



# Animal Protein Sector: Opportunities & Challenges

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## □ Overview

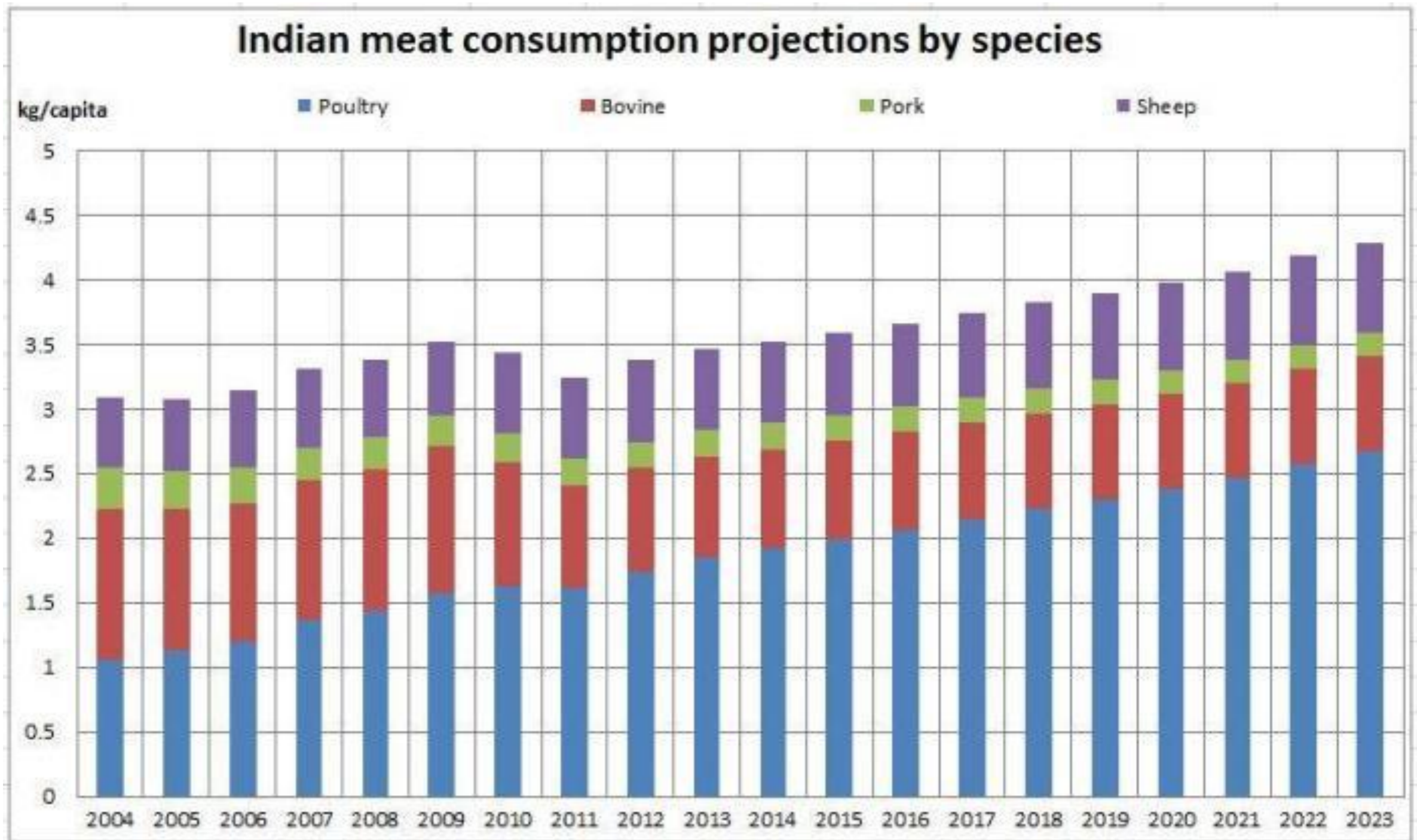
- Portends in India's meat consumption
- Where the animal protein sector is heading?

## □ Opportunities or Challenges?

- LTO, Public Perception & Regulatory environment
- Sustainability – Borrowed ideologies
- Consumerism – Evolving Preferences, Digital disruption
- Alternative proteins – Fad or a serious competition or complementary

