

# The food revolution

## Longer Term Investments (LTI)

With dwindling available resources and arable land, farmers are facing a predicament: How can they feed a growing and urbanizing population without further harming the planet? Technology holds the key, and investment opportunities are opening as a result.

### Projections and opportunities

#### **Demographic trends**

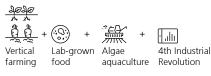
According to estimates compiled by the UN Food and Agriculture Organization, by 2050 we will need to produce 60% more food to feed a world population of 9.3 billion.



Source: UN Food and Agriculture Organization

#### Farming 4.0

Vertical farming, lab-grown food, algae aquaculture, and the components of the Fourth Industrial Revolution (big data, Internet of Things, artificial intelligence) can reduce crop input use, boost yields, and improve crop resilience to climate change.



Plant-based protein alternatives

Source: UBS

"Mindful eating"

#### Sustainability

Food production globally accounts for 40% of land use, 30% of greenhouse gas emissions, and 70% of freshwater consumption.



land use





greenhouse gas emissions 70% freshwater consumption

Source: United Nations

#### Digital living and personalized nutrition

New technological advances and their proliferation across industries are gradually ushering in a new wave of food-related innovations in areas of personalized nutrition, which could be worth as much as USD 64bn by 2040.

Projected growth

USD 85bn





### **Near-term drivers**

Population

growth

Society

○ Influencer

• New infrastructure reshaping the supply chain

Key drivers

Urbanization

Technology

- Cost and environmental pressures driving need for sustainable productivity in agriculture
- Labor shortages in agriculture and meat processing
- Structural drivers from health and wellness

#### Sustainable investing SDG 2: Zero hunger

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#### Source: Company reports, Bloomberg Intelligence, UBS estimates, as of June 2019

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Choosing brands and foods that come from sustainable sources is an important driver of shifting consumer preferences. Plant-based protein alternatives are expected

to become a USD 85bn market by 2030, representing a 28% annual growth rate.







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