

1st INTERNATIONAL REAL-LIFE EMISSIONS WORKSHOP ON SMALL-SCALE COMBUSTION:

The measurement methods and emission components for the solid fuel combustion appliances

Wednesday 9th November 2022, 08:00-15:50 (CET)

The Real-LIFE Emissions project consortium coordinated by the University of Eastern Finland organizes the first international workshop which will emphasize reviewing on the measurement methods and particulate emission components produced from the small scale solid fuel combustion. The workshop aims to bring scientists, combustion appliance manufacturers, regulators, and experts in the field together and discuss current issues and solutions for the residential combustion emissions, sampling methods and protocols.

The workshop will be held also online and the link will be sent a week before the event at latest for those who have registered.

WORKSHOP PROGRAMME (NOTE! Timetable in CET)

Wednesday 9th November 2022

Tietoteknia Auditorium, Savilahdenkatu 6, Kuopio Campus & Online (TEAMS)

08:00 – 08:30 Registration and coffee

Opening of the Workshop

08:30 – 08:40 Welcoming remarks and short introduction of the Real-LIFE Emissions project.
Jarkko Tissari, University of Eastern Finland (UEF)

First Session: Evaluation of emission components to be measured (Chair Karna Dahal, UEF)

08:40 – 09:00 Health impacts of air pollution - burden of disease and other aspects for
[optimizing] emission controls.
Otto Hänninen, The Finnish Institute for Health and Welfare (THL)

09:00 – 09:20 How does the composition of small-scale combustion emissions affect
their climate effects? *Harri Kokkola, Finnish Meteorological Institute (FMI)*

09:20 – 10:00 Important physical and chemical properties of particulate and gaseous
emissions from small scale solid fuel combustion.
Karna Dahal, University of Eastern Finland (UEF)

10:00 -10:30 Discussion

Second session:

Description of the applicable PM sampling and measurement methods (Chair Petr Kubesa, VSB)

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| 10:30 – 11:00 | Overview of PM measurement methods for local space heaters burning solid fuels and results from VSB campaign focused on PM sampling methods.
<i>Petr Kubesa, Technical University in Ostrava (VSB), Czech Republic</i> |
| 11:00 – 11:20 | Novel dilution sampling method for combustion emissions.
<i>Jorma Jokiniemi, University of Eastern Finland (UEF)</i> |
| 11:20 – 12:00 | Lunch break |
| 12:00 – 12:20 | Comparison of different sampling methods in hot and diluted flue gas.
<i>Claudia Schön, Technology and Support Centre in the Centre of Excellence for Renewable Resources (TFZ), Germany</i> |
| 12:20– 12:50 | Results from PM sampling methods used during the INERIS measurement campaigns on the residential wood combustion: Dilution tunnel, Porous tube, SPC-IPA method and Dilution chamber.
<i>Benjamin Cea, The French National Institute for Industrial Environment and Risks (INERIS), France</i> |
| 12:50 – 13:20 | Discussions on Session 2 |

Third session: Outlook of other activities in Europe (Chair Hans Hartmann, TFZ)

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| 13:20– 13:35 | Why next-generation particulate emissions measurement is needed.
<i>Michael Sattler, Ökozentrum Langenbruck, Switzerland</i> |
| 13:35 – 14:10 | Measurement methods for flue gas from wood combustion: what should be considered for a future standard.
<i>Alejandro Keller, University of Applied Sciences and Arts Northwestern Switzerland</i> |
| 14:10 – 14:30 | Coffee break |
| 14:30 – 14:50 | Particle count and diameter as an alternative to the filter method.
<i>Josef Wüest, University of Applied Sciences and Arts Northwestern Switzerland</i> |
| 14:50 – 15:10 | Characterization of gaseous species and PM using dilution approaches and comparison of the Norwegian standard NS3058/59 and EN16510 with EN-PME.
<i>Franziska Kausch, SINTEF Energy Research AS, Norway</i> |

15:10 –15:40 Discussions on Session 3

15:40 –15:50 Closing words

Other activities

18:00 – 21:00 Social event with Dinner and Smoke Sauna experience
Jätkänkämppä at Rauhalahti Spa Hotel, Katiskaniementie 8, Kuopio
(19-22 Finnish time)

More information about the project can be found on the [website](#) of the project . The direct link for registration is [here](#). The deadline for the registration is October 24. The **online link** to the workshop will be sent a week before the event at latest for those who have been registered.



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Disclaimer: The contents are purely those of the beneficiaries of the Real-LIFE Emissions project and may not in any circumstances be regarded as stating an official position of the European Commission.