Flexible Packaging in Europe: Industry representation & Market Information

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Director Flexible Packaging Europe
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➢ Issues for the flexible packaging industry in Europe
  ▪ Environment & food contact

➢ Market information by PCI

➢ FPE Benchmark & substrate survey
General Info FPE

- **Activities:**
  - Industry representation & communications
  - Annual congress and other networking

- **Members:**
  - Flexible packaging converters
  - National associations
  - Suppliers to the industry
  - Academia

- **Future?:**
  - multinational companies to re-evaluate current structure
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Main issues to be dealt with today I

- Environment
  - Process emissions (= solvents)
    - Best Available Techniques
  - Packaging Waste
    - Packaging Standards about to be published
- EU Chemicals Policy / REACH
  - insufficient impact assessment/deselection
  - FPE Case Study!
Main issues to be dealt with today II

> Food contact I:
  - “SuperRegulation” (NB: proposal!)
    - Regulating multilayers for the 1st time!
      - extended scope: from 15% to 75%!
        • Plastics requirements for non-plastics
      - compliance for finished product,
        • rather than for raw materials
      - supporting documentation
        • breach with food industry?
      - new proposals:
        • breach with suppliers?
Main issues to be dealt with today III

> Food contact I: new & upcoming

  - applicable to all packaging, from 3 Dec. ‘04
  - introduction Active & Intelligent Packaging
  - Traceability: applicable per 27 Oct. 2006!

- Active & Intelligent Packaging (proposal)
  - end of 2005? / Decisions: per petitioner

- Recycled Plastics in Contact with Food
  - 2005? / products & systems
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The European Flexible Packaging Market

Many thanks to Paul Gaster from PCI Films Consulting Ltd who very kindly provided Flexible Packaging Europe with the market information data.
(with the exception of the Flexible Packaging Europe Statistics)
PCI Market Definition

‘Flexible Packaging’ embraces the manufacture, supply and conversion of plastic and cellulose films, aluminium foils and papers that are used separately or in combination, for primary retail food packaging, non-food packaging applications such as pet food, DIY, hygiene product overwrap, household detergents and certain other specialist non-food packaging sectors, such as medical and pharmaceutical packaging”.

As such, this definition specifically excludes shrink and stretch films used for secondary packaging and pallet wrap, carrier bags, supermarket self service and counter bags, silage bags, refuse and industrial IBCs, etc.
1 May 2004:
Population in EU increased from 380 to 450 million (= +18.50%)

(EU 15)
(+ 10)
(Rumania - 2007?, Bulgaria - 2007?, Turkey -?)

NOT(yet): Norway, Switzerland, Balkan
World Flexible Packaging Market 2003

2003 World Flexible Packaging Market = €39 billion
European Converted Flexible Packaging Market Overview 2003

- European Production: €9,780m
- European Consumption: €9,301 mn
- Exports: €609mn
- Imports: €130mn
## European Converted Flexible Packaging Market Overview 2003

<table>
<thead>
<tr>
<th>COUNTRY / REGION</th>
<th>Flexible Packaging Consumption</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Europe</td>
<td>8,016</td>
<td>86%</td>
</tr>
<tr>
<td>C &amp; E Europe</td>
<td>1,033</td>
<td>11%</td>
</tr>
<tr>
<td>Turkey</td>
<td>252</td>
<td>3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>9,301</td>
<td>100%</td>
</tr>
</tbody>
</table>
European Flexible Packaging Consumption per capita 2003

- Av. W. Europe
- Czech Republic
- Hungary
- Slovakia
- Poland
- Baltic States
- Russia
- Romania
- Bulgaria
- Ukraine
- Balkan States
- Moldova

Average Per Capita Consumption (Euros)
European Converted Flexible Packaging Market Overview 2003

- Northern European demand mature at around +1%pa
- South European markets growing faster
- New EU entrants +3%pa growth
- Turkey +6-7%pa growth
- Romania / Bulgaria / Balkans 7-8%pa growth
- Russia and Ukraine 10%pa+
## Estimated Market Positions in Europe 2003 %

