

Cellulose Pulp Packaging: Current and Emerging Technologies for Moulding and Functionalization

Course organized by Danish Technological Institute

February 26th-27th 2025, Copenhagen Denmark

Register here

Why attending?

The growing demand for sustainable packaging solutions has made the exploration of circular alternatives to traditional fossil-based plastics more crucial than ever. Fiber-based packaging offers a promising avenue to significantly reduce reliance on materials that are challenging to recycle. Currently, moulded pulp is predominantly used for products that do not require protection against oil, water, vapor, oxygen etc.

This course addresses the transformative potential of moulded fiber-based packaging by exploring how advancements in pulp composition, molding technology, and functional coatings can create effective barriers. By enhancing the protective capabilities of moulded pulp, we can expand its applicability across industries, paving the way for more environmentally friendly and sustainable packaging systems worldwide. Join us to be at the forefront of this exciting shift towards a more sustainable future in packaging!

This two-day intensive course is designed for doctoral students and industry professionals who wish to deepen their understanding of pulp moulding and barrier technologies. Gain valuable insights and practical skills to advance your expertise and drive sustainable packaging solutions!

Attendance fees Industry: 2000 EUR Students: 1000 EUR <u>Register here</u> Danish Technological Institute

Programme* – Day 1

| Time | Event | Speaker |
|---------------|--|--|
| 8:30 - 9:00 | Registration & Breakfast | |
| 9:00 - 9:25 | Welcome & Introduction | |
| 9:25 - 10:55 | 3D forming of fibres: Technologies, trends & raw materials | Alexey Vishtal, MM Board & Paper Alexander Leo Bardenstein, DTI |
| 10:55 – 11:15 | Coffee break | |
| 11:15 – 12:00 | Moulded pulp in plastic substitution: Tailwinds from legislation | Alexey Vishtal, MM Board & Paper |
| 12:00 - 13:00 | Lunch | |
| 13:00 - 13:45 | Wet pulp moulding: impact of the process parameters on quality & productivity | Alexey Vishtal, MM Board & Paper Kenneth Kisbye, DTI |
| 13:45 – 14:15 | Tooling for wet pulp moulding - Basic design principles | Jesper Petersen, DTI Anders Kring Clausen, DTI |
| 14:15 – 15:00 | Overview of new production technologies from Asia | Daniel Kwok, Huilin Packaging |
| 15:00 – 15:20 | Coffee break | |
| 15:20 - 16:50 | The technical process and engineering behind dry molded fiber: from raw material to products | Sanna Fager, PulPac Kurt-Inge Landgren, Pulpac |
| 16:50 – 18:20 | Barrier requirements and characterization of functional barriers of molded pulp packaging | Yves Wyser, Nestlé Research |
| 18:45 – 22:00 | Dinner at DTI's restaurant | |

*The program is subject to updates or modifications without prior notice. Please refer to the course webpage regularly for the most current and accurate information.

Programme* – Day 2

| Time | Event | Speaker |
|---------------|---|--|
| 8:00 - 8:30 | Breakfast & Coffee | |
| 8:30 - 9:30 | Functionalization of moulded pulp: An overview of technologies | Alexey Vishtal, MM Paper and Board Alexander Leo Bardenstein, DTI |
| 9:30 – 10:15 | Pulp additives for wet and dry moulding | Chuantao Zhu, Solenis |
| 10:15 – 11:15 | Dry Fiber Molding and Lamination: game changing technologies for the packaging industry | Christoph Stoye, Illig Packaging Solutions |
| 11:15 – 11:45 | Advanced digital pixel heating for deep-draw lamination | Daniel Diebold, Wattron GmbH |
| 11:45 – 12:45 | Lunch | |
| 12:45 - 13:45 | Water-based dispersion coatings for molded pulp packaging and spraying | Bernhard Kainz, Dow Deutschland |
| 13:45 - 14:15 | Surface functionalisation of moulded pulp using sol-gel | Claus Bischoff, DTI |
| 14:15 – 15:15 | Drying of liquid coatings on moulded pulp | Geert Dumortier, Ircon Solaronics |
| 15:15 – 15:35 | Coffee break | |
| 15:35 – 16:05 | Ultrasound assisted drying of moulded pulp and liquid coatings | Alexander Leo Bardenstein, DTI |
| 16:05 – 16:35 | Plasma processing and PECVD coatings | Yukihiro Kusano, DTI |
| 16:35 - 16:45 | Closing remarks | |

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Venue



Technological Institute's facilities in Taastrup near Copenhagen.

