



## Participating organisation

Germany



Professur für Papiertechnik

Professorship for Paper Technology

Institut für Holz- und  
Papiertechnik

Institute for Wood and Paper  
technology

Technische Universität Dresden

Dresden University of Technology

D-01069 Dresden

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[papiertechnik@mhp.mw.tu-dresden.de](mailto:papiertechnik@mhp.mw.tu-dresden.de)



## Organisation's details

Germany



### Professorship for paper technology, TU Dresden, Germany

**Services/Products:**

**Education, training and research**

**Total number of employees:**

**10**

**Employees in E48 related areas:**

**1**

**Number of students:**

**30**

**Research focus:**

- **Graphic paper properties**
- **Process modelling & simulation**
- **Sustainable paper production**
- **Energy utilisation**

**Ownership structure:**

**state owned**



## E48 representative's presentation (I)

Germany



**Harald Grossmann**

Professor Dr.-Ing.

Professur für Papiertechnik

Institut für Holz-und Papiertechnik

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Tel.: ++49 351 463 38033



**Academic background:**

- Aeronautical engineer (TU Munich 1977)
- PhD in process engineering (TU Munich 1982)
- Honorary professor (TU Munich, 2001)
- Professor (UT Dresden, 2004)

**Areas of expertise:**

- Paper manufacturing
- Paper recycling
- Mechanical engineering

**Function in COST E48:**

Vice chairman  
Member of the MC  
Member of WG3



## E48 representative's presentation (II)

Germany



### Harald Grossmann

Most relevant publications in the field of E48 (max. 5) :

H. Grossmann; H.Wawrzyn and S.André

Impurities accumulation during material recycling on the example of waste paper

Preprints 1<sup>st</sup> Research Froum on Recycling, Toronto, Canada, Okt. 1991

H.Grossmann, E.Hanecker and G.Schulze

Flotation of Recycled Pulp in a Centrifugal Force Field

Preprints TAPPI Recycling Symposium, Chicago, IL, USA, 1997



## Own expectations in E48

Germany



- **Identification of potential technological limits of paper recycling**
- **Assessment of these limits to properly prioritise research needs**
- **Establishment of a European research network in paper recycling within a Paper Technology Platform (PTP)**
- **Generation of European projects addressing the most urgent research needs**
- **Development of appropriate recovery systems for used paper & board products**
- **Strategies to improve paper & board products' recyclability without sacrificing their competitiveness**



## Own contributions to E48

Germany



### Finished or current projects in the area of E48:

- Project 1: Verbesserung von Altpapierstoffeigenschaften durch gezielte Wäsche vor und nach der Bleiche
- Project 2 : Kreislaufwasserreinigung und Tensidrückgewinnung in Altpapierstoff-Deinkinganlagen

### Projects submitted or planned during the duration of E48

- Comparative investigation and assessment of strategies of paper recovery
- The limits of closing water circuits in production plant for recovered paper based products



## **Brief description of own finished or ongoing research projects in the area**

Germany



### **Project 1: Verbesserung von Altpapierstoffeigenschaften durch gezielte Wäsche vor und nach der Bleiche**

- **Background:** Increasing use of recovered paper for the manufacture of graphic papers leads to increasing amount of DCMs which might deteriorate product quality as well as production efficiency. This particularly applies to DIP bleaching
- **Objectives:** The objective of the project was to find ways to remove colloidal substances from DIP by washing in order to increase brightness and to reduce the amount of bleaching additives
- **Means:** Various DIPs were treated in multi-stage washing processes (lab scale) before and after the bleaching stage.
- **Results.** The results obtained revealed that substantial savings in chemical costs are feasible. However as most trials were performed in lab-scale no prediction could be made concerning the economical effects of such an extensive washing stage



## Brief description of own finished or ongoing research projects in the area

Germany



### Project 2: Kreislaufwasserreinigung und Tensidrückgewinnung in Altpapierstoff-Deinkinganlagen

- *Background: Surfactants in recycled pulps or circulation waters frequently cause production problems through partially unpredictable interactions with pulp or water components.*
- *Objectives: The objective was the development of a test procedure for the identification of surfactant concentration and of strategies to reduce concentrations once they go beyond certain limits.*
- *Means: Test devices were developed and used on various RCP. The separated components characterised with respect to their remaining efficiency when recirculated. The impact of the separation process on the biological effluent treatment was also investigated.*
- *Results: It was shown that appropriate separation techniques resulted in a rather effective separation of a substantial amount of surfactants. In some cases the additives separated could be recirculated.*



## Organisation of E48 events

Germany



**My organisation has the personal and logistic facilities to organise major E48 events and would particularly be prepared to host (please tick box)**



**specific (seperate) MC or WG meetings**



**parallel or consecutive meetings of both MC and WGs**



**a workshop (up to 50 participants)**



**an international conference (more than 50 participants)**



## External contributions to E48

Germany



I believe that the following external organisations or experts could make valuable contributions to E48 events:

Name	Organisation	Expertise
N.N.	Gesparec	Recovered graphic paper markets
N.N.	BVSE	Paper recovery systems
N.N.	CEPI	EU P&P industry's view
N.N.	Voith	Machine suppliers' views
N.N.	BASF	Chemical suppliers' views
N.N.	UBA	Legislative's views



## Expectations and offers concerning STSMs

Germany



**My organisation is prepared to host young academics from foreign organisations in the frame of STSMs. We could offer collaboration in**

- **Assessment of paper recovery strategies**
- **Contributions of modern water purification techniques to reduce production or quality problems caused by DCM**

**My organisation is interested in sending young academics to foreign research organisations in the frame of STSMs.**

**We would particularly be interested in learning more about**

- **Paper recovery strategies outside Germany**
- **Advanced learning techniques for pulps and water**