

# SUSTAINABILITY REPORT 2019

Working together  
for sustainable  
agriculture







# SUMMARY



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# MESSAGE FROM OUR CEO

We are proud to present the OCP Group's second Sustainability Report that has been prepared in accordance with the GRI standards: core option which details our continued progress in embedding sustainability across our business.

Sustainability is a central element of our business strategy. 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.

So, we are delighted to have achieved substantial improvements on so many of our key targets in the past year. Just as importantly, compiling comprehensive data has allowed us to think about our business differently, by understanding how we can continuously improve our performance while integrating the impact of our efforts on people, communities, and the planet.

Given the events of 2020, this is especially important as the sustainability of our vision and operations has come to take on a new dimension in light of COVID-19. While fully focused on the health and safety of our team, our partners and the communities around us, we have stayed totally committed to maintaining reliable supply of our products to farmers, distributors and manufacturers around the world.

Feeding the soil to feed the planet has taken on a more profound meaning this year. Suddenly, developed and developing economies faced the same concern about food security. The good news is that farmers, manufacturers and retailers rose to the challenge.

And OCP played its part in this. Despite adopting new ways of working to minimize the risks to our teams, we have been able to maintain 100% of our planned mining and fertilizer production. We made sure that farmers around the world could continue to successfully grow crops and we continued our programs to support them – training, funding and market access.

Our strong and resilient response to the dramatic challenges of 2020 was made possible in no small part by the great progress that we made during 2019 across all our comprehensive sustainability programs.

Our lean operations have been shaped by our commitment to the Circular Economy. We want to achieve more positive impacts with fewer inputs and with as close to zero negative externalities as possible.

Our investments in non-traditional water supply, renewable energy and partnering with international firms to create local specialist skills have all played their role in sustainable continuity and continuing sustainability.

Commitment to feed the planet is today, more than ever, a responsibility for us and for everyone involved in the food sector. Being able to feed one's family is a fundamental human need and right, already endangered for many and made worse in times of crisis. Strengthening resiliency across the entire agriculture & food value chain – locally and globally – is a key challenge at the moment, and a key reminder of how the world depends on our sector.

“ 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.

We remain committed to sharing our progress transparently through this report, as we welcome external oversight and a collective approach to solving key challenges. I would like to highlight some of the key accomplishments detailed in this report:

## OUR PEOPLE

In 2019, we reduced our combined Lost Time Injury Frequency Rate (LTIFR) confirming we are on the right path to be the safest place to work. That is the result of continuous efforts across the organization to embed a mature safety culture and reach our ambitious “0 incident” target.



against climate change. Over the last decade, although we tripled fertilizer production, we have succeeded in keeping our carbon emissions at the same level. We are targeting a 50% reduction in total SO<sub>2</sub> emissions by 2025 and improving air quality through the extension of the Sulfacid technology, emissions monitoring systems and as well as gas washing units.

### OUR ENERGY

We continued our progress towards using 100% clean electricity - both cogeneration & renewable - by 2030. In 2019, 86% of our electrical needs were covered by clean energy.

Hydrogen as a research path is set at the heart of our energy development strategy, with major steps achieved for the production of a green, carbon neutral ammonia.

### OUR WATER

Our goal is to reduce our total water consumption by 15% by 2024 and to supply 100% of our water needs from non-conventional sources by 2030. We have been building the infrastructure to start filtering sludge at our mines. Sharing and learning from each other are vital to reduce water stress and in 2019 we joined the Moroccan Coalition for Water (COALMA) an NGO acting under the highest umbrella of the World Water Council.

### OUR ENGAGEMENT FOR FARMERS

We continue to work with farmers across the globe on how to increase yield while supporting a sustainable farming. Powered by data, we are tailoring our products to fit each soil and each crop, and to meet real farmers needs, and we are seeing our customized fertilizers gaining use as farmers increasingly understand their benefits. In 2019, we strengthened the impact of our flagship initiatives for African farmers, who are vital actors in feeding not only their own continent but the entire planet, and are working hard to expand their productivity in a sustainable and resilient fashion.

### OUR COMMUNITIES

In 2019, we increased our total community investments by 35% locally, nationally and internationally. Education, equal opportunity, entrepreneurship, health, culture and sustainable cities are key pillars of our community engagement.

All of these successes are important in their own right, but more so collectively because they give us the confidence to target even more ambitious goals and build our knowledge and skills to do that.

We will keep on raising the bar especially when it comes to the sustainable development goals we can have the most leverage on to strategically contribute to the Agenda 2030.

OCP Group is committed to becoming the most sustainable business it can be and we are grateful for your interest in this report.

Thank you.

**Mostafa Terrab**

Chairman and Chief Executive Officer

We launched major new development programs. BEYOND is aimed at our younger colleagues to develop the skills they will need in the decades ahead. IMPULSE, run by the Mohammed VI Polytechnic University, is a world-class start-up acceleration program for talented entrepreneurs in agritech, biotech, nanotech and mining technologies to foster innovation for African sustainable development.

### OUR MINES

We are continuously working to preserve our phosphate reserves through the recovery of low phosphorous content phosphates and recycling byproducts. In 2019, our innovation for phosphogypsum recovery is getting more and more mature, bringing us closer to valorize this by product in roads, agriculture and construction. Our teams have also initiated research to produce organic fertilizer from organic waste generated across the country.

### OUR PRODUCTION SITES

Our largest commitment - to achieve carbon neutrality by 2040 - calls for continued mitigation and adaptation measures across our operations, services & products to fight

# OUR CONTRIBUTION TO THE SUSTAINABLE

OCP Group has contributed to the Sustainable Development Goals through its integrated Sustainable Development Strategy, its investments, and its 2019 achievements. This contribution operates at different levels and reflects the company's commitment with respect to management, production, and shared value creation across the entire value chain.



## GRI STANDARDS

### SDG 1

### SDG 2

### SDG 3

### SDG 4

### SDG 5

## RESPONSIBLE AND INCLUSIVE MANAGEMENT COMMITMENTS

|  |                             |   |   |   |   |   |
|--|-----------------------------|---|---|---|---|---|
| Transparent, innovative & ethical governance | GRI 412                     |   |   |   |   |   |
| Sustainable economic growth                  | GRI 201                     | ● | ● |   |   | ● |
| Responsible & committed employer             | GRI 401, 402, 403, 404, 405 |   |   | ● | ● | ● |
| Responsible procurement practices            | GRI 204, 308, 414           |   |   |   |   | ● |

## SUSTAINABLE PRODUCTION COMMITMENTS

|   |                                       |   |   |   |   |   |
|---|---------------------------------------|---|---|---|---|---|
| Operational excellence                            |                                       |   |   |   |   | ● |
| Circular economy                                  | GRI 301, 302, 303, 304, 305, 306, 307 |   |   |   |   |   |
| Resource preservation                             | GRI 301                               |   |   |   |   |   |
| GHG emissions management                          | GRI 305                               |   |   | ● |   |   |
| Emissions management                              | GRI 305                               |   |   | ● |   |   |
| Developing renewable energy and energy efficiency | GRI 302                               |   |   |   |   |   |
| Water management                                  | GRI 303                               |   |   | ● |   |   |
| Efficient environmental management system         | GRI 307                               |   |   |   |   |   |
| Soil management and biodiversity                  | GRI 304                               |   |   |   |   |   |
| Waste management                                  | GRI 306                               |   |   |   |   |   |
| Long-term food security                           | GRI 203, 413                          | ● | ● | ● | ● |   |

## SHARED VALUE CREATION COMMITMENTS

|                             |              |   |  |   |   |   |
|-----------------------------|--------------|---|--|---|---|---|
| The way we learn            | GRI 203, 413 |   |  |   | ● | ● |
| The way we create work      | GRI 203, 413 | ● |  |   |   |   |
| The way we provide health   | GRI 203, 413 | ● |  | ● |   |   |
| The way we share            | GRI 203, 413 |   |  |   |   |   |
| The way we design our homes | GRI 203, 413 |   |  |   |   |   |



# DEVELOPMENT GOALS (SDGs)





1

# ABOUT OUR GROUP

OCP Group is a leading producer of phosphate rock and phosphatic fertilizers, employing 21,000 people and serving 350 customers around the globe. Moroccan company, headquartered in Casablanca, OCP was originally founded in 1920 as Office Chérifien des Phosphates, a Moroccan entity established to manage the country's phosphate reserves—which OCP continues to do today. In January 2008, OCP ("OCP S.A") became a joint stock company, independently managed by a Board of Directors. Building on nearly 100 years of cumulative agricultural knowledge and expertise, OCP is committed to being a globally responsible company in all that we do, focusing on sustainable agriculture solutions that help farmers around the world – including Africa – feed a growing world population.

The mission of the OCP Group is to "Maximize the positive impact of Phosphorus", in two areas:

- To assure that farmers across the globe (and through them, plants, animals and humans) have reliable and affordable access to this essential element of all life on earth, and assure that phosphorus is used carefully and sustainably;
- To harness the power of phosphorus through research and innovation, internal collective intelligence, and world-class partnerships to improve life on earth while optimizing resources – phosphate, water, energy and by – products.

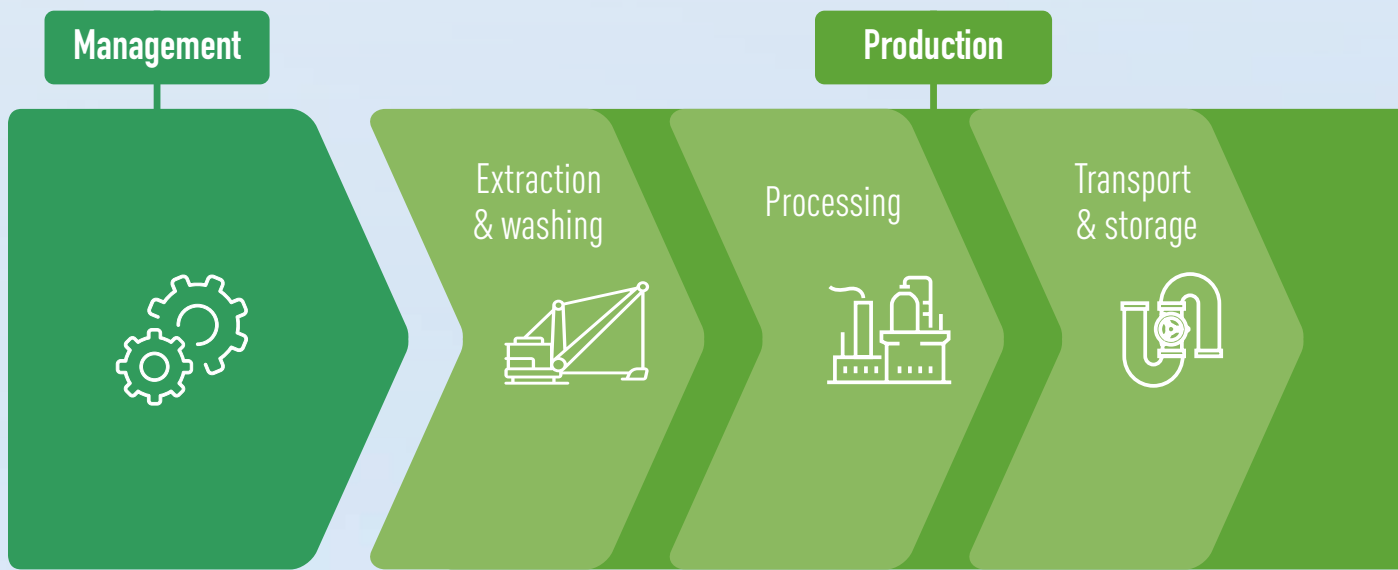
## “Innovation, risk-taking, invention and sustainability.

*Innovation, risk-taking, invention and sustainability* are core to OCP's mission and its value creation, for its shareholders and all its stakeholders. This, in turn, means that its most vital resource is not phosphate reserves themselves (important as they may be to food security) but how these reserves are developed and leveraged in ever more diverse ways.

Equally important are therefore the capabilities developed by our company that has moved from a mining company to a multi-faceted, best-in-class, industrial company with a grasp of high-added value activities from water and energy management, industrial operations, and soil and plant science to knowledge, analytics/digital services, development of local economic and social ecosystems and other capabilities that bring more to clients while creating ever more shared value for all stakeholders.

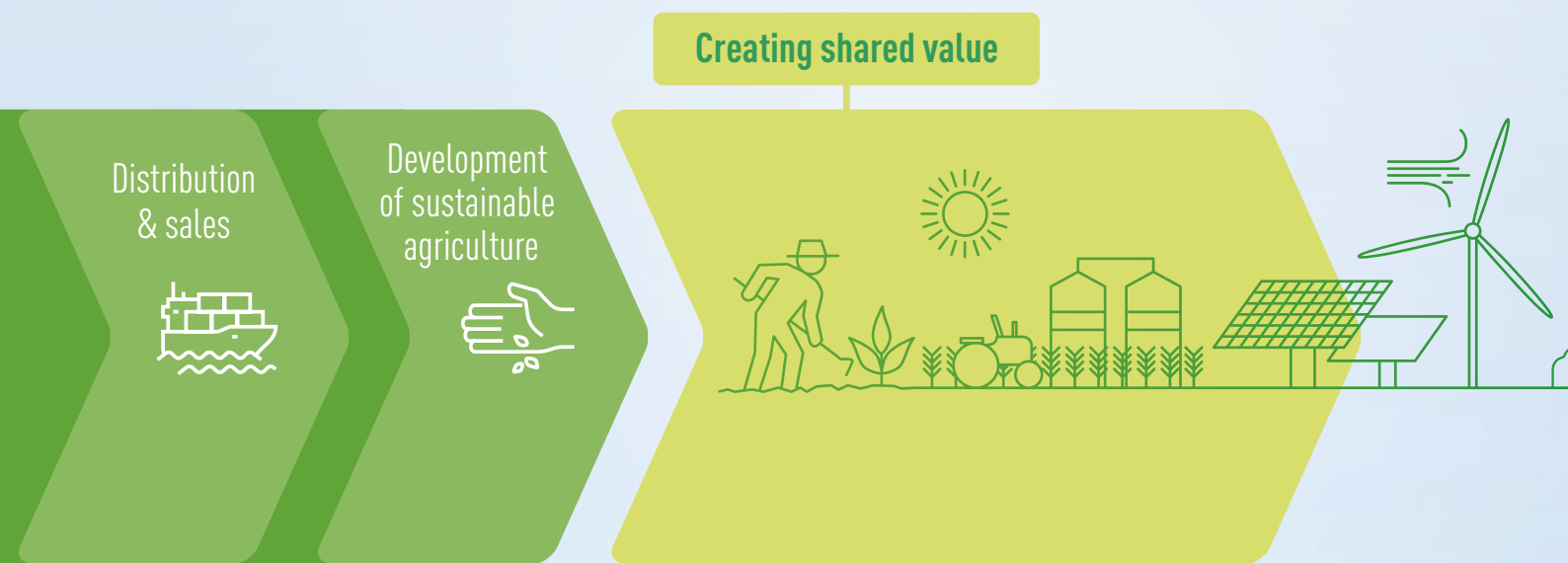
# 1.1

# ACTIVITIES & PRODUCTS



## OCP'S VALUE CHAIN

As a global leader in the phosphate-based fertilizer industry, OCP promotes projects that positively impact society, strengthen skills and employability, and improve living conditions in the regions in which it operates. Its value chain is built with a view to creating shared value through its commitments to responsible and inclusive management and sustainable production.



GRI 102-9 | GRI 102-10

This value chain relies on a diverse supply chain. OCP purchases a wide variety of goods and services from over 4,500 suppliers worldwide. OCP's operating costs derive from mainly raw materials, energy, and transportation. In 2019, industrial activity costs amounted to \$ 2,26 billion (equivalent to MAD 21,8 billion). The main changes in the supply chain in 2019 correspond to implementing the Progress Pact - a long-term collaboration model with our Moroccan suppliers (Find out more on page 84).





# Management

## > KEY FIGURES 2019



**\$ 5.62**

billion (equivalent to MAD 54,092 million) in revenue

**28%**

EBITDA margin (earnings before interest, taxes, depreciation and amortization)

**74%**

of operational expenditures performed nationally

**\$ 1.45**

billion (equivalent to MAD 13,964 million) in capital expenditures

**\$ 1.59**

billion (equivalent to MAD 15,333 million) in EBITDA



**18,906\***  
employees

**1,4**

combined LTIFR (Lost-time injury frequency rate)

**47**

average training hours per employee

**9,000**

employees involved in the Movement ✨

**225**

face-to-face dialogues held in all over Morocco by 120 connectors (groups of employee volunteers trained to dialogues) in 2019

> HIGHLIGHTS OF 2019

**Boosting entrepreneurship & innovation**



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

**Engaging our employees**



OCP 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. 1 Pacte aims to gather energies, foster strategic dialogue to make together – everyday – the right decisions, large and small, to catalyze sustainable change.

**Listening carefully to soils**



In 2019, we created the Center of excellence in soil and fertilizer research in Africa within the UM6P. With programs starting mid-2020, it will be a hub for digital soil and land resource mapping for African countries for sustainable use, a science center for customized fertilizer formulations as well as a technology incubator for developing method and tools for rapid testing of soil, plant, and fertilizer.

**Strengthening our sustainability leadership**



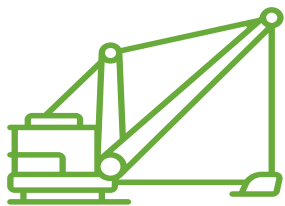
**Mostafa Terrab**  
Chairman & CEO OCP Group

**Hanane Mouchid**  
Sustainability Platform Senior Vice President OCP Group

**Yves Caprara**  
CEO Prayon

OCP Group receives IFA's 2019 Industry Stewardship Gold Medal for the second year in a row; recognizing strong commitments in terms of safety and sustainable development.





## Extraction & washing

Phosphate is extracted from three surface mining sites. Different steps are necessary: exploration and feasibility studies, mine development and construction, mining, closure, and reclamation. The extraction phase includes two main operations: drilling and blasting. Phosphate

rock is then transported by a conveyor belt system to washing facilities to be enriched and then transported via slurry pipeline or rail to processing platforms. Phosphate rock can be exported directly or converted to phosphoric acid or phosphate-based fertilizers.



GRI 102-2 | GRI 102-7



## Phosphate rock

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

**44 Mt**  
production capacity

**41 Mt**  
produced

**35,3 Mt**  
exported

### > KEY FIGURES 2019

**864 ha**  
of rehabilitated land



### > HIGHLIGHTS OF 2019

#### Carbon farming :

Tapping into arid zones 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. The 'Carbon Farming' project in tripartite partnership with the UM6P and St1, a Finnish energy company has been further developed in 2019. The objective is to create a validated and approved tool for climate change mitigation through the establishment of carbon sinks via the rehabilitation of old mining sites and the afforestation of marginal lands in dry and semi-dry environments.



# Processing

At the two processing platforms in Jorf Lasfar and Safi, phosphate rock is combined with sulfuric acid to produce phosphoric acid, which can then be directly exported or processed - with ammonia - to produce fertilizers. Processing sites have sulfuric acid and phosphoric acid production lines, as well as integrated granulation lines.



## Phosphoric acid

Two types of phosphoric acid are produced: purified acid, mainly used in the food industry (oils, lemonades, cheeses, preserves, yeasts, sugar, drinking water, etc.) and other sectors (pharmaceuticals, detergents, animal feed, metal processing, textiles, pigments, etc.), and merchant phosphoric acid, used for fertilizer production and fertigation, a technique giving nutrients together with irrigation.

**Key raw materials:** phosphate rock and sulfuric acid either produced by the processing platforms or purchased from local suppliers.

**6,83 Mt produced**

**2.1 Mt exported**

**Types of products**

- > PPA: purified phosphoric acid
- > H<sub>3</sub>PO<sub>4</sub>: merchant-grade phosphoric acid.

GRI 102-2

> KEY FIGURES 2019

86%

OCP Group's needs covered by clean energy. (cogeneration and renewable energies) against 70% in 2018.

30%

of OCP's water needs met by unconventional water resources, i.e. treated wastewater from the cities of Khouribga, Benguerir, and Youssoufia, as well as desalinated seawater from Jorf Lasfar and Laayoune desalination plants.

\$ 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 & Innovation projects are being implemented in partnership with UM6P and internationally renowned partners

> HIGHLIGHTS OF 2019

Development of additional clean and renewable energy capacities

Development of additional non-conventional water capacities – STEP & desalination units

Strengthening of the R&D projects:

- > Green ammonia and hydrogen
- > Green methanol
- > Carbon capture and valorisation
- > Solar energy
- > Renewable energy storage
- > Sustainable mobility



## Fertilizer

Fertilizer can be applied directly or used to produce compound fertilizers.

**Key raw materials for complex fertilizers:** phosphate rock, phosphoric acid, ammonia, potash, and micronutrients (zinc, iron, etc.).

**12 Mt** production capacity

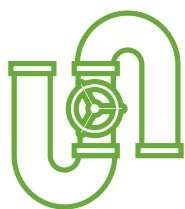
**10 Mt** produced

**9.06 Mt** exported

**Types of products**

- > **DAP (Di-Ammonium Phosphate):** most commonly used binary fertilizer made of two fertilizing agents – phosphorus and nitrogen;
- > **TSP (Triple Super Phosphate):** phosphate fertilizer;
- > **MAP (Mono-Ammonium Phosphate):** a binary fertilizer consisting of two fertilizing agents– phosphorus and nitrogen;
- > **NPK:** compound fertilizers composed of more than one element phosphorus, nitrogen, and potassium;
- > **Performance Phosphate Products (PPP):** the latest generation of fertilizers developed aiming at sustainable and efficient agriculture;
- > **Complex fertilizers (NP+):** nitrogen- and phosphate-based fertilizers enriched with secondary and micronutrients to improve agricultural yields, protect soil from degradation, and offer highly concentrated solutions to improve

- fertility;
- > **Soluble fertilizers:** containing several nutrients totally soluble in water to be used with drip irrigation;
- > **DCP/MDCP (Di-calcium Phosphate/ Mono Di-calcium Phosphate):** phosphate- and calcium-based animal feed supplements used to manufacture mixed feed for farm animals. Feed phosphates strengthen bones and accelerate farm animal growth (cattle, sheep, poultry, goats, etc.).



# Transportation & storage

Phospahte Rock is supplied to the Processing Platforms from the extraction sites either via the slurry pipeline or rail operated by the ONCF, the national railway operator.

## > KEY FIGURES 2019

**620,000**

metric tons of CO<sub>2</sub> prevented by year through the Slurry Pipeline compared to conventional railway transportation.

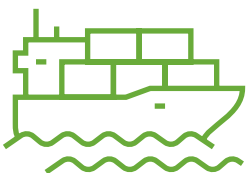
**1,5Mm<sup>3</sup>**

of water saved through the Slurry Pipeline compared to conventional railway transportation.

## > HIGHLIGHTS OF 2019

**Slurry pipeline:** Among the key flagship innovations is the slurry pipeline, which transports washed phosphate as slurry to the main processing platform. With a total transport capacity of 38Mt, the slurry pipeline allows to transport more phosphate rock than the conventional railway transportation, remove all intermediary processing like drying at the mine level and re-adding water at the processing sites level, resulting in significant CO<sub>2</sub> emissions reduction. The process will be developed for all our processing sites by 2030.

**Conveyor belt:** Replacement of phosphate transport by trucks at Gantour by a conveyor – fuelled with renewable energy – was carried out over a 28 km section between the M'Zinda mine and the washing plant.



## Distribution & sales

Thanks to its well-established industrial and commercial presence, OCP is present in all major markets and closer to the needs of producers and other players across the value chain with over 350 clients on 5 continents. Phosphate rock, phosphoric acid, and fertilizers are delivered by sea, by truck, or

stored on site. Docks are managed by the National Ports Agency (ANP). Products are delivered to the end customers who use them as end products or process them further for other grades of fertilizers. OCP has deployed, primarily in Africa, a dense distribution network by developing partnerships

with local, public, and private players in order to provide the farmers fertilizers at the lowest cost. OCP's supply chain in Africa relies on logistics centers, sales representatives, local subsidiaries, and also production plants dedicated to meeting the needs of regional markets.

### > KEY FIGURES 2019

**350** wholesale clients and millions of end-users on 5 continents





# Development of sustainable agriculture

OCP supports, where it's most needed, the end users of its products through sustainable farming practices programs (soil mapping, digital agronomic advice, etc.) as well as customized and smart products.

## > KEY FIGURES 2019

**168,404**

Farmers covered by Agribooster

**256,000**

farmers reached by OCP School Labs (OSL) program in Ivory Coast, Senegal, Burkina Faso, Togo, Ghana, Nigeria, Kenya

**26 million**

hectares of soil mapped in Burkina Faso, Togo, Cameroun, Guinea, Rwanda, Ethiopia, Madagascar, Senegal and Ghana

**20,000**

soil analyses in Morocco through the Al Moutmir farmer outreach program

## > HIGHLIGHTS OF 2019

### @tmar

New smartphone application to deliver free agricultural advice for each farmer across Morocco to enable smart and sustainable decision making – both economic and technical – based on accessible scientific information.

