

## Global Consumer and Food Industry Trends: Challenges & Opportunities for UK Growers

Imperial College  
London



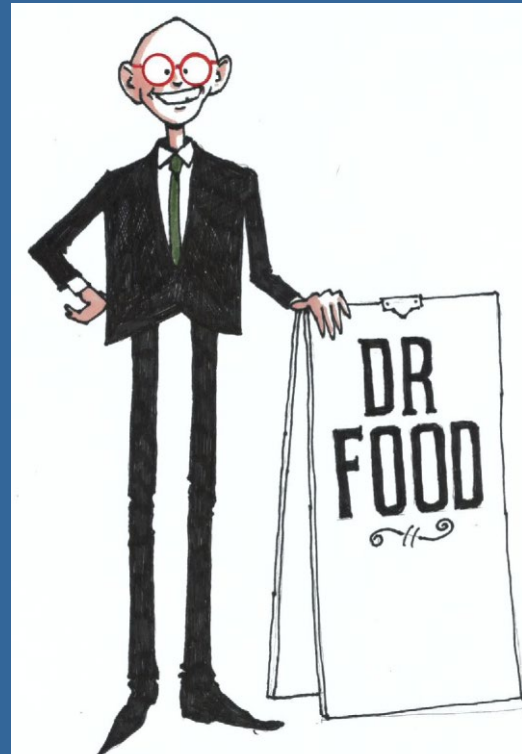
Dr. David Hughes  
Emeritus Professor of Food Marketing

SMARTHORT 2019  
Crowne Plaza Hotel, Stratford-upon-Avon, UK  
Wednesday, March 6<sup>th</sup>, 2019



@profdavidhughes

[www.supermarketsinyourpocket.com](http://www.supermarketsinyourpocket.com)



# PepsiCo to close plants, shed jobs under multi-year restructuring exercise

February 18<sup>th</sup>, 2019



**PepsiCo shakes up executive team to support "growth agenda"**  
March 4<sup>th</sup>, 2019

## PepsiCo posts flat sales, plans to cut jobs

## PepsiCo North America CEO Al Carey to retire

**Kraft Heinz share price plunges as SEC probe and losses spook Wall Street**  
February 22<sup>nd</sup>, 2019

An accident with the ketchup

Kraft Heinz and its investors taste the food industry's woes



Consumer goods giant Kraft Heinz's share price plunged almost 30 per cent this evening as a probe from US investigators and widening quarterly losses spooked investors.

Market Summary > Kraft Heinz Co  
NASDAQ: KHC

**34.95** USD **-13.23 (27.46%)** ↓

Closed: 22 Feb, 19:59 GMT-5 · Disclaimer

After hours 35.05 +0.100 (0.29%)

1 day 5 days 1 month 6 months YTD 1 year **5 years** Max

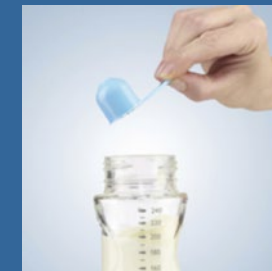


## Warren Buffett buffeted

# Solid start: Chr. Hansen Health & Nutrition growth driven by probiotics for infant formula



EBIT for 2018/19 26.3 per cent Up 0.9 per cent from Previous Year.  
“Big Food” typically Earn EBITs in the Mid- to High-Teens



## Colorful potato source: Chr. Hansen unveils carmine alternative source,



19 Feb 2019 --- Danish-headquartered bioscience company [Chr. Hansen](#) has commercialized a new vegetable variety – the Hansen sweet potato *Ipomoea batatas* – using traditional breeding methods to create a long-sought after vibrant, natural red alternative to carmine. The potato is the result of a decade-long breeding program at the company.

FOOD CULTURES &amp; ENZYMES

NATURAL COLORS

PLANT HEALTH

ANIMAL HEALTH

PROBIOTIC SUPPLEMENTS &amp; INFANT FORMULA

Chr. Hansen Invests Approx. 8% of Revenues on R&D



Givaudan Kitchen Ingredients  
Meeting consumer demand for clear  
and clean labels



It almost goes without saying that consumers have created a wave of change in the traditional product development paradigm. Today it's all about natural, recognisable ingredients, clear labels and transparency. And don't forget great taste.

Givaudan Kitchen Ingredients can help you offer the best of all worlds: great tasting, natural products made with ingredients that keep your label simple and short... and your consumers happy.

We've been at this a while; in fact we've been making naturals for over 100 years. Our current portfolio is a combination of knowledge, and strategic acquisitions.

Herbs, spices, c  
poultry are just  
Givaudan, your



EBITDA Regularly 20+%  
One of the Food Industry's  
High Performers



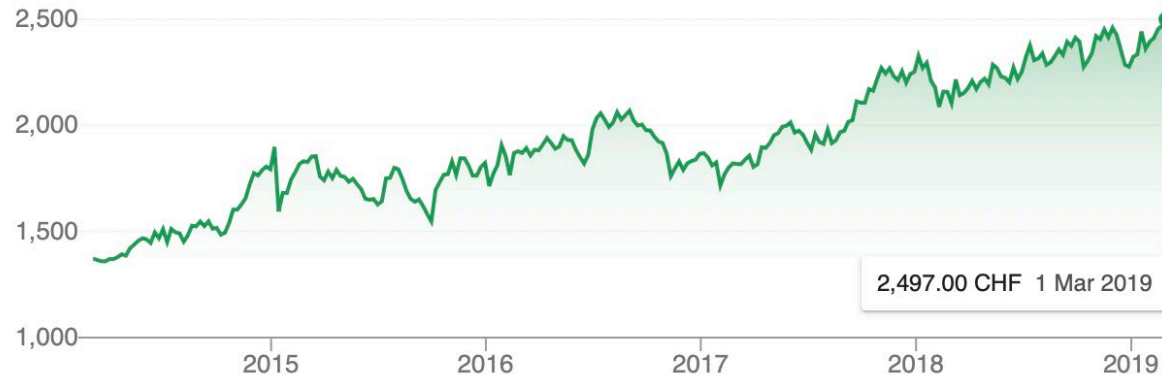
### Market Summary > Givaudan S.A.

SWX: GIVN

2,489.00 CHF -7.00 (0.28%) ↓

5 Mar, 13:12 CET · Disclaimer

1 day 5 days 1 month 6 months YTD 1 year 5 years Max



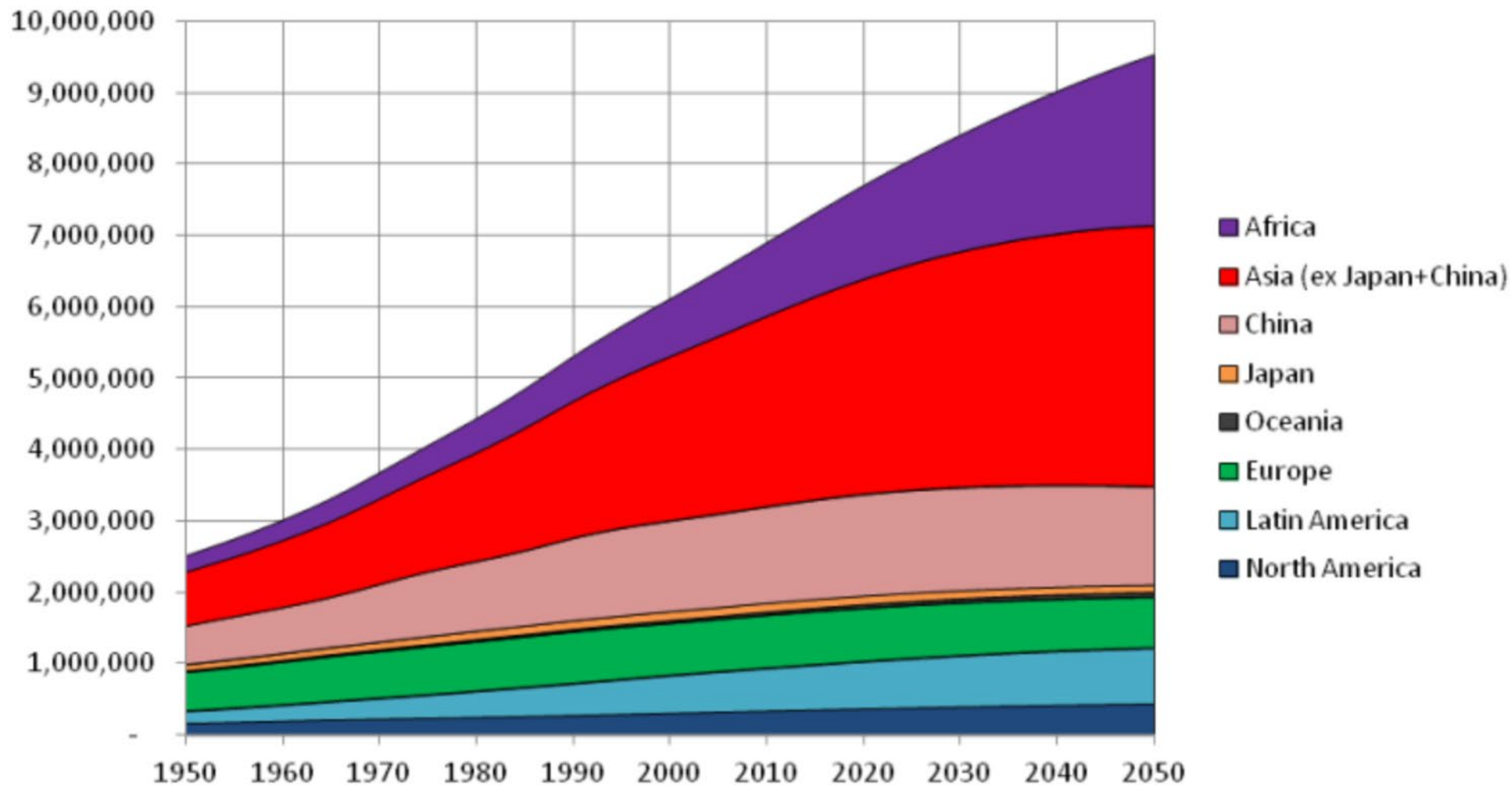
From your favourite drink to your daily meal, from prestige perfumes to cosmetics and laundry care, we create flavours and fragrances that delight consumers all over the world



