



Industrial Innovations in Food Manufacturing



March | 2020
BULLETIN

WHAT'S INSIDE!

March saw multiple developments in the **food manufacturing** segment with the ongoing **COVID-19 pandemic** affecting every sphere of the segment:

- **COVID-19** has given a major push to **digitalization** that is expected to have **long term impacts** on the industry.
- **Blockchain** is in the fore-front with **Asian governments** providing support to rapidly develop capabilities in the segment to **reduce food related frauds**.
- **Automation** and **digitalization** segments have **increased activity** in the **agri-food supply chain** and **food safety compliance segment** due to increased **safety concerns** in the food industry and **supply chain deficits**.

01



COVID-19 has boosted segments such as **automation, robotics, artificial intelligence,** and **blockchain** in the food manufacturing industry

02



Blockchain is highly active in the **Asian region** with increasing **support** from the **governments** to **reduce food-related fraud**

03



Automation and **digitalization** segment is receiving **increasing investment** as companies move towards **increased automation**

04



Mount Franklin Foods acquires **ARRO Corporation's Food Processing** and Ingredients Division

05



Researchers publish an overview of emerging electrochemical **biosensing techniques** to detect **Listeria monocytogenes** in food samples

SPOTLIGHT

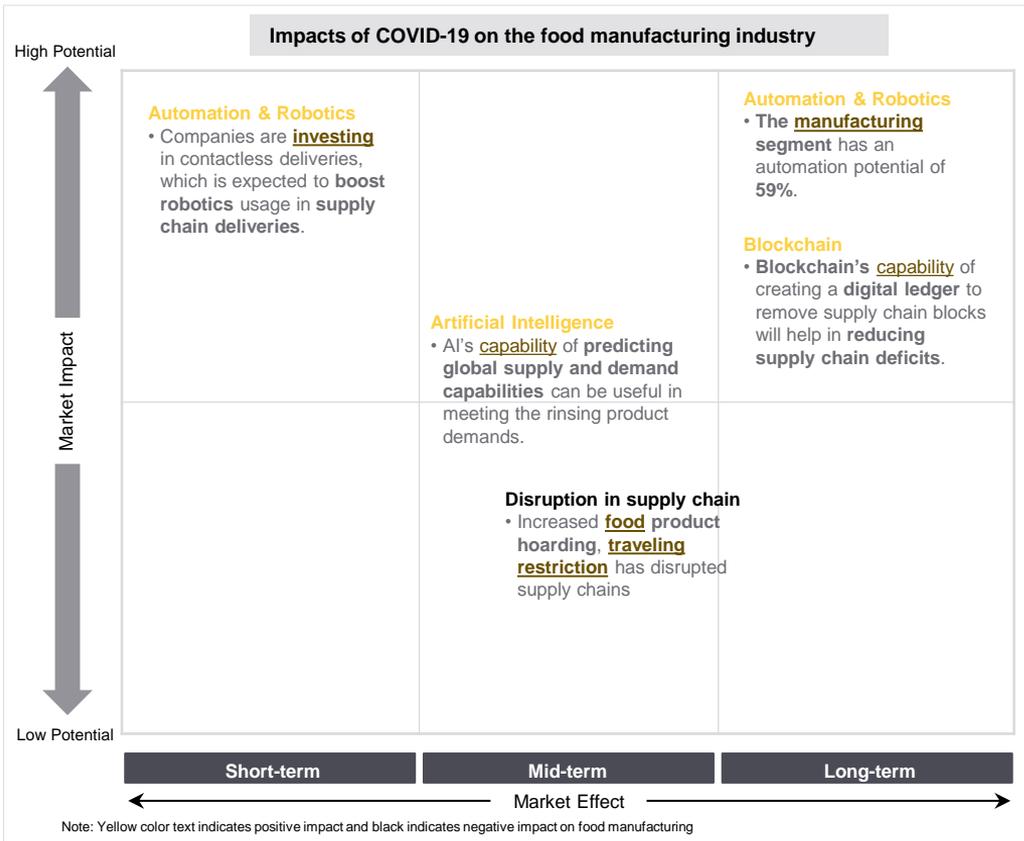
COVID-19 has boosted segments such as automation, robotics, artificial intelligence, and blockchain in the food manufacturing industry

