

United Nations Conference on Trade and Development

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Scaling up phosphate fertilizers utilization in developing countries

By

Jihane Ajjiti, Head of Stakeholder Engagement, Office Chérifien des Phosphates, Morocco

The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.



UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

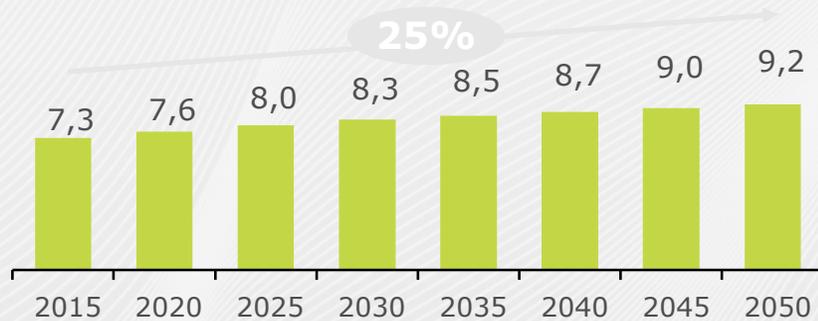
Scaling up phosphate fertilizers utilization in
developing countries | Oct. 2022

Mrs. Jihane Ajijti, Head of Stakeholder Engagement

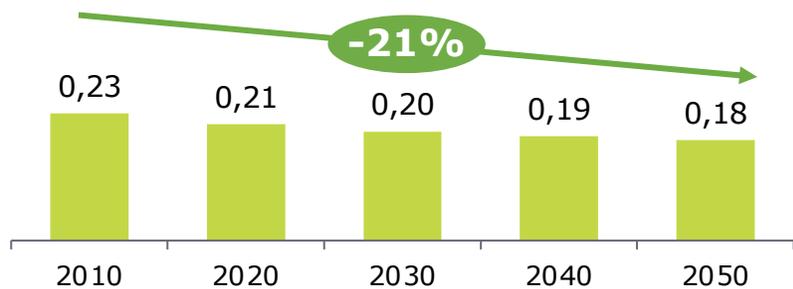


THE FOOD CHALLENGE: FERTILIZERS, AN INDISPENSABLE PREREQUISITE FOR AGRICULTURAL YIELD GROWTH

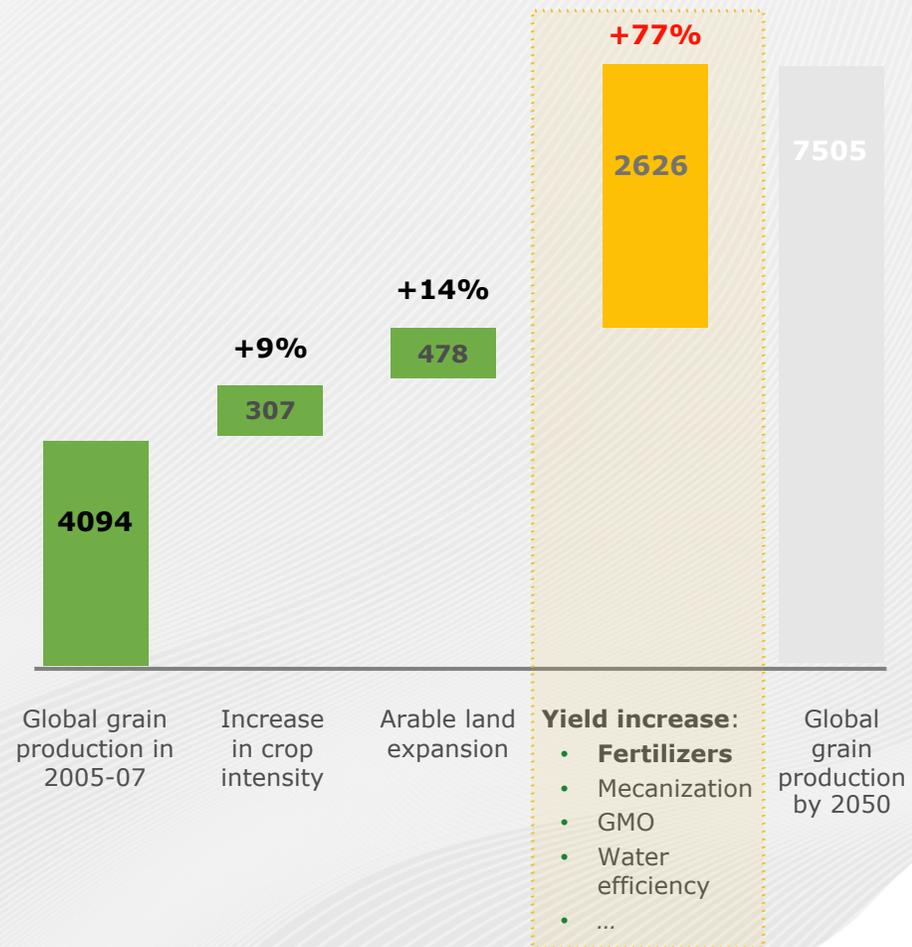
Population Growth (billion inhabitants)



Arable land per inhabitant (hectare)



