

# Shifting Consumer Demands Are Catalyzing Change in the Food System

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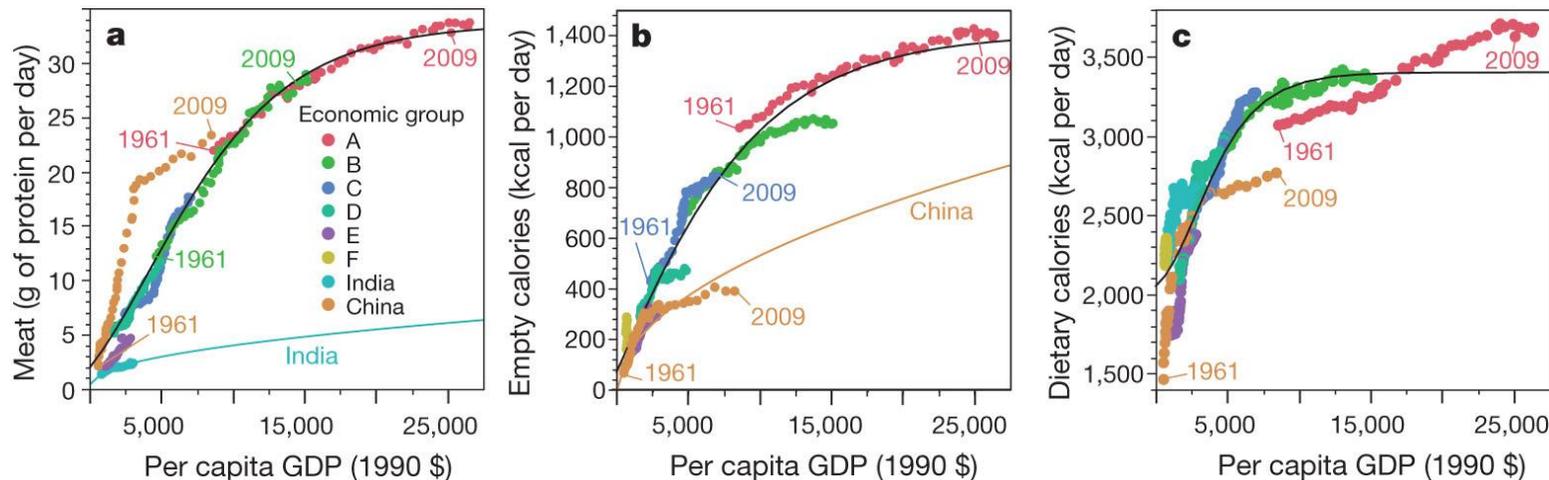
# Food System Challenges

- Drivers:
  - Population growth (+ 40% by 2050)
  - Rising incomes
  - Urbanization
- Result:
  - Increasing demand for food
  - Changes in dietary patterns

# Income-dependent dietary shifts

Dietary shifts due to rising incomes:

- Eat more and more
- Increased calorie consumption
- Increased consumption of ‘empty calories’
- Increased consumption of meat and dairy products



Dietary trends and income.