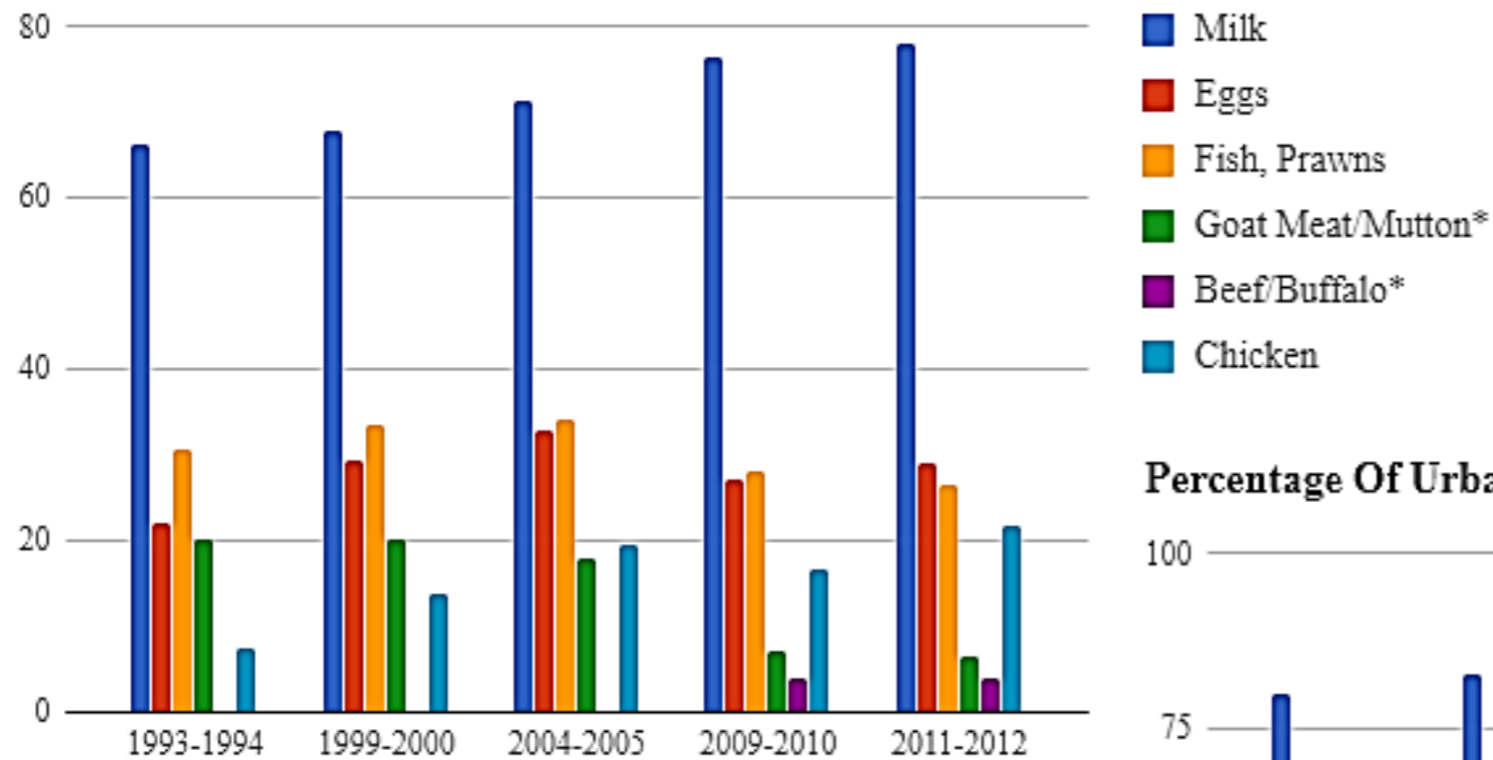
## □ Key takeaways

# India's meat consumption...

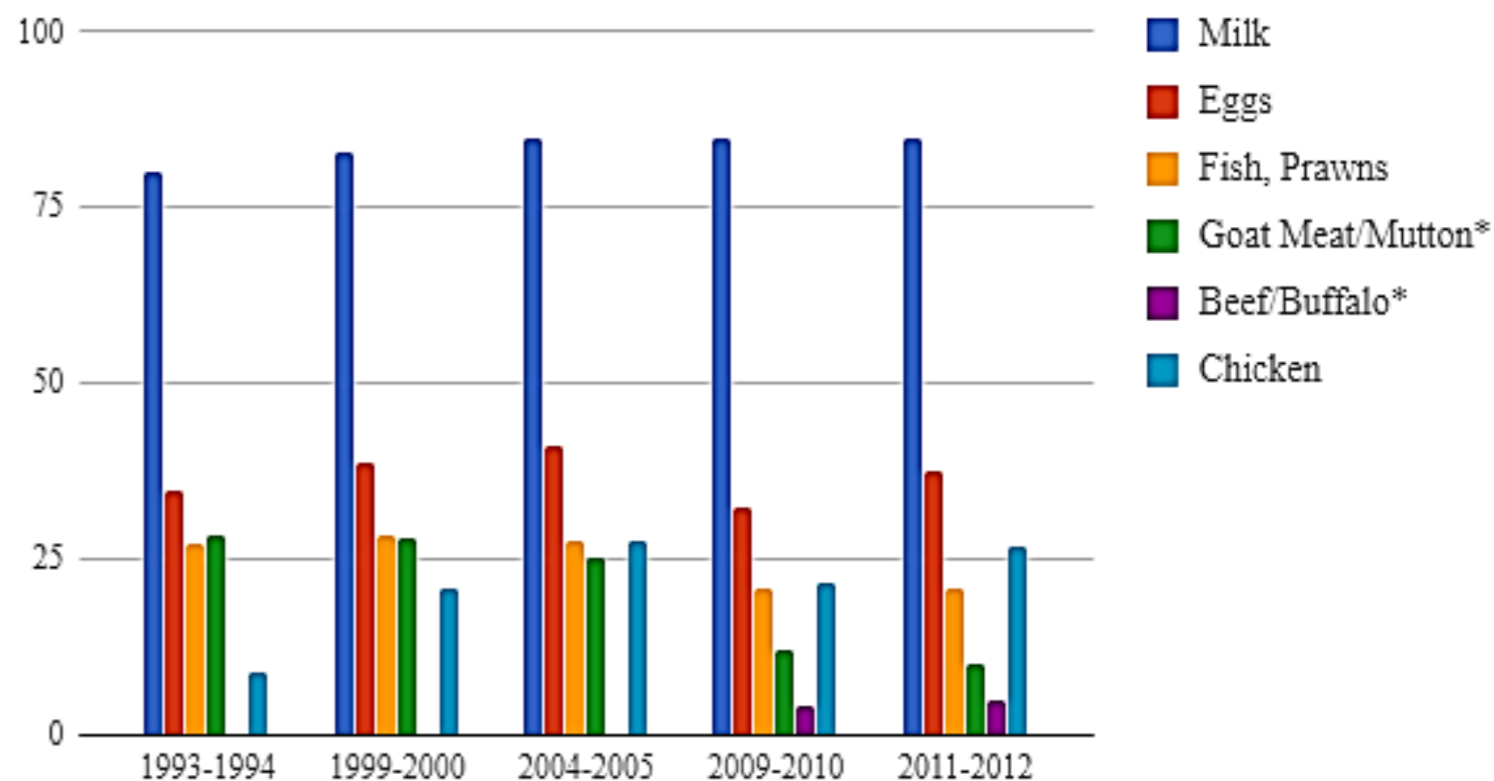


# India's meat consumption...

Percentage Of Rural Households By Protein Sources, 1993-94 to 2011-12

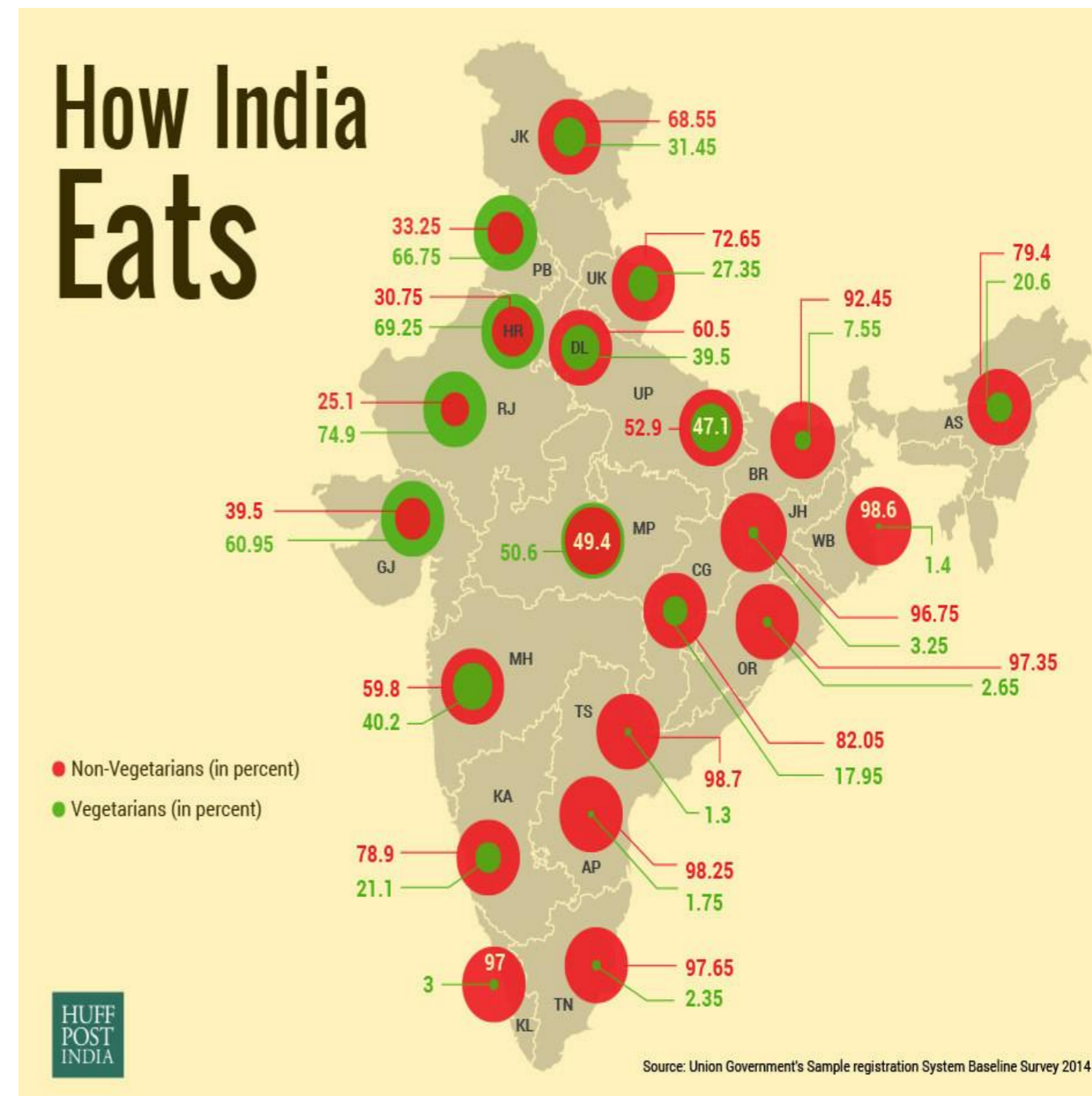


Percentage Of Urban Households By Protein Sources, 1993-94 to 2011-12



# Portends in India's meat consumption...

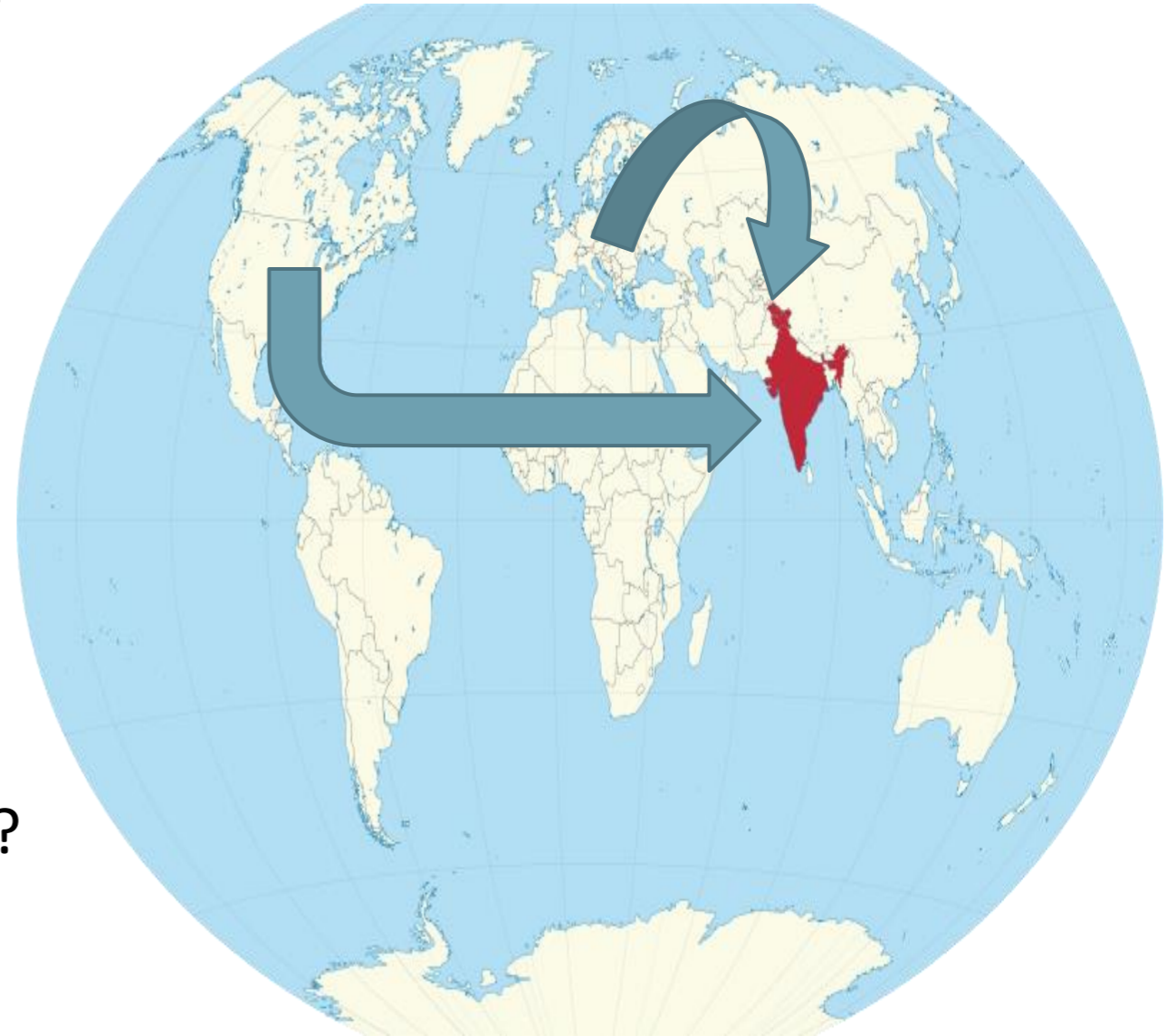
- Population growth
- Rising incomes
- Preference for high value foods
- Growing Out-of-Home consumption
- Evolving tastes & preferences
- Converging food intake trends
- Focus on “Health through Food”
- Time scarce generation → Convenience, Ease of use, Safe
- On the “Digital superhighway”  
*and the list goes on and on....*



# India's animal protein sector

## Where it is heading?

- Increasing global convergence of
  - ▣ Regulatory frameworks
  - ▣ Food Quality & Safety standards
  - ▣ Sustainability concerns
  - ▣ Evolving product preferences\*\*
- More demanding stakeholders
  - ▣ Regulators / Policy makers, Consumers, Civil Societies
  - ▣ Media – Explosion of social media?
- More challenging business environment
  - ▣ Need to **“earn”** the industry's Licence to Operate or Freedom to Operate