# We're At 7.8 bn. NOW and Adding 2 bn. by 2050

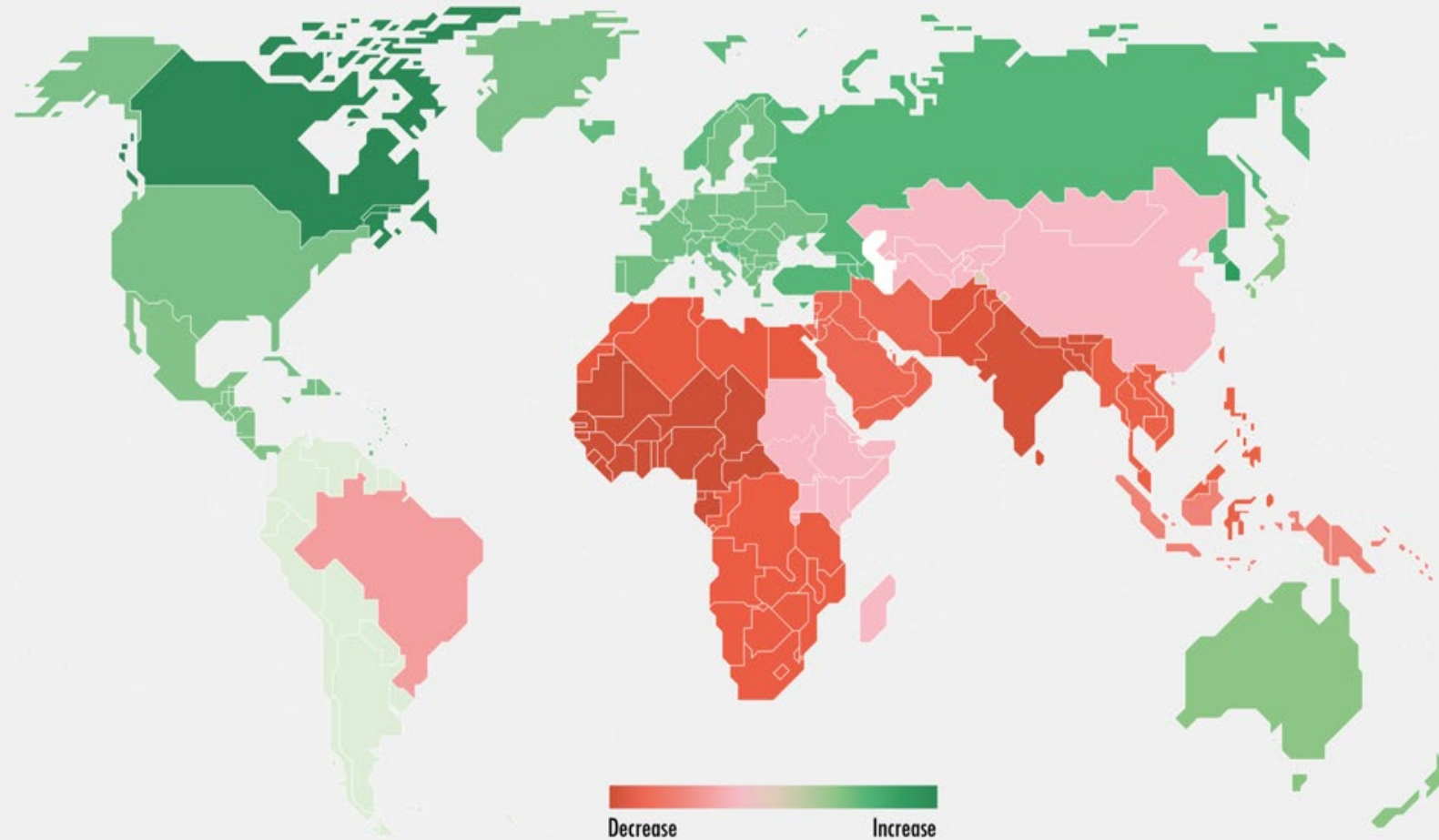
## World Population

Source: UN



Will the Extra 2 bn. Be Spread Evenly?

Graphic:: deconstructingrisk.com



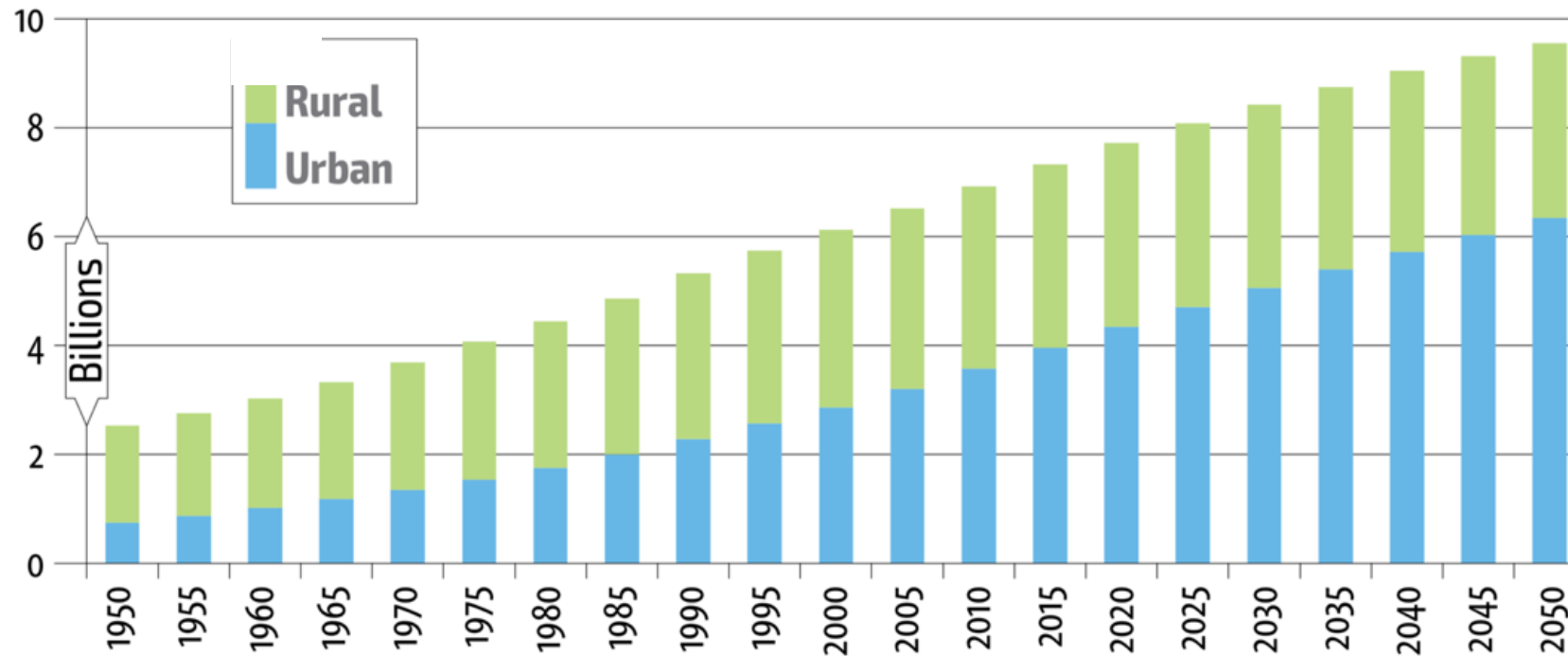
**Dr. Food** @ProfDavidHughes

Climate change-induced declines in agricultural production forecasted for Africa & much of Asia by 2050 (FAO). Hmmm, those are the same regions which will see the lion's share of the anticipated 2 bn. extra people in our world by then! Good news for some big commodity exporters.



## Urban Consumers Increasing from 4 to 6 Billion Over the Next 30 Years: With Smaller Households, Higher Incomes, Changing Diets

**Figure 1.3** Growth in global urban and rural populations to 2050



Source: UN, 2015.

## Focus Shifts from Countries (195) to Mega-Cities (say, 600)

And the Higher Income Mega-Cities Attract Global Communities



Want fresh, locally-grown greens delivered to your office? [Learn more.](#)



# Square Roots is an urban farming accelerator.

We're powered by human ingenuity, technology, and a love for local, real food.

# We build urban campuses of vertical farms.

Our farms squeeze the equivalent of a two acre field into a shipping container and grow GMO-free greens.

# CLEAN RELIABLE FARMTECH



Look Out for Substantial Growth in Urban Farming. Cities Seeking Greater Reliance on Very Local Supplies of Food, Water, Energy: Self-Sufficiency Becoming “En Vogue”!

Welcome to the Jones Food Company. We are committed to growing locally so that fresh produce can be delivered from harvest to plate in minimal time. We grow using cutting edge commercial hydroponics to produce crops in a fully controlled environment monitored consistently 365 days a year ideal for food production as well as growing high quality pharmaceutical and cosmetic ingredients. By adopting our growing techniques, we dramatically reduce our environmental impact.



# Chinese Cities with the Purchasing Powers of Countries!

Rank	Chinese City	City GDP (2015, PPP, in billions)	Comparable Country
#1	Shanghai	\$810	Philippines
#2	Beijing	\$664	U.A.E.
#3	Guangzhou	\$524	Switzerland
#4	Shenzhen	\$491	Sweden
#5	Tianjin	\$478	Romania
#6	Suzhou	\$440	Austria
#7	Chongqing	\$425	Chile
#8	Hong Kong	\$414	Peru
#9	Wuhan	\$324	Israel
#10	Chengdu	\$306	Norway







**Dr. Food** @ProfDavidHughes

The Remains of the Day (with apologies to Ishiguro)! The aftermath of dinner for my restaurant table Chinese neighbours in Malaysia. 8 diners 14 separate dishes all shared. Understanding food & meal culture of market essential for exporters. Meat & 3 veg. looks a tad boring!

