

SUSTAINABILITY HIGHLIGHTS

2019

Working together for
sustainable agriculture





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A WORD FROM OUR CEO

“

As custodians of the world’s largest reserves of phosphate – a vital element for all plant, animal and human life on earth - we have a genuine responsibility to operate as sustainably and safely as possible, to ensure that the world’s farmers have access to the plant nutrients they need to feed a growing world population.”



Mostafa Terrab

Chairman and Chief Executive Officer

ABOUT OUR GROUP

Our mission

Contribute to sustainably feeding a growing world population

2019

\$1,45 billion
in capital expenditures

\$5,62 billion
in revenues

18,906
employees

28%
reduction of Lost Time Injury Frequency Rate (LTIFR) compared to 2018.

74%
of expenditures with Moroccan suppliers

-14%
carbon footprint compared to 2018

1 million
inhabitants' annual consumption - it is the water capacity produced by OCP Group

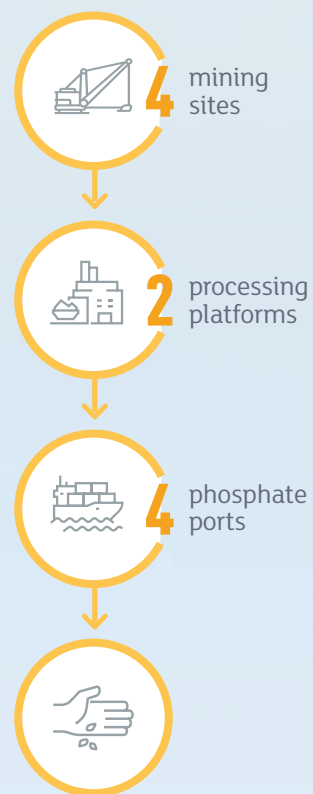


86%
of OCP Group's needs met by clean electricity

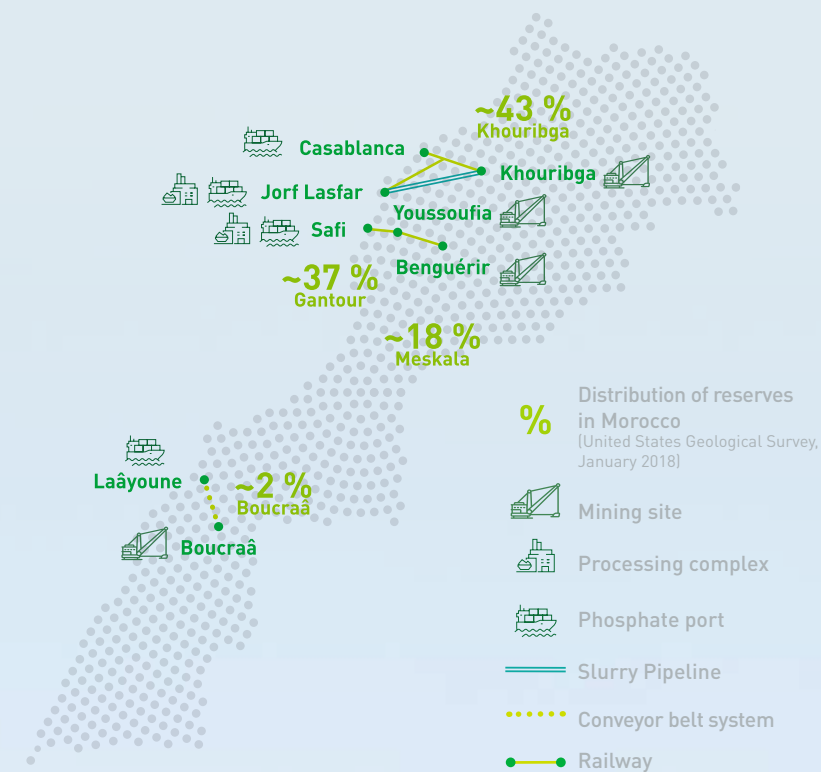


\$195 million of community investments

An integrated group across the entire value chain

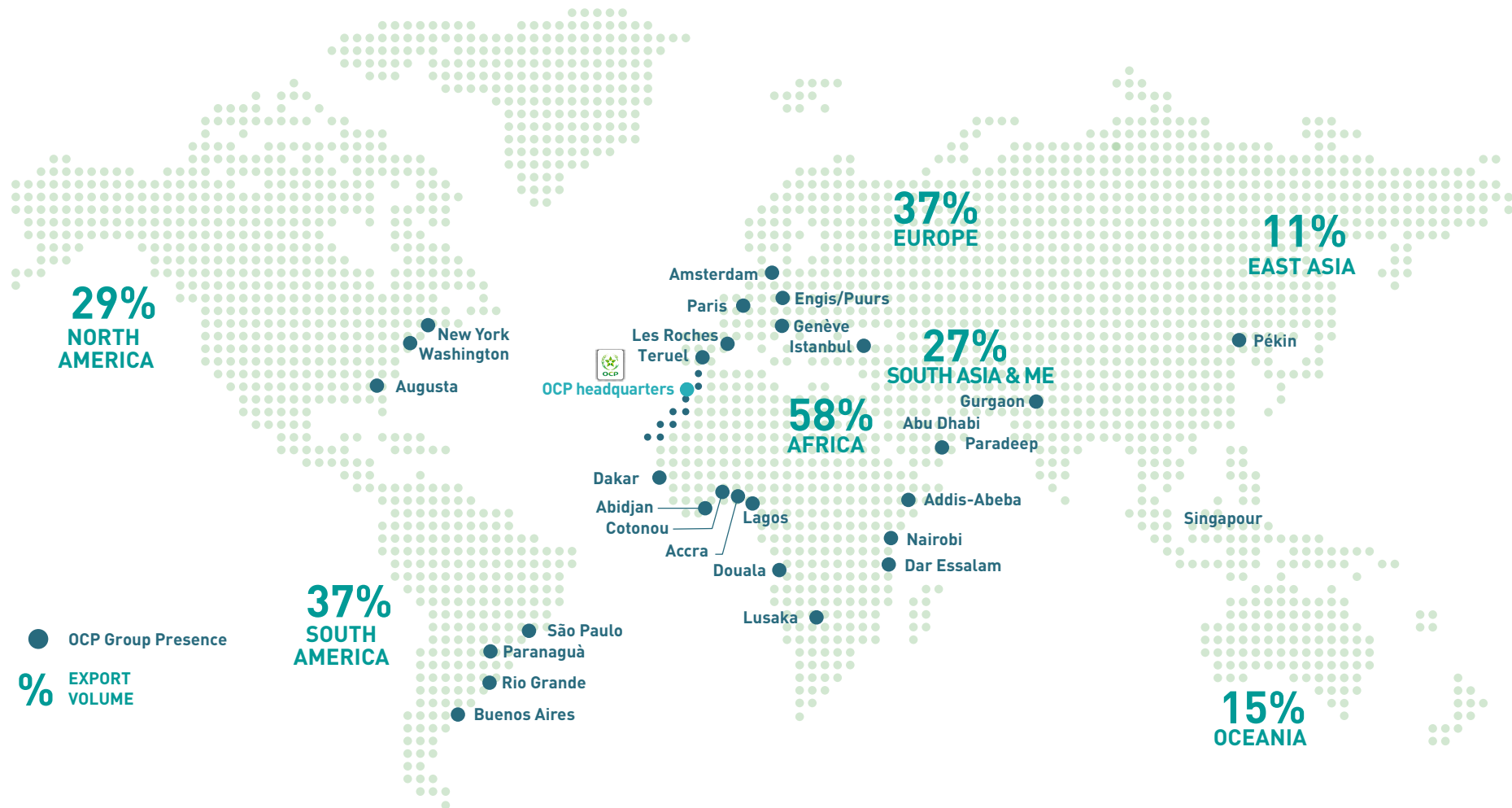


Leading producer of phosphate & fertilizers worldwide



Custodian of 70% of the world's phosphate reserve





Phosphate rock

Phosphate rock is primarily used in agriculture to fertilize soil by either applying it directly or through the use of phosphate-based fertilizers. It is also used to produce animal feed supplements and for other industrial needs.

44 Mt production capacity | **41 Mt** produced | **35,3 Mt** exported

Phosphoric acid

Two types: purified acid used in the food industry (oils, lemonades, cheeses, etc.) and other sectors (pharmaceuticals, detergents, animal feed, etc.) & phosphoric acid used for fertilizer production.

6,83 Mt produced | **2.1 Mt** exported

Fertilizer

Fertilizer can be applied directly or used as raw material for more complex fertilizers.

12 Mt production capacity | **10 Mt** produced | **9.06 Mt** exported

Key figures 2019

350

clients on 5 continents

40

strategic partnerships in Research & Development, engineering, IT, maintenance, etc. - including Fertinagro, Jacobs (newly Worley), IBM, MIT, Fraunhofer, Forbon.



OCP is a member of many professional associations



OUR VALUE CREATION MODEL

INPUT

The resource we use

Financial



\$ 1,59 billion Ebitda (earnings before interest, taxes, depreciation and amortization)
\$ 4,74 billion Net debt
\$1,4 billion Free cash flow

Human



18,906 employees
9000 employees involved in the Movements

Intellectual



\$ 61 million Research & Development expenditures
160 R&D programmes

Manufactured



\$ 1,45 billion CAPEX (Capital expenditures)
350 customers

Natural



41 Mt phosphate rock produced
28 405, 32 TJ energy consumption
90.68 Mm³ fresh water consumption

Social & relationships

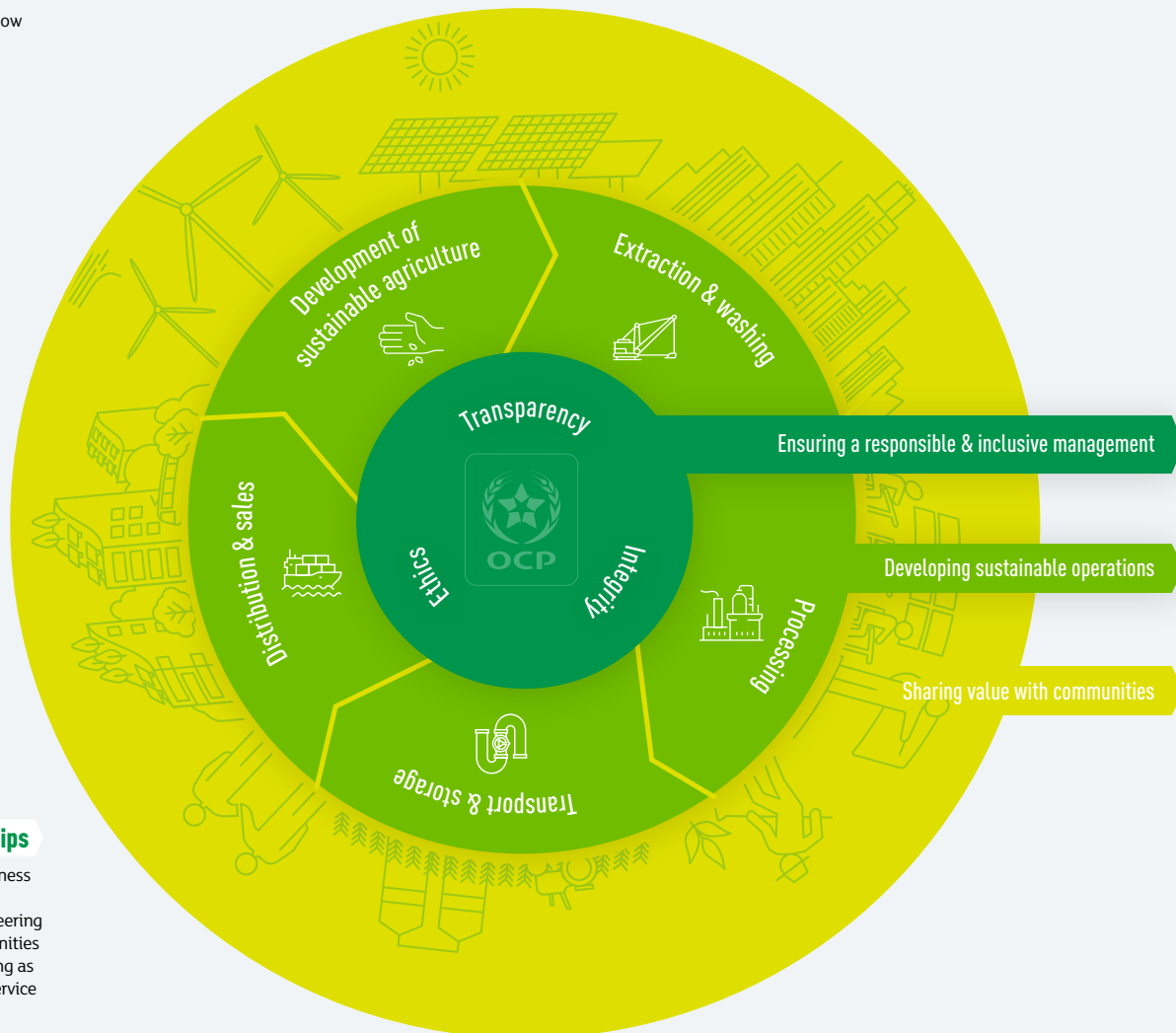


Pact to develop local business ecosystem
3,307 employees volunteering to empower local communities
5,000 days of volunteering as part of the Community Service Program

BUSINESS MODEL

How we create value

Contribute to sustainably feeding a growing world population



OUTPUT

Value we create



28% Ebitda margin
34% market share in phosphate rock
49% market share phosphoric acid
24% market share fertilizers



