Innovation with a Purpose

Opportunities for Transforming Food Systems

A Project of the World Economic Forum’s System Initiative on Shaping the Future of Food Security and Agriculture
Today’s food systems are in need of fundamental transformation

Over 2 billion people suffer from micronutrient deficiencies; meanwhile, over 2 billion adults are overweight or obese

800 million people in agriculture live below the poverty line

The agrifood sector represents 30% of global greenhouse gas emissions; inversely, climate change threatens food systems

The food sector accounts for 70% of water withdrawal

Some 500 million smallholder farms worldwide produce over 80% of the food consumed in the developing world
Technologies and innovation can help address specific challenges in food systems

How might CRISPR-Cas gene editing support sustainable, nutritious food systems, and what ethical issues does it raise?

How might big data and machine learning support climate-smart practices?

How might food fortification affect public health, and what are the regulatory challenges?

How might sensors help reduce food waste in transportation?

How might connecting farmers to consumers through e-commerce increase access to high quality foods?

How might consumer behaviour evolve with transparency into food quality and origin (e.g., temperature or nutrient indicators)?

Inputs

Production

Processing

Distribution

Retailing

Consumption

Core activities

How might drones bridge the “last mile”?

How might blockchain increase transparency of land ownership?

How might regulators respond to “clean meat”?

How might satellite imagery support trade policy?

How might environmental policies better incentivize low-tech water management?

How might retail-focused apps affect consumers’ decisions?

How might mobile platforms better support financial inclusion?

Enabling infrastructure

Roads & Ports

Storage, Processing & Transport Facilities

ICT Infrastructure

Energy Infrastructure

Land Tenure

Food Safety Regulations

International Trade Policy

Environmental, Energy & Social Policies

Open & Transparent Markets

How might mobile internet and strengthened connectivity improve smallholder farmers’ access to markets?

How might renewable energy reduce the agriculture sector’s footprint?
Can technology and innovation help create food systems that are...
What if we could harness technology and innovation to nourish the world without harming the planet?

The World Economic Forum has created a new Innovation with a Purpose project with the goal of directing the power of technology and innovation towards transforming food systems. In line with the Sustainable Development Goals, this collaborative project seeks to focus global attention on high-impact innovations and to empower a vibrant network of local innovators, linked to a global community, to accelerate social, environmental and inclusive growth solutions.
Innovation with a Purpose will build on the Forum’s network of over 600 organizations and partnerships in 21 countries, catalyzed by the New Vision for Agriculture.

The partnerships use a core set of 5 guiding principles:

- Locally-owned
- Multi-stakeholder
- Market-driven
- Globally supported
- Holistic

- **NVA Latin America**
- **Grow Africa**
- **NVA India**
- **Grow Asia**
The Innovation with a Purpose project will have two phases:

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<th>Phase</th>
<th>Objective</th>
<th>Output</th>
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<td>1</td>
<td>Identify transformative innovations in food systems...</td>
<td>Develop an insights resource, shared as a dynamic mapping of transformative innovations to be presented to leaders at the World Economic Forum in Davos</td>
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<td>2</td>
<td>...and partner to apply and scale them</td>
<td>Catalyze partnerships through existing and new networks connecting innovators, investors, policy-makers, farmers and others</td>
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1. Identify transformative innovations in food systems...

   - Objective: Provide actionable insights to global leaders to direct proactive policy, investment, and entrepreneurship to leverage innovation at scale for food systems change.

2. ...and partner to apply and scale them

   - Objective: Accelerate innovation among grassroots entrepreneurs around the world to research, develop, deploy and scale transformative approaches.
How can YOU take part in this transformation?

We welcome your input to:

- **Identify** technologies and innovation that strengthen inclusivity, environmental sustainability, efficiency and nutrition in food systems
- **Understand** the benefits and potential risks of new innovations
- **Define** the roles that business, government and civil society actors can play to develop, adopt and scale such innovation towards society’s needs
- **Catalyze** support for locally-led innovation - such as in Africa, Asia and Latin America - supported by a global network

For more information, please contact: agriculture@weforum.org
Or visit: www.wef.ch/agriculture

In collaboration with McKinsey and Company