



## **Invitation**

**Student Camp Biorefineries and Biobased  
Industrial Products  
25. - 28. February 2019**

**Venue: Linz, Science Park 2/048 and Lenzing**

## (1) Organizer

Wood KPLUS	eseia/BioenergyTrain
Prof. Dr. Birgit Kamm	Anna Gabbert
Key Researcher Biorefinery	Project Manager
E-Mail: b.kamm@kplus-wood.at	E-Mail: anna.gabbert @eseia.eu

**In the frame of EU Project BioEnergyTrain, Task of wood K plus.**

**WP 3, Linking Business and HEI Energy Education.**

## **(2) Target groups:**

Students of the courses "Biorefinery Engineer" of the University of Technology Graz (3 ECTS)

Students of "Bioresource Value Chain Manager" of the University of Twente (3 ECTS)

Open for Students studying Chemistry, Biotechnology, Process Engineering, Marketing, Business at European Universities and Universities of Applied Sciences ( 3 ECTS)

Wood KPLUS  
Kompetenzzentrum Holz GmbH  
A-4040 Linz  
Altenberger Straße 69  
[www.wood-kplus.at](http://www.wood-kplus.at)

Headquarters: Altenberger Strasse 69 A-4040 Linz Phone +43 732 2468-6750 Fax +43 732 2468-6755

### **(3) Programme Board**

DI Dr. Robert Putz, Wood KPLUS, Area Manager Wood Chemistry & Biotechnolog, Linz

DI Dr. Edith Zikulnig-Rusch, Wood Carinthain Competence Center, St. Veit an der Glan

PhD Franziska Hesser, Wood KPLUS, Team Leader Market Analysis and Innovation Research, Tulln

Prof. Dr. Birgit Kamm, Wood KPLUS, Key Researcher Biorefinery, Linz

Prof. Dr. Alexander Jäger, University of Applied Sciences, Wels

Ass.Prof. Dr. Marlene Kienberger, Biorefinery Engineering, TU Graz

Ass.Prof. Dr. Maarten J. Arentsen, Energy Innovation/Value Chain Management, TU Twente

## **(4) Background and Content of Student Camp**

Currently the industrial utilization of raw materials from agriculture, forestry, landscape conservation, and organic waste management for large-scale converting industry and chemical industry is still in its beginnings. The concept of a biorefinery is analogous to a petroleum refinery where a feedstock, crude oil, is converted to fuels, chemical products, and energy. In the case of a biorefinery, plant biomass is used as a feedstock to produce a diverse set of products for all areas of life, such as fuels, chemicals, polymers, lubricants, adhesives, fertilizer, and energy.

In February 2019, Kompetenzzentrum Holz GmbH (Competence Center for Wood Composites and Wood Chemistry - Wood K plus) will organize a 3<sup>rd</sup> edition of the BioEnergyTrain Student Camp, where interdisciplinary groups of students will work together for 4 days to find innovative solutions for complex, real-world problems in biorefineries together with experts from Wood K plus and furthers excellent biorefinery researchers as well as industrial represents. That the wood pulp industry represent the first type of nonfood biorefinery producing value-added products will student learn in the frame of lectures and a site visit of Lenzing AG.

## (5) Status of planning

[https://wood-kplus.at/de/aktuelles/invitation---student-camp-2019\\_n63](https://wood-kplus.at/de/aktuelles/invitation---student-camp-2019_n63)



UNTERNEHMEN FORSCHUNGSBEREICHE PARTNER PUBLIKATIONEN AKTUELLES JOBS KONTAKT

### NEUESTE BEITRÄGE

**SEMINAR ZUM THEMA: DIE NEUEN DIMENSIONEN DER PLASMA TECHNOLOGIEN BEISPIELE FÜR INDUSTRIELLE ANWENDUNGEN**

Dienstag, 18. Sep. 2018

**FEIERLICHER STARTSCHUSS FÜR SUBBIND**

Dienstag, 4. Sep. 2018

**KENNTNISSE ÜBER DIE KALTLEBRIGKEIT REDUZIEREN DAS VERSAGEN BEI DER HERSTELLUNG VON SPERRHOLZ**

Dienstag, 14. Aug. 2018

**WOOD K PLUS - AUSGEZEICHNETE EVALUIERUNG SICHERT FORSCHUNGSBUDGET VON € 22,7 MIO.**



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Akzeptieren



## (6) Programm

### Day 1, Arrival in Linz,

Wellcome and Introduction

**Session 1:** 3 lectures, 45 min and 30 min, Discussion (including critical parameters in existing systems)

13:00	<b>Welcome by Wood KPLUS DI Dr. Robert Putz</b>	
13:05	Introduction Biorefinery definition Prof. Dr. Birgit Kamm	
	<b>Explanation of student camp rules and goals, Ass. Prof. Marlene Kienberger, TU Graz</b>	