# Thanks to data, Spicy Snickers really satisfies Chinese consumers

October, 2018



Mars Works with Alibaba Shopper Data Specialists  
To Launch Quickly & Successfully Spicy Snickers





## Beijing Very Ordinary Supermarket



That's £24/kg. RSP

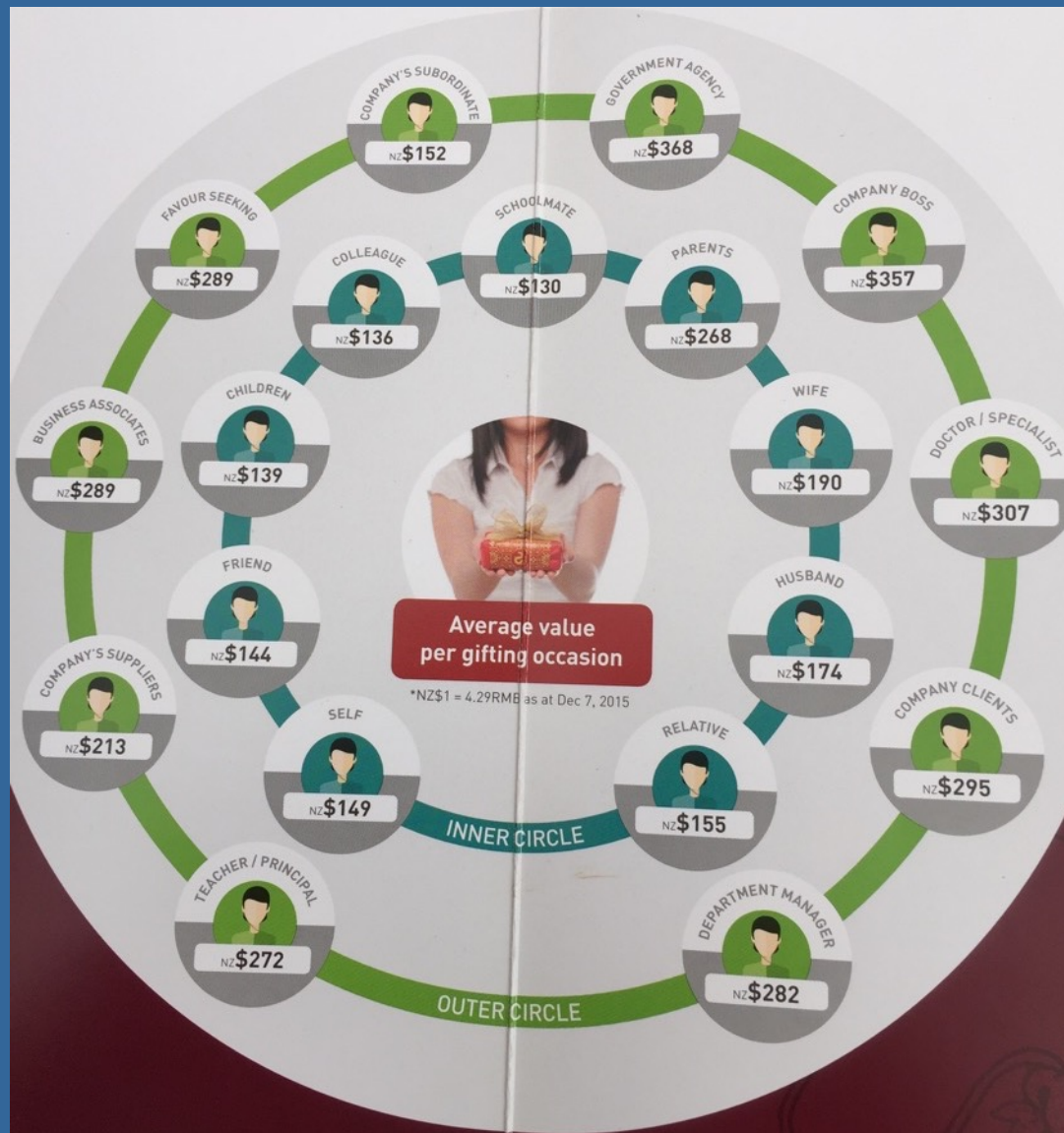


That's £1.80 per  
125 gm. RSP

In Asia, In General, and China in Particular, Health Attributes of Food Products have Substantial Resonance with Consumers of All Ages



# Food Gifting in China & Across Asia



王林りんご  
Ohrin Apple

Ohrin Apple (王林りんご) directly translates as "King Forest Apple". It is a premium variety with flavour profile of Shinano Gold and Indian Apple. With its distinctive thick, pale green skin with spots, the Ohrin Apple is immensely sweet with an intense fresh aroma.



In High End Bangkok Supermarket  
These Grapes were £110/kg.!



The Super Premium Gift Market for Food  
In Asia Sometimes Defies Understanding!





## The Lesser Known “Great Cabbage Wall of China”

(Wholesale Market, Changsha  
Hunan Province, China)



Today's International Menu Includes .....

Underlining the Interest in International Cuisines

Global Food Becoming Westernised or Asianised?!





We Don't Have the Special Food Aura of Italy or France.  
Outside the UK, "Let's Go Out for a British" is Rarely Heard!



Only 5% of visitors in 2015 came specifically to try British food and drink...



...however, there is high interest in trying local specialities and over half are interested in trying British food and drink.



**49%**  
would like to try a Full English Breakfast

British drinks and desserts are also popular...



