



2018 GLOBAL ENVELOPE REPORT



THE POSTAL ECOSYSTEM AND THE ENVELOPE

This report covers developments in 2017 and 2018 and the changes that have come to the envelope manufacturing industry.

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GLOBAL ENVELOPE ALLIANCE

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The Postal Ecosystem and the Envelope

How our world is being reshaped

Introduction

This is the 12th report of the Global Envelope Alliance (GEA) on the trends and technologies reshaping the world of the envelope. This report covers developments in 2017 and 2018; more than any other previous report, this year's review underscores the changes that have come to the envelope manufacturing industry. In 2007, when we first started this report, our market was 30 percent larger than it is today. There are three forces shaping the structural decline in envelopes:

- The emergence of the Internet as a global force for e-commerce growth.
- The reshaping of the envelope manufacturing industry as e-commerce has reshaped our businesses.
- The reshaping of the Posts on which we depend away from letter mail and toward e-commerce activities.

In order for our industry to continue to prosper, we must slowly move to recognize and endorse these changes, or fall victim to them. You will read in this report that the industry can be a player in this new world but it must also protect the traditional market for envelopes by closely working with the Posts to insure that letter mail is considered a partner in the e-commerce revolution and not a victim of that revolution. We can and will prosper, if we pay attention to the changes and act on them.

Digital is Reshaping the Postal Industry

There are many powerful trends reshaping our industry. Many Posts are allowing innovation to reinvent the post and the packaging/parcel business. Letter mail is also being reshaped as part of this change, but largely in the area of direct mail, while transactional mail is being left to market forces and or abandoned altogether.

There are eight essential technologies – which will be explained later in this report – that are designed to enhance the customer experience with mail, provide new operational flexibility to the Posts, bring in new competition, and reduce the costs of delivery, all surrounded by a data management system. Customer privacy has again become a core issue; getting the customer's consent to use his/her data has become part of our legal and regulatory framework.

The Posts are experiencing a declining volume of physical mail and low utilization of their physical assets. Much of this is caused by users moving to digital communications for letter mail, and by advertisers moving to online media such as Google AdWords, Groupon and Facebook. Changing mail flows result from multiple secular trends. Broadcast media and mass mailings are becoming interactive and personalized. Digital bill presentment is moving online. Mobile devices enable individual tracking and broader reach regardless of location. Power is shifting from senders to receivers as information

overload reduces the effectiveness of un-targeted communication and as screening technologies let recipients choose which communications they will receive, and when and where.¹

Venture capital is starting to come back into the global postal marketplace with new start-ups focusing not only on domestic markets but also on the growing trend in international direct mail and delivery. In 2013, venture capital only invested \$266 million in these start-ups in North America; by 2017, investment had grown past \$2 billion.²

Postal services and their customers are embarking on three new strategies that have an impact on these changes:

Strategy 1 – Defend the core business and keep it profitable. Posts are spending a great deal of money to enhance direct mail but only as it relates to e-commerce. They are not spending money on transactional mail, which they see as a declining segment. Posts increase the postage for transactional mail in order to keep the profitability and do not care about the negative volume effects.

Strategy 2 – Grow your parcel business. Since the early part of the last decade we have seen Posts spend time and a great deal of capital growing their parcel business, now in several nations exceeding 10 percent annual growth. It is important to note that in some nations the parcel business is flat, but in many nations it continues to grow.

Strategy 3 – Diversify selectively. These posts are diversifying into downstream delivery activities, supply chain ventures, the management of merchandise returns, and networking with non-traditional delivery providers to the extent their market regulator will allow. Many of the start-ups are focused on new market analytical tools, such as crowd sourcing technology and also insuring that delivery can occur any time on any day.³

So what we are seeing are two forces that are polarizing the delivery market today. The global direct market is emerging, while at the same time hyper-local delivery is taking place. What are the trends shaping these pressures?

- Increasingly, customers are shopping beyond their borders – the ubiquity of e-commerce is leading customers to shop beyond their borders, and as a result, there is significant growth in cross-border packages and letter volumes. Posts were caught unaware of this trend and are now scrambling to catch up. Customers have become less concerned about where goods come from and more interested in how they are priced and when they will arrive.⁴
- Much of the merger and joint venture transactions over the past several years have occurred outside the domestic countries of the companies involved, as firms move closer to

¹ Parker, Geoffrey and Van Alstyne, Marshall, Tulane University and Boston University/MIT research scientists, *A Digital Postal Platform: Definitions and Roadmap*, MIT Sloan School of Management, 2017, pp. 2-3; research sponsored by the International Post Corporation.

² Accenture Consulting, *The New Delivery Reality*, 2017, p.7.

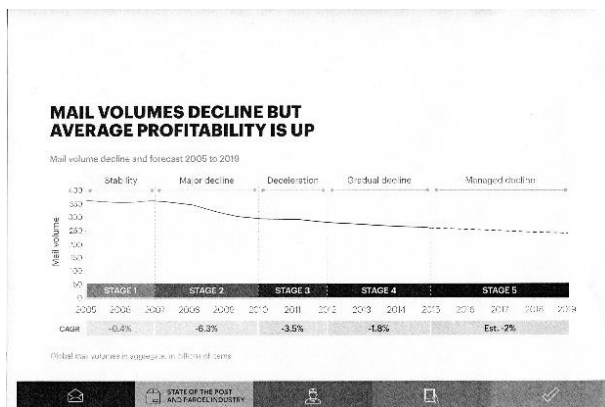
³ Accenture Consulting, p.7.

⁴ Accenture Consulting, p.10.

the consumer and improve their e-commerce capabilities, acquiring warehouses, software systems, and new fulfilment technology.⁵

- The battle for the last mile has become fierce, regardless of the country. We are all in a battle for the doorstep as not only online retailers, but Posts themselves battle for the hearts and minds of the customer. This will soon come to countries that retain their postal monopolies as more and more products move from monopoly protection to competitive. We will see a time in the next decade where more revenue for Posts will derive from non-lettermail products than lettermail, and in some cases international direct mail, which will grow.⁶

It is interesting to note that parcel volumes are growing but pricing power is declining. Postal revenue per package is flat globally and continues to decline. It is marketplace dominance that is impacting financial results. According to Accenture research, 98 percent of retailers use at least one marketplace as a channel. Over 80 percent of online retailers receive at least 40 percent of their revenues from their e-commerce activities and in the top three global markets, the value growth in General Merchandise sales has been 48 percent since 2013.⁷



So what about mail volume?

The chart on your left from the latest Accenture study shows what is happening to mail volume over time. Today the world sends 100 billion fewer letters than a decade ago and is declining on average of two to three percent each year. Consistent transactional mail decline has been offset by small gains in advertising or direct mail volumes. This trend is creating a significant problem for the Global Posts. Many postal operators have benefitted from strong mail

profitability and if you look across the globe, that profitability is now 0.8 percent.