#COVID-19 #FoodManufacturing

- The **COVID-19** pandemic is **ongoing** at the **world stage** and its effects are **liable to change** as the effect curve of the pandemic changes.
- The **frontrunners** of the food manufacturing industry – **automation, robotics, blockchain, and artificial intelligence** have indicated rise uptake across segments.
- The pandemic is expected to push **digitalization** faster in the global market with **developing countries adapting and developing their capabilities**.

*“This (Coronavirus pandemic) is also an **opportunity** to embrace **digitalization** as members of the business sector so as we can **reduce the cost of doing business**. **E-commerce** should be highly considered during this time.”*

- Amelia Kyambadde (Uganda’s Minister for Trade, Industries and Cooperatives)



FutureBridge Viewpoint

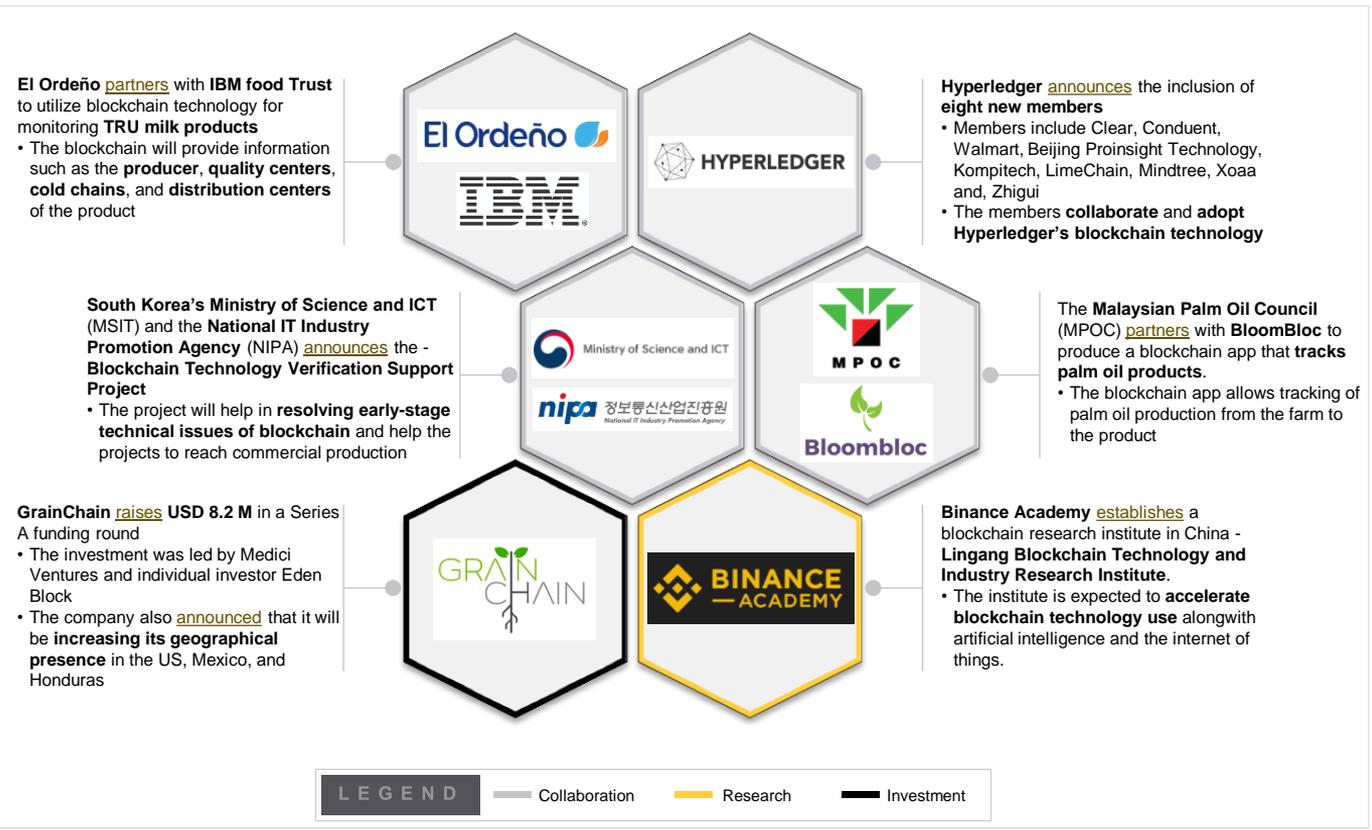
- The **coronavirus pandemic** is **expected** to accelerate uptake of **digitalization technology** across segments. Developing countries are **expected** to build their digitalization capabilities.
- **Countries traditionally importing final consumables** may use this pandemic as an opportunity to **build in-house capabilities**.
- **3D printing technology** is **expected** to rise in popularity and **improve its functionalities** across industries.
- The **cash incentives** are announced by **governments** of countries such as **Indonesia, Singapore, and Malaysia** to counter the impact of COVID-19. The incentives is expected to **promote economic growth** and relive **financial stress** in some segments.

