

THE Congress – NATURAL**fiber**EXTRACTION

Industrial processing of renewable raw and residual materials
Focus: Fiber extraction of natural fibers



OCTOBER 26 2022
LOOK 21 STUTTGART
WITH PRE-EVENT

Event organizers:



Gefördert
durch



Baden-Württemberg
MINISTERIUM FÜR ERNÄHRUNG, LÄNDLICHEN RAUM
UND VERBRAUCHERSCHUTZ

Greetings to you all

We cordially invite you to the 1st NATURALfiberEXTRACTION Congress on October 26, 2022. Be our guest at Look 21, currently the most modern event location in the heart of Stuttgart. At the premiere event, we will focus on the topic of Industrial processing of renewable raw and residual materials.

To achieve the minimum climate targets, there is an urgent need to develop sustainable CO₂-neutral materials and to reduce energy consumption at once. Especially for natural fibers, the corresponding economic industrial processing methods in regional cycles must be developed, to reduce both costs and the environmental impact of transportation. Finally, environmental pollution, e. g. caused by microplastics, has to be avoided.

Increasing deforestation worldwide contributes to about 12 - 15 % of greenhouse gas emissions. In addition to reforestation, the cultivation of fast-growing annual plants can contribute significantly to reduce CO₂ concentrations.

Currently, there are many different machinery technologies on the market worldwide to process natural fibers. The NATURALfiberEXTRACTION Congress aims to create a platform for all stakeholders involved in the supply chain – from farmers to users – to get an overview of the different technologies, to share experiences and to provide a decision support for building an effective, economic, and reliable supply chain for natural fibres.

The NATURALfiberEXTRACTION Congress intends to promote sustainable business, showing solutions to effectively process plant-based raw materials and residues into fibers for clothing, home textiles and technical applications. The focus of the congress is on industrialized fiber extraction, as this is where fiber and textile technology know-how is most needed.

In an accompanying exhibition and in a start-up and material slam companies and institutes present their competencies and offer opportunity for dialog. Selected start-ups will also give you the opportunity to get to know young companies and their innovative ideas and products. We look forward to welcoming you to the congress in Stuttgart.

Ulrike Möller
Managing Director AFBW e.V.

Prof. Dr.-Ing. Goetz T. Gresser
Board of Directors DITF Denkendorf

Program

08.30 Welcome coffee

OPENING SESSION

Chairman: PD Dr.-Ing. Thomas Stegmaier, DITF Denkendorf

09.00 Opening

*Ulrike Möller, Allianz Faserbasierte Werkstoffe e.V. (AFBW)
PD Dr. Thomas Stegmaier, DITF Denkendorf*

09.10 Greetings

*Alexander Mündel, head of unit 44 – Bioeconomy, Ministry
of Food, Rural Affairs and Consumer Protection of Baden-
Württemberg*

09.30 The role of natural fibers in a circular sustainable
bioeconomy

Prof. Dr. Ralf Kindervater, BIOPRO Baden-Württemberg GmbH

09.50 Alpine hemp 360° – Model for the future or niche
romance?

*Valentine Troi, Standortagentur Tirol, alpine Kreislauf-
wirtschaft/ArgeAlp, Austria*

10.15 BREAK – Visit the exhibition

INDUSTRIAL PROCESSING OF RENEWABLE RAW AND RESIDUAL MATERIALS

Chairman: PD Dr.-Ing. Thomas Stegmaier, DITF Denkendorf

10.45 From Crop to Product – Processing and Applications
of Natural Fibres. A review of passed up opportuni-
ties and chances for the future
Dipl. Ing. (FH) Kai Nebel, Reutlingen University

11.10 Mechanical decortication of natural fibers
(from straw to fiber)

Dr. Jörg Morgner, Temafa Maschinenfabrik GmbH

11.35 Fiber recovery with the sustainable biorefining
process from the LaNDER³ project at Zittau
University of Applied Sciences

*Judit Harsányi, Dr. Marzena Poraj-Kobielska, Matthias
Tirsch, Zittau University of Applied Sciences*

11.50 Water retting process innovation for a circular
and sustainable hemp-based bioeconomy
*Vita Maria Cristiana Moliterni, Council for Agricultural
research and Economics – Research Centre for Genomics
& Bioinformatics – Italy*

12.05 New plant based fibers from the residues of
agricultural plants using the example of lavender
Dr.-Ing. Jamal Sarsour, DITF Denkendorf

12.20 LUNCH – Visit the exhibition

NATURAL FIBER EXTRACTION – PRACTICAL TESTIMONIALS

Chairman: Prof. Dr.-Ing. Markus Milwich, DITF Denkendorf

Session I:

13.30 HEMP-ACT, long hemp fibre cutting edge process
Pierre Amadiou, president, SAS Hemp-Act, France

13.45 Hemp fibre processing in Poland
Maciej Kowalski, Kombinat Konopny, Poland

Session II:

13.30 Empowering the farms in Europe with effective low-
tech equipment for the harvesting and processing
of industrial hemp as a multifunctional raw material
for regional circular economy
*Martin Klöti, Glaernisch Textile Cooperative, Switzerland;
Tomáš Brabec, Apolo-Global, Czech Republic*

13.45 25 years of R&D for the initial preparation of native
bast fiber plants
*Dr. Hans-Jörg Gusovius, Natural fibre technologies, Leibniz-
Institute for Agricultural Engineering and Bioeconomy (ATB);
Robert Hertel, Bast und Faser GmbH*

Program

NATURAL FIBERS – IN PROGRESS

14.00 Choose from:

Workshop 1:

Cultivation and regional potentials

Host: Prof. Simone Graeff-Hönniger, AG Anbausysteme und Modellierung Universität Hohenheim

Workshop 2:

Mini-Lab Mechanical, biotechnological and chemical extraction processes

Host: Stefan Winklehner, Fortum Bio2X, Finland

Workshop 3:

Further processing of natural fibers into industrial raw material suitable for series production

Host: Kay Kölzig, Sachsen-Leinen e.V.

Workshop 4:

Holistic utilization of biomass and integration into existing value chains

Host: Dr. Manuel Clauss, Fibers365 GmbH

14.45 Presentation of the workshop results – Talk-O Mat panel discussion

Host: Cord Grashorn, Linotech GmbH & Co.KG

15.15 Start-up and material slam:

- Cynthia® a new generation of natural fiber offering a wide range of applications

Richard Thommeret, In-Between International, Belgium

- Nettle fiber rethought

PD Dr.-Ing. Thomas Stegmaier, DITF Denkendorf

- Home compostable natural products – really?

Egon Förster, Fiber Engineering GmbH

- Novel waste fiber decortication by NatStruct

Toni R. Frankenstein, NatStruct

- N.N.

15.45 BREAK – Visit the exhibition

QUO VADIS – WHAT DOES THE FUTURE HOLD?

16.15 Fibers365 – CO₂-neutral virgin non-wood fibers

Stefan Radlmayr, Fibers365 GmbH

16.35 Green rules – The use of natural fibre composites in motorsports

Thomas von Löwis, Four Motors GmbH

17.00 Closing words

17.10 APÉRO AND FINGER FOOD – Visit the exhibition

Partners



Please contact us if you would like to become a Congress Partner.

Contact: Julia Kottmann, julia.kottmann@afb.wu.eu

Exhibition

The event will be accompanied by an exhibition from the fields of technology, product, material and start-ups. Information on all exhibitors can be found here from September 15, 2022.

Please contact us if you are interested in an exhibition space. The exhibition spaces are limited. Places are allocated on a first-come, first-served basis.

Contact: Julia Kottmann, julia.kottmann@afb.wu.at

The exhibition will also present the results of the workshops.

**Welcome to the exhibition from fibers
to biobased composites for motorsport**



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Congress information - registration

Location

Congress: Look 21, Heilbronner Str. 51-55, 70191 Stuttgart

Pre-evening event to be announced

Further information

www.afbw.eu

Contact

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Registration

Registration until 19 October 2022

<https://www.afbw.eu/aktuelles/veranstaltungen/details/the-congress-naturalfiberpulpung/>

Participation fees

Congress, Daily price: 55 EUR (students: 25 EUR)

Congress including pre-event: 85 EUR

(All speakers, partners with one person, presenters, slam participants have free entry for both days)

Organizers



When it comes to fibers, the Allianz Faserbasierte Werkstoffe Baden-Württemberg e. V. is the first point of contact in Baden-Württemberg. The cross-industry technology network promotes cooperation between companies, universities and research institutes along the entire value chain of fiber-based materials, from traditional textiles to functional fibers. The cross-sectoral network includes projects from the fields of architecture & construction, fiber composites, medicine & life science, mobility, protective clothing, environment & energy.



The DITF form the largest textile research center in Europe with more than 250 scientific and technical staff. As the world's only textile research facility and covering an area of more than 25,000 m², the DITF work right across the textile production and value chains. Since 1921, they have been across all the major fields within textiles. They are among the leading research institutions worldwide.

Sponsors of the AFBW



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