



**Program, 9<sup>th</sup> Nordic Wood Biorefinery Conference  
(NWBC 2020), Stockholm, Sweden, March 24-26, 2020**

Conference venue: Courtyard Stockholm Kungsholmen

Address: Rålambshovsleden 50, Stockholm

**Tuesday March 24**

<b>Session 1 Opening – Per Tomani, RISE</b>		
9.00-9.10	Welcome	Per Tomani, RISE, Sweden
9.10-9.40	The largest Nordic research institutes concentrate efforts in bioeconomy	Marco Lucisano, RISE, Sweden; Jussi Manninen, VTT, Finland
9.40-10.05	New business and bioeconomy, the why, what and how	Lauri Lehtonen, Stora Enso, Finland
10.05-10.30	Paboco - changing the bottle industry for good	Gittan Schiöld, Paper Bottle Co., Denmark
<i>10.30-10.55</i>	<i>Coffee break</i>	
10.55-11.20	BASF's biobased approach	René Backes, BASF, Sweden
11.20-11.45	LignoCOST - Pan-European Network on the Sustainable Valorisation of Lignin	Richard Gosselink, University of Wageningen, Netherlands
11.45-12.10	Concretizing the bioproduct value proposal through open innovation	Virginie Chambost, EnVertis Consulting; Paul Stuart, Polytechnique-Montréal, Canada
<i>12.10-13.10</i>	<i>Lunch</i>	
<b>Session 2 Biorefinery concepts –</b>		
13.10-13.35	Fortum biorefinery concept	Heli Antila, Hanne Wikberg, Matti Sonck, Pasi Hagelberg, Heli Virkki, Risto Sormunen, Fortum, Finland
13.35-14.00	The value of stabilised lignin and C5 sugars	Remy Buser, Florent Héroguel, Jean Behaghel de Bueren, Jeremy Luterbacher, Bloom Biorenewables, Switzerland
14.00-14.25	Wood feedstock for the production of bio-based polymers	Lari Vähäsalo, Sebastian von Schoultz, Nicholas Lax, CH-Bioforce, Finland
<i>14.25-14.50</i>	<i>Coffee break</i>	

14.50-15.15	Second life of wood: BioFlex technology for converting waste wood into clean cellulose and lignin using low-cost ionic liquids	Agi Brandt-Talbot, Chrysalix, UK
15.15-15.40	Environmental services by a multipurpose biorefinery	Sudhanshu Pawar, Erika Lönntoft, Lina Lindahl, Karin Willquist, RISE; Maria Sandberg, Karlstad University; Alan Werker, Simon Bengtsson, Promiko; Markus Langeland, Swedish University of Agricultural Sciences; Ed van Niel, Lund University, Sweden
15.40-16.05	Toward carbon negative pulp and paper industry	Ali Harlin, Antti Arasto, VTT, Finland
16.05-16.30	R&D 4.0 for forest biorefinery	Eemeli Hytönen, Jussi Manninen, VTT, Finland

## 18:00 Conference dinner at the Nobel Prize Museum

Address: Stortorget 2 (in Old Town). Preregistration needed.

## Wednesday March 25

*N.B: Parallell sessions before lunch:*

- Room “Courtyard 6+7”: **Biorefineries in a circular economy**
- Room “Kungsholmen”: **Nordic Wood Biorefinery Conference**

<b>Room “Courtyard 6+7” Biorefineries in a circular economy</b>		
8.30-9.00	IEA Bioenergy Task 42 - Biorefineries in the Nordic context	Johanna Mossberg, RISE, Sweden
9.00-9.30	Biobased Chemicals: Current status and future outlooks	Ed de Jong, Avantium, Netherlands; Heinz Stichnothe, Johann Heinrich von Thünen Institute, Germany; Geoff Bell, Microbiogen, Australia; Henning Jorgensen, University of Copenhagen, Denmark
9.30-10.00	<i>Coffee break</i>	
10.05-10.30	Alternative and sustainable carbon sources as substitutes for metallurgical coal	Geoff Bell, Microbiogen, Australia
10.30-11.00	TEE assessment of integrated biorefineries	Franziska Hesser, Wood K plus; Johannes Lindorfer, Energieinstitut an der Johannes Kepler Universität; Michael Mandl, tbw research; Austria
11.00-11.30	IEA Task 34 on Direct Thermochemical Liquefaction – Scope of Work and Upcoming Reports	Linda Sandström, RISE ETC, Sweden
11.30-12.00	IETS initiative on biorefineries in industry	Paul Stuart, Ecole Polytechnique de Montreal; Marzouk Benali, CanmetENERGY, Canada
12.00-13.10	<i>Lunch</i>	

