



Invitation

Workshop

Bio-based Solutions for Improved Acoustic Applications

12. - 13. September 2024

Venue: Linz, Science Park 2/048

(1) Organizer

Wood K plus	NEU
Prof. Dr. Birgit Kamm	Doç. Dr. Murat Ertekin
Key Researcher Biorefinery	Project Manager
E-Mail: b.kamm@wood-kplus.at	E-Mail:muratertekin@hotmail.com

In the frame of EU Project Bioacouis, Task of Wood K plus, WP 4, Workshop activities.
Together with NEU, NTT, UDC, LSIWC.

(2) Background of Horizon Project Bioacoustics

Acoustics are a major workplace problem, particularly in open plan offices or education facilities and thus many people bothered by noise and bad acoustics.

Therefore, the main objective is to develop cost effective acoustic solutions based on bio-based materials and thus improved acoustic systems in the workplace and open spaces, particularly social distance are needed

(3) Objectives of Workshop

To transfer knowledge about specific area from one beneficiary to additional beneficiary and public for facilitating long-term cooperation.

To optimize the socio-economic impact of public funding for research, in terms of ensuring the transfer of economic and business knowledge from industry to academia to encourage the commercialization of the Bioacoustic results through the proposed innovation activities

(4) Progame Board

DI Dr. Robert Putz, Wood K plus, Area Manager Biorefinery processes and Composite materials

Arif Akilliar, Burotime, Ar-Ge-Director

Kerim Aydag, Burotime

Dott. Daniele Spinelli, Next Technology Tecnotessile, Chemical Research & Technology

Prof. Dr. Birgit Kamm, Wood K plus, Key Researcher Biorefinery, Area Biorefinery processes and Composite materials

Doç. Dr. Murat Ertekin, Necmettin Erbakan Üniversitesi, Project Manager

PhD Basak Bengü, Kastamonu, Ar-Ge Grup Müdürü, R&D Group Manager

DI Dr. Franz Zeppetbauer, Wood K plus, Senior Researcher Area Biorefinery processes and Composite materials

(5) Program

(5.1) Day 1, Session 1:

1:00 p.m. Welcome by Wood K plus , DI Dr. Robert Putz, Area Manager Wood K plus

1:05 p.m. Welcome by Project coordinator Arif Akilliar, Ar-Ge-Director Burotime

4 lectures, 20 min and 10 min Discussion (including critical parameters in existing systems)

1:10 p.m. Challenges at bioacoustic products, interior architecture, design, Murat Ertekin, NEU (confirmed)

1:40 p.m. Biorefining, raw materials, technologies for bioacoustic products, Birgit Kamm, Wood K plus (confirmed)

2:10 p.m. Wooden panels and resins, Erik van Herwijnen, Wood K plus (confirmed)

2:40 p.m. Natural Materials, Feedback from Industry, Gülsah Balamut Arslan Kastamonu (confirmed)

03:10 p.m. Break, coffee, tea, pastries

(5.2) Day 1, Session 2

**Flip Charts with speaker, moderator and participants,
alternation to the next speaker, moderator and small group**

Any 20 minutes

04:00 p.m.

04:20 p.m. (alternation)

04:40 p.m. (alternation)

Flipchart 1:

Raw Materials from wood and renewable resources: Lignin, Carbohydrates

Which potential have this renewable resources für substitution of petrochemical glues ?

Furniture and Panel production today: Which Resins, glues are used for execution of the gluing?

Which structures of resins and glues are used? To what extent does industries use glue?

Session 2

3 Flip Charts with speaker, host and small group

04:00 p.m.

04:20 p.m. (alternation)

04:40 p.m. (alternation)

Flipchart 2:

Nanomaterials (Lignin, Cellulose, Mycellium)

Which materials are possible by Nanomaterial structures (which veneers, panels, which thicknesses, which customer specifications/guidelines are there ?

Which are the development goals?

Which Nanomaterial has the best chance for economical and ecological transfer from research to industry?

Session 2

3 Flip Charts with speaker, host and small group

04:00 p.m.

04:20 p.m. (alternation)

04:40 p.m. (alternation)

Flipchart 3:

Fully Biobased acoustic panels and possibility of recycling

Which kind of resins and glues, wood composite, mycellium composite are possible to produce for recycling of materials ?

To what extent does industries use glue, wood composite and mycellium composite?

Is there a need to substitute petrochemical glues, with bio-based glues? What types of work processes are there (gluing, laminating, screwing...)?

Which materials are used (which veneers, panels, which thicknesses, which customer specifications/guidelines are there ?

(5.3) Program

Day 2, Session 3

Summary and Conclusion of day 1 by host

Session 3:

4 lectures, 20 min and 10 min Discussion (including critical parameters with proposals of new projects)

Status quo and future direction

09:00 a.m. Biobased materials for composite development", Elena Merli, NTT

09:30 a.m. Fully bio-based Mycellium composite materials, Ilze Irbe, LSIWC

10:00 a.m. Lignin degradation and products by different methods, Raphaela Süß, Wood K plus

10:30 a.m. Suberinic acids as natural glue for lignocellulosic boards, Janis Rizikovs, LSIWC