The postal operators have responded to this trend by streamlining and modernizing activities, thus improving their margins on each mailpiece. However, some of these margins are the result of dramatic price increases and have led postal operators to test the outside bands of mail elasticity.⁸

So if you follow this chart to 2019 or 2020 in the case of Global Postal lettermail volume, we are talking about total lettermail volume being in the range of 300 to 315 billion pieces. This is well down from the 400 billion pieces we started with when we first wrote this report. This also means casting this

⁵ Accenture Consulting, p.10.

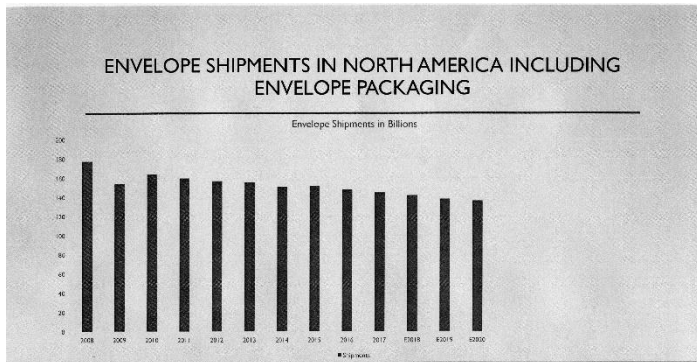
⁶ Accenture Consulting, p.10.

⁷ Accenture Consulting, p.15, ct.

⁸ Accenture Consulting, p.18, ctio.

projection forward we could reasonably see a consistent decline in lettermail volume of 2.5 percent per year through 2020, and even as much as 3 percent beyond 2020.

The European market, outlined in a Copenhagen Economics study commissioned in 2017 by the European Federation of Envelope Manufacturers, has much of the same trend. Letter mail volumes declined 20 percent from 2010 to 2015, and envelope volumes declined by slightly more, 30 percent from 2010 to 2015.⁹



The latest data that we have on the North American market for envelopes and packaging is on your left. At the end of 2017, the market was at 157 billion envelopes and packages, but we are also anticipating continued declines in the market. Like lettermail across the globe, the value-per-M of envelopes has slightly increased, while the costs for component raw materials (paper and film) are also

increasing. The envelope manufacturing industry is heavily influenced by the cost of the raw materials we use and later in this study we will discuss the market outlook for those materials.

There are a great number of actions that we can take!

It is easy to say, let us give the bank the keys to the plant and walk away. Yet, what we are seeing is just the opposite in many mail markets. Companies are reinvesting in new plants and equipment to give themselves a better competitive advantage in the market. Other companies have consolidated operations, closed plants and received a new infusion of capital as a result of their activities. Some companies have diversified their operations into new businesses, moving away from the classic envelope model. Other companies are forming coalitions to take on the competition and slow the volume of diversion. A few companies are simply closing up and ceasing operations since they cannot find a buyer for their equipment.

There is no one size that fits all. All paths to riches are unique, yet the only way to address the future is to change, a change that will include product diversification. Diversification could mean entering a new market that represents new learning experiences for the envelope manufacturer. There is a downside. Diversification does drive growth, but it also tests profitability. So before you jump, find out more about what you are jumping into.

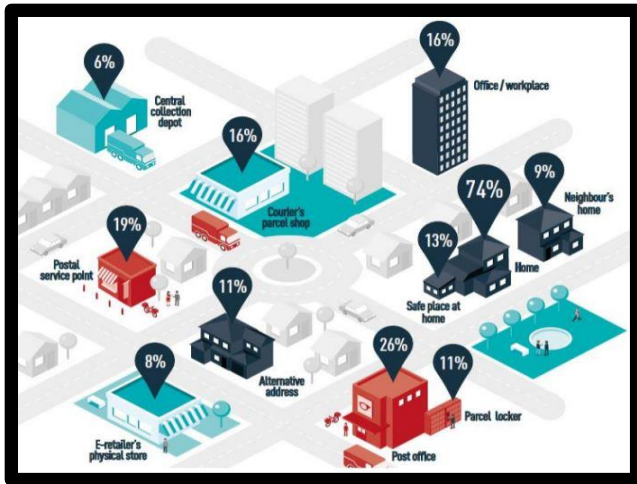
If you think for a moment that the situation in Europe or in the Asia Pacific Region or North America is unique, it is not. There may be different markets and Posts, but the trend line for lettermail continues at present in the downward direction. We are taking action to slow this trend and have done so in a number of markets, but the general direction is the same. The value of the average mailpiece is growing,

⁹ European Federation of Envelope Manufacturers (FEPE), *The Future of the European Mail Market*, December 2017, p.2.

but the quantity is declining. A number of envelope converters have entered the packaging market; some have even developed a new name for their company to better reflect their focus on packaging. However, the heart and soul of this business is the envelope and we do not see that changing any time soon.

Envelope 2.0

Envelope 2.0 is a program GEA established two years ago to study the use of the envelope in the emerging e-commerce market. Klaus Schulz of GEA spearheaded some work with the International Post Corporation (IPC) to better define this market and look at some of the products that would be used in this new market. Mr. Schulz then used the IPC research data to overlay products that we produce today in our industry and their use in the e-commerce market. Envelope 2.0 stands for e-commerce delivery into the letterbox or mailbox in North America.



The graphic at your left is taken from IPC's 2017 e-commerce study. This study surveyed 28,000 e-commerce customers in 32 countries, finding that home delivery of packages is now preferred by 74 percent of respondents. A related UPS study showed that 51 percent of its respondents preferred orders delivered to the home. Over 51 percent of these respondents reported that the package they received was under 0.5 KG and 39 percent of the transactions were valued at \$31, 25 euro or 131 Yen, so light weight objects with smaller dollar values. So why would these items not be put in a large format envelope and placed

into the letterbox or mailbox in North America?¹⁰

¹⁰ Schulz, Klaus, Global Envelope Alliance, *Envelope 2.0*, pp.6-10.



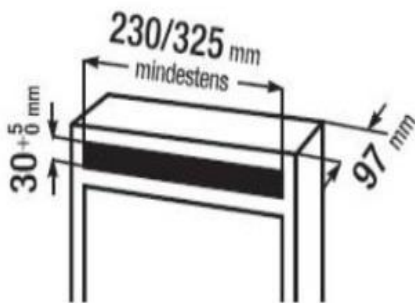
Mr. Schulz has transposed the height, weight and price values on a common array of envelopes the industry already produces. As you can see from the chart at your left, everything from clothing, to books, to electronics, to cosmetics already being shipped today in corrugated boxes could easily fit into envelopes the industry already produces.

The research GEA (Schulz) and IPC have accomplished (May 2018) looks at a dynamic merchant platform where there are two functional areas where the envelope may have value. They are the choice of delivery and the management of the return of merchandise.

