14.10  Microfibrillated cellulose in the development of water-based barrier products
   C. Guézennec, Grenoble INP/LGP2
14.40  Development of paper barrier properties by multilayer coating with biobased composite formulas
   T. Balan, Gh. Asachi Technical University
15.10  Coffee break
15.40  MFC-biopolymers composites as sustainable gas/water barrier films
   M. Giacinti Baschetti, Università di Bologna
16.10  Application of non-wood pulp substitutes for innovative packaging
   M. Kleebauer, PTS
16.40  Closing remarks
   M. Kleebauer, R. Sangl, PTS, K. Johansson, Innventia
16.50  End

**DIRECTIONS**

PTS is located in the centre of Munich, not far from the central train station. Please use either tramline 20, 21 or 22 from Munich central station and get off at Lothstrasse. From there it takes 5 minutes to walk to PTS.

**REGISTRATION GC 1473**

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**SYMPOSIUM**
**INNOVATIVE PACKAGING**
20 - 21 May 2014
Munich/Germany
“Innovative Packaging” is the name of an exquisite PTS Symposium. Installed in 2005, it has regularly attracted the attention of attendees both from industry and university.

The cooperation of PTS with COST Action FP1003 “Impact of renewable materials in packaging for sustainability – development of renewable fibre and bio-based materials for new packaging applications” provides the unique opportunity for the audience to learn about most recent research results from European research institutes as well as practical applications evaluated from an industrial point of view.

The symposium focusses on paper-based packaging materials and will cover recent developments in manufacturing, design and functionalization of packages.

The potentials of fiber based packages are illustrated in all steps of product development: starting with the selection of appropriate raw materials, the application of innovative processes to design new and functional materials and ending with their conversion to powerful packages e.g. via electronic printing.

We are looking forward to welcome an interested audience to discuss new approaches in packaging design!

TUESDAY, 20th MAY 2014

09.00 Welcome and introduction
M. Kleebauer, R. Sangl, PTS, K. Johansson, Innventia

09.30 What packages need to be like
NN, NN

10.00 Packaging trends for carton board and cartons
R. Rex, Pro Carton

10.30 Coffee break

11.00 Sustainable packaging products from Ryegrass
A. Charlton, Bangor University

11.30 Tomato packaging – Packing tomatoes in a box made from tomato side streams, closed loop approach
S. Tiekstra, KKB

12.00 Cellulose based packaging recyclability: criteria for a sustainable paper loop
G. Elegir, INNOVHUB SSCP

12.30 Lunch break with poster session

14.00 Atomic layer deposited thin barrier films for packaging
M. Pitkänen, VTT

14.30 Novel developments for MAP packaging based on sustainable materials
J.M. Alonso, ITENE

15.00 A chemical grafting process for improved barrier properties
M. Schmid, Fraunhofer Institut IVV

15.30 Coffee break

16.00 Elaboration of a new antibacterial bio-nano-material for food-packaging by using microfibrillated cellulose as controlled release system
J. Bras, Grenoble INP/LGP2

16.30 Dispersion-coated paperboard with oxygen-scavenging capacity sandwiched between extruded polymers for heat sealability and low migration
L. Järnström, Karlstad University

17.00 Antimicrobial packaging material incorporating active nano-reinforcements
H. Zhang, ITENE

20.00 Dinner

WEDNESDAY, 21st MAY 2014

09.00 Welcome and introduction
M. Kleebauer, R. Sangl, PTS

09.10 Rules and regulation for food packaging
J. Ringman-Beck, CEPI Research Committee

09.40 Interactive Printed Electronics - printing the consumer experience?
C. Jones, Novalia Cambridge Print

09.40 Interactive Printed Electronics - printing the consumer experience?
C. Jones, Novalia Cambridge Print

10.10 Printed electronics on paper for future secured packaging
G. Eymin-Petot-Tourtollet, Grenoble INP/LGP2

10.40 Coffee break

11.10 Development of water repellent papers by chromatography, first results from pilot trials
D. Guerin, Andritz, Grenoble INP/LGP2

11.40 Formable paper-based packaging material
A. Vishtal, VTT

12.10 Lunch break

13.40 Applied packaging innovation
W. Schmahl, Stora Enso Düsseldorf