



**VIPP** VALUES CREATED IN  
FIBRE-BASED PROCESSES  
AND PRODUCTS

# THE VIPP NEWSLETTER #7

## OCTOBER 2014

### THE IMPORTANCE OF INTELLECTUAL PROPERTY STRATEGY

Intellectual Property (IP) serves both as protection and enabler – IP present an opportunity to develop business in new dimensions. Questions that companies often face are; what innovations can we apply for a patent for, do we have patents that can be licensed or sold - how to commercialize the intellectual property and make money, what protection do our brand need, should we have design protection for some key products, which markets has to be protected and how do we defend our copyrights?

Businesses need greater knowledge of Intellectual Property Rights (IPR) to avoid unconscious infringement of the rights of other companies and knowledge to understand how they can create new business opportunities using intellectual property. It is of paramount importance to broaden the IP view of innovation and how the business development, based on a well structured IPR strategy, can be improved.

For businesses to succeed, it is important to understand the value of IPR, the right timing, and have a long-term strategic focus.

Collaboration between industry and academia is of greatest importance, where the academy and universities have an important role to educate and improve skills in intellectual property and how to generate business value and use IPR as a business tool. Transforming the results of scientific research into new commercial products is, however, a complex process involving a broad range of factors where IPR is one. We need to ensure that researchers

and industry work closely together and maximize the social and economic benefits of new innovations.

Innovation requires that needs and possibilities interact with experience, competencies and resources with the innovator in the center of the process. The IP is an intangible asset that is developed and strengthened through collaboration, dialogue and networking. Increased IP knowledge and clear business strategies on intellectual property rights creates conditions for business development of innovations, which in turn leads to increased growth, profitability and competitive advantage.



Louise Törnfeldt Svanqvist  
*Chairman*  
*VIPP Industrial Graduate School*

*VIPP stands for Values created in fibre-based processes and products and is an interdisciplinary industrial graduate school located at Karlstad University.*

**KAU.SE/EN/VIPP**



**VIPP** VALUES CREATED IN  
FIBRE-BASED PROCESSES  
AND PRODUCTS

LICENTIATE DISSERTATION

# THROUGH AIR DRYING

## THE INFLUENCE OF FORMATION AND PULP TYPE ON NON-UNIFORM DRYING AND AIR FLOW

The Licentiate dissertation took place on 30 September in Nyquist Hall at Karlstad university.

The removal of water is an integral part of tissue paper production. Through air drying (TAD) is used for water removal when producing premium tissue grade products, however, at the price of higher energy demand. A better understanding of TAD may therefore lower the energy demand.

The objective was to investigate the influence of formation, pulp type and grammage on non-uniform drying and air flow through sheets. A laboratory method, based on infrared thermography, was used to determine drying time and area-specific and mass-specific drying rates. Air flow rate and pressure drop were used to determine flow resistance and modified permeability.

Pulp type had a large influence on the air flow through the sheet. Modified permeability, i.e. the material property describing the air flow through the fibre network, was strongly dependent on grammage for lower grammages, while it approached a constant value for higher grammages. In contrast to that, mass-specific drying rates were similar for the different pulp types at lower grammages, but proved to be grammage-dependent for higher grammages. Formation did not influence the drying speed to any large extent.

The results illustrate that industrial TAD processes operate under very special process conditions due to the low grammage sheets.



Name: **Aron Tysén**  
Examiner: **Stig Stenström, professor at the department of  
Chemical Engineering, Lund University  
Professor Lars Nilsson, Chemical Engineering  
at Karlstad University**  
Main supervisor: **Hannes Vomhoff, Innventia AB**



**VIPP** VALUES CREATED IN  
FIBRE-BASED PROCESSES  
AND PRODUCTS

# GETTING A BETTER PERSPECTIVE ON YOUR INTELLECTUAL ASSETS



**“The biggest challenge in relation to intellectual property? Knowing what you’ve got! “ says Patrik Bångerijs of Karlstad University’s Grants and Innovation office (GIO). He also sees major opportunities for researchers to work with intellectual assets and of course considerable challenges.**

Too often the generalised perspective of utilising research for society at large is that a technological gadget is designed, patented and mass-produced and sent to market. Of course in 2014 this is not the reality. Patrik Bångerijs who has worked with innovation and utilisation for over 20 years, puts forward another perspective.

– We need a wider perspective and indeed understanding of the utilization process that will include ideas, processes, methods, designs and even data. They are all examples of intellectual assets (or intangible assets), valuable assets to any researcher, doctorate student or research group. Patrik Bångerijs suggests that researchers need to systematically identify and document intellectual assets. Some of these assets may also be suitable to register and thus become intellectual property.

