“The greatest thing we can do to advance nutrition and advance the livelihoods of the likes of smallholder farmers is to help build an economy and do business in Africa.”

John Mendesh, General Mills
Supply
Demand
Rules of the Game
Supply: companies face increasing threats due to water scarcity, climate risk, & substitutes

<table>
<thead>
<tr>
<th>Water scarcity is threatening global agricultural production</th>
</tr>
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</table>
| Water scarcity has a huge impact on food production, with agriculture accounting for approx. 70% of global water withdrawals.  
70% |
| This strain on a natural resource is set to only increase: as the global population heads for more than 9bn people by 2050, demand for food is expected to surge by more than 50%. |

<table>
<thead>
<tr>
<th>Climate change is increasing risk exposure for upstream commodity producers &amp; traders</th>
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</thead>
</table>
| Climate change is a significant risk for agriculture and food systems, impacting average growing conditions, driving climate/weather variability, and creating uncertainty in predicting climate, weather and input availability.  
20-30% |
| 20-30% of plant and animal species are likely to be at increased risk of extinction if global average temperature exceeds a 1.5-2.5°C rise. |

<table>
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<tr>
<th>Substitutes are transforming food ingredient requirements</th>
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</table>
| Consumers are rapidly moving away from traditional sources of protein; 2010 to 2016 saw a 257% increase in the number of food and drink products launches which included vegan claims.  
257% |
| Food processing & commodities trading companies are already pivoting to capture this value e.g. ADM is developing a new 80% pea protein in the US due early 2019. |

So what? Agricultural water use for crops will have a direct impact on crop and food availability

So what? This changing landscape will affect commercial crop/animal growth, rearing and consumption, transforming the kind of products brought to market

So what? This will have a direct commodity trading and sourcing implications as crops such as soy, wheat, and vegetables become more in demand for companies that go beyond ‘standard-issue’ gluten-free
**Demand:** consumers and customers are increasingly demanding sustainable products & services

<table>
<thead>
<tr>
<th>Local Produce</th>
<th>Traceability</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;50% of global consumers are willing to pay more for locally produced foods.</td>
<td>63% of consumers refuse to buy from companies they don’t trust.</td>
</tr>
<tr>
<td>Increased demand for natural products. Organic, natural &amp; Fairtrade brands retail at higher prices with 39% of consumers willing to pay more.</td>
<td>Efficient processes, products &amp; packaging. Green consumer actions could reduce the EU’s CO₂ footprint by 25%.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Natural &amp; Organic</th>
<th>Resource Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appeal for ethical stores and brands with a purpose. Annual growth rate for sales at 8.5% vs 4.5% for other products.</td>
<td>The future is circular. Globally more than 1/3 of millennials are using an asset-sharing service.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Circular Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital consumerism forcing responsibility. 92% of consumers trust peer reviews; only 20% of trust a company’s own claims.</td>
<td>Water scarcity &amp; security. 67% of consumers are willing to pay a premium for products if the company is increasing access to clean water.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital Consumer</th>
<th>Water</th>
</tr>
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<tbody>
<tr>
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6
# Rules of the game: regulatory, social licence and digital transformation are changing the landscape

<table>
<thead>
<tr>
<th>Stakeholder demands</th>
<th>Regulatory and legislative initiatives</th>
<th>Digital transformation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN SDGs provide a blueprint for government &amp; business to help build a sustainable future</td>
<td>Food waste is topical, with national plans/commissions by regulators in Central America (Argentina, Peru)¹</td>
<td>Automation, robotics, and hardware supporting or replacing manual labour in the supply chain</td>
</tr>
<tr>
<td>The 2018 UN Climate Change Conference convened stakeholders to review/implement the 2015 Paris Agreement</td>
<td>‘Sugar tax’ indicates a growing concern with sugar content of certain foods, applied in some US states (2015)², the UK (2018)³</td>
<td>Rapid prototyping, 3D printing and virtual reality is enabling reduced time to market</td>
</tr>
<tr>
<td>Business has become an active partner in delivering the global ambitions</td>
<td>‘Fat tax’ has been introduced in some geographies, such as Kerala, India (2016)⁴</td>
<td>Artificial Intelligence can enable shift to proactive, precise maintenance of food manufacturing equipment</td>
</tr>
</tbody>
</table>

¹. ARGENTINA
². US states
³. UK
⁴. India

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FOOD SECURITY – CORPORATE ACTION