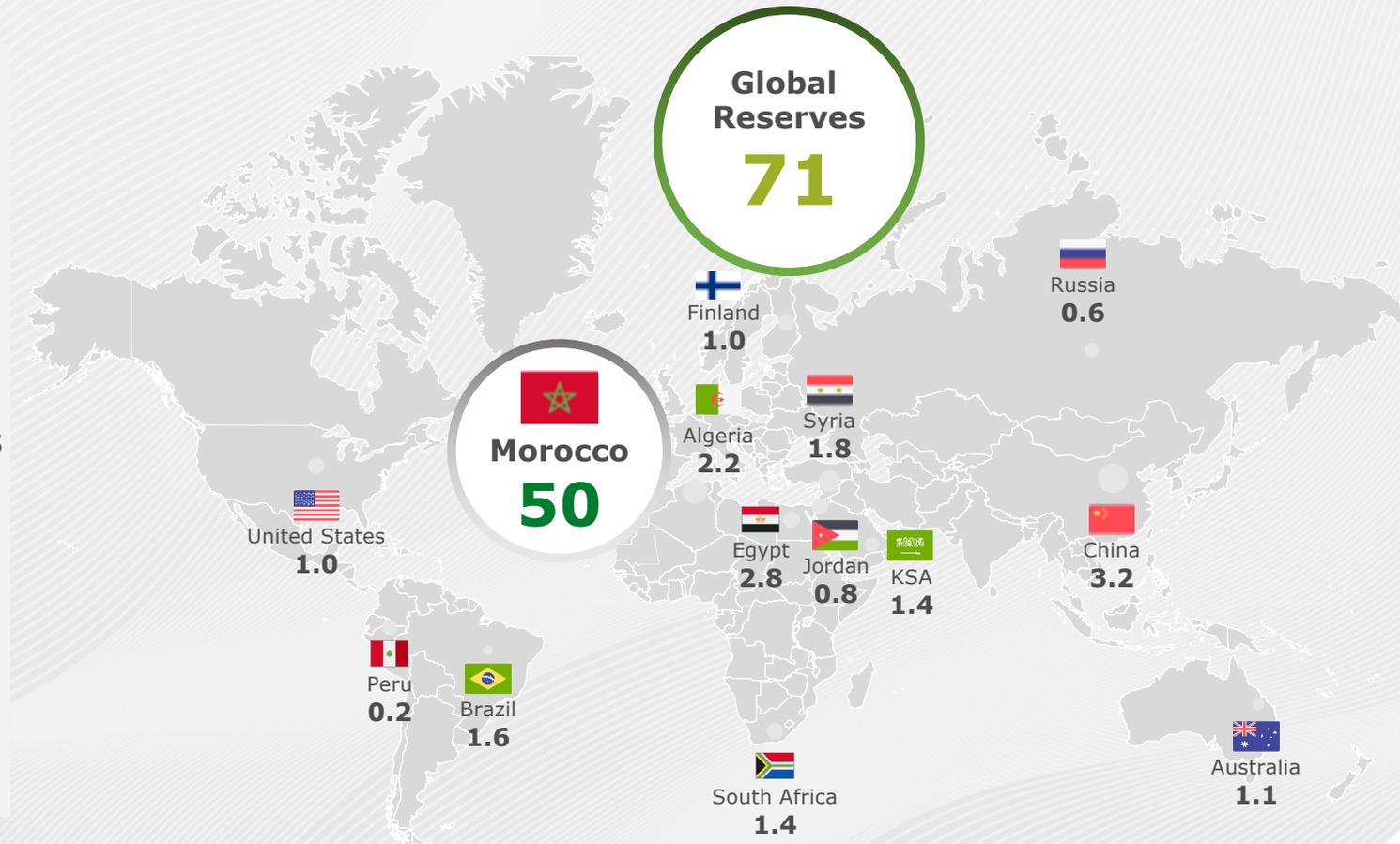
Evolution of global grain production by 2050 (in million tons)



EXCLUSIVE ACCESS TO THE WORLD'S LARGEST PHOSPHATE RESERVES

Global Phosphate Rock Reserve Estimates by US Geological Survey (USGS) - bn tons

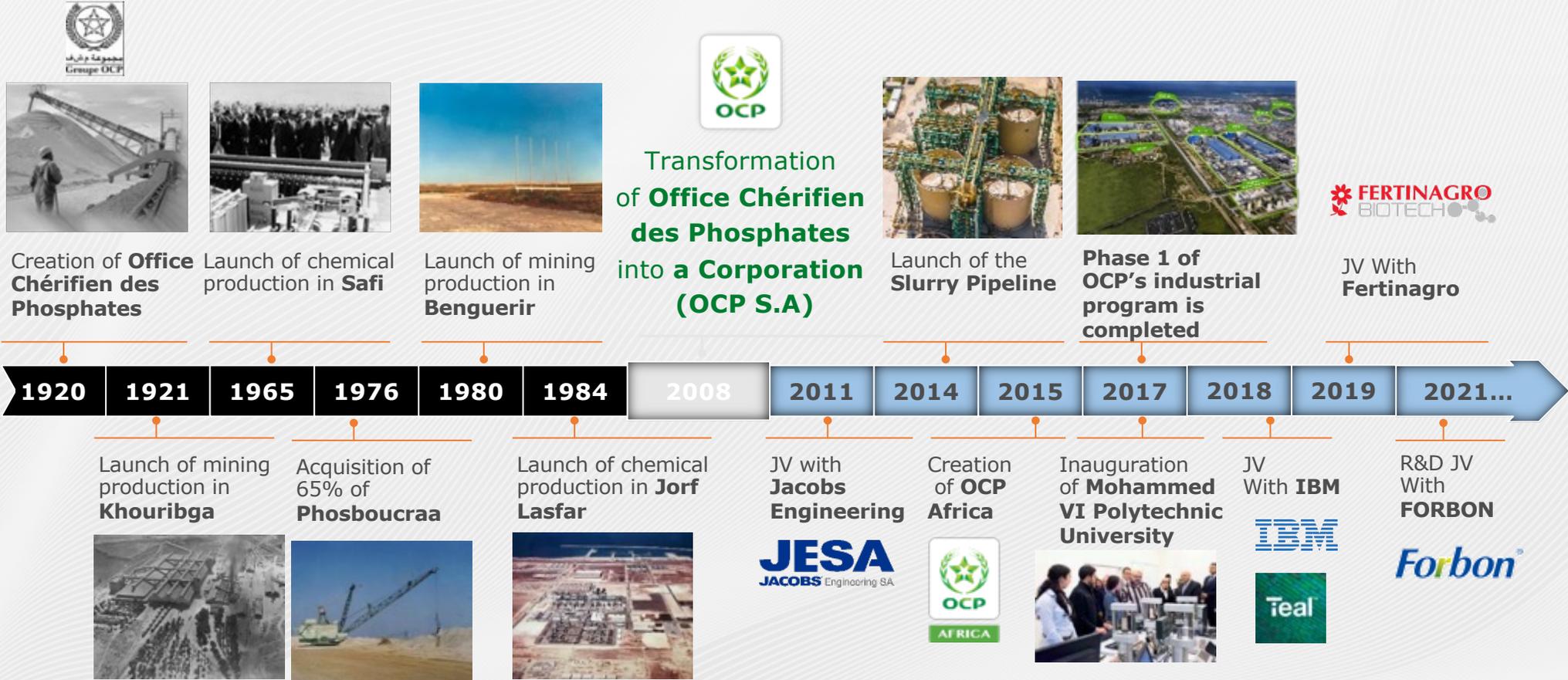
- **~70%** of currently known global phosphate reserves
- **50bn tons** of economically exploitable phosphate reserves
- **Several hundred years** of global consumption at current demand levels