...and 4 out of 5 visitors are satisfied with British food and drink

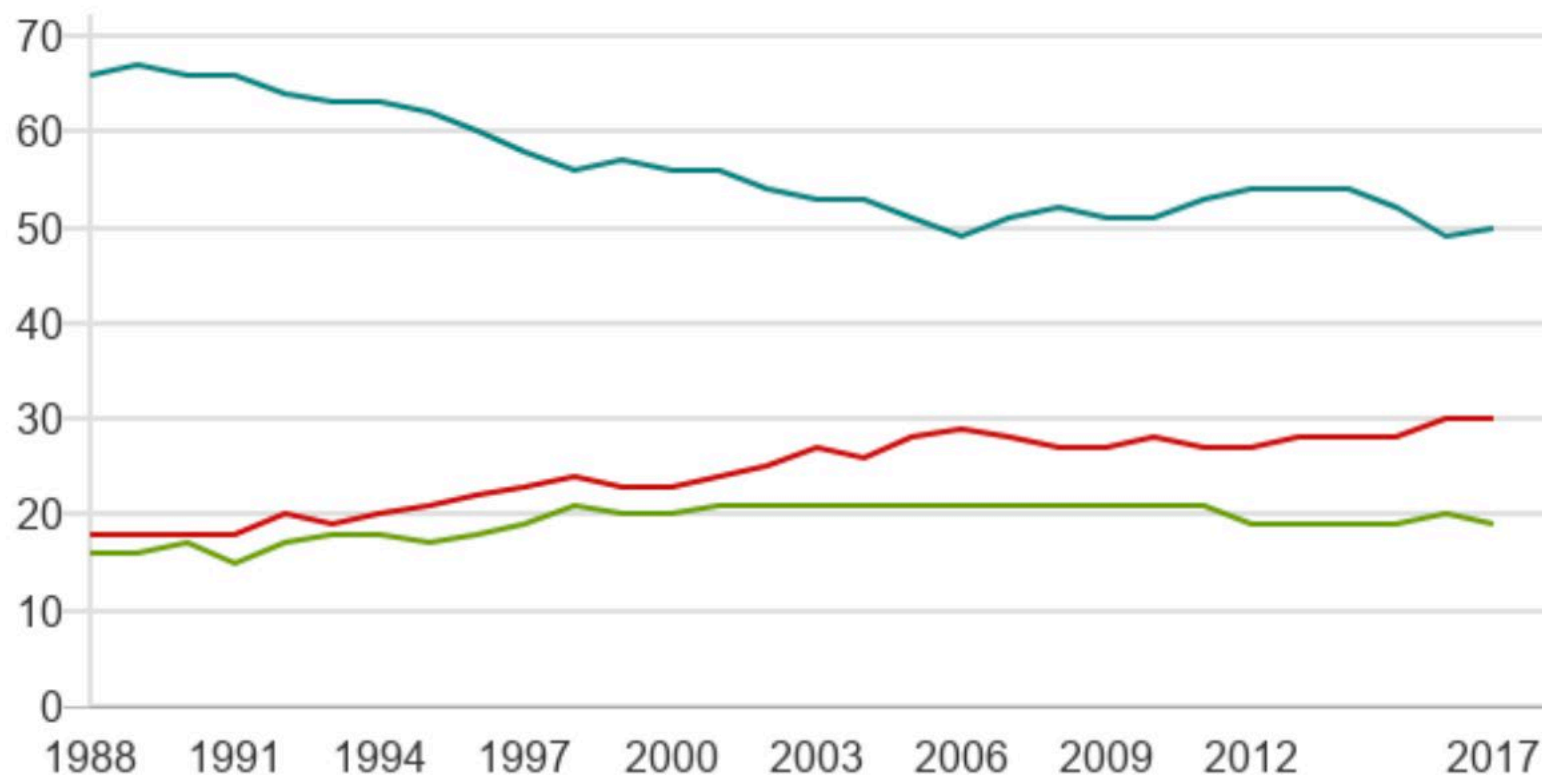


Italian/Indian/Chinese/Thai/Mexican Popular Across the UK

## Where does the food we eat come from?

As a percentage of total UK consumption

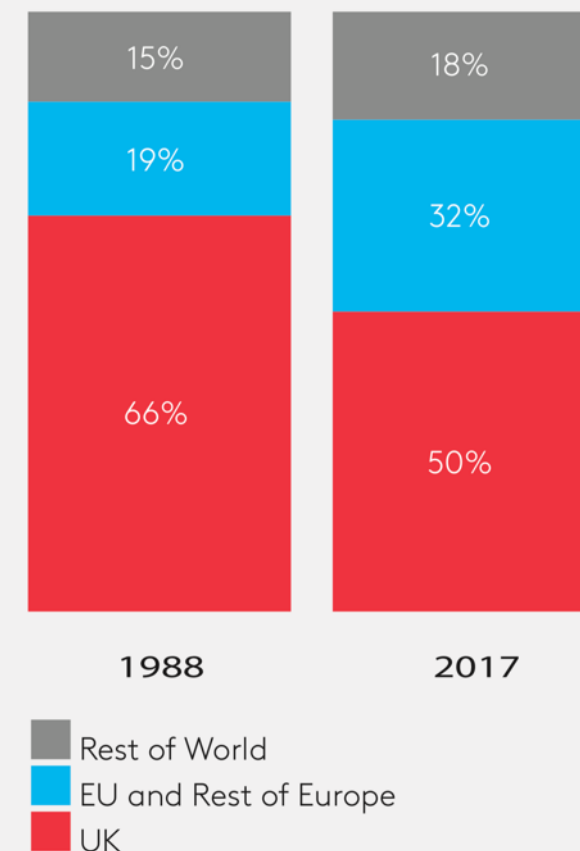
UK EU Rest of world



Source: DEFRA

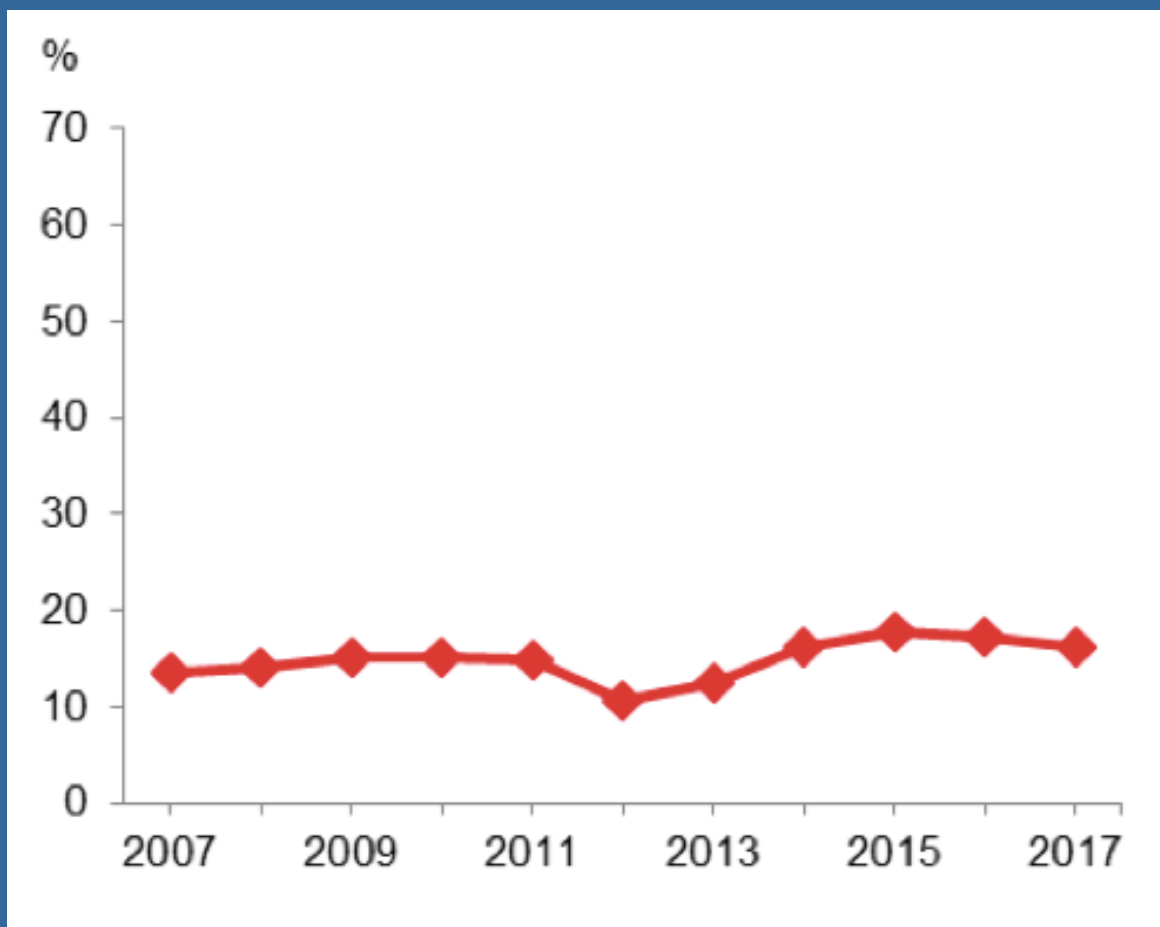
BBC

## Diversity of Food in Britain by Origin

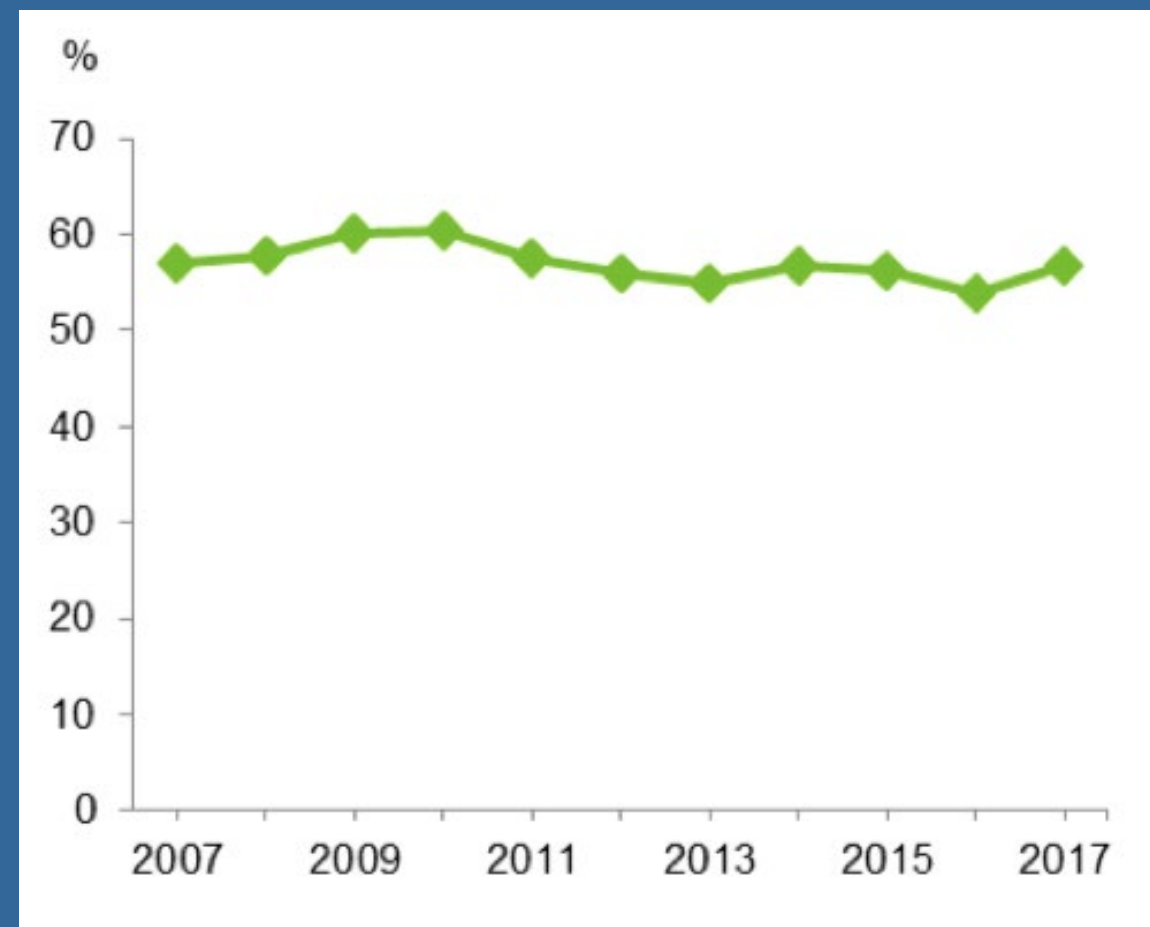


Source: Department of Environment, Food & Rural Affairs, 31 May 2018

## UK Self-Sufficiency in Fruit



## UK Self-Sufficiency in Vegetables







Consumer  
Lifestyle Trends

# Keeping it real

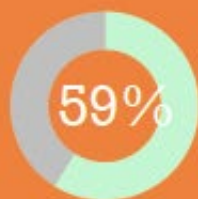


Importance of buying only  
locally grown or produced  
goods

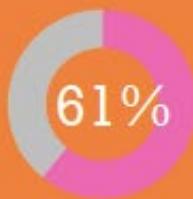
(% extremely/very  
important)