### Room Kungsholmen:

<b>Session 3 Cellulose and hemicellulose –</b>		
8.30-8.55	Nanocellulose coatings in biological interfaces	Ruut Kummala, Diosángeles Soto Véliz, Wenyang Xu, Chunlin Xu, Martti Toivakka, Åbo Akademi University, Finland; Tiffany Abitbol, RISE, Sweden
8.55-9.20	Ductile cellulose nanopaper with high strength and ultrahigh toughness	Feng Chen, Wenchao Xiang, Daisuke Sawada, Michael Hummel, Herbert Sixta, Aalto University, Finland; Tatiana Budtova, MINES ParisTech, PSL Research University, France
9.20-9.45	Valorizing a biorefinery side stream for paper and board applications	Brita Peltokoski, Anna-Stiina Jääskeläinen, Veli-Matti Vuorenvalo, Jaakko Hiltunen, Chunlin Xu, Kemira, Finland; Petri Oinonen, Oskar Schmidt, Ecohelix, Sweden
9.45-10.05	Valorisation of sawdust to improve resource efficiency in mechanical forest industry	Mari Kallioinen, Jussi Lahti, Timo Vornamo, Anastasia Gafiullina, Ossi Martikka, Timo Kärki, Mika Mänttari, Lappeenranta-Lahti University of Technology, Finland
10.05-10.30	<i>Coffee break</i>	
<b>Session 4 Bark –</b>		
10.30-10.55	Pilot-scale extraction of condensed tannins from spruce bark for the production of biopolymers for waste water treatment	Hanna Brännström, Eelis Halmemies, Petri Kilpeläinen, Jarkko Hellström, Paula Jylhä, Natural Resources Institute (Luke), Nea Lintula, UPM-Kymmene, Finland; Mehrdad Arshadi, Torgny Mossing, Swedish University of Agricultural Sciences (SLU)
10.55-11.20	Softwood tannin biorefinery	Christiane Laine, Jenni Rahikainen, Anna Borisova, Juha Heikkinen, Hanna Kyllönen, Marjut Suomalainen, Adina Anghelescu-Hakala, Veikko Halkosaari, VTT; Petri Kilpeläinen, Pekka Saranpää, Natural Resources Institute (Luke); Markku Kuosa, Lappeenranta-Lahti University of Technology; Tapio Tirri, South-Eastern Finland University of Applied Sciences, Finland

<b>Session 5 Lignin –</b>		
11.20-11.45	Toward structural models of native and technical lignins	Mikhail Balakshin, Aalto University, Finland; Ewellyn A. Capanema, RISE, Sweden; Antje Potthast, Thomas Rosenau; BOKU, Austria,
11.45-12.10	Lignin production upgraded – industry-specific qualities to broaden the commercial potential	Henrik Wallmo, Hanna Karlsson, Anders Littorin, Valmet, Sweden
<i>12.10-13.10</i>	<i>Lunch</i>	
13.10-13.35	Integrated Bioproduct Platforms in the Canadian Forest Sector	Kurt Woytiuk, Enrique Mateos-Espejel, Tatiana Rafione, Michael Paleologou, FPInnovations, Canada
13.35-14.00	Potential of Lignin-Based Thermoplastics	Cédric Diffo Tégua, Paul R Stuart, Polytechnique-Montréal; Nima Ghavidel Mehrn, CanmetENERGY, Canada; Pauline D'Hollander, KU Leuven, Belgium; Wolfgang Glasser, Virginia Polytechnic Institute, USA
14.00-14.25	Concrete Dispersants Based on Modified Kraft Lignins. A Polymer Producer's Perspective	Francis Loiseau, Iordana Triantafillu, Louis-André Chassé, Mario Dupuis, Ruetgers Polymers, Canada
<b>Session 4 Posters – Per Tomani, RISE</b>		
14.25-14.55	Short presentations from the finalists in the Troëdsson Paper Engineering Travel Grant and Johan Gullichsen Award competitions	
<i>14.55-15.40</i>	<i>Poster session and Coffee break</i>	
<b>Session 5 cont. Lignin —</b>		
15.40-16.05	From Kraft lignin to mobile energy storage	Philipp Schlee, Maria-Magdalena Titirici, Imperial College London, UK; Omid Hosseinaei, Per Tomani, RISE, Sweden
16.05 -16.30	Carbon fibres from dry-jet wet spun lignin-cellulose precursors	Andreas Bengtsson, Maria Sedin, Elisabeth Sjöholm, RISE, Sweden

