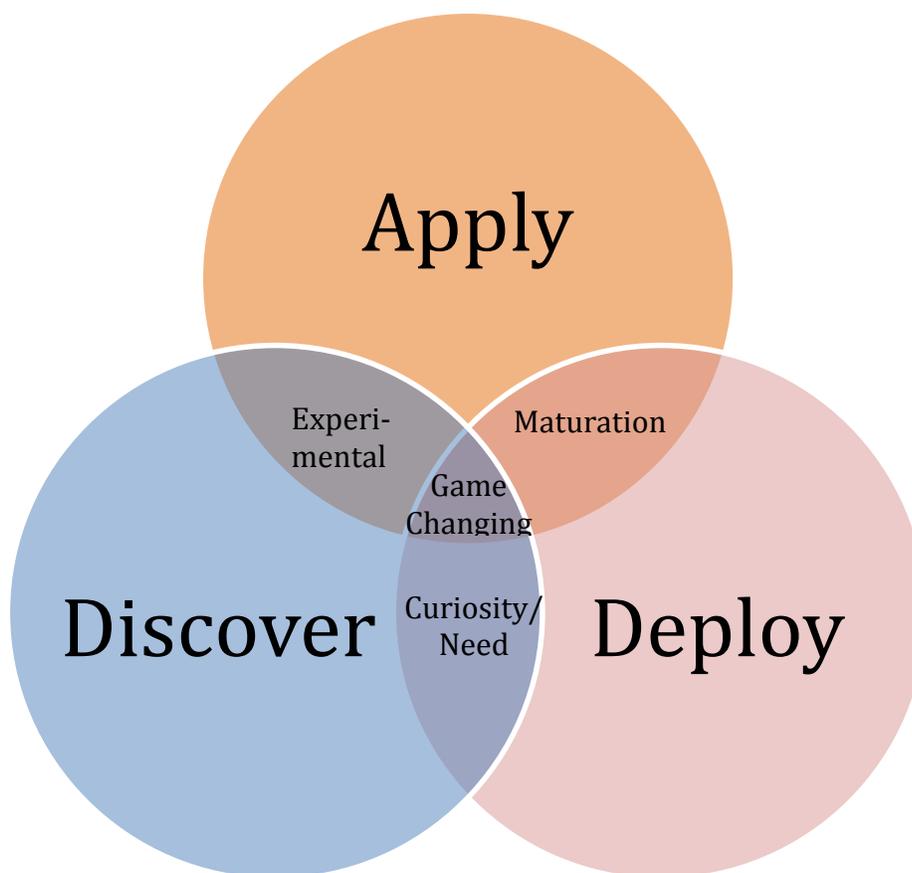


## **RBI Conference Showcases Student Contributions**

*By Patrick McCarthy*

Georgia Tech's Renewable BioProducts Institute (RBI, formerly the Institute of Paper Science and Technology) held its 2016 Annual Executive Conference on April 5 and 6. Focusing his opening remarks on this year's conference theme, "Reimagining Bioproducts Industries", Dr. Norman Marsolan (Director, RBI) highlighted RBI's innovative ecosystem that leverages the collective knowledge of academia, industry, and government. The conference program included value-creating research in three areas: Operational Excellence, The Future of Biocomposites and Nanocellulose, and New Opportunities in Biochemicals. An important component of the program was its emphasis on graduate students and the new knowledge that their research is creating. It included the presentation of 40 research posters in two poster sessions. Also, six PhD candidates presented their research in parallel sessions. Kicking off day two's discussion, Georgia Tech's Executive Vice President of Research, Steve Cross, described how RBI's ecosystem incorporates the discovery, application, and deployment of new knowledge, with the ultimate objective of identifying 'Game Changing' innovations that have broad and significant impact on the industry.



Key components of an ecosystem's success are strong collaborative and interdisciplinary relationships.

For more about the conference, visit RBI's website at <http://www.rbi.gatech.edu/renewable-bioproducts-institute-annual-conference-sets-attendance-record-highlights-technology>.

## **Trend Indicators from Industry Intelligence Inc.**

Industry Intelligence Inc. has provided market intelligence to more than 600 companies worldwide since it began as Forestweb in 1999. Industry Intelligence delivers a daily report featuring news of the paper and forest products industries. For your subscription visit: <http://www.industryintel.com>

Below is a sampling of recent Industry Intelligence headlines, chosen to mirror significant trends and other interesting developments in and around the paper and forest products industries.

***India's paper consumption increasing at 8%/year for some time, expected to keep pace with GDP growth, with expansion of Indian e-commerce forecast to help boost paper packaging; potential sharp rise in dumping from China, Indonesia a concern: report***

The paper sector is poised to grow in concert with a massive spurt in demand for writing and printing paper. The domestic demand for paper is set to surpass supply, with the growing emphasis on education and alternative uses of paper.

