



# Food Harvest 2020.

A vision for Irish agri-food and fisheries

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# Trends in the Global Food System



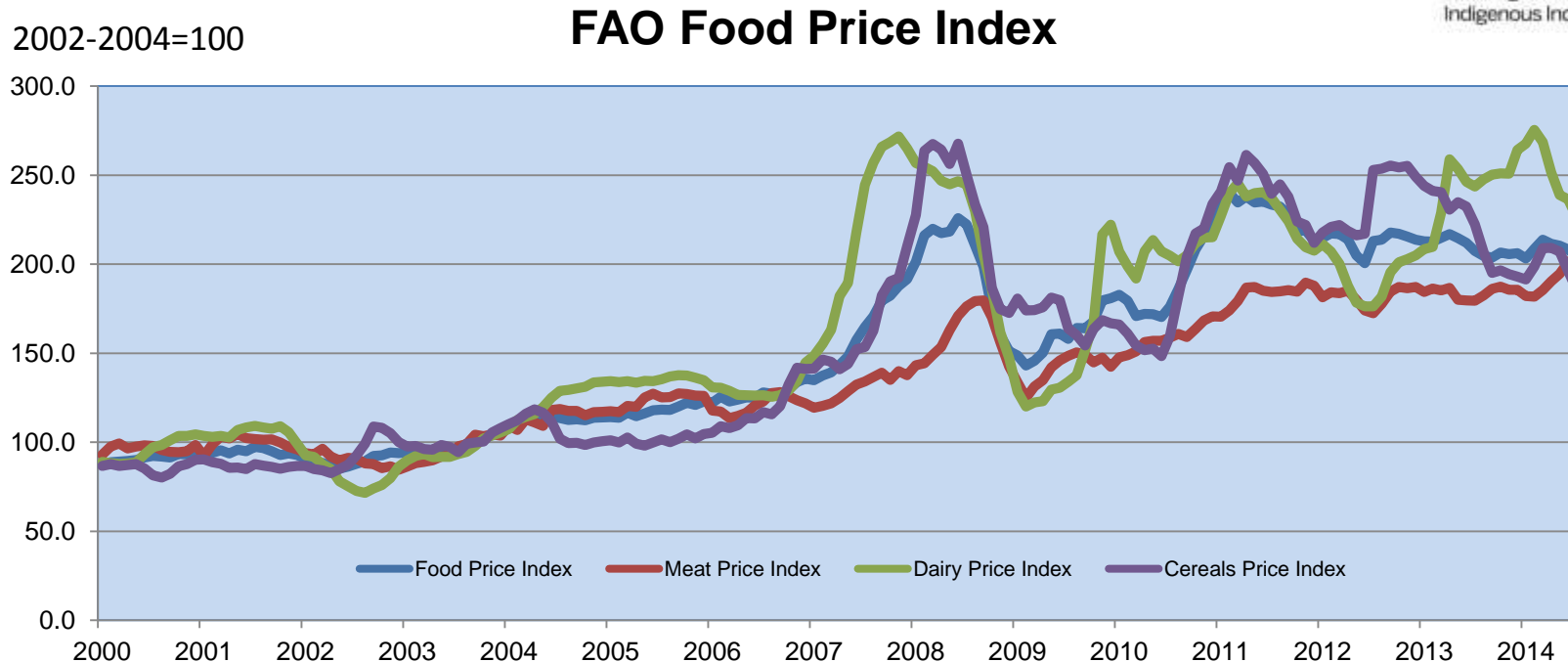
## Growing the success of Irish food & horticulture

**Bord Bia**  
Irish Food Board

# 5 Major Trends

1. Sustained Volatility
2. Evolving Supply Chains
3. Transformational Technologies
4. Consumer Bifurcation
5. Changing Global Landscape

# Sustained Volatility



Source: FAO

# Volatility Drivers

## Fundamental Shift Leading to Supply-Demand Imbalance

### Demand

- **Population** and **Income** increasing
- China and others eating **more meat, dairy**
- **Biofuels** use continues

### Supply

- **Productivity growth** lumpy
- **Water** constraints
- **Weather** events
- Government **policies**
  - Prices, quotas, stocks
  - Trade