Blockchain is highly active in the Asian region with increasing support from the governments to reduce food-related fraud



#Blockchain #Partnership

- Companies are **partnering** to utilize blockchain technology and invest in **increasing transparency, efficiency and reducing food-related frauds.**
- **Asian and Latin American** companies are increasingly utilizing blockchain and **developing their technology research capabilities.** The increase in blockchain usage is to ensure a **reduction in food-related fraud.**
- Asian governments such as **South Korea** are **actively supporting** blockchain-technology companies to **increase their capabilities.**

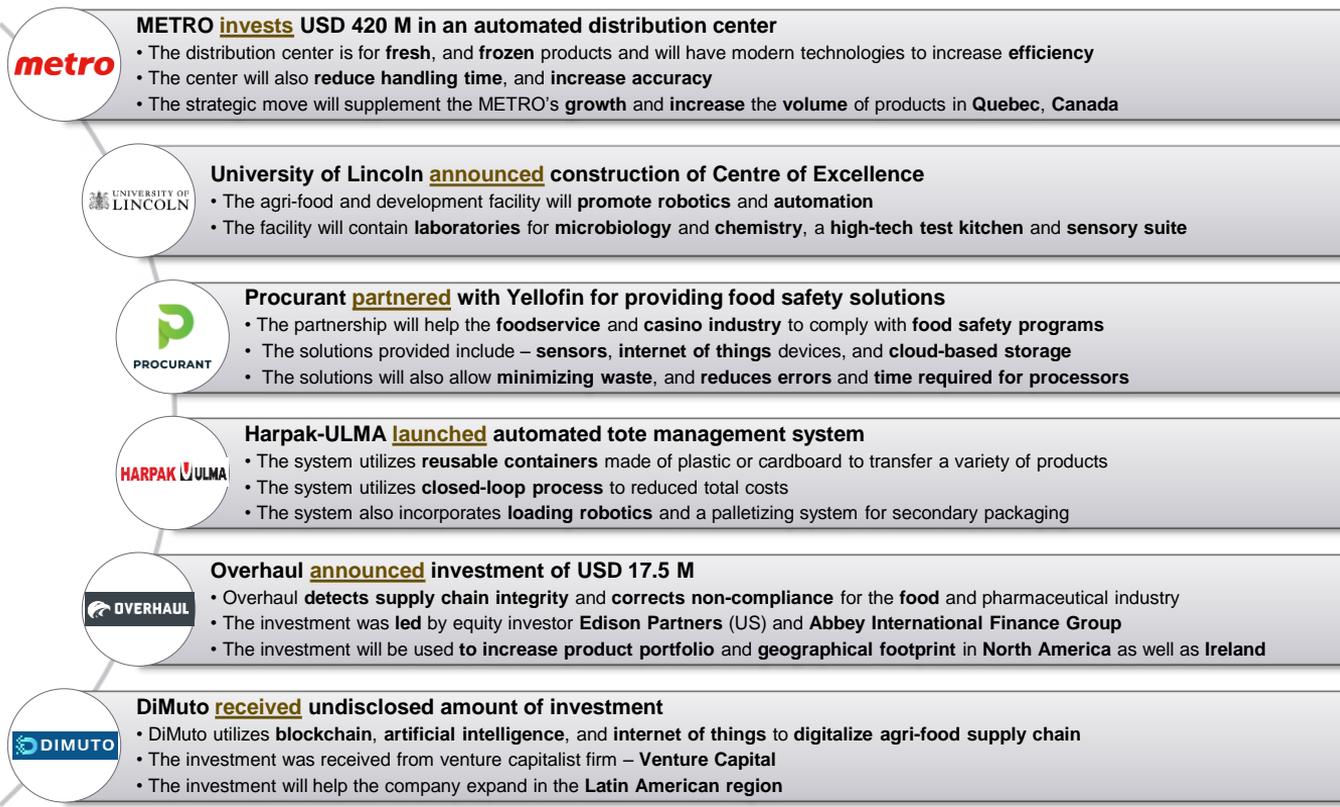




#Automation #Digitalization

- Companies are investing in the **automation** and **digitalization** segment due to **lower human intervention requirements**.
- The increased **digitalization** and **automation** is observed in the **agri-food supply chain** and **food safety compliance** segment.
- **Automation** and **digitalization** is receiving a **higher push** and is **expected to flourish** due to the ongoing **COVID-19 pandemic**.

Automation and digitalization segment is receiving increasing investment as companies move towards increased automation





#Processing #Biosensing

- Companies such as **Mount Franklin Foods** are **acquiring** companies to **increase their processing capabilities**.