– To have a clear picture of your intellectual assets is more important than ever. In many cases, research funding applications can be strengthened when you have a clear understanding of your assets and how they contribute to your goals and possible impacts. In the EU’s Horizon 2020 for instance, you’re asked to describe the impact of your research and not just in the academic sense. We also know that this is going to be more prevalent within the national funding agencies within Sweden, says Patrik Bångerijs.

It’s necessary for any researcher in all disciplines today to know what intellectual assets they and their research group have created. It matters both when they are asked to describe their research, but also when entering new projects and new agreements. Researchers often need to state the intellectual assets they bring into the project or the cooperation – and what they choose to leave outside the new project.

So how can ideas, methods, processes, designs, data and other intellectual assets, be protected? If the idea is an invention then a patent may protect it. However, other forms of intellectual property rights are sometimes even stronger than patents, such as, a

trademark or design rights, an Internet domain and other types of registered rights. Copyright is also an intellectual property but it differs from the previously mentioned in that it is not registered.

Karlstad University recommends researchers at the university to use Intellectual Asset Inventory (IAI) as a structured way and as a tested and tried tool to map their Intellectual Assets. It’s a method originally developed by Chalmers in Gothenburg, but Karlstad University has adopted it to suit their context better: it’s used not only for scientific and technical research but for research in social science and the humanities as well.

– All research groups, researchers and doctorate students benefit from the method and it adds a new dimension to the way they think about their research, Patrik Bångerijs explains.

## **Professor’s privilege versus business opportunities**

A researcher, being an experienced professor or a fresh doctorate student, employed by a Swedish university, enjoys what is called ‘professor’s privilege’. This means that your intellectual property usually belong – not to your employer – but to you as an individual. However, if you are employed by a company, an organization or in public administration other than universities, the ownership of your inventions which can be protected by a patent may belong to your employer according to the Act of the Right to Employee’s Inventions and research findings in general are settled by a contract.

A research group cooperating with private companies or a doctorate student employed by an industry are faced with a challenge.

– All academic research is based upon the idea of publishing results, your research findings. This is an old and strong international tradition and as a university we protect the right to publish scientific articles and to do further research. All the more important to have your house in order when setting up a contract with a private company. One way of solving the dilemma is to set down rules regarding publishing. This agreement can be varied. For example, it can include a time limit, when the researchers agrees not to publish results or findings. For the company it gives a reasonable time for them to explore other possible utilisations of the research findings, such as a patent application or other methods of protection. Again, if you have a clear picture of your research and your intellectual assets, you are in a better position when setting up contracts, Patrik Bångerijs concludes.

➔ Further information at [kau.se/gio](http://kau.se/gio)



**VIPP** VALUES CREATED IN  
FIBRE-BASED PROCESSES  
AND PRODUCTS

# CALENDAR

## **30 SEPTEMBER AT 10.15 A.M.**

NYQUIST HALL 9C 203, KARLSTAD UNIVERSITET

### **LIC-SEMINAR**

#### **Aron Tysén**

Innventia AB: *Through air drying - The influence of formation and pulp type on non-uniform drying and air flow*

Examiner: Stig Stenström, professor at the department of Chemical Engineering, Lund University

Examiner: Professor Lars Nilsson, Chemical Engineering at Karlstad University

Main supervisor: Hannes Vomhoff, Innventia AB

## **4 NOVEMBER AT 10.15 A.M.**

NYQUIST HALL 9C 203, KARLSTAD UNIVERSITY

### **LIC-SEMINAR**

#### **Peder Bengtsson**

Asko Appliances AB: *Increasing the value of household appliances by adding a heat pump system*

Examiner: Professor Lars Nilsson, Chemical Engineering at Karlstad University

Main supervisor: Jonas Berghel, ass professor of Energy and Environmental Systems, Karlstad University.

## **4 NOVEMBER AT 01.15 P.M.**

NYQUIST HALL 9C 203, KARLSTAD UNIVERSITY

### **80% SEMINAR**

#### **Christer Gustavsson**

Pöyry AB: *Added value from biomass by broader utilization of fuels and CHP plants.*

## **DECEMBER**

### **Åsa Nyflött**

Stora Enso AB

## **5 FEBRUARY 2015**

### **Pia Hällström**

Akzo Nobel, lic seminar

## **20 FEBRUARY 2015**

### **Asif Javed**

Karlstad University, lic seminar

## **5 MARS 2015**

### **Sofia Thorman**

Innventia AB, lic seminar

## **PLANNED LIC SEMINARS IN 2015**

Lisa Mattson, BillerudKorsnäs

Mattias From Aldaron, Stora Enso Skoghall

Pyry Hämmäläinen, Kemira AB

Raghu Deshpande, Domsjö/MoRe

Anders Ottosson, Valmet