**Price swings magnified by HFT**

# Supply Chain Evolution

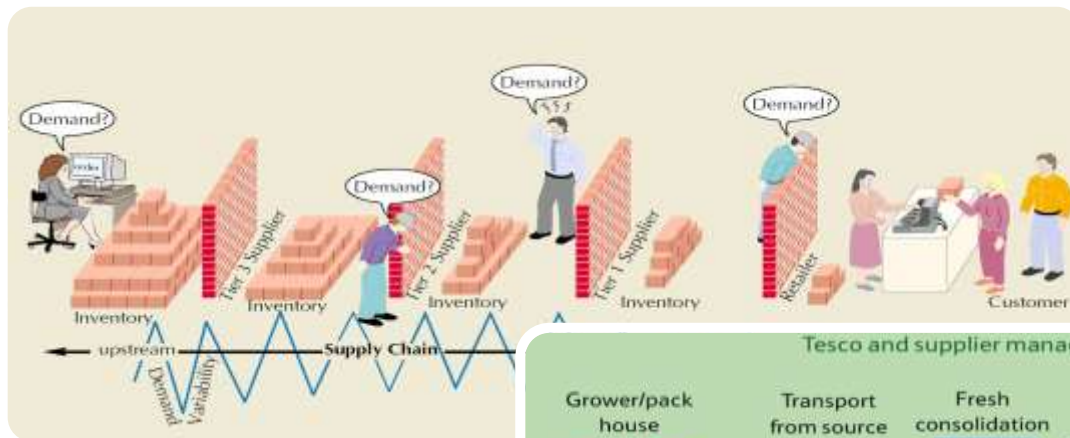
Stronger and Tighter to:

- Manage volatility
- Capture margins
- Secure current and future supply
- Ensure food safety
- Protect brand reputation
- **Enable sustainability practices**
- **Produce differentiated products**



**Positive  
Feedback  
Loops**

# Tesco Group Food





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# Transformational Technologies

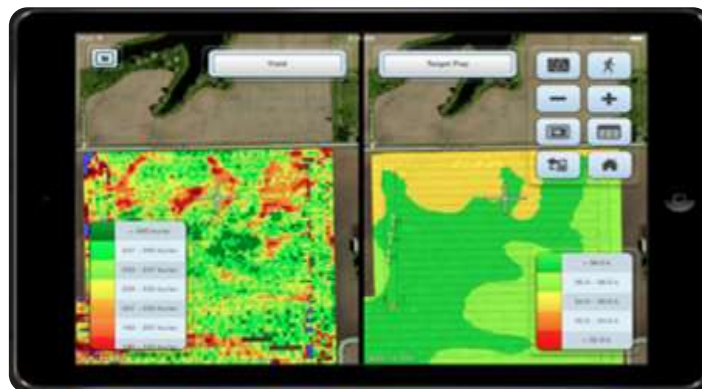
From Automation and Big Data to Purchasing Portals and Products



## Growing the success of Irish food & horticulture

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Irish Food Board





**PATHWAYS**  
Growing Ireland's Largest  
Indigenous Industry

Look Up Policy | Contact Us | Ag

**THE CLIMATE CORPORATION**

**FOR GROWERS** | **FOR AGENTS**

# Total Weather Insurance

Protect Your Profits From Bad Weather

**Start Here**  
Get your **FREE WEATHER RISK ANALYSIS**

County or Zip Code

**Get Started**

**1** Get Your Weather Risk Report  
**2** Get Custom Weather Insurance Plan  
**3** Weather Happens  
**4** Get Paid Automatically

BRENT B., ILLINOIS  
TWI 2012 INSURED

Insured Grower | Interactive Weather History | TWI Overview



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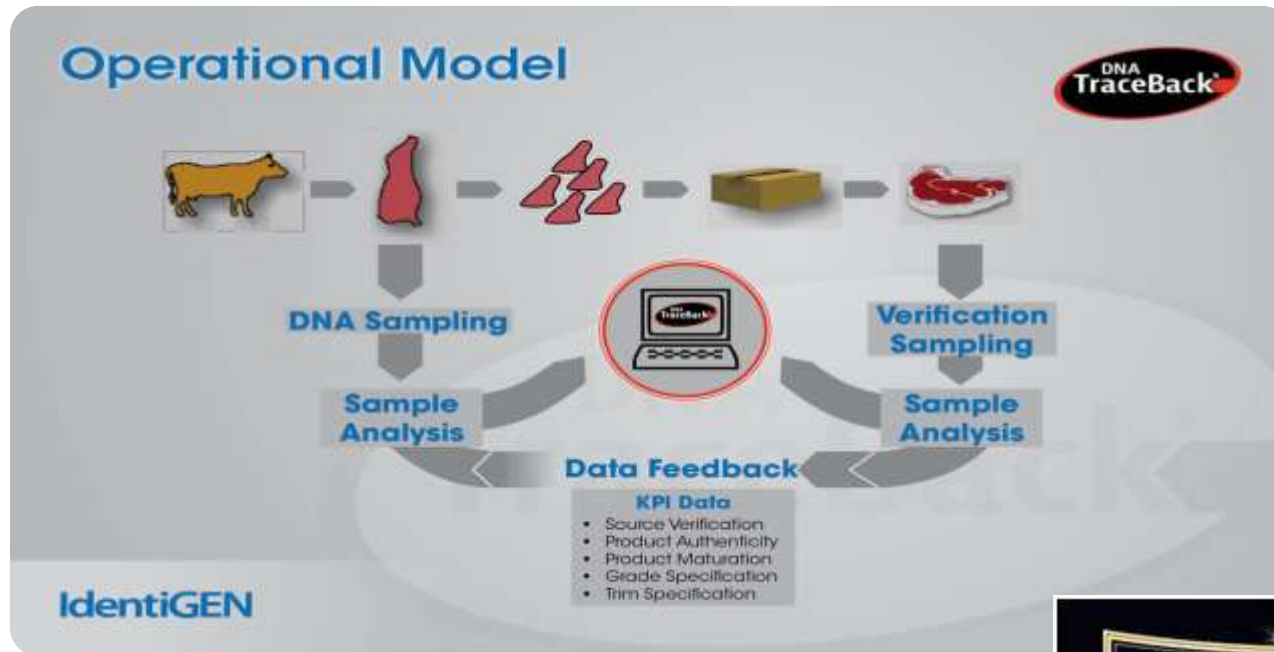
**PATHWAYS**  
Growing Ireland's Largest  
Indigenous Industry



