M. Holland's 2022 Plastics Industry **Trends & Predictions**

We expect another healthy year for the plastics industry in 2022, with moderating but robust economic growth, along with improvement in resin availability and continuing materials inflation. Supply chain congestion will ease, but manufacturers should expect spot disruptions and elevated costs at least through the first half of the year. We expect improved resin availability to boost exports, but high transportation costs will impact resin imports, particularly from Asia. Staffing will be a major obstacle for the industry, particularly in the logistics sector where the shortage of truck drivers is growing. But if the past two pandemic years have taught us anything, it's to expect the unexpected. The course of the pandemic and surprise weather events can quickly alter the outlook, making flexibility

Dwight Morgan, Executive Vice President, Corporate Development

"It's been a big year for healthcare and, while there have been many advancements and trends within this market, there are two that stand out to me as the most interesting and most promising for the plastics industry. The first is the push toward robotic surgery as

Healthcare

a vital key to business success.

patients started to return to healthcare facilities for non-critical and elective procedures. The second is the market consolidation and increased investment in tech and innovation within the healthcare and medical device space. In 2022, we can expect continued supply chain shortages and more reshoring for medical device OEMs in an attempt to create more security and reliability. I also expect we'll see a greater push for more sustainable materials in healthcare, particularly in packaging, and growth in areas such as chronic illness care, digitally connected patient monitoring devices, and research into new vaccine delivery methods — all of which provide opportunities for plastics materials to shine." Read more <u>here</u>. Josh Blackmore, Global Healthcare Manager

GLOBAL MARKET SIZE PROJECTED MARKET SIZE

\$25.3B

in 2020 with 7.5% CAGR \$54.3B

by the end of 2027

Polypropylene **Polycarbonate**

TOP MATERIALS

Medical Components & Medical Device

TOP APPLICATIONS

Packaging

Predicts:

Sources: grandviewresearch.com, fortunebusinessinsights.com

Minimally invasive surgery (especially robotics), electronic patient monitoring and

novel vaccine delivery development will drive medical plastics applications in 2022.

Sustainability

get louder until more efficient, scalable infrastructure solutions are put into place. In 2022, I anticipate seeing more movement on

policies and regulations, by governmental agencies and industry groups, to inspire products that use recycled or compostable plastics at the beginning-of-life and ensure a more positive end-of-life story. Deeper collaboration is needed with all stakeholders, across the sustainable value chain, to build upon the progress we have made so far." Read more here. **Debbie Prenatt, Market Manager, Sustainability GLOBAL SUSTAINABLE PROJECTED SUSTAINABLE TOP MATERIALS TOP APPLICATIONS**

and support the circular economy, across all market segments.

Source: marketsandmarkets.com

"Sustainability is no longer just a trend — it's intrinsic to the purpose and the future of our industry. Over the course of 2021, we saw

more of the plastic waste that is visible in our environment get called into question. These conversations will continue to grow and

in 2020 with 5.6% CAGR

PACKAGING MARKET SIZE

by the end of 2025

PACKAGING MARKET SIZE

Recycled Plastics

Bio-Based Polymers

Compostable Bioplastics

Specialty Additives 2022 will bring opportunities for innovation on product designs that incorporate

Food & Beverage

Automotive Components

Consumer & Personal Care

3D Printing Filament Predicts: sustainable materials, address the global waste problem, climate change,

M. Holland

Automotive

challenges more manageable. 2022 will be an even bigger year for electric vehicle (EV) development, and plastics will be a big part of creating those vehicles — everything from under-the-hood wiring and battery components to interior and exterior application development. There will also be a push to figure out what happens to those materials and components after the life of the EV expires. OEMs are setting aggressive goals some are looking to use 30% sustainable materials in their vehicles by 2030." Read more here. Matt Zessin, Market Manager, Automotive **GLOBAL MARKET SIZE PROJECTED MARKET SIZE TOP MATERIAL TOP APPLICATIONS** Lightweight

"I was really amazed by the amount of disruption the automotive industry faced in 2021. From the freeze in Texas and all the

supply chain issues, chip shortages and limited material availability, it was a lot for OEMs and Tiers to deal with. There will still

be supply chain issues in 2022, and likely into 2023, but I hope that new capacity coming online in 2022 will help make current

\$51.9B in 2021 with by the end of 2026 13.5% CAGR

\$32.8B

Polypropylene

Furnishings

Interior

M. Holland The EV market will continue to grow in 2022, so wiring, battery **Predicts:** components, and interior and exterior applications will increase.

3D Printing

"Machine speed and accessibility were the two trends I noticed making the most impact in the 3D printing market in 2021. Machine speeds are as much as 10 times faster than previous versions and machine prices are coming down, making it more

economical and attainable for companies to embrace 3D printing applications for manufacturing. We also saw a good deal of

Sources: marketdataforecast.com, grandviewresearch.com

M&A activity in the space this year, and we are likely to see this market consolidation continue in 2022 as companies work to expand their offerings and, in some cases, purchase 3D printing companies to bring those services in-house. Gone are the days

when a 3D printing company can do or make just one thing. There is a shift happening toward full-service offerings — everything from materials and equipment to resources." Read more <u>here</u>. Haleyanne Freedman, Market Manager, 3D Printing **GLOBAL MARKET SIZE** PROJECTED MARKET SIZE **TOP MATERIALS TOP APPLICATIONS Photopolymers** \$698.2M **Industrial Applications** (Top Type)

Sources: marketdataforecast.com, grandviewresearch.com

"In 2021 I saw brands and converters alike make strides in designing conscientious consumer packaging solutions that eliminate

unnecessary packaging while placing a greater emphasis on consumer end-use. This momentum will continue to build in 2022

in 2020 with

28.3% CAGR

M. Holland The 3D printing market will shift toward full-service offerings **Predicts:** and diversify product production capabilities.

by the end of 2026

(Top Form)

Filament

in Automotive &

Aerospace

Packaging

schemes drive forward." **Lindy Holland, Market Manager, Packaging GLOBAL MARKET SIZE TOP MATERIALS TOP APPLICATIONS** PROJECTED MARKET SIZE

and I expect to see packaging brands emphasize creative solutions that contribute toward a more circular economy.