### 11 new tailor-made formulas

introduced in 6 African countries and ongoing introduction of other 23 new formulas in 11 countries.



# > Shared value creation



## > KEY FIGURES 2019

**267**

Local cooperatives trained & advised



**7,461**

Beneficiaries of free consultations thanks to medical caravans

**30**

Local microbusinesses being incubated

**528**

Local microbusinesses trained

**3,028**

Students receiving scholarships

## > HIGHLIGHTS OF 2019

Development of new education, entrepreneurship, culture, health and urban planning program

# 1.2 VALUE CREATION MODEL



## INPUT

The resource we use

## BUSINESS MODEL

How we create value

Contribute to sustainably feeding a growing world population



### Financial

**\$ 1,59 billion** EBITDA  
**\$ 4,74 billion** Net debt  
**\$1,4 billion** Free cash flow  
**\$5.62 billion** in revenues



### Human

**18,906** employees  
**9000** employees involved in the Movements



### Intellectual

**\$ 61 million** R&D expenditures  
**160** R&D programmes



### Manufactured

**\$ 1,45 billion** CAPEX  
**350** customers



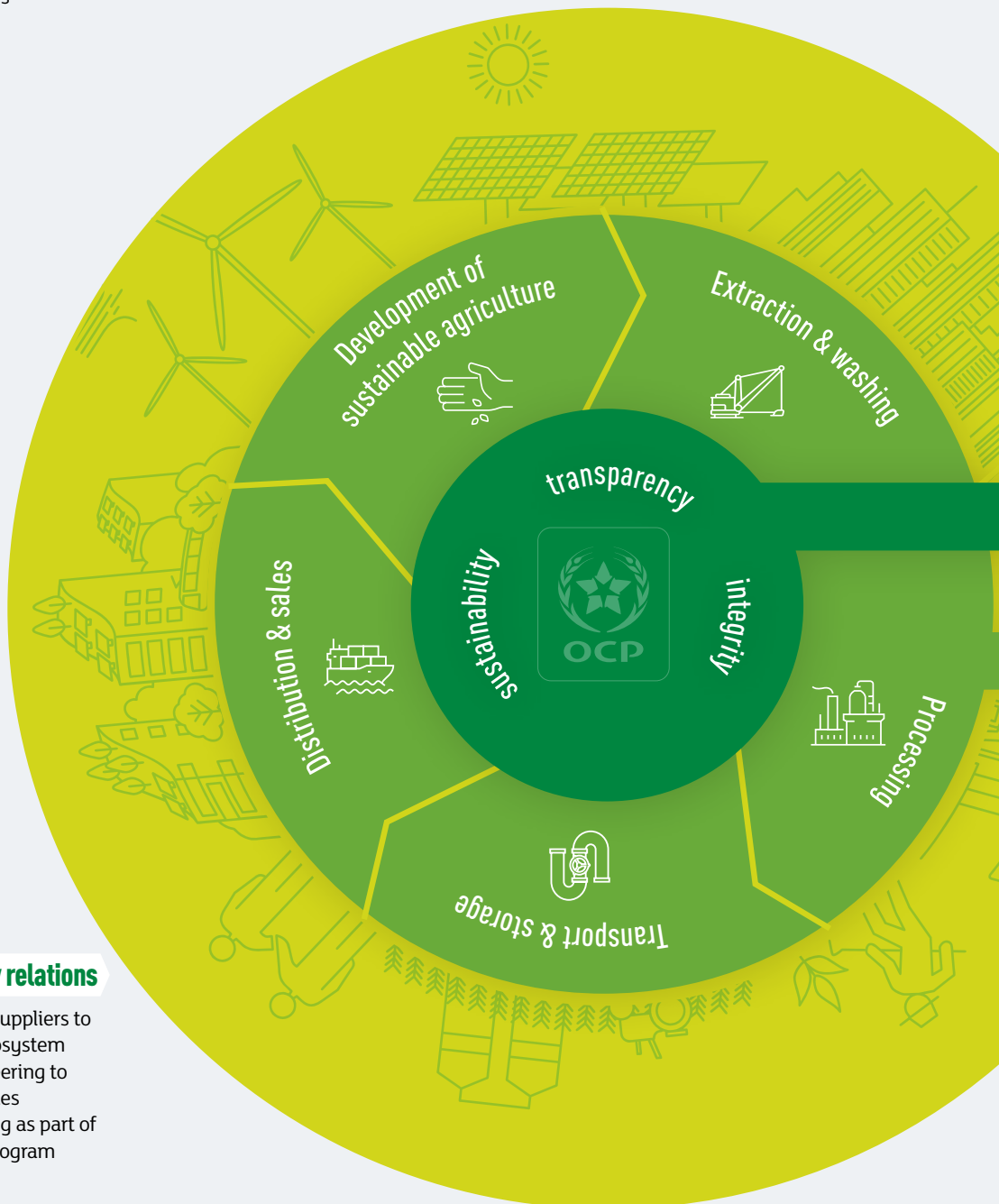
### Natural

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



### Business and society relations

Pact of progress with our suppliers 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







## OUTPUT

Value we create



**28%** EBITDA margin  
**34%** market share in phosphate rock  
**49%** market share in phosphoric acid  
**24%** market share in 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)



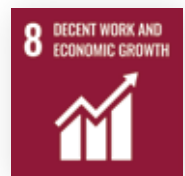
**+65%** of agricultural yield - with customized fertilizer formula compared to national average in Morocco  
**+37%** in corn yields in Ethiopia  
**+35%** rice yield in Ghana, **+24%** in maize yields in Nigeria, etc. - with customized fertilizer formula compared to traditional ones  
**256,000** farmers 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 AI MOUTMIR in Morocco



**13,6%** reduction of SO2 compared to 2018.  
**14,1%** reduction in CO2 compared to 2018  
**30%** of OCP'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 the state of Morocco



Ensuring a responsible & inclusive management

Developing sustainable operations

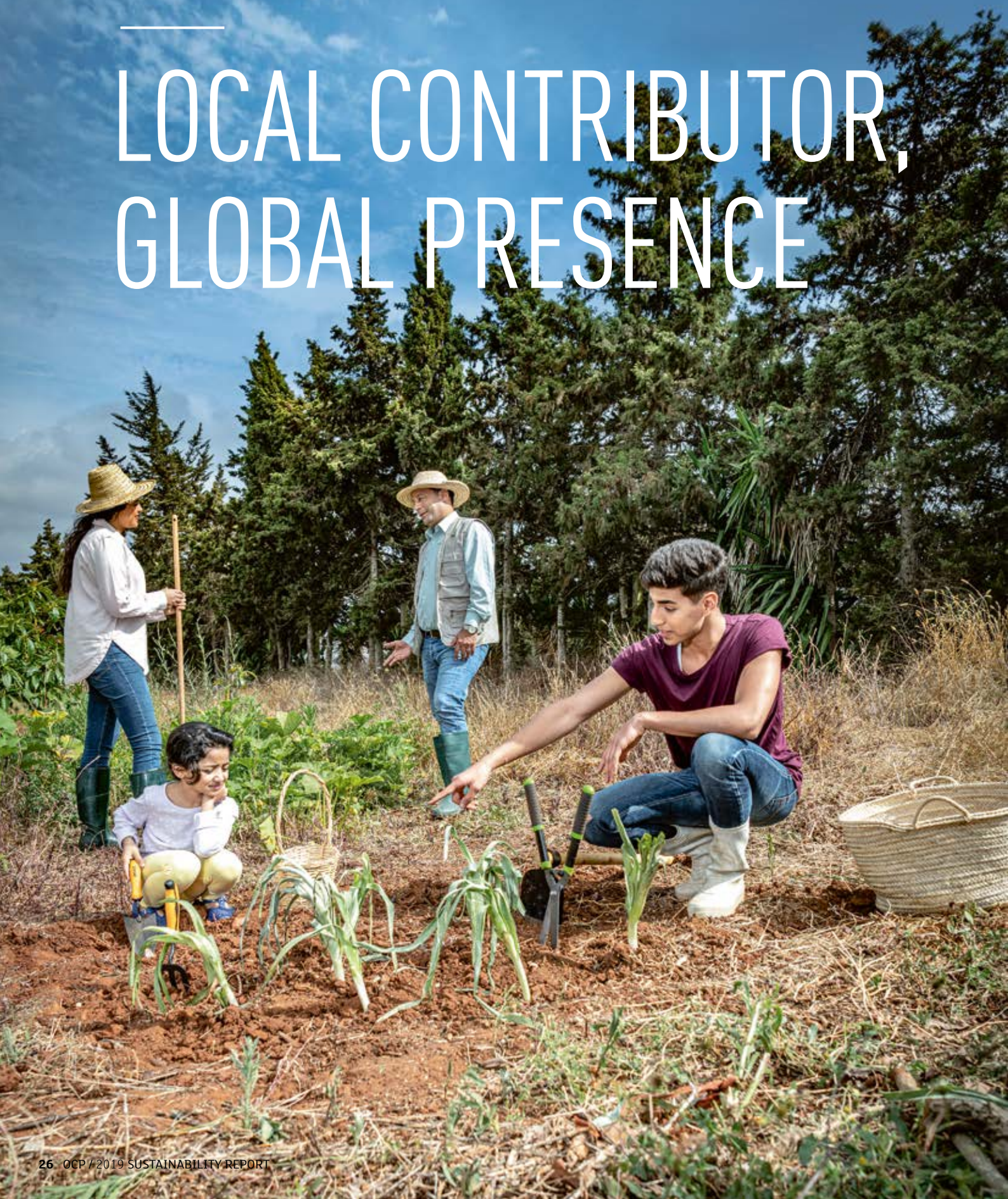
Sharing value with communities



# 1.3

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# LOCAL CONTRIBUTOR, GLOBAL PRESENCE



GRI 102-4 | GRI 102-7

# Presence in Morocco

OCP mines are located at four sites in Khouribga (Sidi Daoui Merah El Ahrach, Sidi Chennane, and Béni Amir), three in Gantour (Benguerir, Bouchane, and Mzinda), and one in Boucraâ. Processing phosphate into phosphoric acid and phosphate-based fertilizers is mainly done at the Jorf Lasfar and Safi sites. A major industrial development project for

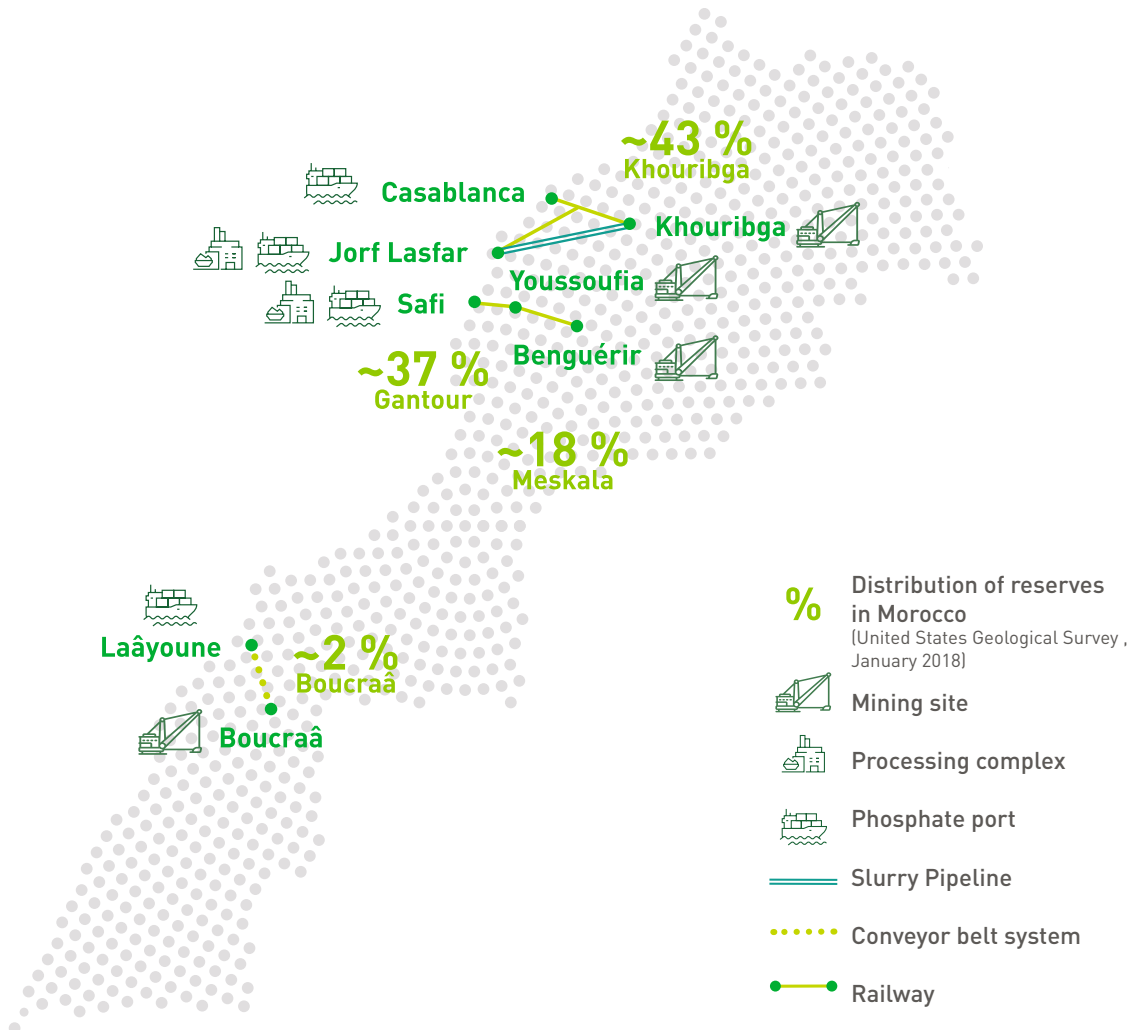
Phosboucraa is also underway for the 2014–2022 period to improve industrial activities at the Boucraâ site, diversify the product portfolio, develop the regional business ecosystem, and contribute to the socioeconomic development of the southern regions: Guelmim-Oued Noun, Laâyoune-Sakia El Hamra, and Dakhla-Oued Ed Dahab.

An **integrated group** across the entire value chain

**4** mining sites

**2** processing platforms

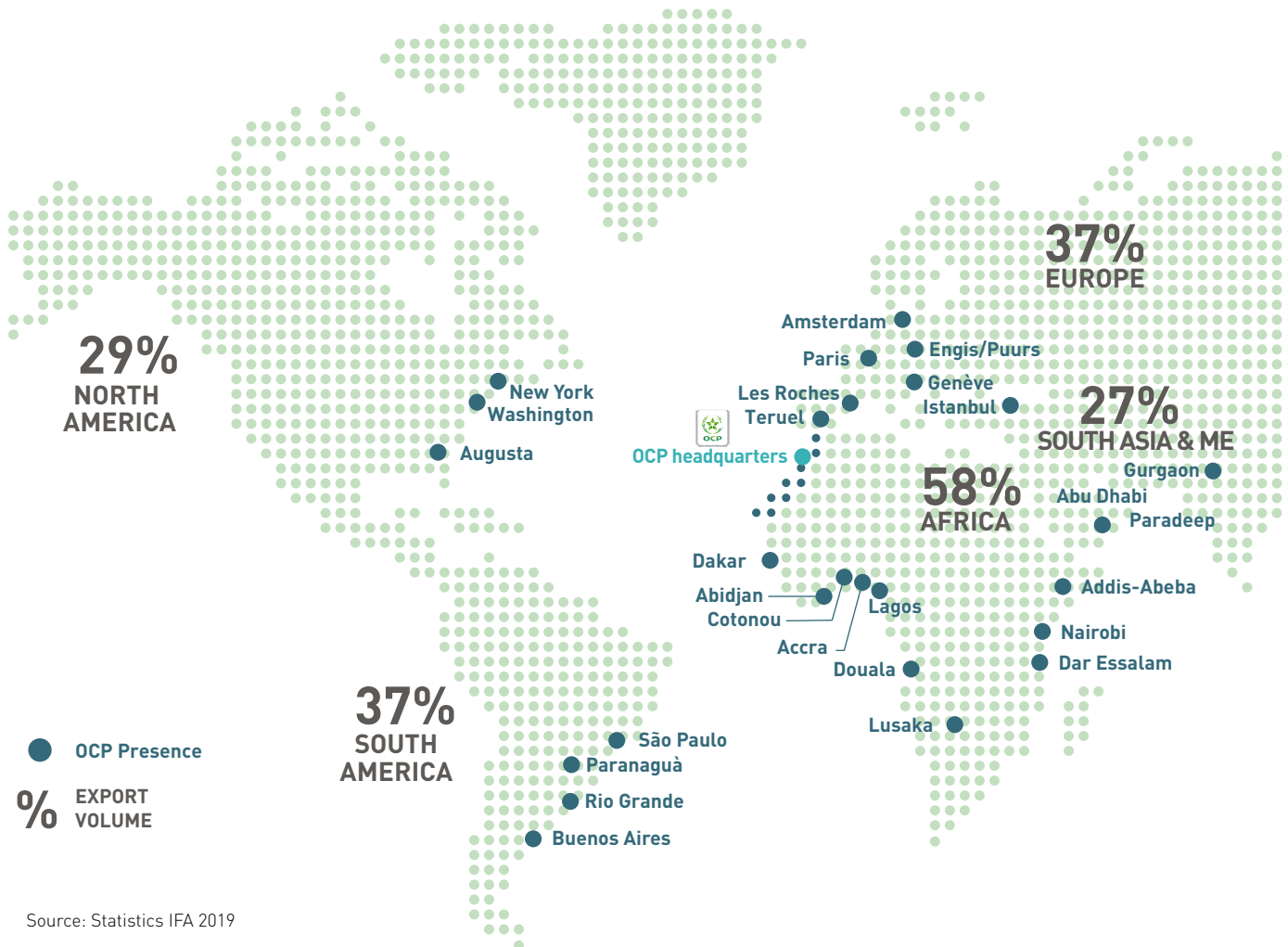
**4** phosphate ports



GRI 102-3 | GRI 102-4

# Global presence

With over 350 clients in 5 continents, OCP Group further strengthened the position of its finished products and its own presence, particularly in Africa, North America, and Latin America. Increasingly diversified products and regional portfolios reflect OCP Group's industrial and commercial excellence.

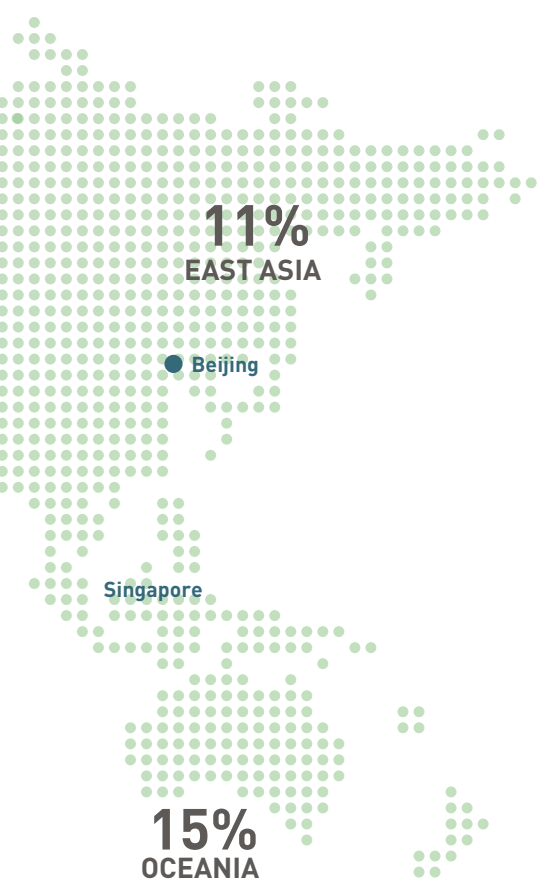


Source: Statistics IFA 2019



GRI 102-4 | GRI 102-12 | GRI 102-13

## OCP is a member of many professional associations



الاتحاد العربي للأسمدة  
Arab Fertilizer Association  
Since 1975

**AFA** (Arab Fertilizer Association)



**AFAP** (African Fertilizer and Agribusiness Partnership)



**IFA** (International Fertilizer Industry Association)



**WBCSD** (World Business Council for Sustainable Development)

### All OCP industrial operations sites are **Protect & Sustain** certified.

This certification is granted by IFA and covers the quality, environment, health, and worksite safety aspects of ISO 9001 and 14001 certifications, as well as OHSAS 18001 certification.





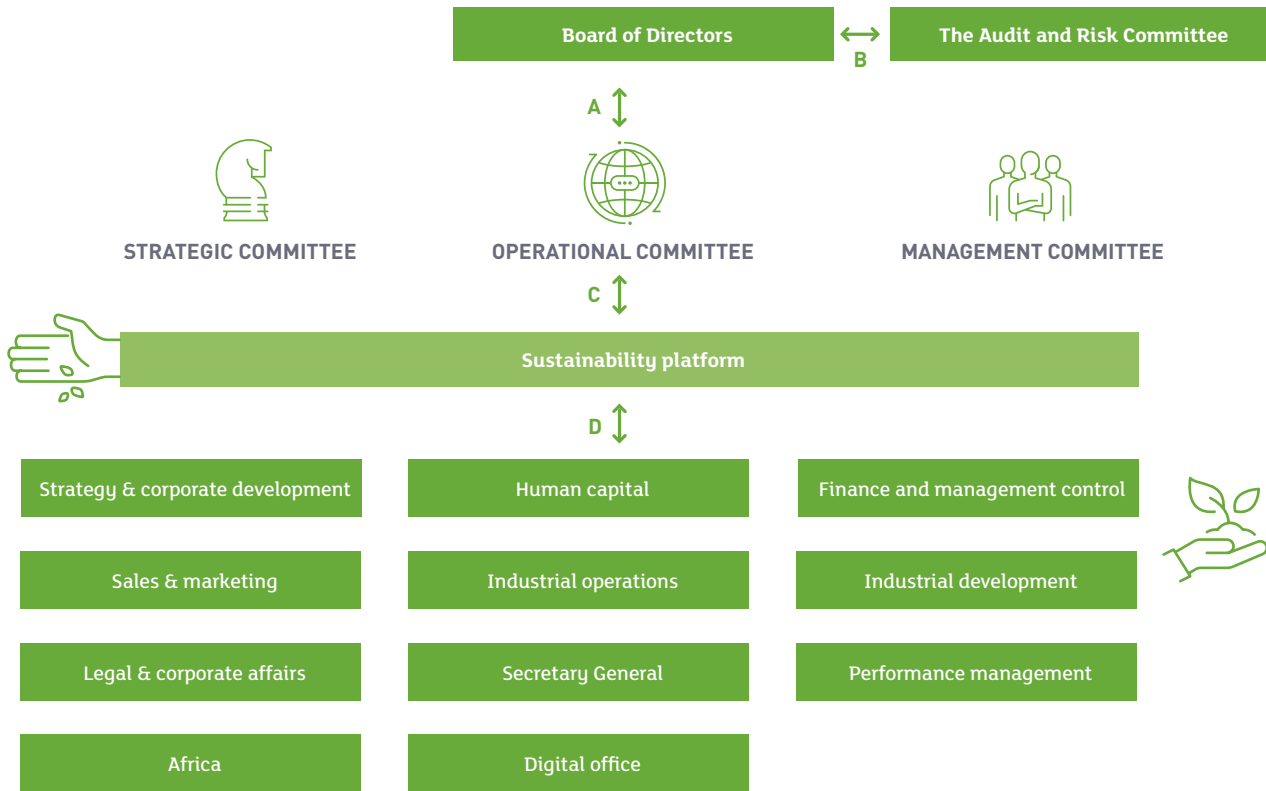
**1.4**

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# INNOVATIVE, AGILE & COMMITTED GOVERNANCE

GRI 102-18

OCP Group has prioritized governance as a key management tool in recent years by fostering agility and innovation. OCP Group’s management structure enables to better grasp complexities, maintain leadership, and ensure sustainable growth.



THREE STEPS SUPPORT AGILITY AND INNOVATION



**THE MOVEMENT**

Each employee can suggest a new idea, form a team to build the project, propose it, and, if it is deemed relevant, be given the means to achieve this project.



**ESTABLISHED "SITUATIONS"**

Gathers a working group with resources and governance to carry out its mandate.



**ANCHORING**

Transforms the Situation into a regular activity, business line, or business unit.

**MISSION & RESPONSIBILITY:**

- A.** The Board provides strategic direction and ensures monitoring
- B.** The Audit & Risk committee assists the Board of Directors in controlling operations and reviews financial & extra-financial data

- C.** The Operational Committee works in close collaboration with the strategic and management committees to determine short, medium- & long-term strategy, and approve targets. The Head of Sustainability platform holds a seat on all these three committees.

