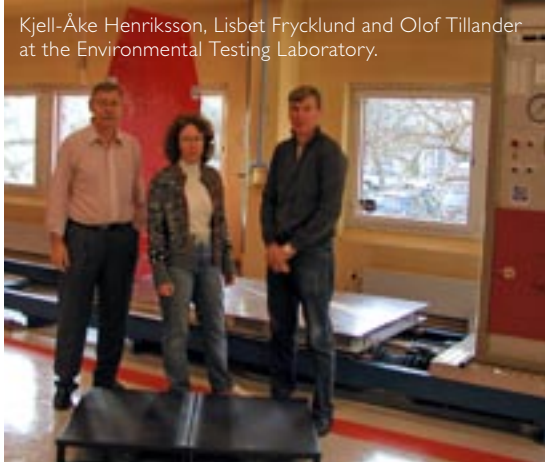




Research focal point and its relevance to the industry attracts customers

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Durability tests on plastic pallets | The daily paper in many layers | Shorter way to full-scale trials | Optimal pressing but less energy consumption | Profile: Hannes Vomhoff | Refining of bio-products | European science festival | Forest industry united on new strategy



Durability tests on plastic pallets

At the beginning of the Nordic summer, the STFI-Packforsk Environmental Testing Laboratory in Kista took on an urgent commission to test plastic pallets for a company named Svenska Retursystem. For three hectic weeks, a number of tests were carried out on full-size pallets coming from three different suppliers.

"The task included testing of the various functions of the pallets, among other things, compression strength, bending resistance, wear and tear, impact resistance and friction," says Kjell-Åke Henriksson. In all, eleven different moments were carried out.

"Three of our people shared the work on the laboratory equipment for drop, shock, compression and vibration tests. For certain of these, extreme conditions were simulated, such as -35°C, +40°C and a 1,500 kg loading for assessing the various pallet constructions.

Hygiene requirements in the foodstuff industry are on the rise. It is no longer permitted to use wooden pallets where the handling of foodstuffs is involved. As a result, plastic pallets, which are washable and not spreaders of fibre dust, are taking the place of full-size wooden pallets. Another advantage of plastic pallets is that they weigh less. Svenska Retursystem already handles half-size plastic pallets, however there is a demand for full-size pallets that weigh as little as possible and yet can cope with all the strains and stresses demanded of them. In the brewery trade, full-size plastic pallets have been in use for quite a long time, but they weigh considerably more than those now undergoing the testing.

"The work carried out was rigorous," says Petter Björkman from Svenska Retursystem, the company that approached

STFI-Packforsk on recommendation from the Grocery Manufacturers of Sweden, among others.

"With the results in hand, we have proceeded further with one supplier and are carrying out a number of practical tests throughout the entire business chain. We are also working jointly with our Norwegian counterparts and, in the long run, we will arrive at a Scandinavian full-size plastic pallet. ●

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På uppdrag av Svenska Retursystem har STFI-Packforsks miljötalighetslab i Kista utfört omfattande tester av helpallar i plast från tre olika leverantörer. Totalt genomfördes 11 olika testmoment, ibland under extrema förhållanden.

Hygienkraven inom livsmedelsindustrin ökar, och det är inte längre tillåtet att använda träpallar där livsmedel hanteras. Svenska Retursystem hanterar redan halv-pallar i plast, men nu vill man ha helpallar som väger så lite som möjligt men ändå klarar alla påfrestningar.

– Med resultaten i hand har vi nu gått vidare med en leverantör och gör en del praktiska tester längs hela hanteringskedjan, säger Petter Björkman, Svenska Retursystem.



The daily paper in many layers

At some time in our lives, we have all tried to remove a piece of sticky tape from a piece of paper and, into the bargain, ended up with a thin layer of the paper stuck to the tape. The same technique, although using a significantly more optimised instrument, is used to form layers from sheets in preparation for different analyses.

"Above all, this method is used to study how the various properties, such

as local fibre orientation, vary in the thickness direction," says Fredrik Rosén at STFI-Packforsk.

At the start, a bit of tape was the veritable piece of equipment used, but such a process was time-consuming and only worked on small areas. These days, a heat seal pouch laminator is used instead and it can deal with sizes up to an A3 format. A sample of newsprint can usually be divided into 8 to 10 layers.

This method gives replicable results and can be used on everything from newsprint to board. It has consequently been practicable in several of the STFI-Packforsk research clusters, such as TESS II,

The Engineered Board and Improved Formation.