<table>
<thead>
<tr>
<th>Company</th>
<th>Market Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amcor Flexibles Europe (1)</td>
<td>16</td>
</tr>
<tr>
<td>Alcan Packaging (2)</td>
<td>16</td>
</tr>
<tr>
<td>Constantia (incl. Teich)</td>
<td>8</td>
</tr>
<tr>
<td>Sealed Air Cryovac (3)</td>
<td>4</td>
</tr>
<tr>
<td>Clondalkin</td>
<td>4</td>
</tr>
<tr>
<td>Wipak</td>
<td>3</td>
</tr>
<tr>
<td>Huhtamaki</td>
<td>3</td>
</tr>
<tr>
<td>Frantschach</td>
<td>3</td>
</tr>
<tr>
<td>Bemis</td>
<td>3</td>
</tr>
<tr>
<td>Pactiv</td>
<td>2</td>
</tr>
<tr>
<td>Nordenia</td>
<td>2</td>
</tr>
<tr>
<td>United Flexibles (4)</td>
<td>2</td>
</tr>
<tr>
<td>Autobar Flexible</td>
<td>1</td>
</tr>
<tr>
<td>Gerosa (3)</td>
<td>1</td>
</tr>
<tr>
<td>Goglio</td>
<td>1</td>
</tr>
<tr>
<td>Schur Flexible</td>
<td>1</td>
</tr>
<tr>
<td>Bischof &amp; Klein</td>
<td>1</td>
</tr>
<tr>
<td>Parkside International</td>
<td>1</td>
</tr>
<tr>
<td>Others including imports</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: PCI Films Consulting Ltd / Industry Sources
(1) includes Rexam Healthcare Flexibles acquired in Aug 2003.
(2) includes VAW Flexpack and Pechiney Soplaril Flexibles Europe
(3) excludes machinery sales
(4) a marketing JV between PKL Verpackungen, Reuther Verpackung and Pawag Verpackungen
(5) excludes the company’s industrial substrates business.
Company joined the United Flexibles marketing JV end 2003
## Recent Industry Restructuring I

- **Alcan** spins off worldwide aluminium rolling operations
- **Alcan** buys **VAW Flexpack** and **Pechiney**.
- **Linpac** sold to private equity group **Clondalkin Group** sold to private equity group Warburg Pincus.
- **Autobar** Group acquired by private equity company Charterhouse
- **Wihuri Wipak** buys **Walsrode BOPP films** business from Bayer
Recent Industry Restructuring II

- **Amcor**’s acquisition in 2002 of **Rexam**’s UK non-medical flexibles operations and **Tobepal** of Spain, and in 2003 of Rexam’s worldwide Healthcare Flexibles business
- **Bemis** buys **Walki Films**.
- **Hueck** joins **United Flexibles** marketing joint venture
- **Teich** Group / **Danapak** joint venture.
- **Gualapack** buys **Safta**
- **Alcan** invests USD 55 mio in Russia: greenfields in flexible packaging + tobacco packaging.
European Flexible Packaging Market by Substrate Volume 2003

Total Usage = 3.165m tonnes
European Flexible Packaging Market by End-use 2003 in EUR millions

- Confectionery: 1027
- Fresh/Processed Meat, Fish & Poultry: 730
- Cheese & Dairy: 991
- Coffee: 518
- Frozen Foods: 597
- Snack Foods: 501
- Dried Foods: 945
- Bread, Biscuits & cakes: 1046
- Fresh Fruit & Vegetables: 160
- Other Food: 604
- Cigarettes: 211
- Medical/Pharmaceutical: 794
- Toiletries/Hygiene: 386
- Pet Foods: 191
- Other non-food: 600

