

# Science for environment and climate in Romania

Workshop

21-22 April 2021

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The issues of environment and climate changes have become a global concern in the last years, with regional and local particularities. We invite you to learn about, and virtually visit the infrastructure for observing and characterizing the environment using advanced optoelectronic techniques @ INOE.

Romania has invested about 13.5 mil. EUR in the framework of the CEO-Terra project (Research Centre for Environment and Earth Observation) in order to build the necessary capacities for the pan-European research infrastructure ACTRIS (Aerosol, Clouds and Trace Gases Research Infrastructure) and in the same time to increase its contribution to the ground segment of the European Space Agency program for Earth Observation.

Part of the infrastructure financed by the CEO-Terra project supports advanced research on unconventional pollution sources, such as solid waste incineration. One of the most critical urban air quality problems in Europe, especially in Central and Eastern Europe, is the frequent incidence of high levels of respirable particles ( $PM_{10}$  /  $PM_{2.5}$ ).

**Join us on 21<sup>st</sup> of April** to see the new and upgraded laboratories, find out about access opportunities at the Magurele centre for Atmosphere and Radiation Studies, and meet our scientists and stakeholders. The workshop will be organized via webex. Please contact [nnicol@inoe.ro](mailto:nnicol@inoe.ro) for details and connection link.

**Join us on 22<sup>nd</sup> of April** to learn about solid waste burning effect on ambient air quality in Central and Eastern Europe. The workshop will be organized via webex. Please contact [mluminita@inoe.ro](mailto:mluminita@inoe.ro) for details and connection link.





# CEO-Terra workshop

## Agenda

21 <sup>st</sup> April, 2021		
Time (RO)	Topics	Time (CEST)
10:00 – 10:15	<b>Welcome &amp; introduction</b> <ul style="list-style-type: none"><li>• Dr. Doina Nicolae, CEO-Terra project director</li></ul>	09:00 – 09:15
10:15 – 11:30	<b>A word from our main partners</b> <ul style="list-style-type: none"><li>• Róbert-Eugen Szép, Secretary of State, Ministry of Environment, Waters and Forests</li><li>• Viorel Vulturescu, Director of European and International Partnerships, Ministry of Research, Innovation and Digitalization</li><li>• Eija Juurola, ACTRIS Leader</li><li>• Dirk Schüttemeyer, European Space Agency</li></ul>	09:15 – 10:30
11:15 – 11:30	Coffee / tea break	10:15 – 10:30
11:30 – 12:30	<b>Virtual visit of the laboratories, guided by our scientists</b> <ul style="list-style-type: none"><li>• Laboratory for Environmental Factors, Cluj-Napoca</li><li>• Laboratory for Optospectral Methods for Water Quality Assessment</li></ul>	10:30 – 11:30
12:30 – 13:30	Lunch break	11:30 – 12:30
13:30 – 14:30	<b>Virtual visit of the laboratories, guided by our scientists (ctd.)</b> <ul style="list-style-type: none"><li>• Infrastructure for Characterization and Diagnosis by Optical and Complementary Methods</li><li>• Romanian Atmospheric 3D research Observatory</li></ul>	12:30 – 13:30
14:30 – 14:45	Coffee / tea break	13:30 – 13:45
14:45 – 16:15	<b>Virtual visit of the laboratories, guided by our scientists (ctd.)</b> <ul style="list-style-type: none"><li>• Magurele centre for Atmosphere and Radiation Studies</li><li>• Lidar Calibration Centre</li></ul>	13:45 – 15:15
16:15 – 17:00	<b>Round table</b> <ul style="list-style-type: none"><li>• First impressions</li><li>• Q&amp;A</li><li>• Recommendations</li></ul>	15:15 – 16:00



# WASTE workshop

Agenda

22<sup>nd</sup> April, 2021

Time (RO)	Topics	Time (CEST)
10:00 – 10:10	<b>Welcome &amp; introduction</b> <ul style="list-style-type: none"> <li>András Gelencsér PI., University of Pannonia: Motivation for and overview on the international project on the effects of residential solid waste burning on ambient air quality in Central and Eastern Europe (WASTE, EU DG ENV 07027737/2018/788206/SER/ENV.C3)</li> </ul>	09:00 – 09:10
10:10– 11:05	<b>Scientific session I</b> <ul style="list-style-type: none"> <li>Marin Cristina -Overview of the project's main task and Romanian contribution (INOE)</li> <li>András Gelencsér- Emission factors for PM10 and polycyclic aromatic hydrocarbons (PAHs) from illegal burning of different types of municipal waste in households (University of Pannonia)</li> <li>András Hoffer Assessment of the contribution of residential waste burning to ambient PM10 levels in selected Hungarian and Romanian settlements (University of Pannonia)</li> </ul>	09:10 – 10:05
11:05 – 11:20	Coffee / tea break	10:05 – 10:20
11:20 – 12:05	<b>Scientific session II</b> <ul style="list-style-type: none"> <li>Erika Levei-Level of PAHs and metals in PM10 measured in Romania (INOE)</li> <li>Peter Viaene- Air quality modelling and how does this compare to the measurements and what can we learn from this (Vito)</li> <li>Martine Van Poppel, Jan Peters- Mobile measurements of Black Carbon in Cluj: comparison of normal traffic conditions with reduced traffic during COVID-19 lock-down (Vito)</li> </ul>	10:20 – 11:05
12:05 – 13:00	Lunch break	11:05 – 12:00
13:00 – 14:30	<b>Round table &amp; Topics to be discussed (<i>in Romanian</i>):</b> <ul style="list-style-type: none"> <li>Waste burning practices: for home heating, waste reduction, agricultural waste burning</li> <li>Types of household wastes most frequently burned</li> <li>Potential health effects of solid waste burning emissions</li> <li>Contribution of waste burning to local air pollution</li> <li>On-site detection and monitoring methods of illegal waste burning</li> </ul>	12:00 – 13:30

- Raising public awareness on the extreme hazards of waste burning including education in schools
- Legislative aspects of waste burning
- Sociological aspects of illegal waste burning practices
- Potential measures of mitigation