According to Fredrik, there exists a great deal of interest in contract work where STFI-Packforsk has carried out local fibre orientation evaluations for quite a few customers. Variations in fibre orientation throughout the sheet can be the cause of dimensional stability problems, e.g. curl and cockling. Using this new technique, it is possible to study

large scale structures in the fibre orientation, such as vortices and streaks.

When it comes to larger commissions, a workshop is often held, together with the customer, to go through the results of the analyses and to discuss what can be done.

"You can often connect a result to the forming process and then, together with the customer, we can discuss the possible remedial measures that could be taken," adds Fredrik. ●

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För att studera hur olika egenskaper varierar i tjockleksriktningen, har STFI-Packforsk utvecklat en ny metod för att dela ett pappersark i flera skikt. Med en varmlaminator kan t ex ett normalt tidningspapper delas i 8–10 skikt.

– Metoden ger ett repeterbart resultat och går att använda på allt från tidningspapper till kartong, säger Fredrik Rosén. Den har därför visat sig användbar såväl inom flera av STFI-Packforsks forskningskluster som till olika uppdrag, inte minst för utvärdering av lokal fiberorientering. Skillnader i fiberorientering genom arket kan orsaka försämrade pappersegenskaper som curl och cockling. Ofta kan man koppla resultatet tillbaka till processen.

Research focal point and its relevance to the industry attracts customers

For almost a year now, STFI-Packforsk has been working with ideas and suggestions for CRP 2006, the new research programme, which will be off and running at the turn of the year. Ideas have been tossed around with partner customers and with people from the academic world. All this to get an attractive combination of focus points in the research and relevance to customers' business. In the first half of this year, contact with partner customers was intensified leading up to the Nordic summer, when they would choose which project clusters they wanted to participate in and, consequently, finance.

"Fortunately enough, we have received the answer from our partner customers that, in spite of these austere times, they will continue to participate and finance the research programme to the same extent as before," says Anders Pettersson who is responsible for co-ordinating the entire programme.

"It confirms that they really have faith in our expertise and the ideas that the programme is built on; and especially that they can see that they will benefit from the research that has been pursued in the research programme so far."

Discussions with customers vital

"Many times, completely new ideas or needs in new areas emerge. We receive an amazing amount of feedback on our ideas and our ways of working, which means that we can further develop our methods of work."

Many of the customers have had or are about to introduce structural changes, when it concerns their development activities. This means that it is necessary to adapt the manner of communicating results from the research programmes in light of these new prevailing conditions. For a lot of customers, STFI-Packforsk is one of the main suppliers of research and development work.

"It's important that we also act as a kind of contemporary surveillance body looking at the world of research, soaking up what is of interest, complementing or further refining ideas, in order to meet the needs of our customers," says Helena Vollmer, marketing co-ordinator.

"Our research programme is one of the links in the "turning science into reality" chain and it accounts for slightly more



Thomas Johannesson and Helena Vollmer are delighted with the enormous interest shown by the worldwide industry in the Research Programme.

than a third of the entire operations. The other two links come before and after it in the innovation chain. At the beginning of the chain are the bolder high risk projects, often financed by public funds to a large extent. At the other end are the commissioned activities, where new results and new know-how can be adapted according to each customer's particular demands."

The programme ranges from the raw materials, by way of a deep technical knowledge of processes, all the way to a consumers' perception of the end products.

The turnover for the research programme will come to a total of approx. €35m. ●

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Read more on page 6 about Bio-refinery, one of the clusters that has already been given a jump start this year.

 **Vid årsskiftet** drar STFI-Packforsks

nya forskningsprogram CRP 2006 igång. Programmet sträcker sig från råvara via ett djupt tekniskt processkunnande ända fram till konsumentens uppfattning av slutprodukterna och omsätter ca 35 MEuro.

– Glädjande nog har vi fått svaret från våra avtalskunder att de i dessa åtstramningstider trots allt fortsätter att delta och finansiera forskningsprogrammet i samma omfattning som tidigare", säger Anders Pettersson, ansvarig för koordineringen av hela programmet.

För många kunder är STFI-Packforsk en av huvudleverantörerna av forskning och utveckling.

– Då gäller det att vi också fungerar som en slags omvärldsbevakning gentemot övriga forskningsvärlden, suger upp det som är intressant, kompletterar eller vidareförädlar för att täcka kundernas behov, säger Helena Vollmer, marknadskoordinatör.