€ millions
European Flexible Packaging Market by End-use 2003 in percentage

- Pet Foods: 2%
- Toiletries/Hygiene: 4%
- Medical/Pharmaceutical: 9%
- Cigarettes: 2%
- Other Food: 6%
- Fresh Fruit & Vegetables: 2%
- Bread, Biscuits & Cakes: 12%
- Dried Foods: 10%
- Snack Foods: 5%
- Frozen Foods: 6%
- Coffee: 6%
- Cheese & Dairy: 11%
- Fresh/Processed Meat, Fish & Poultry: 8%
- Confectionery: 11%
- Other non-food: 6%

Source: PCI Films Consulting Limited
Future Trends for European Flexible Packaging

- 2% average annual growth overall to reach €10.4bn. in 2008
- Sub-regional average annual growth
  - Western Europe up to 1.5%pa
  - Central & Eastern Europe 7%pa
  - Turkey 5%pa
- Continued overcapacity, especially in Western Europe
- Competition will intensify
The Future (cont’d.)

- Eastward shift of manufacturing, including food processing from West to Eastern Europe to reduce costs
- More Western converters establishing a manufacturing presence in Central & Eastern Europe
- The creation of a more integrated European flexible packaging industry
- Intensified competition both within Europe and offshore
The Future (cont’d.)

- **Sales value growth** will continue to lag volume growth
- Further flexible packaging **rationalisation and consolidation** against a background of continuing over capacity
- A continuing **shift in growth opportunities** from the more mature West European market to Central & Eastern Europe
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## Ratios of the total results as a percentage of sales

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Raw materials</strong></td>
<td>53,9%</td>
<td>51,9%</td>
<td>49,7%</td>
</tr>
<tr>
<td><strong>2 Added value</strong></td>
<td>46,1%</td>
<td>48,1%</td>
<td>50,3%</td>
</tr>
<tr>
<td><strong>3 Personnel costs</strong></td>
<td>24,5%</td>
<td>24,5%</td>
<td>24,6%</td>
</tr>
<tr>
<td><strong>4 Depreciation</strong></td>
<td>4,7%</td>
<td>4,8%</td>
<td>4,8%</td>
</tr>
<tr>
<td><strong>5 Other costs excl. raw materials</strong></td>
<td>14,6%</td>
<td>14,0%</td>
<td>16,7%</td>
</tr>
<tr>
<td><strong>6 EBIT</strong></td>
<td>4,5%</td>
<td>5,4%</td>
<td>4,5%</td>
</tr>
<tr>
<td><strong>7 Investment (in year)</strong></td>
<td>5,1%</td>
<td>5,5%</td>
<td>6,6%</td>
</tr>
<tr>
<td><strong>8 Fixed assets (year end)</strong></td>
<td>45,5%</td>
<td>39,1%</td>
<td>37,2%</td>
</tr>
<tr>
<td><strong>9 Working capital (year end)</strong></td>
<td>16,0%</td>
<td>18,7%</td>
<td>20,3%</td>
</tr>
<tr>
<td><strong>10 Sales (per employee)</strong></td>
<td>166.833</td>
<td>172.072</td>
<td>176.772</td>
</tr>
<tr>
<td><strong>11 Added value (per employee)</strong></td>
<td>76.887</td>
<td>82.695</td>
<td>88.902</td>
</tr>
</tbody>
</table>