\$ 955 million wages & benefits
19% increase in women in management compared to 2018
47 average training hours per employees



\$ 3,16 billion of total suppliers' expenditures
74% of expenditures with Moroccan suppliers
21% of local purchases (around OCP sites)



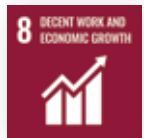
+65% of agricultural yield compared to national average in Morocco
+37% in corn yields in Ethiopia
+35% rice yield in Ghana, **+24%** in maize yields in Nigeria, etc. - with customized fertilizer formula
256,000 farmers trained in OCP school lab
26 million hectares of soil mapped in Africa
168,404 farmers benefited from the Agribooster program
30,000 soil analysis by Al Moutmir in Morocco



13,6% reduction of SO2
14,1% reduction in CO2 compared to 2018
30% of OCP Group's water needs met by unconventional water resources
86% of OCP Group's needs met by clean energy sources
864 ha of rehabilitated land



528 Local microbusinesses trained & 30 being incubated
\$ 195 million of community investments - 35% increase in increased compared to 2018
\$ 209 million taxes paid to government



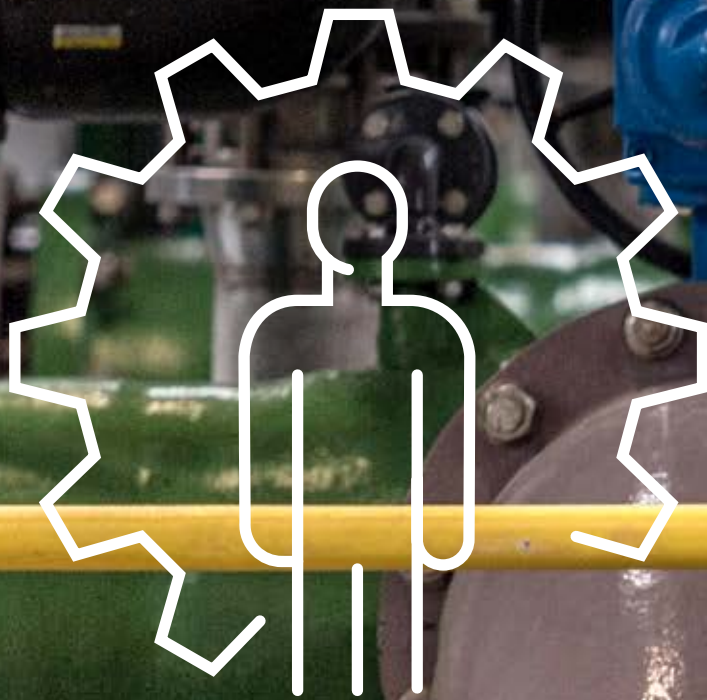


OUR SUSTAINABILITY COMMITMENTS





ENSURING A RESPONSIBLE & INCLUSIVE MANAGEMENT



GOING FURTHER TO ENHANCE HUMAN RIGHTS

In 2019, OCP Group has further structured its approach regarding respect to Human Rights aiming to build a due diligence programme spanning over the following main pillars:



1. Integrating Human Rights into new and existing policies;
2. Training employees on Human Rights and developing their capacities on Human Rights;
3. Engaging with stakeholders on a wide range of Human Rights issues;
4. Evaluating risk across its activities;
5. Assessing Human Rights impacts in high risk operations;
6. Coordinating Human Rights activities through sustainability sponsors and a Human Rights working group;
7. Partnering with leading organizations to implement Human Rights activities;
8. Monitoring and reporting on its performance;
9. Strengthen appropriate, efficient, transparent and fair grievance mechanisms.



GOVERNANCE TO RESPECT HUMAN RIGHTS

6 policies defined – including 5 operational policies related to major functional areas identified across the value chain: procurement, financial partnerships & investment, marketing & sales, human resources management and local communities relations



IDENTIFICATION OF SALIENT ISSUES

9 salient human rights identified which will be the focus of our progress roadmap and actions in the coming years.



MANAGEMENT OF SALIENT HUMAN RIGHTS ISSUES

We have developed a progress roadmap to further tackle salient human rights issues available in our website > sustainability :

Over the past years, we have started our journey to improve our management of Human Rights risks throughout our value chain:



Our employees



Our communities



Our suppliers



Our roadmap



Key figures 2019

93

participants to 1-week training and risk assessment workshops on Human Rights

6

policies defined covering all our major functional areas

9

salient human rights identified and focus of our actions



UNLEASHING INNOVATION

BUILDING OUR RESEARCH & DEVELOPMENT STRATEGY ON 4 STREAMS POWERED BY BEST-IN-CLASS PARTNERSHIPS



Farmer solutions:

Development of new fertilizer formulas and carried out tests to validate their performance.



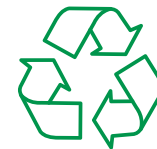
Operations efficiency:

Reduction of the production's environmental footprint



Hacking phosphate:

Preservation of the phosphate resource, phosphorus recovery & management of raw materials



Sustainability & circular economy:

Emissions, energy, water, waste optimized management



Key figures
2019

61\$
million

(equivalent to 587 MDH) dedicated to Research & Development – tripled compared to 2017

40

strategic partnerships – including Fertinagro, Fraunhofer, Forbon, MIT, Polytechnic Montreal, etc.

160

Research & Development projects

40

industrial pilots



DEVELOPING AFRICAN R&D: MOHAMMED VI POLYTECHNIC UNIVERSITY



An institution dedicated to research and innovation, UM6P is the privileged partner of OCP Group to foster a sustainable development for Africa through sustainable industrialization, rational management of natural resources, human capital development and agile public policies.

Research & Development

- > **Product innovation**
(special fertilizers, bacteria, biostimulants, etc.)
- > **Valorization of cadmium**
and heavy metals in phosphates
- > **Valorization of phosphate by-products**
(fluorine, phosphogypsum, batteries)
- > **Sustainable development**
(energy, water, environment)

UM6P's Living Labs are open to the scientific community and allow researchers from partner universities to test full-scale solutions in key areas (Green energy park, Advanced mining technology platform and Fab Lab dedicated to innovation in Benguerir, Blue water park in Laâyoune, Chemical innovation hub in Safi, Smart cities in EL Jadida/Magazan, etc.); are central to OCP Group's research programs. Among renowned partners are Massachusetts Institute of Technology (MIT), HEC Paris, Ecole des Ponts ParisTech, Fertinagro Biotech, the Fraunhofer Institute for Microstructure of Materials and Systems.

Entrepreneurship

Launched in 2018, the Innovation and Entrepreneurship (I&E) space - featuring different ideation, incubation, acceleration and development mechanisms such as the entrepreneur academy, P Curiosity Lab (PCL), UM6P Ventures, the Bloom Lab, has been fuelled in 2019 with a key start-up program: Impulse



Academy



Our employees



Our communities

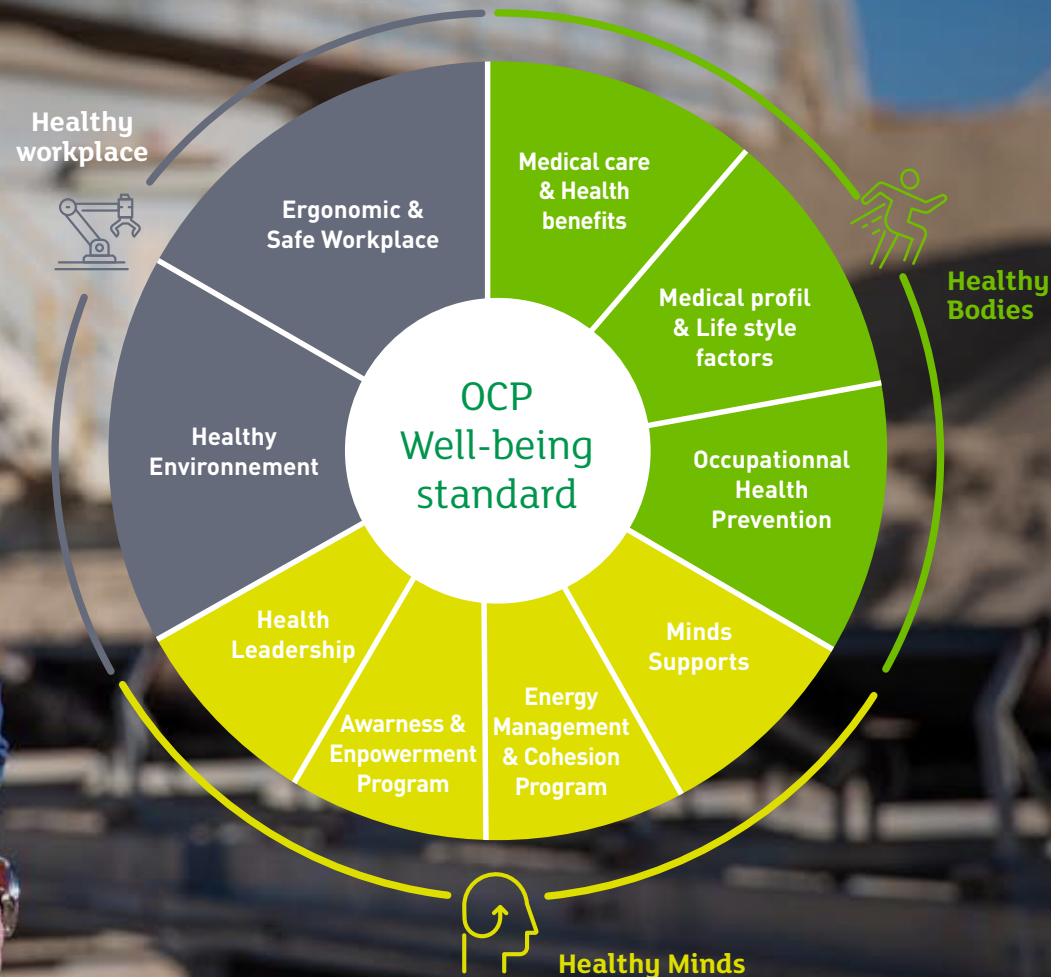


GROWING WITH OUR PEOPLE

SAFE & HEALTHY

The success of our business comes from the people who work for us. Beyond direct positive impacts on productivity and costs by avoiding repeated absences, medical expenses and insurance premiums, we do believe safe, healthy, and well-rounded workers sustain our business model.

A preventive three-dimensions wellbeing framework has been specifically developed in 2019 to cover all our activities:



OCP EMPLOYEES & SUBCONTRACTORS

Combined LTIFR (Lost Time Injury Frequency Rate)	1.96	2017
	1.95	2018
	1.4	2019

14
occupational health services and

30
help stations were led by a medical staff of more than 200 people comparing to 180 people in 2018.

OUR MAIN GOALS



Reach the "independent stage" on the Bradley Curve* by 2020

*The Bradley curve identifies four stages of safety culture maturity: from Reactive, Dependent, Independent to Interdependent.



Taking care of our employees

We provide a whole range of benefits to all our employees to support them in every moment of their life:



Wellbeing

Beyond the wellbeing at work program detailed page 13, social, cultural, sports and entertainment events are organized in collaboration with all stakeholders for employees and their families. OCP Group has also set up an emergency fund for its employees, their families, retirees to partially or totally cover expenses relating to difficult social/medical situations.

40

sports halls, clubs and sports complexes available to employees and their families as well as around 1000 partnerships sports facilities.



Housing

Property ownership plans were among the earliest social measures offered to OCP employees through mortgage assistance, financial donation, home & land sales in order to become a home owner.

In 2019,

1 043

received property ownership



Children education

The Institute for Social Advancement and Education (IPSE) is an OCP institution providing high-quality education to children through the use of new technologies, development of language skills, introduction to the experimental approach, and the promotion of science. OCP Group also offers scholarships in order to support the academic sector and ensure equal opportunity.

34

IPSE schools welcoming 19,000 children of employees in 2019, partnering with 33 prestigious academic institutions.



Vacation

The group offers its employees and their families a panoply of partner hotels & resorts to spend their holidays in the different Moroccan cities as well as group-specific vacation centers in 2019.

5 806

children, aged 8 to 14 attracted in the Group's vacation camps during the summer holidays.



Retirement

OCP Group is affiliated to the Régime Collectif d'Allocation de Retraite "RCAR", a pension scheme, viable and ensured by the State, as a mandatory basic scheme for all of its associates in order to provide them with lasting pensions after their retirement. Associates can also optionally subscribe to the complementary plan Retraite complémentaire « RECORE » managed by the CNRA (Caisse Nationale de Retraites et d'Assurances). The Group also provides post-employment benefits to its retired employees, which includes a lump sum retirement allowance and medical plans.

\$62 million

(equivalent to 600,33 MMAD) OCP Group's contribution to the pension plan



Giving our employees the chance to volunteer

Always providing new opportunities to thrive, OCP Group offers as well community leave of one to four weeks, outside annual leave, so that employees can join Act4Community and volunteer in their community.