	<b>Session 1</b>	
	<b>Substantial using of wood and non wood biomass</b>	
	<b>Moderation: Prof. Dr. Birgit Kamm</b>	
	<b>Including definition of questions by session speaker for students</b>	
13:30	Forest resource and aspects of forestry based industry	
	Prof. Dr. Alfred Teischinger, BOKU Tulln	
14:15	DI Dr. Andreas Haider	
	Biobased Composites & Processing, Wood KPLUS Linz	
14:45	Cascade use of non wood biomass	
	Prof. Dr. Alexander Jäger	
	University of Applied Sciences, Wels	
15:00	Discussion Session 1	
15:30	Break, coffee, pastries	
16:00	Critical parameters in existing systems, Questions from speakers	
	Students interaction in small groups, tasks to the students together with moderator and referents	
17:00	Rating of day one, including results of student interactions	
17:30	End of day one	



## Day 2

	<b>Session 2 Industrial Site Lenzing</b>	
	<b>Moderation: Dr. Robert Putz</b>	
10:00	Primary refinery and pulping industry	
	DI Dr. Karin Fackler and co worker	
10:30	Products of Lenzing AG	
	Josef Innerlohinger	
11:00	Visiting of Lenzing Industrial plants	
12:30	Lunch	
13:30	Return trip to Linz	

	<b>Session 3 Biobased Products, Market Moderation: PhD Franziska Hesser</b>	
15:00	Dr. Frank Meister, Smart Polymer GmbH	
	Current developments of biobased commercial products on cellulose basis	
15:30	Dr. Elke Fliedner	
	Preferre Resins Germany GmbH	
	Recently Development of Market Product Lignin	
16:00	Discussion with Industrial experts	
18:00	Optional: Pöstlingberg Dinner by Pöstlingberg-Tram <a href="https://www.linztourismus.at/freizeit/linz-entdecken/sehenswertes/top10/erlebniswelt-poestlingberg/">https://www.linztourismus.at/freizeit/linz-entdecken/sehenswertes/top10/erlebniswelt-poestlingberg/</a>	

### Day 3

9:00	Visiting and common experiments with students at wood <i>KPLUS</i> , Area Biotechnology	
	DI Dr. Victoria Leitner and co worker	
10:30	Visiting and common experiments with students at wood <i>KPLUS</i> , Area Chemistry	
	Prof. Dr. Birgit Kamm and co worker	
12:00	Lunch	
13:00	Common Experiments with students in the area wood physical and analytical methods, sensors	
	PhD Uwe Müller	
14:30	Lecture	
	Plasma treatment on biobased materials	
	DI Judith Sinic	
15:00	Discussion of the lecture and further questions	
15:20	Rating of experiments by students, proposals of future experiments, future tasks	
15:40	Summary day three	
16:00	Coffee, pastries	

## Common experiments

Biomass pretreatment

Biotechnological and chemical experiments

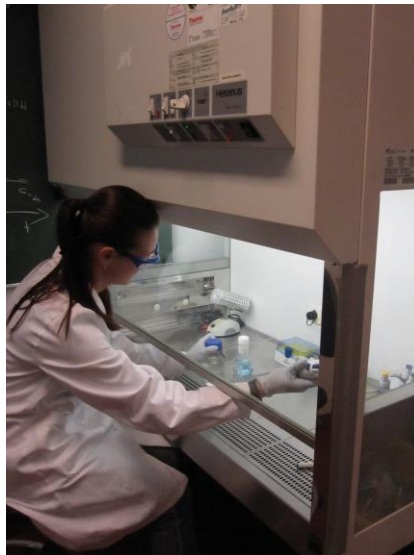
Analytical methods

Characterization of products

Participants are invited to bring along their chemistry coats for laboratory work.



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## Day 4

	<b>Session 4</b>	
	<b>Biorefining, Market and Sustainability</b>	
	Moderation: Marlene Kienberger	
	<b>Including definition of questions by session speaker for students</b>	
09:00	Biorefineries-Industrial Processes and Products	
	Prof. Dr. Birgit Kamm	
09:30	Biorefinery Economics	
	Univ.-Prof. DI Dr. Tobias Stern	
10:00	Biomass, Biorefineries and Sustainability	
	Prof. Dr. Michael Narodoslawsy	
10:30	Discussion Session 4	
11:00	Break, Coffee, pastries	
11:30	Students interaction in small groups to future aspects of biorefining, market and sustainability, Questions from speaker	
12:30	Rating of day four, including results of student interactions	
13:00	Summary and Outlook of student camp	
13:30	End of day four/ End of student camp	

Registration: till latest January, 30, 2019

Please sign in (e-mail: [b.kamm@kplus-wood.at](mailto:b.kamm@kplus-wood.at)) or Fax: 0043 732 2468-6755

Name\_\_\_\_\_

Street\_\_\_\_\_

Postcode, City\_\_\_\_\_

Country\_\_\_\_\_

Phone\_\_\_\_\_

e-mail\_\_\_\_\_

Participation Dinner, Day 2, Pöstlingberg, please select YES NO

After registration of the dinner you will receive an invoice. Please transfer the amount, indicating the invoice number.

