

A photograph of a rural farm scene. In the foreground, there is a lush green cornfield. In the middle ground, a large red barn with a white door and a blue roof stands prominently. To the left of the barn, there are several tall evergreen trees. The background shows a flat landscape under a blue sky with scattered white clouds. The image is overlaid with a green triangle in the top-left corner and a blue triangle in the bottom-right corner.

# IFA 2030 – Informed, Robust, Anticipatory – A “Wind Tunnel” for Industry and Company Approaches to the Future

Rosemary O'Brien  
November 15, 2018

# PRESENTATION OUTLINE

- About IFA and the fertilizer industry
- Overview of ifa 2030
- ifa 2030 Scenarios in brief
- Insights and implications
- Questions, reactions and discussion

## About IFA

**ifa** IS THE **ONLY** INTERNATIONAL FERTILIZER ASSOCIATION

- Founded in 1927
- Nearly 480 Members in 67 countries
- 45% in developing economies

Members represent **75-80%** of global fertilizer production

# About IFA

## IFA VISION

- Productive and sustainable agricultural systems contribute to a world free of hunger and malnutrition.

## IFA MISSION

- IFA promotes the efficient and responsible production, distribution and use of plant nutrients.

## IFA APPROACH

- IFA provides a framework for exchanges and collaboration among its members and a structure for agreeing common positions and joint actions.



2 ZERO HUNGER



IFA has modelled its vision on GOAL 2 of the UN Sustainable Development Goals: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

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# Overview of ifa 2030

Cast a wide net within and beyond IFA membership:  
For the fertilizer industry, what are the issues that have the potential to bring about significant change or affect success up to 2030?



**DRIVING FORCES (X & Y)**  
Driving agricultural production growth  
Driving innovation



Options  
&  
Path forward

FOCUS

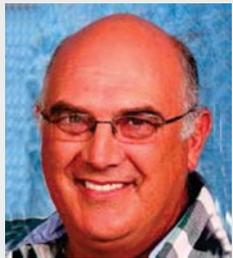
INPUT

SCENARIOS

NEXT STEPS

# Overview of ifa<sup>2030</sup>

## ADVISORY PANEL



**Theo de Jager**  
President, World  
Farmers'  
Organisation



**Bernice Lee**  
Ex Director,  
Hoffmann Centre for  
Sustainable  
Resource Economy /  
Chatham House



**Sean de Cleene**  
Head of Food  
Security and  
Agriculture System  
Initiative, World  
Economic Forum

### Wageningen University & Research team of six experts



# Overview of ifa 2030

## Scenarios are:

- A 'radar' that highlights large-scale forces that push the future in different directions.
- A process to explore plausible futures.
- A back-drop to strategy discussions.

## Scenarios are not:

Forecasts or predictions (the actual realized future may combine elements of several scenarios and differ among regions).

# Overview of ifa 2030



## **DRIVING FORCES (X & Y)**

Driving agricultural production growth  
Driving innovation

# Overview of ifa 2030

Agricultural production growth spectrum (Y axis)



# Overview of ifa 2030

Factors which could drive innovation (X axis)



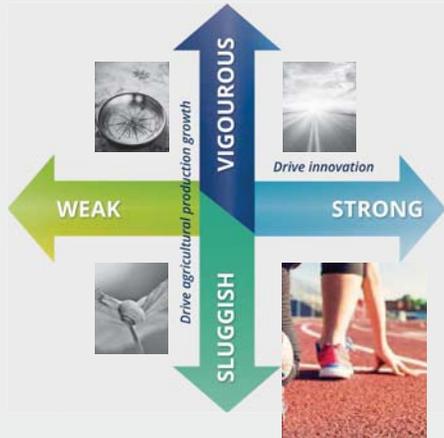
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# ifa 2030 scenarios in brief



# ifa 2030 scenarios in brief



## READY, SET, GO IN BRIEF

- Sluggish agricultural production growth & strong innovation drivers
- Lower agricultural growth driven by greater resource efficiency, reduced food waste, and breakthrough technologies leading to radical changes in the way food is produced and consumed.

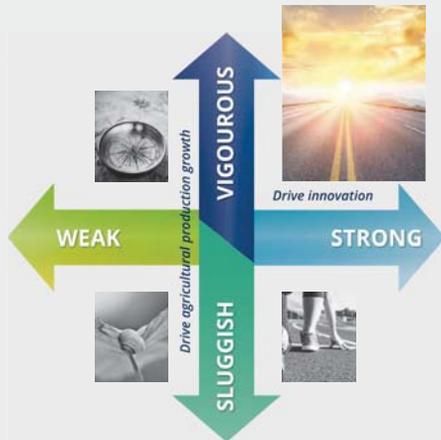
### OPERATING CONTEXT

Food security can be achieved without significantly higher agricultural production.