- D.** Created in 2019, the Sustainability platform coordinates and supervises implementation of the sustainability strategy as well as discuss, co-create and initiate new ideas

Find out more on the mission & responsibility

Economic, social, and environmental issues are also managed in a cross-cutting way at all levels through the Movement. This innovative organizational tool enables staff to foresee problems to make a more sustainable future.

# OUR JOURNEY TO IMPROVE HOW WE MAXIMIZE SUSTAINABILITY

Over the past few years, we have been strengthening the way we tackle sustainability across our company; from the creation of agile governance initiatives to ambitious sustainability objectives going through deep impact analysis. A lot has been done, but there is still a long way ahead to sustainable development. Our continuous improvement process is supported by external and independent sustainability experts to catalyse our transformation. 2019 was a turning point in assessing our weaknesses as well as sharpening our progress roadmap through a transversal gap diagnosis spanning over: >

## Vision & strategy

OCP has defined ambitious objectives that we need to emphasize for the Sustainable Development Goals on which we have the most important impacts:

SDGs 2, 4, 8, 11, 12, 13

OCP's sustainability reports have been prepared in accordance with the GRI standards from 2019 and opened the way towards more transparency aligned with international reporting standards. Our sustainability report 2019 already features key mechanisms of complementary reporting standards such as Integrated Reporting and TCFD (Task Force on Climate-related Financial Disclosures) that will be further deepened in the coming years.

## Reporting & disclosure





## Governance

OCP has created the Sustainability Platform in 2019, dedicated to coordinate and supervise the implementation of the sustainability strategy as well as discuss, co-create and initiate new ideas. The Head of the Sustainability Platform holds a seat on all supporting governance committees. We have planned to reinforce sustainability through the creation of:

- a sustainability committee working together with our internal committees to assist our Board of Directors
- an ethics committee integrating independent members as defined page 51 to monitor and control the implementation and respect of our code of conduct.

OCP has formalized its policies aligned with internationally recognized standards and frameworks in 2019 – all available in our [website](#). To disclose our main achievements against these policies, we have published a set of factsheets and plan to go further in terms of transparency on topics relevant to our stakeholders. Notably through dedicated reporting tools for Human Rights, through better integration of the Sustainable Development Goals, or through a better identification of our risks and opportunities related to the Agenda 2030 for Sustainable Development.

OCP has laid strong foundations upon which to build a best in class company-wide sustainability management system allowing to identify, assess and minimize potential adverse impacts that we may cause or contribute to, through on-going due diligence. This still needs to be rolled-out across all functional areas and will be enabled by the evolution of our governance.



## Management system



## Policy



# 2

# SUSTAINABLE DEVELOPMENT: OUR INTEGRATED APPROACH





**2.1**

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# OCP'S SUSTAINABILITY CONTEXT

GRI 102-11

As a major contributor to the global fertilizer market, our mission is to contribute to sustainably feeding a growing world population. This implies caring about the environmental, social and governance impacts of our daily decisions, large and small, that are shaping our future. *In dubio pro malo* (when in doubt, listen to the worst prognosis rather than to the best) is the leitmotif that guides our whole organization and our product design as we comprehensively address sustainability challenges.

### Our precautionary approach is especially focused on the following salient agricultural megatrends:



#### Growing world population

Increasing the crop yields significantly through the use of fertilizers to ensure food security. The global food system is expected to provide safe and nutritious food to a population that will likely grow from 7.5 billion people today, to nearly 10 billion by 2050.



#### Environmental impacts of agriculture

Agriculture occupies nearly 40% of the earth's surface, far more than any other human activity. In addition, irrigation of crops comprises 70% of global water use, and agriculture directly contributes to around 11% of global greenhouse gas (GHG) emissions (mostly through animal breeding). Expanding arable land can also lead to deforestation, additional GHG emissions, and a loss of biodiversity while intensive farming leads to soil erosion and fertility challenges. Depletion of natural resources, such as water and fertile soils is emphasized by climate change.



#### Providing a livelihood to farmers

The agri-food sector also provides a livelihood for millions of people. Most of the people living in extreme poverty are in rural areas where food production is often the most important economic activity. There is an estimated 570 million farms worldwide today, and millions of workers in food-related jobs.

2.2

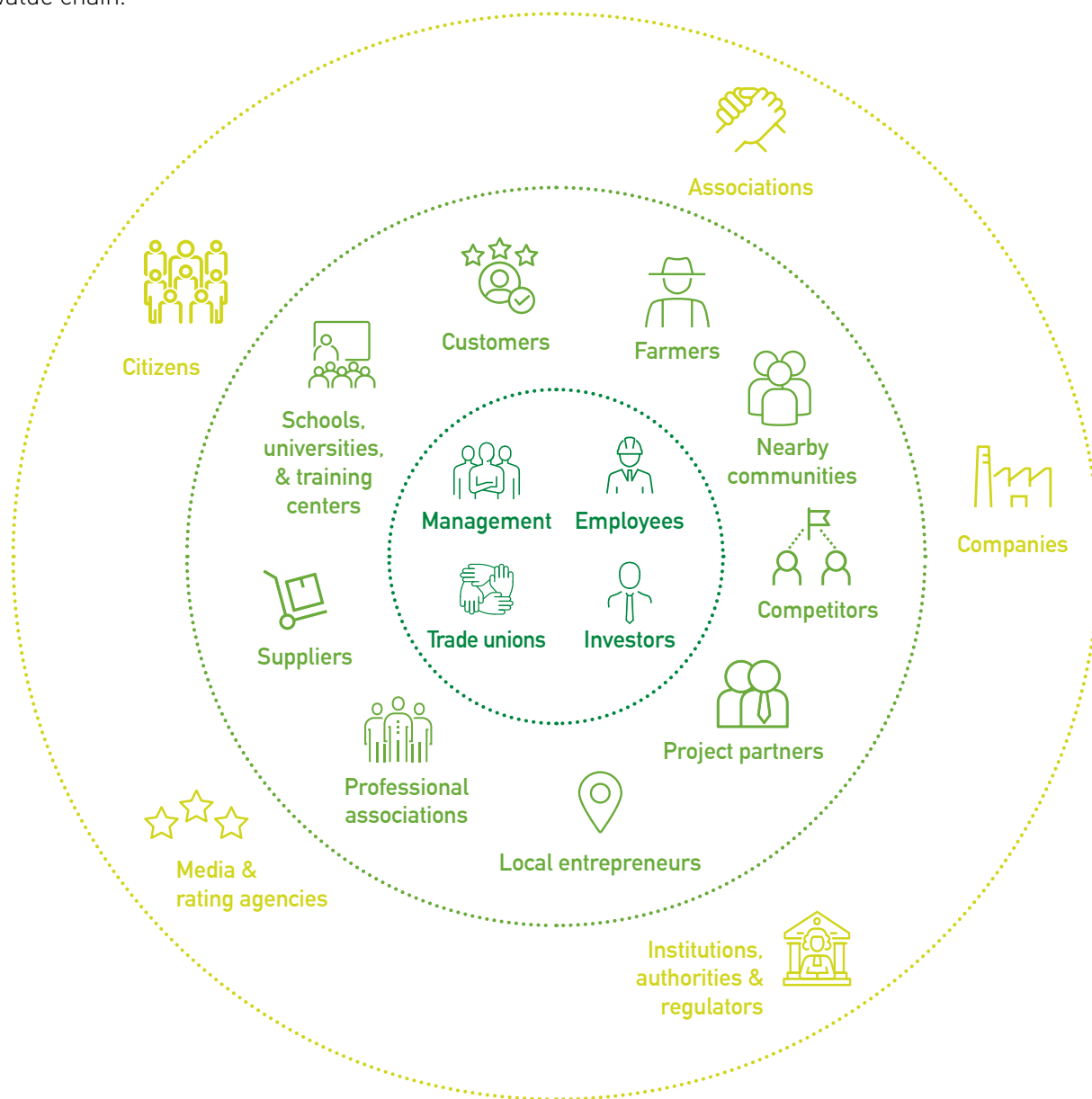
# STAKEHOLDER ENGAGEMENT



GRI 102-40 | GRI 102-42

**OCP’s sustainable development strategy is based on continuous dialogue and joint development with internal and external stakeholders using an inclusive business approach.**

OCP recognizes the mutual need for dialogue, transparency, and considers the expectations of its business ecosystem as a key part of its sustainable development approach. The illustration below shows the stakeholders with whom OCP interacts at various levels throughout its sphere of influence and value chain.



- Internal stakeholders related to our **commitments to responsible and inclusive management**
- External stakeholders related to our **commitments to sustainable production**
- External stakeholders related to our **commitments to shared value creation**

In 2020, OCP included internal and external stakeholders consultation in its materiality analysis used for preparing this report, presented on page 188. The main objective was to identify priority issues in the value chain based on the principles of the Global Reporting Initiative. Through this approach, OCP was able to define its 2019–2020 dialogue plan for the preparation of future extra-financial reports while also prioritizing its stakeholders.

GRI 102-43 | GRI 102-44

## EMPLOYEES

### METHODS OF ENGAGEMENT

- Workshops
- Surveys
- Situations and movements (Act4Community, diversity, Happy@OCP, etc.)
- Hackathons
- Training, peer-to-peer knowledge transfer (OCP Professors) and skills assessment programs
- Group intranet
- 1 Pacte
- Digital applications and workplace, performance evaluation, etc.

### ISSUES AND CONCERNS

- Professional development
- Engagement through the sponsorship of employee skills (community service)
- Equal opportunity, social benefits (access to property, medical coverage, retirement, etc.)
- Training and skills development
- Working conditions
- Access to information and transparency

## SENIOR MANAGEMENT

### METHODS OF ENGAGEMENT

- Board of Directors
- Audit and Risk Committee: risk assessment integrating sustainable development
- Strategic Committee: Global Strategic Review (activities integrating sustainable development criteria through a down-top/bottom-up process)
- Management Committee (Executive Vice Presidents): advisory process (on environmental and social issues) and thematic focus groups
- Operational Committee using, in their decision making, input from site management committees (right place, time, rate, source)
- Contracts with local authorities, public-private partnership
- Specialized committees (health, safety, environment, technical)

### MAIN TOPICS

- Regulations
- Environment
- Society
- Social
- Economy

## FARMERS

### METHODS OF ENGAGEMENT

- 4R Program (customized agriculture)
- Development of a soil fertility map
- OCP Foundation / Phosboucraa Foundation
- Al Moutmir caravan and agronomic advice
- Development of a farmer-friendly business ecosystem (local production and distribution infrastructure)

### ISSUES AND CONCERNS

- Joint venture and local partnerships
- Product efficiency (features, quality)
- Use of products
- Custom and smart fertilizers
- Societal commitments
- Fertilizer use training and transfer of expertise
- Agricultural service offerings

## CUSTOMERS

### METHODS OF ENGAGEMENT

- Feedback in various forms (written, by phone, etc.)
- Meetings, site visits, road shows, client events (trade fairs, exhibitions, etc.)
- Quality and risk management processes

### ISSUES AND CONCERNS

- Custom fertilizers
- Smart fertilizers
- Societal commitments
- Fertilizer use training and transfer of expertise
- Agricultural service offer (fertility map, demonstration platforms, adapted training and support, etc.)
- Co-investments

## TRADE UNIONS

### METHODS OF ENGAGEMENT

- Social Charter
- CSP (Staff Status Commission)
- CAS (Social Action Commission)
- CHS (Health and Safety Committee)
- CNC (Collective Bargaining Committee)
- Training academy

### ISSUES AND CONCERNS

- Social
- Environment
- Medical
- Safety
- Administrative management (payroll, scheduling, etc.)

### Average frequency of engagement in sustainable development topics

 Continual  Frequent  Occasional

Creating shared value

Production

Management



GRI 102-43 | GRI 102-44

### SUPPLIERS

**METHODS OF ENGAGEMENT**

- Progress pact (training and support for improving social, environmental, and safety compliance, and in other areas)
- The Movement (Act4Community)
- OCP purchasing platform (e-purchase)
- Programs for suppliers
- Forums and conferences on the emergence of an industrial ecosystem
- Meetings and dialogue with local stakeholders at the operational site level

- Industrial Expertise Centres, digital schools and startup incubators for local small businesses

**ISSUES AND CONCERNS**

- Direct and indirect local economic impacts
- Social, environmental, and safety compliance, and in other areas
- Skills development
- Development of a qualified local economic fabric
- Innovation
- Development of a local industrial ecosystem

### NEARBY COMMUNITIES

**METHODS OF ENGAGEMENT**

- Public survey for industrial projects (development, modification, and expansion projects)
- Complaint management system at the corporate level and at operational sites
- Association forums
- Meetings with residents
- Thematic forums on entrepreneurship (micro-business, local business, etc.)

**ISSUES AND CONCERNS**

- Societal projects developed with local contributors (access to basic infrastructure: health, culture, education, etc.)
- Environment (management of soil, resources, etc.)
- Local employment creation and value sharing (direct and indirect employment, capacity building, etc.)

### ASSOCIATIONS AND NGOS

**METHODS OF ENGAGEMENT**

- Skills development programs
- Dialogue and joint development: Act4Community
- Subsidies for projects
- Association forums
- Thematic forums on entrepreneurship (micro-business, local business, etc.)

**ISSUES AND CONCERNS**

- Social and inclusive entrepreneurship
- Joint development of societal projects (access to basic infrastructure: health, culture, education, etc.)
- Respect for the environment, development of rehabilitated land, soil management, etc.
- Local employment creation and value sharing (direct and indirect employment, capacity building, etc.)

### INFLUENCERS: MEDIA & RATING AGENCIES

**METHODS OF ENGAGEMENT**

- Discussions with local, national, and international media
- Site tours
- Websites (corporate, foundations) and social media (Facebook, Twitter, LinkedIn)

- Presentation of the sustainable development program to local and national media
- Forums, conferences, national and international events

**ISSUES AND CONCERNS**

- Access to the Group's economic, social, and environmental information

### INSTITUTIONS, AUTHORITIES AND REGULATORS

**METHODS OF ENGAGEMENT**

- Global issue advocacy
- Board of Directors
- Program contracts
- Various discussions (local meetings, informal meetings, written correspondence with institutions, etc.)

**ISSUES AND CONCERNS**

- Regulations
- Environment
- Company
- Economy
- Regional development

GRI 102-43

## 1 Pacte: Collective intelligence to unleash associates energy

In 2019, OCP 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 (mentoring program), 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" - a Movement that has been anchored - which has now been given all the resources it needs to co-build a common understanding of how to build a better OCP for the future.

At the same time, 225 physical dialogues were held all over Morocco by 120 Connectors (groups of employee volunteers trained to lead the dialogues.)



OCP aims to strengthen its dialogue with stakeholders by engaging them in the analysis of sustainability challenges and opportunities. To this end, the 2019–2020 stakeholder dialogue program has been focused on raising awareness, trainings, and exchanging good practices with external stakeholders in order to facilitate and encourage the joint development of sustainable projects.

**For the 2019–2020 fiscal year, OCP is adopting a decentralized approach to dialogue with stakeholders for each operational site through the following actions:**

1. Training internal employees and key external stakeholders on sustainable development issues.
2. Developing external stakeholder organizational charts for each significant operational site
3. Refining our materiality outcomes through consultations with communities near OCP sites.
4. Developing OCP's sustainable development actions with internal and external stakeholders, using a decentralized and autonomous bottom-up approach for operational sites. Find out more on our progress in the section 4 of this report p.184.



# 2.3

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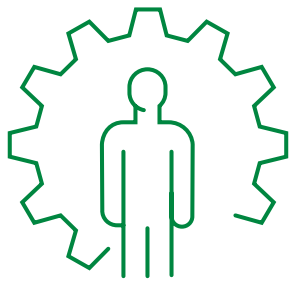
# MATERIALITY ANALYSIS

In preparing this report, OCP Group conducted a materiality analysis using an inclusive approach with its stakeholders. This analysis assessed the significance of the economic, social, and environmental impacts of OCP's activities and their influence on stakeholders.



GRI 102-47

**Based on this analysis, priority issues were identified and categorized by scope of influence in three areas:**



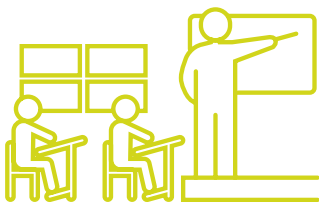
## RESPONSIBLE AND INCLUSIVE MANAGEMENT

OCP Group's responsible and inclusive management commitments are reflected in its **sustainable economic growth**, its ethical and transparent practices, the development of its employees and their **Occupational Health and Safety**, and the integration of digital technology in worksites.



## SUSTAINABLE PRODUCTION

Sustainable production commitments include actions and initiatives revolving around **operational excellence**, the **circular economy**, and **environmental compliance**. This program involves resource conservation, **soil and biodiversity management**, **waste and hazardous product management**, the **development of renewable energy**, **water management**, and also **food security** through the development of smart agriculture and **fertilizer market development**.



## SHARED VALUE CREATION

Shared value creation commitments include all programs with indirect economic impacts, business ecosystem development support, and **community involvement**.

Find out more about the materiality analysis on page 184.



# 3

# OCP'S SUSTAINABILITY COMMITMENTS



# 3.1

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# COMMITMENTS TO RESPONSIBLE AND INCLUSIVE MANAGEMENT







GRI 102-16 | GRI 102-18 | GRI 102-22 | GRI 102-23

# 3.1.1. Transparent, innovative and ethical governance

## 3.1.1.1. Ethics

Improving governance as a management tool continues to be a long-term priority at OCP. It requires strengthening procedures, rules, and organizational structures that will ultimately ensure greater transparency across the company's operations. OCP aims to go beyond regulatory compliance and develop an approach to governance that reflects the company's values - integrity, transparency & sustainability - vision and ambitions.

Check out our Code of Ethics 

### OCP BOARD OF DIRECTORS

OCP has a Board of Directors that determines the general directions of the company's activities and oversees their implementation, subject to powers that are expressly reserved to the shareholders and in accordance with OCP's corporate purpose.

| BOARD MEMBER                     | GENDER | PRIMARY OCCUPATION   | STATUS | SINCE |
|----------------------------------|--------|--|--------|-------|
| <b>Mostafa Terrab</b>            | M      | OCP Chairman and Chief Executive Officer                       | E - NI | 2008  |
| <b>Abdelouafi Laftit</b>         | M      | Interior Minister  | NE-NI  | 2018  |
| <b>Moulay Hafid Elalamy</b>      | M      | Minister of Industry, Investment, Trade, and Digital Economy   | NE-NI  | 2014  |
| <b>Nasser Bourita</b>            | M      | Minister of Foreign Affairs and International Cooperation      | NE-NI  | 2018  |
| <b>Mohamed Benchaaboun</b>       | M      | Minister of Economy and Finance                                | NE-NI  | 2019  |
| <b>Aziz Rabbah</b>               | M      | Minister of Energy, Mines and Sustainable Development          | NE-NI  | 2018  |
| <b>Mohammed Sadiki</b>           | M      | General Secretary of the Ministry of Agriculture and Fisheries | NE-NI  | 2016  |
| <b>Banque Centrale Populaire</b> | M      | Represented by its President and CEO                           | NE-NI  | 2009  |

E: Executive (linked to the management of the company)    I NE: Non-Executive    I: Independent    I NI: Non-Independent    M: Male

GRI 102-18 | GRI 102-22 | GRI 102-24 | GRI 102-35 | GRI 102-36



**Nomination & selection**

OCP SA is a public subsidiary subject to company law and to the provisions of SA (Société Anonyme, limited company) law. The choice of the members of the board of directors was made since the transformation of the office into a limited company (SA) by the main shareholder (the Moroccan state) who had defined them and who are several ministries represented by the person of the Minister and whose appointment is made in line with SA law. The representative of each Ministry may have to change with each Ministerial change.



**Board Independent Member**

Following the Dahir n°1-19-78 of the 20 chaabane 1440 (April 26, 2019) on the promulgation of the law n°20-19 editing and completed the law 17-95 related to the limited company (SA) that will come into force on April 2020, we will nominate by then an independent member. Aligned with the law, he/she won't :

- have been part of the OCP Group's management or employees for the last three years before his/her nomination;
- have been part of the OCP Group's shareholders and their representants for the last three years;
- have been part of the management of a company in which OCP owns shares – whatever the percentage – for the last three years;
- have been part of the management of a company in which OCP has a mandate in its management; or a company in which a member of the OCP's management is still mandated or has been for the last three years in the management;
- have been or represented a business, financial, or advisory partner for the last three years;
- have family tie – including second degree – with the shareholders or the boards of directors;
- have been part of auditors for the last six years.



**Remuneration**

The terms of the remuneration of our Board of Directors are aligned with the SA law.

## BOARD COMMITTEE

### The Audit and Risk Committee

The Audit and Risk Committee is in charge of assisting the Board of Directors in its control operations and reviewing half-year and year-end results.

The Committee's main functions are:

- Assessing the adequacy of the Group's internal control operations and coordinating internal and external audit operations;
- Approving the annual internal audit program;
- Evaluating accounting principles and methods;
- Examining risks and evaluating the significance of such risks;
- Monitoring compliance with the recommendations made at previous Audit and Risk Committee meetings;
- Helping the Board of Directors improve internal control, risk management, and network and information security.

## GRI 102-18 | GRI 102-22

The Committee meets twice a year according to legal provisions, or more if necessary.

### Members:

- Director of DEPP (Department of Public Enterprises and Privatization), Chairman
- Government Commissioner, Vice-Chairman
- BCP (Banque Centrale Populaire) representative
- CFO of OCP S.A, Secretary of the Committee.

### Permanent participants:

- VP internal Audit & Risk
- External OCP SA Auditors

## SUPPORTING COMMITTEES



### Strategic Committee

The committee is in charge of strategic thinking, medium and long-term decision making and steering (Strategy, Business Plan and Investment Plan, M&A, Business Development, ...).

The committee is chaired by OCP Chairman & CEO and composed of the Chief Operating Officer, the Chief Growth Office, the Chief Human Capital & Services officer and the Chief Financial Officer.



### Management Committee

The committee is in charge of OCP short and long-term decision-making within guidance provided by the Strategic Committee (budgeting, HR, CAPEX, etc.).

The committee is chaired by the OCP Chairman & CEO and composed of the Chief Operating Officer, the Chief Growth Office, the Chief Human Capital & Services officer, the Chief Financial Officer and the Executive Vice Presidents.



### Operational Committee

The Operational Committee is in charge of short-term decision-making and operational coordination (Production & Sales Plan, Pricing, Business Review, ...)

The committee is composed of the Chief Operating Officer, the Chief Growth Office, the Chief Human Capital & Services officer, the Chief Financial Officer and the Executive Vice Presidents with a rotating presidency.

## TRANSVERSAL RISK MANAGEMENT & INTERNAL AUDIT

In managing risks and applying the precautionary principle, OCP takes into account uncertainties that may affect its activities and stakeholders, rising from environmental (including climate-related), social, and governance risks. The Risk Management Team under the supervision of the Audit and Risk Committee carries out the identification, analysis, and evaluation of these risks, and integrates them into the management plans of each business line in accordance with ISO 31000 and in line the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Enterprise Risk Management Framework (2017). As part of OCP's efforts to mitigate various major disruptions, an activity continuity approach is implemented in accordance with ISO 22301.