Please add for Certificate of participation (3 ECTS)

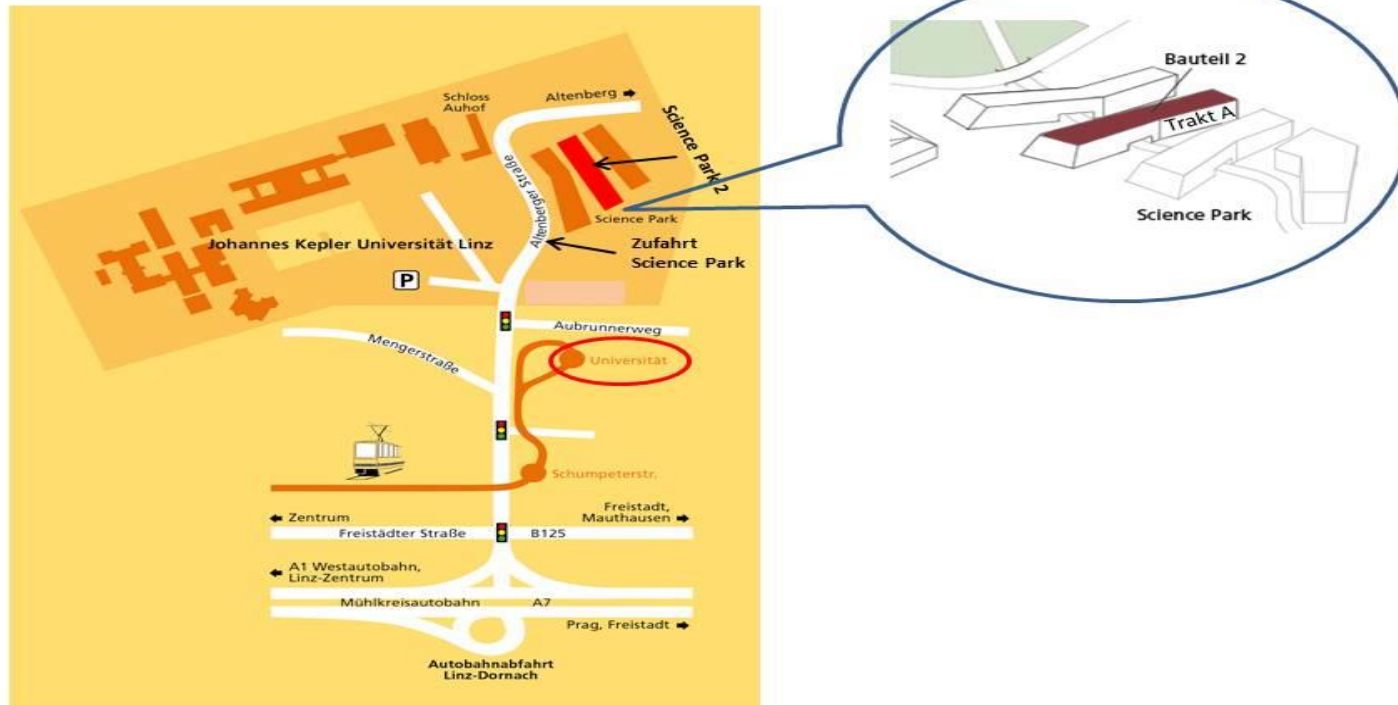
Home Institution \_\_\_\_\_

Student Number \_\_\_\_\_

Wood KPLUS collects, stores and processes the personal data you submit for the purpose of processing your application. A transfer to third parties will only be made if we are legally obliged to do so. You can always inform us about your stored data and have them deleted if necessary. By participating in the event, you agree that they may appear on recordings that are used in the public relations work of wood KPLUS.

The Home institution and Student number will be forwarded to TU Graz for the issuance of the certificate..

Venue: Altenberger Straße 69, A-4040 Linz



Participation: free

Pöstlingberg-Dinner day two: 30 Euro +VAT/ person

Possibilities for overnight stays:

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

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



**Thank you for  
attention !**