

2021 Agri-Food Outlook

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2021 GLOBAL FEED SURVEY

10th Annual

Featuring data from 142 countries



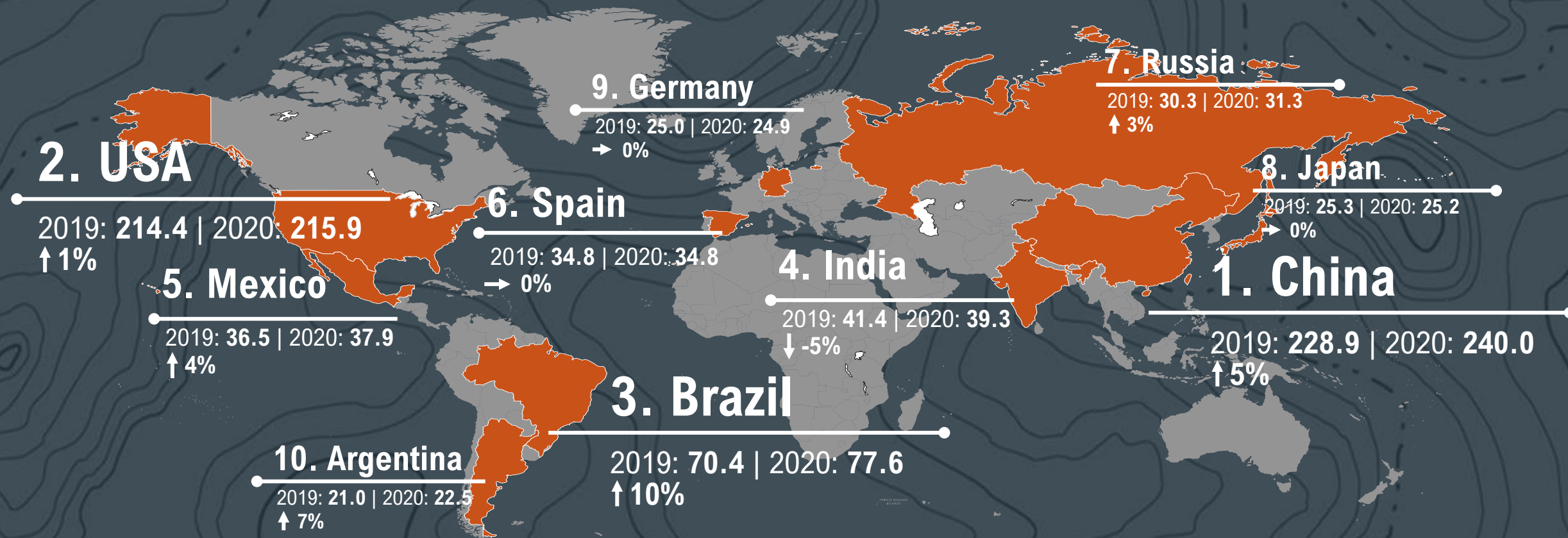
GLOBAL FEED PRODUCTION

Region	2019	2020	Growth
Africa	43.7	43.0	-2%
Asia-Pacific	427.0	433.9	2%
Europe	264.9	261.7	-1%
Latin America	168.9	176.5	4%
Middle East	25.3	24.8	-2%
North America	236.0	237.2	1%
Oceania	10.5	10.4	-2%
Total	1,176.4	1,187.6	1%