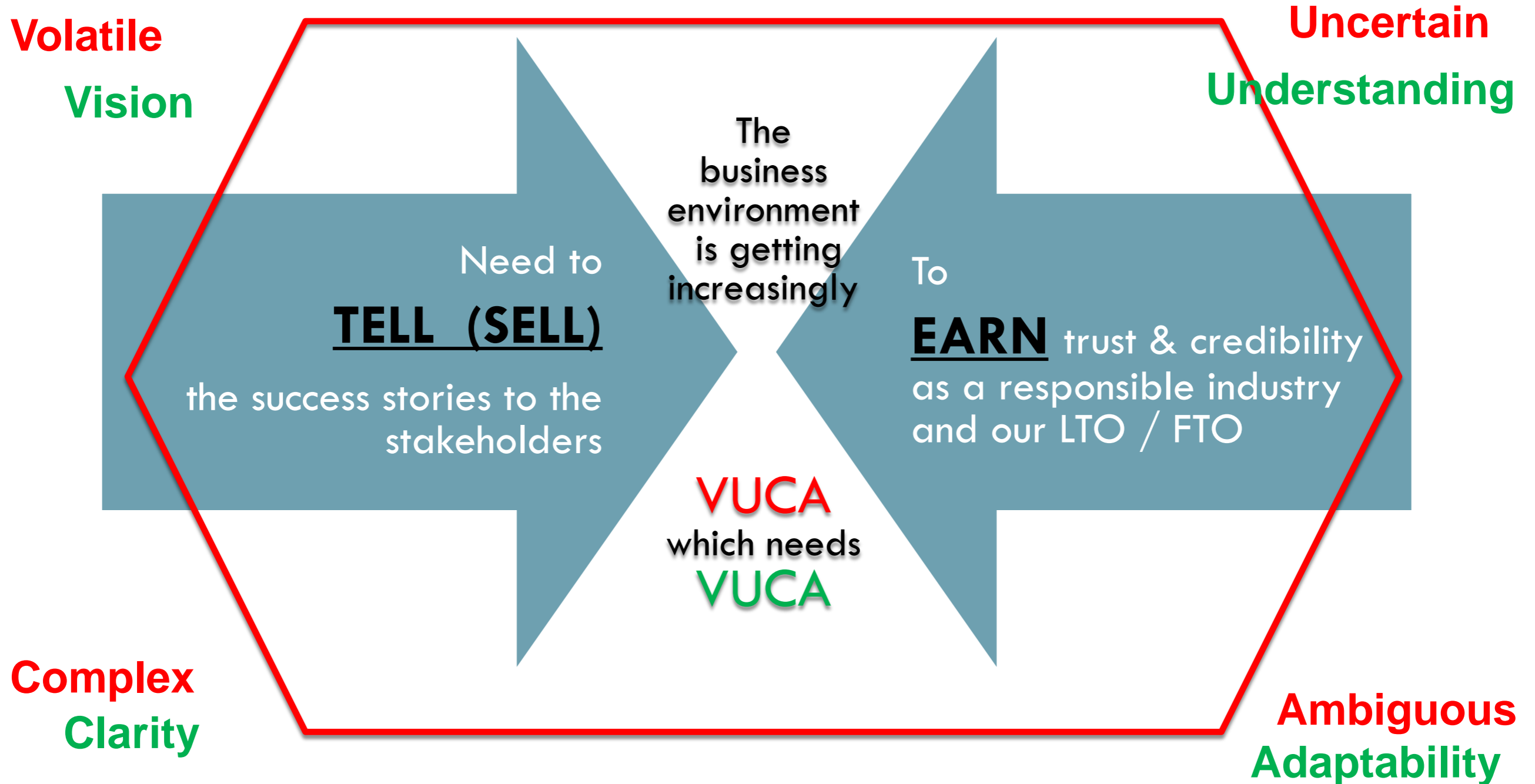


# License to Operate

Public Perception & Regulatory environment

# License to Operate

## Need for a Step Change in Thinking





# License to Operate

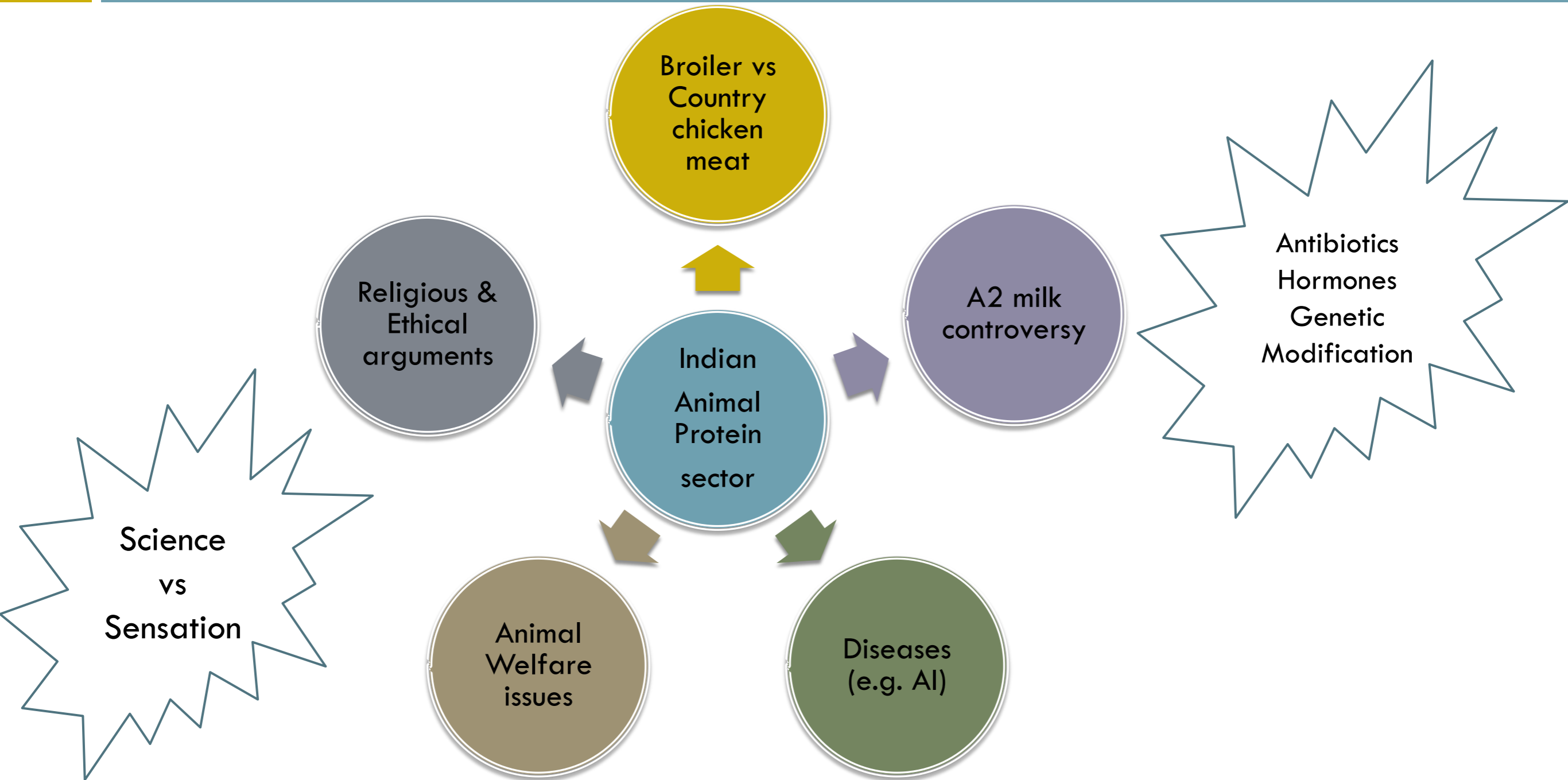
## Where is the influence coming from?