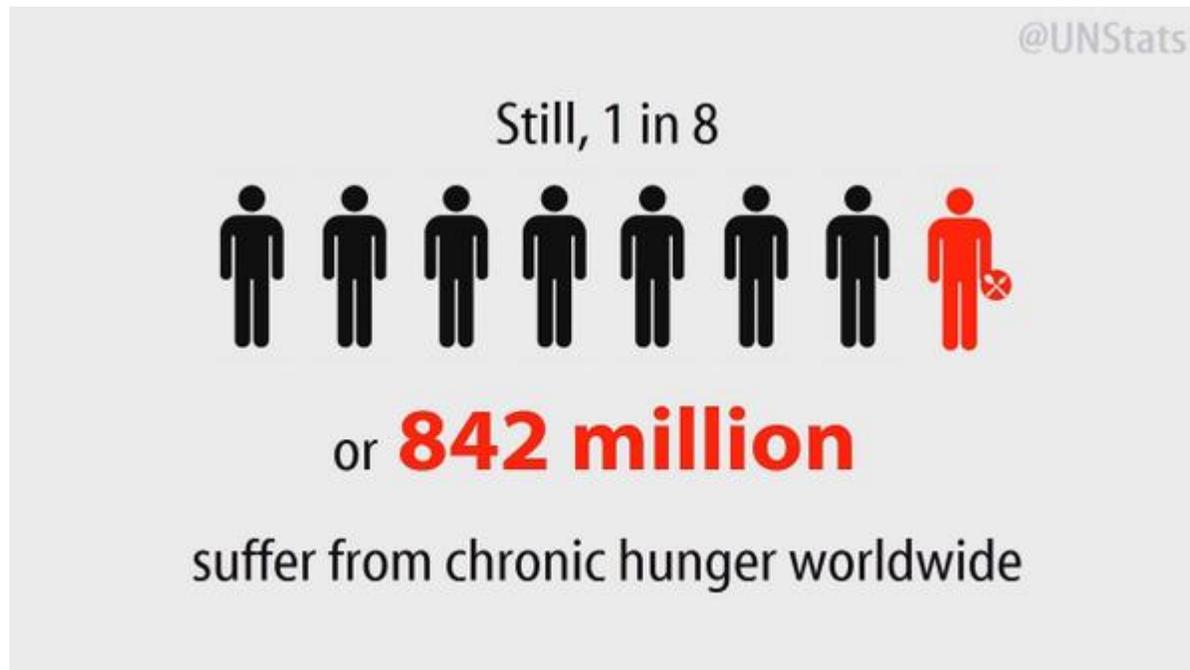
D Tilman & M Clark *Nature* , 1-5 (2014)  
doi:10.1038/nature13959

# Income dependent dietary shifts: a comparison between the richest and poorest countries

15 richest countries	20 poorest countries
daily food demand—measured as food that enters the household per person—is about 3,500 calories	the average person’s daily food demand is about 2,000 calories
Up to 25% of this food is wasted after it reaches the household.	wastes are much lower
About 20% of daily calories consumed in these wealthy nations come from meat, milk, and eggs	only 3% of daily calories are coming from meat, milk, and eggs
38% of daily calories are from empty calories	12% from empty calories

# Other food system related challenges

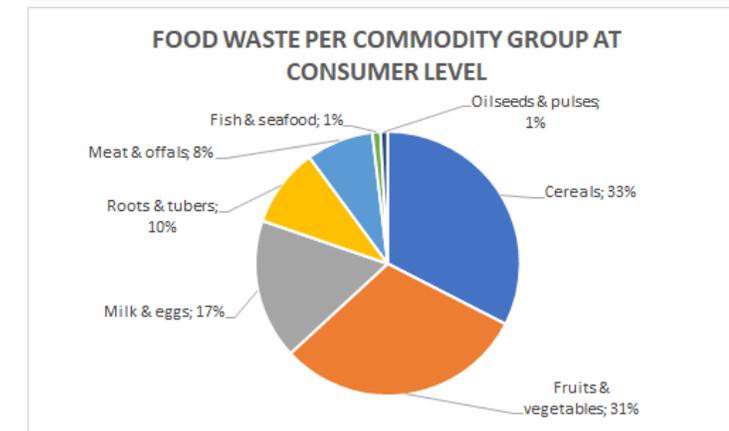
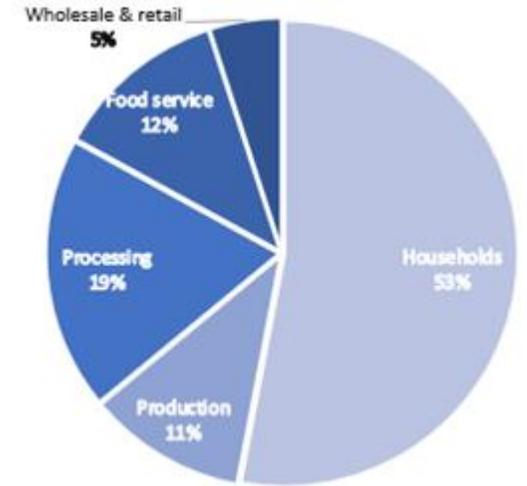
**Chronic hunger** still exists (1 in 8 of the world pop) even though agriculture produces enough food for 12 to 14 billion people, (FAO, 2013)



# Other food system related challenges

## Food loss and waste:

- Roughly 1/3 of the food produced in the world for human consumption — approximately 1.3 billion tonnes — gets lost or wasted
- European households are wasting the most (of all food supply actors)
- Grains are wasted the most, followed by fruit and vegetables, and dairy products
- When food is wasted, this results in CO<sub>2</sub> emissions. The annual CO<sub>2</sub> emissions of household food waste in Europe is as big as the CO<sub>2</sub> emissions of 40 million cars!