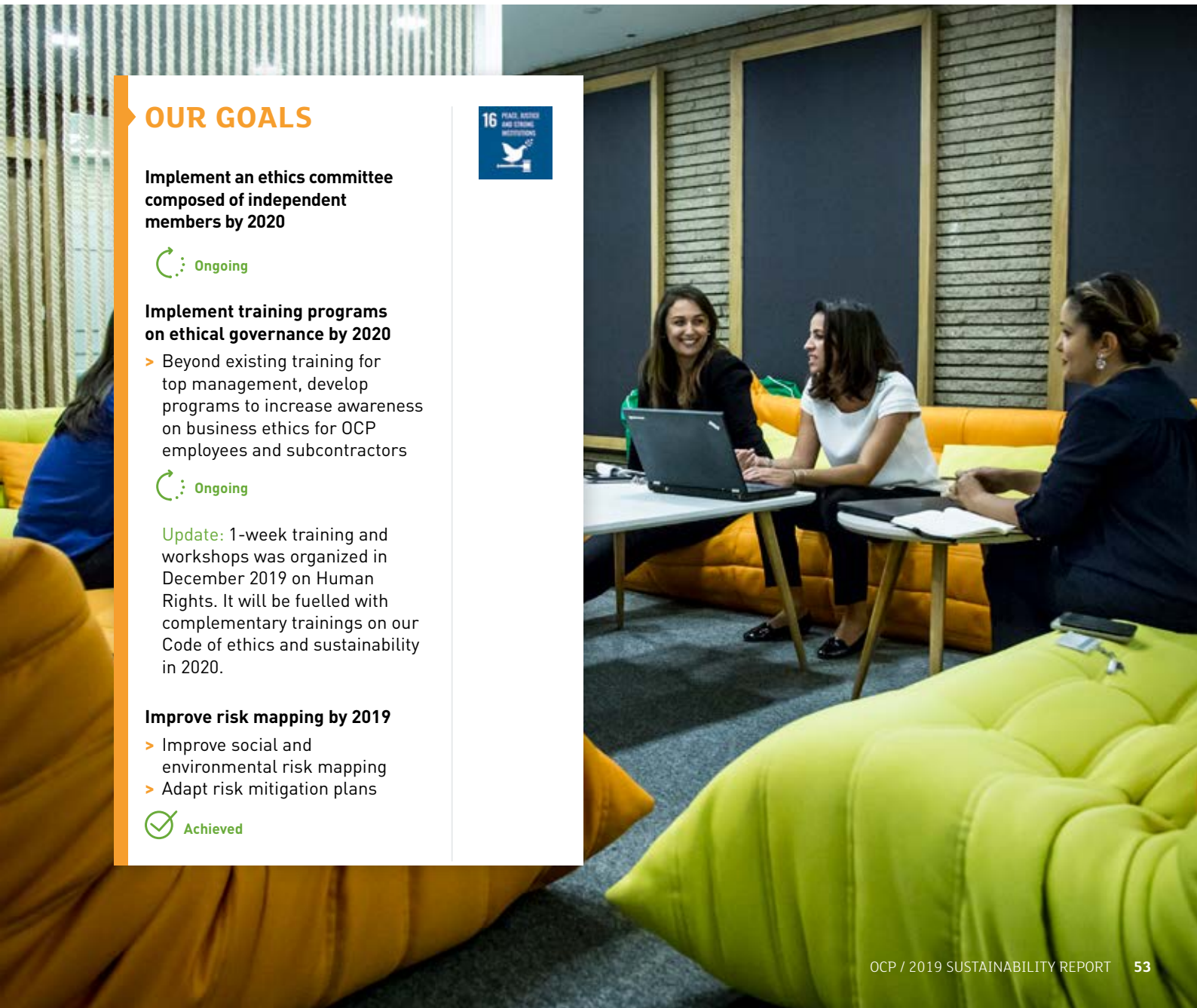
The Internal Audit Group Department, which also reports to the Audit and Risk Committee, performs an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. Its purpose is to determine whether all risk management, control and corporate governance processes, designed and implemented by management, are adequate and effective in order to guarantee that:

- Risks are identified and managed;
- Operations are conducted in accordance with the policies, rules and procedures in effect within OCP Group, and in compliance with the legislation in effect;
- Internal control systems are designed and implemented in such a way as to promote risk management and contribute to improving performance.


The Internal Audit Group Department operates its engagements in accordance with International Standards for the Professional Practice of Internal Auditing and its activities are certified by IFACI (French branch of the Institute of Internal Auditors - IIA), since 2013.

To accomplish its purpose and activity each year, the Internal Audit Group Department designs and implements an annual audit plan based on a risk assessment, taking into account the risks identified by the Management and the concerns of the General Management and the Audit and Risk Committee.


|   | 2018 | 2019 |
|---|------|------|
| Audit engagements carried out in several areas, including industrial operations and project development, product quality management, safety, sustainable development, cybersecurity, data management, sales, logistics, purchasing and ecosystems, finance, human resources, governance and subsidiaries. | 20   | 23   |
| Recommendations implemented within the prescribed time limits as defined in the annual internal audit plan related to the industrial, digitalization, information system, support and commercial areas.   | 74%  | 76%  |



## OUR GOALS




**Implement an ethics committee composed of independent members by 2020**

 Ongoing

**Implement training programs on ethical governance by 2020**


- > Beyond existing training for top management, develop programs to increase awareness on business ethics for OCP employees and subcontractors

 Ongoing

**Update:** 1-week training and workshops was organized in December 2019 on Human Rights. It will be fuelled with complementary trainings on our Code of ethics and sustainability in 2020.

**Improve risk mapping by 2019**

- > Improve social and environmental risk mapping
- > Adapt risk mitigation plans

 Achieved

GRI 103-1 | GRI 103-2

## 3.1.1.2. Human Rights

OCP's mission is to contribute to sustainably feeding a growing world population. This implies caring about the environmental, social and governance impacts of our daily decisions, large and small, on those around us. We do believe business can only thrive in a thriving society. Respecting Human Rights is an integral part of our corporate responsibility and a strategic purpose in our role as an employer, investor, partner, neighbour and fertilizer provider. We therefore aim to identify, assess and minimize potential adverse Human Rights impacts that we may cause or contribute to, or that are linked to our business, through on-going due diligence and appropriate management, aligned with the United Nations Guiding Principles on Business and Human Rights.

Through an integrated and cross-functional approach regarding respect to Human Rights, OCP aims to build a due diligence programme spanning over the main following pillars:



- 1. Integrating Human Rights into new and existing policies;**
- 2. Training employees on Human Rights and developing their capacity 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. Provide with appropriate, efficient, transparent and fair grievance mechanisms.**

In 2019, we have started to work on a 3-step implementation strengthening our:

-  **GOVERNANCE TO RESPECT HUMAN RIGHTS;**
-  **IDENTIFICATION OF SALIENT ISSUES;**
-  **MANAGEMENT OF SALIENT HUMAN RIGHTS ISSUES.**

GRI 103-2



## GOVERNANCE TO RESPECT HUMAN RIGHTS

OCP has defined its Human Rights policy following a 1-week training and workshops in December 2019 led by an independent sustainability advisory firm and attended by both managers and key staff members from the business units related to major functional areas identified across the value chain: procurement, investment, marketing & sales, human resources management and relations to local communities.

- **Step 1:** Training on Human Rights to build capabilities and common understanding
- **Step 2:** Five risk assessment workshops to identify salient risks specific to five major functional areas across the value chain and related rights holders, point out gaps and initiate progress plan
- **Step 3:** Formalisation of the policy

Thanks to a cross-functional analysis and feedback from the ground, OCP has been able to define a well-focused human rights policy.

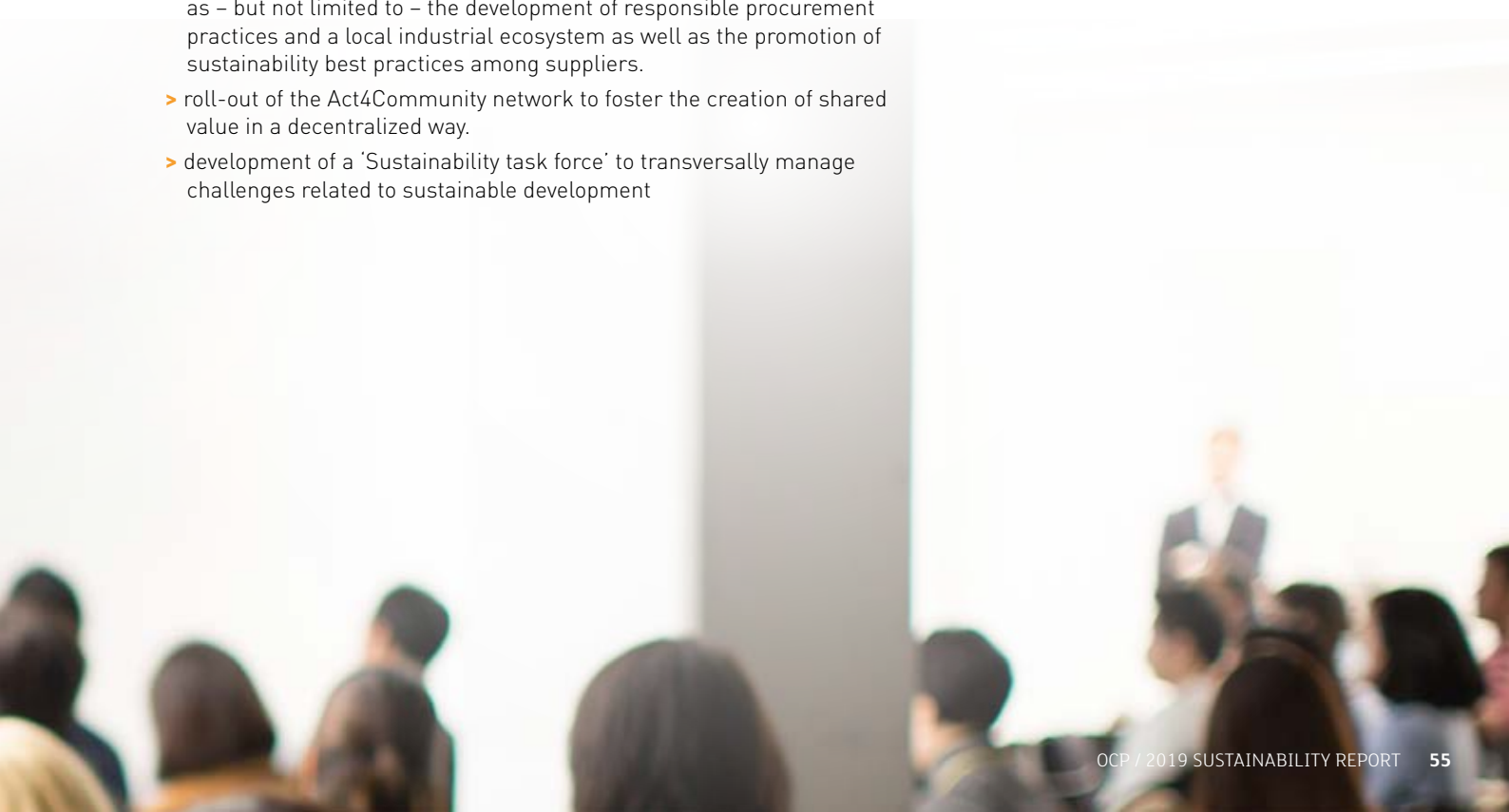
Beyond our policy commitments, embedding respect for Human Rights across our business activities in principle and practice is key. Over the past years, we have started on a path to strengthen our governance around sustainability challenges. Below are some of our key milestones:

- **2016:** creation of an agile, innovative, and inclusive governance system called the 'Movement' to encourage employees to think outside the box. It allows them to suggest new ideas, develop projects and build a team around rising economic, social and environmental challenges.
- **2018:**
  - > implementation of a purchasing policy setting key focus areas such as – but not limited to – the development of responsible procurement practices and a local industrial ecosystem as well as the promotion of sustainability best practices among suppliers.
  - > roll-out of the Act4Community network to foster the creation of shared value in a decentralized way.
  - > development of a 'Sustainability task force' to transversally manage challenges related to sustainable development

### Key figures 2019



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



GRI 103-2 | GRI 103-3 | GRI 412-1

## IDENTIFICATION OF SALIENT ISSUES

In December 2019, we engaged internally across regions and functions and externally with Human Rights experts to identify our top salient Human Rights issues. We held cross-functional workshops to identify potential Human Rights issues related to 5 major processes and activities – procurement, investment, marketing & sales, human resources management, and local communities relations. Salient issues were identified for each functional area as follows :

- **Step 1: Scope definition, both geographical and legal.** For all the workshops, the scope considered was OCP SA and all subsidiaries worldwide keeping in mind that where OCP does not have full management control, we will exercise our available leverage to influence.
- **Step 2: Validation of the functional areas processes** to efficiently and exhaustively identify impacts and risks across our value chain.
- **Step 3: Human Rights impacts assessment** according to risk severity, likelihood, and management level.
- **Step 4: Selection of salient issues** based on heat maps by functional area.

Below is an overview of the cross-functional Human Rights most salient issues:

### Human Rights



Right to freedom from discrimination



Right to life



Right to freedom from torture



Right to remedy



Right to own property



Right to freedom of expression and opinion



Right to work



Right to human rights integrity



Right to a safe, clean, healthy and sustainable environment



GRI 103-2

## MANAGEMENT OF SALIENT ISSUES

### Specific policies

Following the 1-week training and workshops in December 2019 led by an independent sustainability advisory firm and attended by both managers and key staff members from the business units related to 5 major functional areas identified across the value chain, OCP has defined functional policies to address specific salient issues and operationalize the overarching OCP's Human Rights policy:

- > Responsible procurement policy
- > Responsible financial partnerships & investment policy
- > Responsible marketing & sales policy
- > Responsible human resources management policy
- > Responsible relations to local communities policy

These policies are available on our website– as well as complementary policies. ✨

### Assessing impacts

A first cross-functional risk and impacts assessment has been carried out at the end of 2019 and identified the most salient Human Rights issues for the main functional areas. Following this assessment and in line with our integrated approach, specific action plans will be set up in 2020 to integrate Human Rights risk assessment into each functional area's processes. Because Human Rights situations are dynamic, assessments of Human Rights impacts will indeed be undertaken at regular intervals: prior to a new activity or relationship; prior to major decisions or changes in the operation (e.g. market entry, product launch, policy change, or wider changes to the business); in response to or anticipation of changes in the operating environment (e.g. rising social tensions); and periodically throughout the life of an activity or relationship.

### Stakeholders engagement

Existing stakeholders engagement tools ✨ and grievance mechanisms ✨ continuously feed our understanding of Human Rights risks and impacts and our approach to addressing them.

Following the 2019 Human Rights risks assessment, specific action plans have been set up requiring the integration of Human Rights risk assessment into each functional area's processes. The assessment includes the identification of potentially affected rights holders and stakeholders based on the following main criticality criteria:

- > Level of vulnerability, marginalization and/or related risks;
- > OCP's sphere of influence (direct and/or indirect impacts);
- > Geographic location.

Potentially affected rights holders and stakeholders will be engaged accordingly in a manner that takes into account language and other potential barriers to effective engagement.

### Taking actions

In 2020, OCP will develop action plans to manage salient Human Rights issues specific to each major functional area and related potentially affected rights holders and stakeholders; and is transversally committed to strengthen governance processes related to Human Rights.

The Human Rights implementation guide will be available in our website.

Over the past years, we have started our journey to improve our management of Human Rights risks throughout our value chain. Check out some of our 2019 achievements related to:

- > Responsible procurement ✨
- > Responsible marketing & sales ✨
- > Responsible human resources management ✨
- > Responsible relations to local communities ✨

GRI 103-2

## ✔ Remediation

OCP Group’s grievance mechanism involves the following main elements:

- Operational sites for oral and written complaints from residents. All complaints are received by operational site departments and processed according to the complaint type.
- The Ombudsman Office, an independent complaint management platform that addresses the complaints of all external stakeholders, including OCP’s clients and suppliers, NGOs, and all other parties interacting with OCP’s entities. Acting independently and in compliance with international standards and best practices, the Ombudsman Office aims at:
  - > Processing and examining claims, and recommending fair solutions to parties ;
  - > Acting to reduce disputes between OCP and its partners;
  - > Providing mediation when required;
  - > Identifying interaction opportunities between the OCP Group and its ecosystem and advancing cooperative development projects.

To perform efficiently its mandate, the Ombudsman’s Office adopts a 3-step approach:



Find out more on our Ombudsman platform

- The General and Institutional Affairs Direction also deals with complaints of all types concerning - but not limited to - pension issues, medical coverage, and operation-related damage caused to third parties.

Grievance mechanism systems will be thoroughly analysed, expanded and adapted to potentially impacted rights holders as part of the specific functional area actions plans.

GRI 103-2

## OUR GOALS

### Improve sustainability monitoring and reporting system

- > Evaluate the current internal reporting systems and integrate relevant data to cover all sustainability requirements

 Ongoing

### Implement training programs on ethical governance by 2020

- > Develop programs to increase awareness on business ethics for OCP employees and subcontractors

 Ongoing







## Key figures 2019

Movement compared to 8.000 in 2018

**9.000**

Situations

**60**

Of which are in the anchoring phase

**10**

“ We want the proposals made by employees to trigger decisions which engage all of us. And we hope that these proposals, because they come from a different, non-hierarchical process, will rock the company out of its comfort zone”



**Mostafa Terrab**  
Chairman and  
Chief Executive Officer



GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 201-1

# 3.1.2 Sustainable and innovation-driven growth

primary material topic 

We do believe that our company can only grow within a thriving society. This is why we adopted an inclusive approach based on creating value for all our stakeholders, from employees and suppliers to Government and local communities. Generated and distributed economic value decreased by 0.3% between 2018 and 2019 while distributed economic value - including salaries, employee benefits, payments to investors, government payments, and community investments - increased by 3% and remains steady compared to 2018.

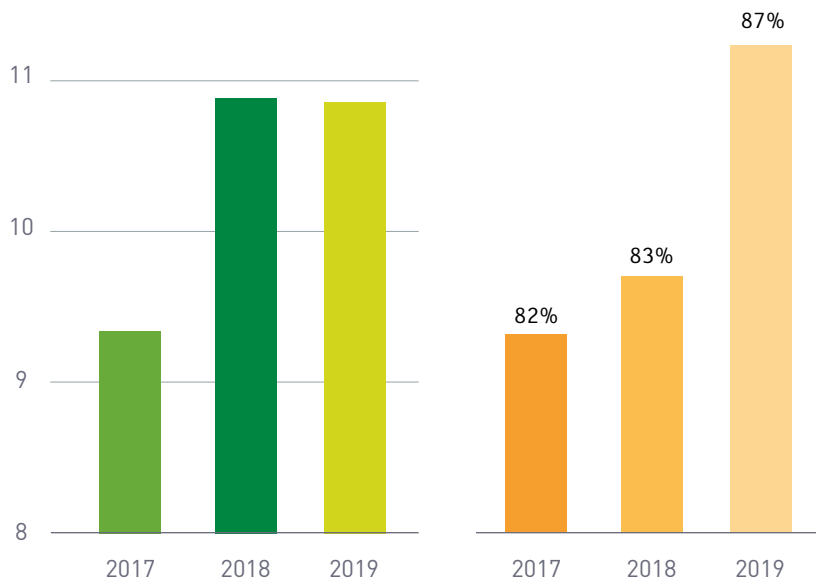
## Key figures 2019

# 35%

increase in community investments compared to 2018. 

Generated & distributed value (\$ billion)

Distributed value



Retained value, calculated by subtracting the distributed value from the generated value, therefore amounted to \$ 0,73 billion (equivalent to 6,9 billion MAD) in 2019.

In order to make its performance and growth more sustainable, OCP also develops innovation and R&D programs - driven by a unique body and structured around four pillars:

- **Farmer Solutions**
- **Hacking Phosphate**
- **Operations Efficiency**
- **Sustainability, and the Circular Economy**

GRI 103-2 | GRI 103-3

BELOW ARE OUR KEY 2019 MILESTONES:



Farmer Solutions

- **Sourcing and laboratory and agronomic testing** of a new sulfur fertilizer coating technology and industrialization launch for 2020 for the production of TSP-S at JFCV (Jorf Fertilizer Complex V);
- **Development of new innovative formulations** of fertilizers fueled with orthosilicic acid and biostimulants, etc.;
- **Development of three new formulations** of feeds ready for industrial integration (MAP Feed, NaCaP, MgP);
- **Pilot tests of NPK fertilizer production** from natural phosphate by steam blending for the Asian market, new NPK formulations for the African market;
- **Agronomic tests** to validate the performance of new fertilizer formulations (sulfur fertilizers, fertilizers doped with orthosilicic acid, etc.).



Hacking Phosphate

- **Realization of a preliminary cartography** of the elements of value contained in the Moroccan phosphate with evaluation of their potential;
- **Implementation** of a vision for the deployment of R&I initiatives with various international partners for the development of rare-earth elements (ORNL, CEA, Inevo, Mines of Albi);
- **Launch of the pilot installation** for the thermal storage of energy from phosphate materials
- **Development of adsorbent materials from natural phosphate** for the treatment of industrial effluents in collaboration with Mascir - Moroccan Foundation for Advanced Science, Innovation and Research;
- **Launch of new R&I initiatives** for the development of phosphate-based materials for various applications (catalysts, hydroxyapatites, etc.)



Operations Efficiency

- **Launch of a first industrialization** of a thickening solution for phosphate pulp by centrifugal decanter at the downstream level;
- **Industrial pilot tests** for the manufacture of purified phosphoric acid by membrane (OCP process);
- **Industrial pilot tests** for the recovery of P2O5 - phosphorus plant nutrient - from phosphoric sludge for an industrialization planned for 2020;
- **Industrialization** of a new NPK anti-caking solution, and laboratory and industrial tests of a new, more efficient MAP-DAP fertilizer coating additive;
- **Improvement of DLP planning tool** (Downstream Logistic Planning) through the reduction of calculation time from 12h to 2h;
- **Development of a decision making support** tool for predicting performance for each position and detecting deviations at mine level (in deployment phase)



Sustainability and Circular Economy

- **Industrialization of a smell treatment solution** (fluoride gases) within the production units;
- **Technical and economic evaluation** of various pathways for the decadmiation of phosphate and phosphoric acid (by resin, by co-crystallization, by nanofiltration, decadmiation during flotation, etc.);
- **Launch of the industrialization** of a solution for recovering process water from gypsum water;
- **Launch of the construction** of a pilot for the recovery of sulfur from phosphogypsum;
- **Launch of the construction** of a pilot for the green ammonia solution, in collaboration with the Fraunhofer Institute and the GEP (Green Energy Park);
- **Pilot tests** for calcining phosphates using solar energy (SOLPART project).

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** R&D projects

**40** industrial pilots

GRI 103-2

- **Laboratory tests** for transforming phosphates interlayers into green Low Carbon Cement;
- **Launch of tests** for the production of paper / cardboard from the intermediate layers of OCP phosphate mines;
- **Industrial tests** for the production of sulfuric acid from sulfur ash;
- **Launch of tests** for developing of geopolymers using phosphate by-products : applications in construction and other Industrial uses including corrosion protection;
- **Technical evaluation** for the production of new fertilizers OCP, organic and organo-mineral fertilizers coming from different types of organic matter resources including organic waste;
- **Technical and economic evaluation** for recovering of (P) from waste water treatment plant and other water resources.

## MOHAMMED VI POLYTECHNIC UNIVERSITY (UM6P)

An institution dedicated to research and innovation, UM6P is the privileged partner of OCP to foster a sustainable development for Africa through sustainable industrialization, rational management of natural resources, human capital development and agile public policies. Its research areas are especially tackling OCP Group’s significant strategic growth levers:

- > **Product innovation**  
(special fertilizers, bacteria, biostimulants, etc.)
- > **Valorization of phosphate by-products**  
(uranium, fluorine, phosphogypsum, batteries)
- > **Valorization of cadmium** and heavy metals in phosphates
- > **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 invention in Benguerir, Blue water park in Laâyoune, Chemical innovation hub in Safi, Smart cities in El Jadida/Magazan, etc.); are central to OCP’s research programs. Among renowned partners are Massachusetts Institute of Technology (MIT), HEC Paris, Ecole des Ponts ParisTech, Fertinagro Biotech - a spanish company specialized in the production and marketing of fertilizers, the Fraunhofer Institute for Microstructure of Materials and Systems.

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. Supported by 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. The program started with a comprehensive call for application in June strengthened by sound communication channels – including an African tour. The call for applications ended on October 2019 with over 350 applications received from more than 40 countries. After a multi-criterium selection process, the first 16 ranked applications have been selected and represent nine different countries and three continents, with a strong African representation. They all have the potential to reinforce OCP Group capabilities in sustainably contributing to the global food security. The first bootcamp kicked off on January 2020 in Benguerir, Morocco to get them familiar with the OCP and UM6P innovation ecosystem and will be the first of many more worldwide. The program will be launched on April 2020 with a Day Demo.

### Innovation inspired by nature

In its strategy in acquiring the fundamentals of biomimicry, and engagement to establish a bio-inspired approach to achieve its vision, PCL organized a working session in 2019 with Biomimicry Iberia. The objectives were to:

- Educate PCL team in the fundamentals of biomimicry;
- Support the development of a nature-inspired physical space for UM6P community;
- Support PCL in formalizing in-house innovative methods based on biomimicry approach – such as Life-cycle thinking and design thinking, etc.