Shorter way to full-scale trials

The step to carrying out full-scale trials has become a shorter one now. New ground has been broken, in the form of a multi-faceted project on EuroFEX, the pilot paper machine at STFI-Packforsk.

Guest contributor: Nils Lindstrand

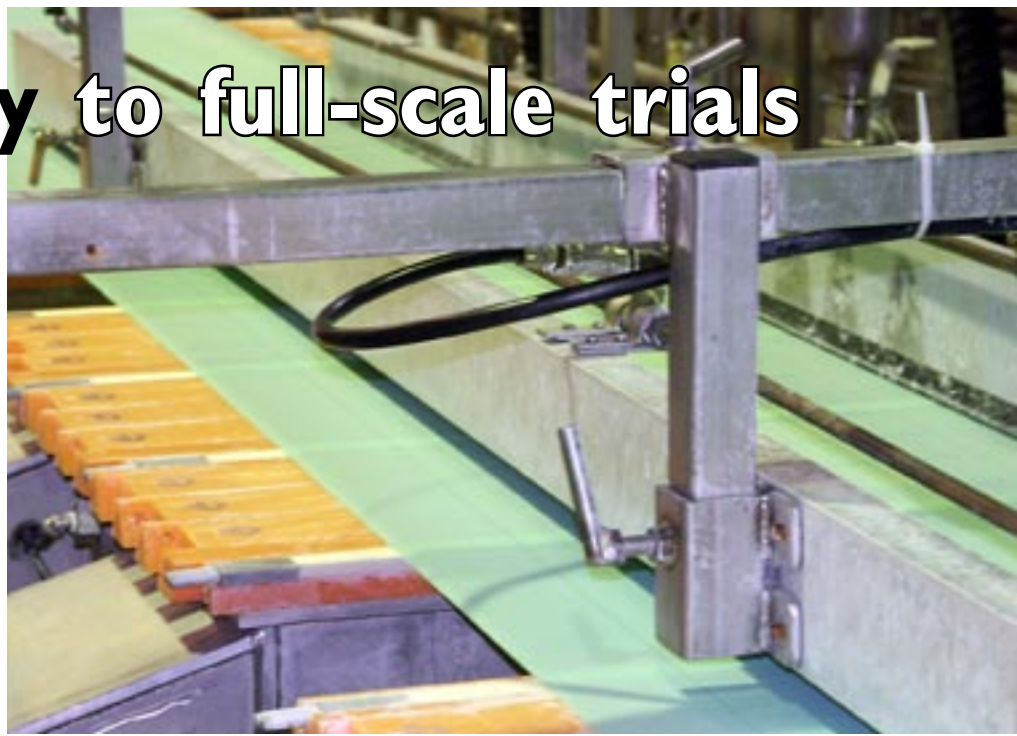
“By putting several teams together, we have been able to make pilot trials on EuroFEX a virtual reality,” states Torgny Persson, Director of the EuroFEX Division. “The mill that participated in this trial can now take the next step to a mill trial, with significantly fewer risks than what would have been previously possible.”

During the first half of 2005, a supplier of wires, a chemical firm and a paper producer assembled together at STFI-Packforsk to take part in a joint project. In an extensive series of trials on EuroFEX, two different wires and various systems of paper chemicals were combined with the pulp that the mill wished to use in its production. Subsequently, a joint evaluation and analyses were carried out. Then it was possible to ascertain how certain chemicals, in combination with one of the wires, produced the best dividend, when it came to dewatering, formation and retention.

Marie Karlsson from Albany International is very pleased with the trial-set up. She commented, “The three faceted combination gave us unique advantages when we had to discuss a choice of wire with our customer. Normally, we can only point out our experiences from pre-



Marie Karlsson from Albany International participated in the multi-faceted project, where different combinations of chemicals and wires were tested in pilot trials on EuroFEX.



Forming, turbulence, dewatering, the absorption of polymers are examples of parameters that are highly speed dependent. EuroFEX is designed for the speed range 250-2500 m/min.

vious deliveries or, possibly, refer to trials involving the pulp in question. However, this time we were able to jointly establish that one of the wires produced a better result, using exactly the same parameters that the mill intended to use during production, viz. the same pulp and the same chemicals combined with a specific wire. On the EuroFEX paper machine, the wire that we ourselves believed in produced an even better retention and faster initial dewatering than what we were expecting. The results also showed a lower consumption of energy.”