No industry is immune from negative public perception  
Any sector can be “made” sensitive...

# License to Operate

## Being proactive: Benefits & Costs



Its no longer a discussion on Cost of **doing** business...  
but Cost of **losing** business...

# Sustainability

Borrowed ideologies, Evolving concerns

# Sustainability

## Borrowed ideologies, Emerging concerns

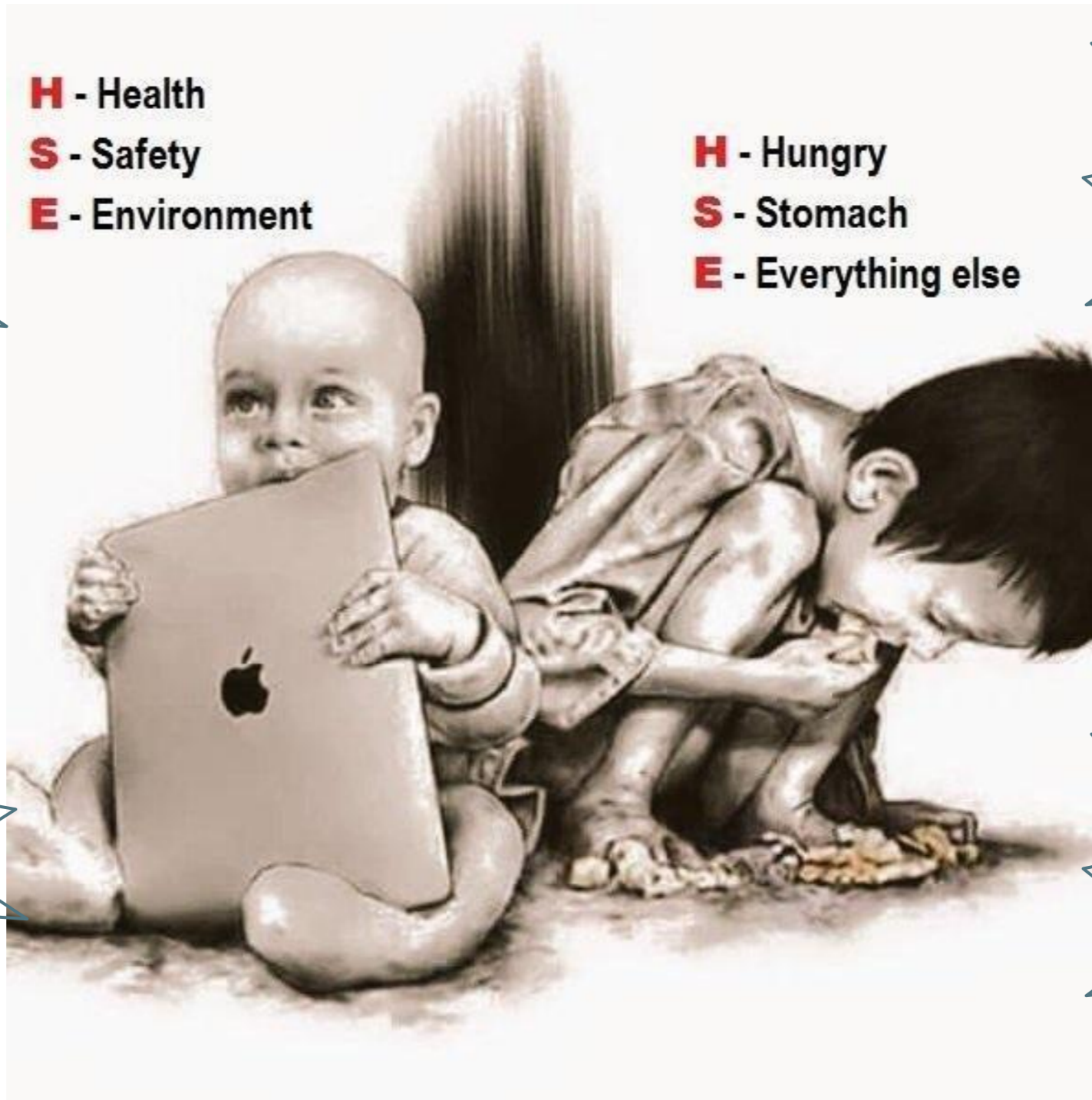
**Climate  
change**

**H** - Health  
**S** - Safety  
**E** - Environment

**H** - Hungry  
**S** - Stomach  
**E** - Everything else

**Human  
rights &  
welfare**

**Ecological  
footprint**



**Ethical &  
Religious  
views**

# Sustainability

## Borrowed ideologies, Emerging concerns



# Consumerism

Evolving preferences, Digital disruption



# Consumerism

## Evolving preferences, Digital Disruption

- Blurring Urban – Rural divide
  - ▣ Convergence of food preferences and behaviour
  - ▣ Growing e-commerce (e.g. food delivery)
  - ▣ Feast-on-the-Go, RTE, RTC...
  - ▣ At home & Out-of-Home consumption
  - ▣ Moving on from haats & melas to smartphones & gadgets
- Increasing clamour
  - ▣ Information overload
  - ▣ Trust deficit
- Who wins?
  - ▣ Proactive, Authentic, Creative
  - ▣ Responsive with ears on the ground
  - ▣ Last-mile reach