Source: US Geological Survey, January 2021



OCP: A CENTURY OF KNOWLEDGE AND EXPERTISE



OCP: A CENTURY OF KNOWLEDGE AND EXPERTISE

Value Chain

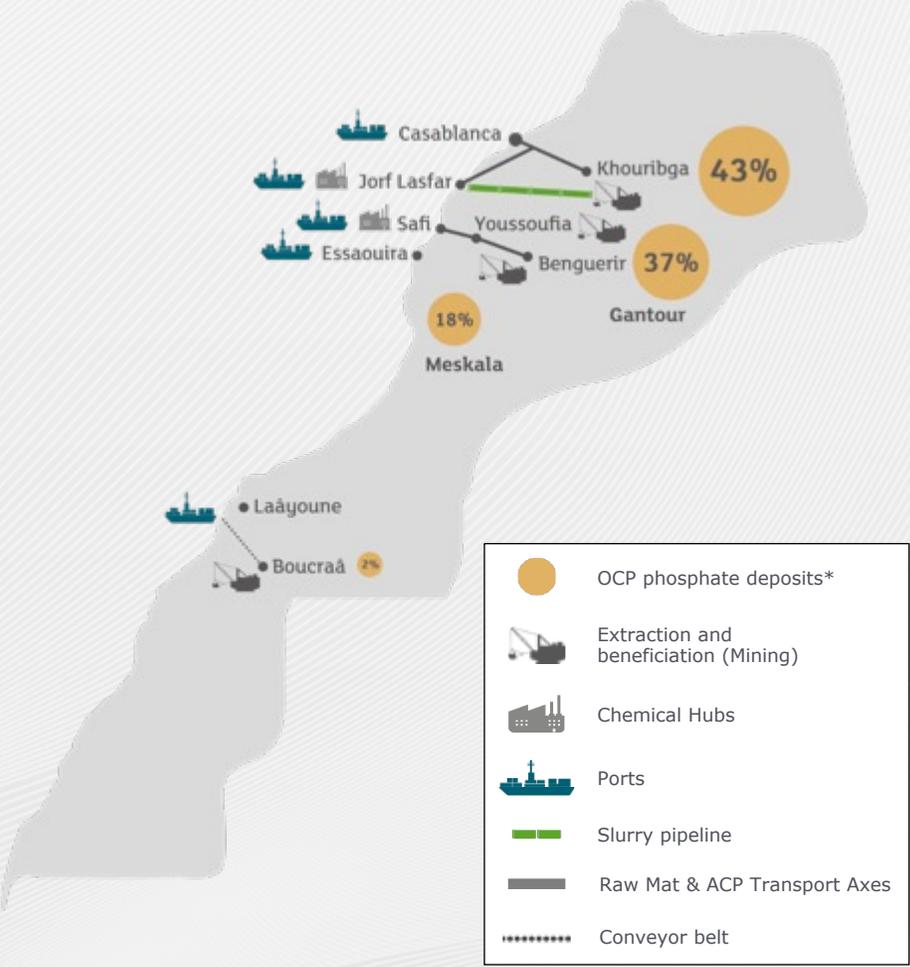


Moroccan-based chemical JVs

EMAPHOS (OCP – PRAYON – BUDENHEIM)
1998

IMACID (OCP – ZUARI – TATA)
1999

PMP (OCP – FAUJI)
1986



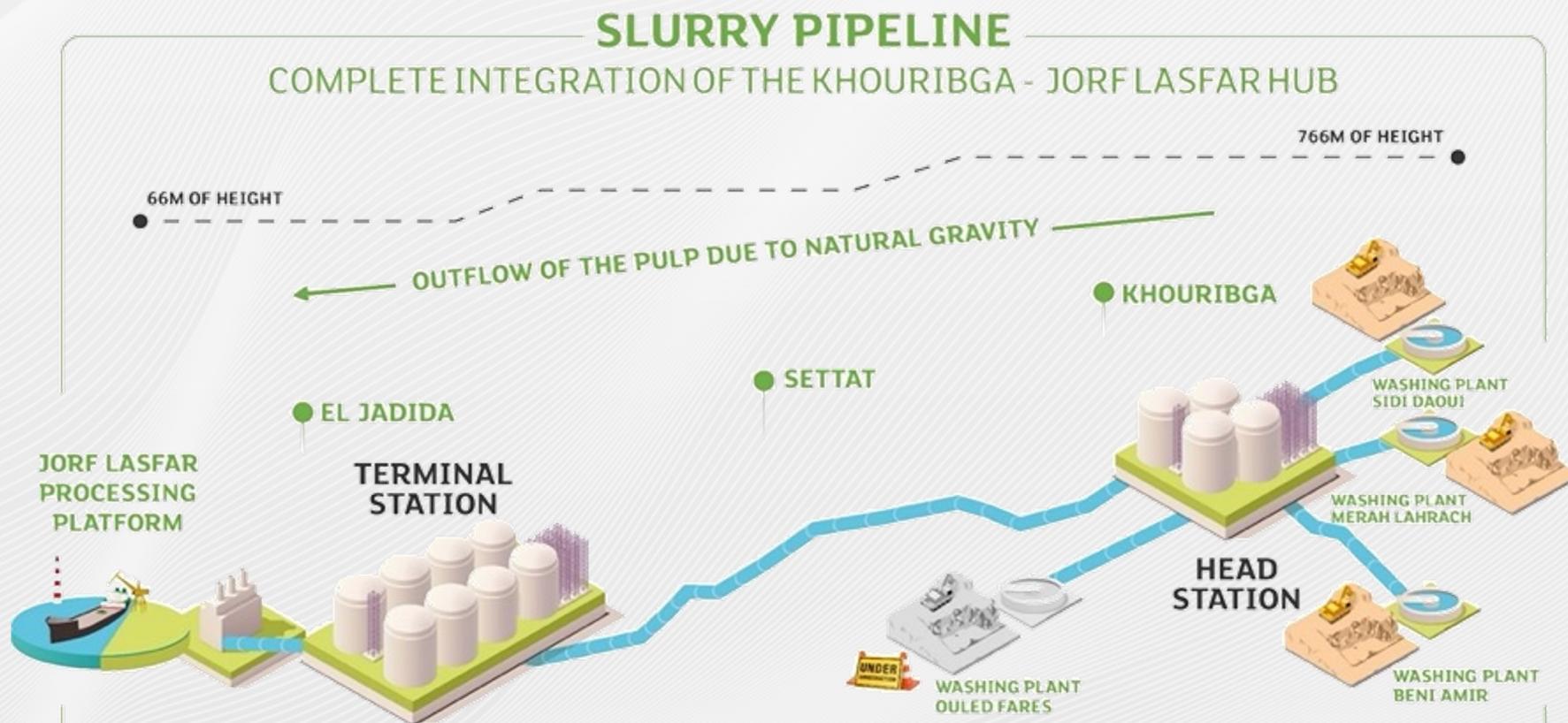
*Sources: US Geological Survey (USGS) / International Fertilizer Development Center (IFDC)