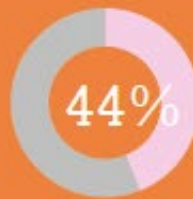
Global Average  
+2% since 2013



AUSTRALIA



FRANCE



BRAZIL



USA

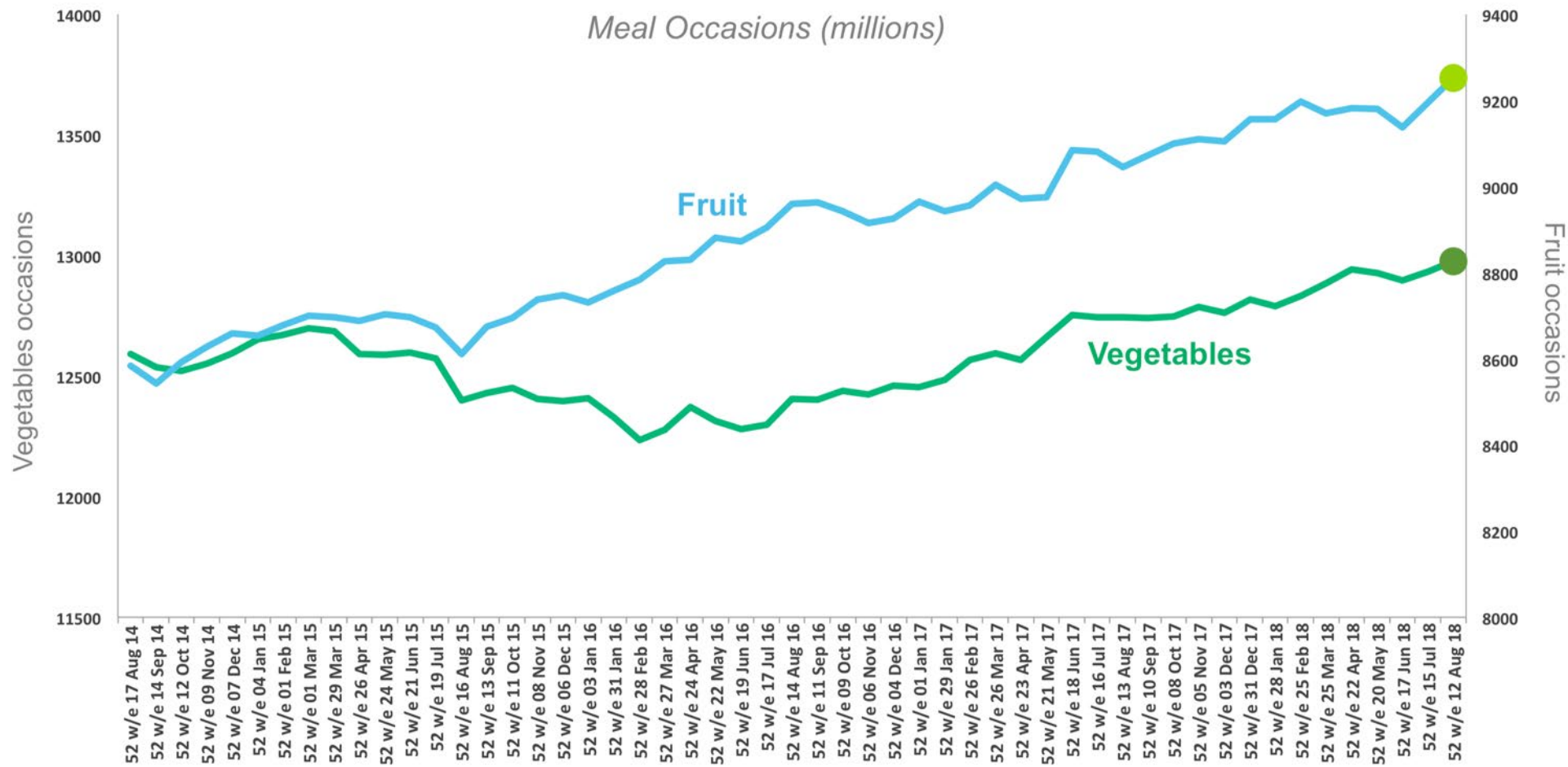


JAPAN



GB

# We are eating fruit and vegetables on more occasions than we were 5 years ago....



% Growth vs 2014





## The over 65s

The only consumers **eating fruit less frequently** than 5 years ago

They account for nearly 30% of all fruit occasions. How do we re-engage these consumers?

## Millennials



Account for over **half the additional fruit occasions** over the past 5 years

They are the only consumers eating more fruit across breakfast, lunch and evening meals



**Breakfast** has been the driving force being the rise in fruit consumption. **80%** of the category growth is coming at this one occasion.

This is an additional 550m occasions over 5 years!



Kantar Worldpanel Usage | Fruit | Breakfast | 52 w/e Aug 2018 vs Aug 2014





## Following trends...

Avocado **+146%**

Ginger **+131%**

Kale **+87%**

Spinach **+62%**

Berries & Currents **+32%**

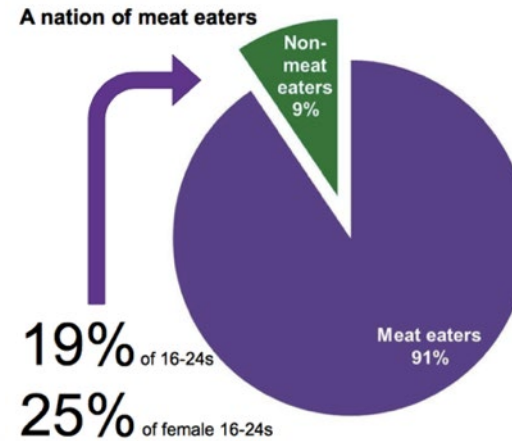
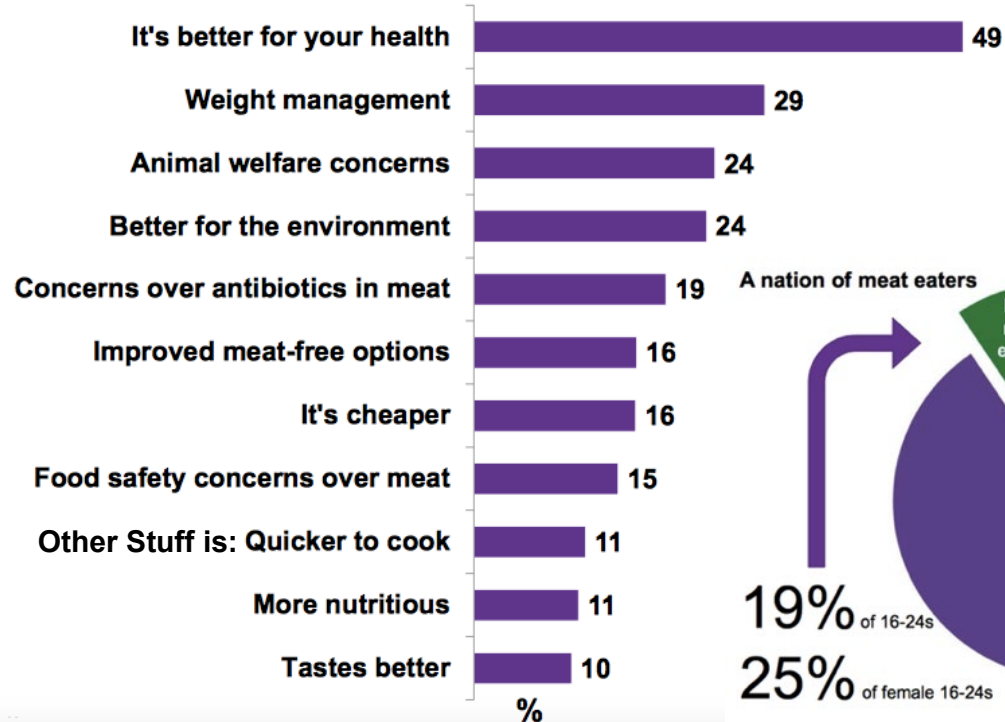
Garlic **+20%**

Positive press and campaigns can have a significant impact on your category



## Rise of The Flexitarian in High Income Countries

### Why are people cutting back?



**BUT, When Eating Less Want to Eat Better!**





It's Cool NOT Wussy  
For Men to be Concerned  
About Their Health and  
About Their Looks!



Pick of the Week

**£1.99**

each £5.69/kg



## Flexitarian French!





Veggieburgers Adorn Italian Supermarket Shelves





# The Beyond Burger to hit UK shelves today

November 12<sup>th</sup>, 2018





# McDonald's joins the Veganuary craze by offering its first ever vegetarian Happy Meal for children

January 3<sup>rd</sup>, 2019

- The new Happy Meal features a breaded red pesto goujon wrap instead of meat
- A similar wrap will also be available on the adult menu as a Spicy Veggie Wrap
- The meals were created with the help of campaign group the Vegetarian Society



MARKS & SPENCER LAUNCHES VEGAN HEART 'BEET' BURGERS  
FOR VALENTINE'S DAY

MARKS &  
SPENCER





# Jack Fruit Burger: It's About Taste, Appearance and Story NOT About Being Meat-Free!







## UK: “Wicked” chef creates plant-based dishes for new Tesco meal range



One of the 20 new vegan dishes in the Wicked Kitchen range is Teriyaki Noodles which contains mushrooms and other vegetables

It's Much Easier and More Exciting to be a Vegetarian  
In the UK NOW than in the 1970s!

Tesco doubles Wicked Kitchen range to include 26  
brand new vegan products      October, 2018





# Unilever buys meat-free food company The Vegetarian Butcher

December 19<sup>th</sup>, 2018

Acquisition of Dutch brand highlights scramble to tap into meat substitutes market



▲ Tofu turkey is on the table for this Christmas, just one ingredient of a surge in the meat alternatives market.  
Photograph: Alamy Stock Photo

Unilever is buying the meat-substitute company The Vegetarian Butcher as it looks to cash in on the growing number of consumers turning their backs on meat.