Noted the need for a new kind of set-up

The initiative for a three-faceted set-up originated from STFI-Packforsk.

“With the EuroFEX paper machine, we realised we could become a platform for even more feasible pilot scale trials,” says Mattias Drotz. “It was very efficient to bring together several suppliers and, what’s more, their mutual customer for the trials. We had to work on it for a while before we could get everyone on board. Our belief in the project has certainly paid off. This multi-faceted project was truly a success for everyone involved. The trials came up with answers to real questions and the joint analyses were very fruitful. Our hope now is that this will become one of the established ways of utilising EuroFEX,” adds Mattias.

Today, there are already plans in place for a mill trial using some of the ideas tested.

The paper producer has better and more realistic data to base things on than what used to be the case after pilot trials. The step from pilot scale to mill trial

has often traditionally been an extremely long time-gap in the paper industry. Many ideas have made their way from the model stage to the laboratory and, then, to the pilot machine. The financial risks involved in proceeding to a mill scale trial are huge. Many have been indecisive before taking such a final step. With a multi-faceted project, like the one recently carried out, the situation can change irrefutably. The risks associated with a mill trial can be considerably reduced. Now, new technologies and techniques will find it easier to make a break-through in the paper industry. ●

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Under våren 2005 samlade STFI-Packforsk en leverantör av viror, ett kemiföretag och en papperstillverkare till ett gemensamt projekt. I en omfattande försöksserie på EuroFEX kombinerades två olika viror och olika system av papperskemikalier med den massa som bruket ville använda i sin tillverkning. Därefter gjordes en gemensam utvärdering och analys.

– Trepartskonstellationen gav oss unika fördelar när vi skulle diskutera val av vira med vår kund. Normalt kan vi bara peka på våra erfarenheter från tidigare leveranser, eventuellt också hänvisa till försök med den aktuella massan, säger Marie Karlsson vid Albany.

Steget från pilotskala till fabriksförsök är av tradition ofta oerhört långt i pappersindustrin. Med flerpartsprojekt som det nu genomförda kan de ekonomiska riskerna med fabriksförsök sänkas. Ny teknik kan få lättare att slå igenom i pappersindustrin.

Optimal pressing but less energy consumption

Guest contributor: Nils Lindstrand

STFI-Packforsk has developed the world's most advanced model for wet pressing in paper machines. Both pilot trials on EuroFEX, the STFI-Packforsk pilot paper machine, and sophisticated laboratory trials are used to verify the model.

"The result of this research will lead to a lower consumption of energy and improved paper surface in future for the paper industry," says Project Manager, Hannes Vomhoff.

The model is founded on work done previously at STFI-Packforsk and has been further developed in a three-year project. One foundation stone is a method characterising the unevenness of felts in the loading application in a press. This method is based on a pressure sensitive film. It has been developed in a joint project with Albany International AB. It was introduced for the first time in 2002. This method makes it possible to get a clear picture of how the surface batt fibres of the press felt transfer load onto the wet web. These fibres are merely some tens of a micrometer in diameter.

Earlier, it was not possible to measure the pressure imprint of an individual batt fibre. Press felts were developed, to a large extent, by trial and error. With time, manufacturers like Albany International have been very proficient at developing felts in this manner. The prospect of measuring and taking photographic images of the contact imprint of the felt surface nevertheless provides the potential for going much further into optimisation.

"We can now give a better description of wet pressing through new parameters," says Albany International's Jörgen Gullbrand. "Thanks to this improved description, we are able to better optimise felt design for each distinct application."

On-going work for optimisation

STFI-Packforsk is now proceeding with a project that will produce a tool for optimising the pressing process.

"With our model, in principal, it is possible to optimise the press nip in a paper machine with regard to each raw material, the speed and the length of the press nip," says Hannes Vomhoff. "But we need to do more trials on a pilot scale to give the industry a full dividend on such optimisations. Among other things, we'll study how we can increase both the speed of a paper machine and the dry solids content after the press nip while, at the same time, producing a uniform and smooth paper. ●