100%

of employees covered by the mandatory pension plan & the optional pension plan



EMPOWERED

Discovering new ways to learn

Experience through the Movement allowing to develop their ideas

Career evolution through sharp development management tools and teams

Transmission of knowledge to the ecosystem through OCP Professors and Act4Community

Empowerment through a world class training offer

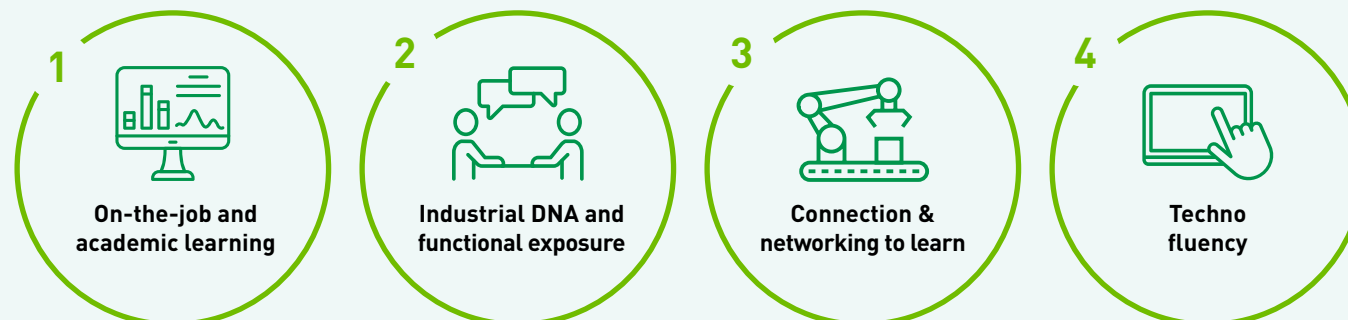
- > **The learning institute's** mission is to adjust skills in order to adapt to changes in business lines and roles, support ongoing professional development programs, and provide personalized support for employees throughout their careers.
- > **UM6P (Mohammed VI Polytechnic University)** constitutes the core of our knowledge ecosystem based on higher education, research and incubation of economic activities. Our main training partner further developed its offer in 2019 around:
- > **Industrial Expertise Centers (IEC)**'s mission is to train employees in operational activities so that they are able to support OCP Group's industrial ambitions.
- > **OCP Professors** is a mentoring program to capitalize, share, transfer and promote the Group's expertise, internally and externally.

Average training hours per employees

2019 ▶ **47h**

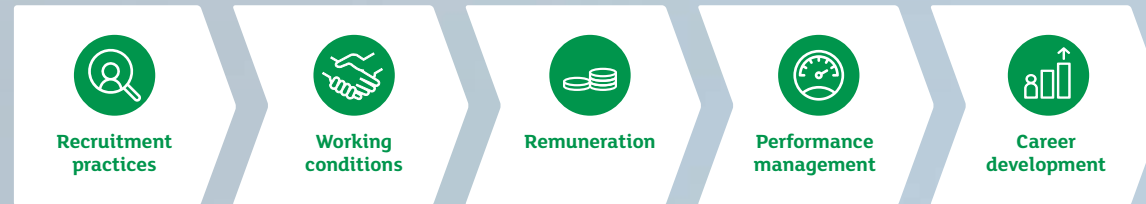
Geared towards youth

The new talent development program BEYOND was created in 2019 to support the growth of OCP Group and continue to sustain our business model around a 2-year curriculum for young talents with a 4-principle approach:

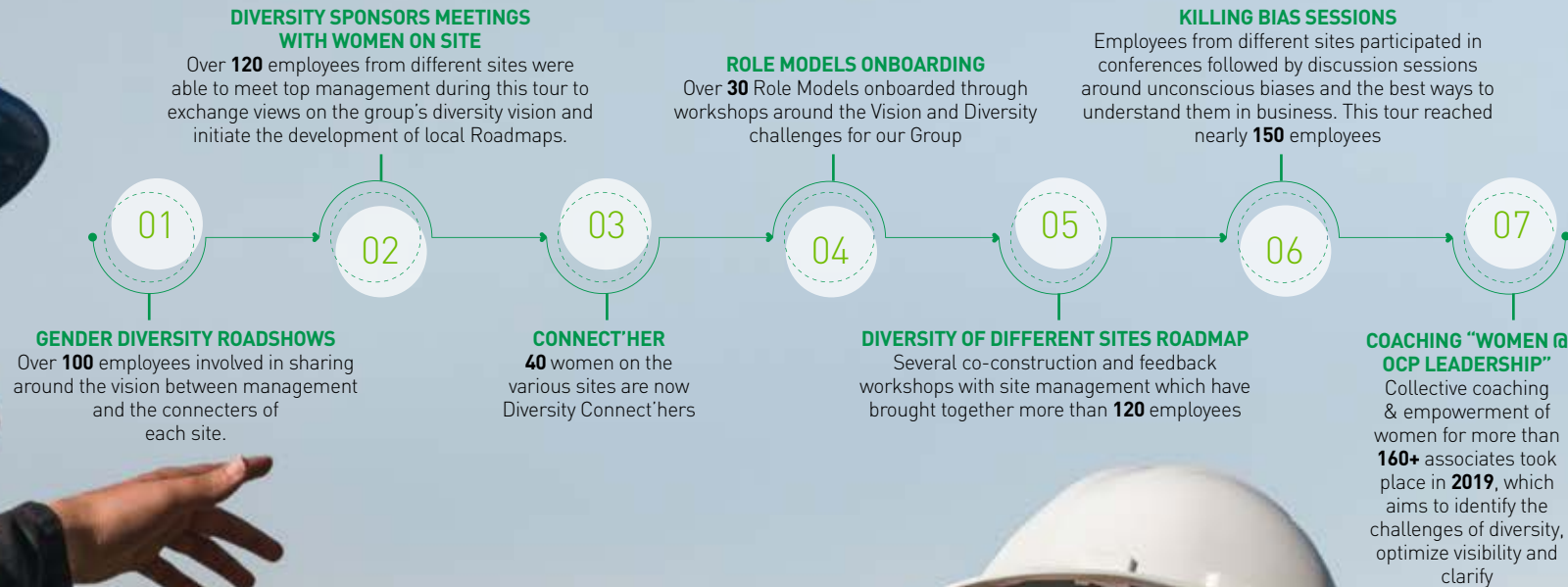


PROVIDED WITH EQUAL OPPORTUNITY

OCP Group is committed to exclude at each step of work life any and all forms of discrimination related to origin, nationality, religion, race, gender, disability or age, or other grounds established in applicable laws and international norms and conventions.



What has been done so far in 2019:



57 nationalities in 2019

OUR MAIN GOALS

Women in management

2009: 16%

2019: 32%

2030: 47%

Women Deputy of the Chairman

2020: 25%



LISTENED

We are continuously working to build a workplace culture that fosters leaders and allows every person to thrive, contribute and grow. And we think this culture do relies on fundamental values of trust, mutual respect and dialogue.

1 Pacte: fostering bottom-up dynamics

In 2019, OCP Group has launched '1 pacte' – a collective intelligence initiative to involve OCP employees and ecosystem in shaping the company's strategy . In a fast-changing world that we all want sustainable, our way of thinking, living, and working needs to efficiently evolve. Different transformational milestones have already been achieved since 2006 such as the UM6P, Movements, OCP professors, Act4Community which

progressively bring humans challenges at the heart of the business strategy. As there is still a long way ahead, 1 pacte aims to gather employees and ecosystem energies, foster strategic dialogue to make together – everyday – the right decisions, large and small, to catalyze sustainable change. 1 Pacte is a 'Situation' [anchored 'Movement'] which has now been given all resources to co-build a common sense for a better OCP Group of tomorrow.

Key figures 2019

225 physical dialogues were held in all over Morocco by 120 connectors (groups of employee's volunteers trained to dialogues).



GROWING FOR OUR ECOSYSTEM

OCP Group is a vertically integrated group, from phosphate rock extraction to phosphoric acid and fertilizer. Its value chain therefore relies on a diverse supply chain featuring around 4,500 suppliers for essential procurement categories related to raw materials, energy, industrial infrastructures development and transportation.

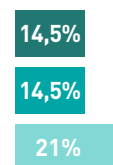
Percentage of new suppliers assessed using environmental criteria



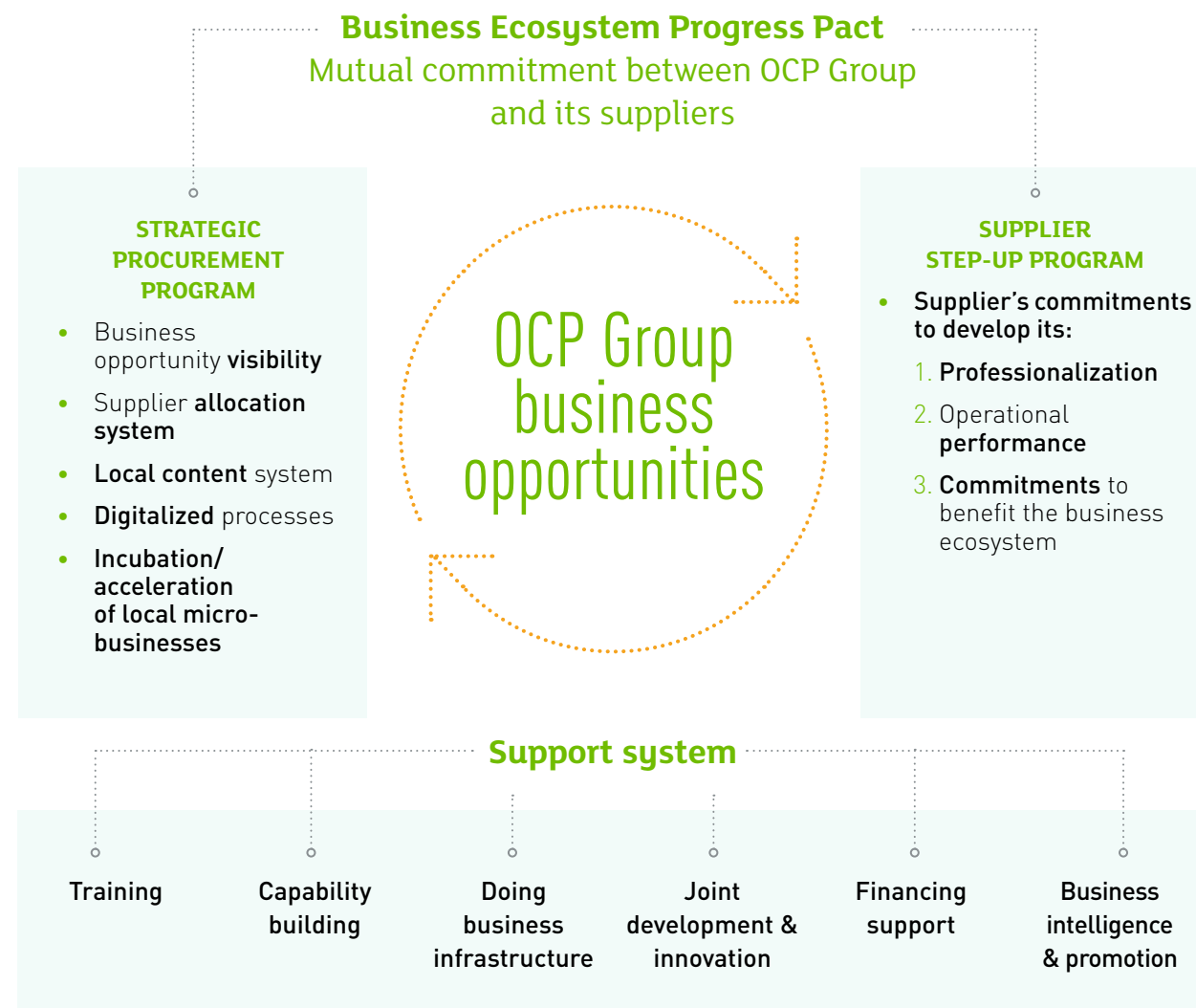
Percentage of new suppliers assessed using social criteria



Percentage of local purchases (around OCP sites)



2017 2018 2019



Key figures 2019

848

Microbusinesses having benefited from sourcing & dialogue measures

528

Microbusinesses trained

450^{141 new ones}

Microbusinesses qualified for the tendering processes

193

Microbusinesses integrated in the Local content

300

Volunteers to support microbusinesses

15

Ecosystem partnerships (Cummins, ContiTech, etc.)

283

Millions USD allocated to local businesses (equivalent to 2,73 billion MAD)



COMMITMENTS TO SUSTAINABLE PRODUCTION



WALKING THE TALK FOR CLIMATE CHANGE

Facing climate change and aware of our corporate responsibility to contribute to Morocco's goal of 42% greenhouse gas emissions cut by 2030, OCP Group pursues a cutting-edge strategy to reduce its CO₂ emissions - being the only GHG (Greenhouse gas) significantly generated by its activity.

Decreasing carbon footprint over the last decade despite our threefold increase of fertilizer production.