## Nestlé will launch plant-based Incredible Burger this spring





## Rethinking Protein



**Protein  
Industries  
Canada**

### Unleashing the Potential of Canadian Crops

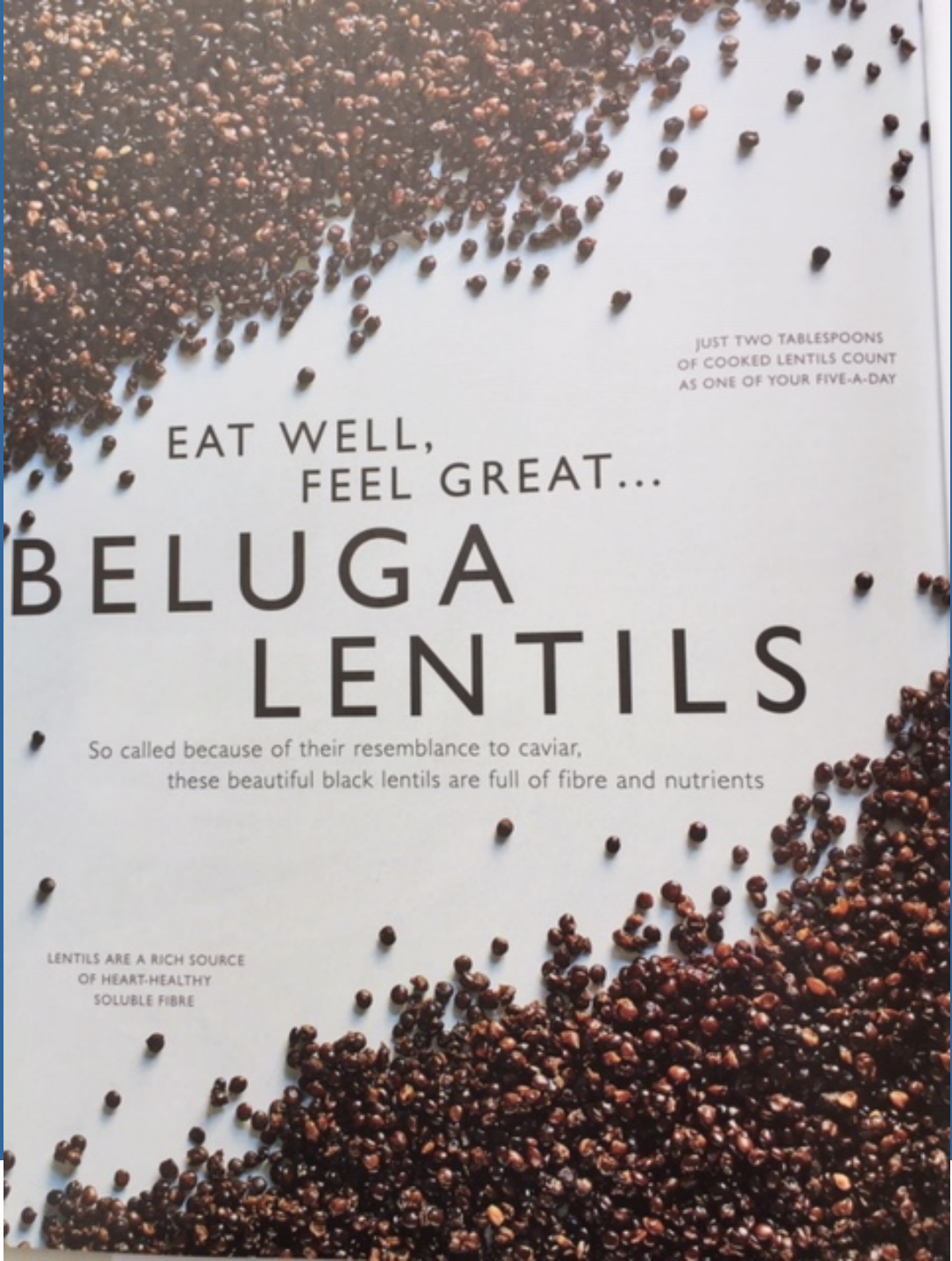
#### What is Protein Industries Canada?

Protein Industries Canada (PIC) is an industry-led value chain consortium of small- to large-sized enterprises involved in food and food ingredient manufacturing, agriculture and food-related services, research and development, technology, economic development, finance and investment, education and training.

PIC is a not-for-profit corporation guided by a board comprising industry leaders and supported by Ag-West Bio and regional partners.







JUST TWO TABLESPOONS  
OF COOKED LENTILS COUNT  
AS ONE OF YOUR FIVE-A-DAY

EAT WELL,  
FEEL GREAT...

# BELUGA LENTILS

So called because of their resemblance to caviar,  
these beautiful black lentils are full of fibre and nutrients

LENTILS ARE A RICH SOURCE  
OF HEART-HEALTHY  
SOLUBLE FIBRE



**Piccolo Organic Baby Pasta with Vegetable and Kale Pesto for Babies from Around 10 Months (UK).**

Organic baby pasta with vegetable, kale pesto and a dash of extra virgin olive oil, for babies from around 10 months. Yummy pasta pieces made from pea flour. Mediterranean goodness. Mix and go, exploring texture. Organic.



# Entrepreneurs: Piccolo is the baby-food maker that's ethical and growing up fast



# And, Then There's The Business of Cannabis\*!



Hemp Emerges as the Quintessential 21<sup>st</sup> Century Sustainable Crop?



Uruguay, Canada, Then, USA, The Netherlands and Another 18 Countries En Route to Legalisation of Cannabis. It'll be Bigger Than Ben-Hur!





## **Tilray buys hemp food maker Manitoba Harvest for \$318m**

**March 1<sup>st</sup>, 2019**

Canadian cannabis producer Tilray has completed a CAD 419 million (\$318.1 million) deal to acquire Manitoba Harvest, the world's largest hemp food manufacturer, from Compass Group Diversified Holdings.

Tilray will issue an additional CAD 49 million (\$37.2 million) in shares based on Manitoba Harvest achieving certain performance milestones in 2019. As part of the deal, Manitoba will operate as a wholly-owned subsidiary of Tilray.

Headquartered in Winnipeg, Canada, and founded in 1998, Manitoba sells products in more than 16,000 stores across the US and Canada.

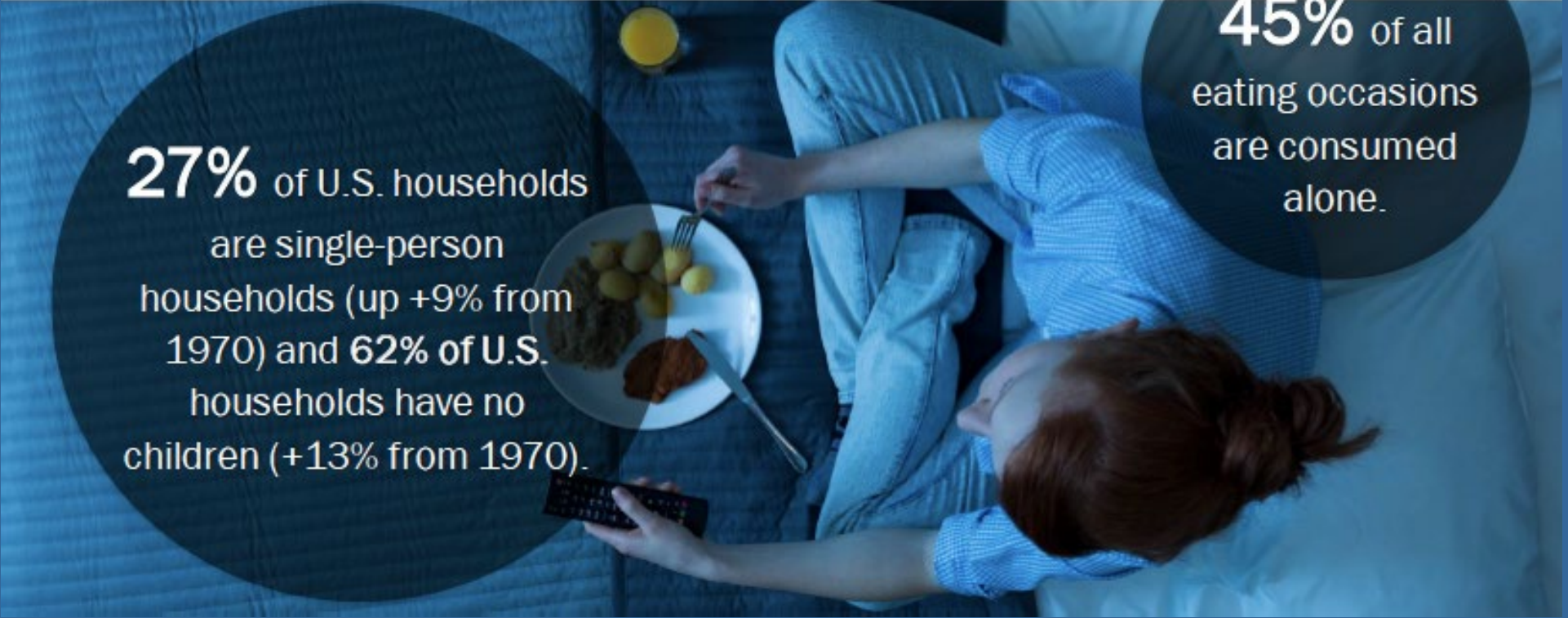
Its portfolio includes a range of hemp-based granola, hemp-based protein powder and shelled hemp seeds. The firm plans to launch a line of wellness bars this summer.



# Single-Person Households



As U.S. households get smaller, their needs and priorities are shifting.



**27%** of U.S. households are single-person households (up +9% from 1970) and **62%** of U.S. households have no children (+13% from 1970).

**45%** of all eating occasions are consumed alone.



## The next generation: 'influencer shoppers'

# 25%

of the British  
grocery shopper  
population

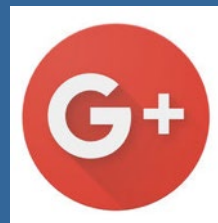
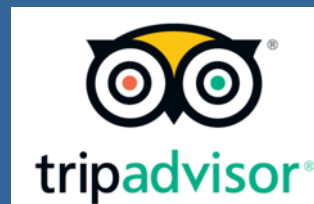


- YOUNGER
- HIGHER AFFLUENCE
- 1000+ SOCIAL MEDIA FOLLOWERS
- ONLINE REVIEWERS
- EARLY TECH ADOPTERS
- ENGAGE IN FUTURE TRENDS





Social Media Accelerates the Exchange of Information Around the World  
Not Least on Food Trends and Between Gen. Z and Millennial Consumers



# Future shoppers

## Time-optimisers



The shopping experience will have to work harder so shoppers can optimise their time

## Health conscious



Health and wellbeing will grow in importance with subtle differences owing to individual motivations

## Individual



Shoppers will be open to a more personalised shopping experience, but only if there is a clear benefit with minimal effort.

## Experimental



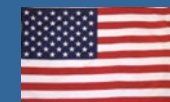
Shoppers will increasingly experiment with their shopping and meal preparation to broaden their repertoires.

## Socially conscious



Shoppers will want to make sustainable and ethical choices, but only if other needs are also satisfied.





## Snackified Eating

Traditional eating patterns built around three “square,” structured meals a day has given way to modern eating styles. 50% of all eating occasions are now snacks.



# Food-to-Go is the Fastest Growth Area in the UK Food & Beverage Market









## Unilever Launch Nice By Nature Fruit Ice Lollies (exclusive to Tesco) March 11<sup>th</sup>, 2019



100% fruit ice lollies, no added sugar, one of your 5-a-Day  
Only 4 “pronounceable” ingredients, “Better-for-You” range



# *PepsiCo to Acquire the Fruit and Veggie Snack Maker Bare Foods*



For PepsiCo, the purchase of Bare Foods is its latest effort to diversify its food and beverage portfolio and move toward the more natural, less-processed foods that are now in favor by increasingly health-conscious consumers.