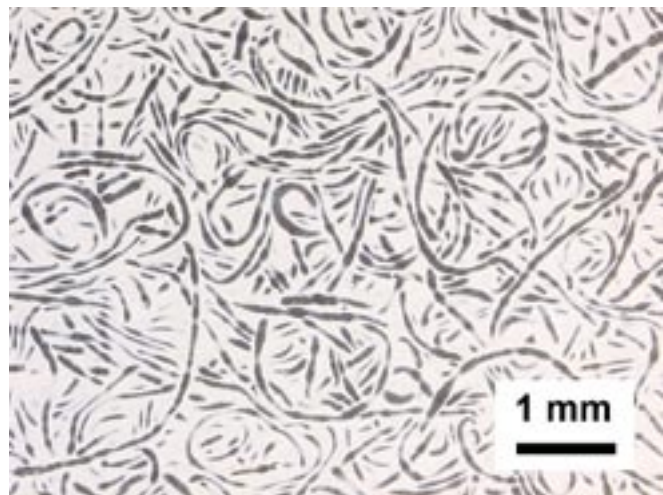
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Världens mest avancerade

modell över pressningsförloppet i pappersmaskiner har utvecklats av STFI-Packforsk. Resultatet av forskningen kan bli lägre energiåtgång och bättre pappersytor i framtidens pappersindustri. Modellen är baserad på tidigare arbete vid STFI-Packforsk och har vidareutvecklats under ett treårigt projekt. En grundsten är en metod för att karakterisera filtens ojämnheten i lastapplikation vid pressningen. Metoden som har utvecklats inom ett samarbete med Albany International AB gör det möjligt att genom fotografiska bilder av kontakten mellan filt och papper få en tydlig bild av hur varje fiber i filten påverkar pappersbanan.

– Nu kan vi ge en bättre beskrivning av våtpressningen via nya parametrar, säger Jörgen Gullbrand, Albany. Tack vare den bättre beskrivningen kan vi bättre optimera filtarnas design för varje given applikation.



The characterisation method, developed in co-operation with Albany, makes it possible to get a clear picture of how the surface batt fibres of the press felt transfer load onto the wet web.

Profile



Hannes Vomhoff

Hannes Vomhoff is a breath of fresh air. He exudes efficiency, powers of observation and understanding. Hannes is the project manager of Paper Process Technology, an area that he is obviously passionate about. His group consists of another four people.

Hannes is manager of the Efficient Mechanical Dewatering Cluster and participates in some other clusters, viz. TESS, New Fibres and Materials as well as Advanced Fibre Management, to mention three.

Hannes's main expertise lies in the dewatering, wet pressing and fractionation of fibre flows. Paper mills and supplier firms are mainly those that profit by his and his colleagues' know-how. He talks of himself as a geek and confesses that he has always been interested in technology, forever trying to understand why things happen.

"Unfortunately, I don't have so much time for pure research any more since there's more and more administrative work. Nevertheless, I want to be present for the evaluation of various projects so that I can still keep in touch with developments."

After receiving his Master of Engineering in Germany, Hannes applied for work and was given a postgraduate appointment at STFI-Packforsk. After his Doctor's dissertation and a one year interlude at Voith Paper in Germany, Hannes and his wife became homesick for Sweden and, in 1999, his reunification with STFI-Packforsk became a reality.

He devotes his leisure time to his family, now consisting of his wife and 3 children. ●

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PHOTO: SÖDRA

Refining of bio-products

Waste not, want not.
Therefore, make products of value from the surfeit of black liquor and other residual products.

The vision of the Bio-refinery Cluster, i.e. to find new areas of use for by-products from pulp production, is a compelling one. With soaring oil prices, the greenhouse effect and competition from countries with fast growing trees, there is a mounting need for the European forest industry to come up with new sources of revenue.

Fibres are freed during the chemical production of papermaking pulp. What remains becomes black liquor that is incinerated and converted to high pressure steam in a soda recovery boiler. Stand-alone pulp mills and, sometimes, even mills that are integrated with paper production probably have a surfeit of black liquor or bark. Furthermore, all too often, a soda recovery boiler becomes a bottle-neck for an increase in production. By utilising the special properties present in the diverse components of wood, such as black liquor and bark (aka by-products), this can result in new high-quality products. The advantages are, firstly, that the raw material is renewable and CO₂ neutral and, secondly, that it already exists in a "semi-manufactured" state.

Finance and volume

"We have begun by working on a wide front to determine the products that are viable from a technical and financial standpoint," says Birgit Backlund,

manager of the Bio-refinery Cluster. She continues, "One condition is that the production must be a realistic one and that it is able to be integrated into pulp production. The volumes must be big enough too."