Society rejects unsustainable production processes and consumption patterns as pressure mounts around natural resource stress.

High expectations, requirements for cyclical economy, efficient production processes and greatly enhanced nutrient use efficiency.

# ifa 2030 scenarios in brief



## NEW HORIZONS

### IN BRIEF

- Vigorous agricultural production growth & strong innovation drivers
- Agricultural production growth driven by innovations enabling new types of farming and greater integration of smallholders into markets.

### OPERATING CONTEXT

Growth fueled by innovations that expand agriculture into unfavorable climates and onto marginal and formerly degraded lands.

The importance of soil carbon sequestration increasingly recognized.

High expectations, requirements for efficient production processes and greatly enhanced nutrient use efficiency.

# ifa 2030 scenarios in brief



## OPERATING CONTEXT

### COMMODITY CLASSIC IN BRIEF

- Vigorous agricultural production growth & weak innovation drivers
- Higher agricultural production growth driven by population growth and rising incomes.

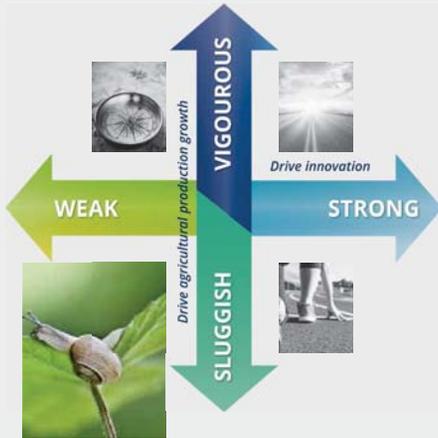
Infrequent extreme weather events with limited and localized impact.

Consumers largely unimpressed by food fads and news headlines; regulators and NGOs focused elsewhere.

Relatively little pressure to improve environmental performance, but environmental impacts linked to ongoing inefficiencies will be compounded.

No significant increase in nutrient recycling and limited improvements in nutrient use efficiency.

# ifa 2030 scenarios in brief



## REDUCED DYNAMISM

### IN BRIEF

- Sluggish agricultural growth & weak innovation drivers
- Lower agricultural growth driven by lower than expected population growth, and/or decline in living standards due to financial crises, global or regional geopolitical crisis and trade wars, diminishing farming profitability, resource constraints, more extreme weather events.

### OPERATING CONTEXT

Lack of innovative solutions to address resource constraints and improve farmer profitability.

Policymakers focus on conflicts and financial crisis rather than agricultural development or resource efficiency.

No excitement about circular economies.

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# Insights & implications

Using ifa 2030 Scenarios:



- To gain insight, plan and brainstorm
- To generally better understand how our industry is facing change
- To help us as well as those in our full value chain plan ahead for what we have identified as the some of the greatest uncertainties facing this industry
- To engage in dialogue with non industry stakeholders (foster joint understanding and explore partnerships)

# INSIGHTS & IMPLICATIONS



Feedback from SATs, Task Force, Advisory Group, etc.

1. Innovation & Disruption

2. Farmers & Partners

3. Fertilizer Demand Shifts

4. Regulations & Pressures

5. Transparency & Accountability

6. License to Operate & Reputation

# Insights & implications

## 1. Innovation & disruption

- Fast emerging technologies, business models, processes & logistics across the agri-food value chain.
- Wide array of technology enhanced plant nutrition solutions and services offered by diverse players.
- Disruptive technologies create risks and opportunities.



## 2. Farmers & partners

- Need to meet farmers' specific plant nutrition requirements.
- The industry needs to clearly position itself given the numerous sources of knowledge and inputs competing for farmers' attention.



# Insights & implications

## 3. Fertilizer demand shifts

- Greater emphasis on improved nutrient use efficiency and circular economy.
- Underserved markets are fertilizer demand drivers both in terms of nutrient tons, but also in terms of more customized fertilizer products and application solutions.



## 4. Regulations & pressures

- Regulatory landscape will expand.
- Greater focus on environmental stewardship, resource competition and protection, SHE & security will impact fertilizer production, distribution and application.



# Insights & implications

## 5. Transparency & accountability

- Industry will face requirements for more transparency around environment and health impacts.
- Demands for measurable indicators and traceability, enabled by technology.
- Pursuit of sustainability as important as market share and shareholder value.



## 6. License to operation & reputation

- Despite the critical role fertilizers play in feeding the world and contributing to improving people's lives, fertilizers are not well-understood.
- In order to maintain its license to operate, the industry needs to be seen as an integral part of the agriculture value chain.
- Need for much wider engagement with partners and external stakeholders



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**Questions?**