OUR MAIN GOALS



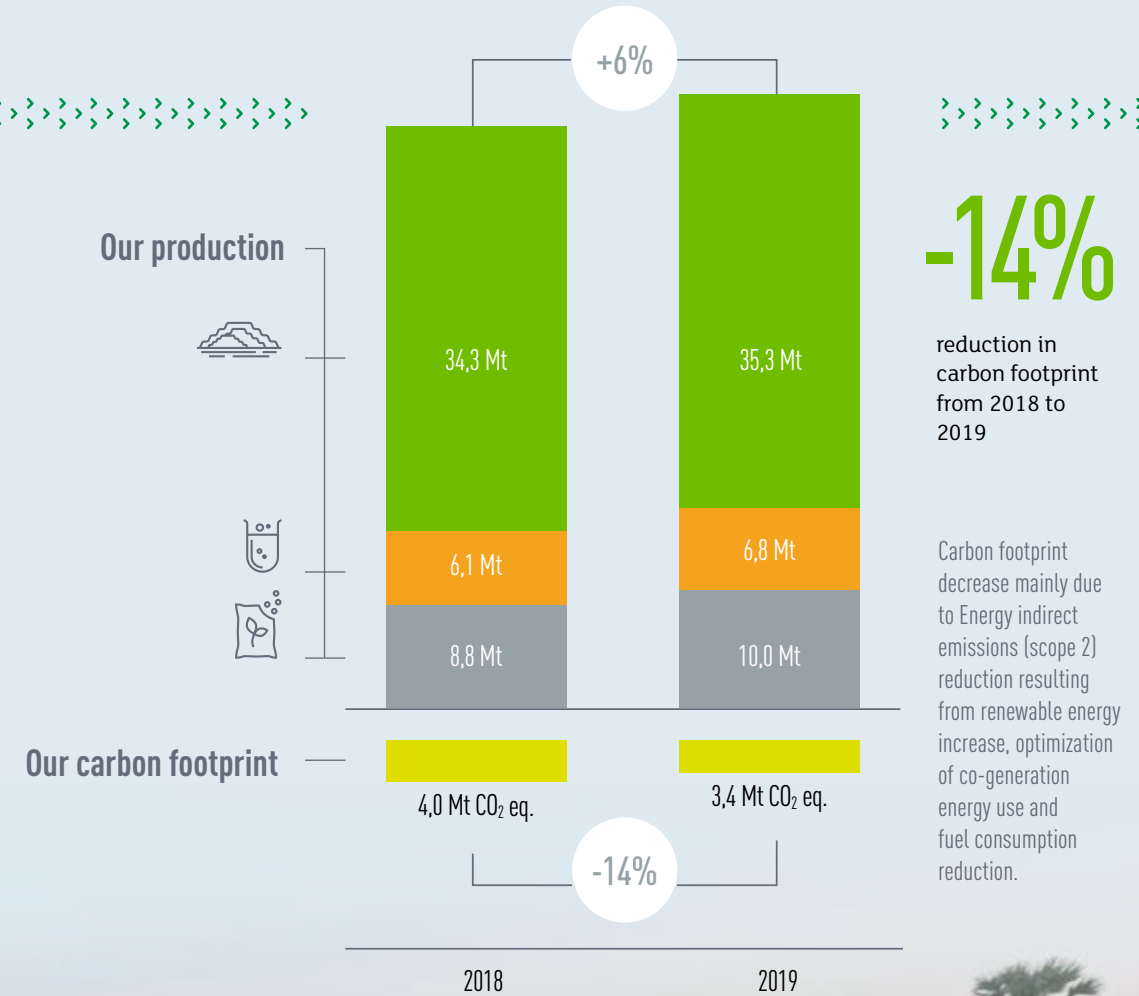
2030

50% reduction in the carbon footprint



2040

Achieve carbon neutrality





SETTING OUR TECHNOLOGY ROADMAP TO AVOID CO₂ EMISSIONS

6,000,000 tCO₂ / year to be avoided

Energy efficiency

-10% consumed energy

Ongoing

Energy efficiency program based on ISO 50001

CO₂ capture

1,000,000 tCO₂ eq avoided

Planned

Our objective is to achieve a 25% reduction in CO₂ emissions by 2030 from phosphoric acid production chimneys

Green ammonia

1,720,200 tCO₂ eq avoided

Planned

Green ammonia, composed of green hydrogen and nitrogen, can be used as a raw material for producing fertilizers. A pilot project has been designed in Morocco with the Green Energy Park in Benguerir supported by the Fraunhofer Institute for Microstructure of Materials and Systems IMWS.

Wind power plants

373,730 tCO₂ eq avoided

Achieved

Mine reclamation

4,5 million trees planted

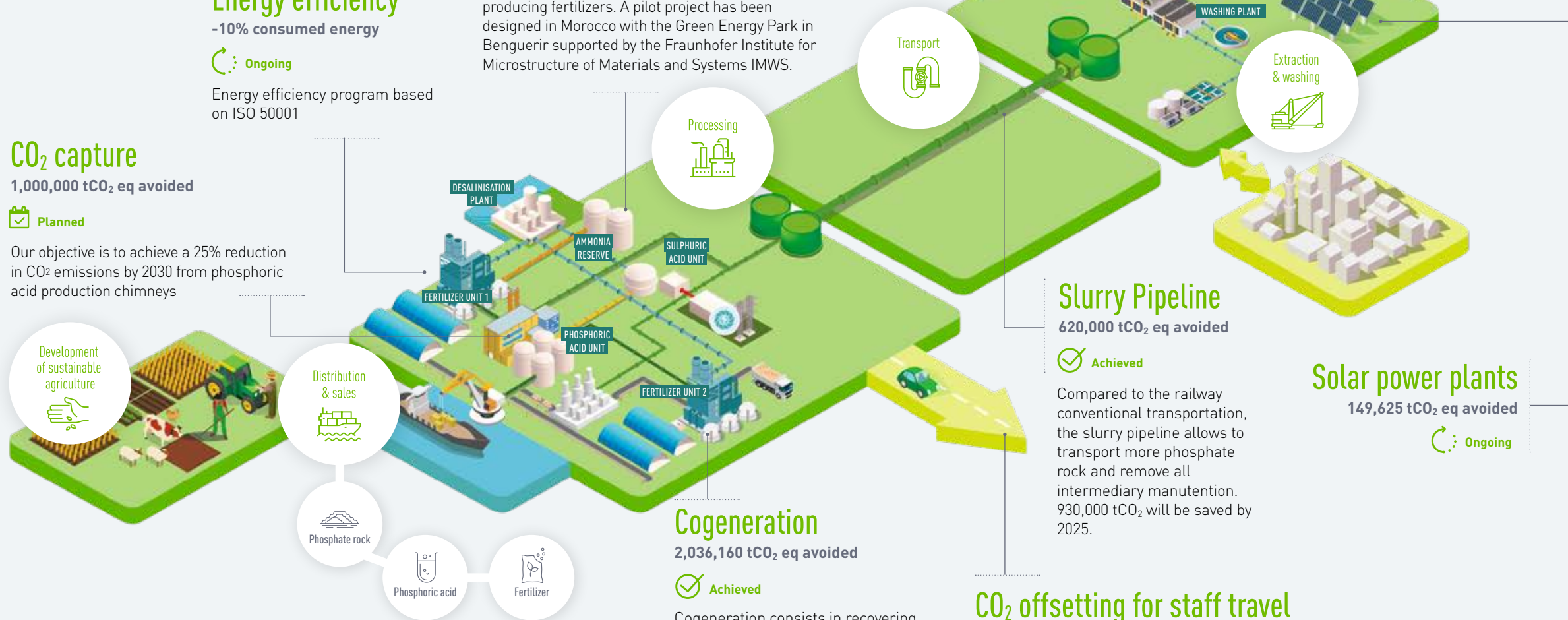
Achieved

Carbon farming

3,000 tCO₂ eq avoided

Planned

Carbon farming is about changing agricultural practices or land use to increase the amount of carbon stored in the soil and vegetation (bio-sequestration).



Slurry Pipeline

620,000 tCO₂ eq avoided

Achieved

Compared to the railway conventional transportation, the slurry pipeline allows to transport more phosphate rock and remove all intermediary manutention. 930,000 tCO₂ will be saved by 2025.

Solar power plants

149,625 tCO₂ eq avoided

Ongoing

CO₂ offsetting for staff travel

7,500 tCO₂ eq. - 9,000 tCO₂ eq compensated annually

Achieved

Cogeneration

2,036,160 tCO₂ eq avoided

Achieved

Cogeneration consists in recovering waste heat released during the sulfuric acid production within our processing sites to produce electrical energy.

Note: annual estimation compared to a baseline year

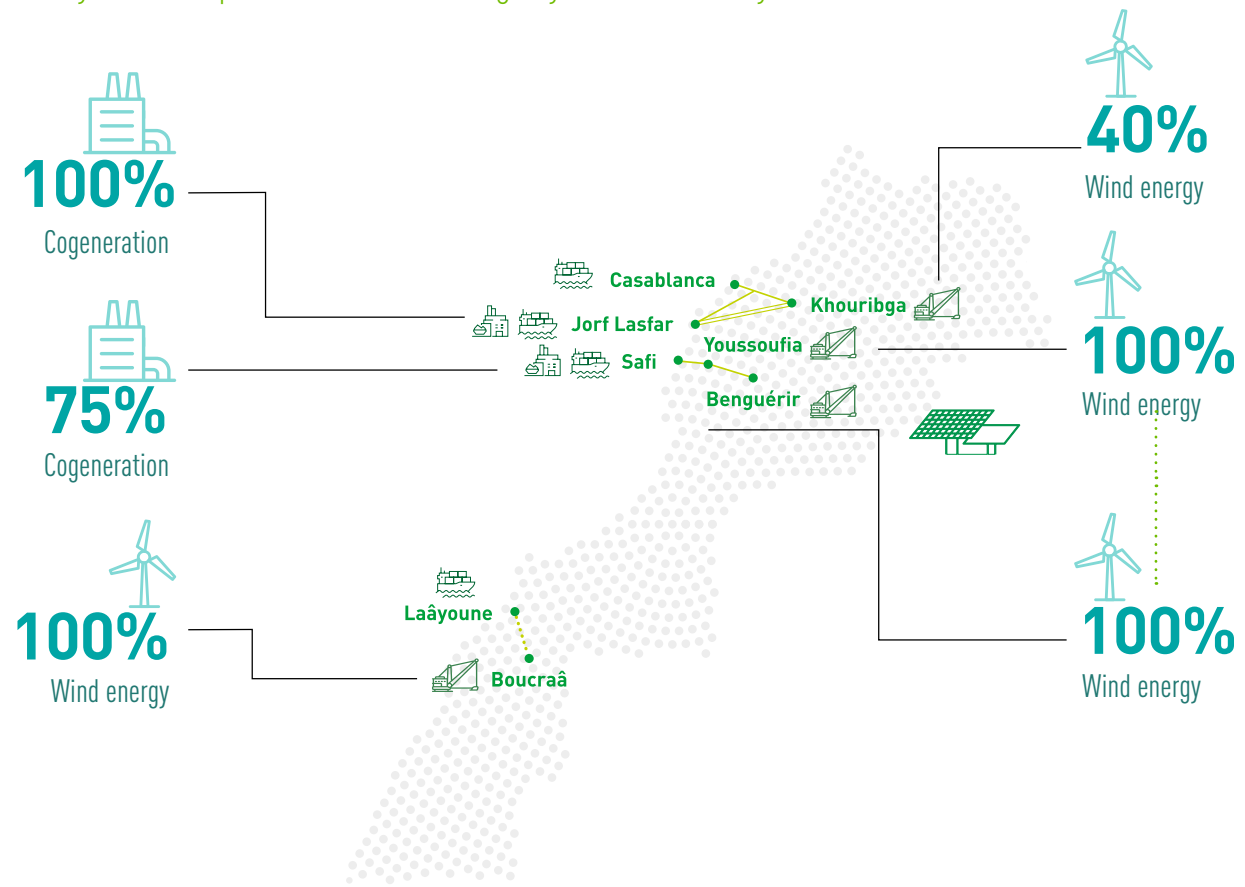
DEVELOPING CLEAN ENERGIES

100% clean electricity by 2030

Growing industrial capacities to meet the exponential fertilizer demand doesn't have to impact OCP Group's energy footprint. To make our energy mix clean and achieve self-sufficiency, we have developed an Energy Program which relies on:

- ↗ Energy efficiency measures
- ♻ Clean energies development

Today OCP Group reaches 86% coverage by clean electricity

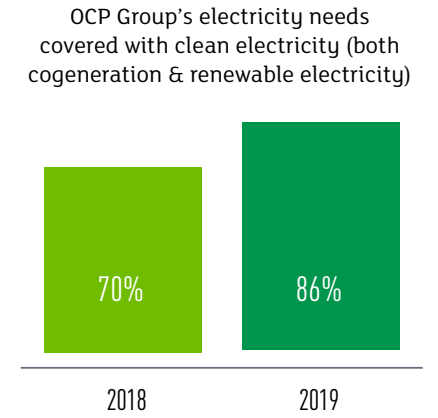


% of coverage by clean energies

Key figures 2019

\$21,3 million

(equivalent to MAD 200 million) invested in 2019 for energy-related research.



25%

of the Moroccan clean energy produced by OCP Group

1st solar decathlon

in Morocco gathering 1,200 participants from over 20 countries and organized by the Research Institute in Solar Energy and New Energies (IRESEN) to compete to fully design and construct operational solar homes.