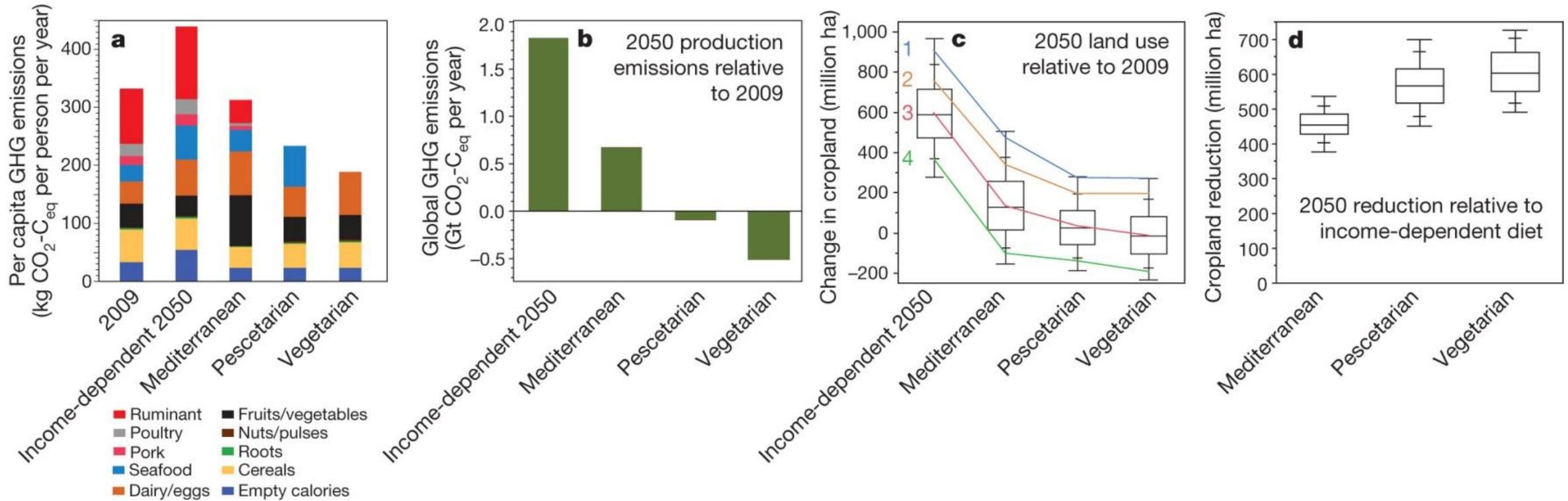
# Income-dependent dietary shifts

## Consequences for the environment

- Global-average *per capita* dietary GHG emissions from crop and livestock production would increase 32% from 2009 to 2050 if global diets changed in an income-dependent way
- In addition: 30% increase in world population

→ Combined effect: the net effect is an estimated **80% increase in global GHG emissions** from food production (from 2.27 Gt per year CO<sub>2</sub>-Ceq in 2009 to 4.1 Gt per year CO<sub>2</sub>-Ceq in 2050)