KHOURIBGA



SLURRY PIPELINE : A LANDMARK INVESTMENT OPERATING SINCE 2014



38 MILLION TONS
OF PHOSPHATE PULP
TRANSPORTATION
CAPACITY PER YEAR AS
COMPARED TO 18 MILLION
TONS BEFORE

187 KM
TOTAL
LENGTH OF
THE PRIMARY
PIPELINE

48 KM
OF SECONDARY
PIPELINES

90%*
REDUCTION
OF LOGISTIC
COSTS

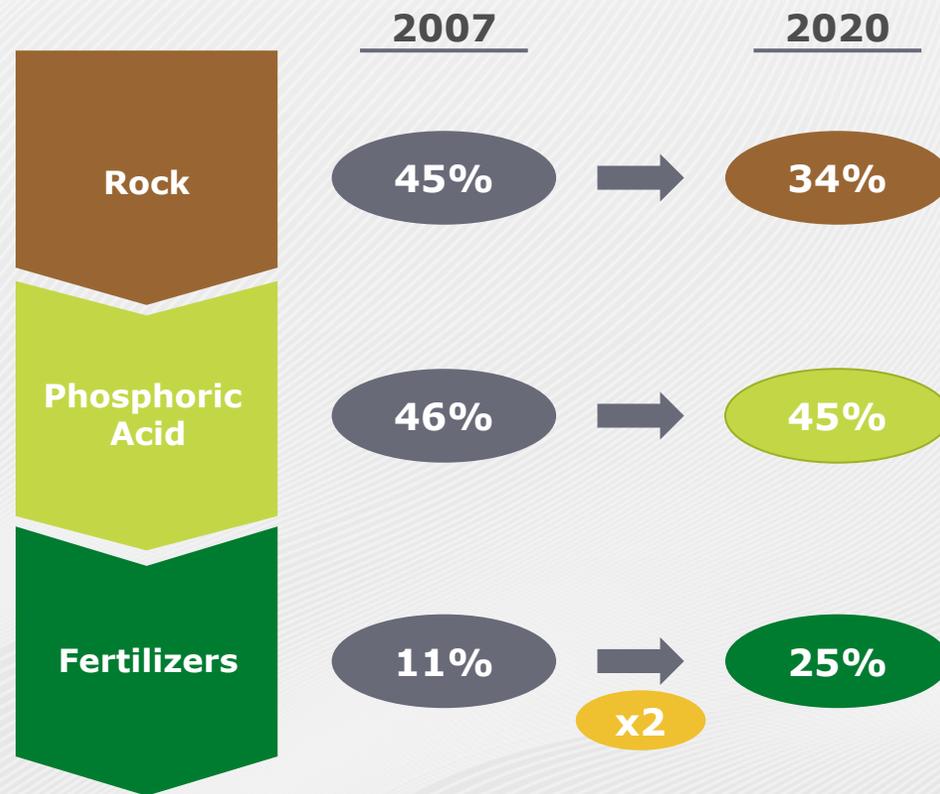
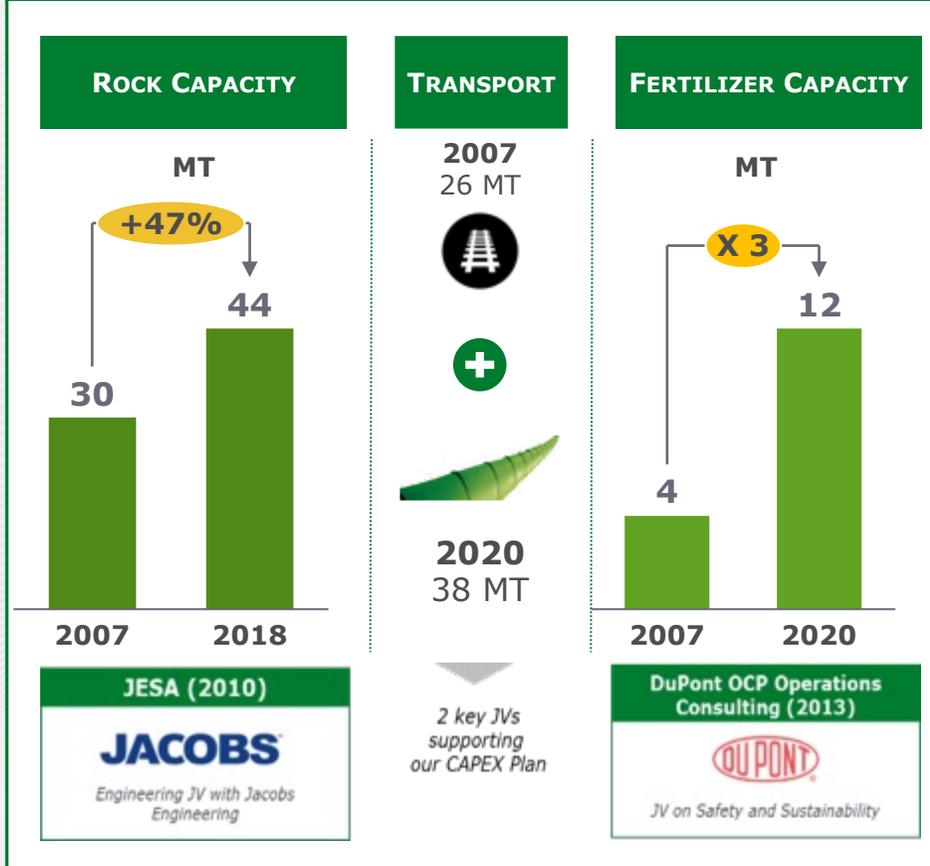
3 MILLION M³*
OF WATER SAVED
PER YEAR

930 000*
TONS PER YEAR
OF CO₂ EMISSIONS
REDUCED

OVER THE LAST DECADE, OCP STRENGTHENED ITS LEADERSHIP THROUGH ITS INVESTMENT PLAN...

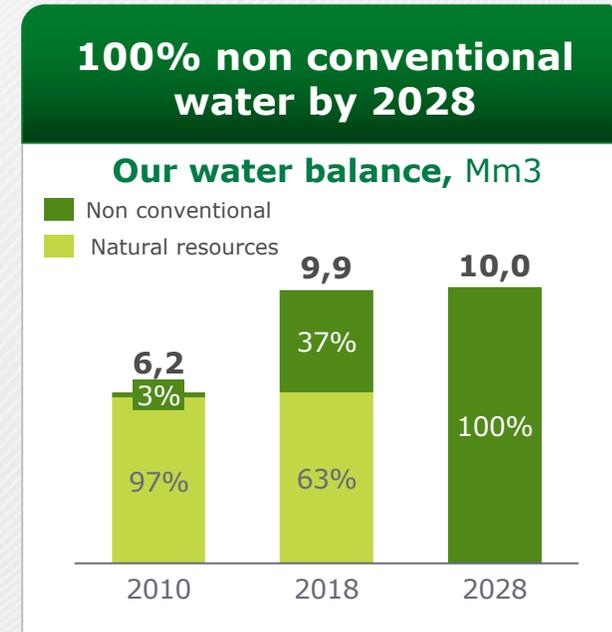
OCP has successfully delivered Phase 1 (7,5 BN \$) of its CAPEX program...