However, before we go further it is important we establish a few parameters. The European Union assumes that cross-border postal items which are over 20 mm thick contain goods other items of correspondence, whether handled or not by the universal service provider.¹¹

Mr. Schulz will tell you that a letter should fit in a letterbox (mailbox in North America) and if it does not, it is a parcel, not a letter. And that there are two types: letters with documents and letters with goods. Royal Mail (UK) names these letters with goods “letter-boxable parcels”¹², reporting a strong growth in letter-boxable parcels from Amazon.

This is new ground for many of us in the envelope industry as the Posts have looked to shape and weight to define whether it is a letter or parcel. So before we could begin looking at products, we had to first look at the letterbox.



There is a European Letterbox Standard. That standard, which is a CEN standard, is known as DIN EN 13724 and shows that the height of the mail slot must be 30 mm, the width of the letterbox must be 97 mm and the width of the opening must be 230/325 mm. The picture at the left depicts the standard.¹³

North America also has mailbox standards, as do many nations across the world. You can find them by just going to the Internet and typing in size requirements for the mailbox. The USPS has two sizes for most mailboxes: No. 1: **Approximately 19 inches long by 6 ½ inches wide by 8 ½ inches high**; No. 2: **Approximately 23 ½ inches long by 11 ½ inches wide by 13 ½ inches high**. Please note that these are under revision as the USPS moves to more cluster boxes in new residential areas and apartments, so No. 2 would be the most current size. I

¹¹ Regulation (EU) 2018/644 of the European Parliament and of the Council of 18 April 2018 on cross-border parcel delivery services (paragraph 16)

¹² Royal Mail H1 2017-18 Analyst Presentation, p.17

¹³ Schulz, *Envelope 2.0*, p.14.

measured the mailbox on our porch and we are No. 2, and we do receive quite a few soft sided packages in our letterbox.

Now that we have the dimensions of the letterbox and the mailbox sorted, how do we address this market? Mr. Schulz is quick to state that e-commerce will not wait for you; you have to figure out a strategy to get into this market.



The larger e-commerce players are listed by region in the graphic on the left. In the past, most have mailed their goods in a plastic bag or box, but this practice is changing. Global concerns about the environment is now moving these retailers toward sustainable packaging. That does not necessarily mean envelopes, however.¹⁴

E-traders are interested in their workflow, sustainability of their products, and an open side product (closing flat on the broad side of the package). They want merchandize to be returned in the same envelope in which it was originally shipped, and they are very concerned about ease of use. There are a number of companies in our industry that are already making products for this segment and a few that are making products for the larger retailers. But again, we are in a market where the corrugated box is still king.

Managing the Returns

The challenge with online retail is the management of the return. In 2008, EMA was working with the Escher Group in Cambridge, Mass., to develop a prototype package for GAP. We created a video for EMA members focusing on the management of the return. About one-third of all merchandise ordered at that time was wrong size/wrong color, especially when it came to childrens' clothes. So we created a send and return envelope with a shipping label inside and an easy to access website to manage the return.¹⁵

Recently, the Office of Inspector General of the USPS produced a report, RARC-WP-18-008, entitled *Riding the Returns Wave: Reverse Logistics and the USPS*. The report found that in 2017 between \$113 billion and \$132 billion of online purchases were returned.¹⁶ Online purchases are three times more likely to be returned than items purchased at a retail store. These returns are a large challenge to e-retailers, but there is a process to manage them called reverse logistics. To control the costs of retail, e-retailers are looking at several new strategies:

¹⁴ Schulz, p.16.

¹⁵ Report of the Intelligent Mail Working Group, EMA Foundation, 2008.

¹⁶ Office of the Inspector General USPS, RARC WP-18-008, *Riding the Returns Wave*, April 30, 2018, p.1.

- Retailers with an existing presence have embraced omni-channel returns, allowing returns of online purchases to be made at existing brick and mortar stores.
- New technologies such as automated parcel lockers and smart phone apps are also creating a more seamless environment.
- Overcoming the high costs of returns may be a strategic opportunity for mailers. In 2016, the USPS processed 148 million packages that were returns. If the USPS is to manage these costs, there needs to be better alignment with other carriers, reverse logistic providers, and maybe even packaging options.¹⁷

GEA believes that by working through the Posts and going to e-commerce events, envelope companies will not only gather insight on products, but also potentially identify customers. There are literally thousands of small retailers selling on the web; it takes some research and a great deal of effort, but a customer list can be created. GEA and EMA are not in the business of generating customer lists, each manufacturer will have to do that on their own. Do not expect an easy time of it because some of your fellow competitors are already in the market. GEA is conducting additional research with IPC that will be made available to all EMA and GEA members when completed.

The Eight Key Technologies

As mentioned earlier in this report, there are eight essential technologies that will matter the most to business over the next decade according to PriceWaterhouseCoopers.¹⁸ Consultants analyzed over 150 emerging technologies and determined that the following ones will be the most important to business in the years ahead:

1. **Artificial Intelligence** – Software algorithms are automating complex decision-making tasks to mimic human thought, processes and senses. AI is not a monolithic technology and is a subset of machine learning. The technology focuses on the development of computer programs that can teach themselves to learn, understand, reason, plan, and act when blasted with data. Machine learning carries enormous potential for the creation of meaningful products and services, including: hospitals using a library of scanned images to quickly and accurately detect and diagnose cancer, insurance companies digitally and automatically recognizing and assessing car damage, and security companies trading clunky typed passwords for voice recognition.
2. **Augmented Reality** – Augmented reality is a graphics and/or audio “overlay” on the physical world that uses contextualized digital information to augment the viewer’s real-world view. AR-enabled smartglasses help warehouse workers fulfill orders with precision, airline manufacturers assemble planes, and electrical workers make repairs. The power of bringing information to the point of action in a seamless, unobtrusive matter is critical to our future. This blending of the physical and virtual world is cracking open a new realm for businesses across the board to explore.

¹⁷ OIG USPS, *Riding the Returns*, p.2.

¹⁸ Eckert, Vicki Huff, *What are the essential eight technologies?*, PriceWaterhouseCoopers, 2016, p.6.