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# Linking Farm to Fork





Scientists seek climate-friendly cow of the future

# Scientists Cook Up Lab-Grown Beef

Burger Project Was Funded by Google Co-Founder



# Consumer Bifurcation

- Economics + Demographics
- Internet = Perfect Information
- Food is Trending
- (Dis)advantages of Scale

Value



Premium



# Intersection of CRAFT and MASS



# Changing Global Landscape

## China Maturing



- Feed **22% of world population** with **<10%** arable land
- **Changing diets**
- Relentless **urbanization**
- Largest grocery market in the world
  - Yihaodian, Tmall (Alibaba)
- More **discerning consumers**
  - Digitally connected (1.2b mobile phones, 618m internet users)
  - Global outlook (200m Chinese tourists a year by 2020)

**Challenges: Fragmentation, Food safety, Cold chain**





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# Balancing Risk in China

**After China Meat Scandal, Troubles for OSI Reflect Broader Perils for Business**

Beijing's Scrutiny Increases as Bad Publicity's Effects Move Swiftly

**New Chinese milk scandal - this time with a Western culprit**

... with opportunities

**KKR Makes Investment in Chinese Chicken Producer**

U.S. Private-Equity Firm Invests \$400 Million to Take 18% Stake in Fujian Sunner Development

**Moving on from milk scandal, Fonterra ties up with China's Beingmate**

# China

- Food policy – Critical!
  - Produce? Import?
- Buying commodities and companies
  - Smithfield, Nidera, Noble ....
- Domestic business climate?



# Changing Global Landscape

## Africa on the Move



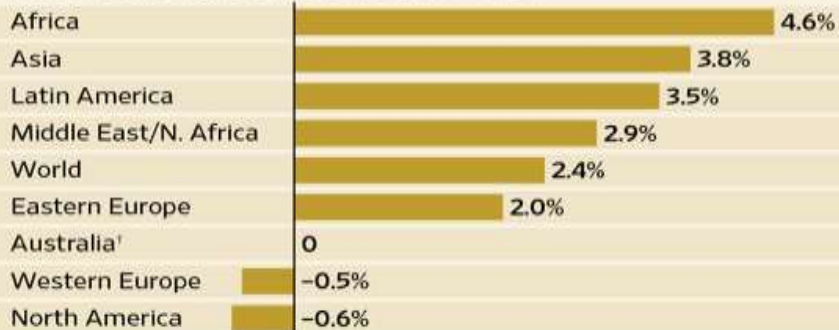
- **6** of top 10 **fastest growing** economies
- **60%** of world's **uncultivated arable land**
- World's **youngest** population
- **\$1 TRILLION** food market by 2030 if:
  - Capital
  - Electricity
  - Technology

**Challenges: Stability, Standards and Enforcement, Smallholder farmers...**

# Diageo Africa: “Shaving the Iceberg”

## A Bubbling Market

Forecast annual growth rate in volume of beer\*



\*Five-year compound annual growth rate, 2012-16 <sup>†</sup>And neighboring islands

Source: Canadean via SABMiller

The Wall Street Journal





# Diageo's "Cube"





# In Summary

- Volatility – the new normal
- Opportunities for smaller, more innovative, more flexible producers
- Winners will move faster
  - .... While managing risks
- Who's the Amazon?