...strengthening its leadership on exports of higher value segments



Source: IFA

A SUSTAINABLE EXPANSION PLAN CREATING LOCAL VALUE



Mine reclamation and community development



Greenhouse gas offset



Valorization of Phosphogypsum



By-products valorization



Waste management and valorization



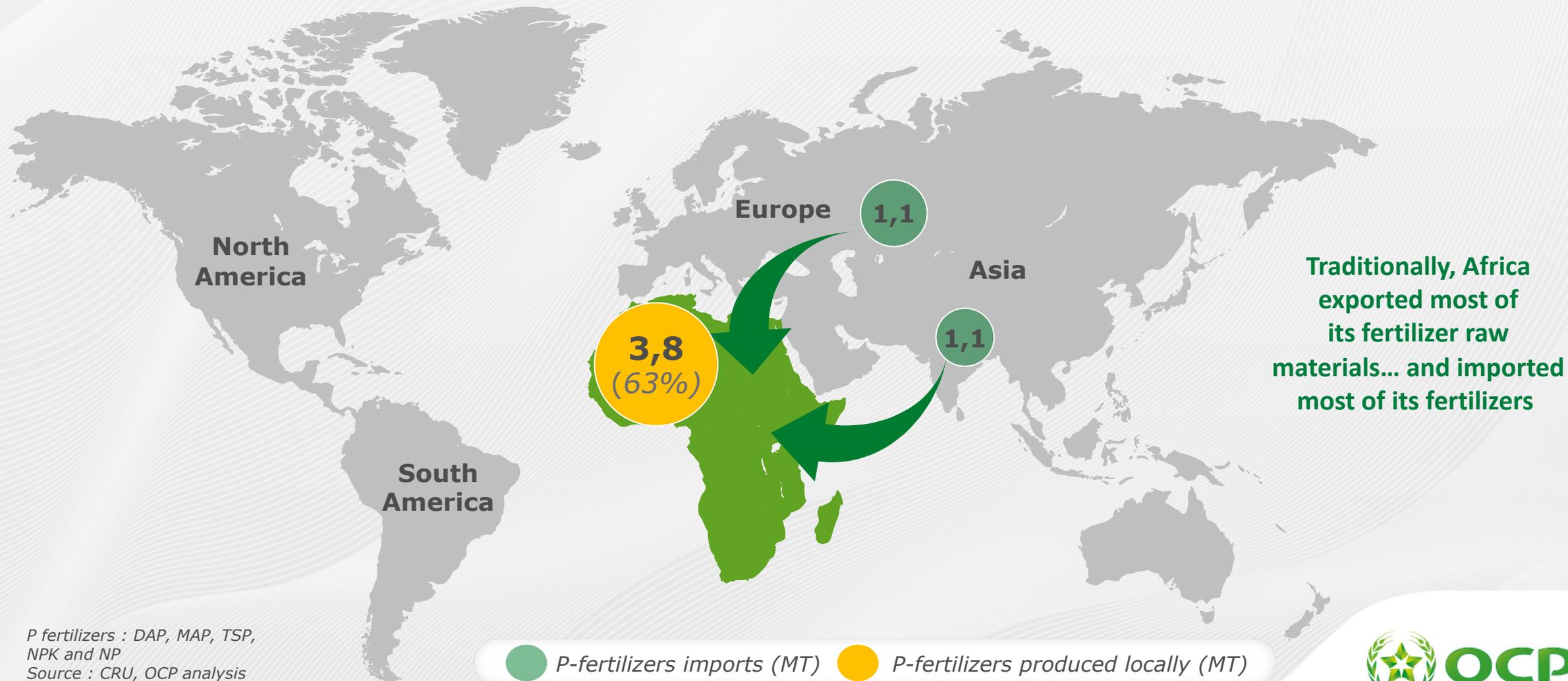
« Climate-smart Agriculture »



« Hacking » Phosphate

NOW, RAW MATERIALS ARE INCREASINGLY TRANSFORMED IN AFRICA FOR AFRICA

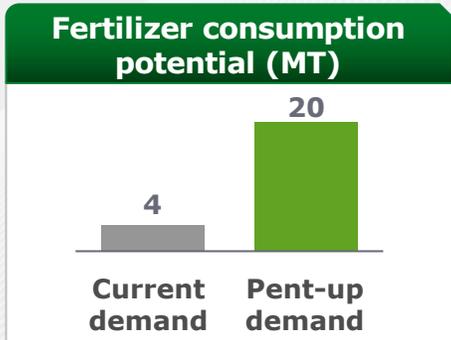
64% of Africa phosphate fertilizers needs were produced locally in 2020



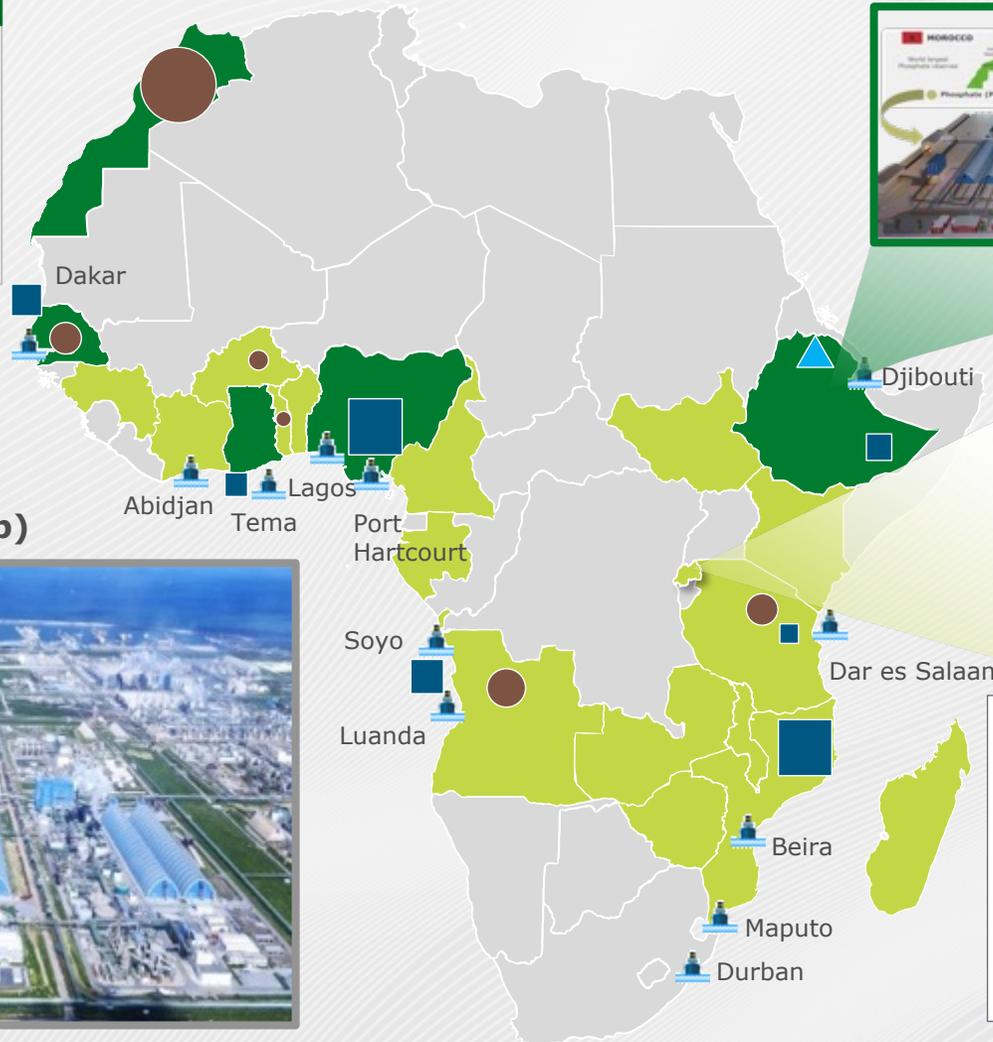
P fertilizers : DAP, MAP, TSP, NPK and NP
Source : CRU, OCP analysis