3. **Blockchain** – A blockchain is a distributed electronic database or, more broadly, an electronic ledger that uses software algorithms to record and confirm transactions with reliability and anonymity. The record of events is shared between many parties and information once entered cannot be altered, as the downstream chain reinforces upstream transactions. Blockchain has the potential to usher in an era of autonomous digital commerce.
4. **Drones** – Drones vary greatly in their capability, depending on their design. Some drones need wide spaces to take off, while quadcopters can squeeze into a column of space. Some drones are water-based. Some are operated and navigated via remote control, while others are fully autonomous (via onboard computers). In June 2016, the U.S. Federal Aviation Administration cleared a path for commercial drone use, establishing safe-use rules that include airspace, speed, pilot certification, and other guidelines for operators. It was a watershed moment for the enterprises that will benefit the most from drone-based data collection. Companies are using drones for a wide range of reasons, including surveillance, sport, cinematography, and delivery.
5. **Internet of Things** – The Internet of Things (IoT) is a network of physical objects – devices, vehicles, appliances – embedded with sensors, software, network connectivity, and computer capability, enabling them to collect, exchange, and act on data, usually without human intervention. Industrial IoT refers to its use in manufacturing and industrial sectors, or Industry 4.0. IoT adds sensors to people, places, processes across a value chain to capture and analyze information to advance the goals of the organization.
6. **Robots** – Robots are machines with enhanced sensing, control, and intelligence used to automate, augment or assist human activities. The robot market, which has grown quite large for industrial applications, is poised for radical growth in a broad range of service applications. These applications are transforming manufacturing and non-manufacturing operations with new capabilities that address the challenges of working in changing, uncertain, and uncontrolled environments, such as alongside humans without being a danger to them.
7. **Virtual Reality** – Virtual reality is an example of creative destruction. It abolishes logistical limitations and makes anything possible. In a computer-generated simulation of a three-dimensional image or environment, viewers can use special equipment to interact with the simulation in realistic ways. The Gaming and Entertainment industries are obvious proving grounds for Virtual Reality. However, VR has the potential to transform many other industries as well, especially in the realm of experiential training, where workers can be thrown into hazardous, difficult, or cost-prohibitive situations without the intense risks associated with these activities in the real world.
8. **3D Printing** – 3D printing creates three-dimensional objects based on digital models by layering or “printing” successive layers of materials. 3D printing has the potential to turn every large enterprise, small business, and living room into a factory.

These eight technologies will influence business models and the competitive landscape for years to come. We feel that it is important to think of these technologies in the context of our industry as we ponder its future.

New Postal Portals Pull It Together

Many of the Global Posts are now building their own e-commerce platforms and are closely linking their corporate platforms with platforms in the private sector. The idea is to create a seamless customer interface from order to shipment to receipt and return. This is an area that would be best deemed under construction, but it is changing the postal experience for many users of the mail. Keep in mind that these platforms not only handle packages, but lettermail too. This is a gradual trend, not an overnight development, so there is much to learn on all sides. What is happening is the creation of a “postal ecosystem” that defines customer values and creates a learning platform that grows with the experience of the customer. The following are some key insights in platform design:

- Great platforms beat great products. The clearest example of this is Apple, which became valuable because it developed a great platform to sell its products.
- The overall ecosystem around the platform makes the platform work. So one has to understand and appreciate the building blocks of these platforms.
- The platform must have standards to provide clarity for how components of the platform interact.
- The platform must have rules that define how various parties interact.
- Governance must establish responsibility and accountability. Remember that communities interact with these platforms.
- Network effects from both volume of users and volume of content creates a virtuous circle. If your platform crashes your business stops.
- A closed architecture may be more profitable for short-term gains, but limits the size of your platform in the long run. Apple learned this the hard way in the 1990s.
- The more commoditized the service/solution, the more open the platform must be.
- A proper functioning network rewards participants for the value they bring and fosters creativity and innovation across the ecosystem.¹⁹

These are just a few of the key lessons learned from prior platform developers that have relevance for all of us as we move forward to develop platforms ourselves or use the platforms of others.

What About the Millennials?

Millennials, those aged 18 to 34, have captured a great deal of our attention over the last several years. We have learned that Millennials use mail and other postal services, but their wants and needs are different than their elders. One thing is that Millennials check their mail less frequently than older generations, but their overall satisfaction with the Posts they use follow older generations. Millennials generally want more convenience and customization and have created a revolution in self-service.²⁰

One interesting development that is new this year is age alone may not be as strong a predictor of mail use as with past generations. Research is showing that engagement with mail varies according to

¹⁹ Parker and Van Alstyne, *Digital Postal Platform*, 2017, pp.4-5.

²⁰ Office of Inspector General USPS, *Millennials and the Mail*, RARC-WP-18-011, July 20, 2018, p.11.

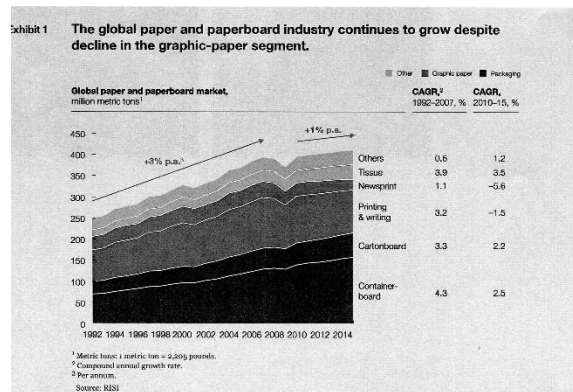
household living arrangement. Those who live with a partner, and especially those with a child, are generally more engaged and interested in new services than those living with their parents, or with living with roommates.²¹

Here are some of the top line points we have found:

- Different age cohorts have similar perceptions of the brand – most age cohorts like the posts that they use.
- Millennials check their mailbox less frequently and are more digitally engaged.
- Personalized mail engages Millennials.
- Millennials prefer online bill payment but they like getting a statement in the mail.
- Millennials are responsive to marketing or advertising mail. They like coupons.
- Trust between sender and recipient is important to Millennials.²²

Paper and Print and the Impact of Digital Commerce

If you think the paper industry is going to disappear, think again. Graphic papers are getting squeezed, but there some major transformational changes occurring in the industry overall that give it a new platform for growth.



The chart on your left comes from a McKinsey & Company study on pulp, paper and packaging trends over the next decade. While the study stops in 2014, carrying it forward to 2020 presents the same trends. Printing and writing papers are slowly declining, carton board and containerboard are growing with Internet commerce, and the paper industry is making a strategic shift into these markets.²³

However, there are a few subtle changes within the overall markets. In North America we are seeing a significant increase in containerboard, a very modest increase in the production of uncoated freesheet papers after an adjustment in production capabilities, and a dramatic increase in coated. In Western Europe, there have been slight increases in containerboard and uncoated woodfree, and larger increases in coated. Asia has seen larger increases in containerboard, a decrease in uncoated woodfree papers, and a jump in coated woodfree papers. Keep in mind that this data is about one-year-old. However, it is reflective of McKinsey’s analysis of growth prospects in markets.²⁴

²¹ OIG USPS, *Millennials and the Mail*, RARC-WP-18-011, July 20, 2018, p.20.

²² OIG USPS, *Millennials and the Mail*, p.8

²³ McKinsey & Company, *Pulp, paper and packaging in the next decade: Transformational change*, 2017, p.2.