***Plans announced for China-based Sun Paper to build bio-products fluff pulp mill in Arkadelphia, Arkansas, company's first facility in North America; more than US\$1B project is among largest private investments in state's history, says Arkansas governor***

Arkadelphia is located in the heart of Arkansas' timber industry with easy access to Interstate 30.

***UPM signs agreement to sell its 280,000 tonnes/year newsprint mill in Schwedt, Germany, to Leipa Georg Leinfelder, for conversion to linerboard production, for €70M; contract also signed for newsprint manufacturing through year-end 2017, at latest***

LEIPA will convert the mill into liner production. The planned production capacity would be approximately 450,000 tonnes of liner annually.

***Tembec, Millar Western separately advise Chinese customers of BCTMP price increase plans for April; global BCTMP market seeing improved demand***

Industry consultant Brian McClay reports a \$430/tonne gross 80-bright aspen bleached chemi-

thermomechanical pulp (BCTMP) price for March in China.

***Arkansas economic development official confirms that Shandong Sun Paper has narrowed down its search for site to build US\$1.36B, 700,000 tonnes/year fluff pulp mill to two locations, one each in Arkansas and Mississippi, expects decision this summer***

The company said in November that it wanted to build the mill in south Arkansas and that it expected to select a site by May 1.

***Slovakian government approves up to €48.8M subsidy for Mondi's plan to add 300,000 tonnes/year containerboard machine at its Ruomberok mill, provided it is approved by Slovakia's anti-monopoly agency and European Commission, plus conditions are met***

The €310-million project would start in 2017 and be completed for startup in 2019.

***Navigator outlines its impact on Portugal's economy at sustainability forum, notes company contributes more than €2.7B to country's GDP, is Portugal's No. 3 exporter, and close to 74% of its procurement spending goes to Portuguese suppliers***

The Navigator Company is the new face of the former Portucel Soporcel group. It is the world's sixth largest uncoated woodfree printing and writing paper manufacturer and fifth largest producer of bleached eucalyptus kraft pulp. It has recently entered the tissue market.

***Pratt CEO says company's new 500,000 tonnes/year mill in Valparaiso, Indiana, is world's most environmentally friendly and modern containerboard mill, at its grand opening; mill created over 100 new jobs, bringing Pratt's total US employment to 5,800***

The mill, located 50 miles southeast of Chicago, is on the same site as Pratt's corrugated box plant, the world's largest.

***Finnpulp applies for environmental permit for planned 1.2 million tonnes/year bio-product pulp mill in Sorsasalo, Kuopio, Finland, expects authorities to decide by early fall; permit applications for biogas and biocoal facilities to be submitted later***

The annual production capacity of the facility will be 1.2 million tons of pulp. Additionally, the facility will produce 60,000 tons of tall oil and one terawatt hour of bioelectricity for the national electricity grid. The facility will use 6.7 million cubic meters of raw wood material per year.

***UPM, authorities continue monitoring of pulp mill in Fray Bentos, Uruguay; since mill started up in 2007, no evidence found that mill's effluents would have impact on water quality, biology of River Uruguay, says a biologist involved in the monitoring***

Uruguayan environmental authorities and UPM have not found any evidence that pulp mill effluents have had an environmental impact on water quality and biology of the Uruguay river since the start-up of the mill in 2007.

***West Fraser starts up commercial-scale plant to recover lignin for value-added products, at its pulp mill in Hinton, Alberta; initially, the lignin will be marketed as natural replacement for synthetic resin used as adhesive in engineered wood products***

Lignin is the natural compound in trees that gives wood its strength. It is one of the most abundant organic polymers on Earth.

***Volga included in Russia's Book of Honor for its performance in 2015, and company's general director named in the national register of most effective business leaders; since 2015, Volga has improved its newsprint quality by introducing 100% TMP furnish***

The Register includes most estimable businesses and organizations of various types of ownership and areas of activity whose operations contribute to the social and economic development of the region where they are located.

***Rottneros contracts Valmet to deliver new white liquor filter for chemical recovery process at Vallvik pulp mill in Sweden; order is part of Agenda 500 rebuild project that aims to increase total production capacity at both of the company's pulp mills***

Valmet will also deliver a new bleach plant to Rottneros pulp mill.

***Global tissue production to be influenced by environmental trends and diverging product performance levels, which will drive alternative manufacturing technologies; shortages forecast in recycled fiber for tissue making will have disruptive effect: report***

This according to a new report by Smithers Pira.

***Nonprofit Green America launches campaign to encourage Smithsonian Magazine to use recycled-fiber publication paper, building on organization's 2014 campaign that persuaded National Geographic to print its magazine on recycled-content paper***

A transition at Smithsonian Magazine to recycled paper would initiate the conversation within Time, Inc. to move more of its publications to recycled paper.