Beware  
of a wolf  
in sheeps  
clothing...



Uhhh, it looks a lot like  
real fruit but it's just umm  
a lot more convenient!



OFF ~~X~~ THE  
**EATEN** *path*



**PEPSICO**



*Coca-Cola*

Product Benefit Made  
Explicitly Clear!



super smoothies



A super smoothie is a healthy blend of fruit, veg, botanicals and crushed flax seeds, with added vitamins.

Imperial College  
London





Purchased November 2018



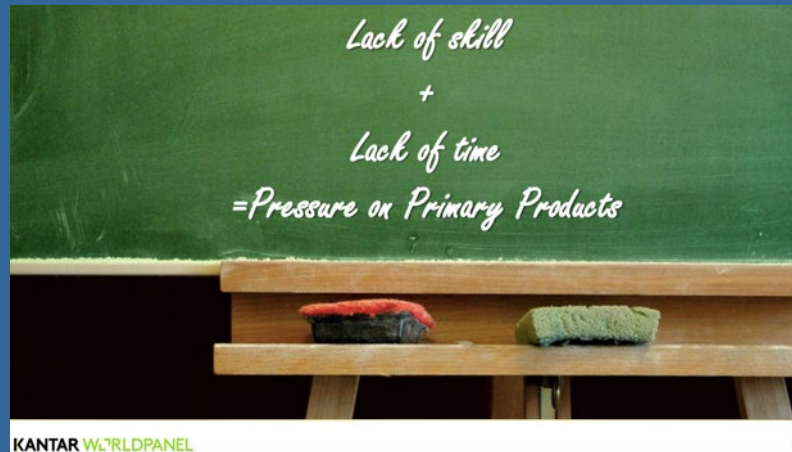


*Lack of skill*  
+  
*Lack of time*  
= *Pressure on Primary Products*

# Ella's 'one handed' stir fry recipe



Each serving contains



KANTAR WLD PANEL

## Ingredients

- 250g diced pork
- 2 tbsp hoisin marinade
- 220g pack stir fry vegetable medley
- 1 tbsp olive oil
- 1 tsp ginger and garlic paste
- 150g pack straight-to-wok ribbon rice noodles



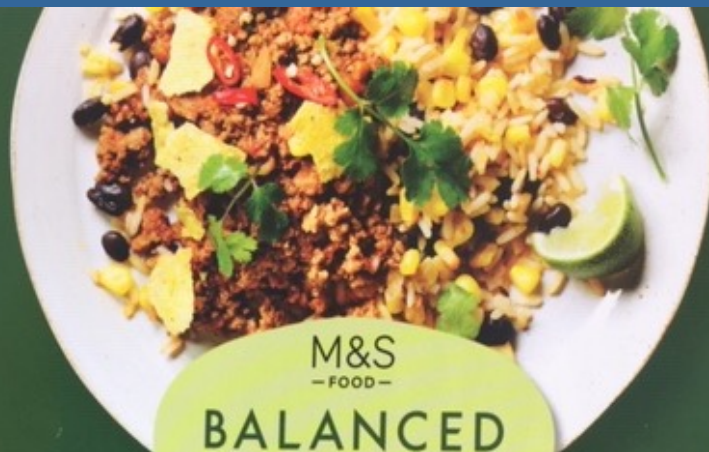


MARKS &  
SPENCER

“Eating Out In” with  
The £10 Meal Deal  
Dinner for Two.  
Food Retail Converges  
With Food Service

“Eating Out In”: Ready to Cook and Consume Meal Kit UK Style





M&S  
—FOOD—  
**BALANCED  
FOR YOU**

**HIGH PROTEIN  
HEALTHY MEALS  
£4**

Each of our Balanced For You meals are delicious and healthy,  
high in protein from lean sources with balanced carbs.



Onion Bhaji Chicken Curry



Mac 'N' Cheese



Mexican Beef Chilli

**LOVE FOOD  
THAT LOVES YOU**

**M&S  
—FOOD—**



These meals are all tasty, here  
are some of our #MyMarksFave

**COUNT ON US**

A tasty selection of low fat,  
low calorie fresh meals to  
help you manage a healthy  
weight. All meals are 400  
calories or less.

Love food that loves you.

ALL DISHES

**£3**



Hunters Chicken & Potato Wedges



Beef Ragù



Ham & Mushroom Tagliatelle

M&S  
—FOOD—  
**PLANT  
KITCHEN**

The range tastes totally  
delicious, here are some of  
our #MyMarksFave



Cauliflower Popcorn, £3



Roast Aubergine, £3.50



Roasted Mushroom Stroganoff, £3.50

We're introducing our first  
plant-based food range, Plant  
Kitchen, making a plant-based  
diet full of flavour. You'll find  
more than 50 choices across  
the foodhall.

Love food that loves you.

ALL DISHES FROM

**£3**

Astonishing Value and Ticking the Trend Boxes



# Which Dishes are Going Up and Which are Going Down?

**Roast Dinners -7%**



**Casserole -10%**



**Soup -7%**



**Sausages -7%**



**Italian Food +7%**



**Oriental Food +17%**



**Salads +20%**



**Vegetarian Dishes +8%**





# Powerful Global Consumer Trends

## Key Trends

More value

More convenience

More fresh & healthy

More personal

## Increased focus on health & product origin

8





Canada's  
food guide

# Eat well. Live well.

Eat a variety of healthy foods each day

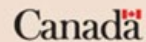
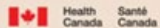
Have plenty  
of vegetables  
and fruits

Eat protein  
foods

Make water  
your drink  
of choice

Choose  
whole grain  
foods

Discover your food guide at  
**Canada.ca/FoodGuide**



The Livestock & Meat Guys  
NOT Well-Pleased with  
Canada's New Food Guide!

Fruit & Vegetables to The Fore. If Only  
Consumers Took Any NOTICE of  
Government Exhortations on Diet!



## Mexico's sugar tax leads to fall in consumption for second year running

Health experts are watching the progress of the tax to see if it will lower the rates of obesity-related diseases and type 2 diabetes



▲ More than 70% of the population of Mexico is overweight or obese. Photograph: Alamy



## Malaysia to introduce tax on sugary soft drinks and juices

Singapore considers ban on high-sugar pre-packaged beverages  
December 3<sup>rd</sup>, 2018

## Sugar tax comes into effect

April 6<sup>th</sup>, 2018



UK collects £153.8m from sugar tax since its introduction in April

Nov. 26<sup>th</sup>

Watch Out for Increasing Government Regulation/Legislation to address the Global Obesity Crisis.

The Major Areas Under Threat:

- Fat
- Salt
- Sugar
- Alcohol
- Processed Meat (?)

Sugar Taxes In The Americas: Brazil And Canada Most Likely To Follow Mexico's Lead

November 5<sup>th</sup>, 2018



# Food products will be tailored to personal priorities

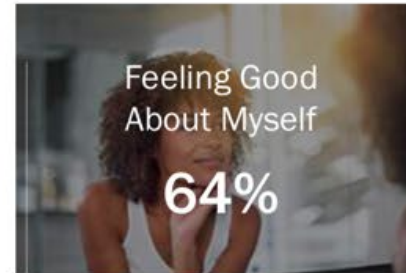
**Different lifestyle approaches to health and wellness...**

**... may lead to different personal nutrition needs and wants ...**

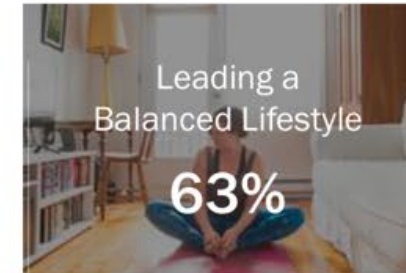
**... and different solutions**



Digestive Health  
Energy / Fuel  
Muscle Building  
Performance



Weight Control  
Hunger Control  
Skin / Beauty  
Anti-Aging



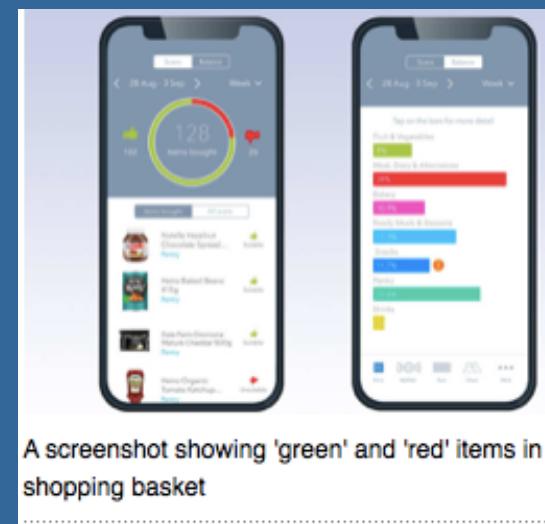
Purity  
Digestive Health  
Stress Reduction  
Sleep Enhancement



Heart Health  
Disease Prevention  
Allergen Free  
Immunity Building



Professor Chris Tomazou's DNA Nudge device uses Smartphone technology to advise consumers whether particular food products are healthy for them or not.



A screenshot showing 'green' and 'red' items in shopping basket



# DNA points Waitrose shoppers to healthy food

September 2018



**DNA test and phone app to 'nudge' Waitrose shoppers towards healthier food**

**The Number 1 Global Mega Consumer Trend is the Increasing Concern About The Health of the Family and The Health of the Planet. When Food Shopping, Drives Shoppers Towards “Mindful Choices”\***



**“What I Eat is Good for Me and My Family.”  
“I Feel Good About What I Eat.”**

**And a Widespread View that Big Food, Big Business, Big Government  
are Part of the Problem NOT Part of the Solution**



## The “Blue Planet II Factor”

Suppliers, Retailers & Consumers  
Will Change Radically & Quickly  
Their Use of Plastic Packaging



 **Dr. Food** @ProfDavidHughes  
The Domino Theory: Implications for Plastic Packaging  
[supermarketsinyourpocket.com/2018/02/27/the...](https://supermarketsinyourpocket.com/2018/02/27/the...)