OUR MAIN GOALS

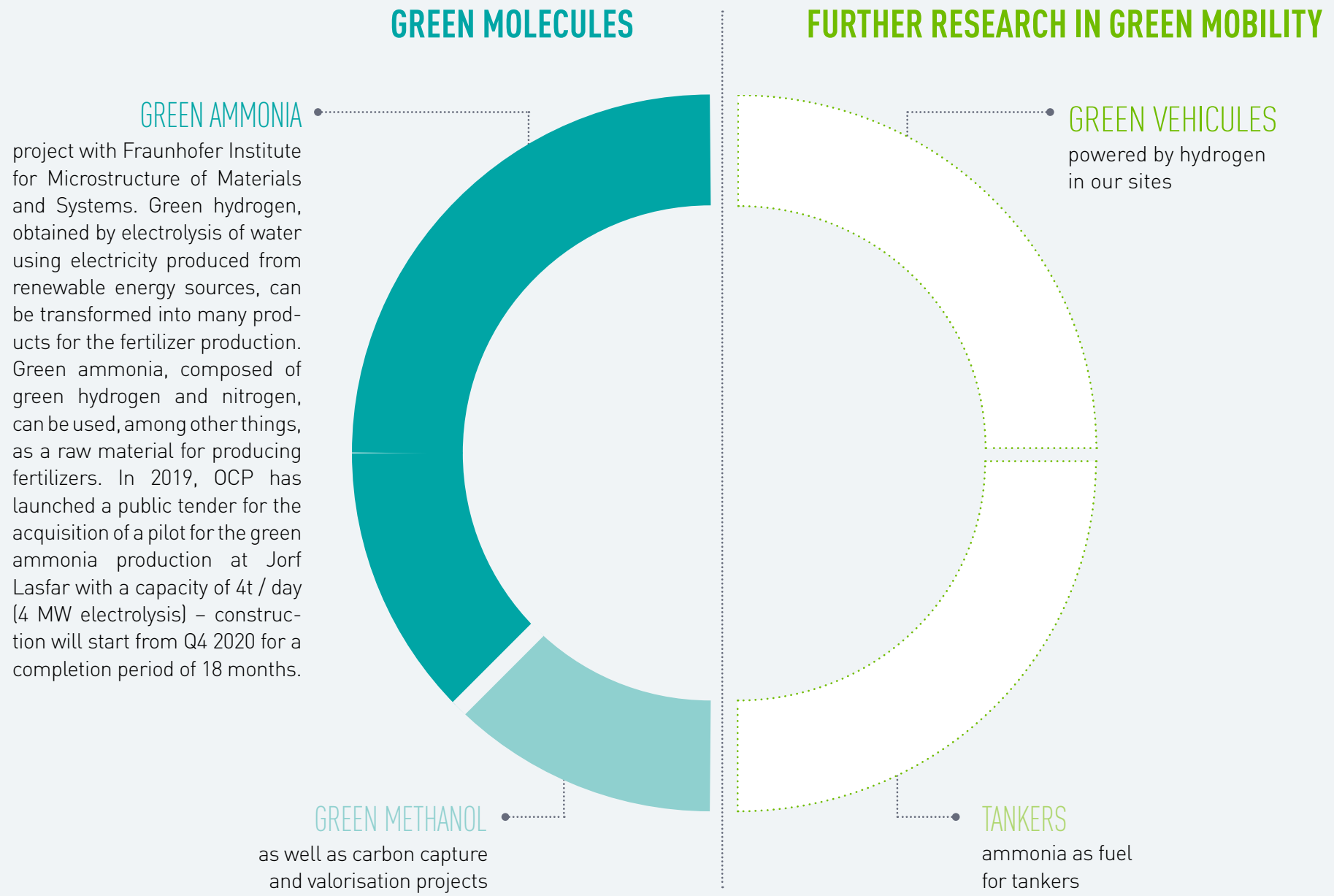
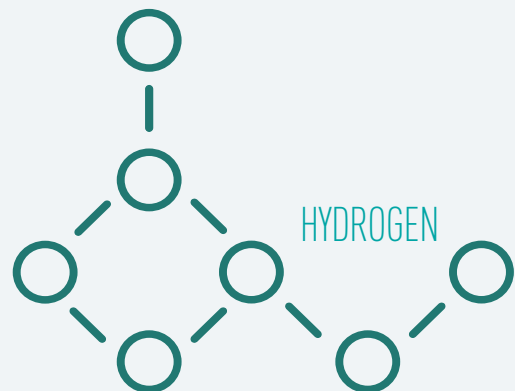


100% OCP Group's electricity needs covered with clean electricity (both cogeneration & renewable energy) by 2030

PUTTING HYDROGEN AT THE HEART OF OUR CARBON FREE STRATEGY

Pilot project

(4 MW electrolysis) green ammonia production capacity at Jorf Lasfar – pilot project is being launched and has been designed by the OCP Group and the Green Energy Park in Benguerir with the support of Fraunhofer Institute for Microstructure of Materials and Systems IMWS. Essential component of fertilizer, ammonia production accounts for more than 1% of global CO₂ emissions.



THE AIR WE BREATHE



OCP Group has been committed to reducing its air emissions many years - the significant ones being sulfur dioxide emissions, fluorine, ammoniac, hydrogen sulfur, and dust. Our management focuses on the introduction of breakthrough technologies and continuous monitoring coupled with atmospheric dispersion models:

CLOSELY TRACKING ALL OUR EMISSIONS:

Air quality monitoring stations through stations, measurement campaign led by third parties, and online analyzers on each chimney.

Plum'air solution via a real-time and forecast atmospheric emissions dispersion modelling system.

SPECIFIC TECHNOLOGICAL DEVELOPMENT

We have invested in cutting-edge technologies to face our most significant emissions :

Fluoride gas and hydrogen sulfur: Gas washing technology.

60+
millions \$

invested in 8 washing lines for fluoride gas

43%

fluoride gas annual pollutant load reduction compared to 2018

100%

production lines aligned with the World Bank threshold (<5mg/Nm3)

20
millions \$

invested in 17 washing lines for hydrogen sulfur



SO2 emissions: mainly through the Sulfacid technology commissioned in 2018 & being extended to all processing lines.

170+ millions \$

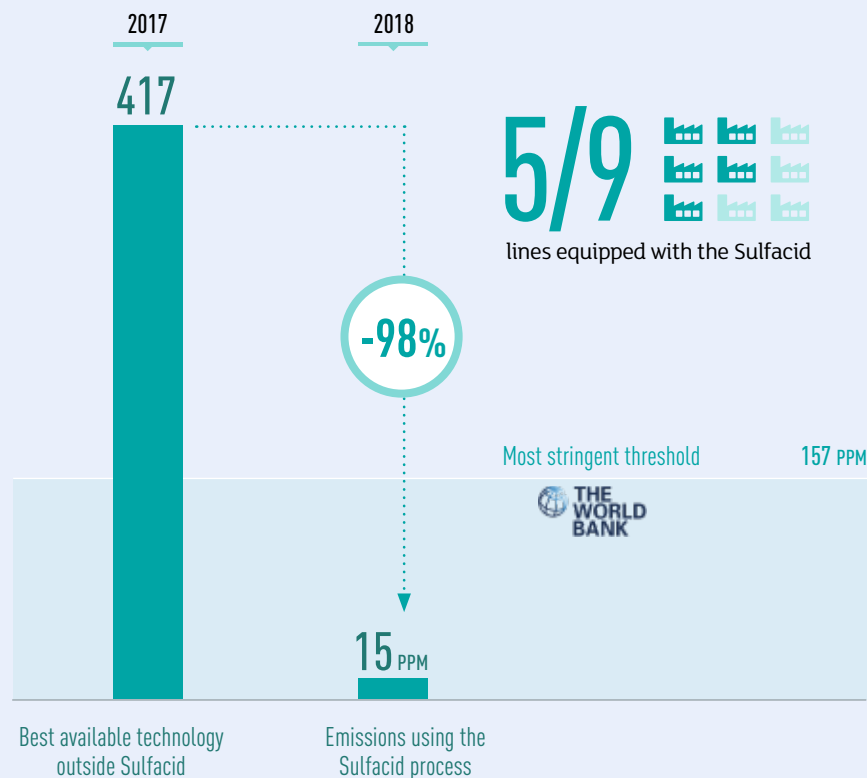
invested in technological breakthroughs to manage SO2 emissions - among which \$56 million achieved in 2019: 3 lines equipped in Safi and 2 in Jorf Lasfar

13,6%

sulfur dioxide annual pollutant load reduction compared to 2018

50%

production lines aligned with the World Bank threshold (< 450 mg/Nm³) in Jorf Lasfar & 38% in Safi



Ammonia: 100% chimneys below 50 mg/Nm³ and aligned with the World Bank threshold for the ammonia emissions

96%

of our chimneys are compliant with the World Bank levels

3/5

industrial sites are certified ISO 14001: Jorf Lasfar, Safi & Khouribga

OUR MAIN GOALS

- Reduce SO₂ polluting load by 50% in 2025**
- Align 100% of the production lines with the World Bank threshold by 2028**
- 100% of our industrial sites certified ISO 14001 by 2020**



THE LAND WE DWELL UPON

WE ARE WORKING TO GIVE BACK TO THE EARTH WHAT WE TAKE, AND MORE.

Striving for a circular economy, eco-design is the heart of the OCP Group's rehabilitation process that we want industrialized and leveraged by Research & Development. It is structured around a 3-pillar approach:



Integration of the rehabilitation into the planning of the mining operations



Expansion of the rehabilitation to the surrounding areas



Support to local and smart agriculture projects

✓ Blue economy : creating both environmental & economic value

We explore new crops and techniques to develop an innovative local agricultural value chain providing both environmental and economic value for the local communities.

In 2019, we have tapped into the potential of thistle and launched 4 experimental fields in Khouribga, Youssoufia and Benguéir to create both short and long term value:

Short-term socioeconomic value



Harvests valorisation routes

- Cellulose
- Fodder
- Aviculture
- Fatty acid



Yields

- 5,25t/ha i.e. 1,142 \$/ha (hectare)
- 4 tonnes barley equivalent/ha i.e. 5,296 \$/ha
- 480 Kg proteins/ha i.e. 150 \$/ha
- 400 Kg/ha i.e. 16,199 \$/ha

Long term environmental value

Thistle will regenerate the fertility of the soil with a concentration of more than 15% in vegetable carbon - thanks to its roots - in the coming 20-25 years; and will enable the transition to a higher value agriculture.





OUR MAIN GOALS

- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- 13 CLIMATE ACTION
- 15 LIFE ON LAND

Redevelop twice the land exploited

✔ Unleashing the potential of nature

Harnessing arid zone to capture CO₂ emissions and halt climate change is one of the keys of our rehabilitation approach. Indeed, planting arid, semi-arid and former mining sites areas could provide an important sink of CO₂. In tripartite partnership with the UM6P (Mohammed VI Polytechnic University) and St1, a Finnish energy company, the Carbon farming project should be carried out in three phases: a pilot project, a demonstration and a large-scale project. Launched in October 2018, the pilot project has been ongoing in 2019 and will span over 3 years to maximizing the CO₂ sequestration per hectare and per liter of water used.

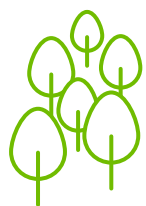
Key figures 2019

3,120
Farmers trained

67
OCP Group's volunteers

26
Local cooperatives supported

675
Jobs at stake



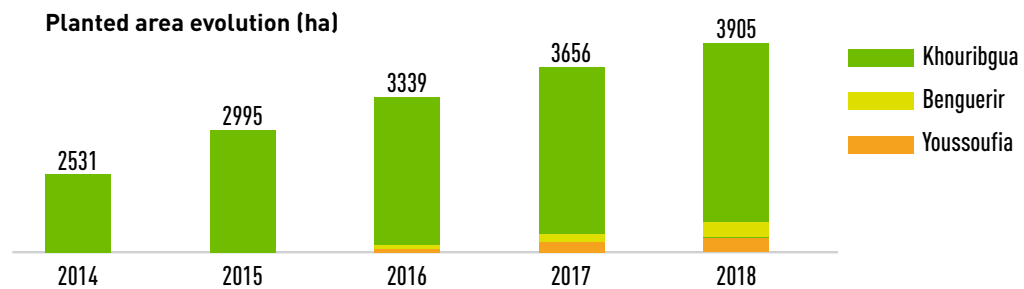
4,5 million trees planted

Hectares of rehabilitated land



*Rehabilitation includes reclamation and planting. Earthworks involve returning exploited lands to their original state.

Planted area evolution (ha)



Carbon farming

A carbon farming pilot project is being launched on our Benguerir site to increase the impact of GHG capture.

WATER: MUCH MORE THAN A RESOURCE

Facing increasing demand for fertilizers, and Morocco increasing water scarcity, OCP Group has been running a water program based on the circular economy principles to sustainably ramp up production and ensure food security.