TRANSFORMING AFRICAN RESOURCES FOR AFRICAN AGRICULTURE



Morocco (Jorf Phosphate Hub)



Ethiopia

GERD DAM FERTILIZER PLATFORM

Rwanda

- Regional Fertilizer Platform
- Priority markets (Blending / distribution)
- Phosphate
- Gas (proved reserves)
- ▲ Potash

ACTION FOR TRANSFORMATION FOR FOOD SYSTEM & AGRICULTURE

Farmers as change makers to Reconcile productivity & sustainability

Restoring the Health & Fertility of Soils

- Soil mapping
- 4R's stewardship
- customization



Farmers livelihoods & a vibrant rural economy

- Agribooster
- OCP School Lab
- Farm&Furtune Hub
- Al Moutmir



Nutrition Sensitive agriculture for healthy diets

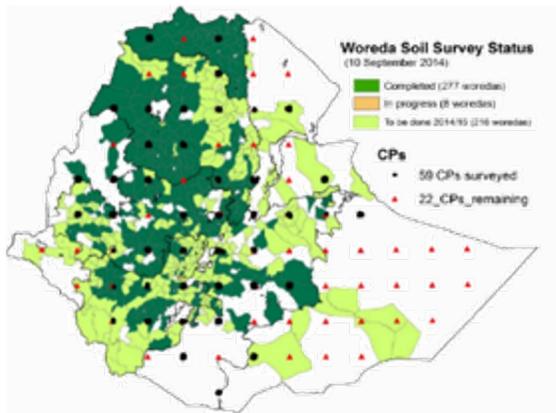
- R&D for higher nutritional value for fruits & Vegetables
- Center of Excellence for African orphan crops



Farmers centred solutions

FERTILIZER CUSTOMIZATION BENEFITS THE FARMERS IN TWO WAYS: HIGH YIELD AND LOWER PRICES

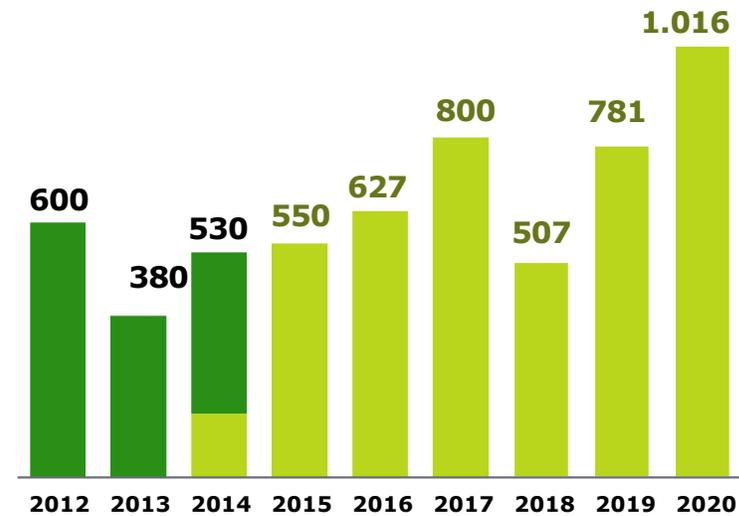
Development of customized fertilizers for Ethiopian soils and crops



- **EthioSIS**, a detailed **soil fertility map** defining the nutrient needs of Ethiopian soils and crops
- Development of **customized fertilizers** (NPS & NPS+) that **increased yield** up to **37% at lower price**

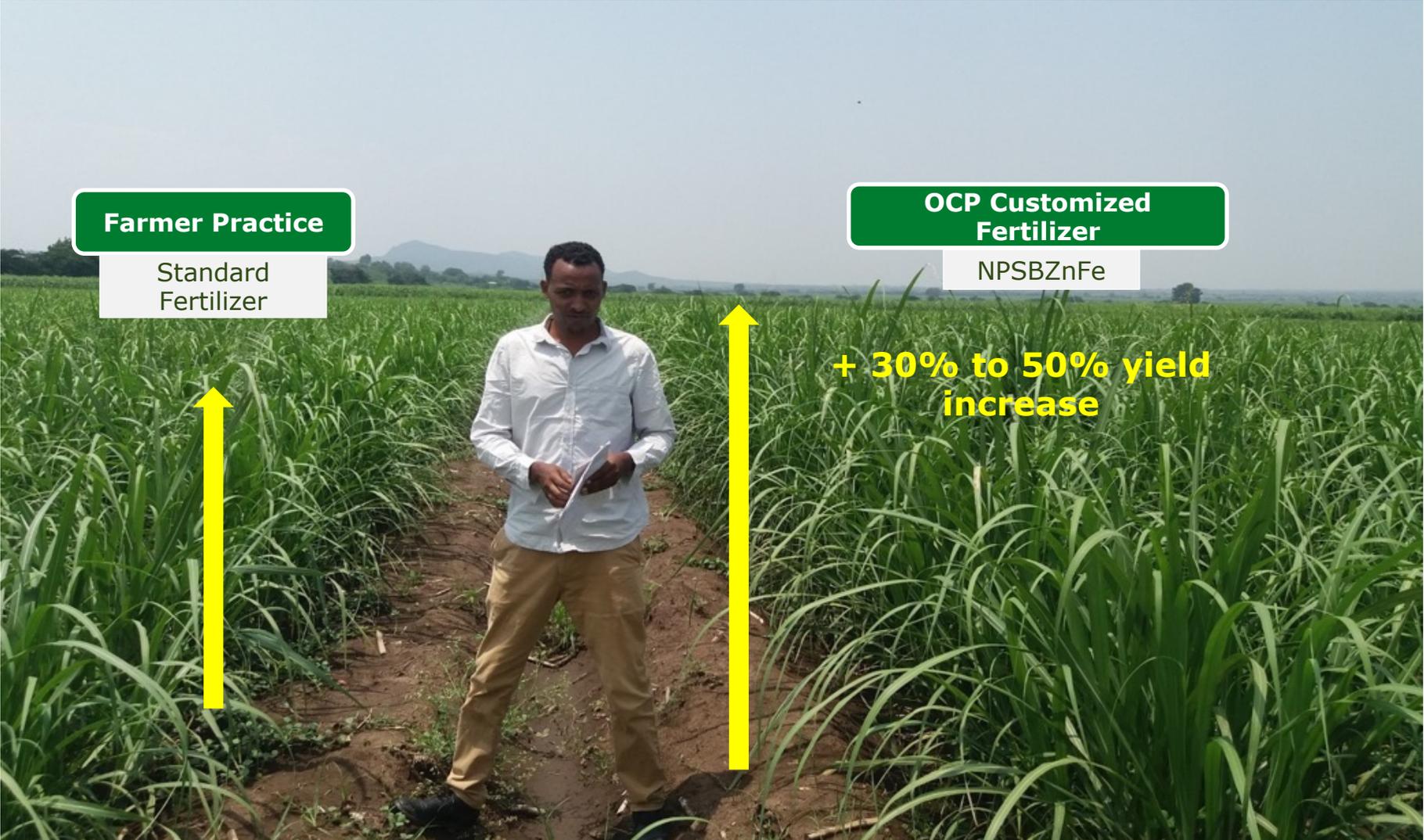


Ethiopian demand evolved towards customized fertilizers (P-Fertilizer volumes in kT)



