

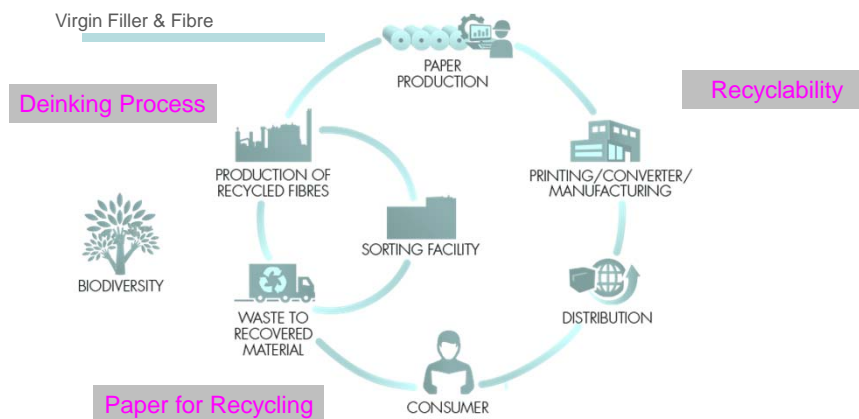
Welcome to the 27th INGEDE Symposium

Thomas Krauthauf
International Association of the Deinking Industry
(INGEDE)

February 28th 2018
Munich, Germany



INGEDE Thematic Pillars within the Paper Value Chain



INGEDE Thematic Pillars – General Trends



Recyclability

- Higher diversity of printing technologies
- New converting technologies and materials

Paper for Recycling

- Declining share of graphic products in PfR collection
- Increasing share of board in deinking grades
- Declining availability of deinking grades

Deinking Process

- Increasing load of non-paper components
- Increasing ash
- Decreasing brightness potential
- Increasing problems with “Stickies”

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INGEDE Projects 2017



- **INGEDE Project 145 14: FT-IR Spectroscopy**
Project finalised in summer 2017, final report available
- **INGEDE Project 150 16: ISO/TC 6/WG 14**
Mainly: ISO 21993 – Deinkability test for printed paper products (Andreas Faul to report tomorrow)
- **INGEDE Project 151 16: Revision of INGEDE Method 11**
Project finalised in January 2018, parallel work to INGEDE Project 150 16
- **INGEDE Project 153 17: Deinkability Survey**
Testing finished (Hans-Joachim Putz will report later today)
- **INGEDE Project 154 17: Moisture Measurement**
Joint project with VDP (INGEDE is junior partner), project in progress (Patrick Plew to report tomorrow)

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Third-party funded projects

- IGF 18664: Deinking-Kreislaufwasserreinigung mit keramischen Membranen TU Dresden, Fraunhofer IKTS – Project in progress
- IGF 18698 N: Deinking Prozesswasser PMV, PTS – Elisabeth Hanecker will report later today
- IGF 18288 N: Synergistische und antagonistische Effekte beim Deinken von Altpapiermischungen PMV, Saskia Runte will report later today
- IGF 18521: Labormethode für Mikrosticky-Potenzial PMV, work finished, report not yet available
- IGF 19118: Charakterisierung der Altpapierqualität PMV – Project in progress
- IMPACTPapeRec: Collection of paper for recycling EU funded, multi-partner project, finalised, see next slide

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Project Outcomes



- Handbook with Good and Best Practices for paper collection including a selection tree
- Informative brochures and posters
- E-learning modules for the target groups
- Video clips on youtube.com
- All material available at www.impactpaperec.eu



Recyclability of Printed Products – Current Major Topics



- UV printing technologies
 - Deinkability issues
 - Meeting with stakeholders at INGEDE Member mill
 - Round table discussions organised by bvdv
- Monitoring the development of “mineral oil optimised” ink
- Methods and standardisation
 - INGEDE Method 11 revised
 - Discolouration method ISO 21896 nearly ready
 - Deinkability method ISO 21993 close to DIS ballot
 - Deinkability assessment ISO 21331 still in stage of working document (next meeting 16 March 2018)



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Paper for Recycling – Current Major Topics



- Availability of graphic paper for recycling
 - Balanced availability
 - Increased production of recycled white top layers requires additional share of graphic papers from the graphic loop
 - Increased and improved collection → IMPACTPapeRec
 - Increase sorting of mixed grades
 - Efficient sorting
- Methods and standardisation
 - INGEDE Method 7 needs revision
 - Sampling standard EN 17085 close to prEN ballot
 - Standard to determine composition in preparation (based on INGEDE Method 14)



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Deinking Process – Current Major Topics