1. WATER EFFICIENCY



80%
of water used to wash phosphates in our mines is recycled



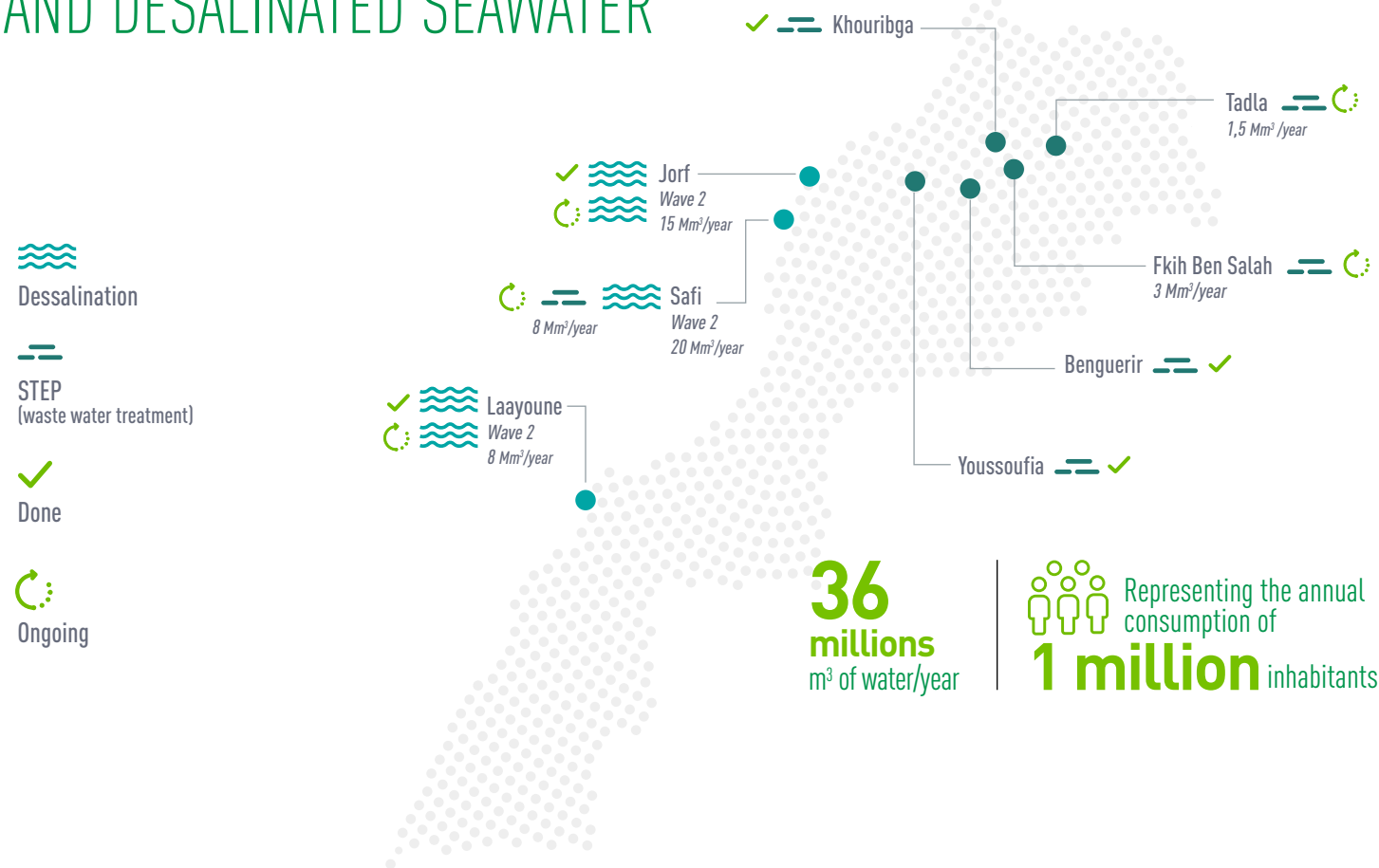
1,3 mm³/year
optimisation of water saved through the Slurry Pipeline compared to conventional transportation - the train



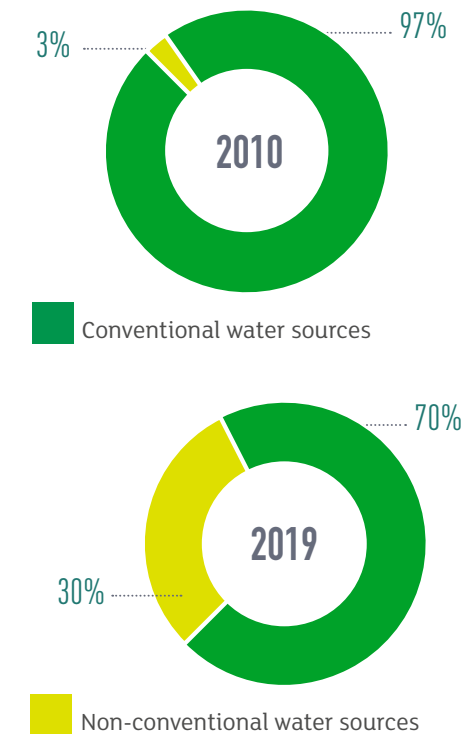
-25%
of raw water supply thanks to the development of innovative processing infrastructures



2. USE OF NON-CONVENTIONAL RESOURCES THROUGH TREATED WASTEWATER AND DESALINATED SEAWATER



Evolution of industrial fresh water supply sources



OUR MAIN GOALS



15% water total consumption reduction by 2024

100% water needs covered by non-conventional sources by 2030

Reach Zero effluents coming from any form of freshwater by 2028

3. IMPROVING COMMUNITIES' ACCESS TO WATER

We are continuously working to provide local communities with access to drinking water through three main actions carried out in 2019:



Connection to the ONEP* network with installation of water fountains

58 water fountains set up and maintained in 34 douars and 7 cities surrounding Khouribga as well as municipalities of M'zinda, Hay Molay Rachid and Hay Essalam in Youssoufia but also Ouled Ahssine and Sidi Abed benefiting thousands of families

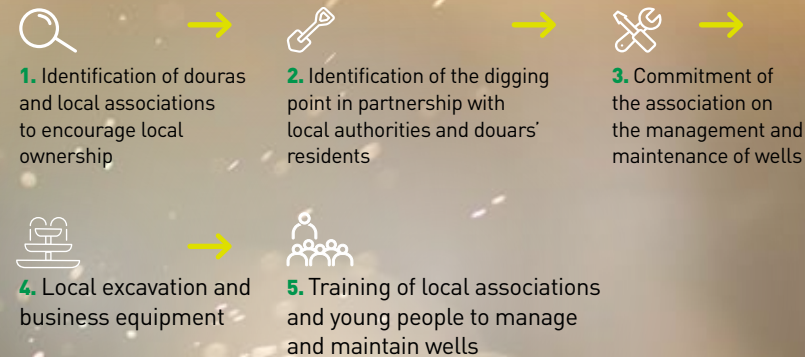
1 demineralization unit of by reverse osmosis of saline water from the drilling well at Boucraâ in collaboration with the Municipality of Boucraa and the Laâyoune Sakia El Hamra Region with the ONEE (ONEP's water department)

*National operator of electricity and drinking water



Wells installation in villages near our production sites

61 wells dug and equipped in 58 douars in Youssoufia and Rhamana as well as Ouled Ahssine and Sidi Abed Jorf municipalities benefiting 30,000 families in collaboration with the local authorities, microbusinesses and associations.



THE RESOURCE WE NEED TO PRESERVE

Humanity today consumes the resources equivalent to 1.8 planet earths to meet its needs, and this ecological debt will double as a result of population and economic growth. As leader in the fertilizer industry, our challenge is to meet growing consumption needs and guarantee food security while using a minimum of resources. That is why we transitioned to a circular economy model.

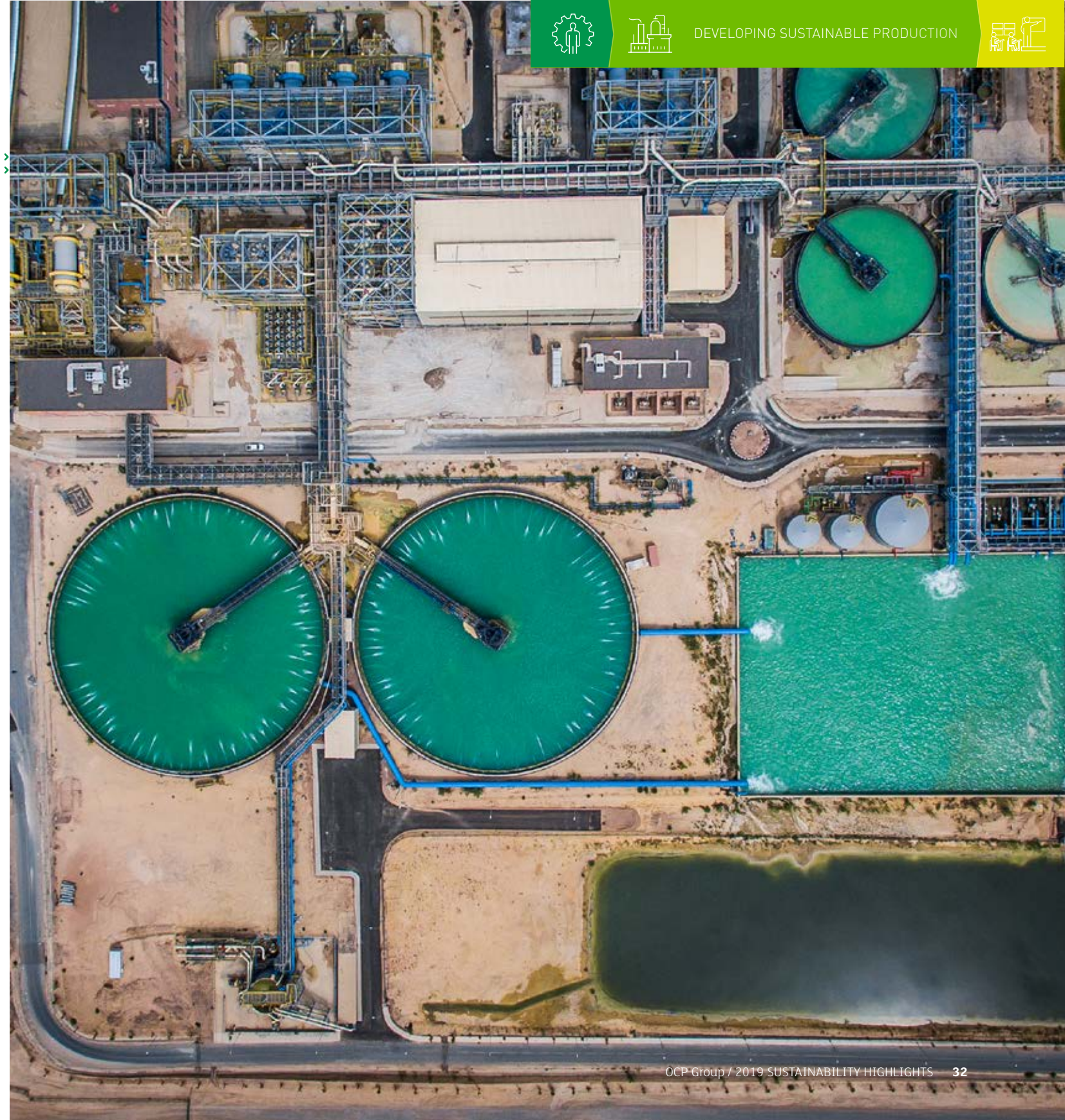
PRESERVING PRECIOUS PHOSPHATE RESOURCES

1. Recovery of low phosphorus content phosphates

33% ✓

of Moroccan phosphates, considered to have a very low phosphorus content, became economically viable and exploitable through the reverse flotation process

New fertilizer made from low content phosphate that used to be stored as mining waste. Rich in nutrient, it will be specifically adapted for tropical climates



2. Recycling by-products

Generated during the various stages of production, by-products could be recovered and valued as inputs. Phosphogypsum is our main byproduct resulting from processing phosphate into phosphoric acid. OCP Group has initiated a strategy to study all possible ways of valorisation and taking them from the laboratory to the field. In 2019, we have further developed the following initiatives:



Road

as an alternative to traditional materials that we might run out of in Morocco. Phosphogypsum mixtures have been studied to comply with both the mechanical characteristics of road construction and international environmental requirements.



Agriculture

Using phosphogypsum as an amendment to saline soils and affordable fertilizer to improve soil fertility. Pilot tests are running on different types of soils and crops in partnership with INRA (National Institute for Agronomic Research) and the UM6P (Mohammed VI Polytechnic University).



Thermal Decomposition

through laboratory tests launched in 2019. While phosphogypsum is only CaSO₄ (Calcium Sulfates) hydrated, its thermal decomposition into CaO and SO₂ will produce clinker and recyclable sulfuric acid in OCP Group's industrial activity.



Construction

Laboratory tests and an industrial pilot project are on the pipe in the cement industry. Moreover, a research and development mission for the valorisation of PG in bricks and aggloms was launched by OCP Group in partnership with the Public Laboratory for Tests and Studies (LPEE).



3. Phosphorous recovery

Together with JESA, we has designed and launched a feasibility study for integrating phosphorous and nitrogen nutrient recovery systems into three existing wastewater treatment facilities in Khouribga, Benguerir and Youssoufia. OCP Group is exploring the possibility of additional feasibility studies in the regions of Oued Sebou and Oum Rbii.





CLOSING THE LOOP: FROM WASTE TO RESOURCES

Aligned with its Circular Economy program, OCP Group is transitioning away from the linear economy and turns all industrial waste into local resources.

Vanadium catalyst → **Ferrovanadium & silica**

Together with a Moroccan SME (Small & Medium Enterprise), we have developed a project to recover the vanadium present in OCP Group's used catalysts. It consists of extracting vanadium oxide from the vanadium before producing ferrovanadium - used in the steel industry - and silica - used in the cement industry.

1,500 m³ of used vanadium catalyst waste recovered

Hydrocarbon waste → **Fuel, diesel, black carbon, and electricity**

In 2019, we have been working to get the first unit pyrolysis in Morocco at the Khouribga site - expected to be commissioned in 2021 - before being deployed to all operating sites.

3,000 tons per year of hydrocarbon waste incl. some hazardous waste like used oil into fuel, diesel, black carbon, and electricity

Sulphur ash → **Sulfuric acid**

Sulphur ash from the sulphur smelting and filtering facilities at OCP Group's processing sites have been under further investigation in 2019 to be treated by hydrometallurgy and produce 98% sulphuric acid.

18,000 tons of waste recovered

OUR MAIN GOALS



Phosphogypsum storage by 2023

Conduct Life Cycle Assessments (LCAs) to assess environmental impacts along the products lifespan.