The course will take place at Danish

• The spacious conference hall, accomodating 75 participants where most of the time will be spent, is equipped with a modern AV-system, properly lighted and ventilated.



How to get to DTI

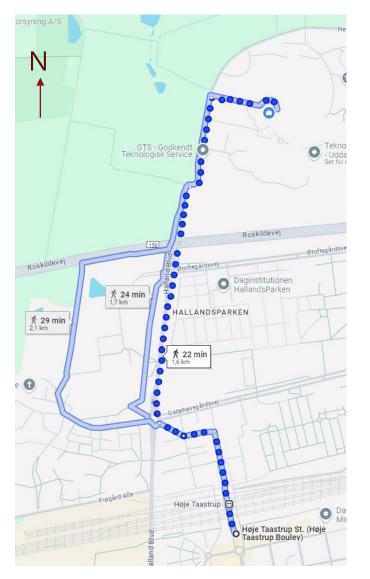
If the following cases do not apply to you, it is reliable to navigate in Denmark using Google Maps and/or Apple Maps

- From the CPH Airport:
- 1. Go to the train station at the airport.
- Board a Regional train headed west ward, these will include "RE" in the number on the departure board.
- Tickets can be bought in machines in the airport near the train station. (7 zones)
- 4. Exit the train at Høje Taastrup Station (ca. 21 min)

- From Copenhagen central station (2 options exists):
- Board a Regional train headed west ward (these trains usually goes from track 8)
- Board the B-line from track 11-12 to the terminating station, Høje Taastrup Station
- In both cases you need a ticket with 6 zones

- From Høje Taastrup Station (The local train station):
- Busses Two options
 - The bus 400S headed towards Lyngby St. Exit at the first stop after leaving the station, "Teknologisk Institut"
 - The bus 40E headed towards Skodsborg St. or DTU, Rævehøjvej. Exit at the first stop after leaving the station, "Teknologisk Institut"
 - Indicate you want to stop by pressing the "STOP" button in the bus.
- Walking
 - The station is 2 km from the venue. Directions on the next page

Walking to the venue from the station



From Høje Taastrup St. (Høje Taastrup Boulevard) 2630 Taastrup Head north on Høje Taastrup Blvd. (290 m) Turn left towards Skagensgade (87 m) Turn right and follow Skagensgade (5 m) 5 m Turn left towards Halland Blvd. (80 m) 80 m Take the third exit onto Halland Blvd. at the roundabout (500 m) Continue along Helgeshøj Alle (160 m) Turn right and follow Gregersensvej (280 m) Turn right (140 m) Turn left (75 m) Danish Technological Institute Building

Or follow the link: <u>https://maps.app.goo.gl/JThNT3CrtZFMevsw8</u> Departure: Høje Taastrup St., Destination: Danish Technological Institute, Gregersensvej

Danish Technological Institute

Accommodation possibilities in the vicinity

- Taastrup Park Hotel <u>https://www.tphotel.dk/</u>
- Thon Partner Hotel https://www.thonhotels.com/da/hoteller/danmark/taastrup/thon-partner-hotel-hoje-taastrup/?gad_source=1&gclid=CjwKCAiAmMC6BhA6EiwAdN5iLf-0CnVGgiqh9JbQanEHq1w74xDvI95Cf4biKz8oMBwRPud9AICUIRoCmtQQAvD_BwE&gclsrc=aw.ds
- Glostrup Park Hotel <u>https://booking.parkhotel.dk/V8Client/StartBooking.aspx</u>
- Scandic Glostrup https://www.scandichotels.dk/hoteller/danmark/kobenhavn/scandic-glostrup