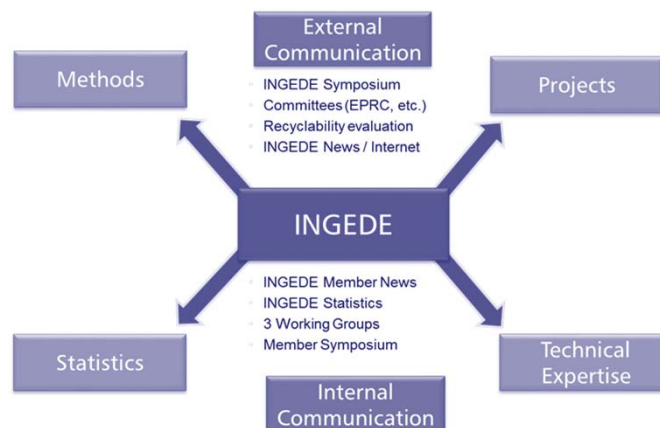


- Optical defects in paper and prints
 - Dirt specks, particularly for users of high grades of paper for recycling
 - Hickeys
 - Task Force “Foreign Particles”
- Low brightness in standard grades
 - Analysis ongoing
 - Activities in preparation
- Stickies
 - Cost and effect matrix developed to exchange of experience
 - Common ways to solve the issue to be discussed

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INGEDE – Tasks



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News from the European Paper Recycling Council (EPRC) – 2017/2018



- New **European Declaration on Paper Recycling** issued in May 2017
- Monitoring Report 2016: **Paper Recycling Chain on track, but 2020 target will be difficult to reach**
- Revision of **Deinking Scorecard** by addition of an annex finalised
- Revision of **Removal Scorecard** with respect to hotmelt adhesive applications technically settled
- Revision of **Recyclability Guideline** document initiated



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Further ongoing activities 2017



- **7 Meetings of Technical Committees**
- **17 official Standardisation meetings**
 - 6 physical (Berlin, Dusseldorf, Paris)
 - 11 telephone conferences and WebEx
- **8 Presentations at Conferences and Round Tables**
 - Availability of paper for recycling
 - Recyclability
- **INGEDE in the Media**
 - Recyclability



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INGEDE Working Groups – Activities 2017

Recyclability
Paper for Recycling
Deinking Process

- **Working Group Recyclability** (Peter Hengesbach)
Telephone Conferences on 9 March, 23 September and 10 October
- **Working Group Deinking Process** (Anne-Katrin Klar)
26/27 April at Perlen, Switzerland
8/9 November at Essity Kostheim, Germany
- **Working Group Paper for Recycling** (Manfred Geistbeck)
3/4 May at Langerbrugge, Belgium
7/8 November at Essity Kostheim, Germany



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Welcome to the 27th INGEDE Symposium 2018

Recyclability
Paper for Recycling
Deinking Process

Wednesday, 28 February 2018

- 8:30 Registration
- 9:00 **Welcome and Opening**
Thomas Krauthauf, UPM, Augsburg, Chairman of INGEDE
- 9:00 **Overview**
Thomas Krauthauf
- 9:30 **Making the Circular Economy Happen in Europe**
Ulrich Leberle, CEPI, Brussels
- 10:00 **Recyclability – Introduction**
Peter Hengesbach, Stora Enso, Mönchengladbach
- 10:10 **Ecolabels: Soft Legislation to Educate Printers and Print Customers**
Andrea Rimkus, RAL Environment, Bonn
- 10:40 **INGEDE Project 153 17: Deinkability Survey**
Hans-Joachim Putz, PMV, Darmstadt
- 11:00 Coffee Break
- 11:20 **History of Inkjet Printing and New, Better Deinkable Inkjet Processes**
David Croft, Océ Printing Systems, Hong Kong
- 11:50 **UV Inks and Varnishes – Opportunities, Markets, Technology, and Deinkability**
Roland Schröder, hubergroup, and Axel Fischer, INGEDE, Munich
- 12:20 Lunch
- 13:40 **Current Projects, Success Stories and Possible Future Research Activities in Recycling/Deinking at CTF**
Benjamin Fabry, CTF Grenoble
- 14:10 **Paper for Recycling – Introduction**
Manfred Geistbeck, UPM, Augsburg
- 14:20 **Closing the Loop for Paper Towels – A Journey from Washroom Behaviour to New Opportunities**
Sara Lundström, Essity, Sundsvall
- Conference languages will be German and English with simultaneous translation



- 14:50 **Quo Vadis, Mixed Paper?**
Andreas Faul, INGEDE, Uwe Wolbächer, PROPAXMA, Bietigheim-Bissingen, and Manfred Geistbeck, UPM
- 15:20 **Deinking Process – Introduction**
Anne-Katrin Klar, Essity, Mainz-Kostheim
- 15:30 **Deinking of Different Print Products: What Happens in the Mixture?**
Saskia Runne, PMV, Darmstadt
- 16:00 Coffee Break
- 16:30 **Paper Industry 4.0: The Digital Revolution in Papermaking?**
Jürgen Käse, Voith, Heidenheim
- 17:00 **From Lab Qualitative and Quantitative Macroscopic Measurements to the First On-line Prototype**
Benjamin Fabry, CTF Grenoble
- 17:30 **How is my Process Water? Improving the Quality of Deinked Pulp**
Elisabeth Hanecker, PTS, Munich, and Hans-Joachim Putz
- 17:50 **Closure**
Thomas Krauthauf
- 19:00 Get-together at Augustiner Klosterwirt