GRI 103-2

## OUR GOALS

### Promote sustainable agriculture

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

 Ongoing

### Leading technical innovation in the phosphate industry

- > Developing a multistakeholder ecosystem around phosphates
- > Support Open Innovation within the organization

 Ongoing

### Doubling the R&D budget by 2022

 Ongoing



GRI 103-1 | GRI 103-2

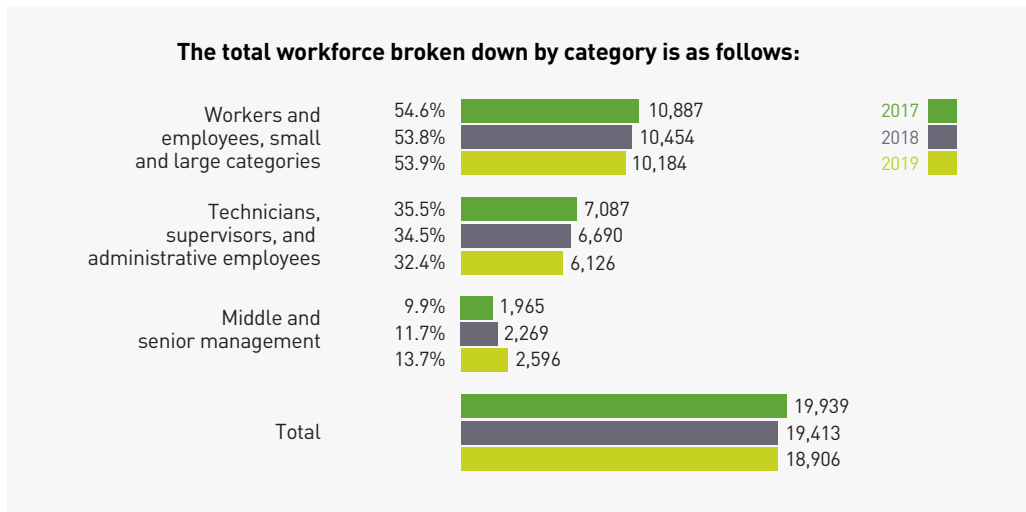
# 3.1.3 A responsible and committed employer

## 3.1.3.1. Responsible employee management

The success of our business comes from the accomplishments and well-being of our employees. Our goal is to build a workplace culture that fosters leaders and allows every person to thrive, contribute and grow. That is why we care about every one of our decisions in every aspect of the OCP employee lifecycle: recruitment, working conditions, remuneration, training, development, succession planning and retirement alongside employee relations. We see this holistic approach as the core of our strategy to attract and retain talents - which have mainly been strengthened in 2019 through:

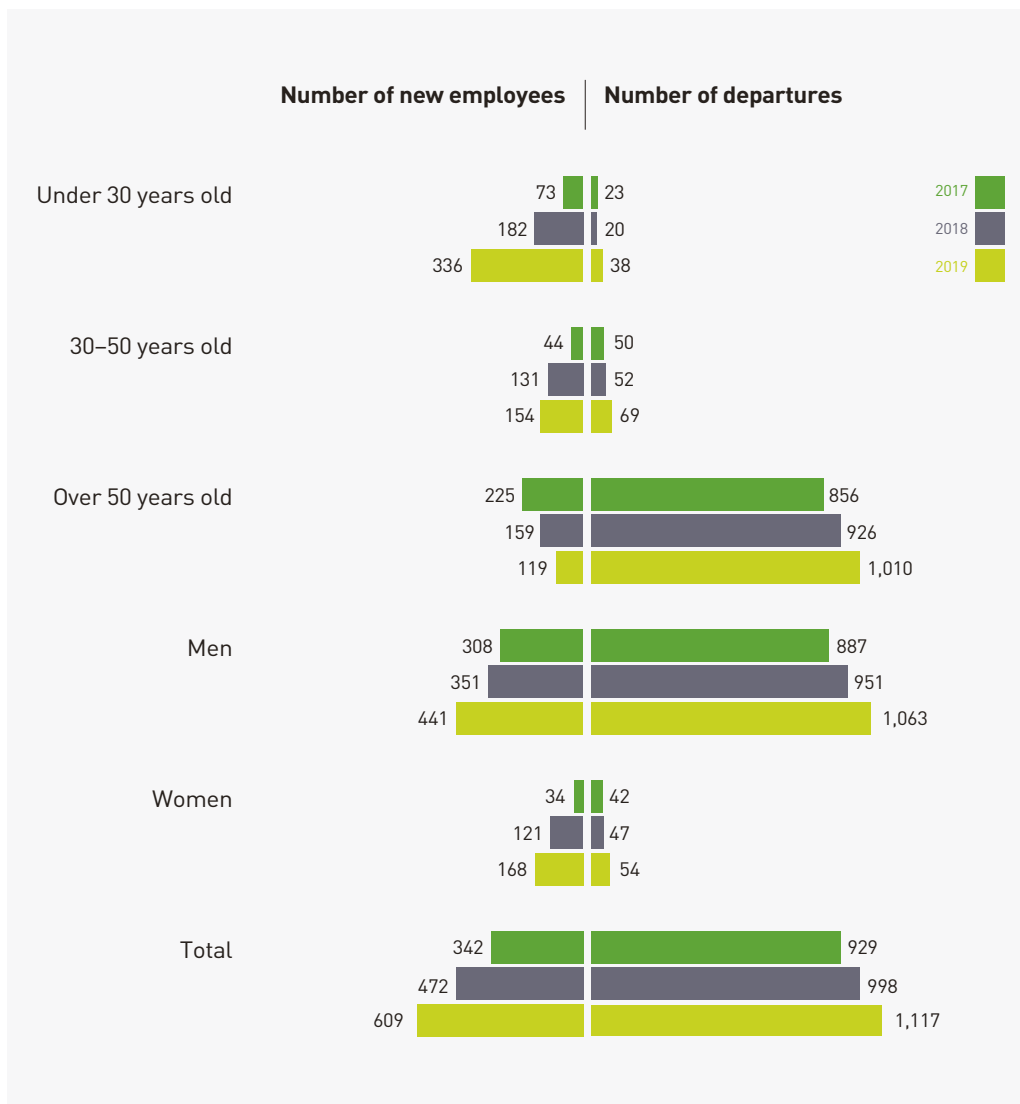
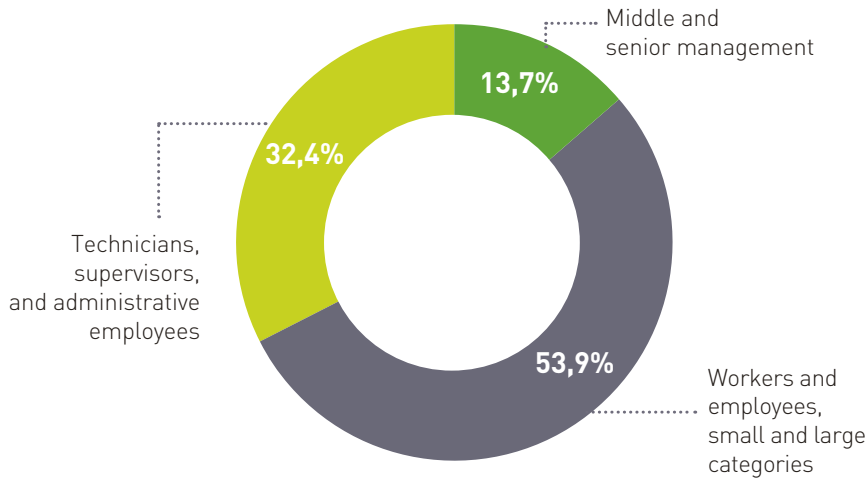
- **Attraction campaign** 'Be you' to target talents and communicate on OCP's job opportunities
- **Onboarding program** 'BEYOND : learn, explore, impact' to support the growth of OCP and continue to sustain our business model around a 2-year curriculum for young talents with a 4-principle approach.
- **Employees development management** ✨
- **Employees relations** ✨
- **UM6P programs to strengthen links between companies and students:**  
Meet & Greet days to monthly welcome a world-class company in the school and share vision, activities and challenges with students; job interview simulations, job talks, hiring days, opening day, etc.

Check out our policies & standards ✨

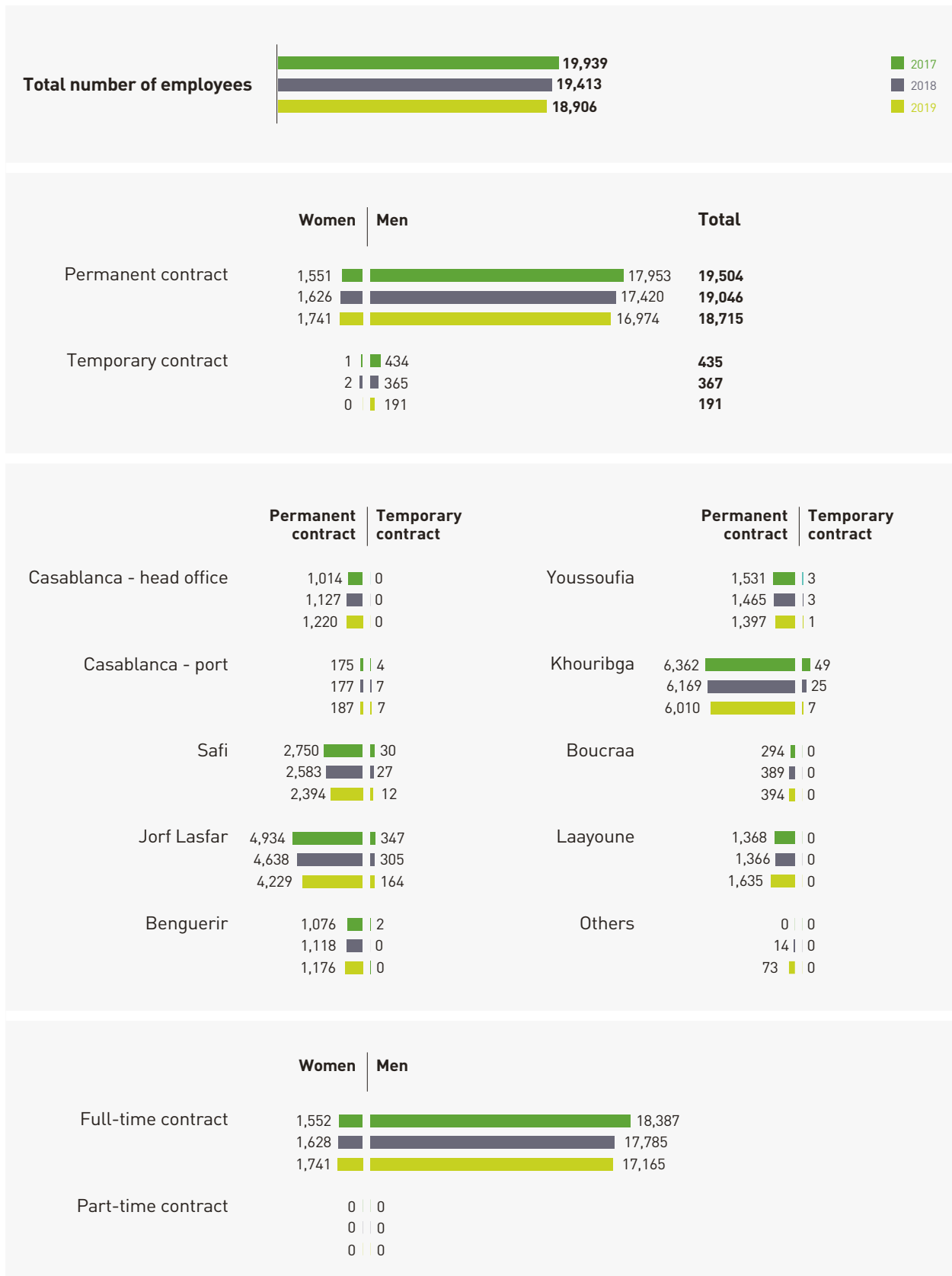


GRI 103-3 | GRI 401-1

OCP Group's workforce dropped 3% from 2018 to 2019. This change is mainly due to retirement while turnover rate was 4,6% in 2019.



GRI 102-8



In addition to providing job security, OCP Group ensures equal opportunity and sees it as a performance factor. OCP works to ensure an environment in which every employee feels respected and valuable regardless origin, nationality, religion, race, gender, disability or age, or other discrimination grounds established in applicable laws and international norms and conventions.



GRI 103-2



## 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 76, social, cultural, sports and entertainment events are organized in collaboration with all stakeholders for employees and their families. OCP 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 also offers scholarships in order to support the academic sector and ensure equal opportunity.

**34**

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

GRI 103-2



### 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 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's contribution to the pension plan

**100 %**

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



### Giving our employees the chance to volunteer

Always providing new opportunities to thrive, OCP offers as well community leave of one to four weeks, outside annual leave, so that employees can join Act4community and volunteer in their community. ✨



GRI 103-1

## 3.1.3.2. Diversity and 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. It goes through responsible recruitment practices, working conditions, remuneration, performance management and career development.





GRI 103-2 | GRI 103-3 | GRI 405-1



OCP has developed its Diversity vision and ambition for 2025 which focuses on three main areas:

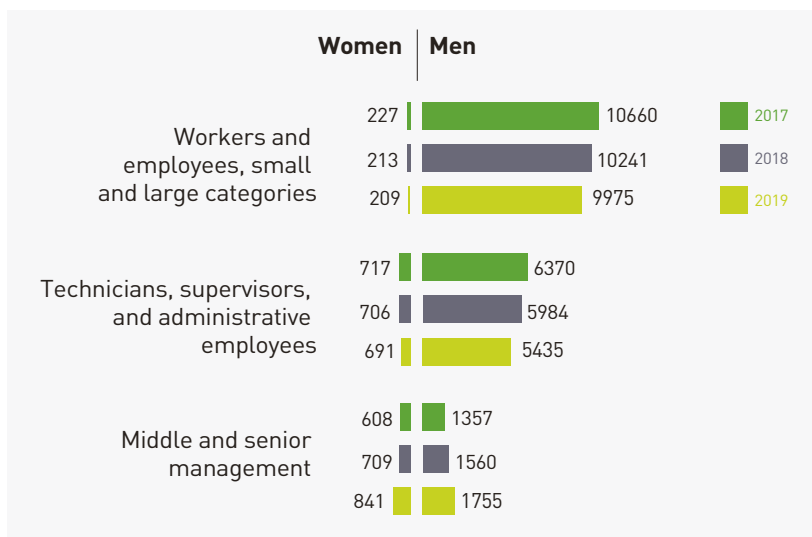
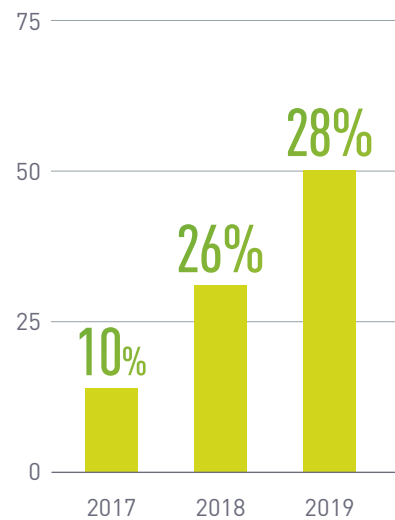
- Serve as an example of an inclusive mining company in the world.
- Offer new opportunities to women and develop entrepreneurship.
- Participate in the education of future generations and promote equal opportunities by breaking down biases as early as possible.

**In 2019, key initiatives were developed :**

- KAFATATI performance platform: allowing standardized and transparent steps to monitor performance, remuneration and career development for the TAMCA/OE categories as the existing one – MyDev - for middle & senior management. Objectives, performance indicators, training needs, annual assessment, and promotion are objectively tracked.
- Dedicated leadership training for women with prestigious academic institutions;
- Mentoring programs such as Women@OCP leadership program, program for young newcomers integration with the Learning institute, OCP Professors, etc.;
- Networking programs such as Connect'her for women;
- Diversity days to raise awareness on core business challenges among managers;
- A dedicated Diversity 'Situation' in order to educate, train, and support on topics central to cultivating a more diverse workforce.
- Progress is measured continuously through the diversity dashboard tracking progress against our 2030 diversity goals and accessible to our top managers

**Key figures 2019**

**Women among our hired employees**



**19%**

increase in women in middle & senior management compared to 2018.



GRI 103-2

## SAFETY



### Organisational system

A corporate team is dedicated to health and safety management for all OCP sites and defines the guidelines of the safety approach based on feedback from the field. Each site implements a program to address its specific road and safety issues – driven by a safety manager who coordinates a network of safety correspondents assigned to different areas of the site. Health & Safety committees – composed of employees’ representatives – are regularly held to ensure the co-construction and the efficiency of the performance cascading and feedback culture. The DOOC (DUPONT OCP Operations Consulting) joint venture - dedicated to health, safety and environment challenges – transversally supports the OHS management system.



### Training

To build a mature safety culture, training consists of both technical and soft skills training. Employees acquire knowledge and know-how in accordance with safety standards and job exposure; and behavioral skills to have teams feel ownership, responsibility for safety culture and believe zero injuries is an attainable goal. OCP suppliers and subcontractors also receive safety training and procedures when it comes to intervention on industrial sites. Training mainly goes through our Industrial Expertise Centers (IECs) that provide site-specific trainings as well as UM6P and OCP professors.



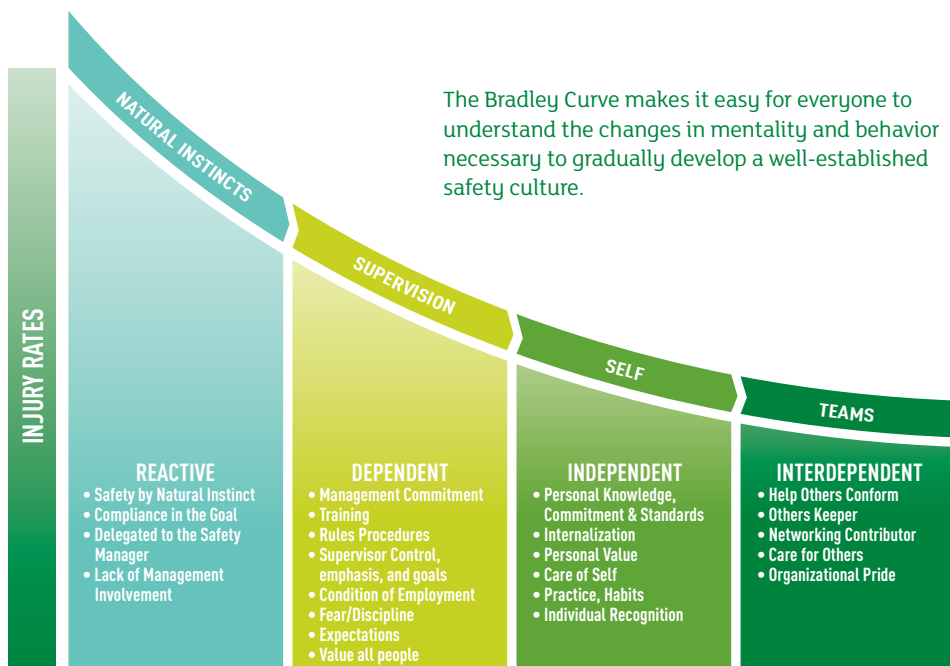
### Risk identification, assessment & remediation

Aligned with OHSAS 18001 standard, OCP has implemented procedures and standards within its operations and developed a Zero incident roadmap to reach independent stage of the Bradley curve by 2020. Prevention measures for serious and potentially serious injuries and fatalities (PSIFs) have been strengthened by developing a methodology to analyze the root causes of serious or potentially serious injuries and to ensure that corrective actions are taken accordingly. The aim is to avoid any recurrence of these events and to gradually develop a mature safety culture for all OCP staff and business partners (subcontractors, suppliers, joint ventures). Aligned with our continuous improvement approach, this methodology is strengthened year-on-year.



### Performance measurement

OCP Group has independent bodies conduct regular safety audits to verify the compliance of each unit and site with the management system and safety standard requirements. Each audit follows a defined protocol and schedule and conclusions are sent to the management of both the unit/site and corporate to adapt action plan. In addition, units/sites carry out their own audits based on self-assessment and implement the issued recommendations. Our safety approach are also continuously improved through regular feedback survey and grievance mechanisms available to employees and people who work for us.



GRI 103-2

## HEALTH & WELLNESS

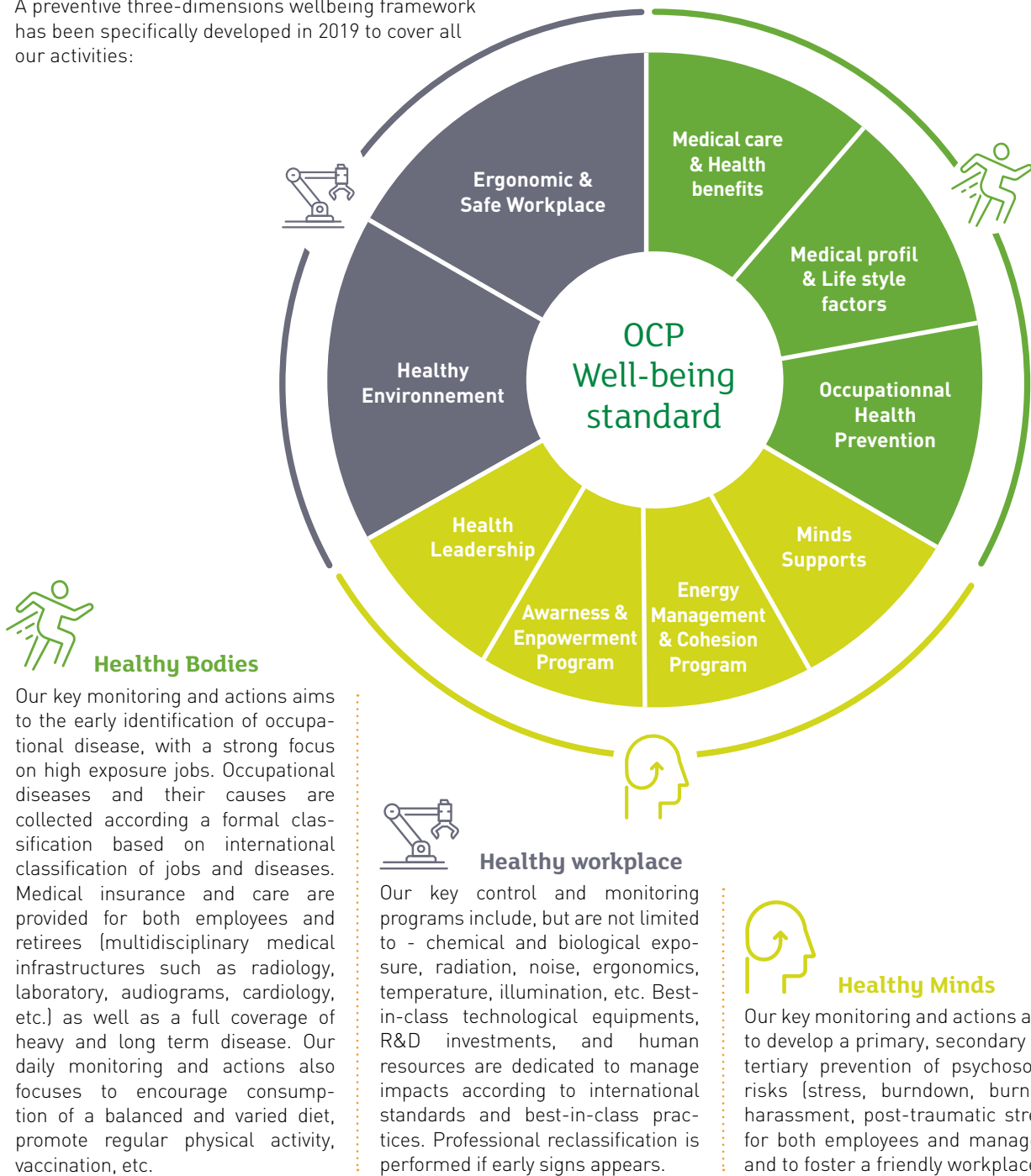
The Occupational Health Department, HSE Departments and Site Safety Managers are working together to prevent any health effects on workers. OCP deployed occupational physicians, nurses and occupational health clinics located in our operations to provide the health expertise and facilities needed to support this responsibility. Working with our HSE experts, these occupational health experts partner to assure all aspects of employee health are managed properly.

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

### Key figures 2019

14

occupational health services and 30 help stations were led by a medical staff of more than 200 persons.



Aligned with the World Health Organization standards, OCP has developed in 2019 a Workplace wellness program structured around proximity and prevention tools.

GRI 103-2

## OUR GOALS

### Project "Zero incident"

- > Implement the roadmap 2019 to reach the ambitious "0 incident" target

 **Achieved**

### Improve continuously the HSE culture

- > Reach the "independent stage" on the Bradley Curve by 2020

 **Ongoing**

### Healthy workplace

- > Improve working conditions by implementing the DOOC standard "GEEEX" for external companies & subcontractors management
- > Strengthen health services provided to all employees by investing in more infrastructure, human and material resources

 **Ongoing**



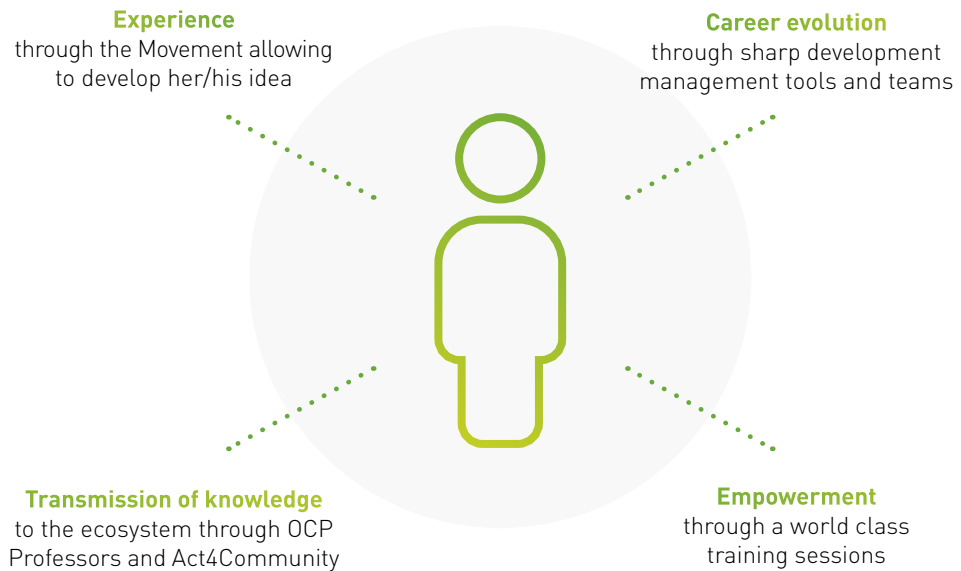
GRI 103-1 | GRI 103-2

### 3.1.3.4. Professional development and engagement



The success of our business is driven by the people who work for us. Facing an ever-changing market, OCP bets on a strong culture of learning, continuous development of skills and knowledge to forge a company of critical-thinking and agile entrepreneurs who will become leaders of today and tomorrow. In order to achieve its mission to sustainably feeding a growing world population, OCP provides valuable learning opportunities and professional growth programs sized to each step of work life to meet its employees' knowledge and knowhow appetite. At the intersection of both OCP's business strategy and employees' aspirations, we want our learning and talent management approach to be grounded, personalized, fair, agile and inclusive.