### Betting on Bharat Makes Sense...

Rural areas, home to two-thirds of the country's population, or some **870 million** people, are where much of the action will be for the rest of the decade

Rural users will constitute about **half of all Indian internet users** in 2020

Number of connected rural consumers is expected to increase from about **120 million in 2015** to almost **315 million in 2020**

Rural growth will significantly outpace growth in urban centres



#### MATURE USERS

They make up over **19%** of rural population (160 million) with **30% internet penetration**

They are **18-50-year-old** salaried workers or businesspeople

Have been online for three years or more

**Spend 2-3 hours online a day**



# Consumerism

## Evolving preferences, Digital Disruption

**Mobile as the primary device for internet**

Urban - 77%

Rural - 92%



**Internet user base**

(Oct 2016, million)

Urban – 263

Rural – 157

### Digital Superhighway...

- Entertainment
- Business / Communication
- Information / Education



# Consumerism

## Is the Indian animal protein sector ready?

### Supply side

- Production
  - ▣ Raw materials availability, quality & prices
  - ▣ Technology upgradation – Islands of success?
  - ▣ Biosecurity, Food safety
  - ▣ Unorganized sector – The uncontrollable beast?
- Investing in value chain infrastructure
  - ▣ Processing & value addition, storage & distribution
- Innovations through investing in R&D
  - ▣ Sustainable ingredients (e.g. alternatives for antibiotics, protein replacements like pulse fractions), processes and reducing eco-footprint
  - ▣ New product offerings matching consumers' tastes & preferences
- Industry-level information
  - ▣ Industry data- availability & reliability
- Nurturing future industry leaders
  - ▣ Investing in skill development

### Demand side

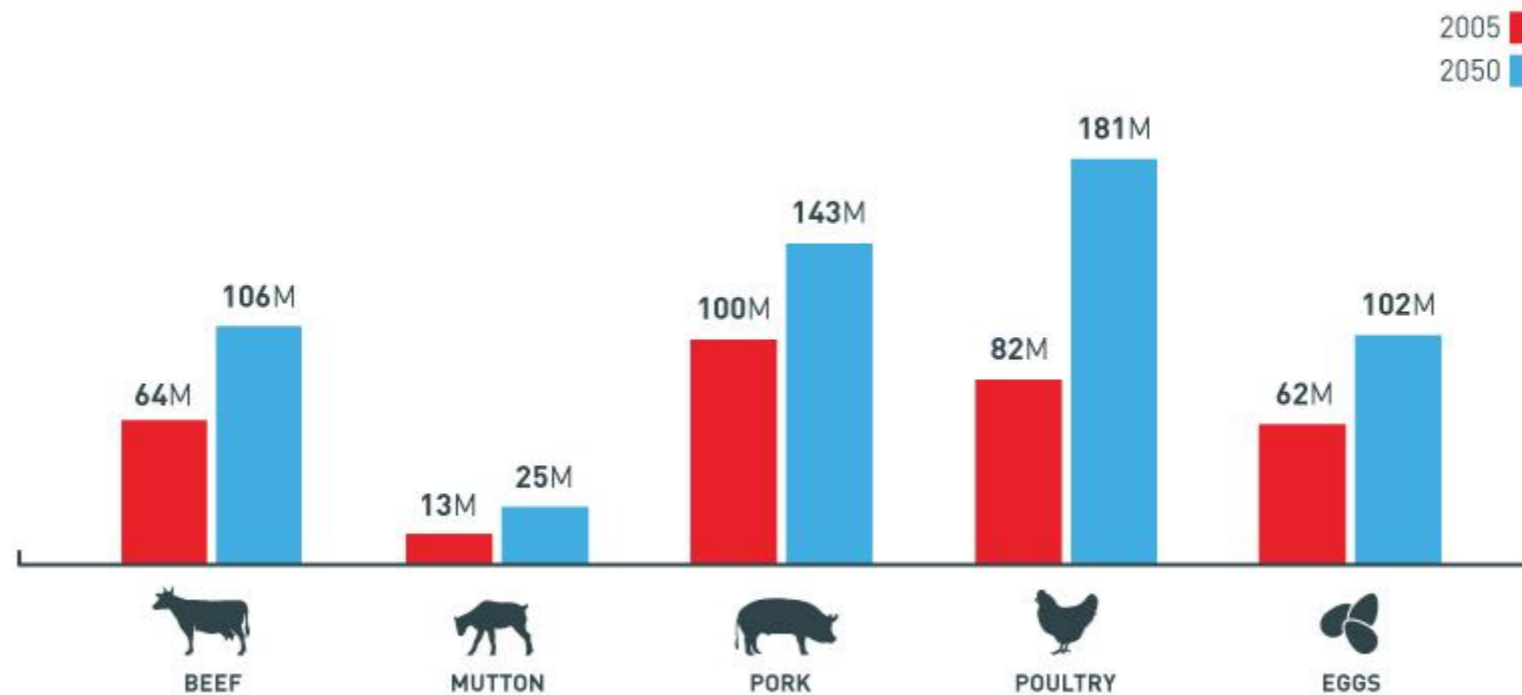
- Consumer education
  - ▣ Promoting awareness on nutrition & health aspects
  - ▣ Busting myths & negative press
- Regulatory environment
  - ▣ Relatively less (yet unpredictable)
  - ▣ Scientific and evidence-based
- Expanding exports & trade
  - ▣ Conformance to global standards on food safety & quality
  - ▣ Competitiveness

# Alternative Proteins

Fad / Serious competition / Complementary?