²⁴ McKinsey & Company, *Pulp, paper and packaging in the next decade*, p.5.

Packaging papers are seeing modest growth of about two percent across the globe. Woodfree graphic papers are seeing a small decline to flat growth.²⁵ According to McKinsey, graphic papers, particularly newsprint and coated papers, but also several areas of coated papers, are going to continue to see declines in demand and a pressure on the mills to restrict production. McKinsey also feels that we are likely to see continuing machine conversions into packaging and specialty papers as well as more innovative and structural moves, including innovation in distribution and the supply chain. This turbulence in graphic papers has spilled over into the packaging and tissue segments.²⁶

The digital world is unfamiliar growth territory for the paper industry, but it is also unfamiliar for the players in the graphic arts industry. Keep in mind that these are global changes, not simply regional changes.

Changes in the Paper Market

All of this rolls together into a global paper market that is going through a great deal of change at the moment. Here are some top line points for your consideration:

- Uncoated freesheet or woodfree demand has returned to a historical level as a result of the improvements in the global economy. This means that demand is declining by 3.3 percent and there is a per-capita consumption decline. BUT...
- Capacity reductions are adding up. There have been shifts of uncoated freesheet/woodfree into containerboard and in some cases mills have closed as a result of poor profitability or marginal production capability.
- Coated paper producers have put their coaters back on line and have shifted back to coated papers, thus reducing uncoated freesheet/woodfree production.
- Input costs have risen dramatically (pulp and raw materials), and the shortage of transportation has also increased costs.
- The uncoated freesheet/woodfree operating rates are increasing and inventories have fallen; thus a tighter paper market has emerged.²⁷

Overall trends do not totally explain markets. Here are some of the major market developments by geographic region:

Asia

There are the same supply shortages of paper that are being seen in other markets. In May, Chinese coated and uncoated woodfree paper prices both turned downward due to weak demand. Uncoated woodfree paper saw its first decline since the beginning of the year because of the slower market. Uncoated woodfree paper exports from major Asian suppliers decreased by two percent between March and April. Of all of the suppliers in the Asia Pacific region, Indonesia is still a major exporter of

²⁵ McKinsey & Company, p.5.

²⁶ McKinsey & Company, p.6.

²⁷ Data from RISI, Pöyry Consulting and others, 2018.

uncoated woodfree paper, providing about 52 percent of the total Asian uncoated woodfree exports for the first half of 2018.

In the Asia Pacific region, values for uncoated woodfree paper have been soft, but September may see a turn upward influenced by the back to school season in many markets in Asia. It is difficult for any analyst to forecast demand, but based on the information reviewed it should be fairly steady with paper values still at a higher level than last year.²⁸

Europe

The General Data Protection regulation in Europe that went into effect this year will influence the way thousands of companies conduct their marketing activities, which will impact paper demand. Market conditions for uncoated woodfree papers in Europe have not changed very much. According to the latest statistics from Euro-Graph, European uncoated woodfree demand only declined by 1.4 percent in April, reducing the demand loss to 4.1 percent overall over the first four months of the year. Digital processes will continue to erode demand growth in Europe in the coming years. Half of all European adults currently use Internet banking, which is twice the level of 2007. Online banking has reduced the amount of paper used to print bank statements and invoices. However, the overall paperless movement has slowed in other sectors. The demand for uncoated woodfree paper is projected to decline at a steady three percent rate per year between 2018 and 2020.²⁹

United States

Demand in the United States for uncoated freesheet grew about one percent in the second quarter of 2018 and was down only marginally for the first half of the year. This is quite an improvement from the six percent decline in 2017 and the four percent drop in 2016. The demand decline was larger than normal in 2016 and 2017 as the market experienced supply disruptions from import tariffs that caused warehouses to empty out.

The sharp decline in mill inventories we are seeing in 2018 is reflective of the tight market for paper. However, operating rates have been in the 91-92 percent range, which is a normal level. Most of the difficulty in getting paper is focused in the roll offset area for two reasons. First, the third quarter is a busy printing season in America, so demand is seasonally high. Second, the supply of roll offset paper from coated freesheet mills is now very limited, and unlike cut size copy paper, there is only a small quantity of offset imported. Finally, the significant price increases in this sector are liable to dampen market demand before the market returns to normal later in the year. We also must remember that there were several shutdowns/conversions of uncoated freesheet mills in North America that have impacted the conditions we are currently experiencing.³⁰

There is no sense that this will change anytime soon. We may see an allocated paper market continue for the near term.

²⁸ Asian Pulp and Paper Monitor, RISI.

²⁹ Paper Trader Europe, RISI.

³⁰ Paper Trader North America, RISI.

So how does this translate into the graphic arts industry?

Well, business is not too cold, but it is also not too hot, and it is not just right. Through the first half of 2018, the printing industry saw flat to modest growth. Some was created by the vacuum left by mid-sized printers that left the market and some was generated by unique segment growth. About 30 percent of printers saw their business grow, about 48 percent saw it holding, and 21 percent saw it declining.³¹ About 26 percent of printers reported jobs increases, 55 percent reported job decreases, and 19 percent reported job losses.³²

It is interesting to note that the high performing group reported profitability increases, but most saw no increase in profitability and/or a decline in profitability. Like in the envelope manufacturing industry, we are all seeing smaller jobs and a definitive shift to digital printing for more jobs. The other interesting factor is capacity. The industry since 1980 has seen operating capacity rates drop. In today's market, if you discount the recession, the general capacity rate is 70 percent on a three-shift by 24-hour basis. The envelope manufacturing industry appears to be doing a bit better than the printing industry, but capacity continues to be a challenge.

There are many changes ahead for our businesses.

1. New software will be required across the board to manage digital print engines that are required in today's market and to interface with the digital print platforms that have come into being in the last three years.
2. Finishing may change as variable data comes into our industry and mere folding is not enough. The graphics on the front of the package have got to match the graphics inside the package.
3. Digital embellishments will be big in the years that come, including printing on digital cut outs, and envelopes with different shapes and content.
4. We will do new things, including:
 - Posters
 - Banners
 - Interior signage
 - Exterior signage
 - Flags
 - Trade show graphics
 - Retail displays
 - Window graphics
 - Backlit graphics
 - Will paper
 - Interior decor
 - Floor graphics
 - T-shirts
 - Caps

³¹ Webb, Joe, and Richard Romano, *What They Think*, 2017 Report with 2018 market assessments from website.

³² Webb and Romano, *What They Think*.