**Beyond the ongoing on-the-job training provided to all our employees, the following tools are available to meet each employee's training needs:**



- **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 starting when they begin working for OCP Group. Since its creation in 2011, programs are developed in close collaboration with OCP Group's business lines and in partnership with recognized institutions (MIT, HEC, CBS, etc.). Mohammed VI Polytechnic University is OCP Group's preferred training partner.

**UM6P (Mohammed VI Polytechnic University)** constitutes the core of our knowledge ecosystem based on higher education, research and incubation of economic activities. It is open to all employees wishing to deepen their knowledge, but also to all of them who wish to share their know-how. Committed to train the future leadership of the continent, the UM6P mobilizes the best researchers in all areas of sustainable development, mining industry and agricultural sciences, and deploys more than 270 research programs with Moroccan and international universities. At the heart of the University's programs, the Living Labs serve as experimental sites open to the scientific community to test solutions on a real scale (Green Energy Park, Advanced Technology Mining Platform, Chemical Hub of Safi, etc.)

GRI 103-2 | GRI 103-3 | GRI 404-1

- Industrial Expertise Centers (IEC)**'s mission – opened in 2014 – is to train employees in operational activities so that they are able to support OCP Group's industrial ambitions. With a capacity ranging from 850 to 1,000 learners, and closely linked to their relevant operational site, the IECs ensure the sharing of expertise. In Khouribga and Benguerir, they train in mining-related trades, while in Safi and Jorf Lasfar, they focus on the chemical trades. A fifth center will be opened in Laâyoune.
- OCP Professors** is a mentoring program created in 2018 to capitalize, share, transfer and promote the Group's expertise, internally and externally. It is a pool of resources open to any OCP employee and retiree wishing to transmit their knowledge, know-how or expertise for the benefit of the OCP Group, the Mohammed VI Polytechnic University and our ecosystem.

### Key figures 2019



### Average training hours per employee by employee category\*



**4,363** training activities representing nearly 9251 training days provided to 2,000 middle and senior management members and 13,448 technicians, line managers, and administrative employees, small and large category workers and employees, representing a total of nearly 110,664 man-days of training carried out in 2019, or an average of 47 hours of training per employee.

### Key figures 2019



Average training hours per employees\*

The evolution is mainly due to our increasing efforts to better target high added value trainings and to fuel training capacities to our ecosystem.

\*Excluding training carried out beyond the Industrial Expertise Centers

GRI 103-2

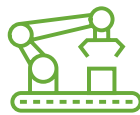
**Our learning & development approach has been strengthened in 2019 through the following milestones:**

**BEYOND : learn, explore, impact**

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



**1. On-the-job and academic learning:** including 2/3 of on-the-job learning on both exploitation and exploration projects



**2. Industrial DNA and functional exposure:** including a minimum of 6 months at an industrial site to understand the product and its production process as much as the client



**3. Connection & networking to learn:** placing participants into group and team environments to develop and test their collaborative skills provide opportunities to network with different profiles (e.g. faculty, business coaches, project managers, subject matter experts)



**4. Techno fluency:** learning to innovate and integrate technology in meaningful ways



**UM6P**

Our main training partner further developed its offer in 2019 around:

- New masters: including digital factory, crop nutrition to provide basic knowledge and understanding of plant mineral nutrition. The program is designed for people working in the industry and production of fertilizers, the sale and marketing, agricultural production, soil management and agro-industry.
- Existing masters are still ongoing such as the Executive MBA Africa Business School in partnership with the Columbia Business School, Master of Science Geopolitics and geo-economics of Emerging Africa with the Public Policy School and HEC Paris, etc.





## GRI 103-2

- Advanced Trainings on agricultural economics and environment, commodity economics, etc.
- Industrial-oriented masterclasses, workshops, conferences, bootcamps and summer schools on artificial intelligence, computer science, energy storage, entrepreneurship, etc.
- New programs: such as the IMPULSE incubator programme in partnership with the American accelerator MassChallenge to boost Moroccan and international startups in the fields of agritech, biotechnologies, nanotechnologies and mining technologies.

### Preparing our workforce to future challenges

In 2019, the Dynamic Strategic Workforce Planning was developed and implemented covering all Group roles to continuously monitor the skill gap and modify future of work drivers assumptions based on real use cases and disruptive global trends, fully integrated with our planning processes (strategic, financial, industrial etc.).

A 2030 talent plan including upskilling-reskilling plan to prevent / close upcoming talent and skill gaps was also developed. The future of work for OCP is assessed based on the 5 most relevant drivers:

### KAFA'ATI new development path

KAFA'ATI, is the cornerstone of our TAMCA-OE (Technicians, supervisors, and administrative employees as well as Workers and Employees) employees' skills development system, launched in July 2019 to set up the conditions of a company of learners, by offering a global and integrated skills development framework.

#### 1. Competencies development :

- Make the development of our employees a priority for everyone;
- Provide our employees with a comprehensive and integrated learning framework allowing the continuous development of their skills and opening up to a wide range of opportunities (UM6P, Movement, OCP Professors, Act4Community ...);
- Managers are at the heart of the development of their employees (Servant leaders);
- Support the roles shifts,
- Develop commitment and performance.

Competency-based process based on a corpus of competencies/skills, linked to a learning journal Individualized learning paths co-constructed with the direct managers, with

- 70%: On the job learning;
- 20%: Peer learning;
- 10%: Training

A digital space which addresses both processes (input centralization, etc.) and content (e-learning, etc.)

#### 2. Continuous Performance Management

The new performance management system is designed to foster on a continuous basis the performance and leadership behavior of our employees and support their professional development, supported by the digital platform Mydev.



#### 1 Disruptive new technologies

Digitization, automation and advanced analytics reshaping industries



#### 2 Changing business environment

Complexification of products, changing customer needs and increased regulatory and compliance constraints



#### 3 OCP business growth

Projected growth of OCP revenues and production volumes



#### 4 New ways of working

New agile operating model and processes meaning faster and more efficient ways of working



#### 5 Retirements & attrition

Retirements and attrition market trends and projections for OCP

GRI 103-1 | GRI 103-2 | GRI 103-3

## 3.1.3.5. Dialogue, joint development and engagement >>>>>>>>>>>>>>

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 relies on fundamental values of trust, mutual respect and dialogue. This is why OCP implements a comprehensive and proactive labor relations process that generates consensus and builds sustainable relationships – including all types of negotiation, consultation or simply exchange of information between all members of our ecosystem – workers, employee representative, employers and representatives of governments.

OCP enhances the rights at work of all employees mainly through both direct employees dialogue and employees representatives relations:

### EMPLOYEE ENGAGEMENT

OCP first and foremost works directly engage with employees in matters related to the employee value proposition. Different engagement methods allow us to listen, understand, and find relevant solutions to employees’ short, medium and long term expectations:

- **The ‘Movement’:** provide employees with financial and human resources necessary to work a topic of their choice, as long as it creates sustainable value for the Group. Employees are enabled to fuel their career path through lateral professional development and cross functional teams to acquire additional skills, enrich job content and work for topics they care about as well as widen accountability. ✨



225

physical dialogues held in all over Morocco by 120 connectors (groups of employee volunteers trained to facilitate dialogues) in 2019. At the same time, OCP has launched ‘1 Pacte’ – a collective intelligence initiative to involve OCP employees and ecosystem in shaping the company’s strategy. Find out more page 42

GRI 103-2 | GRI 103-3 | GRI 402-1 | GRI 102-41



- **Participative HR mechanisms:** through the annual assessment of the employees performance and co-construction of their development plan. It also goes through continuous exchange and regular feedback survey on employees' expectations.
- **Formal communication channels:** intranet, internal magazine, video and posters campaign, events, etc.) to share information in a transparent and accessible manner.

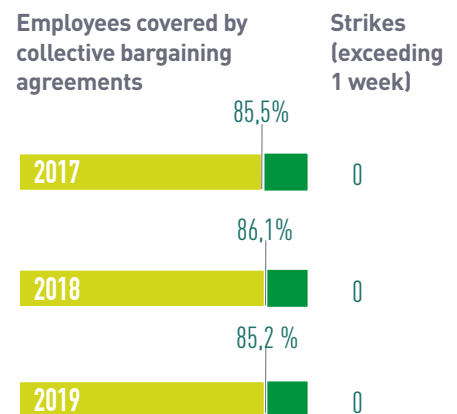
## EMPLOYEES REPRESENTATIVES RELATIONS

Enhancing employees' rights to freedom of association and collective bargaining, the Group considers trade unions as constructive role players in the organization. That is why:

- **OCP social dialogue approach is framed around solid institutions:** the Staff Representatives, the Union Representatives, the Health and Safety Delegates, the Union Delegates who are members of the national offices of the most representative Trade Unions at OCP. Our social partners sit with management representatives in local and national dialogue bodies, in particular: The Employees Status Commission (CSP), Social Action Commission (CAS), Health, Safety and Environment Committee (CHSE), the Collective Bargaining Committee (CNC), the Work Council (CE) and the national thematic Commissions (social, emergency funds, etc.)
- **OCP has developed a proactive Social dialogue charter** – adopted by all our social partners – which defines:
  - > Principles, rules and obligations related to social dialogue;
  - > Mutual commitments relating to employee relations management;
  - > Procedures for setting up and operating employee representative institutions;
  - > Mechanisms and procedures for managing complaints and negotiations and settling collective disputes, as well as remedy relating to social dialogue;
  - > Measures to support employee relations and promote internal social dialogue.

Beyond all existing regulatory social dialogue mechanisms, the charter continuously triggers agreement protocols to adapt employees' compensations and benefits. The last annual protocol of agreement was signed in December 2019 and consolidated socio-professional achievements of employees in terms of income, skills and career development, housing assistance, social welfare and benefits.

OCP also ensures that dialogue occurs to reach consensus during any significant operational change related to its activities.



GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 204-1 | GRI 308-1 | GRI 414-1

# 3.1.4. Responsible procurement practices

|   | 2017  | 2018  | 2019 |
|---|-------|-------|------|
| Suppliers assessed using environmental criteria                   | 190   | 230   | 290  |
| Percentage of new suppliers assessed using environmental criteria | 70%   | 64%   | 60%  |
| Percentage of new suppliers assessed using social criteria        | 100%  | 100%  | 100% |
| Percentage of local purchases (around OCP sites)                  | 14.5% | 14.5% | 21%  |

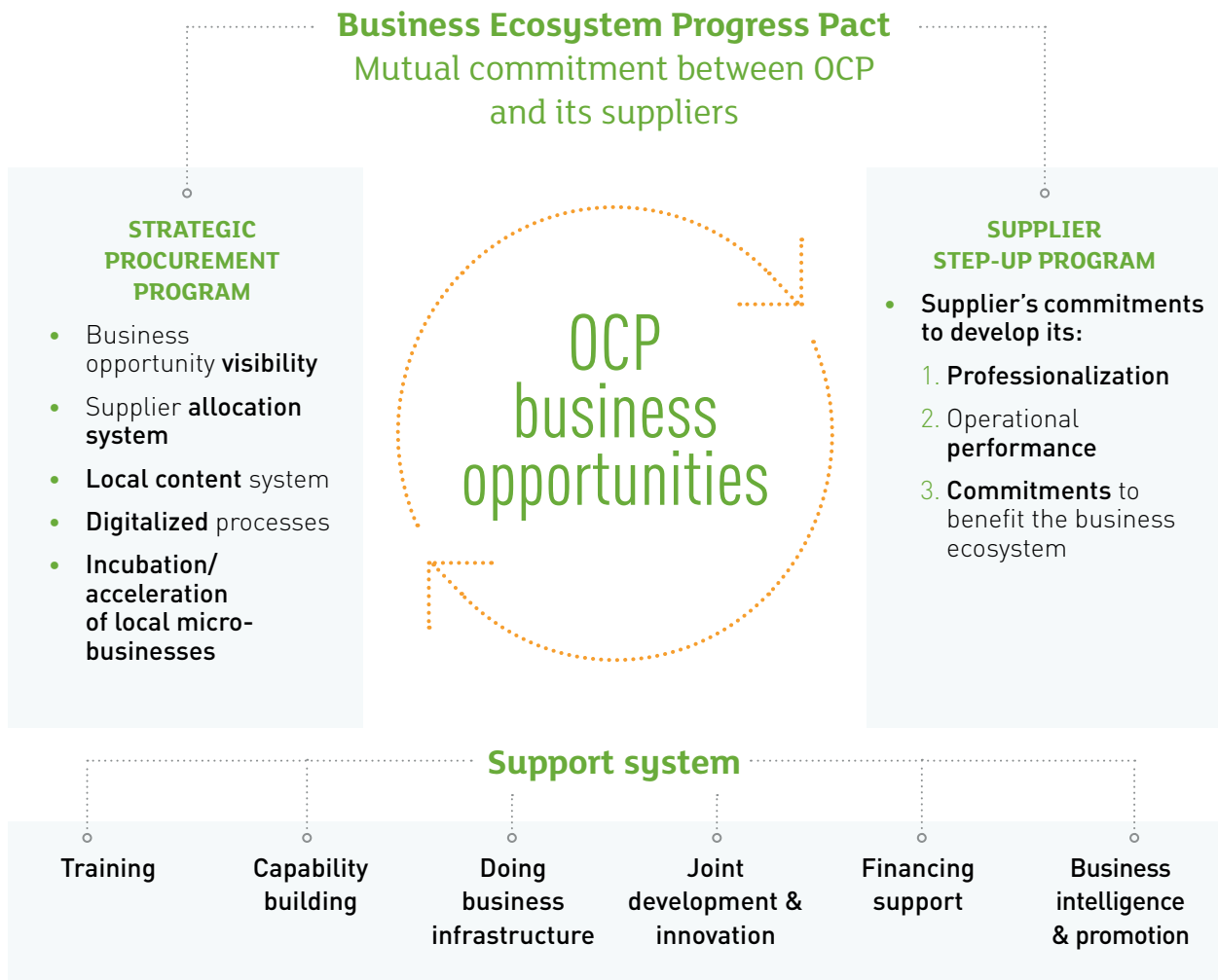
OCP is a vertically integrated group, from phosphate rock extraction to phosphoric acid and fertilizer production. Its value chain therefore relies on a diverse supply chain featuring around 4,500 suppliers for essential procurement categories related to raw materials, energy, industrial infrastructures development and transportation. Considering the complexity of the OCP supply chain, we are continuously improving our risk management approach to identify, assess and minimize potential adverse economic, environmental and social impacts that we may cause or contribute to.

We go beyond regulatory compliance, and have developed in 2018 a purchasing policy setting our commitments to strengthen due diligence and optimize existing processes spanning over procurement quality, cost, transparency, stability, relationships with suppliers, development of a local industrial ecosystem and sustainability excellence. It came together with the 'Progress Pact' – co-built with and introduced to more than 250 suppliers – to create a new long-term collaboration model, offer incentives for capacity development and enhance the development of a local industrial ecosystem - composed of suppliers, business partners, academic institutions, etc. - with our circular economy strategy.

Inaugurated in 2013, our local industrial ecosystem strategy still aims to:

1. Ensure long-term partnerships with global market leaders to create emulation with OCP's local suppliers;
2. Increase OCP local suppliers' competitiveness and industrial performance at regional and national levels;
3. Encourage socio-economic development around the areas where OCP operates;
4. Improve OCP's performance and competitiveness.

GRI 103-2



The Local content system is key to develop local procurement, and has been implemented in 2019 through the main following mechanisms:

- **Direct tendering for local microbusinesses:** competition only between local microbusinesses located in the regions of OCP sites for dedicated business opportunities and purchases up to 300,000 MAD.
- **Local subcontracting development:** subcontracting benefiting to local players established in the regions of OCP sites through a requirement for contractors to subcontract locally up to 30% of the market's amount.
- **Local preference:** as a lever for competitiveness to value local players located in the regions of OCP sites up to 5% while respecting the competition rules

GRI 103-2 | GRI 103-3

These mechanisms have been strengthened by a variety of tools to:

- **Adapt the sourcing strategy:** through specific sourcing tools such as door-to-door, social media, specific meetings with local microbusinesses, communities, authorities, etc.
- **Customize the procurement process:** through a digital and dedicated space to microbusinesses into the e-platform– enabling greater transparency, visibility, traceability, and process efficiency (tender, invoicing, etc.)
- **Develop skills and capability of small and medium-sized businesses** through a tailored training program in the OCP Industrial Expertise Centers in line with international training standards. This program will also assess and certify OCP’s subcontractors in the mechanical and electrical maintenance field in the Jorf Lasfar site, and to be extended later on to all site and other fields of activities. Specific training are provided by Act4Community volunteers for microbusinesses. Support systems are also designed with institutional and international partners: Maroc PME, INMAA (Moroccan Initiative for Improvement), Endeavor, DOOC (DuPont OCP Operations Consulting), etc.
- **Scale up available local suppliers** through incubators in each industrial site. Two new incubators has been set up in 2019: L’Fabrika & DigiK Valley in Khouribga to develop digital mining solutions – with a total capacity of 110 start-ups.
- **Provide the required financial support** through the OCP Business Ecosystem Support Development fund with an initial capital of \$ 53,25 million (equivalent to MMAD 500 million) to invest directly in micro-businesses/SMEs and to offer preferential financing solutions to the most committed to the progress pact.. It will be roll-out in 2020.

**Entrepreneurship: from idea to the real world**

**L’FABRIKA**

Born from the OCP’s industrial rehabilitation approach to create shared value, the incubator located in the city of Khouribga encourages entrepreneurship and has opened its doors to young project leaders in the region. Offering an integrated support process that spans over 15 months, the industrial incubator assists them from the development phase of the business model to the creation of the company as well as a technical mentorship. It also provides microbusinesses with connections to funding organizations as well as OCP partners and suppliers.

**DIGIK VALLEY**

Located in Khouribga, the incubator is dedicated to digital mines development solutions.

**Key figures 2019**

848

Microbusinesses having benefited from sourcing & dialogue measures

528

Microbusinesses trained

450 <sup>141 new ones</sup>

Microbusinesses qualified for the tendering processes

193

Microbusinesses integrated in the Local content

300

Volunteers to support microbusinesses

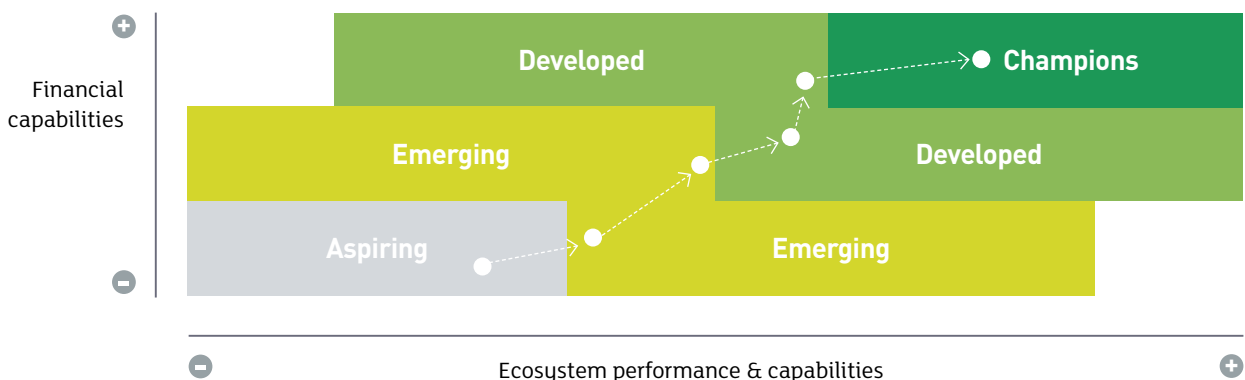
15

Ecosystem partnerships (Cummins, ContiTech, etc.)

283

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

We have further developed the impact measurement of our Progress pact in 2019 through a suppliers’ performance rating system. It aims to track individual evolution according to both financial capabilities and Ecosystem capabilities. The latter consists in assessing human and technical capital, HSE, quality, industrial methods and information system. This will allow OCP to better customize and identify the efficiency of its capabilities development tools.



GRI 103-2

This system has been co-built with suppliers through a dedicated day during which the main components were explained, the first results disclosed and main challenges shared and tackled via thematic working groups. It allowed suppliers to share best practices and progress as well as their views on the evaluation performance system. Awards were handed over to already value the most engaged suppliers.

Beyond our local industrial ecosystem empowerment strategy, we are working on sustaining our whole supply chain. We already partly integrate suppliers' environmental, social and governance performance into our procurement approach through:

- Tendering criteria on Health, Safety and Environment (HSE) requirements as well as social regulatory obligations towards the Moroccan Labor legislation;
- Contractual social and environmental obligation;
- Audits – in line with our HSE management of external companies standard – to control HSE risks and prevents accidents and incidents when external companies intervene at OCP sites as well as to ensure compliance with the Caisse Nationale de Sécurité Sociale (CNSS).

This approach covers the most important procurement categories.

Aligned with our continuous improvement approach, we have developed in 2019 a responsible procurement policy as well as a Code of conduct for our suppliers setting how we will work together, and asks them to meet our minimum environmental, social and governance standards. ✨

Alongside these Policy and Code, OCP has defined a progress roadmap in 2020 focused on the most salient Human Rights identified in the procurement process following a 1-week engagement – both internally across regions and functions and externally with Human Rights experts – carried out late 2019. With the aim of identifying, preventing, mitigating and responding to any potential negative procurement consequence, and since risks may change over time, OCP is committed to conduct an ongoing process of due diligence and risks identification regarding the sustainability issues throughout its procurement process.

## OUR GOALS

**Improve capabilities of Industrial suppliers within the OCP Ecosystem**

- > Improve suppliers performance and competitiveness through training and capability building support (support around 400 suppliers in 2019)

✔ Achieved

**Dedicate businesses to local suppliers and entrepreneurs to support their development**

- > Increase OCP local procurement budget dedicated to local suppliers in order to support the creation and incubation of young local entrepreneurs (increase the local purchase share up to 30% of total suppliers' expenditures and support 150 young local entrepreneurs by 2021)

🔄 Ongoing

**Strengthening OCP's local outsourcing ecosystem**

- > Set up 5 SMEs incubators/ accelerators around the Group production sites with the objective of creating 500 new subcontracting SMEs

🔄 Ongoing




# 3.2

# COMMITMENTS TO SUSTAINABLE PRODUCTION











OCP Group has structured its OPS production system around three pillars:

**Professional maintenance**

In 2019, system standards and technical standards have been deployed among teams within all OCP industrial sites.

**Process excellence**

In 2019, the process system has been enhanced by the Quality assurance standard. The quality standard is now widely deployed within all industrial sites. OCP has also been working towards the lean six sigma certification. In collaboration with the human resources, a training has been designed to match every level of responsibility and experience:



**1. Yellow belt training:**

for those participating to the Lean six sigma. This training is carried out by the OCP Professors initiative since the Group owns significant internal knowledge.



**2. Green belt training:**

for those driving the Lean six sigma. This training is carried out in collaboration with UM6P.



**3. Black belt training:**

for those driving and training on the Lean six sigma.

**Performance Management System**

Integration of industrial performance within the HR performance management system has been further strengthened in 2019. Objectives have been defined in collaboration with the support entities and directly linked to managers' individual performance assessment as well as training and development plan. We are also implementing additional cascading measures targeting Front-Line Managers (FLMs) and we expect all sites to be covered by 2020.




Spanning over the OPS's three dimensions, we have been working on benchmarks to deploy professional maintenance, process function and performance management standards. These benchmarks features rules, implementation methods, thresholds to ensure the efficiency of the standards operationalization. Field audits have been carried out to assess the compliance with the benchmarks and actions plans defined. In 2020, heat maps will be designed per zone according to the level of completion of the action plans.

## Towards digitalization...

Digitalization constitutes a strategic axis for the development of innovative industrial practices. Digital tools must ensure superior operational performance, easy data management and controlled management of the industrial operations. OCP Group's digital transformation is structured into three areas:

- **Advanced analytics:** using machine learning models to extract value from data, and predict and optimize yields, capacities, and quality;
- **Advanced automation:** setting up autonomous operation and control systems for mining equipment, storage and loading facilities, and production lines;
- **Digital services:** promote information sharing and lean and agile working methods.

