Future of the **North American Corrugated Market**

Corrugated Market Overview

- $33B industry that grew from 2013-2017 at ~1.5-2.5% (CAGR)
- This CAGR is expected to continue through 2022
- Today, there are approximately 340 companies operating just over 1,100 facilities
- Segment of most rapid growth is Ecommerce at 3-4%

Industry is growing at a healthy pace and will continue to do so

Corrugated Products

- POP Share of Corrugated Mix is in decline in NA (Packaging growing at its expense)
- Product Customization is a key Trend in the Corrugated sector in NA today
  - Promoting growth in the sector as a whole and generating more printing opportunities
- RRP is growing, in particular in the Food & Beverage segment
  - No issues with rub-resistant inks
  - Offline Finishing may grow as a result, but this is likely a temporary trend
  - 60/40 split of Flexo and Litho for RRP, but Litho share likely to grow as graphics improve

Flexo more than good enough to deal with RRP graphics requirements today

Presses & Graphics

- Today, Flexo presses account for about 85-90% printing volume
- Digital presses make up <1% of printed corrugated ➔ minimal growth expected over next 5 years

- While demand for high-end graphics is growing for certain brands, today's Flexo technology is more than good enough to meet the demands brought about by this trend

Flexo will continue to dominate in Corrugated over the next 5 years

Presses & Graphics

- Direct Post-Print accounts for 95% of Corrugated printed volume, with the remaining 5% split between Direct Pre-Print and Litholamination➔Post-Print will remain dominant
- Litholam likely to experience some growth at the expense of Pre-Print, in part driven by RRP
- Water-based inks will continue to dominate the Corrugated scene, despite the potential growth of Radiation-cured inks
- Offline Die Cutters / Finishing machinery may grow as a result of the RRP trend over the next 5 years, but this may be a temporary trend➔Inline will remain the standard

Direct Post-Print, Water-based Inks and Inline finishing will remain standard

Environmental Trends

- Lightweighting is an ongoing effort not unique to the next 5 years
  - Thinner liners can prohibit certain high-end graphic printing
- Recyclable barrier coatings are growing at the expense of wax-based alternatives
  - However, no unmet need has been reported in terms of today's printing inks
- Recycling rates do not appear to be increasing overall in NA, while there does not appear to be a clear press-related unmet need with regard to printing on post-consumer materials

Current environmental trends are not promoting a need for change in printing equipment

About This Study

Roughly 90% of all products in North America are delivered or transported in printed corrugated boxes at some point in their life cycle making corrugated the largest sub-segment in the packaging industry. Given the size and growth of this subsegment, APTech, with the support of the market analysts at Dynovel, is providing its members with this detailed look at the corrugated market as it pertains to the printing industry in North America. This study identifies trends through 2022 by providing an overview of the current state of the industry, sizing the North American market, and providing insight into growth areas & opportunities available.

Scope

- Geographical Scope: North America (mostly US and Canada)
- Industry: Corrugated Packaging Market, including post- and pre- print segments
- Trends: Past, Current, and Future
- Research: Primarily Quantitative

Overall Themes

- Lightweighting vs. Heavyweighing
- Ecommerce
- High-End Graphics
- Environmental Impact
- New Uses/Products for Corrugated