* (EBIT = earnings before interest and tax)
## FPE Benchmark 2003 II

### Ratios of the total results as a percentage of sales

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<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
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<tr>
<td>1 Raw materials</td>
<td>49,2%</td>
<td>47,9%</td>
<td>47,7%</td>
</tr>
<tr>
<td>2 Added value</td>
<td>50,8%</td>
<td>52,1%</td>
<td>52,3%</td>
</tr>
<tr>
<td>3 Personnel costs</td>
<td>24,4%</td>
<td>24,3%</td>
<td>24,3%</td>
</tr>
<tr>
<td>4 Depreciation</td>
<td>4,6%</td>
<td>6,4%</td>
<td>6,3%</td>
</tr>
<tr>
<td>5 Other costs excl. raw materials</td>
<td>17,1%</td>
<td>14,8%</td>
<td>14,8%</td>
</tr>
<tr>
<td>6 EBIT*</td>
<td>4,8%</td>
<td>6,8%</td>
<td>7,1%</td>
</tr>
<tr>
<td>7 Investment (in year)</td>
<td>8,9%</td>
<td>6,6%</td>
<td>6,4%</td>
</tr>
<tr>
<td>8 Fixed assets (year end)</td>
<td>37,0%</td>
<td>37,8%</td>
<td>39,6%</td>
</tr>
<tr>
<td>9 Working capital (year end)</td>
<td>17,8%</td>
<td>17,8%</td>
<td>16,2%</td>
</tr>
<tr>
<td>10 Sales (per employee)</td>
<td>181.829</td>
<td>193.782</td>
<td>199.251</td>
</tr>
<tr>
<td>11 Added value (per employee)</td>
<td>92.287</td>
<td>101.057</td>
<td>104.203</td>
</tr>
</tbody>
</table>

* (EBIT = earnings before interest and tax)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td>-3.7%</td>
<td>-4.3%</td>
</tr>
<tr>
<td>Added value</td>
<td>4.3%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Personnel costs</td>
<td>-0.4%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Depreciation</td>
<td>2.3%</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Other costs excl. raw materials</td>
<td>-4.4%</td>
<td>19.7%</td>
</tr>
<tr>
<td>EBIT*</td>
<td>19.9%</td>
<td>-16.4%</td>
</tr>
<tr>
<td>Investment (in year)</td>
<td>8.7%</td>
<td>18.4%</td>
</tr>
<tr>
<td>Fixed assets (year end)</td>
<td>-14.0%</td>
<td>-5.0%</td>
</tr>
<tr>
<td>Working capital (year end)</td>
<td>16.8%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Sales (per employee)</td>
<td>3.1%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Added value (per employee)</td>
<td>7.6%</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

* (EBIT = earnings before interest and tax)
## FPE Benchmark 2003 IV

### % Change Ratios

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Raw materials</td>
<td>-0.9%</td>
<td>-2.8%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>2 Added value</td>
<td>0.9%</td>
<td>2.7%</td>
<td>0.3%</td>
</tr>
<tr>
<td>3 Personnel costs</td>
<td>-0.9%</td>
<td>-0.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>4 Depreciation</td>
<td>-3.3%</td>
<td>38.7%</td>
<td>-1.6%</td>
</tr>
<tr>
<td>5 Other costs excl. raw materials</td>
<td>1.9%</td>
<td>-13.5%</td>
<td>0.4%</td>
</tr>
<tr>
<td>6 EBIT*</td>
<td>7.0%</td>
<td>42.2%</td>
<td>4.2%</td>
</tr>
<tr>
<td>7 Investment (in year)</td>
<td>35.9%</td>
<td>-26.6%</td>
<td>-2.4%</td>
</tr>
<tr>
<td>8 Fixed assets (year end)</td>
<td>-0.5%</td>
<td>2.3%</td>
<td>4.7%</td>
</tr>
<tr>
<td>9 Working capital (year end)</td>
<td>-12.2%</td>
<td>-0.2%</td>
<td>-8.7%</td>
</tr>
<tr>
<td>10 Sales (per employee)</td>
<td>2.9%</td>
<td>6.6%</td>
<td>2.8%</td>
</tr>
<tr>
<td>11 Added value (per employee)</td>
<td>3.8%</td>
<td>9.5%</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

* (EBIT = earnings before interest and tax)
European market for flexible packaging multilayers
> estimated 15 billion m2
> estimated between 50 - 100,000 different structures

FPE survey: some preliminary results:
- covered 4,2 billion m2 = 30%
- top 30 substrates families cover 89% market
- 13% scope Plastics Dir. vs. 75% scope of Super Reg.
- 24% contain alu / 14% contain paper / 6% both
- 65% contains printing inks / 33% on outside
The End

More information on

www.flexpack-europe.org

Thank you for your attention!

Questions?