HARWIN

SMART AGRICULTURE



Smart farming is a management concept focused on providing the agricultural industry with the infrastructure to leverage advanced technology - including big data, the cloud and the internet of things (IoT) - for tracking, monitoring, automating and analyzing operations.

AGRICULTURE IS A HUGE INDUSTRY, VITAL TO MODERN SOCIETY



THE ROLE OF **AGRICULTURE**

GL®BAL POPULATION

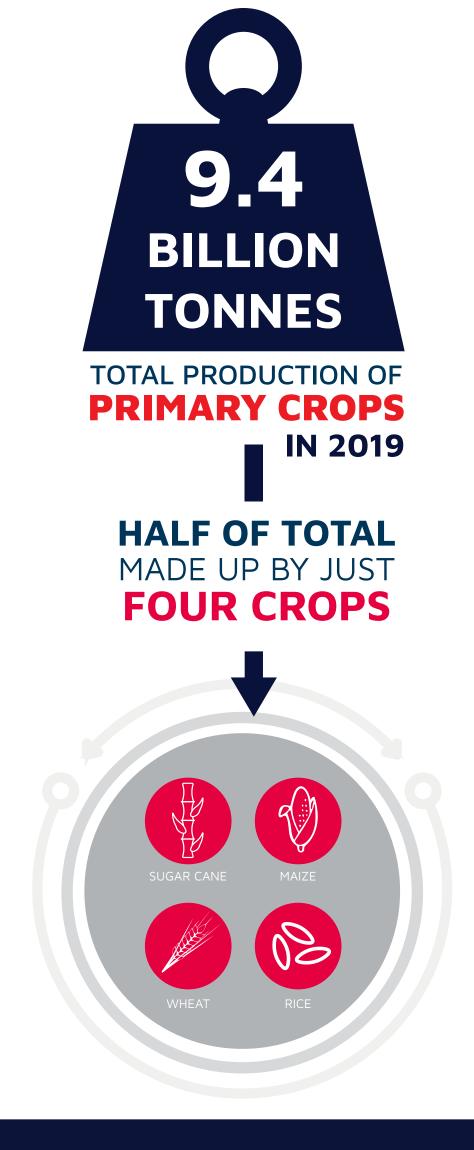


AGRICULTURAL INDUSTRY

\$3.5 TRILLION

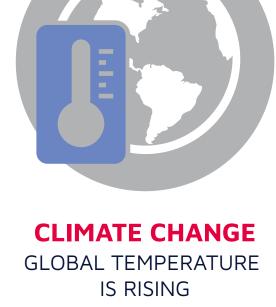
IN 2019

THE AGRICULTURAL INDUSTRY