I also think that in various parts of the world, including the U.S., we'll continue to see Extended Producer Responsibility

M. Holland

Predicts:

Wire & Cable

GLOBAL MARKET SIZE

\$10.8B

in 2020 with

4.0% CAGR

\$256.2B

in 2020 with

6.1% CAGR

\$385.5B

by the end of 2026

Sources: marketdataforecast.com, grandviewresearch.com

TOP MATERIALS

Polyethylene

Polyvinyl Chloride

TOP MATERIALS

Polycarbonate

Acrylonitrile

Butadiene Styrene

Nylon

Brands will increase focus on innovative packaging designs

Polyethylene Terephthalate

Polyethylene

Polypropylene

TOP APPLICATIONS

Building &

Construction

Telecommunications

Food &

Beverage

Consumer

Product Goods

push by OEMs for more sustainable material options for fiber optic cables and usher in innovation and technological advancements for fiber density cables that utilize fewer materials and less energy in manufacturing." **Todd Waddle, Director, Wire & Cable**

antennas. I expect telecommunications growth to continue into 2022 and beyond. I also expect that 2022 will bring an even greater

"The most impactful change we saw in wire and cable in 2021 was double-digit growth in telecommunications, including high speed

internet access, which is critical to both residential and commercial infrastructures. This growth was driven by a need to close the

digital divide in the U.S., which subsequently drove a need for fiber optic cables, conduit, connectors, splice kits, amplifiers and

that play into the circular economy.

equipment injection molding tools, which amounted in an increase of 300% in sales for those two segments of the electrical and electronics market alone. In 2022, I anticipate the labor shortage to continue to be a problem, as it has been for years, and as a result,

and sustainability commitments."

\$5.5B

in 2020 with

3.8% CAGR

"The biggest trend in the electrical and electronics market in 2021 was the reshoring of consumer electronics and computer

by the end of 2028

PROJECTED MARKET SIZE

\$15B

by the end of 2027

Sources: transparencymarketresearch.com **Electrical & Electronics**

the need for robotics and robotic manufacturing will increase significantly. I also expect there will be a lot of movement toward

and a high demand for sustainable electrical and electronics materials as OEMs buckle down on achieving their carbon neutral

M. Holland The need for robotics and robotic manufacturing will increase significantly

Sources: grandviewresearch.com

Predicts: in 2022 due to the continued labor shortage and reshoring.

Telecommunications will continue to drive the wire and cable market

in 2022 and there'll be a greater OEM push for sustainable materials.

PROJECTED MARKET SIZE **GLOBAL MARKET SIZE**

Carlos Aponte, Market Manager, Electrical & Electronics

M. Holland

Color & Compounding

GLOBAL MARKET SIZE

\$64.6B

in 2020 with

4.5% CAGR

"In 2021, the color and compounding market saw continued market consolidation and supply chain challenges due to import delays,

PROJECTED MARKET SIZE

\$88.1B

by the end of 2026

Scott Arnold, Market Manager, Color & Compounding

supply and demand imbalances, and producer outages. These supply chain challenges led to delayed services and material shortages for pigments, additives and other specialized resins. Throughout 2022, I anticipate those material shortages to continue, and I recommend that compounders try to plan their material needs six months in advance as a result. However, with the economy looking strong for the next few years, I am also anticipating 2022 will bring increased private equity activity to the color and compounding market, which could bring opportunity for smaller and more nimble start-up compounders."

TOP MATERIAL

Polypropylene

TOP APPLICATIONS

Automotive

Medical

Building & Construction

TOP APPLICATIONS

Computer Equipment

Electrical Enclosures

Packaging Resins and additive shortages will force compounders to plan their purchases **Predicts:** six months or more in advance. More consolidation in the compounding

M. Holland

Rotational Molding "Reflecting on 2021, two trends stuck out most to me. First, market consolidation and continuing acquisitions in the rotational molding

market will continue due to strong private equity holdings.

Sources: grandviewresearch.com, 360marketupdates.com

space. Second, labor issues that drove supply chain challenges with truck availability, extended lead time of secondary services and,

drive an increase in automation — something the market has been talking about for years. Lastly, I hope 2022 will bring some supply

in some cases, slowing of production at some molding shops. The labor shortage will continue to be a trend in 2022 and will help

chain relief to the rotational molding market with new polyethylene capacity coming online from multiple U.S. producers." Bill Christian, Key Account Manager, Rotational Molding

PROJECTED MARKET SIZE

GLOBAL MARKET SIZE \$4.6B

in 2019 with

3.0% CAGR

\$7.7B by the end of 2030

Polyethylene

The continued labor shortage and supply chain constraints will

drive adoption of automation-enabled applications.

Source: transparencymarketresearch.com

TOP MATERIAL

Sports & Recreation

TOP APPLICATIONS

Building & Construction

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