**Million metric tons*

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TOP TEN COUNTRIES



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BY SPECIES



LAYERS → 0%



DAIRY → 0%



BROILERS ↑ 1%



BEEF ↑ 1%



AQUACULTURE ↑ 3%

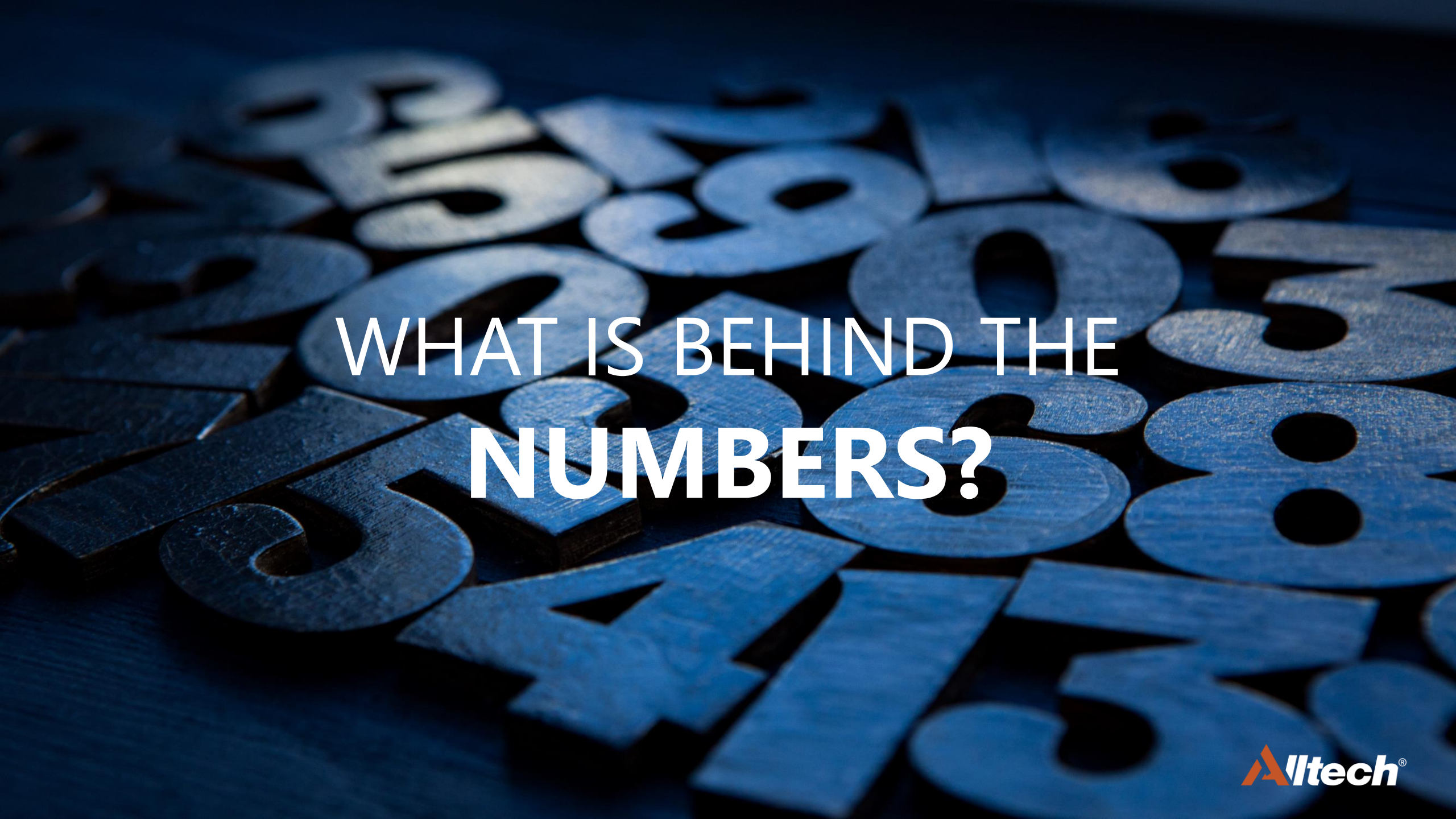


PIGS ↑ 1%



PET ↑ 9%

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WHAT IS BEHIND THE NUMBERS?

5 stories behind the numbers

- 1) China's resurgence
- 2) Shifts in supply chains (Trust-based transactions)
- 3) Rise of e-commerce
- 4) Health as a consumer priority
- 5) The trend of inclusion in business





China has re-emerged as the **world's top feed producer**. Even in the face of disease challenges and lockdown, China's rebound has been faster than expected.