■ DAP
 ■ NPS+
 X% OCP Market Share

SUGARCANE - ETHIOPIA



Farmer Practice

Standard Fertilizer

OCP Customized Fertilizer

NPSBZnFe

+ 30% to 50% yield increase

MAIZE - TANZANIA



OCP'S APPROACH TO UNLOCK FERTILIZER DEMAND IN AFRICA: CUSTOMIZED FERTILIZATION



TO EMPOWER THE CUSTOMIZED APPROACH WE DEVELOPPED A FARMER CENTRIC ONE WHICH ENABLED OCP AFRICA TO SUPPORT MORE THAN 1.5 MILLION FARMERS BY THE END OF 2021....

AGRI-BOOSTER
HOLISTIC SUPPORT
OFFER FOR
SMALLHOLDER
FARMERS



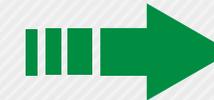
AGRI-PROMOTOR :
SUPPORT THE
DEVELOPMENT OF THE
DISTRIBUTION NETWORK



SCHOOL LAB
MOBILE AND
TRAINING
LABORATORY



FARMER HOUSES
HOLISTIC APPROACH BASED
ON A PHYSICAL POINT



TO SCALE UP

- Online courses (via Youtube channel and social networks)
- Offline educational training through the media (rural radio, TV, etc.)
- Digitalized Technical Support Trainings
- Capacity Building of Extension Services

FARMER CENTRIC

>1,5 Million Farmers

Trained and supported



FIRST PROGRAM DEPLOYED IS OCP SCHOOL LAB WHICH IS FOCUSING ON FERTILIZER RECOMMENDATION AND FARMER TRAINING ON BEST AGRONOMIC PRACTICES



1

Going spectral



- Mobile Lab capacity: 30 to 50 immediate soil testing/day
- Generation of farmers reports with fertilizers recommendation
- Elaboration of soil analysis and recommendations database



2

Mobile App



- Nutrient Expert mobile App capacity: 40 reports/day
- Generation of fertilizers recommendations to farmers
- Elaboration of farmers data and recommendations database

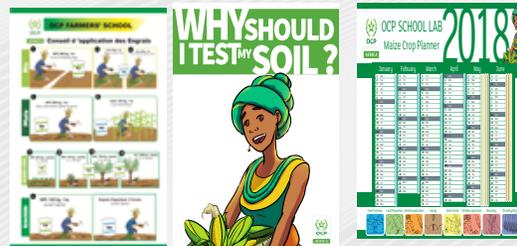


3

Interactive training



- Development of educational video in 5 languages (English, French, ewe, haoussa, suwaili)
- Development of cartoons, calendars, educational flyers



460 k Farmers

trained

15

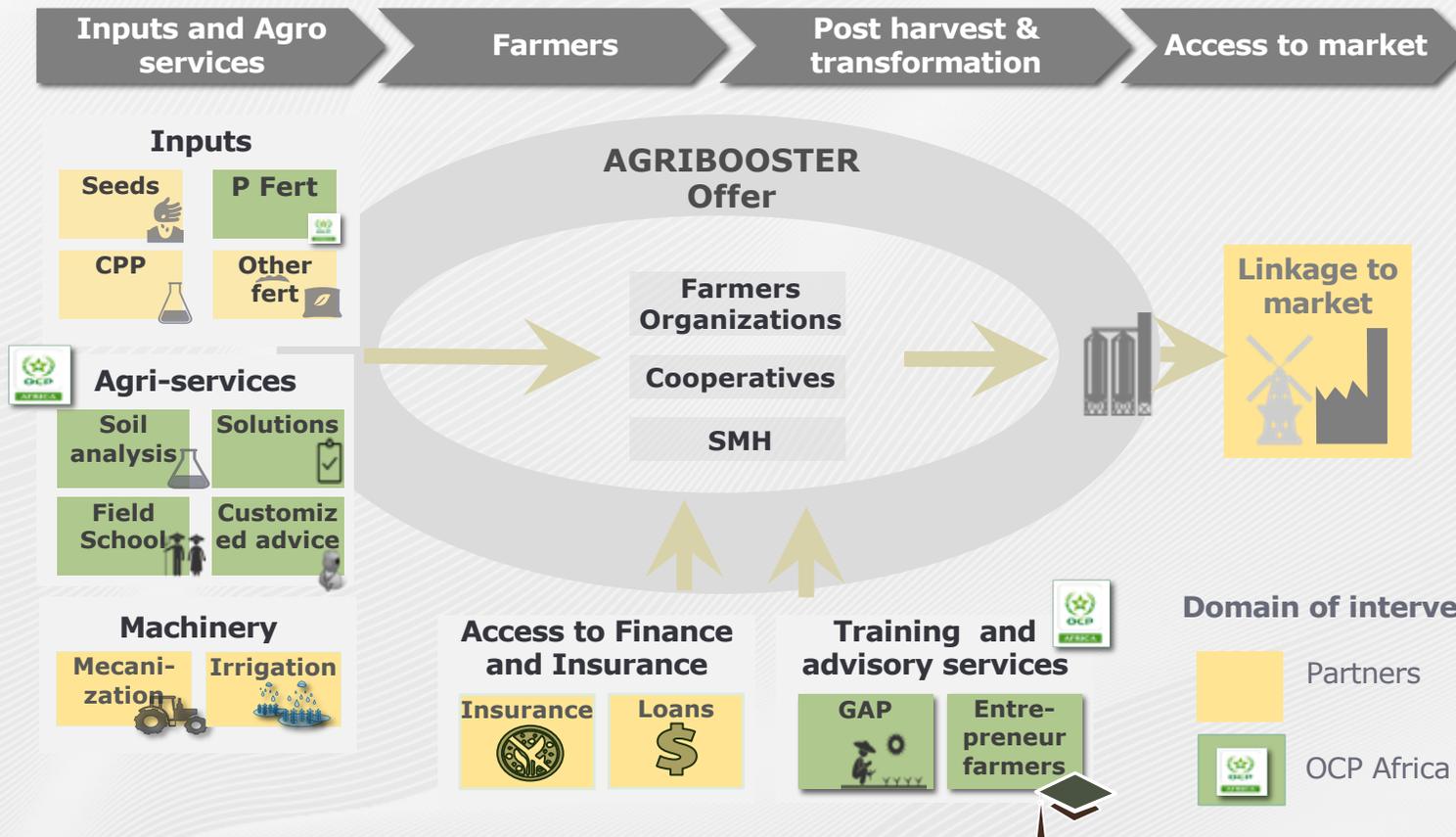
Mobile laboratories deployed

>90 000

Free soil tests performed (2016-2020)



AGRIBOOSTER PROGRAM IS AN END-TO-END VALUE CHAIN SOLUTION THAT IS FOCUSING ON SHIFTING SHFs FROM SUBSISTENCE TO COMMERCIAL FARMING



 **780k Farmers**

Agribooster is a unique initiative for food crops that provides farmers with support for every aspect of the agricultural value chain.