The Cluster was formed in the first half of 2005 and is to continue until 2007/08. It involves six companies, viz. Borregaard, Kemira, M-real, Sveaskog, Södra and Perstorp. Interest is so great that one South American and two North American companies are now considering whether to sign up.

The Bio-refinery core activities concerning the basic process are a part of WaCheUp, an EU Project described in Beyond #5. More market-focused ideas can be found in four separate Bio-refinery projects, viz. Lignin from kraft black liquor, Hemicellulose from kraft black liquor and wood, Suberin and extractives from bark, as well as Synthesis.

Strength in expertise

There are 15 researchers from STFI-Packforsk working in the Cluster.

"Our real strength lies in our special expertise concerning organic chemistry and chemical engineering, such as materials technology and knowledge of systems," says Birgit.

"We are in the lead, since we have worked with process flows and separation processes for separating lignin and hemicellulose from black liquor. And now we can build on our former research."

"Our aims are to form a foundation for processes rather than find final full-scale solutions as well as to identify interesting products."

It is important that the researchers arrive at results that the industry is capable of applying and putting into practice. The project will continue until the turn of 2007/2008.

"The best thing about Bio-refinery research is that it's a completely new area with so many possibilities of producing entirely new products from the forest. For example, there may be opportunities of making low-cost carbon fibres from lignin, functional chemicals for paper mills from hemicellulose and new pharmaceuticals from birch bark." ●

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Vid kemisk massatillverkning separeras fibrerna. Återstoden blir svartlut som eldas upp och omvandlas till högttrycksånga i sodapannan. Fristående massabruk, och ibland även bruk som är integrerade med papperstillverkning, kan ha ett överskott av svartlut eller bark. Genom att utnyttja de speciella egenskaperna i trädets olika beståndsdelar kan biprodukterna resultera i högvärdiga nya produkter. Fördelen är dels att råvaran är förnybar och koldioxidneutral, dels att den redan finns som "halvfabrikat". Dessutom är sodapannan ofta en flaskhals för produktionsökning. 15 forskare vid STFI-Packforsk arbetar inom klustret Biorefinery med visionen att hitta nya användningsområden för dessa biprodukter.

– Vår styrka är specialkompetens inom såväl organisk kemi och kemiteknik som materialteknik och systemkunskande, säger Birgit Backlund, som leder klustret.

European science festival

Friday, 23 September, was proclaimed as Researcher Evening by the EU Commission. All around Europe, activities were organised to provide its youth with a chance to meet researchers and to find out just how exciting and fun research can be. The attendance in Stockholm was really tremendous. Altogether, 3,000 youngsters were enticed to Utbrott på Lava (Eruption of Lava), a science bash at the Stockholm Kulturhuset. The event was initiated and co-ordinated by a Swedish organisation called Vetenskap & Allmänhet (Public & Science).

STFI-Packforsk represented the forest industry and demonstrated examples of research occurring at the moment.

"This is a superb opportunity for showing that the many different, interesting areas of research are limitless. And that many of the methods used in one area can also be applicable to others and so, in this way, new research possibilities are created," says Annika Lundström who was one of the STFI-Packforsk researchers participating. ●



By combining papermaking with another technology, new products can be created. One example of this is the paper piano that was on display. It was made in collaboration with SCA. It has integrated electronics which make it possible to press the keys and produce a note, something which tempted many to try out their musical talents during the course of the evening.



"Keep your eyes shut and read" was the placard at a stand where there was a challenge to read Braille on a packet of gingerbread snaps. As an aid, visitors were given a Braille alphabet provided by The Swedish Association of the Visually Impaired (SRF). Also helping was Chris Dominic who displayed the packets and gave out gingerbread snaps to those who succeeded in deciphering two words. He commented, "I am most impressed that a 10 year old, who had never before seen a packet with Braille on it, managed to read what it said in just a few minutes!"



What captures your attention? Visitors themselves could study the significance of printing, paper and formation through an eye movement camera that registers how we look at pictures, newspapers, magazines, web sites and advertisements etc.



EuroFEX is a pilot paper machine at STFI-Packforsk. It is used for pilot trials and research projects. At Lava, Fredrik Rosén showed how to produce paper with simple, basic equipment. Visitors could make their own paper with the aid of a rolling-pin (a press section), Wettex cloths (a felt) and irons (a drying section).