**Milkmen are returning to London as millennials order glass milk bottles in a bid to slash plastic waste**

The catalyst for the surge in millennials using glass bottles is David Attenborough's Blue Planet II, according to one milkman



**EU proposes ban on straws and other single-use plastics** May 28<sup>th</sup>, 2018

# Royal Mail: Stop posting crisp packets without envelopes

26 September 2018 358



Royal Mail has stepped into a row between campaigners and crisp makers Walkers - by urging people posting empty packets to put them in envelopes.

Campaigners asked people to post the non-recyclable plastic bags and "flood Walkers social media with pictures of us popping them in the post".

Royal Mail is obliged by law to deliver the bags to Walkers' freepost address.

But without envelopes they cannot go through machines and must be sorted by hand, causing delays.



PepsiCo UK Will be FORCED To Change Crisp/Chip Packaging

In fact, it took 12 weeks before PepsiCo responded with a Recycling scheme!

**Walkers launches recycling scheme after storm over crisp packets**

December 10<sup>th</sup>, 2018





# Guardian switches to potato starch wrapping

January 12<sup>th</sup>, 2019



Guardian readers have been opening their weekend paper to find supplements wrapped in a compostable material made from potato starch.



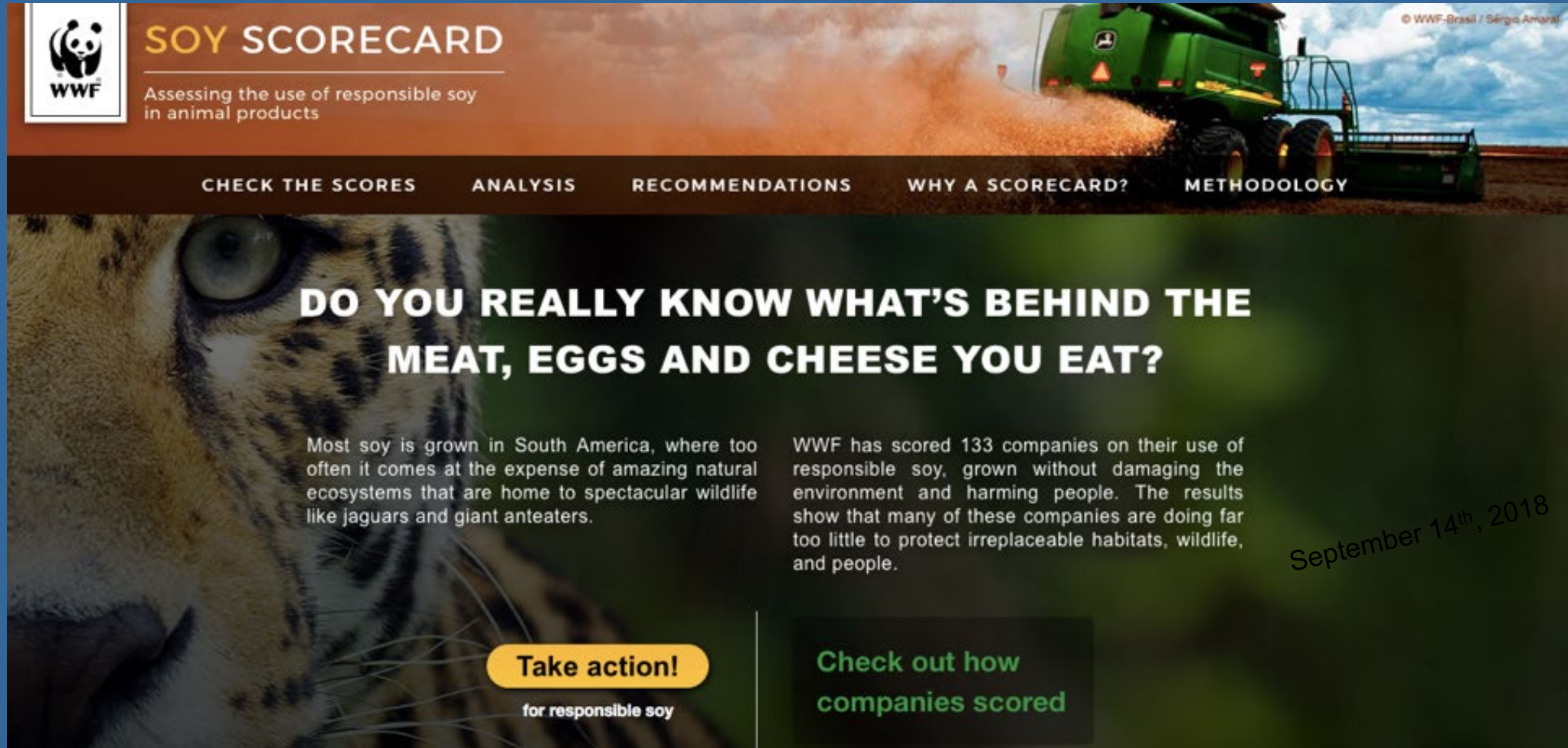


Transparency and Traceability  
Through the Supply Chain Key  
Reflecting Consumer Concerns  
About Food Integrity in Countries  
Right Across the World.

This is Great News for Raw Material  
Suppliers Around the World who have  
Production Bases and Supply Chains  
Of Impeccable Integrity.

**Transparency & Traceability Should  
Be UK Farming's Sweet Spot!**

## Global Brands Pushed to Implement “One Size Fits All” Food Industry Social Policies

The banner features a background image of a green combine harvester in a field. On the left, there is a close-up of a tiger's face. The WWF logo is in the top left corner. The title 'SOY SCORECARD' is in large yellow letters. Below it, a subtitle reads 'Assessing the use of responsible soy in animal products'. A navigation bar contains links: 'CHECK THE SCORES', 'ANALYSIS', 'RECOMMENDATIONS', 'WHY A SCORECARD?', and 'METHODOLOGY'. The main headline asks 'DO YOU REALLY KNOW WHAT'S BEHIND THE MEAT, EGGS AND CHEESE YOU EAT?'. Two columns of text provide context and findings. A date stamp 'September 14th, 2018' is on the right. Two call-to-action buttons are at the bottom: 'Take action! for responsible soy' and 'Check out how companies scored'.





## Social Pressures Dictating Choice Remind Me Again What We Can't Eat?:

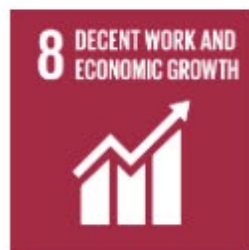
- Anything with palm oil as an ingredient
- Chicken that's been fed soy from Brazil
- Shrimps caught by slave labour in Asia
- Beef that has destroyed the Amazon
- Anything with GMOs
- Anything in a non-recyclable pack
- ..... etc.

### Any Issues for Horticultural Produce:

- Child labour
- Environment (e.g. tunnels, water usage, air freight
- and more!



# SUSTAINABLE DEVELOPMENT GOALS





# A Brief Look at Fastest Growing Routes to the Consumer



Food-to-Go is a Huge Market in the UK (£25+ Bn.)  
Supermarkets are Important but Tertiary Players



Starbucks

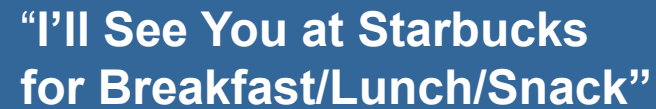
*Simply Delicious*  
**REAL FOOD**

*Soup of the day  
with Croissant*

Forest Mushroom Soup /  
Minestrone Soup

*Flaming Creamy  
Chicken Linguine*

Beef Goulash  
Angel Hair



Imperial College  
London



# Danone VC Arm Buys into Farmer's Fridge Franchise Vending Business in USA



# amazon go goes smaller



December 13<sup>th</sup>, 2018



Dr. Food @ProfDavidHughes

Amazon Go mini convenience store being trialled in USA (42 sq.m. 1/4 size of Tesco Express). Pop stuff into basket & pay automatically on exit with Amazon App. Products? NO ingredients just breakfast/lunch/dinner/snacks. This format will fit nicely into any apartment/office block.



# How Do You Communicate Value for Money?

Two Coffees £5: Routine Daily Purchase.

“I’d Buy More Fruit & Veg. but it’s a Little Bit Expensive”!



Many City Workers Spend 3 Times More on Coffee Purchases than on Fruit & Vegetables



Av. Weekly Household Spend on Fruit & Vegetables £8.00\*

\* Purchases via supermarkets/grocery outlets

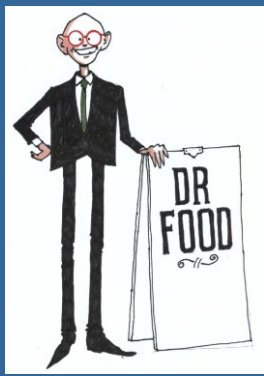
# Some Concluding Comments

- It's tough in the food business and not just for growers! Do you have a defensible point of difference (e.g. IP/patent, brand, technical expertise)
- Global food market growing and, importantly, so is our domestic market. Best opportunities are closest to home and with our neighbours
- In export markets, think mega-cities not so much countries!
- Towns/cities will seek greater self-sufficiency in energy, water, food, etc. Look for more urban and peri-urban agriculture opportunities
- Protein canopy is extending bringing huge opportunities for plants (e.g. pulses). Then, there's cannabis, hemp and more
- Global consumer trends accelerating and converging driven by younger consumers via social media
- Is my product convenient to buy, prepare, consume and dispose?



# Some Concluding Comments

- Health hugely important to consumers but more than family health – the environment, the farmers, animals, local economy and community, .....
- “Green Bar” rising inexorably – not so much a premium for getting over the bar, more a discount for being under the bar
- Don’t assume “We’re Better than Them” (cleaner, greener). We’re NOT!
- Traditional supermarket margins will continue to be under extreme pressure with consequential implications for suppliers!
- Are you exploiting new, emerging routes to the consumer and the fastest growing channels (e.g. food-to-go, direct-to-consumer)
- Are you willing, do you have the skills/access to capital/intestinal fortitude to be in the fresh, lightly processed food & drink business?



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