

KEY RESULTS OF THE PLENARY TABLE

## “FEEDING THE WORLD IN 2050: FUTURE FOOD SECURITY”

**Panellists:** Karin Guendel-Gonzales (Bayer Cropscience Deutschland, DE), Akua Antwi-Agyakwa (Cocoa Research Institute of Ghana, GH), Jack A. Bobo (University of Nottingham, GB), Patricia Gruber (U. S. Department of State, US), Christophe F. Maire (Atlantic Labs & Food Labs, DE), Magdalena Skipper (Moderation) (Springer Nature, GB)

By 2050, the global population is projected to exceed 9 billion, which creates the need for a 70 % increase in food production to meet the demands of a larger, more urbanised, and wealthier populace. According to panellist Jack A. Bobo, “40 % of all the land on Earth that could be used for agriculture is already being used for agriculture today. 70 % of all fresh water goes to agriculture.” Current agricultural practices are unsustainable and contribute significantly to greenhouse gas emissions. Expanding food production under existing systems is neither feasible nor sufficient to address future food security challenges.

Creating sustainable and resilient food systems requires a holistic approach that prioritises agriculture and harnesses innovative technologies.

### THE EXPERT PANEL ARTICULATES THE FOLLOWING CALLS TO ACTION:

#### Embrace radical innovation in agriculture.

**1 —** Adopt transformative technologies like precision agriculture, synthetic biology, fermentation farming, AI, and robotics to enhance efficiency and sustainability. Support from governments and industries is vital to scale these technologies globally.

#### Reform regulatory frameworks to accelerate innovation adoption.

**2 —** Streamline and harmonise regulations to facilitate the development and implementation of new agricultural technologies. Creating transparent, science-based regulatory environments encourages innovation and ensures safety. Accelerated regulatory processes are essential for bringing sustainable solutions to market promptly.

#### Foster collaboration across sectors and stakeholders.

**3 —** Promote partnerships among governments, academia, the private sector, and local communities. Engaging all stakeholders ensures innovations are practical, culturally acceptable, and tailored to regional needs.

#### Promote sustainable and regenerative agricultural practices.

**4 —** Implement practices such as regenerative agriculture and precision farming to increase yields while preserving the environment. These methods enhance soil health, biodiversity, and resource efficiency. Supporting farmers through incentives and education encourages the adoption of sustainable practices, contributing to a more productive food system.

### CONTACT

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**Improve communication to overcome ideological barriers.**

**5 —** Address public scepticism toward technologies like GMOs and gene editing through open, transparent dialogue. Effective communication is crucial for the acceptance and adoption of innovations critical to future food security.

**Address food waste and distribution inequalities.**

**6 —** Reduce food waste and improve distribution to enhance global food security. Approximately one-third of all food produced is wasted. Innovations in supply chain management and policies facilitating the redistribution of surplus food can ensure efficient use of existing resources, lessening the need for increased production.

*This event is supported by Bayer and assembled in the framework of the Falling Walls Science Summit 2024 in Berlin. The Falling Walls Science Summit is a leading international, interdisciplinary, and intersectoral forum for scientific breakthroughs. It commemorates the fall of the Berlin Wall and aims to promote dialogue between science and society.*

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