## GLOBAL DEMAND FOR MEAT

2005 vs. 2050  
*[in tonnes]*



Source: Food and Agriculture Organization of the United Nations, ESA Working Paper No. 12-03, p. 131

# Alternative Proteins

## Fad or a serious competitor?

### TRY THIS – NOT THAT



**WHY YOU EAT IT:**  
source of calcium



**TRY: Tofu, Broccoli, Leafy Greens, Beans, and Almonds.** These foods are also very high in calcium.



**WHY YOU EAT IT:**  
source of protein



**TRY: Beans, Tofu, and Lentils.** These foods are good sources of vegetarian protein. Plus, they are low in cholesterol. (One egg contains as much as 220mg of cholesterol!)



**WHY YOU EAT IT:**  
source of omega 3, fatty acids, and DHA



**TRY: Flaxseeds, Walnuts, and Savi Seed.** Omega 3, fatty acids, and DHA can also be found in these foods.



**INSECTS**  
An Alternative  
**PROTEIN SOURCE**



### What is driving?

- Health concerns?
  - ▣ Emerging NC diseases ([anti-obesity protein](#))
- Environmental concerns
- Technological innovations
  - ▣ Pulse protein fractions (incl. Soy for human consumption)
  - ▣ Lab grown meat
  - ▣ Insects (incl. Silk-worm), Algae
- Ethical / Religious concerns?
- Celebrity endorsements?
  - ▣ Think tanks (WEF, WHO)
  - ▣ Investors

# Alternative Proteins

## Compete or Complement?

The three innovation areas for *immediate* action are:

- Increasing the proportion of plant-based protein consumption with consumers
- Scaling up a sustainable feed innovation to meet the demand for animal protein
- Closing the protein nutrient loop (for example, reducing waste rich in protein by finding new ways to feed it back into the production cycle)

The three innovation areas for *future* action are:

- Developing indigenous plants as protein sources for local communities
- Scaling up sustainable aquaculture for food and animal feed
- Restoring soil health

“ We believe that the growing demand for animal-based food can only be met using **feed produced sustainably**. To deliver this, alternative proteins in feed must be widely used. Feed Compass is critical for reaching a shared vision of feed fit for the future. ”

**DR. THOMAS KAUFMANN** SVP SUSTAINABILITY DEVELOPMENT  
NUTRITION, EVONIK NUTRITION & CARE GmbH

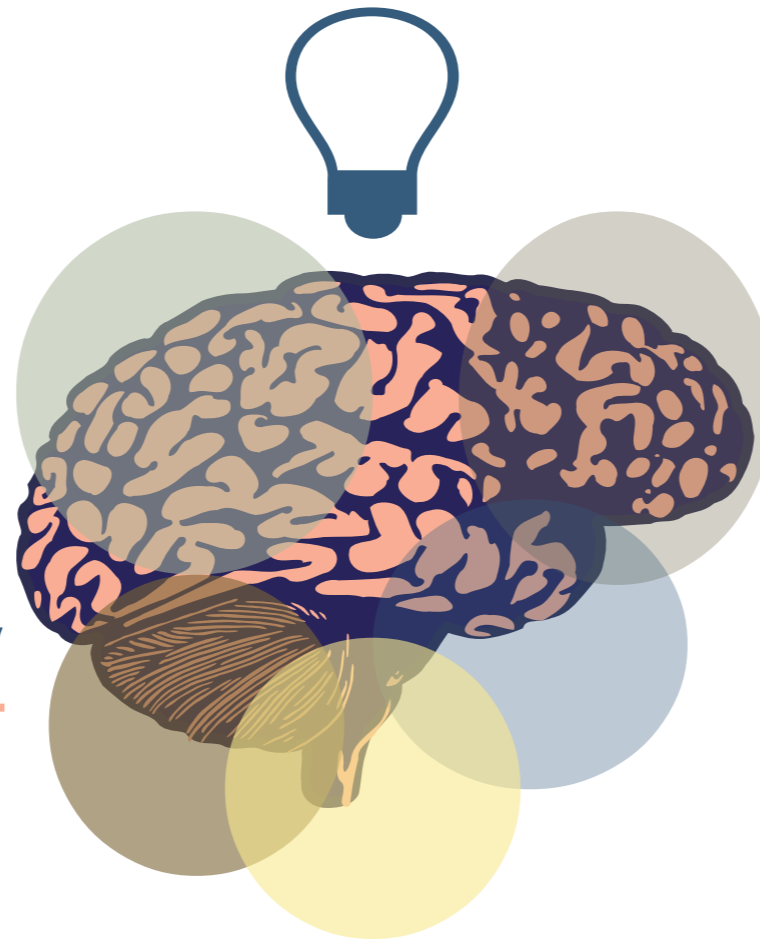
# Key Takeaways

## Industry's LTO

- Proactive engagement with all stakeholders
- Shaping public perceptions and regulatory frameworks
- Cost of doing business vs Cost of losing business

## Sustainability

- No longer a good-to-have thing
- Commercial decisions are increasingly influenced
- Growing expectations from regulators, civil society and consumers
- Proactive initiatives pay off in the long run



## Alternative proteins...

- Need not be competing but can complement
- Driven by the holistic view on food & nutritional security and environmental sustainability

## Consumerism

- Evolving preferences, driven by mobile, retail and e-commerce revolutions
- Blurring rural-urban divide
- More information, more clamour

## Competitiveness

- Joint action & advocacy by all stakeholders
- Adopting best practices with investments in R&D
- Compliance with local & global standards
- Innovations at every step in the value chain



Thanks