***American Eagle Paper Mills in Tyrone, Pennsylvania, to convert to gas-fueled power from coal-based system, to reduce GHG emissions, meet EPA Boiler MACT rule; project includes natural gas boiler, upgrade to mill's power distribution infrastructure***

This project will replace the legacy coal based power generation equipment with high efficiency natural gas fueled equipment.

***Nordic companies at forefront of transformation in Europe's paper industry, as sector continues to benefit overall in terms of earnings growth from diversification in recent years away from declining segments of European paper market: Moody's report***

Moody's Vice President Matthias Volkmer, says "They have successfully diversified their operations towards more profitable segments such as specialty papers and labels, paper packaging, liquid packaging and dissolving wood pulp, and away from less profitable ones like graphic paper."

## **Paper Quotes**

"Expera's four mills have been working diligently for several years to reduce energy consumption and we are proud to be recognized both on a state and national level for these achievements. These projects are necessary to offset increased costs associated with expensive legislation such as Industrial Boiler MACT." – Russ Wanke, President and CEO of Expera Specialty Solutions, upon receiving Wisconsin's Excellence in Energy Efficiency award.

## **Productivity: An Update**

*By Patrick McCarthy*

A follow-up to February's newsletter on productivity: The Bureau of Labor Statistics released on April 7, 2016 the most recent information on 2015 labor productivity and costs. For the manufacturing sector, labor productivity increased in nine industries, output increased in twelve industries, and hours worked fell in seven industries. The petroleum and coal products

industry experienced the highest productivity increase as output increased 4.6% and hours worked decreased 2.3%. Unit labor costs increased in sixteen industries with five industries experiencing a fall in costs as productivity grew faster than hourly compensation.

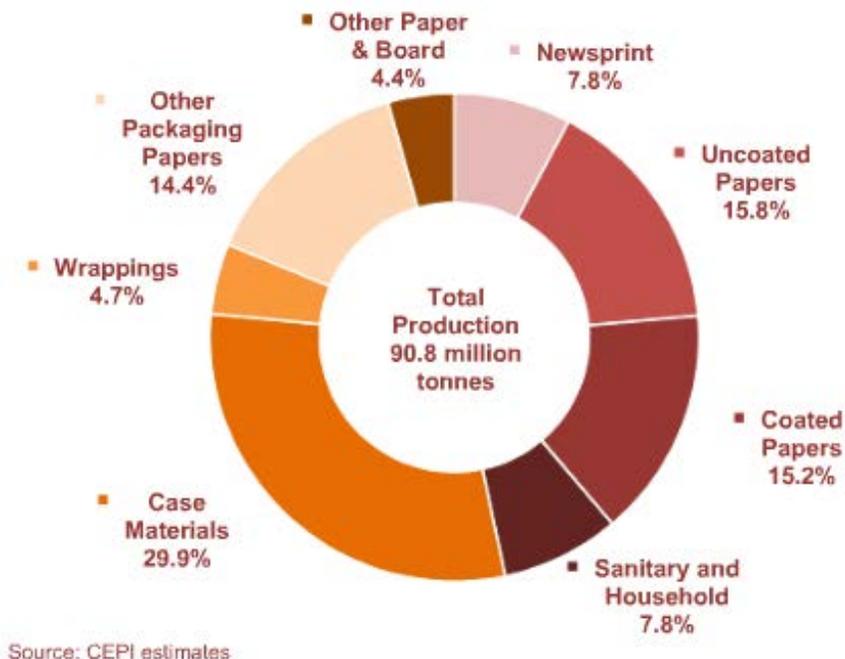
By way of comparison, labor productivity decreased 0.5% in the paper industry. Output decreased 1.6% while unit labor costs increased 2.8%. But there were differences in the mills versus converting parts of the industry. Labor productivity rose 1.9% in the pulp, paper, and paperboard industry but declined 1.5% in the converted paper products industry. Reflecting a larger change in hours worked (-3.4%) relative to output (-1.5%), unit labor costs in the mills part of the industry rose 0.8%. In contrast, output changed more (-1.6%) than hours worked (-0.1%) in the converting part of the industry, which resulted in a large 4%

increase in unit labor costs. For the full report, visit <http://www.bls.gov/news.release/prin.nr0.htm>.

### Statistics Corner: Production in CEPI Countries

The figure below shows estimated 2015 CEPI member country paper and board production, broken down by grade. Case materials (presumably linerboard and corrugating medium) and other packaging papers predominated. Total production was about 91 million tonnes, about the same as in 2014. CEPI member countries are Austria, Belgium, Czech Republic, Finland, France, Germany, Hungary, Italy, The Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom.■

Production of paper and board by grade in CEPI countries in 2015



### CEPI Paper and Board Production in 2015

(Source: Confederation of European Paper Industries;

[http://digibook.digi-work.com/Digibooks.aspx/Get/cepi/1455/Preliminary\\_Statistics\\_2015pdf](http://digibook.digi-work.com/Digibooks.aspx/Get/cepi/1455/Preliminary_Statistics_2015pdf))