## PACKAGING INNOVATION



March | 2020 BULLETIN



## WHAT'S INSIDE!

The month of **March** saw multiple developments in the **Packaging Innovation trend**:

- The packaging industry experience both positive and negative impacts of the COVID-19 pandemic. The popularity of packaging with protective barrier properties against viruses is expected to rise.
- Compostable packaging segment is highly active in North America and Europe due to the looming plastic ban in Europe by 2021.
- Companies such as Aptar are launching active packaging solution to gain from consumer perception of virus protective properties.
- Established companies such as Nestlé are launching recyclable packaging products and developing their recycling programs.



Global impact of COVID-19 on the packaging industry



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Compostable packaging segment is active in North America and Europe due to increasing impetus on lowering plastic usage

InvisiShield"

Aptar launches active packaging solution - InvisiShield



Gerber launches baby food pouch made of single-material



SPOTLIGHT



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## #COVID-19 #PackagingIndustry

- The COVID-19 pandemic is active on the world stage for a few months. The impact assessed herein are based on FutureBridge's point-of-view, based on talks we've had with other industry insiders and analysis of market developments to date.
- The pandemic offers an opportunity for the packaging industry to increase research and development of antiviral polymers.
- The increased packaged food demand and disrupted supply chain is expected to continue in 2020.
- The survey details on the UK plastic industry provides an insight on the overall effect in the European region, which is severely affected by the pandemic due to lockdowns.
- Research on the viability of SARS-CoV-2 and SARS-CoV-1 on plastic is expected to reduce the usage of plastic in the future.

## Global impact of COVID-19 on the packaging industry

#### Increased usage of packaging

 Both flexible and rigid packaging is experiencing a boost in use due to increased online deliveries and increase consumer demand. Companies such as <u>DS Smith</u> are developing delivery boxes to supply emergency provisions in Europe.

#### Increased hoarding of food products drives demand

 Panic buying of food products is largely responsible for the increased demand of packaged food products.

#### Packaging with barrier protection against viruses stand to gain from the pandemic

• Packaging such as Aptar's <u>active</u> packaging solution – InvisiShield is expected to gain from consumer perception of better barrier properties.

#### Increased waste

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· Panic buying also has lead to increase packaging waste.

#### Disruption of supply chain

 Major <u>producers</u> of polypropylene, which is used to make plastic are situated in the North American and European region. While these regions undergo varied forms of lockdowns due to COVID-19 the supply chain is expected to be disrupted.

#### Long term effects of COVID-19 on packaging industry

- The viruses capability of being viable on plastic and cardboard surface is expected to increase interest in packaging that contain <u>anti-viral</u> polymers.
- The cash incentives are announced by governments of countries such as Indonesia, Singapore, and Malaysia to counter the impact of COVID-19. The incentives are expected to promote economic growth and relive financial stress in some segments.

#### Impact of COVID-19 on the UK plastic segment

Source: Survey on the effects of Coronavirus on the UK Plastics Industry

## 80% companies expected drop in turnover

90% expected impact on supply chain over next 3 months



#### Research

Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1

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**Conclusion**: SARS-CoV-2 is stable on plastic and stainless steel and is viable up to 72 hours on these surfaces. SARS-CoV-1 was stable on plastic upto 72 hours.





### #Biodegradable #Compostable

- Compostable plastics are perceived by consumers to be more sustainable than their nonbiodegradable plastic counterparts.
- Compostable packaging is expected to increase its active due to the European <u>Union</u> ban on single-use cutlery, straws, and stirrers by 2021.
- Plant fiber-based packaging such as cassava starch, sugarcane fiber, and wood fiber allows companies to decrease carbon footprint.
- The servingware segment is increasingly moving towards the compostable trend as consumers are avoiding single use plastic containers.

Compostable packaging segment is active in North America and Europe due to increasing impetus on lowering plastic usage



- Colpac (UK) launches compostable heat seal sandwich pack
- The entire pack can be **recycled** or composted according to EU Directive Standard <u>EN13432</u>. The pack is tamper proof and provides good fiber tear without the presence of plastics.

#### Eco-Products (US) launches compostable servingware

• The foodservice ware is composed of **sugarcane** and are line with **PLA** (Poly lactic acid) material derived from sugar cane, bamboo and other renewables. The product is **soak-proof** and is **compostable**.





#### Schur (Denmark) launches fiber-based Schur Spoon

• The **spoon** is made of **cardboard fibre** and can be delivered folded to consumers. The product is collaboratively developed by Schur Pack Denmark and Schur Technology.

#### Sweetgreen (US) announces compostable bowls without PFAS

• Compostable bowls contain no perfluoroalkyl and polyfluoroalkyl substances (PFAS). PFAS can accumulate and persist in the human body, drinking water, and soil thereby causing carcinogenic and immunological side-effects.





#### Natrellis (US) launches sugarcane fiber-based bowls

• The bowl is **ovenable**, and polyfluoroalkyl substances (**PFAS**) free. The bowl can be utilized for refrigerated, frozen, and prepared foods.

#### Nextek (US) collaboratively develops compostable plastic film – BioFreshPak

• The film is produced from waste **starch from cassava** processing. The packaging slows down moisture loss, increase food stability at high temperatures and is an **alternative** to bio-based polymer films such as **PLA** (Polylactic acid).





#### UPM (Finland) develops wood-based material UPM Formi EcoAce

• The material contains **cellulose fibers** and **PP polymers** from SABIC's TRUCIRCLE. Each tonne of the material save 3 tonne of greenhouse gas emissions.



## #ActivePackaging #RecycledPolypropylene

- Active Packaging that provides protection of food from bacteria, fungi, and viruses are expected to increase in popularity due to the recent COVID-19 pandemic.
- Single packaging material allows for easier recycling. Established company Nestlé is investing in recycling programs to ensure proper recycling channels for their products.
- Nestlé's <u>signing</u> of <u>European</u>
  <u>Plastics Pact</u> is indicative of the company's commitment to make its packaging 100% recyclable or reusable.

#### 01 Mar 2020, Sunday

Aptar launches active packaging solution -InvisiShield

- Utilizes 3-phase Activ-Polymer technology, that releases an antipathogenic agent into fresh-cut produce packaging
   Can protect fresh-cut fruits, vegetables, and seafood from bacteria, fungi, and viruses
- Integrated along with sealed package
  - The agent cannot be detected by consumers and disappears within 24-48 hours of activation

#### Benefits

- The technology has received Generally Regarded as Safe (GRAS) status
- Anti-pathogenic technology helps in increasing the product's commercial viability
- Consumers perceive that active packaging provides preventive measures to ensure food remains uncontaminated.

Read this story

Does not affect the

properties of the

fresh-cut produce

organoleptic

#### 05 Mar 2020, Thursday

Gerber launches baby food pouch made of singlematerial

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#### Features

- 100% recyclable: Through Gerber's national recycling program in partnership with TerraCycle
- Single Material: Made up of polypropylene (PP)





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#### Benefits

- The pouch is launched alongwith provision of infrastructure to ensure recycling channels
- The product is currently available in the US and Finland and is expected to be rolled out globally.
   Thereby strengthening global recycling programs



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