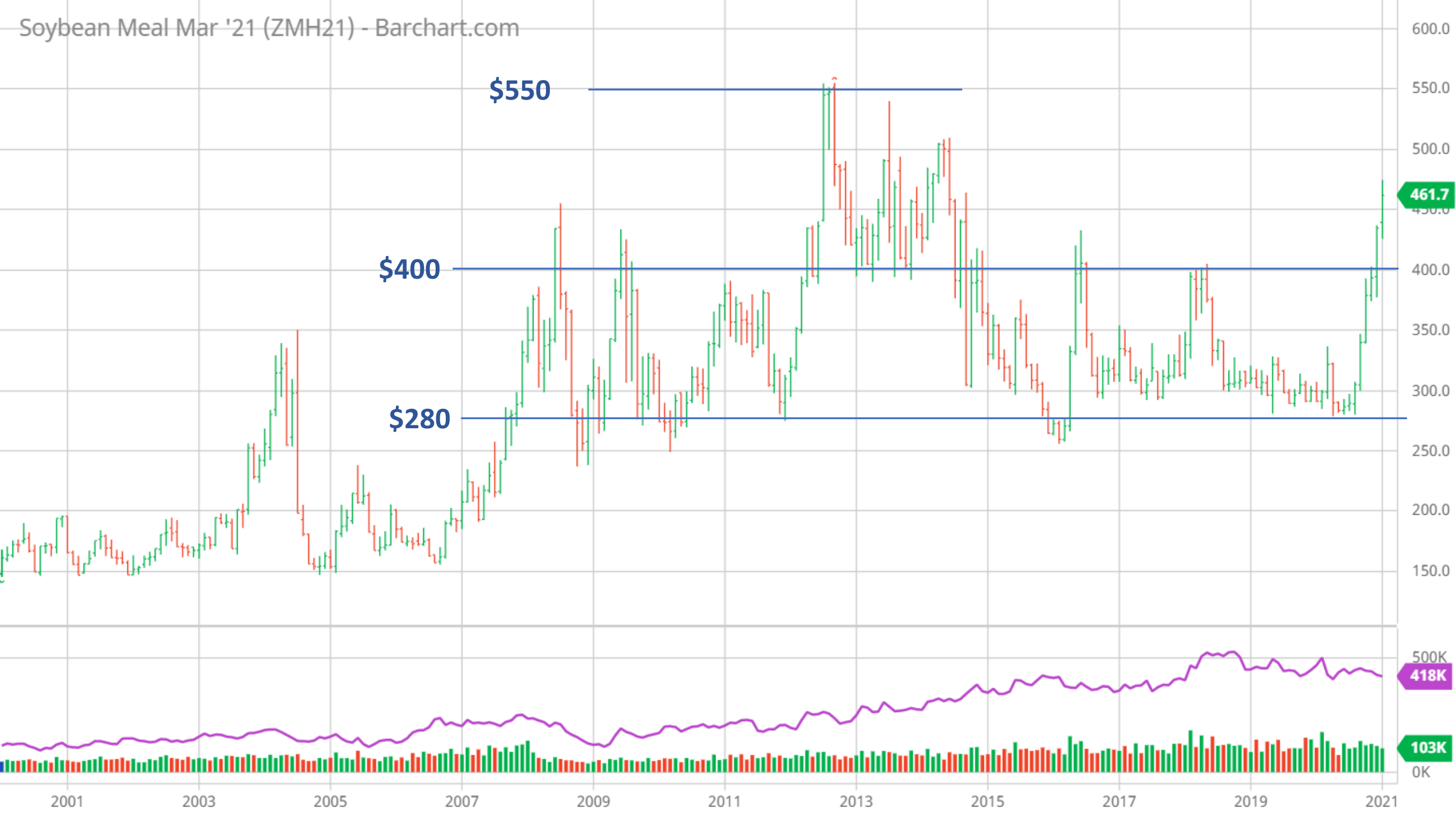
2019: **228.9** | 2020: **240.0**
↑ 5%

CHANGING GLOBAL SUPPLY CHAINS

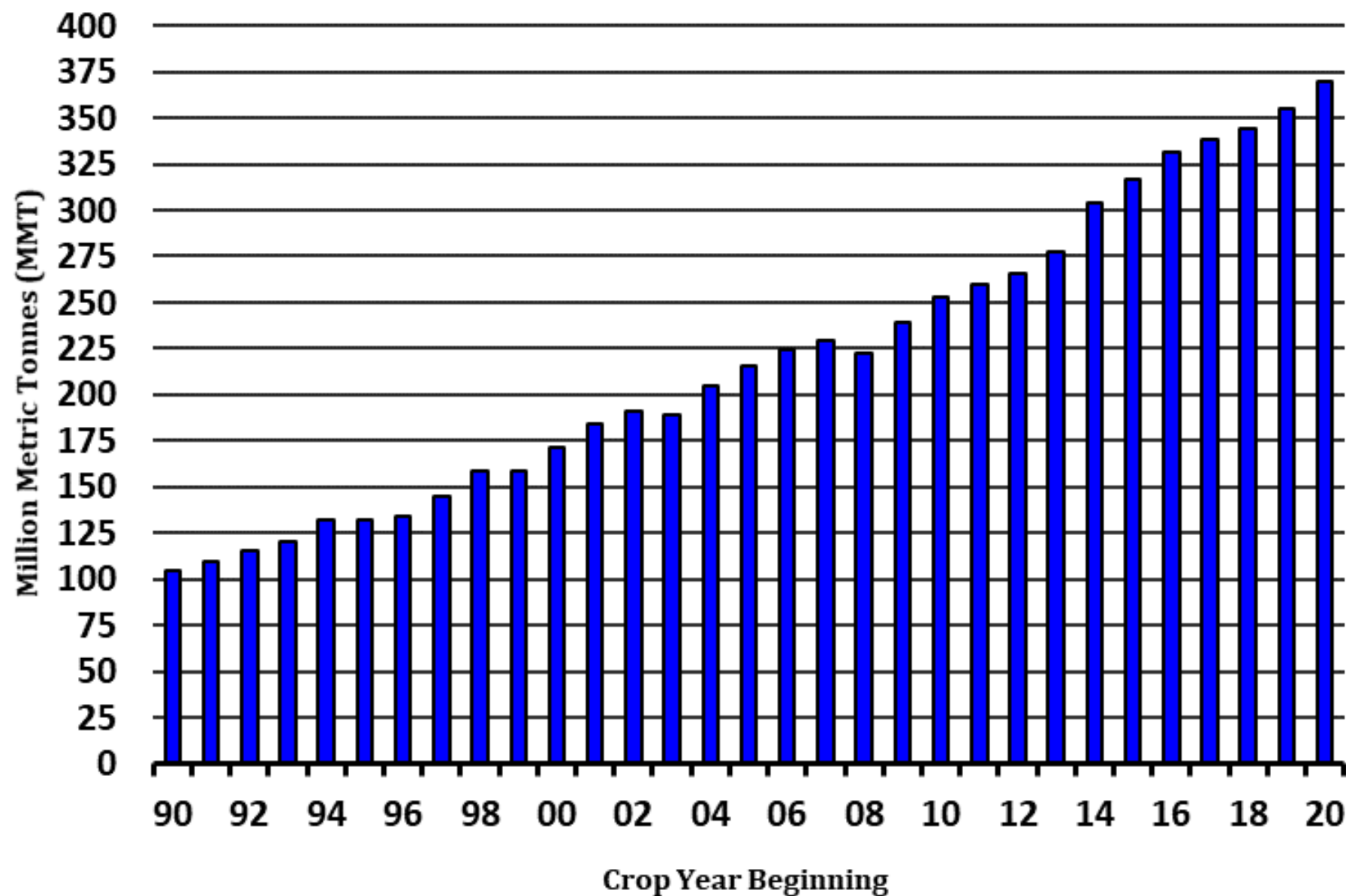


85% of countries reported that the
price of ingredients affected
the industry in 2020

Soybean Meal Mar '21 (ZMH21) - Barchart.com



World Soybean - Domestic Consumption



Most Recent: 369.822 As Of 01/12/2021

The Hightower Report

RISE OF E-COMMERCE





77.4%

*of countries in our
Global Feed Survey
said COVID
moderately or
significantly grew
e-commerce efforts*

54%

said it did so significantly.

HEALTH is
prioritized



A close-up photograph of several hands in business attire (suits and ties) working together to assemble a puzzle. The puzzle pieces are in various colors: yellow, white, blue, and maroon. The background is blurred, showing bokeh light effects from an indoor setting. The overall tone is professional and collaborative.