1. Resilience, yield & productivity
   Maximising resilience, crop yield, and land productivity

2. Sourcing strategies
   Strategically selecting sourcing countries and investment

3. Fortification
   Increasing the nutritional value of food, and reducing nutritional losses

4. Traceability (and action)
   Getting visibility and being able to track to origin sourcing markets

5. Farmer Enablement
   Empowerment and support of smallholders and communities

6. Partnerships
   Multi-stakeholder and bi-lateral collaboration

7. Reducing Losses
   Proactive reduction of post harvest losses

8. Using By-Products
   Reducing waste and increasing product potential
Innovation: Agri-businesses are developing new ingredients and traceable supply chains

- PURIS, the largest North American producer of pea protein, and Cargill have signed a joint venture agreement to accelerate a new wave of great tasting, sustainable and label-friendly plant-based foods
- Working toward a 100% transparent, traceable and sustainable palm oil supply chain by 2020, and claims that 96% of its volume is already traceable to mills and 55% is traceable back to plantations

- Launched TasteSolutions to explore and develop protein-based ingredients and products like pea
- Joined a public-private research consortium to invest in the Plant Meat Matters project with Unilever and Ingredion, exploring vegetable protein as a solution to vegetarian ‘steak’

- Traceable supply chains are key, aiming to source 100% of primary palm oil derivatives from certified sources and achieve 100% traceability of strategic raw materials by 2020
- Symrise joined WBCSD in 2017, recognising that embedding ‘sustainability in its business model’ is key to deliver real impact

- The potential from alternative protein sources like peas rather than the bigger commodity crops like soybean, corn, and wheat to meet growing consumer demand, hence building its own pea processing plant, signing contracts with farmers to buy and grow yellow peas, and studying another 30 types of protein options, including nuts and seeds

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Innovation: Consumer companies are innovating their products, value chains & business models…

• AB InBev launched plant-based protein shake Canvas in 2018. The product is a nutritious, fibre-rich breakfast drink, created from dry grain leftovers from the beer manufacturing process, helping AB InBev to utilise some of the 30m tonnes of grain leftovers produced every year during the brewing process.

• USLP is synonymous with sustainability, inclusive business and smallholder enablement
• Unilever’s condiment brand, Sir Kensington’s is turning food waste into upcycled products. Sir Kensington’s uses aquafaba, the waste product from cooking chickpeas, to create an egg-free mayonnaise allowing them to tap into the growing plant-based market whilst simultaneously reducing food waste.

• Ben and Jerry’s launched a range of vegan ice creams in 2018, using almond milk instead of dairy. With this new product launch, Ben & Jerry’s hope to become vegan ice cream of choice for the growing number of consumers choosing not to eat dairy.

• Iceland have committed to using no palm oil in own brand products until it causes zero deforestation.
• Although Iceland’s Christmas advert highlighting their new sustainability pledge was banned, it has been viewed over 300 million times on YouTube and was named the most powerful advert of 2018. Iceland’s sustainability initiatives have increased brand awareness, influence and sales.

• Fortifying foods commonly eaten by vulnerable populations (through the direct addition of micronutrients to recipes) and 2) using biofortified crops in Nestle’s ingredients
• Developing supply chains for biofortified maize (also known as provitamin A-rich maize, or PVA maize)
Business value is critical for sustainable change

**Increase Positive**

**Grow revenue**
- Increased sales by customer preferences (B2B and B2C) in industrial countries
- Improved market access in emerging countries
- Extended product portfolio by sustainable innovation

**Reduce costs**
- Energy savings and reduced CO₂ emissions
- Reduced sourcing and after-sales costs by improved supplier reliability and quality of goods
- Reduced R&D costs by improved interaction with stakeholders
- Reduced labor-costs by increased loyalty of employees

**Increase intangible values**
- Increased brand value
- Increased attractiveness for investors by measurability of sustainability
- Improved employer branding
- Increased trust and customer loyalty

**Mitigate risk**
- Protection of “license to operate”
- Reduced reputational risks
- Reduced probability of scandals
- Reduced regulatory risks

**Reduce Negative**

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Companies can make significant impact in developing markets through trust and collaboration.

- **GDP**
- **Jobs**
- **Local socio-economics**
- **Support of local industry**

**Sustainability**

**Value**

**Farmers**
- Quality
- Efficiency
- Productivity
- Livelihoods

**Economy / Government**
- GDP
- Jobs
- Local socio-economics
- Support of local industry

**Company**
- Cost efficiency
- Social License to Operate and Grow
- Competitiveness
- Secured Supply

**Trust & Collaboration**
Eagle: Brewing a local beer with local sorghum and local smallholders in Uganda
Thank you.