Full recovery of phosphate and other elements present recovery of elements in the rock

70% of hazardous waste recovered by 2023

80% of non-hazardous waste recycled and valued by 2023

THE WORLD WE CONTRIBUTE TO FEED

OCP Group is continuously improving its products and services offer towards a smart agriculture around the 4R's framework to provide the Right fertilizer type to crop needs in the Right place at the Right time and at the Right rate. It embeds every actions we take, large and small, to provide sustainable answers to farmers' needs:





Availability

Beyond its Moroccan production capacities, OCP Group heavily invests in production and logistics in many other African countries, including fertilizer blending and storage facilities. These projects are important because they allow us to reduce costs for farmers and be more agile and responsive to local needs.

\$2.4 billion

investment in Ethiopia & 2.5 million tons of domestic production planned capacity





Customisation

Innovation inspired by nature:

1
In-depth assessment of soil and crops response

2
Detailed assessment of current agronomic practices

3
Geospatial technologies for developing nutrient management platforms

11

new tailor-made formulas introduced in 6 countries and ongoing introduction of other 23 new formulas in 11 countries.

4950

field trials done in different countries, targeting different crops and covering many agro-ecological zones and farming practices.



26

million hectares of soil mapped

9

Countries covered by fertility mapping:

- | | | |
|--|--|--|
|  Burkina Faso |  Guinea |  Madagascar |
|  Togo |  Rwanda |  Senegal |
|  Cameroun |  Ethiopia |  Ghana |

The **Mohammed VI Polytechnic University (UM6P)** launched in 2019 "IMPULSE", a world-class start-ups acceleration program with the support of OCP Group and its subsidiary OCP Africa. Impulse is open to talented entrepreneurs in agritech, biotechnologies, nanotechnologies and mining technologies to foster innovation for African sustainable development.



UM6P and OCP Group signed an agreement in 2019 with **Fertinagro Biotech** – global Research & Development reference in sustainable agronomic solutions – to develop, along with leading Spanish Universities, chairs that train researchers who subsequently serve in companies that provide sustainable solutions for the development of African and world agriculture and livestock.



Dedicated business units: Bio-Agritech business unit for better nutrient absorption, higher resistance to different climatic stressors (heat, rainfall, etc.), and higher nutritional value for fruits and vegetables. Customization and eco-design are at the heart of this new agribiotech market in order to reduce product footprints throughout their life cycles, from production to soil uptake and product use. The Agri-Edge business unit dedicated to precision farming exploits data, algorithmic models, agronomic know-how, and advanced technologies, including satellite imagery, drones, and sensors.



Capacity Building

Among our educational tools, OCP School Lab (OSL) aims at increasing the yields of smallholder's farmers on strategic crops by offering:

A School: A mobile school that offers interactive training sessions with live demos and videos on good agricultural practices

A Lab: A mobile laboratory that offers soil-testing using latest innovations (X-rays, big data and machine learning) and live information on soil needs and fertilizer recommendations



	2018	2019
 Farmers outreach by OSL program	115,000	256,000
 Fertilizer recommendation reports	50,000	70,000
 Villages visited by OSL caravans	+1,500	+4,000
 Free soil tests provided directly to farmers	30,000	40,000
 Mobile laboratories traveling across Africa	+12	+15
 Countries: Ivory Coast, Senegal, Burkina Faso, Togo, Ghana, Nigeria, Kenya, Tanzania	7	8



Affordability

Farmers are still facing low and unstable livelihoods which can be tackled with more inclusive and resilient business models to sustain the whole agrifood value chain. OCP Group's efforts do focus on improving access to both financial and human capitals while creating adapted mechanisms to make them productive in a sustainable manner. In addition to providing agricultural education, we are thus committed to assisting farmers identify financing solutions and develop the business skills needed in today's marketplace.

Going deeper to improve farmers' quality of life

As a sustainable agricultural revolution requires a macroeconomic approach, OCP Group also invests in broader research & development on agriculture. The UM6P's P-Curiosity Lab (Mohammed VI Polytechnic University) organized in May 2019 its first workshop with its community of experts from different background including agrobioscience, economic & social science and agronomy. Participants looked at the main characters of smallholder farmers and did a first mapping of the main challenges and issues that smallholders face about socio-economic well-being, farm sustainability and environmental health.



AGRIBOOSTER:

Meeting availability, customization, capacity building & affordability needs of African farmers

The Agribooster program is an inclusive and customized end-to-end solution that brings together different stakeholders of the agriculture value chain to provide farmers with the best conditions to increase their yield, incomes and livelihood.

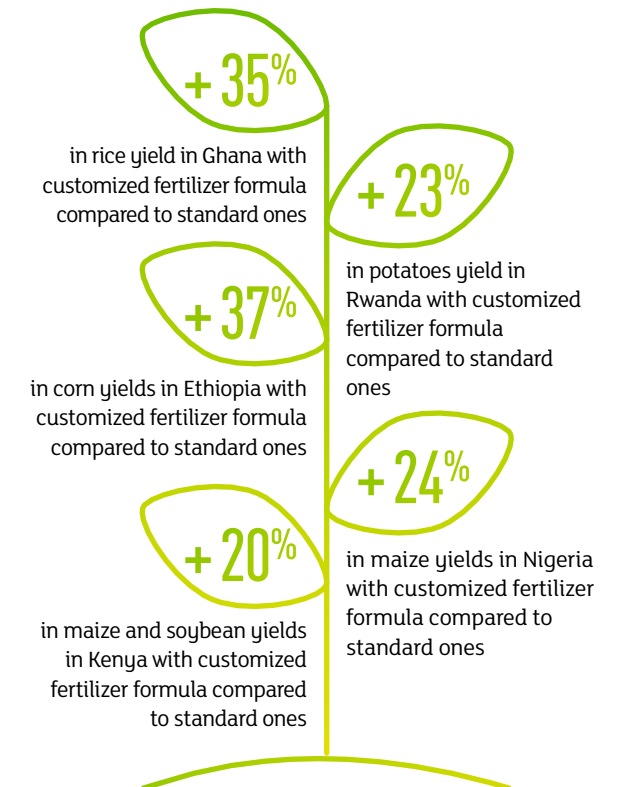


Key figures 2019

	Farmers covered by Agribooster	Additional average yield
2018	51,000	30%
2019	168,404	33%

5 countries










covered by the Agribooster: Ivory Coast, Nigeria, Ghana, Kenya, and Senegal





AL MOUTMIR:

Meeting availability, customization, capacity building & affordability needs of Moroccan farmers

Key figures	2018	2019
 Agronomists	30	100
 Provinces covered	20	70
 Farmers covered	10,000	30,000
 Soil analysis	10,000	30,000
 Demonstration platforms	2,000	4,000
 Trainings	4,000	14,000
 Apps & digital tools	0	6
 Supported cooperatives	100	400
 Sales point of Smart Blender	0	34

GROWING DIGITAL :



AGRIPEDIA:

To access scientific knowledge to facilitate decision-making



AGRIAGENT:

To manage agronomists' activity



AGRIDISTRIBUTORS:

To allow distributors to efficiently manage NPK (fertilizers composed of phosphorus, nitrogen, and potassium) production.



AGRITRIAL:

To follow in real time the demonstration platform outcomes



@tmar:

To facilitate access to free agricultural guidance for each farmer in Morocco

Launched in 2019, the @tmar app already covers several of the most widespread crops in Morocco: cereals, pulses, arboriculture and horticulture. →




Digital services: focus on @tmar app

1 

TRACK MY PLOT:
a service that provides the farmer with assistance tools to track his plot throughout the technical crop route.

2 

MY NPK: a scientific tool to guide the farmer in the choice of NPK (phosphorus, nitrogen, potassium) fertilizer for optimal yield according to the agro-climatic potential of the region, his plot's soil analysis and the culture he intends to undertake. In the absence of soil tests, this service recommends the most appropriate regional fertilizer formula to the farmer.

3 


PROFITABILITY SIMULATION:
this service allows the farmer to adopt an economic approach which consists in confirming the viability and profitability of any speculation before its execution

4 

WEATHER: the farmer is informed in real time through the most precise weather data and forecasts for his region (precipitation, evapotranspiration, wind, soil humidity, etc.)

5 

MARKET INFORMATION: an information service on world stock prices of agricultural products that could be interesting for both farmers and the ecosystem.farmer.

6 

DOCTOR OF PLANTS: thanks to artificial intelligence, this tool helps the farmer to identify the bio-aggressor of his crop and offers suitable remedies. All the farmer needs to do is take a picture of the sick plant and we will quickly provide him with a diagnosis and control strategy.

OUR MAIN GOALS



Doubling the R&D budget by 2022



Support balanced soil fertilization based on the 4R principles & Develop customized products

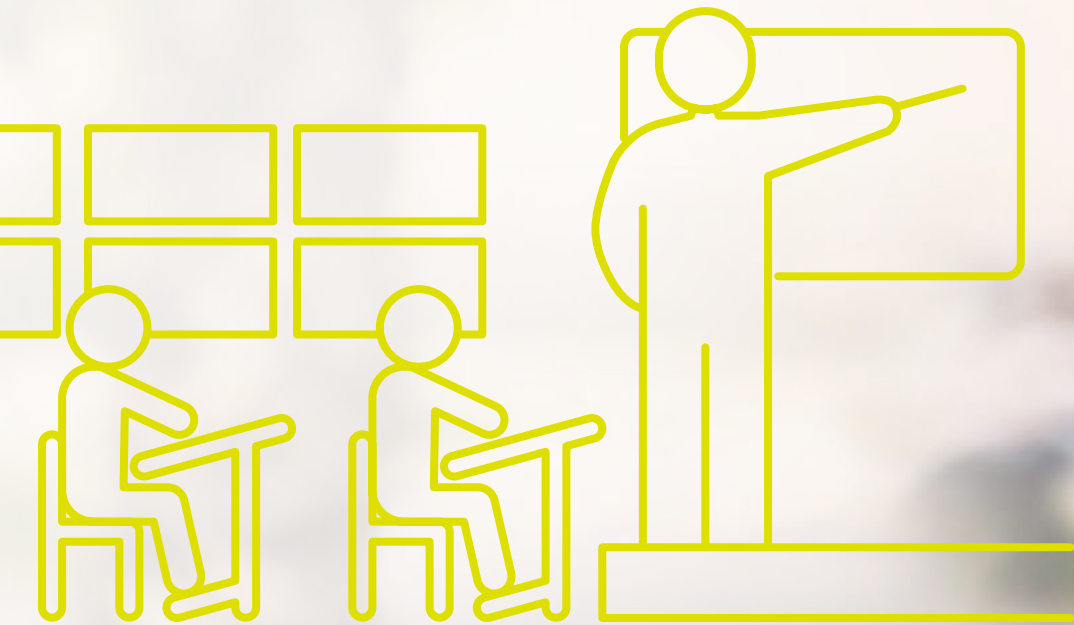


Develop external partnerships and end-to-end ecosystems as to maximize synergies and allow cost effective, farmer centric supply chain

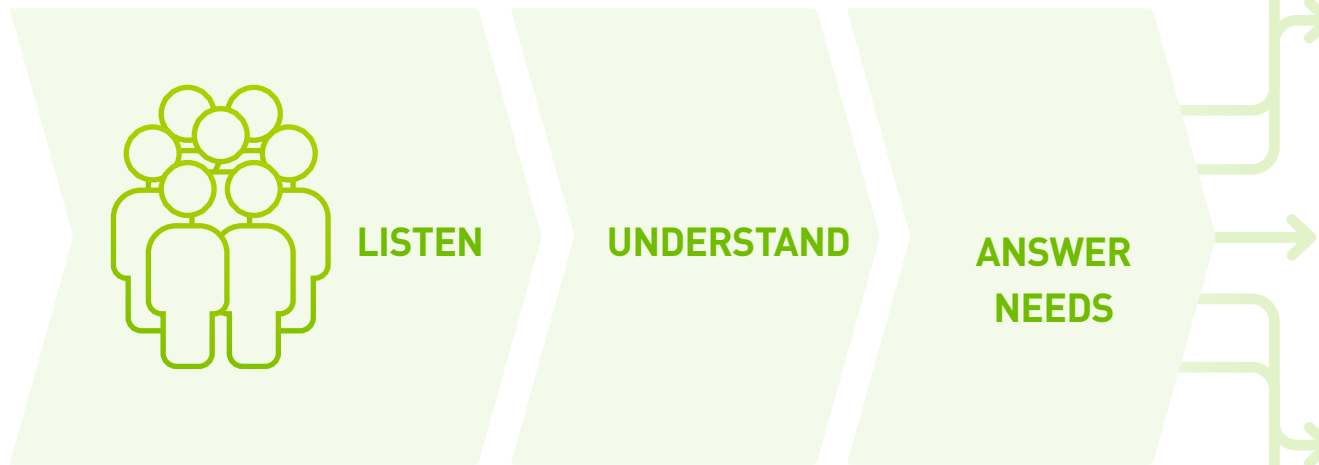




CREATING SHARED VALUE



OCP Group is a custodian of 70% of the world's phosphate; but there is a resource even more precious than the one we mine: people. We do believe business can only thrive in a thriving society; therefore we aim to thoroughly understand every impact we have and take daily decisions, large and small to create shared and sustainable value for all our stakeholders.