THE TREND OF INCLUSION IN BUSINESS

Looking ahead to a post-Covid world

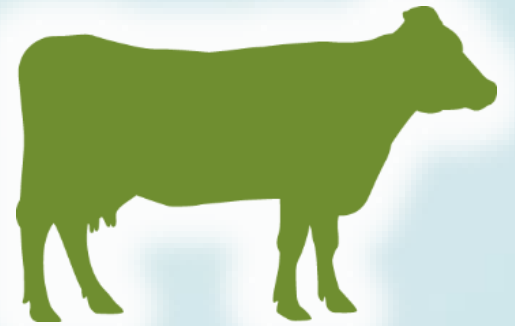
The Opportunity



World population
expected to increase to
9.7 bn by 2050



World demand for food
increase by 50%



**Global milk production
set to increase 580
million tonnes to 1,043
million tonnes in 2050**



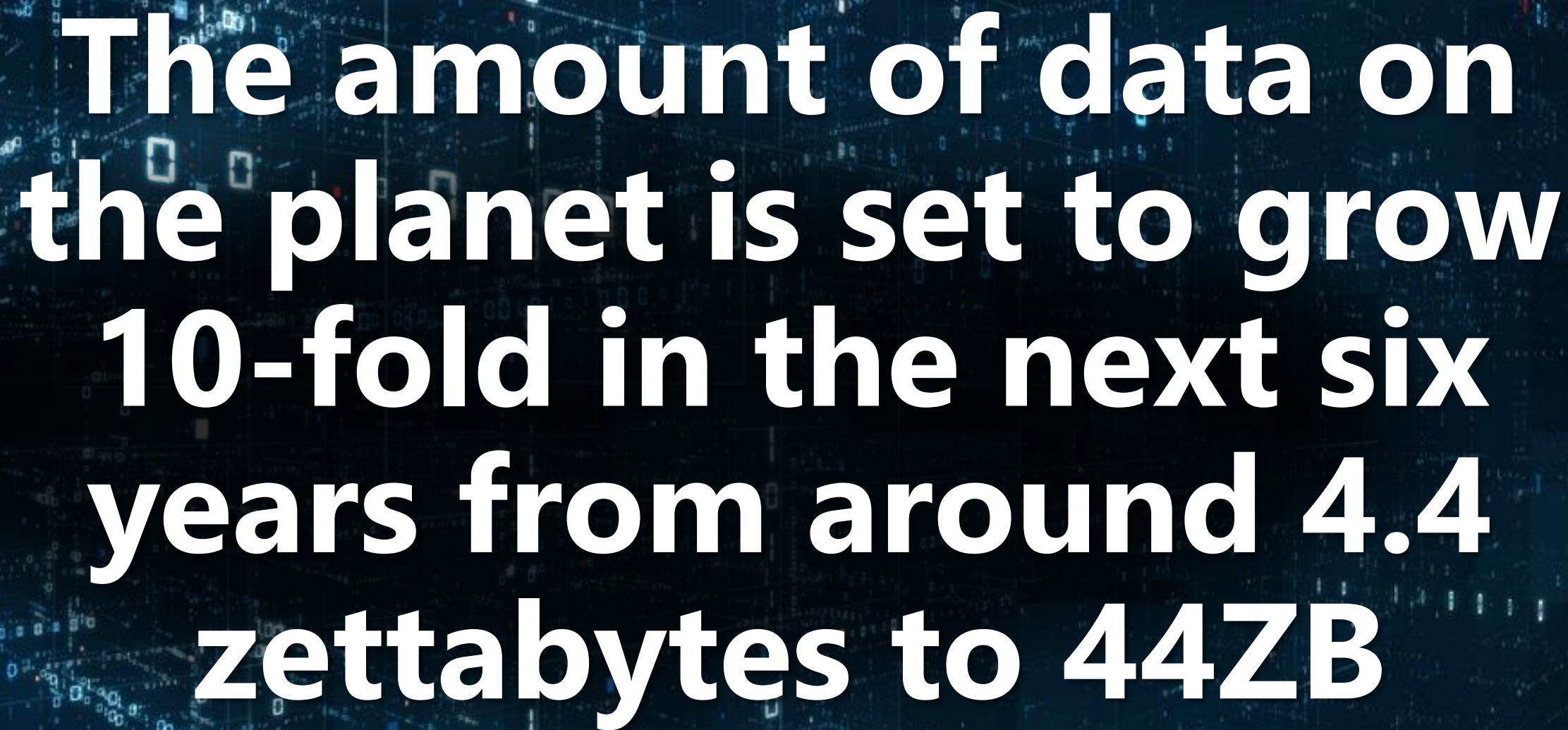
For the first time in 25 years

Agriculture ranks 1st in positive U.S. public perception, according to a recent Gallup poll


Grocery and restaurant industries rank #2 and #3



Adapting to a changing *Agricultural Landscape*

The background is a dark blue field filled with glowing white and light blue elements. These include vertical and diagonal lines of varying thickness, some resembling binary code (0s and 1s), and a complex network of small, interconnected nodes and lines that suggest a data network or a digital landscape. The overall effect is one of high-tech, data-driven activity.

