities and R&D, reprocessing of known data
- Aiming at compressing information on raw material potential and feasibility studies to bridge the gap between high potential mineral deposits and industrial activities
- Developing industrial projects for primary and secondary resources to generate an added value for the ESEE Region in terms of economic value and employment
- Exchange of information on funding possibilities and collaboration within Horizon 2020, European Regional Development Fund, European Social Fund and Cohesion Fund

Therefore, the Regional Center Leoben acts as a facilitator between actors in the ESEE Region and actors in the EIT RawMaterials. The above mentioned activities are work in progress and new partners from industry, research or academia are warmly invited to participate and reach out to the Regional Center Leoben.

„A series of networking events that has reunited the ESEE raw materials community. Thank you Leoben!“

Sibila Borojevic Sostaric, PhD
Associated Professor & Vice dean at University of Zagreb



HOCHSCHULE

Interview with Alfred Maier

Anna Meyer:

Mr. Maier, is it true that you coined the abbreviation ESEE? How did that happen?

Alfred Maier:

Oh no, I think Professor Peter Moser (commentary of the editorial: vice rector at Montanuniversitaet Leoben) is responsible for the invention of ESEE as a wording to cover the whole Balkan region. But I loved it and used it very often: "ESEE sounds easy". Maybe. We all know this is not the case, unfortunately it is not that easy. But starting to make things better is all right ,and there are huge potentials for a development with raw materials in the ESEE region.

Meyer:

What potential do you see in the integration of the ESEE region (East and South East Europe)?

Maier:

Well educated people need a lot of room and opportunities for a good development with raw materials in Europe. The ESEE region covers a growing market of 100 million people.

Meyer:

You have played a major role in the first seven ESEE Dialogue Conferences. What impressions did you gather from the participants and the impact created?

Maier:

Luckily I met some great personalities of the ESEE region with high intellectual capacity. I am grateful for a lot of excellent dialogues. The ESEE region participants are much better in education and knowledge than commonly expected, but the cooperation between the raw materials industry and the academia could be strengthened.

Meyer:

What do you wish for regarding the jubilee edition, the 10th ESEE Dialogue Conference?

Maier:

What I wish? I wish a special ESEE-call donated with 10 Million € funding from EIT RawMaterials to accelerate the innovative development in the ESEE region. Something like a real wake-up call.



Alfred Maier dealt with international affairs and the EIT RawMaterials at Montanuniversitaet Leoben since 2014 which means that he was involved in the EIT RawMaterials from the very beginning on and worked for the success of the KIC and the inclusion of the ESEE region until 2017. („Walking and thinking, thinking and walking“)



Anna Meyer is a research and project manager at RIC Leoben since 2017. She is responsible for the ESEE region, project ideation and sustainability. She is happiest whenever she can combine all three.

Projects

These EIT RawMaterials projects have a total funding of € 13.458.146,00 and are either initiatives of ESEE partners or impact the ESEE region.

- DIM ESEE - Dubrovnik International ESEE Mining School
- EC GeoSustain - European MSc in Geomatics for Sustainable Mineral Resource Management
- ECLC ProSchool - CLC EAST Professional School
- ESEE Dialogue Conferences
- ESEE Education Initiatives
- investRM - Multifactor model for investments in the raw materials sector
- MaMMa - Maintained Mine & Machine
- MINERS - Mine Emergency Response and Rescue School
- OpESEE - Open ESEE - East & South-East Europe
- RAISEESEE - Raw Materials Students Internships in East South-East Europe
- raPhoSafe - Classification and Sorting of Radium-rich Phosphogypsum Tailings
- Re-Activate - Developing superior technical infrastructure throughout EIT RawMaterials community to foster technologies and methodologies for reactivation of former mine sites
- REEBAUX - Prospects of REE recovery from bauxite and bauxite residue in the ESEE region
- rESEErvE - Mineral potential of the ESEE region
- RIS-Recover - Regional innovation scheme for zero waste extraction of critical raw materials
- RM@School 3.0 - Raw MatTERS Ambassadors at Schools
- Safe Deep Mining - Advanced Rock Engineering Education for Deep Mines
- Visual 3D - Visualisation of 3D-4D Models in Exploration and Geosciences

Completed projects

- ESEE Scholarships (TRAINESEE)
- ESEE Ideation
- IDeepMon - Intelligent Deep Mine Shaft Monitoring
- RM@Schools 2.0



“The ESEE conference in Bosnia has had deep impact and initiated present activities which will be realized in a project. Special focus was put on students who attended the conference with the aim and target to get to know this organisation. Other participants were employees of Tuzla University and a discussion about a possible joint scientific research project was induced at the conference. Industry participated and was interested to develop our ideas to re-use secondary raw materials. Examples are open pit sand waste material made by thermal plants after burning coal in Tuzla and new desulphurization filters which produce gypsum, which could be used as a product. Or re-use waste material after iron, zinc and silver production. To develop this kind of project can bring a positive ecological effect with economical background, which will be a great way to repair waste space and give it back to nature.”

