Användning av forskning i BillerudKorsnäs

En dag för skogsnäringens forskningsagenda, 10 jan 2018
Magnus Wikström, CTO
BillerudKorsnäs in figures

<table>
<thead>
<tr>
<th><strong>Net sales approx.</strong></th>
<th><strong>Operating profit approx.</strong></th>
<th><strong>Production units</strong></th>
<th><strong>Business areas</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>22 Billion SEK</td>
<td>2 Billion SEK</td>
<td>8</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Packaging Paper</strong></td>
<td></td>
<td><strong>Beetham</strong></td>
<td><strong>38%</strong></td>
</tr>
<tr>
<td><strong>Consumer Board</strong></td>
<td></td>
<td><strong>Frövi</strong></td>
<td><strong>37%</strong></td>
</tr>
<tr>
<td><strong>Corrugated Solutions</strong></td>
<td></td>
<td><strong>Rockhammar</strong></td>
<td><strong>17%</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Gruvön</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Gävle</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Karlsborg</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Pietarsaari</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Skärblacka</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Number of employees</strong></th>
<th><strong>Corrugated Solutions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 300</td>
<td>17%</td>
</tr>
</tbody>
</table>

Figures for 2016 unless otherwise stated
We challenge conventional packaging for a sustainable future

The purpose of our business
Innovation for sustainable solutions

There are many areas for innovation - we are primarily focusing on two areas

1. Business innovation
   - Solutions in business areas
   - Ventures

2. Product innovation
   - More radical steps in product development
   - Advanced material research

MANAGED PACKAGING
Generates value for global brands

- 15% Freight savings (ocean)
- 30% Freight savings (air)
- 15% Unit cost reduction
- 80% Packaging reuse
- 50% Product protection

Award winner in:
- Lafarge Global Supplier Awards 2014
- Pulp and Paper International Award 2015
A proven track record for innovation

New products give margin improvements
We do invest more in radical material development

- Technology platforms, e.g.
  - Microfibrillar cellulose, 3D formability, barriers, embedded functionalities

- On-going actions
  - Enhancing internal expertise
  - More capacity to run parallel tracks
  - More advanced labs
  - Intensified external R&D interaction
Enhancing external R&D

We aim to actively design and enhance external R&D network

Target outcome

- Research breakthroughs that contribute to our innovations
- Improved recruitment base
- Obtain a more focusses and strategic collaboration with governmental funding authorities
- A hub for more global scientific interaction

! TREESEARCH platform is a top priority for us
We need to set bold research targets for our industry

A strong research environment was a part of taking Swedish forest industry to top position

Implemented R&D work, examples:
- Eucalyptus pulp
- CTMP for fluff and LPB
- Duplex and triplex LPB
- Continuous kraft pulping
- Digital process and production control
Investing in challenger projects

A way to push ourselves even further

Paper bottle for carbonated drinks

- Complex shapes
- Strong barriers
- Controlling pressure

Paper battery

- Wood fibers covered with conducting polymers

ecoXpac
BILLERUDKORSNÄS
Carlsberg Group

Upsala Universitet
BILLERUDKORSNÄS
Movie is available on the web, please click on this link:

https://www.billerudkorsnas.com/about-us/billerudkorsnas-stories/all/the-paper-bottle--if-we-can-dream-it-we-can-make-it
We challenge conventional packaging for a sustainable future

See more on: challengeconventional.com

https://www.billerudkorsnas.com/about-us/billerudkorsnas-stories/all/the-paper-bottle--if-we-can-dream-it-we-can-make-it