FACES A NUMBER OF CHALLENGES IN FEEDING A GROWING POPULATION THE **CHALLENGES**

3



INCREASE OF 1.5°C BY 2022

5



PREDICTED TO RISE TO 68% BY 2050 6

55% IN 2018,



RISING TO 662 BY 2030

467 URBAN CENTRES

OVER 1 MILLION IN 2015,



MEGACITIES (POP. OVER 10M). 29 IN 2018, 43 BY 2030



IN SUB-SAHARAN AFRICA DOUBLED **IN LAST 25 YEARS**



THE AGRICULTURAL INDUSTRY HAS ALWAYS BEEN AN EARLY ADOPTER

LEVELS AT OR ABOVE 100%



HECTARES IN 2019,

REDUCED FROM

2 BILLION HECTARES

IN 1961



REFORESTATION, **SOIL EROSION**, **DESERTIFICATION DUE TO GLOBAL CLIMATE CHANGE**

OF GREATER OUTPUT AND EFFICIENCY THE FORWARD THINKING AG INDUSTRY

OF NEW TECHNOLOGIES IN THE PURSUIT

FARMING MECHANICAL THRESHING

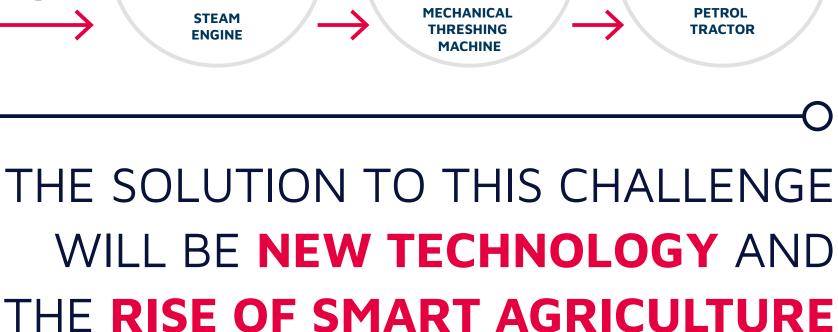


STS IN





WHAT IS **SMART AGRICULTURE?**

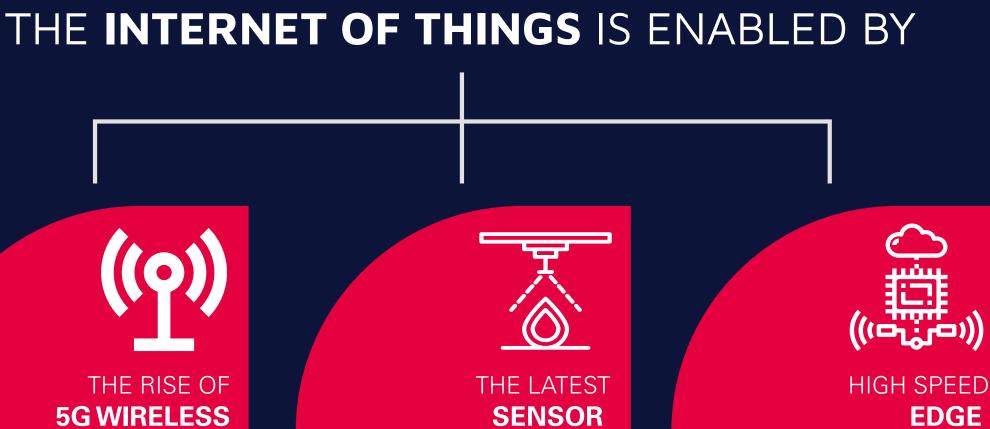


THE RISE OF

5G WIRELESS

COMMUNICATION

SMART AG IS PART OF



COMPUTING

LIVESTOCK FARMING

THE INTERNET OF THINGS

TO A RANGE OF APPLICATIONS

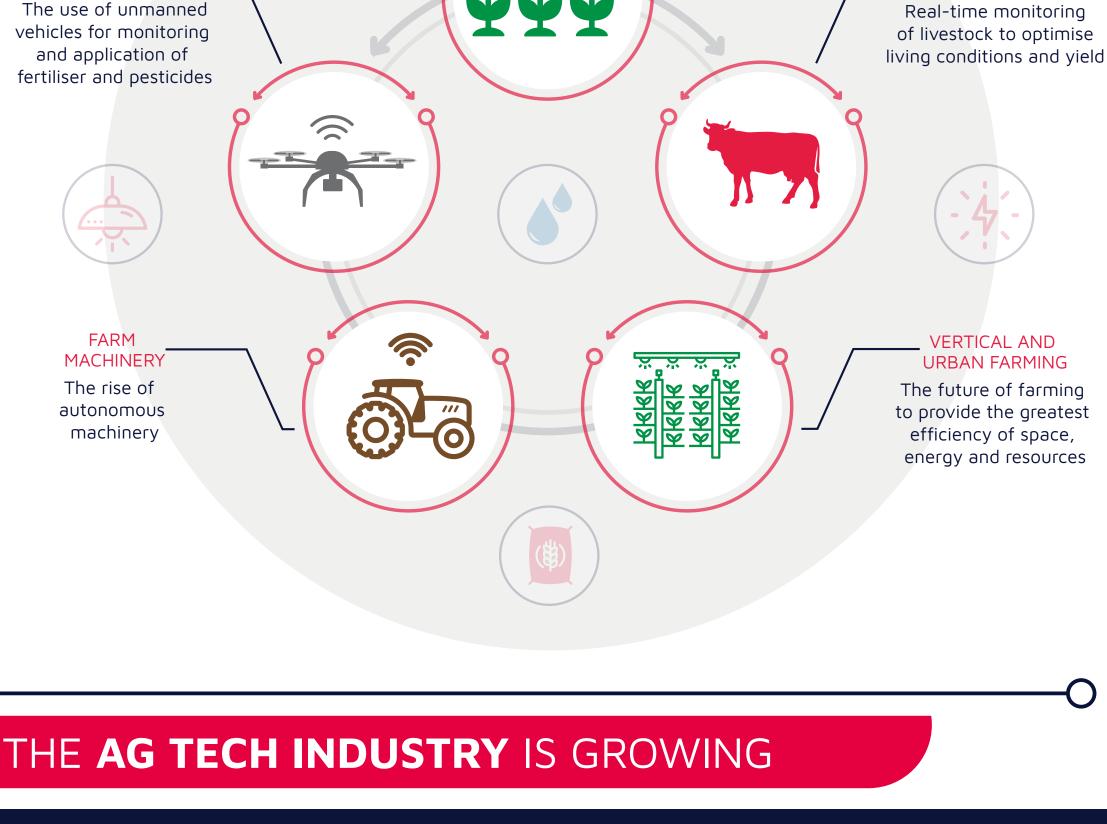
PRECISION AGRICULTURE -

Detailed analysis of soil and growing conditions

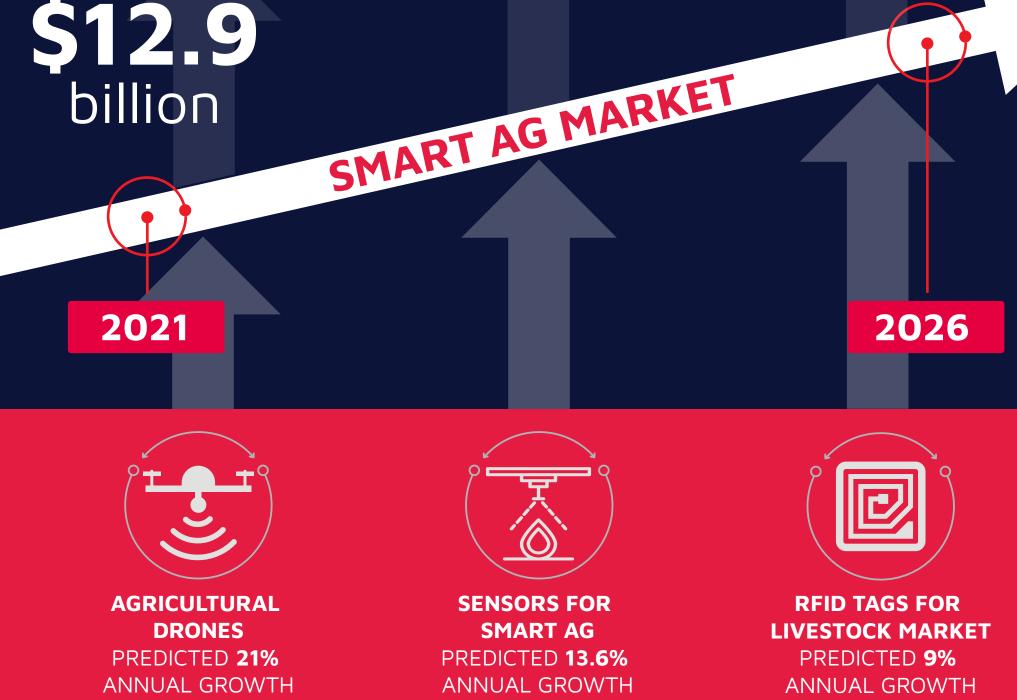
SMART AGRICULTURE WILL BE CENTRAL

TECHNOLOGY





HUGE GROWTH IN MARKETS



WITH CONFIDENCE

\$20.8 billion