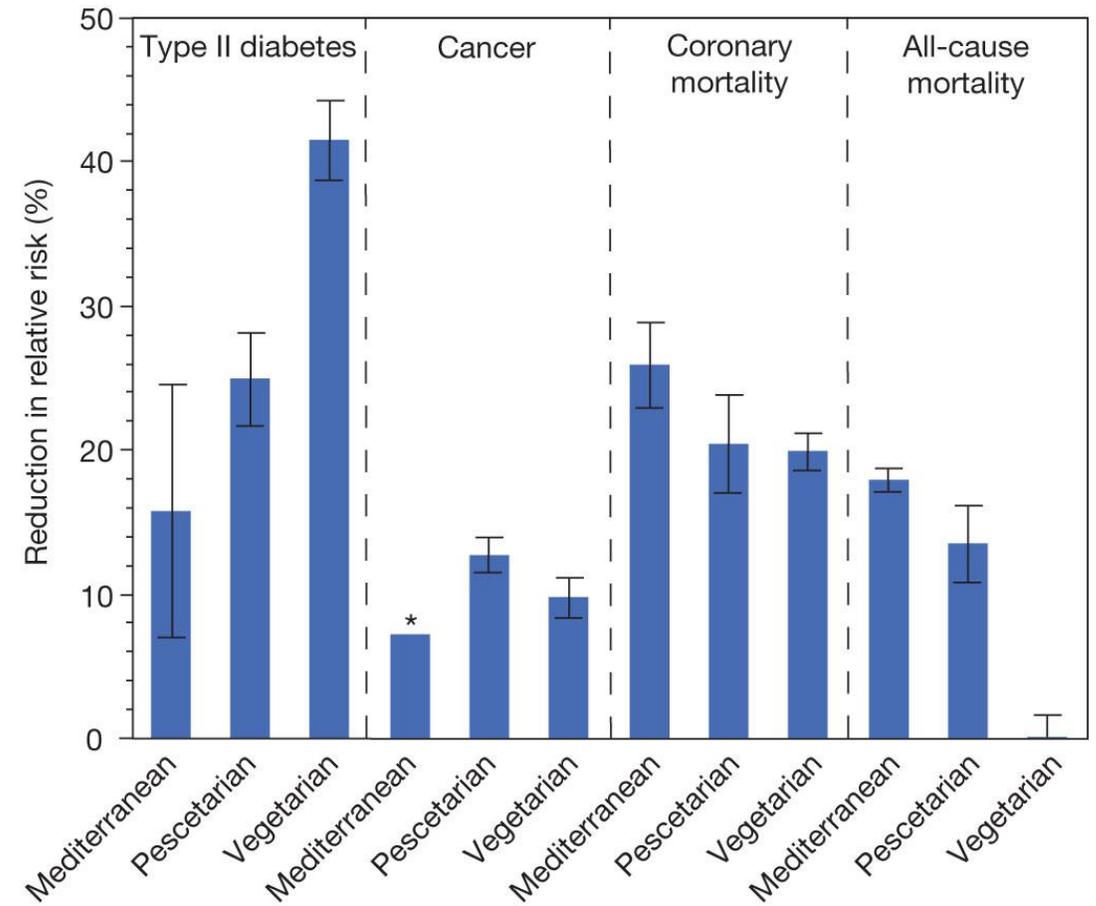
# Effect of diets on GHG emissions and cropland.