In 2019, many initiatives were further developed throughout the value chain:

|   | EXTRACTION →   | BENEFICIATION →   | CHEMISTRY →   | LOGISTICS →  |  |
|---|--|---|---|--|--|
|  <p><b>Advanced analytics</b></p>   | <ul style="list-style-type: none"> <li>• Optimized machinery dispatching</li> </ul>  | <ul style="list-style-type: none"> <li>• Rock quality forecasting and optimization</li> </ul>   | <ul style="list-style-type: none"> <li>• Yield and quality forecasting and optimization</li> <li>• Predictive maintenance (turbines, dryers, etc.)</li> </ul> | <ul style="list-style-type: none"> <li>• Production, storage, and loading program optimization</li> <li>• Wharf logistics</li> </ul>               |  |
|  <p><b>Advanced automation</b></p> | <ul style="list-style-type: none"> <li>• Remote bulldozer operation</li> <li>• Autonomous trucks</li> </ul>                | <ul style="list-style-type: none"> <li>• Online analyzers</li> <li>• Washing line automation</li> </ul>   | <ul style="list-style-type: none"> <li>• Online analyzers</li> <li>• CATOX and HRS efficiency</li> <li>• PAC automation</li> </ul>                            | <ul style="list-style-type: none"> <li>• Integrated control rooms</li> <li>• Automated storage and loading</li> <li>• 3D scan of stocks</li> </ul> |  |
|  <p><b>Digital services</b></p>    | <ul style="list-style-type: none"> <li>• Fleet management</li> <li>• Mining planning</li> <li>• Cubage by drone</li> </ul> | <ul style="list-style-type: none"> <li>• <b>PI</b> - online process and quality management</li> <li>• <b>LIMS</b> - Quality traceability</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Plum'Air</b> - Prediction and control of gaseous effluents</li> </ul>   |  |  |

Check out here how we are preparing our workforce 

### Digitalization for quality:

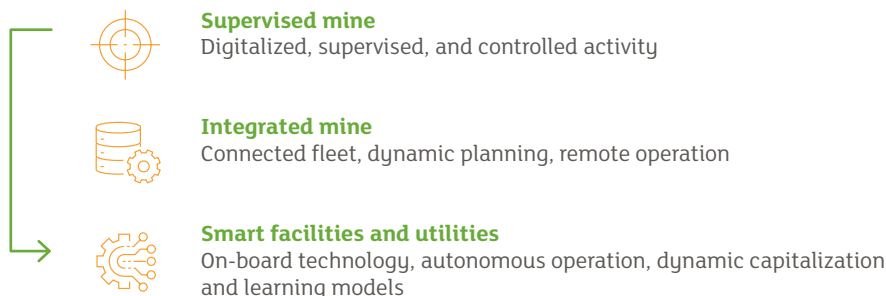
Physical fertilizer properties such as density, particle size, moisture content, and dust play a decisive role in performance and application precision, which, in turn, have an impact on crop quality and yields. Industrial digitalization makes it possible to optimize these parameters, which is why a pilot project is ongoing at the Jorf Lasfar site in 2019. The goal is to control particle sizes and molar ratios during fertilizer manufacturing processes.

### The Digital Mine:

OCP's transition to industry 4.0. has significantly moved forward through Benguérir's experimental openpit mine. This mine is one of the experimental sites open to the scientific community and central to research programs at Mohammed VI Polytechnic University. The "Advanced Mining Technology Platform" has many purposes: place OCP Group at the forefront of technological progress in mining and management, attract equipment/technology suppliers and researchers to enable them to carry out full-scale trials in industrial environments, and create real expertise at Mohammed VI Polytechnic

University based on learning by doing. Industrial management, artificial intelligence, automation, and maintenance are the core projects under development.

**Three levels of maturity**




## ...and growing challenges around cybersecurity

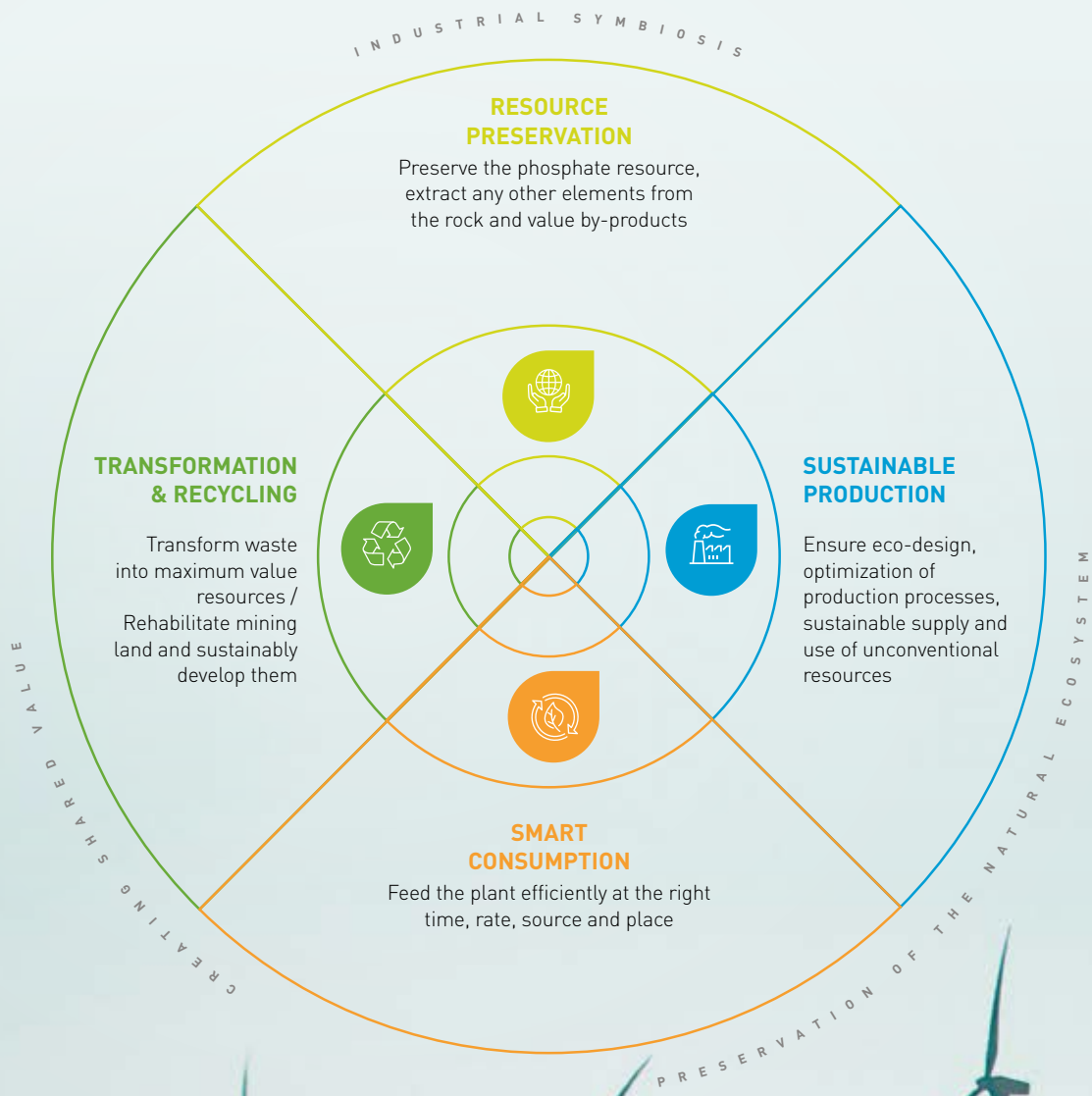
The plant of tomorrow will be more exposed to threats to cybersecurity. Fostering growth in the internet of things for industrial objects, remote control of installations, automated robots, etc., implies an increased exposure of data and a significant risk of dispersion and loss of control. OCP Group’s approach is based on prevention and data monitoring. An OCP-specific IT risk management methodology is being rolled out to identify existing risks, assess their impact on OCP Group’s activities, and propose appropriate measures in line with the guidelines of the National Directive on Information System Security (DNSSI), applicable to the industrial sector.



# 3.2.2. Circular economy

primary material topic 

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. The challenge for OCP is therefore to meet these growing consumption needs in order to guarantee food security while using a minimum of resources. That is why we developed a circular economy framework to optimize the products life cycle footprint - from their design to their end of life - through four major pillars:





**100% green power**

Windmill, solar, or co-generated production - 25% of national green power is produced by OCP (so 14% of the annual consumption in energy)



**Mines rehabilitation for the communities' benefits**

Redevelop twice the land rehabilitated each year, creating seasonal and permanent employment in the agricultural sector



**Maximize the value of low content phosphate**

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



**Make our waste a new source of value**

24,000 metric tons of industrial waste to be recycled each year, with the potential to create jobs



**Zero conventional water consumption**

Total consumption of water from seawater desalination or wastewater treatment



**Emissions control and effluent management**

Exploit all available technological advances to reduce emissions and discharges



**Implement smart agriculture**

Develop the 'smart fertilizers' and innovative solutions for farmers



GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 301-1

## 3.2.2.1. Resource Preservation



### Non-renewable materials consumed (expressed in millions of metric tons)

|              | 2017 | 2018 | 2019 |
|--------------|------|------|------|
| Solid sulfur | 5.52 | 5.93 | 6.56 |
| Ammonia      | 1.41 | 1.42 | 1.58 |
| KCl potash   | 0.36 | 0.27 | 0.24 |

Top critical raw materials - phosphate not included

### Key figures 2019

# 33%

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

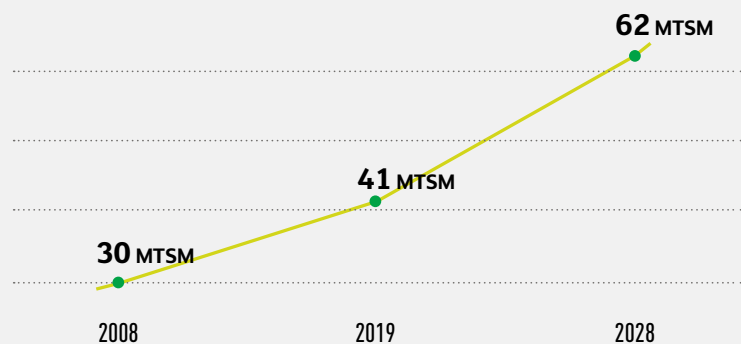
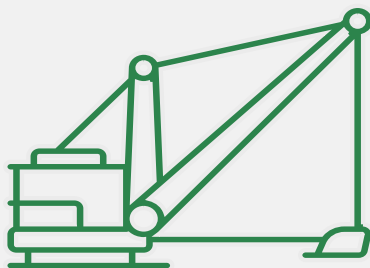
## PRESERVATION OF PHOSPHATE RESOURCES

Morocco has the greatest phosphate resources, with more than 70% of the world's reserves. However, OCP Group aims to preserve them to meet the growing demand for fertilizers and guarantee food security in the long term. Our efforts focus on developing and investing in efficient management our raw materials and industrial synergies to grow circular.

### 1. Recovery of low phosphorus content phosphates

We are continuously working to make our use of deposits as efficiently as possible and maximize the recovery of low phosphorous content phosphates during the extraction phase at mining sites. OCP has thus developed a reverse flotation process to enrich its phosphates, first for the low-content deposits in the Youssoufia and Khouribga area. This process is currently being rolled out to other sites such as those in Bou Craa and Benguerir. As a result of this process, 33% of Moroccan phosphates, considered to have a very low phosphorus content, have become economically viable and exploitable.

#### Evolution of nominal extraction capacities



MTSM: Million dry and marketable metric tons





GRI 103-2

## 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 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. These mixtures – composed of up to 93% of phosphogypsum – have been used to build different sections of pilot roads in Safi and Jorf Lasfar sites. They are still being testing to confirm the mechanical and environmental features in the long term. Next steps will consists in cost optimization, integrating additional industrial by-products and expanding the technique at national level.



**Agriculture:** using phosphogypsum as an amendment to saline soils and affordable fertilizer to improve soil fertility. An increasing number of countries are affected by salinization which hinders agricultural productivity. Phosphogypsum brings calcium and sulphur as well as acidity which allows a better nutrient uptake compared to natural gypsum. Pilot tests are running on different types of soils and crops in partnership with INRA (National Institute for Agronomic Research) and the UM6P University of Benguerir. Similarly, a pilot test is ongoing for the rehabilitation of mining lands that have lost their soil properties.



**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 agglos was launched by OCP in partnership with the Public Laboratory for Tests and Studies (LPEE). Two small houses were built in Jorf Lasfar with red bricks containing 0 (control) and 30% of phosphogypsum. Two small houses were built in Jorf Lasfar with red bricks containing 0 (control) and 30% of phosphogypsum.



Thermal decomposition of phosphogypsum is also an option we are investigating, through laboratory tests launched in 2019. While phosphogypsum is only  $\text{CaSO}_4$  (Calcium Sulfates) hydrated, its thermal decomposition into  $\text{CaO}$  and  $\text{SO}_2$  will produce clinker and recyclable sulfuric acid in OCP's industrial activity.

Additional investment and research are also underway for processing other by-products with a particular focus on fluorine since 2015. All phosphoric acid concentration units of the four integrated JFC industrial complexes in Jorf Lasfar have been equipped with recovery units to absorb fluorine into fluosilicic acid. In 2019, the pilot plant to recover fluosilicic acid ( $\text{H}_2\text{SiF}_6$ ) into calcium fluoride ( $\text{CaF}_2$ ) has been commissioned.

GRI 103-2

### 3. Harnessing resources

We want to fully optimize our resource by identifying the elements that can be used in other industries. To this end, a major innovation program, "Hack Phosphate", has been launched to capture the value of these elements. In 2019, we:

- Achieved a preliminary cartography of the elements of value contained in the Moroccan phosphate with evaluation of their potential;
- Implemented a vision for the deployment of R&I initiatives with various international partners for the development of rare-earth elements (ORNL, CEA, Inevo, Mines of Albi);
- Launched the pilot installation for the thermal storage of energy from phosphate materials
- Developed adsorbent materials from natural phosphate for the treatment of industrial effluents in collaboration with Mascir - Moroccan Foundation for Advanced Science, Innovation and Research;
- Launched new R&I initiatives for the development of phosphate-based materials for various applications (catalysts, hydroxyapatites, etc.);

## PHOSPHORUS RECOVERY

- **Towards nutrient maximized recovery:** In coordination with JESA, OCP has designed and launched a feasibility study for integrating phosphorous and nitrogen nutrient recovery systems into three existing wastewater treatment facilities developed by OCP in Khouribga, Benguerir and Youssoufia. OCP is exploring the possibility of additional feasibility studies in the regions of Oued Sebou and Oum Rbii for phosphorous recovery systems. OCP has also launched in 2019 a feasibility study to produce organic fertilizer from organic waste generated across the country.
- **Going further with phosphorous recycling:**
  - OCP is committed together with its partner Fertinagro to providing farmers with new products that consist of integrating macro and micro nutrients into organic fertilizers, commonly known as 'Organic Fertilizers'. These new products are derived from the recovery of nutrients (N, P,K,...) from organic waste and are incorporated into new formulas that have not undergone the conventional value chain of fertilizer production.
  - UM6P has initiated a preliminary study on phosphorous recycling to broaden the academic communities' understanding of phosphorous recovery mechanisms and expand opportunities for further research in nutrient management.
  - OCP is also a founding member of The Sustainable Phosphorus Alliance (SPA). SPA is North America's central forum for the sustainable use, recovery, and recycling of phosphorus in the food system. SPA collaborates with members and supporters to innovate and implement evidence-based solutions to the phosphorus sustainability challenge. Members range from mining and processing companies, biosolids and manure companies, wastewater treatment plants, startups, innovators, academic leaders and others.






Beyond phosphorous recovery, OCP has developed over the last decade and still the products and technologies for an efficient use of phosphorous. It goes through customized fertilizers and biostimulants for a better nutrient uptake.

Check out our policies & standards 

GRI 103-2

## MANAGEMENT OF OTHER RAW MATERIALS

For several years, OCP has been working on operational excellence projects that have made it possible to reduce and optimize the consumption of raw materials in order to make its processes more efficient and reduce processing costs.

Growth-generating projects for the consumption of key inputs are ongoing in 2019, including for sulfur and ammonia with annual consumption of these amounting to millions of metric tons. These initiatives have made it possible to decouple production growth from raw materials consumption.

The operational excellence unit was strengthened in 2019 with additional human and financial resources to anchor the approach into the company's organization.

### OUR GOALS

#### Phosphogypsum storage by 2023

- > First OCP phosphogypsum stack by 2023

 Ongoing

#### First Phosphogypsum Moroccan Road

- > A first phosphogypsum road on the national grid in collaboration with the Ministry of Equipment, Transport, Logistics and Water

 Ongoing

#### Phosphogypsum for Agriculture

- > Implement a first demonstration pilot station in Jorf Lasfar for PG reuse in 2019

 Achieved

- > Soil amendment & fertilization tests using phosphogypsum in collaboration with the National Institute of Agricultural Research and UM6P.

 Ongoing

- > Realize salinity maps for different Moroccan regions in collaboration with the National Institute of Agricultural Research. Beyond the 4 regions already mapped, OCP is expanding its mapping scope to other regions.

 Achieved

#### Phosphogypsum thermal decomposition

- > Laboratory tests

 Ongoing

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

 Ongoing



GRI 103-1 | GRI 103-3 | GRI 305-1 | GRI 305-2 | GRI 305-3 | GRI 102-48 | GRI 305-4

## 3.2.2.2. Sustainable Production



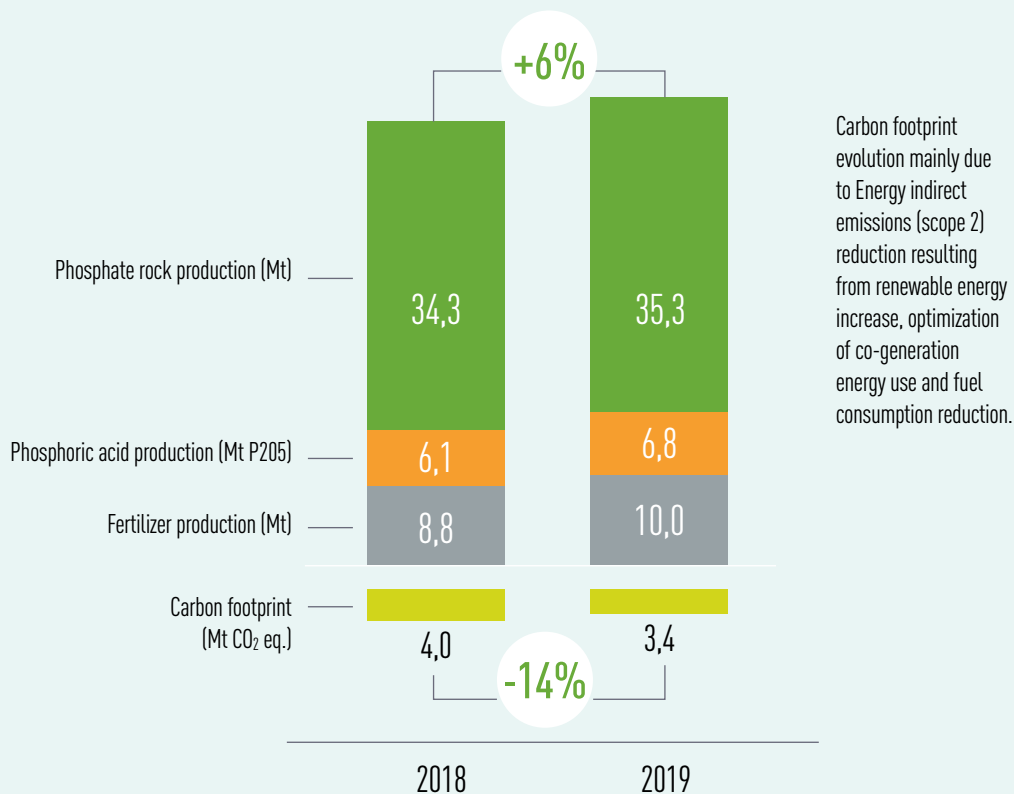
### GREENHOUSE GAS EMISSIONS & CLIMATE CHANGE

|   | 2017               | 2018               | 2019              |
|---|--------------------|--------------------|-------------------|
| <b>Total GHG emissions (t CO2 eq.)</b>  | <b>3,675,488 *</b> | <b>4,005,687 *</b> | <b>3,441,877</b>  |
| Direct (Scope 1) GHG emissions          | 2,409,922          | 2,787,320          | 2,649,511         |
| Energy indirect (Scope 2) GHG emissions | 1,039,776          | 1,031,879          | 570,688           |
| Other indirect (Scope 3) GHG emissions  | 225,790            | 186,488            | 221,677           |
| Turnover (Million \$)                   | 5,005              | 5,956              | 5,625             |
| <b>Carbon intensity</b> T/ Million \$   | <b>734,309503</b>  | <b>672,524940</b>  | <b>611,930250</b> |

\* The slight difference with the data published in the Sustainability report 2018 is due to the data certification process and audit carried out in 2019 by an approved third-party organization.

Facing climate change and aware of its responsibility to contribute to Morocco's goal of 42% greenhouse gas emissions cut by 2030, OCP pursues a cutting-edge strategy to reduce its CO<sub>2</sub> emissions - being the only GHG significantly generated by its activity.

This commitment is clearly reflected in our carbon footprint evolution over the last decade - which remains steady in spite of our threefold increase of fertilizer production.



GRI 103-2 | 103-3

# MITIGATION: HOW DO WE REDUCE OR PREVENT GREENHOUSE GASES EMISSIONS?

## 5,910,215 tCO<sub>2</sub> avoided

### Energy efficiency

-10% consumed energy

Ongoing

Through the energy efficiency program, based on a management system aligned with ISO50001 standard, the continuous diagnosis and deployment of digital tools for monitoring consumption and managing energy resources ensure continuous improvement and optimization of energy consumption, to the highest possible level. ✨

### CO<sub>2</sub> capture

1,000,000 tCO<sub>2</sub> eq avoided

Planned

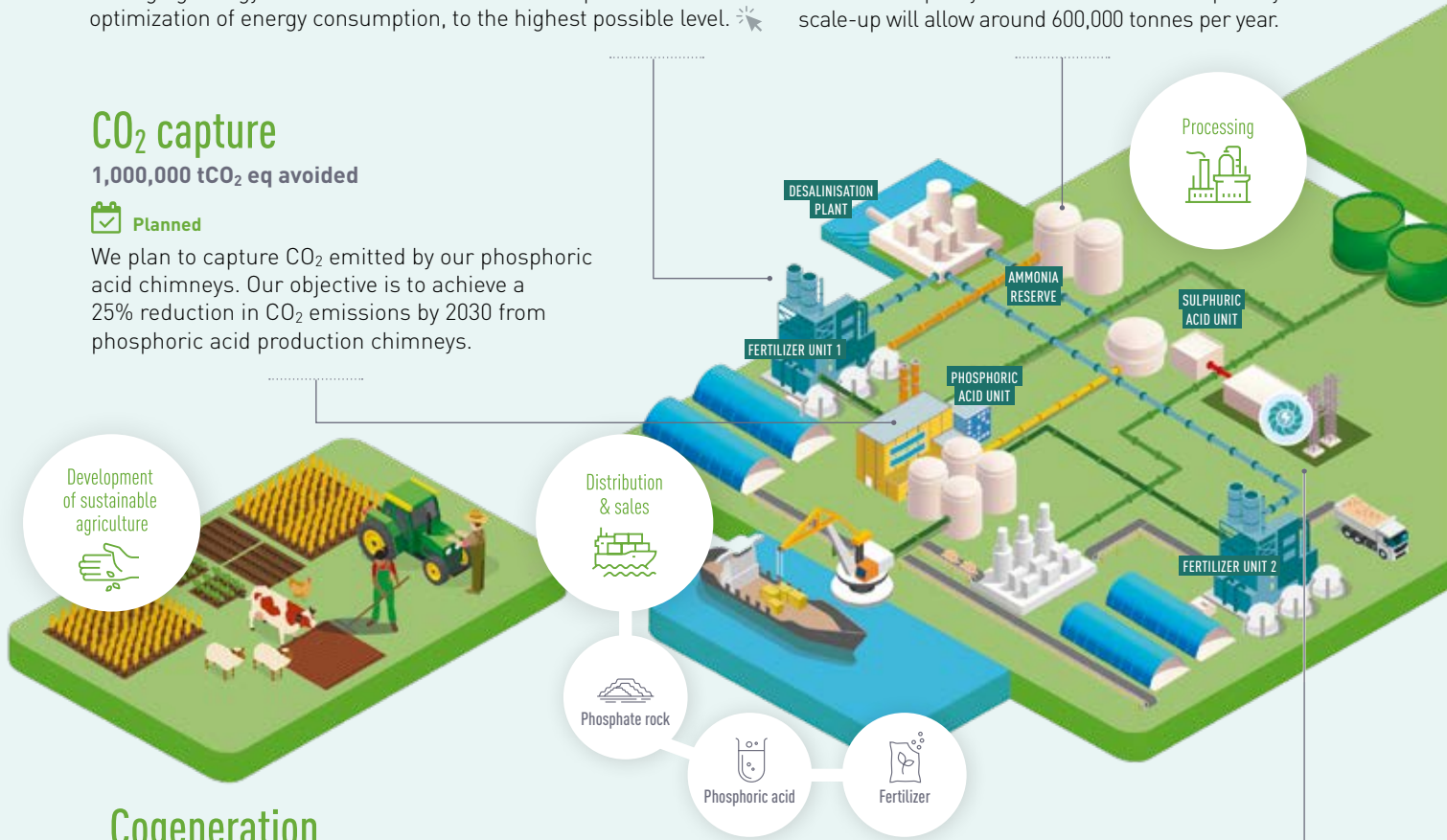
We plan to capture CO<sub>2</sub> emitted by our phosphoric acid chimneys. Our objective is to achieve a 25% reduction in CO<sub>2</sub> emissions by 2030 from phosphoric acid production chimneys.

