“Market Trends and Dynamics in the Printing Industry”
What are the Key Drivers for Change?

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Business Development
Agenda

- Introduction
- Global Printing Market
- Printing Market Dynamics by Region
- Asia Printing Markets 2013 – 2018
- Print Technologies
- Most critical impacts to drive change in Printing Industry
- Key drivers for change
- Q & A
Océ, a Canon Group Company

Leadership in digital printing and document management
Corporate profile: Canon - Océ

**Leader in professional and consumer imaging**
- Founded 1937, HQ in Tokyo, Japan
- Top 3 position in US patents
- One of the best known global brands with rank 30 in Interbrand ranking
- Revenues: $46 billion per year
- ~200,000 people worldwide
  - 87,000 people in manufacturing (44%)

**Leader in printing and document services for professionals**
- Founded 1877, HQ in Venlo, The Netherlands
- Member of the Canon Group since 2010
- Revenues: $1.8 billion per year (Production Printing Products only)
- ~3,800 people worldwide
  - ~1,600 people in R&D
  - ~1,300 people in manufacturing
  - ~900 people in other departments
Global printing industry market 2013
Total market size: 898 billion $

Asia represents 39% of global printing industry market

Graphic applications make up about 57% of global printing market

Source: PIRA: The Future of Global Printing to 2018
Global printing industry market 2013
Total market size: 898 billion $

Graphics market represents about 57% of printing industry market

Publishing, Advertising and Commercial are almost equal in size
Global printing industry market size 2008-2018

- PIRA forecasts globally a slightly declining graphics market
- Growth is driven by packaging segments

Source: PIRA: The Future of Global Printing to 2018
PIRA forecasts positive global growth mainly due to dynamics of Asian and LatAm markets.
- EMEA and NOA printing markets are slightly declining
- Graphic applications are loose heavily in Western Europe and US
- Growth in packaging throughout the regions
- Eastern Europe, Africa, Middle East: small but showing growing potential

Source: PIRA: The Future of Global Printing to 2018
Asia printing markets 2013 - 2018

Total market size 2013: 349,6 billion $

Total market size 2018: 427,5 billion $

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Share</th>
<th>CAGR 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>210,4</td>
<td>7,8%</td>
</tr>
<tr>
<td>Japan</td>
<td>108,3</td>
<td>-1,5%</td>
</tr>
<tr>
<td>India</td>
<td>32,5</td>
<td>5,7%</td>
</tr>
<tr>
<td>Korea</td>
<td>19,1</td>
<td>1,1%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>11,7</td>
<td>2,0%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>14,5</td>
<td>6,8%</td>
</tr>
<tr>
<td>Other Asia</td>
<td>31</td>
<td>4,9%</td>
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- China and Japan represent 73,2% of total Asia printing market
- 7,8% CAGR in China until 2018 while Japan Printing Market is expected to decline
- Significant growth in many of the other Countries in Asia expected

Source: PIRA: The Future of Global Printing to 2018
Asia printing market size by application
Development 2013-2018 (w/o packaging & labels)

- Commercial and advertising printing are most important print markets and promising
- Publishing markets show considerable decline
- PIRA forecasts significant growth for transactional and security print

Source: PIRA: The Future of Global Printing to 2018
Printing technologies World and Asia
Printing equipment sales and development 2013-2018

Growth rates machine sales by printing technology **worldwide**

- Offset: -1.6%
- Other conv.*: -0.9%
- Inkjet: 9.0%
- Electrophotography: 3.0%

Growth rates machine sales by printing technology **in Asia**

- Offset: -1.7%
- Other conv.*: -0.3%
- Inkjet: 10.8%
- Electrophotography: 4.2%

- Offset is shrinking – digital printing grows at high pace
- Digital share 2013 in machinery sales is 18,4% worldwide while Asia reports a share of 27,3%
- Inkjet exhibits higher growth rates than any other print technology

* Gravure, flexo, screen, incl. pre- and post processing

Source: PIRA: The Future of Global Printing to 2018
Critical impacts to drive change in GA-Industry

- Competition with online media
- Saturated markets
- Price competition
- Carbon footprint
- Industry consolidation
- Digital printing capabilities
- Declining run length

Sources: Océ, Canon, Metropolitan Group

Percent of U.S. households taking weekday newspaper
# Key Drivers for Change

## Changed Customer Requirements

<table>
<thead>
<tr>
<th>Clients</th>
<th>Requirements</th>
</tr>
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<tbody>
<tr>
<td><strong>Shorter product lifecycles</strong></td>
<td>Faster turnaround</td>
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<tr>
<td><strong>Fragmentation of consumer interests</strong></td>
<td>More but smaller jobs</td>
</tr>
<tr>
<td><strong>Tighter budgets</strong></td>
<td>Increased productivity</td>
</tr>
<tr>
<td><strong>Global, targeted, multimedia communications</strong></td>
<td>Expanded services with web &amp; print</td>
</tr>
<tr>
<td><strong>Competition</strong></td>
<td>Stronger client relationships</td>
</tr>
</tbody>
</table>

Due to shorter print runs and tighter deadlines, demand for digital printing is significantly growing.

(Source: NAPL)
Key Drivers for Change
Key Applications driving the Transformation

Transaction Printing

2012 - 2018

- Offset pre-printed forms
- Digital overprints mono
- Leaflet, promotion offset printed

2012              2018

- Plain paper solution
- Full digital color
- Target marketing, customer relevant promotion

Overall print volume is declining, due to paperless payments. Amount of digital color pages will increase, mainly through target marketing activities.
Key Drivers for Change
Key Applications driving the Transformation

Direct Mail

- 2012
- 2018

- Offset printed and personalization with digital overprinting / imprinting
- Plain paper solution
- Full digital color
- Full personalization

Source: Caslon

Overall Direct Mail spending will decrease, but a high growth in digital color volume is forecasted → customized Direct Mail.
Key Drivers for Change
Key Applications driving the Transformation

**Books**

- **2012**
  - Most books offset printed, few start with digital production
  - E-Books widely accepted for paperbacks

- **2018**
  - Declining offset volumes, use of digital printing for monochrome and color prints

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**Source:** Caslon

Total book print volume will fall significantly over the next five years. E-books will have a dramatic effect on printed sales of mass market paperbacks, resulting in more digital print volume.
Reference Sources

- Pira: „The Future of global Printing to 2018“
- WAN-IFRA: „Digital Printing for Newspaper“
- IT-Strategies: Research on Emerging Print Markets“
- Pira: „The Future of Digital Print for Packaging to 2018“
- Pira: „The Future of Folding Cartons – Market Forecast to 2018“
- Interquest: „The Direct Mail Market“
- Info Trends: „The Production Color Inkjet Market 2013“
- Info Trends: „Substrates and Inkjet – The move toward higher Quality Output“
- PRIMIR: „The Evolution of general Commercial Print – Implications for the Future“