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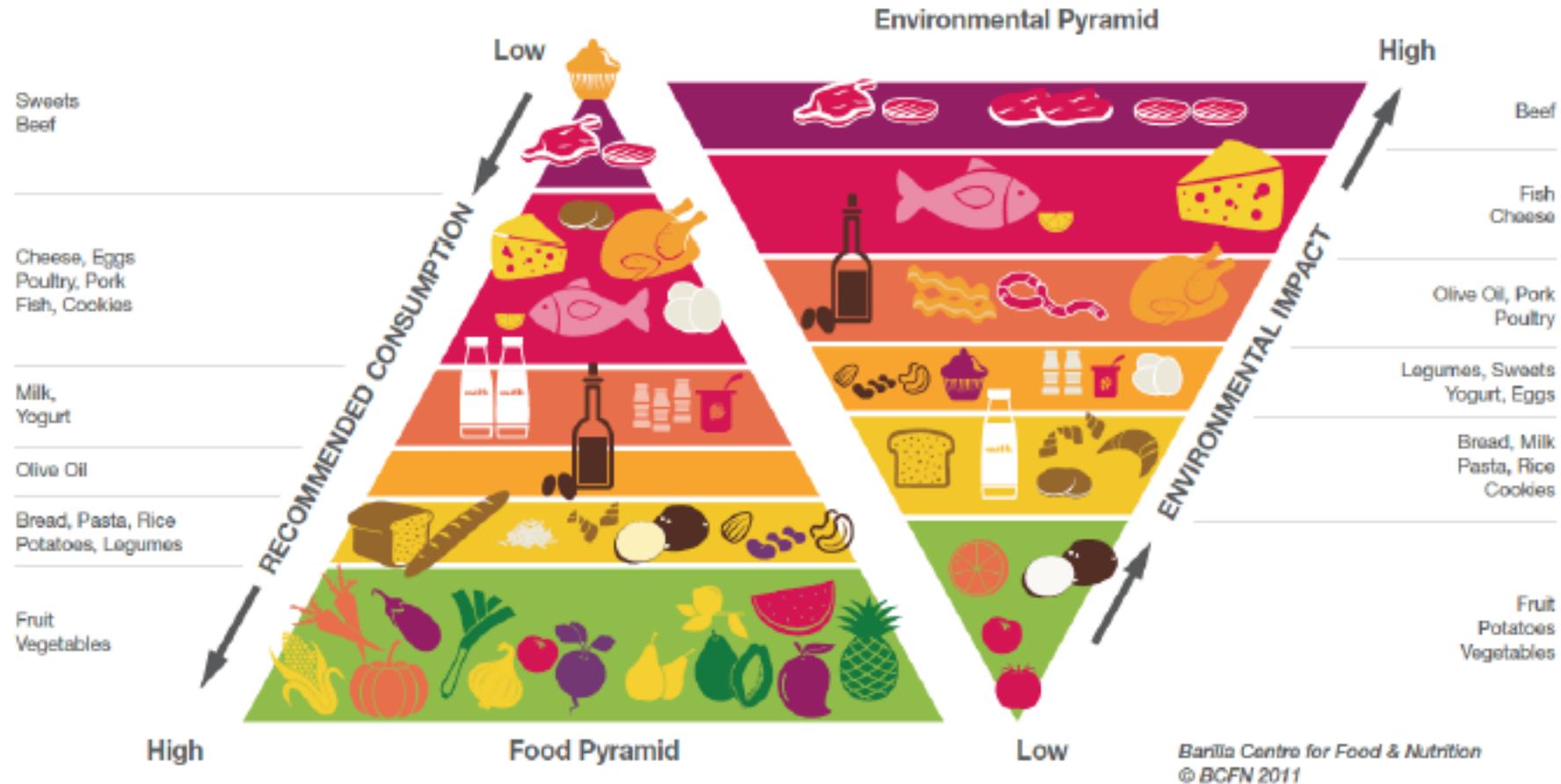
# Income-dependent dietary shifts

Consequences for human health:  
 Income-dependent diet shifts are associated with increases in **non-communicable diseases** (like type II diabetes, coronary heart disease and cancer), and in ways associated with higher all-cause mortality rates



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“Because it directly links and negatively affects human and environmental health, the global dietary transition is one of the great challenges facing humanity” – Tilman & Clark, 2014, Nature