Toni Nikolic PhD,
Assistant Professor at Federal Geological Survey, Sarajevo
Elvir Babajić, PhD,
Assistant Professor at Tuzla University



Events

- 1st ESEE Dialogue Conference (Picture 1)
18.11. – 19.11.2014, Leoben, Austria
- 2nd ESEE Dialogue Conference
5. 5. 2015, Linz, Austria
- 3rd ESEE Dialogue Conference
12.10. 2015, Leoben, Austria
- 4th ESEE Dialogue Conference (Picture 2)
15.6. – 16.6.2016, Zagreb, Croatia
- 5th ESEE DC (in cooperation with OPMR)
28.11-30.11. 2016, Budapest, Hungary
- 6th ESEE Dialogue Conference
14.11.17 Skopje, Macedonia
- 7th ESEE Dialogue Conference
16.11.17 Belgrade, Serbia
- 8th ESEE Dialogue Conference
26.6.18 Tuzla, Bosnia and Herzegovina
- 9th ESEE Dialogue Conference (Picture 3)
6.11.18 Podgorica, Montenegro
- 10th ESEE DC Jubilee Edition
27.3. – 29.3.2019, Leoben, Austria
- 11th ESEE Dialogue Conference
September 2019, Albania



Outlook

With many successful conferences and an established network of ESEE partners, we will continue our efforts and use our experience of the last years to enhance the involvement of the ESEE region. Albania is planned as the next ESEE DC location. In the course of the last conferences the organisational team has worked hard to create and organize top networking opportunities for future collaboration within the EIT RawMaterials. For example, more and more interactive activities



The ESEE Dialogue Conferences is a major raw materials conference series for East and South East Europe that has successfully addressed issues in the raw material sector in eight countries in the last four years.

such as real-time voting, workshops and round tables were included into the agenda to enhance the conference experience. We will pursue these efforts further and are sure that we are on the right track to generate inspiring and successful conferences.

Furthermore, we have widened our target group and now generally plan an education workshop with hands-on experiments for students. To connect young minds to raw material related topics is extremely valuable for the development of the sector. If we do not have interested bright minds, the chances of developing innovation for the raw material sector is low. Therefore, we actively include students and hope to spark interest in them to become engineers of the future, who will drive innovation and the development of the sector.

Finally, we would like to thank everybody that made the ESEE DCs such positive and inspiring events. Thank you for attending and thus playing a role in developing raw materials into a major strength for Europe!

8th ESEE Dialogue Conference (Picture 1)

9th ESEE Dialogue Conference (Picture 2)



Stay Up-to-Date
esee-dc.eu

Initiated by the EIT RawMaterials Regional Center Leoben at Montanuniversitaet Leoben in Austria, the ESEE Dialogue Conferences aim to foster an international community in the raw materials sector by converging relevant stakeholders from industry, research and education in East and South East Europe.

TARGET GROUPS

- Experts on mining, geology, mineral and metallic raw materials, circular economy,...
- Raw materials industry stakeholders
- Policy and decision-makers in the field of raw material prospection and mining
- Stakeholders in the field of raw materials education

Project Partners

EIT RawMaterials Regional Center Leoben
EIT RawMaterials Co-Location Center East
EIT RawMaterials Hub Regional Center Adria
Montanuniversitaet Leoben - MUL
Geological Survey of Slovenia – GeoZS
Slovenian National Building and Civil Engineering Institute
University of Zagreb - UniZG

Contact

Questions and inquiries:

Anna Kieninger-Fantoni
anna.kieninger-fantoni@unileoben.ac.at
+43 3842 402 7610
(ESEE DC Organisation)



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

Resources Innovation Center Leoben
Franz Josef-Strasse 18, 8700 Leoben - Austria
+43 3842 402 7601 | ric-leoben@unileoben.ac.at
www.ric-leoben.at