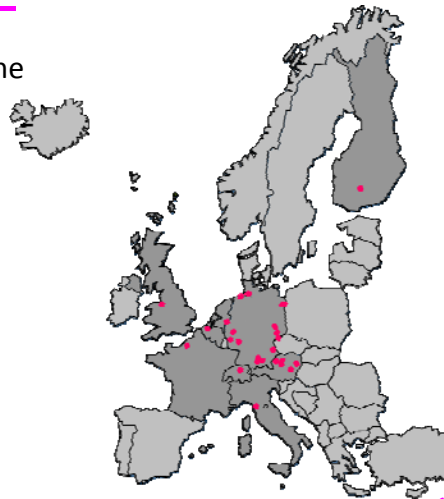


INGEDE Members

INGEDE is the organisation of the deinking mills.

INGEDE was founded in 1989 by 12 companies.

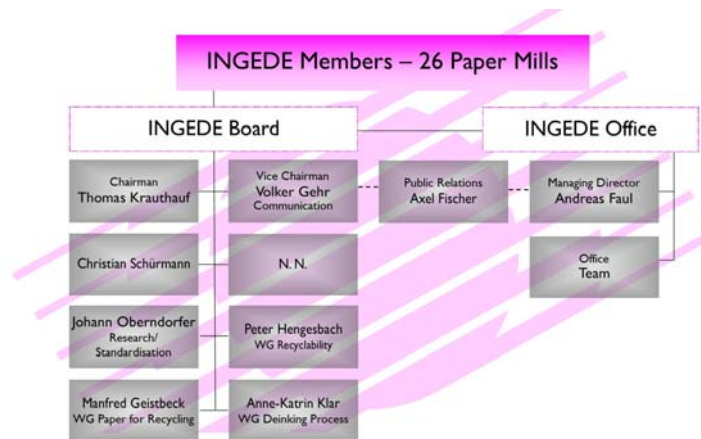
Currently **26 paper** mills are members of INGEDE, who utilised about **7,0 million tons** of paper for recycling in 2017.



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INGEDE Structure

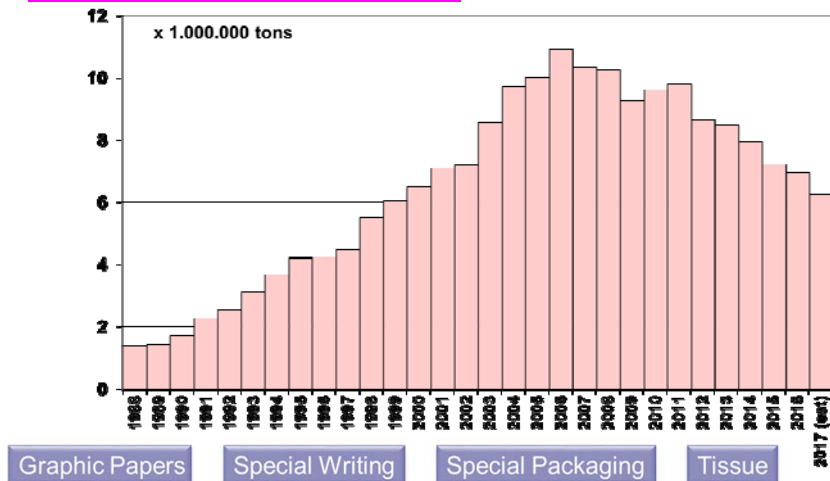


12 February 2018

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Utilisation of Paper for Recycling by INGEDE Members 1988–2017



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INGEDE Partners – working closer together



- Paper & board recycling has a long history in circular economy
 - Work and project funding of INGEDE members has contributed significantly to a 72 % world leading recycling rate
 - Fast developments in paper products composition and printing technologies:
 - Increased need of project funding in the area of
 - Recyclability of printed products
 - PFR Collection and Sorting
 - Deinking process and automation
 - Need of closer cooperation from partners in paper chain
- INGEDE invents new INGEDE Partner program

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INGEDE Partnership program



INGEDE invites companies in the paper recycling value to participate in the new partnership program to ...

- support and develop paper recycling and deinking
- contribute to technical discussions within INGEDE
- provide financial contribution for project funding

INGEDE offers partnership in three levels:





→ More details from the INGEDE office

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Welcome the first INGEDE Partners



INGEDE Silver Partner		Solenis Switzerland GmbH Voith Paper GmbH & Co. KG
INGEDE Bronze Partner		Entsorgungstechnik Bavaria GmbH PROPAKMA GmbH

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INGEDE
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