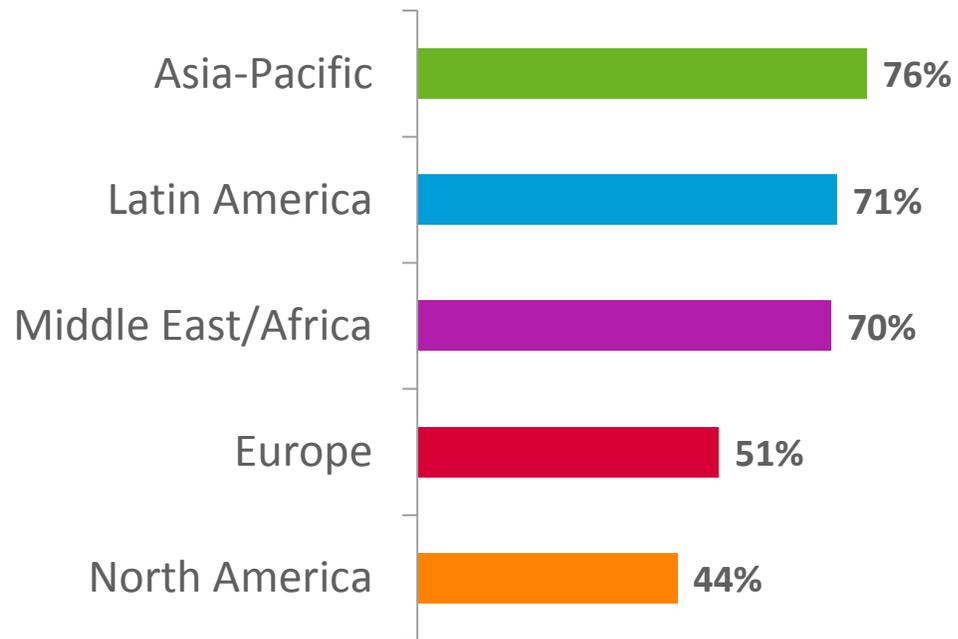


# Food system challenges call for dietary shifts

- Different actors, like farmers/producers, processors, retail, regulatory bodies can and should play a role.
- Consumers become more and more aware and knowledgeable of the challenges
- The shoppers are taking control: they vote with their pocket for products that match their values
- And price, quality and safety is not their only priority
- Some trends....

# Sustainability

In EU, half of the consumers say that they are willing to pay more for sustainable products



*Percentage of Consumers Willing to Pay More for Sustainable Products*

# Sustainability

- The number of consumers **willing to pay** more for brands committed to positive social and environmental impact continues to rise – reaching **66%** in 2015 (up to 11% from 2014)
- **42%** of the global consumers want **more** products in the market that are socially responsible and environmentally friendly
- Brands that commit to sustainability have grown more than **4%** globally in 2015.
- Consumers are backing their values with their wallet:
  - Sales organic products grew
    - 11% in Germany
    - 13% in the US
  - (over one year period, 2015-2016)

# Transparency

- Consumers want to know how, where, when, and by whom, food and drink is grown, harvested, made, and/or sold
- 73% consumers feel more positively about companies that are transparent about where and how products were made, raised or grown (source: Nielsen)

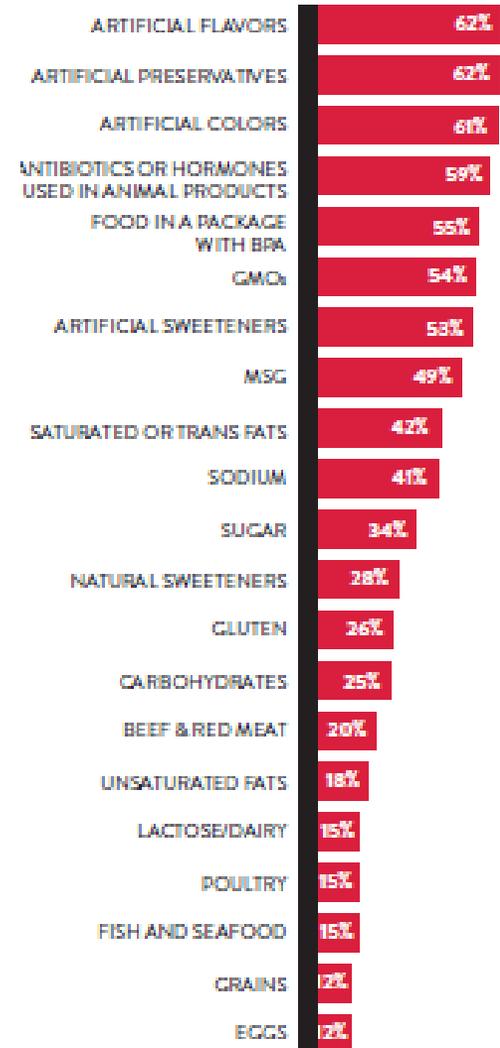


# Naturalness and Authenticity

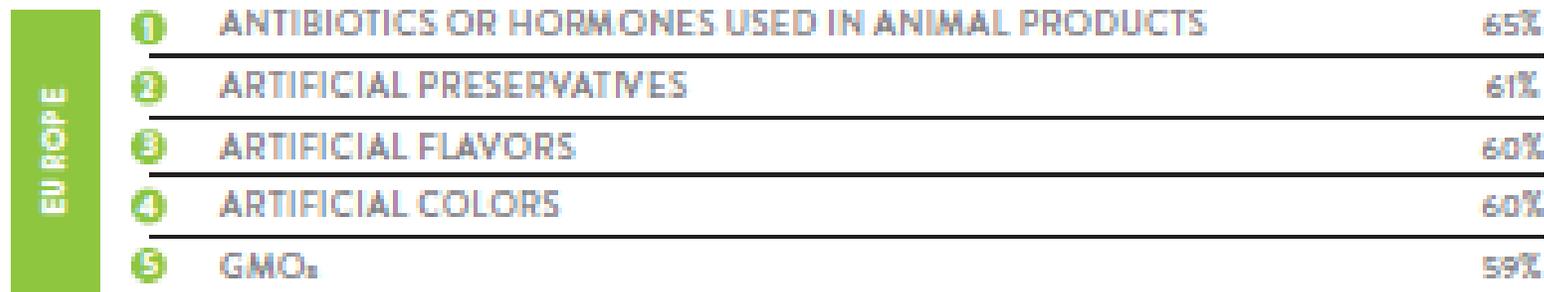
- Back-to-basics mind-set
- Focus on fewer processed foods
- Focus on foods free from hormones, antibiotics, artificial ingredients, GMOs, ...
- “Craft, artisan and ancient” product descriptions reassure consumers
- Interest in “twists on tradition”