The science bash not only displayed exciting products and methods. At Lava, there were seminars in the form of discussions between youngsters and researchers. Ann Lorentzon took part in a discussion about packaging, referring to why they look like they do and what use they are.

COMING EVENTS

JANUARY

- 11 ECOTARGET open workshop in Delft, Netherlands
- 19 Chemical Pulp Cluster Information Day (restricted attendance)
- 30 Information meeting at STFI-Packforsk on the evening before Ekmandagarna

FEBRUARY

- 2 Näringslivsgruppen Miljöpack and SIS Forum course (in Swedish): Förpackningar och miljö
- 7-8 Advanced Training: Spots and deposits
- 9 Sustainable Growth Seminar (see information below)
- 15 ROND conference, Örnsköldsvik: New analysing tools for digital printing

MARCH

- 22-23 STFI-Packforsk Renserkonferens, Borlänge

For further information on coming events, see www.stfi-packforsk.se

Sustainable Growth Seminar

The latest STFI-Packforsk work and research results in the area of sustainable development in value chains for packaging and graphic media products will be presented at a seminar to be held at STFI-Packforsk on 9 February 2006, in Stockholm.

This seminar will be held in Swedish. For information, contact cathrine.lofgren@stfi.se or carl.olmsmats@stfi.se. Information will be available at www.stfi-packforsk.se as well. ●



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B



Forest industry united on new strategy

"The forest is part of our identity. At the same time, it is a source of pleasure and one of our most significant national resources. The forest industry is part of the backbone of Swedish society."

With these words, Göran Persson, Sweden's Prime Minister, launched The European Forest-based Sector Research Forum 2005 held on 9 and 10 November. The conference in Stockholm was a stage in the work for the formulation of a strategic agenda for The Forest-Based Sector Technology Platform (FTP). More than 300 participants from 25 countries gathered to jointly clarify the role of the European forest industry as an important partner in a sustainable society.

According to the Lisbon Agenda, European growth is standing on three props, one economic, one social and one environmental, with each prop having to be given equal treatment. Göran Persson meant that the forest sector is a good example of this. Today, the forest industry represents 8% of the growth in Europe. It fills an important function by providing work opportunities in the sparsely populated areas. It embodies renewable raw materials and products. It is a net producer of energy.

Göran Persson also emphasized that



Participants were invited to an open house at STFI-Packforsk on the evening before the Conference. The new Human Product Interaction Laboratory was just one feature they were shown.



Bo Borgström, CEI-Bois, Prime Minister Göran Persson and Kenneth Eriksson, SCA Forest Products. PHOTOS: FBS /KENNETH JONASSON

the European forest industry must compete on the global market, not with raw materials and work force, but with advanced technology and modern solutions derived from research and development. Two examples are in the areas of nanotechnology and renewable energy.

"The key question is not whether there will be a market for all the actors but whether there will be enough renewable resources for everyone?" he concluded.

It was made clear at the conference that the European industry is faced with many challenges. The common denominator at presentations and workshops was "Innovations". To meet the challenges, all parties are of the opinion that it will require a broad co-operation among the industry and national as well as international bodies.

"The way forward," according to Björn Hägglund from SCA Forest Products and chairperson of the FTP High Level Group, "is to continue to improve products and processes based on existing technologies and to introduce products and services with a higher added value, based on new technologies and other emerging opportunities."

"Wood-based products have enormous potential," he stressed.

"One of the challenges is to develop a



Janez Potočnik, European Commission

European competitiveness. However, it is just as important to preserve and improve the quality of life for all Europeans. I believe that, through research, the forest industry can contribute to both these aims," said Janez Potočnik, EU Commissioner for Science and Research, in a video taped message.

The next major FTP event will be the launching of a strategic agenda at a two-day conference in Admont, Austria in May, 2006. ●

MORE INFO: www.forestplatform.org



Statsminister Göran Persson

inledde konferensen The European Forest-based Sector Research Forum 2005 med att säga att skogsindustrin är en del av ryggraden i det svenska samhället.

Konferensen i Stockholm den 9–10 november med över 300 deltagare från 25 länder var ett led i arbetet med utformningen av den strategiska agendan för The Forest-Based Sector Technology Platform, FTP. Agendan kommer att presenteras i Admont, Österrike i maj 2006.

Att den europeiska industrin står inför många utmaningar framgick tydligt av konferensen. För att möta utmaningarna, menade alla parter, krävs ett brett samarbete mellan industri och samhälle.



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