(5.3) Program

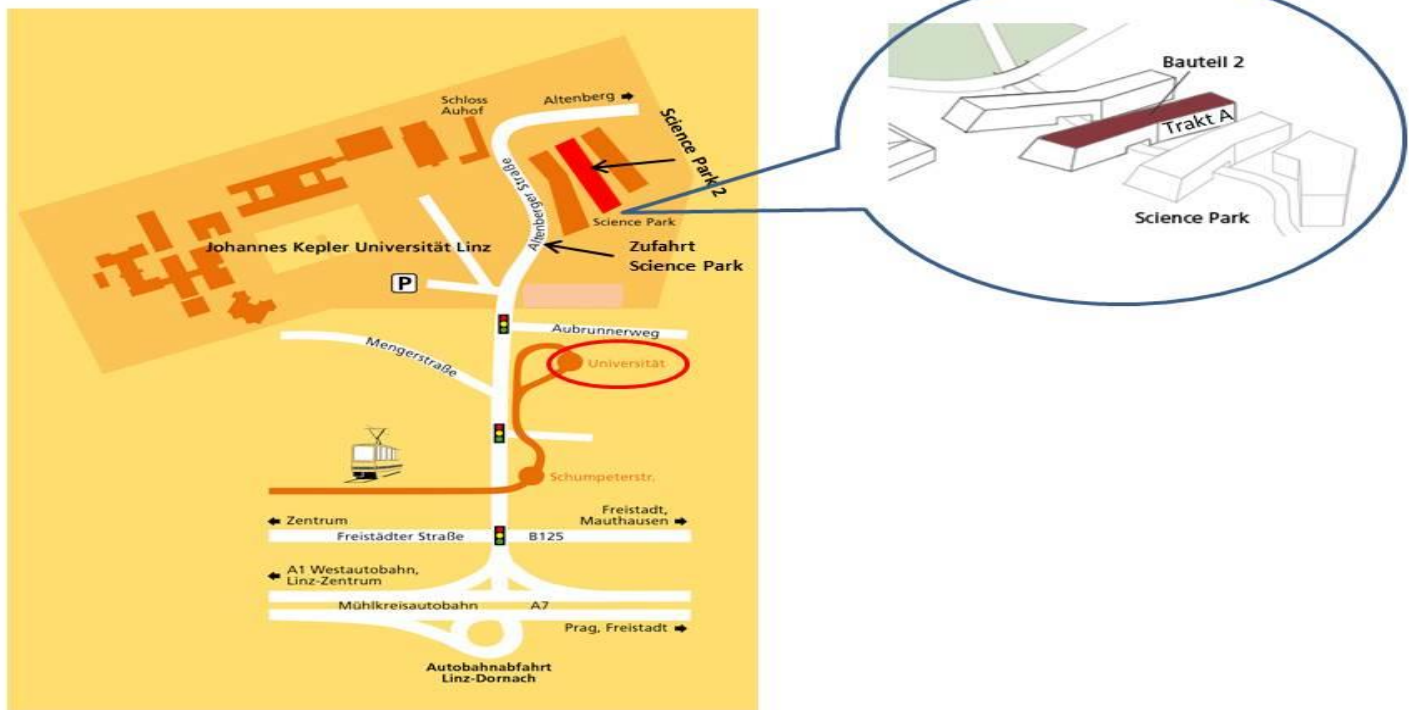
Day 2, Session 4

11:30 Visiting of Wood K plus Linz, Biorefinery Processes and Composite Materials, Technical center and Laboratories

12:00 a.m. Summary and Conclusion of workshop by host, and Anouncement of workshop about acoustic control vibration and control, acoustic characteristics, using of green materials, University of Neapel, Gino Ionnce

11:15 Break, coffee, tea, bread

Venue: Altenberger Straße 69, A-4040 Linz



Possibilities for overnight stays:

Julius Raab Heim: <http://www.studentenwerk.at/site/en/linz>

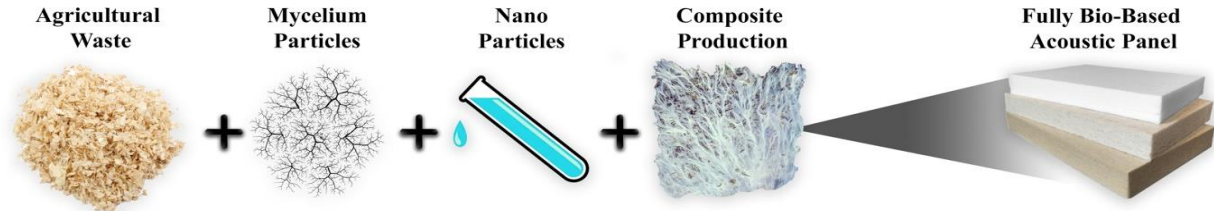
Harry's Home: <https://www.harrys-home.com/en/>



**Please send your registration for the workshop till August, 30, as following
Dr. Franz Zeppetzauer, Msc**

E-Mail: f.zeppetzauer@wood-kplus.at ■

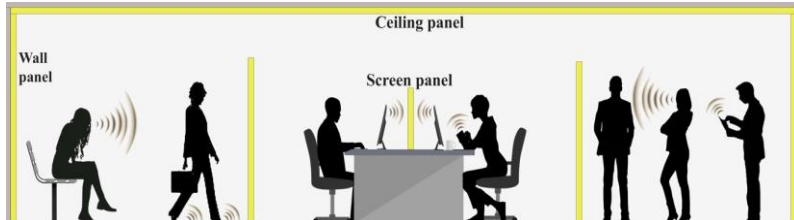
Fibres and Lignin - Acoustic panel



Innovative acoustic solutions based on biobased materials as abundant, biodegradable, lightweight, cost efficient and eco-friendly in nature for furniture architecture, entertainment, designing, or construction sectors.

Preventing and reducing noises in offices, education buildings, hospitals, open layout public places,

meeting rooms, show venues, foyer areas, culture-sports spaces and exhibition areas.



Bio-Acouis
<https://bio-acouis.eu>

MSCA

a) Conventional Acoustic Panel b) Bio-Based Acoustic Panel c) Fully Bio-Based Acoustic Panel



Thank you for cooperation.