- Tote bags
- And any 3D object that our customers need

As far as the printing industry is concerned, we are looking at an industry that by 2021 will be 5.9 percent smaller than today, but still very much viable. It will be an industry that is more versatile, efficient and uses more Internet sales tools than before. We will all be on platforms and we will all continue to move forward.³³

Listening to the Voice of the Consumer

We have talked about changes in the Posts, the packaging market, the envelope market, and the printing market in this report. We have showed that the paper market is getting tighter and may likely stay that way for some time to come. But what about paper as a platform for growth? Recent research by Two Sides North America addresses this question. Two Sides commissioned Toluna, a global polling firm, which conducted a survey of a 10,700 consumers in 10 countries. The survey covers reading preferences for paper and the frequency of reading, understanding the interrelationship between media channels, attitudes toward advertising and marketing channels, and attitudes toward digital communications.³⁴

Here is what the survey found:

1. Consumers worldwide trust, enjoy and gain a deeper understanding of information read in print, with signs of digital fatigue and concern for electronic security and privacy evident.
 - 61 percent of survey respondents found it easier to track their expenses and manage their finances when such information is printed on paper. In the U.S., the number is 68 percent.
 - 44 percent of respondents would consider switching to an alternative financial organization or service provider if they were forced to go paperless. In the U.S., the number is 57 percent.
 - Approximately half of respondents prefer getting important documents such as tax statements (52 percent) and personal information from doctors and hospitals (49 percent) in print. In addition, 65 percent of respondents from the U.S. prefer to receive bills and statements through a combination of online and print.
2. When it comes to advertising and marketing, print provides more privacy and security.
 - 71 percent of respondents are increasingly concerned that their personal information held electronically is at risk of being hacked, stolen, lost or damaged. In the U.S., the number is 76 percent.
 - 52 percent of respondents say they feel they spend too much time on electronic devices. In the U.S., the number is 54 percent.
 - 68 percent of respondents do not pay attention to most advertisements online. In the U.S. the number is 71 percent.

³³ Webb and Romano, *What They Think*.

³⁴ Two Sides North America, *Print and Paper in a Digital World*, Toluna, 2017.

- Approximately 55 percent of respondents read printed advertising mail at least once per week that is addressed to them and delivered to their home. In the U.S., the number is 63 percent.
- 58 percent of respondents do not trust many of the ads they see online. In the U.S., the number is 59 percent.³⁵

Additional research collected globally says much the same thing. But sadly, in an era when companies are trying to cut costs, consumer needs go unanswered unless there is advocacy on their behalf. That is why Two Sides, PRINT and Keep Me Posted, and the Coalition for Paper Options have become so important. These are global coalitions, but they also focus on the regions from which they draw their membership, with affiliate groups in the Asia Pacific, Europe, and North America.

Direct Mail and the Communications Market

The envelope market has evolved in three primary directions: 1) transactional mail, which is going through a long, slow decline; 2) packaging, which is increasing, but from a small base; and 3) direct mail, which is holding very stable. Each of the major markets across the globe are different and grow and/or decline at different levels. This is especially true for direct mail because it is such a culturally distinct medium. Our objective at this point is to give our readers a brief glimpse of the world of direct mail in 2017 and 2018.

The table below is taken from a number of different sources, but was compiled into the Ofcom *Making Communications Work* report for 2017, which is the latest data we have on the global mail market for lettermail, with parcels separately listed. While there are GEA countries omitted from this list, it is only for purposes of demonstrating the trends across markets.

The U.S. is still the largest mail market in the world, but the European countries together are also a significant market. We have only shown four European countries in this analysis. EMA's data includes Canada and packaging made by envelope producers, so it would be different than this compilation. The advantage of converting everything over to letter mail is that it provides you a great overview of the lettermail market which does include direct mail.

	UK	FR	GER	ITA	JPN	AUS	USA
Letter Mail Volume in Billions	12	12	16	4	18	4	148
Letter Mail Volume Per Capita	178	188	192	63	140	150	458
Parcel Volume Per Capita	33	6	32	6	73	33	41
Letter Mail Revenue Per Capita in Euros	64	103	92	40	72	47	107

³⁵ Two Sides North America, *Print and Paper in a Digital World*, survey excerpts.

Average Number of Items Post Sent Per Month	4.2	4.2	4.1	2.8	2.9	3.1	6.5
Use of E-Commerce (percent)	76	67	67	76	52	69	72

Source: WIK/Ofcom and Ofcom Consumer Research

One can also see that most of these nations have a 70 percent or better e-commerce usage factor so they are very sophisticated and it is one of the reasons that e-commerce is such a strong market in Asia, Europe and North America. Japan, as you can see, is an outlier with a 50 percent penetration rate, but e-commerce is actively growing in Japan.

The United Kingdom and the U.S. have the lowest stamp prices but that is rapidly changing as both move their markets to increase prices. The U.S. is in the middle of a rate examination as part of its postal transformation effort and could move prices upward by as much as 20 percent. Direct mail is growing in Europe, driven by e-commerce activities. Direct mail is relatively flat in the U.S. as the e-commerce market is growing, and the place direct mail will have in that market is still to be determined. In Japan direct mail is growing, but from a very small base. Cultural norms will impact the growth of direct mail in each region.

So what are the big trends in direct mail across the globe?

1. Programmatic Direct Mail

Programmatic direct mail means that companies can use data and technology to build accurate profiles of their audiences (and their actions) and to make decisions about what those audiences should see. Online, this allows companies to target their customers with the right ads, in the right places, at the right time. Applied to direct mail, this means that you can target customers who visit your website with highly targeted and personalized direct mail, based on their online behavior. Given that it is quick (items can be sent out within 24 hours), it makes customers feel valued.³⁶

2. Integrated Direct Mail Campaigns

Marketing campaigns are now being coordinated across multiple channels to provide more touchpoints for the consumer. There are several ways to integrate direct mail into marketing campaigns, including:

- Personalized URLs – the direct mailpiece contains a unique URL for a targeted landing page with exclusive offers.
- QR codes – the customer scans the code with their smartphone to get to the landing page.

Combining this integration with the personalization that programmatic direct mail offers will ensure that campaigns get the best response rate.³⁷

³⁶ Citipost Mail, *Direct Mail Trends for 2018*, Citipost Mail Company, England.

³⁷ Citipost Mail, *Direct Mail Trends*, p.3

3. Dimensional Mailers



Traditional direct mail formats no longer draw the way they used to. Something more has got to be integrated into the product design that provides an interaction with the recipient. Dimensional mail looks different with non-traditional envelopes, envelopes with coupons attached, large size envelopes, and envelopes that have a form cut

out of the shorter side of the envelope.³⁸

There is also a specific challenge with dimensional mailers – they are more expensive and need to be highly targeted. In the U.S., we are working on lower prices for these types of mailers as part of a product development effort with the USPS.³⁹ A few of the technologies that we have presented earlier in this report can also be integrated with the larger format mailpiece.