**The amount of data on
the planet is set to grow
10-fold in the next six
years from around 4.4
zettabytes to 44ZB**

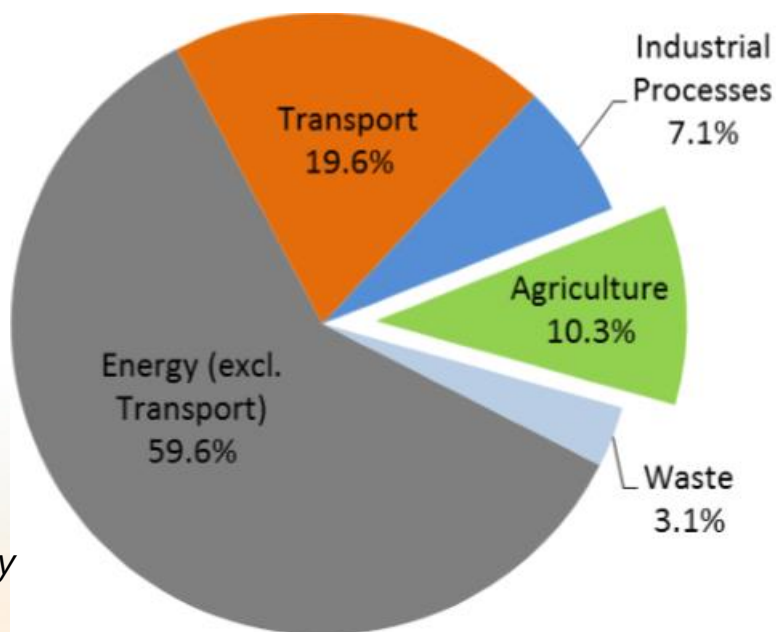
A person wearing a red and black plaid shirt is holding a black tablet. They are standing in a lush green field with a blurred background of more greenery and a hint of a blue sky. The text is overlaid on the right side of the image.

‘Smart farming’ is not a substitute or a replacement for the farmer and his team.