BEST-IN-CLASS EDUCATION		867 students in the UM6P (Mohammed VI Polytechnic University) 1,117 students enrolled at the Schools of Excellence 3,142 students receiving scholarships
JOB CREATION		\$283 millions allocated to local businesses 88 local cooperatives created
CULTURE		14,600 members of the Khouribga media library 2,549 beneficiaries of Mine d'Art cultural trainings, workshops and masterclass
HEALTH & WELLNESS		7,461 beneficiaries of free consultations thanks to medical caravanes 10 health centers rehabilitated
SUSTAINABLE CITIES		1,300 ha developed within the Benguerir Mohammed VI Green City \$2.11 billion planned in the Fom El Oued-Laayoune

Key figures 2019

\$195 million of community investments

35% increase in community investments increased compared to 2018



ACT4COMMUNITY

Launched in 2018, Act4Community is fuelled with dedicated teams for each operational sites and backed by OCP Group's resources. It also hinges on a network of volunteer employees – who can donate up to 30 days of their time annually.



OCP FOUNDATION



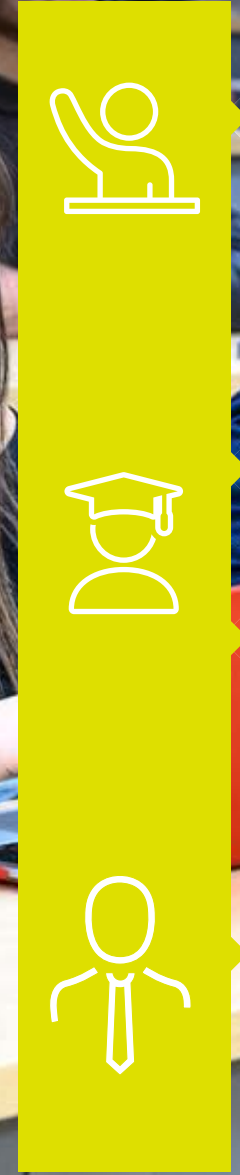
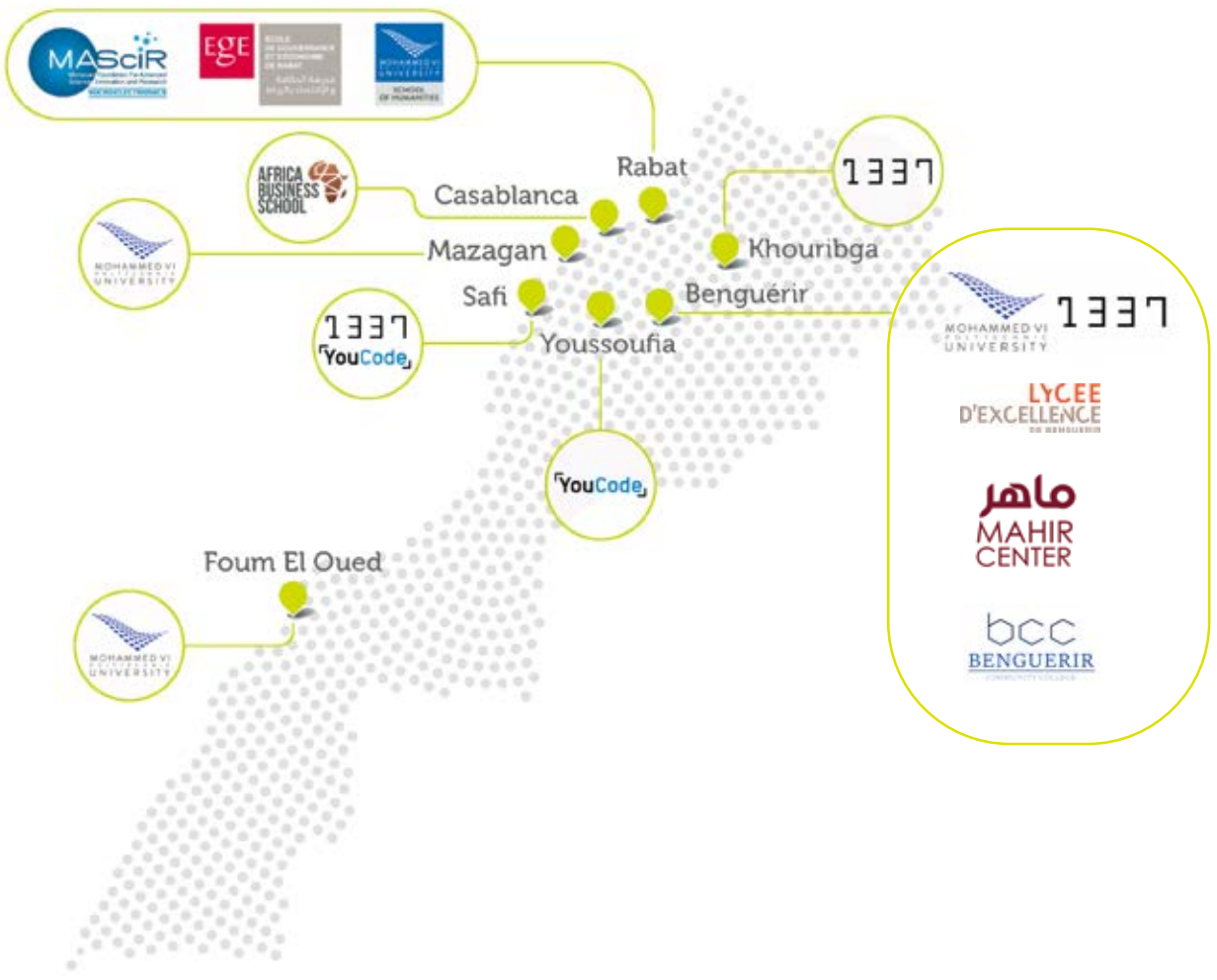
OCP PHOSBOUCRAÂ FOUNDATION



BEST-IN-CLASS EDUCATION

OCP Group supports education at every level and stage of life – developing complementary institutions to fit all training needs.

A comprehensive offer and multi-site implementation



2018	2019
100	100
Schools rehabilitated, equipped or sponsored with 21,520 children beneficiaries	
671	1,117
Students enrolled at the Schools of Excellence	
LYCEE D'EXCELLENCE Prepares students for higher education and preparatory classes for the Grandes écoles.	
410	900
Students in the digital schools	
1337	1337
Free and accessible to all, digital schools are based on a participative learning approach to foster IT talents.	
342	867
Students in the UM6P	
Hub of knowledge dedicated to research, high-level education and innovation to support the sustainable development of Africa.	



UM6P: an innovative educational approach



Digital schools: 1337 and Youcode are Morocco's flagship IT training schools. They are completely free and accessible to all. No diploma or computer knowledge is required as a prerequisite. Its pedagogy is based on peer-learning, a participative approach that allows students to express their creativity by learning through working on projects. To train tomorrow's coders, rethinking the learning process and transforming IT into a fun and exciting discipline was necessary. In addition to the Khouribga and Youssoufia campuses, a school has been inaugurated in Benguerir in 2019 as well as in Safi. El Jadida will welcome a campus by 2020.



Digital learning lab: 4 production studios, 12 new planned in 2020 and MOOC.



Gamification: International Digital Center to develop technologies augmented/mixed reality to become familiar with industrial installations, training, education.



School of collective Intelligence spanning cognitive and data science, ethics and innovation.



Innovation through a set of initiatives developed to foster entrepreneurial and innovation capacities:



Providing equal opportunity

Key figures

2018 2019

Leveraging talents



Students receiving scholarships	1,710	3,028
Students having received scholarships enrolled in the French Grandes Écoles, the Benguerir School of Excellence, and UM6P	92%	90%
Students having benefited from private tutoring		2,145

Enforcing employability



Young people reintegrated in the job market through employability program and targeted training	507	760
Training given to young people to reintegrated the job market	2,027	3,014

Empowering people with disabilities



Medical and social centres	5	10
People with disabilities supported through the medical and social centres	2,200	3,232



JOB CREATION

Developing entrepreneurship

OCP Group has strengthened the following programs to encourage its stakeholders to take on new opportunities, face setbacks and bounce back quickly, be resourceful, creative and independent:

- Training to local small businesses – including both soft and technical skills
- Incubation of local microbusinesses. Two new incubators has been set up in 2019: L’Fabrika & DigiK Valley to develop digital mining solutions – with a total capacity of 110 start-ups.
- Financial and human resources to advise small businesses
- Specific access of Small & Medium Enterprises to OCP Group’s procurement



Our procurement approach

Key figures 2019

Local microbusinesses trained

528

Local microbusinesses integrated into the local market (representing around 700 jobs)

193

Volunteers to support microbusinesses

300

Local microbusinesses being incubated

30

Zoom into Southern regions:

51

Local microbusinesses created together with 20 supported microbusinesses

10

Start-ups created through the IT Accelerator in partnerships with AMIDEAST and Microsoft

200

Women supported through the Women Entrepreneurship program

150

Projects funded in Laayoune, Boujdour, Dakhla, Tarfaya, Es Semara



Encouraging social economy

OCP Group has been further working the following leverages to support social entrepreneurship:

- Diagnostics of local needs
- Training of local cooperatives and associations
- Creation of local cooperatives and associations
- Financial and human resources to advise local cooperatives and associations
- Access to market through commercialisation initiatives (OCP in-house, local, regional & national fairs)

Key figures 2019



Zoom into Southern regions: **64** Local cooperatives trained & advised | **120** Farmers trained



Developing a smart quinoa value chain

Started in 2018, the project aiming to improve food security in rural communities of Rhamna has been further developed in 2019. The three-year project is implemented in this province where a significant part of the population lives below the poverty line. Progress is limited by the lack of efficient genetic material, low process and valorisation, limited mechanization, etc. During the first two years of the project, an economically viable business model was developed throughout the whole quinoa value chain:

- Introduction of high-performance varieties of quinoa and development of a seed production system
- Adaptation trials of new varieties (developed at the International Center for Biosaline Agriculture in Dubai) carried out at the UM6P experimental farm and among farmers which show very good results compared to local seeds chosen by the farmers
- Promotion activities including the first quinoa promotion workshop led by Chef Khadija, jury member of the Master Chef Morocco. The project also supported the participation of the cooperatives involved in the SIAM (International Agricultural Exhibition in Morocco) 2019 in Meknes
- Capacity building among 300 beneficiaries including more than 80 women and 200 farmers through 6 technical training sessions on good practices to produce and value quinoa

Sharing our expertise to develop a sustainable agriculture



OCP Group is rehabilitating its former mining sites to enhance both the environmental value of soils and economic empowerment of local communities through smart agriculture.



We are also continuously improving our 4R framework to provide sustainable answers to farmers' needs: availability, customisation, capacity building and affordability.



HEALTH & WELLNESS

Healthy body is what enables us to literally move forward every day. That's why OCP Group keeps on:

- Ensuring medical caravanes with multidisciplinary health services
- Rehabilitating health centers
- Providing medical equipment (wheelchair, glasses, hearing devices, hemodialysis, etc.)
- Developing sports for the youth through NBA programmes, OCEJ (Olympique Club El Jadida) programs – sports events, talents coaching, infrastructures improvements – and Tadla football ligue with two local foot schools, championships and talent hunting mechanism.

Key figures 2019

	2018	2019
Beneficiaries of free consultations thanks to medical caravanes	8,961	7,461
Health centers rehabilitated	5	10



NBA program in Youssoufia and Khouribga:

90 trained and certified coaches, 2 courts developed and run by volunteers and local associations.



BUILDING SUSTAINABLE CITIES

Over the last century, OCP Group has been building cities to house workers. Strengthened by this historic experience, we are now developing sound ecosystems able to create long-term value for communities as a whole. This goes through an holistic urban design to enable each and every one of us to learn, work, share in a sustainable manner.

Benguerir Mohammed VI Green City

- 1** Academic excellence & research a value chain of education excellence and comprehensive applied research with state-of-the-art equipment and living laboratories.
- 2** Economic development: an economic activity zone dedicated to innovation players with a range of specific services and support.
- 3** Urban attractiveness & sustainability: a city with quality, sustainable and smart urban amenities and living spaces, combined with a real estate offer and attractive services.

Key figures 2019

80 ha

of green belt along 4 km with 5 oasis

15 ha

of farming space






30 ha

de talwegs

50,000

trees

By 2045

 ha	1,300
 Inhabitants	100,000
 Residential units	25,000
 m ² green space per inhabitant	20
 Students & researchers	20,000

- 2013** Mohammed VI Polytechnic University
- 2014** Industrial Expertise Center
- 2015**
 - Lycée d'excellence
 - Villas Marguerite
- 2016** Green Energy Park
- 2019**
 - Green & Smart Building
 - Park
 - Data centers
- 2020**
 - Start-ups Incubators
 - 1337 school
 - Business center
 - Health & Care Smart City
 - Student campus
 - Media library



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FOUM EL OUED-LAAYOUNE

Located on a 126-ha area, the Foug El Oued-Laayoune technology cluster aims to stimulate the sustainable growth of the Southern regions and will house three major clusters: a teaching and research cluster for issues related to the Saharan environment (agriculture, water, energy, and eco-construction), a regional economic development support cluster (business incubator, training center, and business center), and a sociocultural cluster (museum, media library, commercial area, etc.).



KHOURIBGA GREEN MINE

The Khouribga Green Mine is an urban area under development as part of the reclamation of former mining sites. This 300-ha area is home to a Green Mine park, a Central Mall (business services, commercial spaces, office spaces), facilities for the population, including a multiplex and media library, hotels and real estate, and training centers for improving employability. The media library and Central Mall are already operational.



MAZAGAN CITY CENTER

The Mazagan City Center, geared towards skilled trades, innovation, and research, is also being developed. Covering a 1,300-ha area, the project will include 294 ha of green spaces, a Research & Development and innovation zone for the processing and agribusiness sectors, an academic and training cluster, a business incubator, tourism and cultural facilities (convention center, exhibition center, artisan village), a tertiary business area, and a residential area.



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