- *Listeria monocytogenes* induced food contamination has been in the **forefront** due to the **Enoki** mushroom related outbreak, and the **recall of frozen sandwiches** by White Castle company.
- **Biosensing** techniques provide a **swift analysis** of possible food contamination allowing better **product recall management**.

16 Mar 2020, Monday

Mount Franklin Foods acquires ARRO Corporation's Food Processing and Ingredients Division



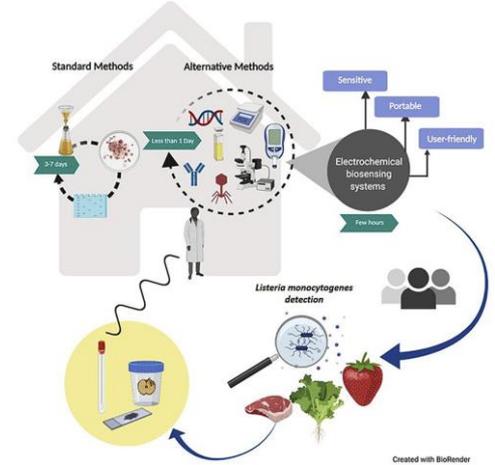
Benefits

- The new company is **renamed** as **Element Food Solutions**
- The acquisition will allow Mount Franklin to **enhance their portfolio**
- The acquisition will provide **packaging solutions** for categories such as bake mix, powdered beverage, cereal categories, etc.

Read this story

27 Mar 2020, Friday

Researchers publish an overview of emerging electrochemical biosensing techniques to detect *Listeria monocytogenes* in food samples



Overview

- Recent studies conducted in the utilization of electrochemical **biosensors incorporate nanomaterials** for sensing
- The **biosensing** methods have advantages such as **increased sensitivity, portability, and ease of use**
- **Single-cell detection** and **intelligent packaging** are considered to be upcoming trends by the overview.

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