4. Finishes and Textures

The industry is doing a great deal with new types of finishes. We are learning through some of the neuroscience research we have consulted that touch memory has a strong impact on the human brain, and that different formats, finishes and colors help the brain store messages much better than a website. Textured details such as embossing, debossing, raised ink, soft touch or sandpaper are now readily in use. These details add texture and clarity to the message being presented.⁴⁰

Marketing Practices

Data-driven marketing is beginning to spark a renewal in direct marketing. Earlier in this study we talked about the very significant growth in cross-border mail and packages. But this is creating a challenge. Data privacy has now become a worldwide issue. Data previously sat squarely in the Information Technology Department, but now it is a business-wide issue, and the idea of investing in data puts the relationship with the customer front and center.⁴¹

This move towards “Big Data” is also creating the need corporately to centralize, analyze and commercialize data sets. This has become a global issue with data protection laws in Europe and via a number of different treaties impacting North America and the Asia Pacific Region. Creative marketing has also drawn a great deal of interest from direct marketers who look for trends in short-term response rates and as certain types of direct mail now outperform email marketing. Email can be cheaper, but it is being associated more and more with reduced campaign effectiveness.⁴²

³⁸ Envelope courtesy of W+D North America; Citipost Mail, p.4

³⁹ MTAC Workgroup 188.

⁴⁰ Citipost Mail, p.18.

⁴¹ DM News, article 13037236, *Where Is Global Marketing Going?*, p.2.

⁴² DM News, *Where Is Global Marketing Going?*, p.3.

Content marketing is a growing global trend. The challenge with content marketing across the globe is producing engaging content. Marketers in the UK, U.S., and Australia have showed that nine out of ten organizations are using content marketing in the form of social media, blogs, and articles on websites. Language and cultural barriers do have an impact and so content marketing in mainland Europe is different.⁴³

So what about the regional markets?

America

Direct mail is not dead in the U.S., but its volume has declined over the last decade. However, many marketers are adding direct mail back as postal volume declines and there is less mail in the mail box. Personalization and relevance is the key to direct mail effectiveness. The ROI continues to remain strong when direct mail is delivered to a highly targeted audience. According to DMA, 70 percent of its annual survey participants believe direct mail is more personal than digital marketing. Targeted and relevant catalogs – which are sent to smaller lists – are growing. Over 121.2 billion pieces of mail were received in U.S. households in 2017, according to the USPS Household Diary Study. Over 100.7 million adults made a purchase from a paper-based catalog in 2017.⁴⁴

The volume of direct mail did go down to 149.4 billion pieces in 2016, but direct mail as a percentage of all mail went up. Over 9.8 billion catalogs were mailed in 2016. Financial services are still among the heaviest users of direct mail, followed closely by consumer packaged goods. Direct mail response rates are still strong, with house files at 5.3 percent and prospect lists at 2.3 percent.⁴⁵

So summing up America, print is as popular as ever and response rates continue to stay relatively stable. According to DMA, customer response rates increased in 2017 by an impressive 43 percent, but prospect response rates more than doubled. The change is that more and more physical mailings are paired with digital intelligence.

Europe

Direct mail in Europe has declined slightly, just as it has done in the U.S. The big DM countries are France, Germany, Italy, Netherlands, Switzerland, and the UK. The average decline in addressed advertising mail has been six percent across Europe, with a few nations growing dramatically. But advertising mail remains important. Posts in Europe are looking to make advertising mail more appealing to clients even with strict competition coming in from market competitors. Some are rebranding and packaging advertising mail services and others are targeting fast growing segments.⁴⁶

What is driving direct mail in Europe are the same factors driving direct mail in the U.S.

⁴³ DM News, p.5.

⁴⁴ The DMA, *Direct Mail Statistics*, 2017.

⁴⁵ The DMA, *Direct Mail Statistics*.

⁴⁶ Smithers PIRA, *Direct Mail Trends in Europe, 2017*, Presentation to the European Envelope Manufacturers Association, FEPE.

- Better Targeting
- Better Analytics
- Better Design
- Better Offers
- End User Preferences and Experiences
- Multi-channel campaigns
- Costs, data printing and postage
- Measurable returns⁴⁷

So what we are learning across the globe is:

1. Keep direct mail design simple and straightforward – minimalism has a great deal more impact than a busy marketing piece. The images have to be clear and elegant, with text short and maximum use of white space.
2. Big direct mail pieces stand out from the crowd. The larger the more distinct, the more distinct the more recognition.
3. Choose colors wisely – color is everything, and it can make or break good print design. Use your palettes to the best advantage for your customers.
4. Get creative by adding unique folds to your design.
5. Great envelopes tell a story. Visuals need to be well-paired with content.⁴⁸

There were other trends listed in the article that related more to direct mailers themselves. We determined that they would not be relevant to the needs of our readership. However, footnote 48 will give you the link to the entire article if you would like to read it.

We now move to the issues and observations that have been raised by this report.

Issues and Observations

There are many “take home” observations in this report. However, here are several that truly stand out.

1. **The Posts are slowly moving away from lettermail and more into packaging as the lettermail market declines and the parcel and packaging market grows for the Posts** – Getting the attention of postal executives to take the necessary steps to slow the decline in lettermail volume will be difficult as they see no bottom to the decline. However, many Posts are operating on three key strategies: defend the core business; grow the parcel business; and diversify selectively. As long as a business development strategy falls within these overall goals, the Posts will act to slow volume declines, especially in marketing mail. The overall concern is

⁴⁷ The DMA, *Direct Mail Statistics*.

⁴⁸ Postalynitics, Top DM Trends for 2018, , <https://www.postalynitics.com/blog/direct-mail-marketing-trends-for-2018/>

First Class mail, which is a primary revenue source for the Posts. Each region of the world will be different as it adapts to these changes.