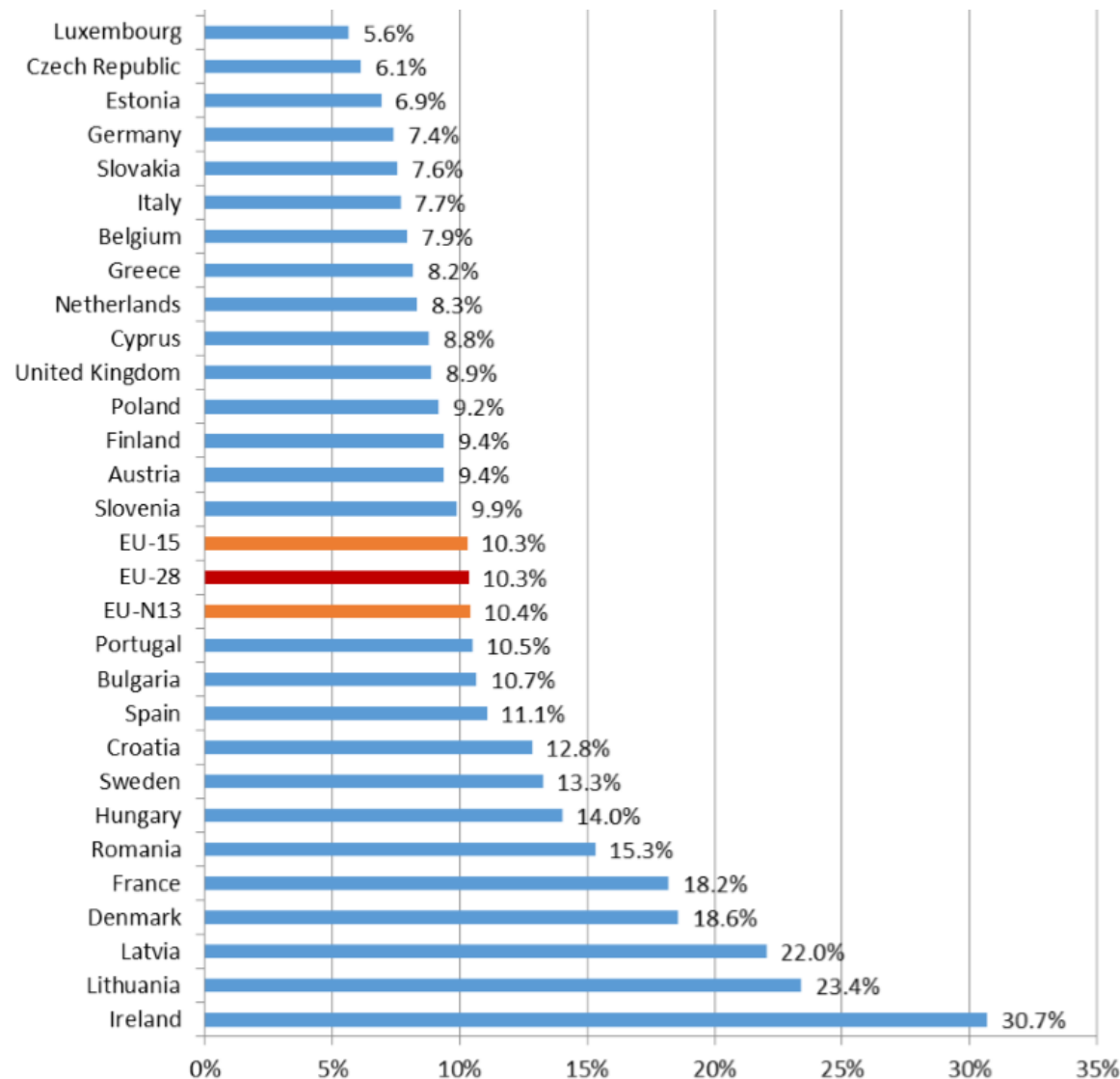
But it can provide information and knowledge into the hands of farmers allowing them to make more effective, efficient and timely decisions

AGRICULTURAL EMISSIONS IN THE EU

How important are agriculture (non-CO2) emissions in the EU?



Source: EU GHG Inventory 2016 (EEA, 2016)



Vision 2026

Measure Soil fertility Reseed Clover

GRASSLAND MANAGEMENT

Diet Fertiliser Electricity

DAIRY FARM INPUTS

HERD PERFORMANCE

BCS management Mineral management Nutrition management

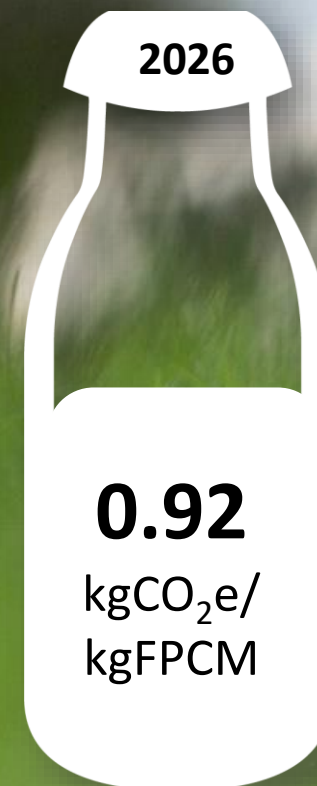
GENETICS

Health + Fertility Milk Solids

Vision 2026



2021		2026
7.8	Grass utilisation t DM/ha	9.0
0.86	Forage quality UFL	0.93
184	Fertiliser use kg N/ha	170
417	Milk Solids kg	480



20% reduction by 2026

A Smart Future:

The Goal:
*Good Quality, Nutritious,
Affordable Food*

with limited waste,
maximised productivity &
environmental protection



SMART
IRRIGATION



LIVESTOCK
MONITORING



WEATHER MONITORING
AND FORECASTING



SENSOR-BASED
PRECISION AGRICULTURE



REMOTE CROP
MONITORING



REMOTE MONITORING
OF SOIL QUALITY



SMART WAREHOUSING,
LOGISTICS AND
DISTRIBUTION



REMOTE ASSET
MONITORING



WINE QUALITY
ENHANCEMENT

Working
together
for a

Planet
of Plenty™