Through Agribooster, we are connecting farmers to financing and insurance, working with local extension agents to train them on proper fertilizer use, collaborating with other providers to ensure they have the right fertilizer and other inputs.

 **Increase in yields : 48% to 133%***

 **Major crops : rice & Maize**

 **4 countries**



FARMER HOUSES : EMPOWERING YOUNG AGRI- ENTREPRENEUR TO PROVIDE CONTINUOUS SUPPORT TO SMALLHOLDERS

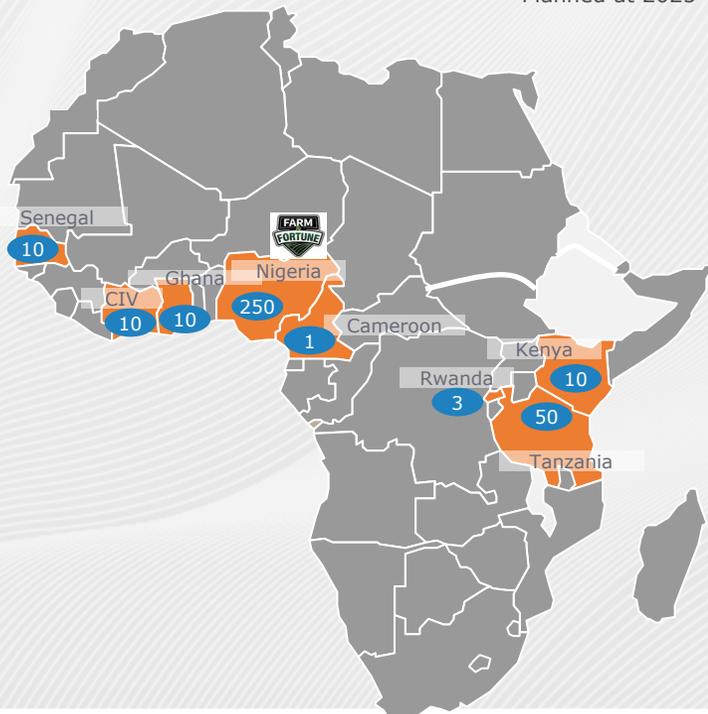
FARMER HOUSES

Develop OSS in underserved areas with huge agricultural potentials. Target of > 340 Farmer Houses by 2025



~80 opened in >18 states in Nigeria

xx Planned at 2025



260 kFarmers

trained and 415k farmers reached through input supply

AGRIPROMOTER

Delivery and field workers (training, extension services, demos)



65 agri-promoters Trained and implemented

Empowering African Youth Program (EMAY)

“Last Mile” Laboratory Service



20 young leaders Trained at End of 2021



Thank you





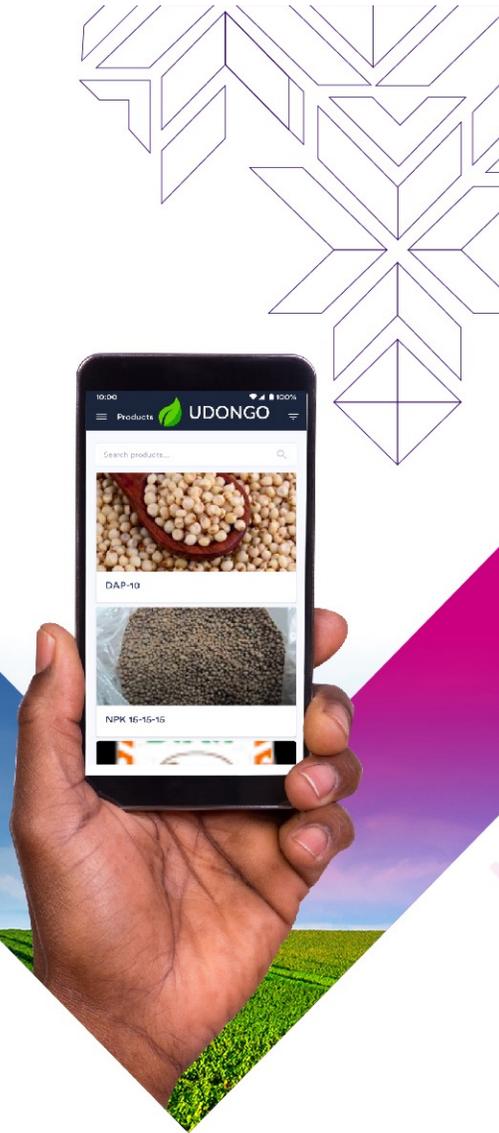
BACK UP SLIDES



**DIGITAL ARMING US WITH
A NEW SOURCE OF
COMPETITIVE ADVANTAGE
BY UNLEASHING
UNTAPPED VALUE WITHIN
THE AGRICULTURE DIGITAL
TRANSFORMATION.**

UDONGO :
an Agritech platform
aiming to offer a full range
of products & agri-services
+2.7 MILLION

Target of farmers reached 2022-
2025 by Udongo platform via value
chain players



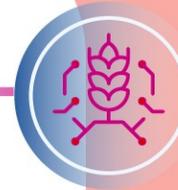
BUSINESS MANAGEMENT FEATURES

- Product Catalog
- Network Business Affiliation
- Price quotations
- Inventory managements



FARM MANAGEMENT FEATURES

- Farmer database
- Farm Mgt Calender
- Geolocalisation



AGRONOMY FEATURES

- Agronomy content
- Agro + : nutrient management platform

SUPPORTING AFRICAN YOUTH IS SUPPORTING THE FUTURE OF AFRICA

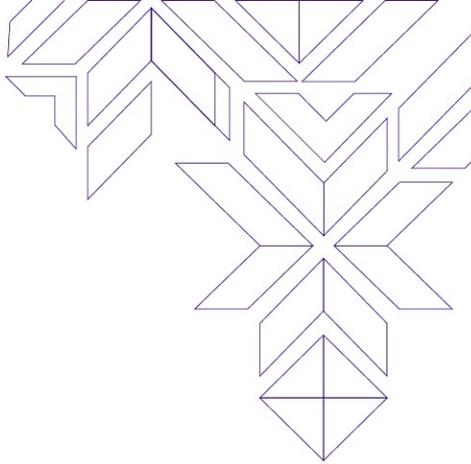


African Innovation & Entrepreneurship Support

350
StartUps
reached by Impulse

16
retained and
supported StartUps
including

13
from Africa



Sustainable impact on local ecosystems