2. **Increasingly, consumers are shopping beyond their borders as e-commerce becomes ubiquitous** - It will pay the industry in the long run to study how it can engage in the e-commerce area to gain volume in the non-parcel market. Direct mail is driving e-commerce and the returns of unwanted orders is a market opportunity for envelope manufacturers. This is not an easy market to get into, but there are opportunities for those companies that are able to do so. The battle for the global doorstep is on and there are opportunities for large format envelopes in that market so the letterbox/mailbox can hold its value.
3. **Lettermail volume is going through a period of structural decline that will last through 2021** – It is difficult to project beyond 2021, but we do feel envelopes will continue to be part of the communications marketplace. Traditional bills and statements will continue to decline across the globe at a minimum of three percent. Younger users of mail are more inclined to pay their bills electronically but still want a statement on paper. Banks and other financial institutions will continue to try to convert the older generation through a variety of tactics, including implied consent, where the failure to respond to a survey or pay a bill on time gets you automatically converted. Right to paper statutes are helping slow the demand decline, but in some nations businesses are ignoring these statutes and moving forward to electronic presentment. To stop this trend, consumers have to complain and they are reluctant to do so.
4. **Direct mail is continuing to hold its own but it has to be integrated with other technologies to continue to have value for the mailer and consumer** – New postal platforms that are being built and have already been developed are providing value to direct mail and continue to stabilize response rates. However, postal tariffs (rates) will impact demand. If tariffs increase too fast, they depress volume. However, the industry does have a strong card to play – the technology of touch and the other technologies described in this paper will continue to add value to paper for the next five years. The world of the intelligent envelope is before us; we must adapt and add these new technologies.
5. **Packaging using large format envelopes does have value for the industry and the industry already has the equipment to produce these envelopes** – The key to getting into this market is creating a favorable vision through the Posts to keep the envelope in the letterbox/mail for small value items (clothing, electronics, cosmetics, and books). There are a number of envelope companies across the globe already moving into this market. It takes work to get into the market and smartness to stay in.
6. **Diversification of your envelope company is critical to your future** – Pure transactional envelope converters will have a problem unless they operate in a market niche or have a technology that differentiates them from their competitors, since we are in a managed decline. Envelope companies are diversifying into packaging, printing, forms, labels, and logistics. This all takes capital to achieve and understanding new markets before you jump into them. But this diversification is taking place and it will continue.
7. **Remember the eight key technologies** – The e-commerce market is looking for vendors who can deploy: Artificial intelligence; augmented reality; blockchain; drones; the Internet of Things (IoT); robots; virtual reality; and 3D printing. If you don't know what these technologies are and how to integrate them into your value proposition, it is important that you find out.

8. **The Posts are creating new software platforms called postal portals** – These portals help the Posts lower the cost of processing and distributing letters and parcels and the eight key technologies listed above will be used in these new portals. The Posts must lower their costs of delivery, and to do so they have to integrate with downstream providers and with their consumers on an upstream basis. Knowing how these portals are used is important.
9. **Millennials will be a strong consumer group that needs to be understood** – To assume that Millennials are like every other age cohort is a mistake. It is important to work with *your* customers to better understand the needs of *their* customers.
10. **Digital commerce is impacting paper and print** – There is no doubt that digital commerce has taken a bite out of paper and printing. Nonetheless, print still has great value and a very long run time. You can learn a great deal from the research generated by Keep Me Posted, PRINT and Two Sides North America. Follow these organizations and their research. EMA, FEPE, GEA, and the Japanese Envelope Manufacturers Association (JEMA) are all involved in them and have links to their websites.
11. **The current demand for uncoated freesheet exceeds supply in many nations** – Tight paper market conditions will continue until the economy changes and/or the business cycle changes. Many UFS mills have converted their lines to other more profitable grades, while others have decided to stay in the printing/graphic arts sector. Your mill representatives and industry trade meetings are the best sources for useful information on the future of key raw materials.
12. **Consumers trust, enjoy, and gain a deeper understanding of information read in print according to Two Sides North America report** – The industry needs to do a better job of selling the value proposition for print and paper to their customers. People like and use paper and that is not coming across in advertising and/or sales materials which industry sales people use to sell their product. Print provides more privacy and security and many consumers are getting electronically fatigued as social media and emails now eat up a larger portion of their working day. The industry has an opportunity to upsell print and they should use that opportunity now.
13. **Direct mail is going through a renaissance** – All of the studies which GEA consulted to prepare this industry summary are showing that e-commerce is driving direct mail and vice versa. Integrated direct mail campaigns are on the rise. Dimensional mailers are getting noticed more often. Finishes and textures get noticed more and data-driven marketing is creating opportunities for small run direct mail which has great value. What we have learned is keep the message simple, go big if you can, colors and finishes sell, and unique folds make your mailpiece stand out. Remember, great envelopes tell a story but pair them with good content.
14. **Envelope manufacturing processes are now having a greater impact on the bottom line** – Envelope companies are re-awakening to the need to manage their production processes and to integrate digital printing into their production. Envelope waste has become an important factor again since waste markets are not returning the same value as in the past. Understanding Lean or Six Sigma process management is critical to future profitability.
15. **Transporting finished products will be an ongoing challenge** – E-commerce growth has created a global shortage of transportation providers and truck drivers. Getting envelopes shipped to consumers will be more of a challenge as this shortage continues. Envelope manufacturers must acquaint themselves with new transportation providers, short haul services, co-leasing arrangements for transportation, and a host of new ideas that will smooth the logistics process of getting finished goods to customers.

16. **Envelope manufacturing is a people business** – The industry is challenged in North America specifically to replenish its workforce. The industry has an abnormally high number of employees who have qualified for retirement but are choosing to remain on a year-to-year basis. In a few cases, there is no one to replace these skills. There are few ready replacements and it is difficult getting good candidates. One idea is to build from within, and for the industry trade associations to create their own virtual training academies with optional on-site programs. The deployment of new equipment, processes, and technology will depend on a workforce that will need to be developed to support the industry.
17. **The industry needs to do more to create working tools that will help companies self-analyze their operations** – The industry has a great need for a new generation of manufacturing analysis tools to help users better understand their operations, from software that helps analyze machinery productivity to hardware that monitors performance. Available tools are often too expensive for small businesses and/or require too much labor to support them. Our industry needs to do a great deal of thinking about production assistance tools that can be used as we move to smaller, more efficient production plants.
18. **The opportunities that digital printing provides the envelope manufacturing industry are still not well known or understood** – Many people have stopped attending trade shows and equipment demonstrations, thinking they are too expensive or unnecessary. Yet we are often accused of trying to sell the “same old thing” to our customers. This report recommends we create an industry-wide manufacturing technical conference that could be held periodically to bring in speakers on topics focused on manufacturers and their employees. Our industry is in great need of a deeper inquiry into processes and procedures from other non-industry manufacturers that can make a difference. The industry can also make better use of distance learning technology, including webinars and simulations that create a cost effective environment for learning. New learning has to be at the core of our diversification efforts as we grow a new industry from the old.
19. **We are not exploiting the opportunities that we have in front of us in global e-commerce which involve envelopes** – Posts are seeing a tremendous pick up in e-commerce related mailings. GEA is studying this trend at the moment and it should be explored in future educational sessions. Cross-border e-commerce is growing and it does include envelopes. There needs to be more research to pick out the market opportunities and to provide future directions for manufacturers to consider.
20. **The future of our industry will be in our ability to reinvent and repurpose ourselves to stay ahead trends, not chase after them** – The industry needs to do more thinking about its future in terms of opportunities for advancement. Too often we think about selling or merging our businesses, and not often enough about how to recreate our businesses. We must program more “thinking time” into our meetings and discussions, and more strategic planning activities to better assess how we are making progress.

GEA hopes you have enjoyed this year’s Global Envelope Report and we always enjoy your comments. Please send them to Maynard Benjamin at mhbenjamin@envelope.org.