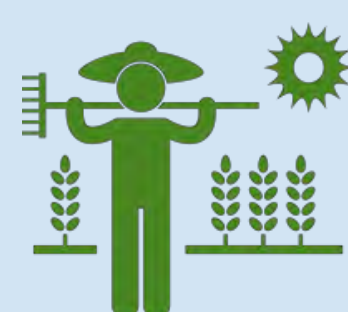


VISION FOR AGRICULTURE IN 2050

Paula Valencia Villaescusa
Jose Carlos Menchén Gómez



MAIN CHALLENGES

Resource degradation

Soil contamination, erosion, salinization and loss of soil quality are serious problems that affect the ability of the land to produce food.



MAIN CHALLENGES

Population growth

The world's population is projected to increase by almost 2 billion people in the next 30 years, from 8 billion today to 9.7 billion in 2050, with a potential peak of around 10.4 billion by the mid-2080s.



Climate change

More extreme weather conditions, such as droughts, floods and unpredictable weather events, making agricultural planning and production more difficult.

MAIN CHALLENGES



Field automation and digitalisation

DRIVERS

Precision farming and artificial intelligence present the opportunity to revolutionise production efficiency in the agricultural sector.

Access problems

- Economic barriers
- Training barriers

This difference in access is a fundamental challenge that must be addressed to ensure that all farmers, regardless of their economic size, can benefit from automation and digitization on their farms.

DRIVERS

New Genomic Techniques (NGTs)



NGTs offer rapid, direct and safe improvements in the development of new plant varieties.

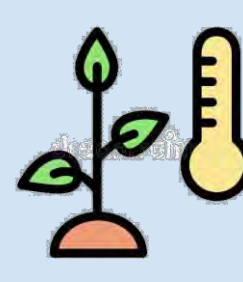
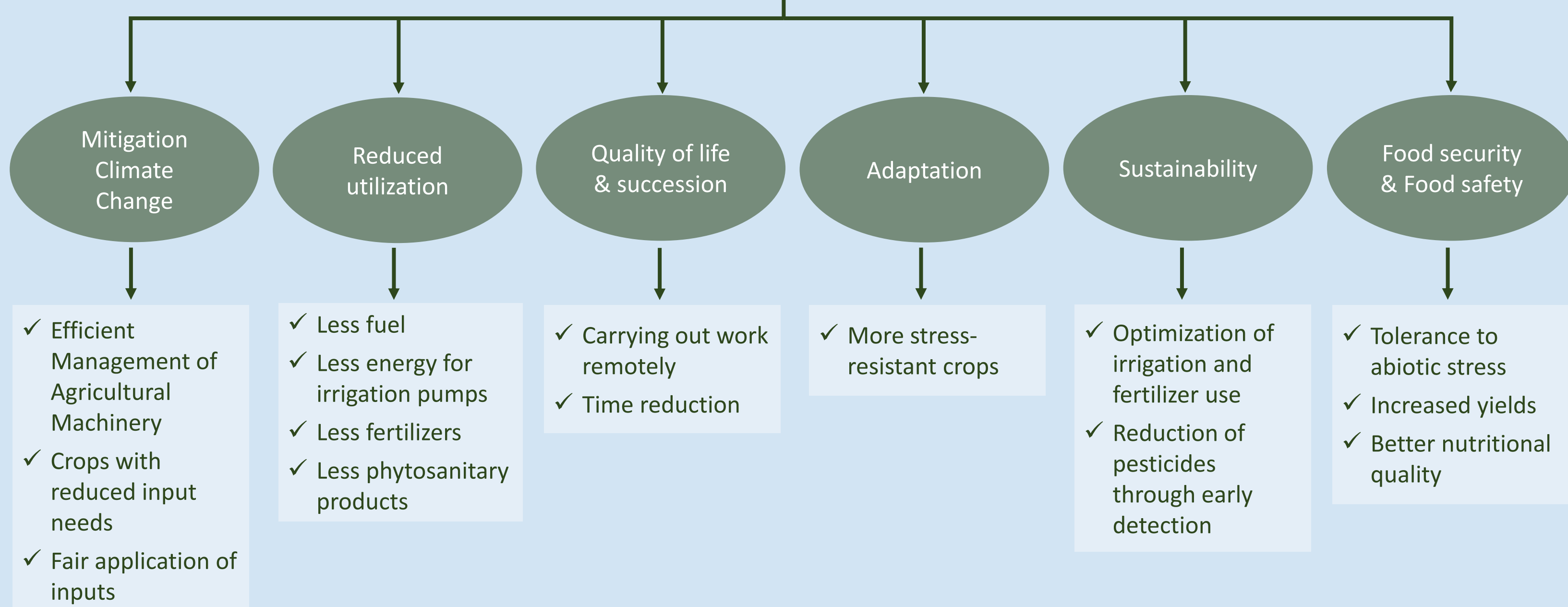
Access problems

- Social opposition
- Legal barriers

- Quick, direct, and secure improvements in the development of new plant varieties.
- Precise gene modification.
 - Resistance to pests and diseases.
 - Tolerance to adverse weather conditions.
 - Nutritional quality of crops



Impacts



Key Message

The agriculture of the future relies heavily on the widespread adoption of technologies such as automation, digitization, and New Genomic Technologies (NGTs). Addressing legal, economic, social and educational barriers to access these tools is essential. Only through the broad dissemination of agricultural technology can we ensure a sustainable future in agriculture, capable of feeding a growing population and addressing the challenges of climate change.