**19:00 (sharp!) Buffet reception at the beautiful Stockholm City Hall – venue for the Nobel Prize dinner – hosted by the City of Stockholm.**

Address: Hantverkargatan 1. Preregistration needed.

## Thursday March 26

<b>Session 6 Fuels and chemicals –</b>		
8.30-8.55	Conversion of lignocellulosic feedstocks to transport fuels	Martin Hedberg, Johanna Mossberg, Erik Furusjö, David Blomberg Saitton, Linda Sandström, Tomasz Janosik, RISE, Sweden
8.55-9.20	Towards enhancing the versatility of the lignin biorefinery – Insights into batch and continuous mode depolymerisation processes	Omar Abdelaziz, Christian Hulteberg, Lund University, Sweden
9.20-9.45	Award ceremony for Troëdsson Paper Engineering Travel Grant and Johan Gullichsen Award	
<i>9.45-10.10</i>	<i>Coffee Break</i>	
10.10-11.35	Drop-in fuels from black liquor – combining increased pulp capacity with production of sustainable biofuels	Erik Furusjö, Johanna Mossberg, RISE; Yawer Jafri, Sennai Mesfun, Henrik Rådberg, Christian Hulteberg, Lund University; Klaas van der Vlist, Roland Mårtensson, Fredrik Granberg, Elisabeth Wetterlund, Sweden
11.35-12.00	Lignocellulosic feedstocks as a carbon source for different bulk and high value applications	Kai Toven, RISE PFI, Norway
<i>12.00-13.00</i>	<i>Lunch</i>	
<b>Session 7 Thermochemical conversion</b>		
13.00-13.25	Towards a pyrolysis biorefinery: Valorization strategies for the pyrolytic lignin fraction	Monique Bernardes Figueirêdo, P.J. Deuss, R.H. Venderbosch, H.J. Heeres, University of Groningen, Netherlands
13.25-13.50	Green and cost efficient hydrothermal treatment (HTT) biorefinery to produce highvalue lignins	Tainise V. Lourencon, Luiz G. Greca, Dmitry Tarasov, Orlando J. Rojas, Mikhail Balakshin, Aalto University; Marc Borrega, Tarja Tamminen, VTT, Finland
13.50-14.15	Integration of acid streams from biomass carbonization into bio-carbon ash reduction	Travis Robinson, Keith Ludlow, Guy Tourigney, Fernando Preto, Natural Resources Canada, CanmetENERGY-Ottawa
14.15-14.40	HTC Biocoal from sludge – A new pulp mill product	Peter Axegård, C-Green Technology, Sweden

<b>Session 8 Closing – Per Tomani, RISE</b>		
14.40-14.50	Summing up	Per Tomani, RISE, Sweden
14.50-14.55	Announcement of NWBC 2021	Eemeli Hytönen, VTT, Finland
14.55-15.30	<i>Coffee</i>	

## Friday March 27

### Tour to LignoCity with the LignoBoost Demo Plant (whole-day trip)

Bus from the conference hotel (Marriott Courtyard, Rålambshovsleden 50, Stockholm). Preregistration needed.