GLOBAL AVERAGE: PERCENTAGE WHO SAY THEY TRY TO AVOID SPECIFIED INGREDIENT OR ATTRIBUTE



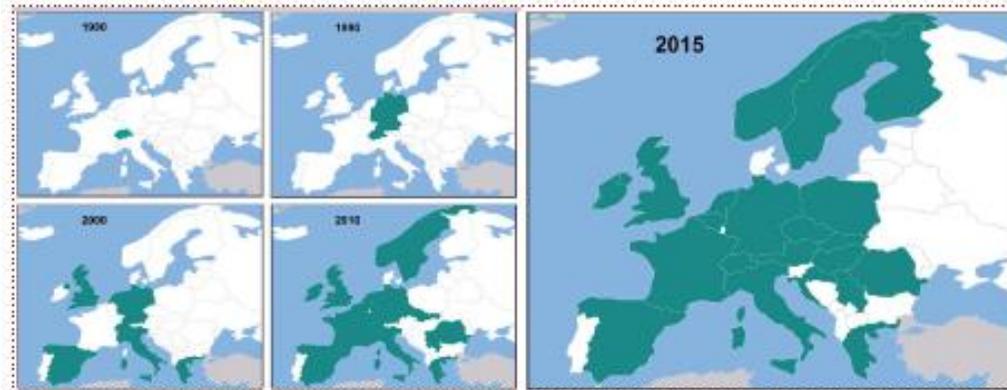
Top five ingredients avoided by consumers (source: Nielsen)



# Short and local supply chains

- Increased interest in direct farm-to-consumer connections
- Interest in buying local food
- Growth in short supply chains

→ CSA farms (2 783 CSAs in Europe in 2015), Buurderijen, Voedelteams



EUI: Map showing the spread of CSAs throughout Europe 1978-2015.

# Towards more plant-based eating

- Number of UK vegans triples compared in the last decade, half of them aged between 15 and 34 years (source: IRI)
- 185% increase in the number of vegan products launched in the UK between 2012 and 2016 (source: Mintel)
- 30% of the food-to-go consumers want more vegetarian options, 22% more dairy free choices (source: IGD)
- Rise of flexitarianism



# Personalised foods

- Focus on self-care, personal well-being
- Consumers develop their own unique definitions of healthy and sustainable diets
  - More natural, sustainable, healthy products
  - But also more habitual ‘better-for-you treats’ and occasional treats (celebrating indulgence with guilty pleasures, “dirty labels” instead of clean)



Photo by [Baher Khairy](#) on [Unsplash](#)



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# Convenience is key

With more than 200-food related decisions per day, consumers are looking for easy options for their meals and snacks, for their shopping experience, purchase decisions

- Online grocery shopping
- Click and collect services
- Meal kit subscription services
- Health fast food

# How to meet consumer demands?

- Extreme consumer demands
- Is it sufficient to ‘inform’ consumers on food related impacts and make all products that match their values easily available and affordable?
  - Leverage technology to increase transparency and traceability, to increase trust in food system actors
  - But, consumer overwhelmed with information and conflicting reports on what is recommended and what should be avoided
    - ➔ Choice stress
    - ➔ Consumers are looking for routine relief from choice stress
- Or/and provide them a compass for their decision making?
  - Leverage technology to ease product selection (that match their values), to increase their shopping experience, ...

Thank you for your attention!

Questions?