### Green ammonia

1,720,200 tCO<sub>2</sub> eq avoided

Planned

Project with the German Fraunhofer Institute for Microstructure of Materials and Systems to use green hydrogen and green ammonia as inputs into our supply chain. Green hydrogen, obtained by electrolysis of water using electricity produced from renewable energy sources, can be transformed into many products for the fertilizer production. Green ammonia, composed of green hydrogen and nitrogen, can be used, among other things, as a raw material for producing fertilizers. A pilot project is being launched and has been designed in Morocco by the OCP Group and the Green Energy Park in Benguerir with the support of Fraunhofer IMWS. It will have a capacity of 4 tonnes of ammonia per day and scale-up will allow around 600,000 tonnes per year.



### Cogeneration

2,036,160 tCO<sub>2</sub> eq avoided Achieved

Cogeneration consists in recovering waste heat released during the sulfuric acid production within our processing sites to produce electrical energy. Capacity was reinforced with the commissioning of the integrated JFC4 unit at Jorf Lasfar, a unit equipped with a thermoelectric power station with a capacity of 65MW and a heat recovery system (HRS) which allows saving an equivalent electrical power of 10MW. The cumulative installed capacity of HRS is approximately 75MW equivalent. Self-production covered more than 80% of the infrastructure needs of our processing sites in 2019. The CO<sub>2</sub> equivalent indirectly avoided by the energy produced by cogeneration is around 60% comparing to scenario without cogeneration.

Note: annual estimation compared to business as usual

GRI 103-2 | 103-3

## Wind power plants

373,730 tCO<sub>2</sub> eq avoided

**Achieved**

Power Purchase Agreements (PPAs) – energy supply contracts – are implemented to supply wind power to OCP’s mining sites of Youssoufia and Khouribga to an additional annual volume of 562 GWh/year. ✨

## Mine reclamation

4,5 million trees planted

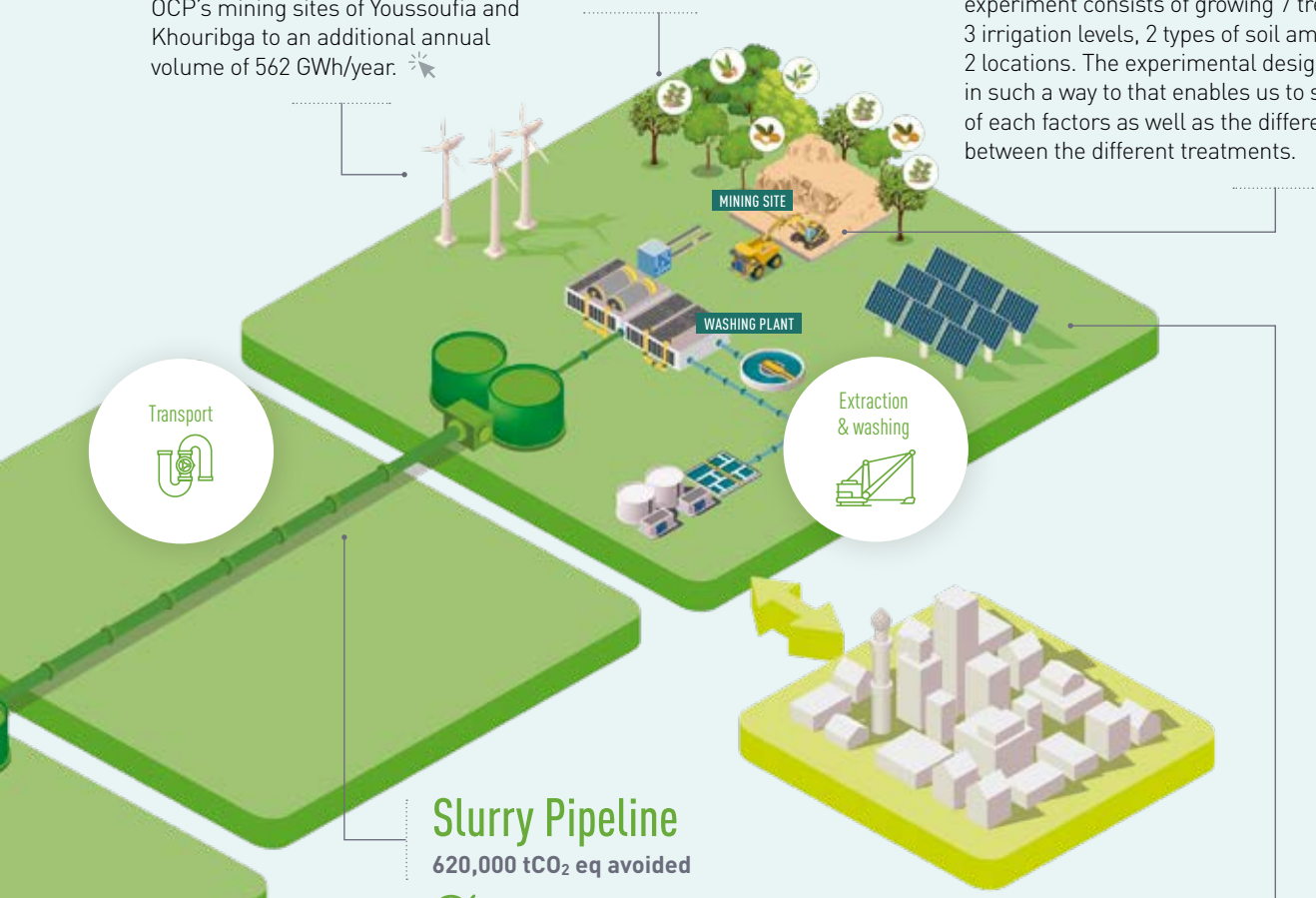
**Achieved** ✨

## Carbon farming

3,000 tCO<sub>2</sub> eq avoided

**Planned**

Carbon farming is the process of changing agricultural practices or land use to increase the amount of carbon stored in the soil and vegetation (bio-sequestration). Developed in Benguerir, our main experiment consists of growing 7 tree species using 3 irrigation levels, 2 types of soil amendments and in 2 locations. The experimental design has been made in such a way that enables us to study the effect of each factor as well as the different interactions between the different treatments.



## Slurry Pipeline

620,000 tCO<sub>2</sub> eq avoided

**Achieved**

Compared to the railway conventional transportation, the slurry pipeline allows to transport more phosphate rock and remove all intermediary handling resulting in significant CO<sub>2</sub> emissions reduction. 930,000 tCO<sub>2</sub> will be saved by 2025. ✨

## Solar power plants

149,625 tCO<sub>2</sub> eq avoided

**Ongoing**

Two solar power plants are being built at the mining sites of Benguerir and Khouribga with a capacity of 15 MW and 90 MW respectively by 2023. These plants will increase the share of renewable energies in the energy mix and reduce our carbon footprint. ✨

## CO<sub>2</sub> offsetting for staff travel

7,500 tCO<sub>2</sub> eq. - 9,000 tCO<sub>2</sub> eq compensated annually

**Achieved**

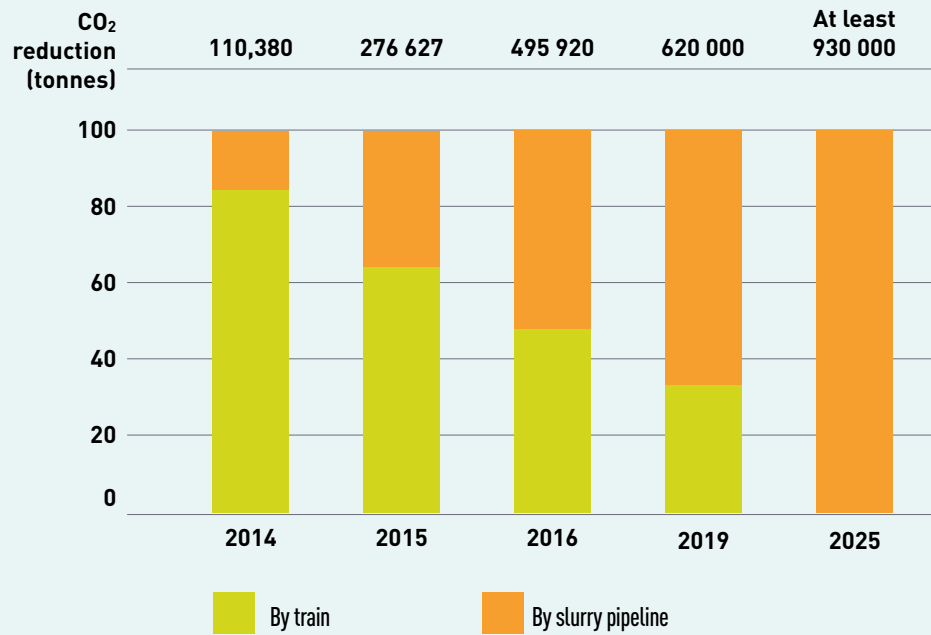
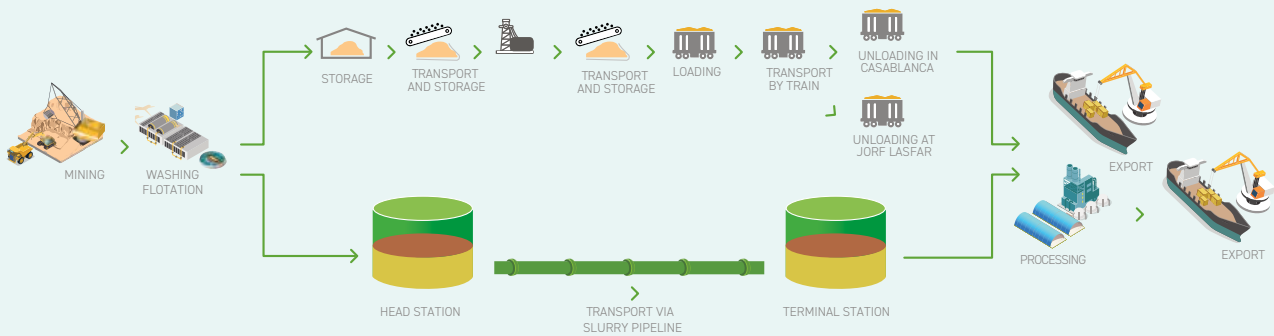
We adhere to the “Voluntary carbon offsetting” program implemented by the Mohammed VI Foundation for Environmental Protection (FM6E). OCP’s financial contribution to the program is intended to offset the CO<sub>2</sub> emissions due to plane and car travel for all of its executives and staff in the context of missions related to their functions, based on estimated CO<sub>2</sub> emitted annually, on the price of DH 200 per tonne carbon and using the available emission factors adapted to the Moroccan context. The FM6E is mainly committed to carrying out or having carried out projects in the fields of energy saving or energy efficiency, renewable energy or carbon sequestration.

GRI 103-2 | GRI 103-3

## Zoom into green logistics

OCP Group supply chain includes a complex web of different transportation systems. Internally, the Group uses heavy mining trucks to carry out phosphate ore from mining areas to washing plants. Once enriched, the phosphate is transported to chemical facilities or to ports for export purposes by train or by pipeline. Externally, OCP group uses bulk carriers and tankers to export its fertilizers to its clients and to import raw materials such as sulfur and ammonia.

OCP Group's commitment toward a sustainable logistic is ongoing, and the first step was the implementation of a slurry pipeline between its biggest mine (Khouribga) and its biggest chemical hub (Jorf Lasfar). This new technology has allowed OCP Group to reduce by 50% train transportation that consumes fossil energy by a pipeline that uses gravity instead. The slurry pipeline also allows to transport more phosphate rock and remove all intermediary handling.





GRI 103-2

The process is expected to be extended between Gantour mining site and Safi chemical hub by 2030.

Furthermore, OCP has engaged many studies that aim to use green energy wherever it may be possible: the group is studying the use of electric or hydrogen mining trucks to replace the diesel ones, and also powering trains by renewable electricity from solar farms. Last but not least, in order to serve its clients, OCP Group is paving the way for the use of ammonia as a combustible for shipping (zero CO2 emitting fuel) by launching technical studies for the feasibility of this substitution.

### Monitoring, reporting & verification

OCP has been rigorously monitoring its carbon footprint since 2007. A calculation tool has been implemented in accordance with ISO 14064-1, the standard specifying requirements for organizations to quantify and report on greenhouse gas emissions. The carbon footprints from 2014 to 2018 have been verified in December 2019 according to ISO 14 064 by an approved certification body - Afnor.

### Key figures 2019

14,1%

CO<sub>2</sub> emissions reduction compared to 2018

# ADAPTATION: HOW DO WE ADJUST TO ACTUAL AND EXPECTED FUTURE CLIMATE?

## Water efficiency

Facing increasing demand for fertilizers and aware of Morocco's water stress, OCP has been running a water program based on the circular economy principles to sustainably ramp up production and ensure food security. The program is based on an integrated and optimized water management and the use of non-conventional resources.

Find out more here 

## Smart consumption

Aware of the climate change risks on food security, OCP is developing products and services for a sustainable and resilient agriculture.

Find out more here 







GRI 103-2



**Nutrient Expert** is a digital platform to help farmers taking more informed decisions based on their soil needs, expected yields, cost and profit analysis

**Udongo** is a digital platform providing farmers in Nigeria – and soon in other African countries – with access to the input and fertilizer market, advise and recommendations as well as to a marketplace for selling agricultural products.

**Al Moutmir digital offer:**



**AGRIPEDIA:**

To access scientific knowledge to facilitate decision-making



**AGRIAGENT:**

To manage agronomists' activity



**AGRIDISTRIBUTORS:**

To allow distributors to efficiently manage NPK production



**AGRITRIAL:**

To follow in real time the demonstration platform outcomes



**@tmar:**

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

> **Affordability:** to provide farmers with customized financing solutions and insurance in case of rainfall deficit. Acting as a facilitator, we provide banks and insurance providers with yield and payback guarantee through smart inputs and training for farmers as well as access to market. Developed in Senegal, our offer is expected to expand across Africa.

Find out more here [👉](#)





GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 305-7

## EMISSIONS MANAGEMENT

|                 | 2017   | 2018   | 2019   |
|-----------------|--------|--------|--------|
| SO <sub>2</sub> | 61,602 | 57,024 | 49,280 |
| Dust            | 2,080  | 2,155  | 2,795  |
| HF              | 1,148  | 1,131  | 649    |

Aware that the success of its industrial strategy is closely linked to its environmental performance and local license to operate, OCP has been committed to reducing its air emissions for many years. Indeed, emissions management is not only important for human health and the flora and fauna, but also for production costs reduction.

The significant emissions we have to face are sulfur dioxide emissions, fluorine, ammoniac, hydrogen sulfur, and particulate matters (dust). Our management approach mainly goes through :

- **Regular changes in the production process:** e.g. the technology for producing sulfuric acid which has gone from simple absorption, to double absorption and recently to the SULFACID system, which in 30 years has made it possible to drastically reduce the emission level (from values above 600 ppm to values below 15 ppm).
- **Continuous monitoring coupled with atmospheric dispersion models** allowing immediate or preventive corrective measures and in particular trade-offs depending on the level of production.



GRI 103-2 | GRI 103-3

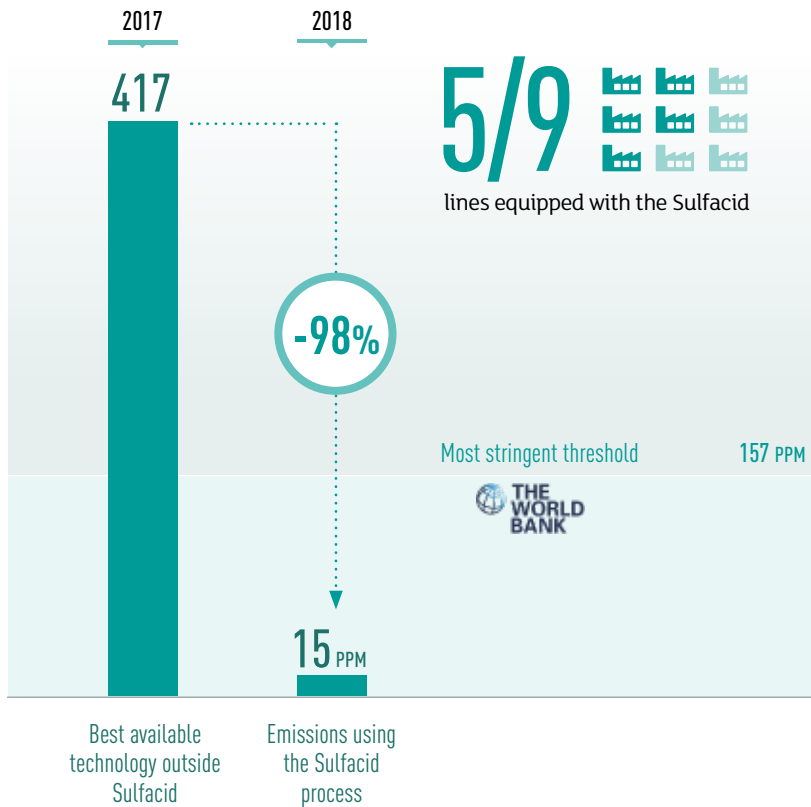
## Sulfur dioxide emissions

- Activities:** sulfuric acid production
- Industrial sites:** Safi & Jorf Lasfar processing platforms

Our management relies on the following prevention and remediation measures we are continuously strengthening :

### Sulfacid technology

Sulfacid technology, commissioned since 2018, by combining the expertise of a partner specialized in gas processing and OCP Group's operational expertise in sulfuric acid production reduces SO2 emissions by up to 98%, and achieves emissions 10 times lower than the World Bank's threshold.



### Air quality monitoring stations

5 air quality continuous monitoring stations are operational in 2019 – 2 in Safi and 3 in Jorf Lasfar. The sulfuric acid units are controlled by operating scenarios depending on weather conditions. These scenarios can vary from production reduction to shutdown.

An online network of sulfur dioxide sensors in the workplace has also been set up in 2019.

## Key figures 2019

**\$106 million**

invested for the Sulfacid technology - among which \$56 million achieved:

**3** lines equipped with Sulfacid technology in Safi

**2** in Jorf Lasfar

## Highlights 2019

- Launch of industrial tests for other solutions to reduce SO2 emissions
- Launch of a generalization project for SULFACID technology on 4 sulfuric acid production units on the Jorf Lasfar platform

## Key figures 2019

**100%**

of chimneys have online SO2 analyzers



GRI 103-2 | GRI 103-3

**Plum'air solution**

Operational in both sites, Plum'air is a real-time and forecast atmospheric emissions dispersion modelling system. This system is equipped with the latest technologies in terms of emission control and air quality (Automatic notifications, reporting, scenario simulation, monitoring of accidental events, etc.). The Plum'air solution at the Jorf Lasfar site also allows modelling the dispersion of emissions in the workplace (3D).

Exploration of new techniques for the reduction of sulfur oxide emissions is also ongoing.

**Key figures 2019**

**13.6%**

Sulfur dioxide annual pollutant load reduction compared to 2018

Production lines aligned with the World Bank threshold (< 450 mg/Nm3)

Safi

**38%**

Pollutant load reduction thanks to the operational control of sulfuric units and the commissioning of SULFACID and Cesium technologies on the 01Z line at Jorf Lasfar

Jorf Lasfar

**50%**

**100%** aligned with the Moroccan law

**OUR GOALS**



**4 additional production lines equipped with the Sulfacid technology in Jorf Lasfar by 2025**

Ongoing

**Reduce its SO2 polluting load by 50% in 2025**

Ongoing

**86% and 46% reduction of sulfur dioxide annual pollutant load respectively in Safi and Jorf Lasfar by 2023**

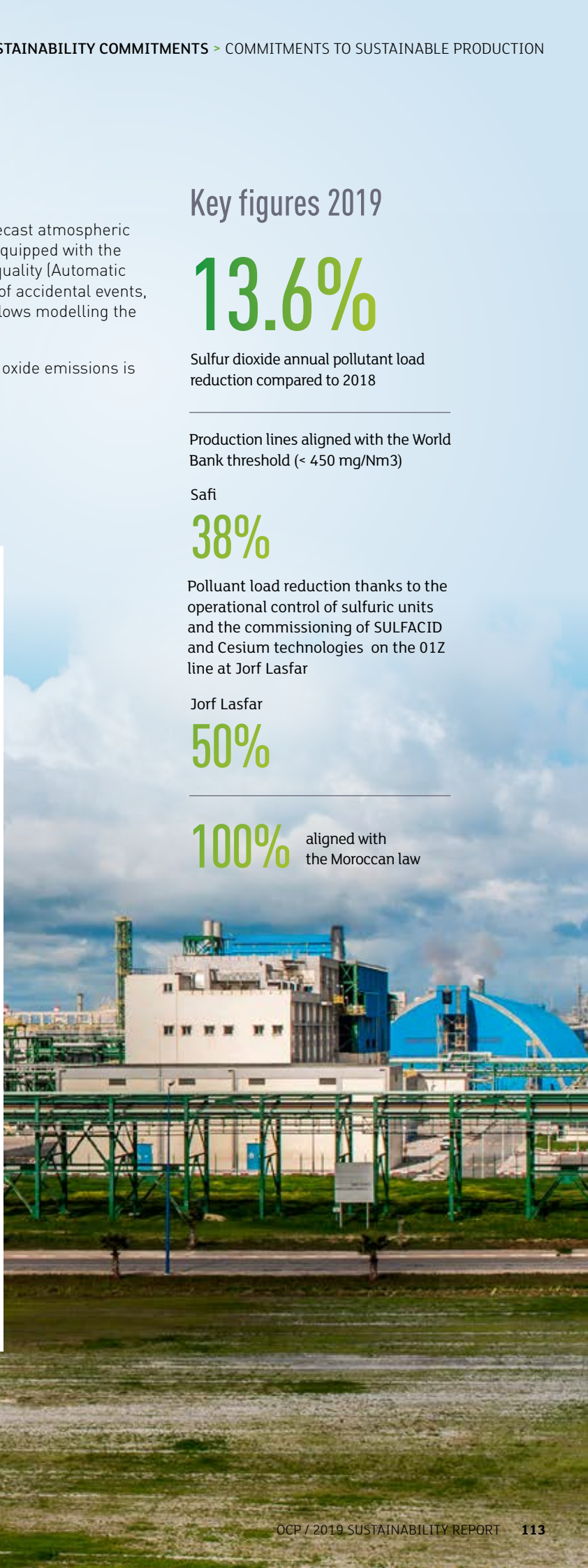
Ongoing

**100% of the production lines in Safi and Jorf Lasfar below the 157 PPM World Bank's threshold by 2028**

Ongoing



**Align 100% of the production lines with the World Bank threshold by 2028**

Ongoing



GRI 103-2 | GRI 103-3

## Fluoride gas

-  **Activities:** phosphoric acid and fertilizer production
-  **Industrial sites:** Jorf Lasfar and Safi processing platform

We keep on strengthening our prevention and remediation tools :

### Emissions monitoring system


through measurement campaign led by third parties, online analyzers on each chimney


### Gas washing technology

The fluoride gas washing project has also been carried out in Safi in 2019. A solution has been implemented to eliminate the odor of fluoride gases; A new generalized fluoride gas scrubbing system has been set up on all phosphoric acid production units in the Safi platform. Further investigations are ongoing for the recovery of fluorine (FSA, CaF<sub>2</sub>, etc.).



### OUR GOALS

**80% reduction compared to 2018 of fluoride gas emissions by 2021**

 Ongoing



## Ammonia

-  **Activities:** nitrogen-based fertilizer production
-  **Industrial sites:** Safi & Jorf Lasfar processing platform

Our management relies on the following prevention and remediation measures we are continuously strengthening :


### Emissions monitoring system


through online analyzers on each chimney; and a network of online NH<sub>3</sub> sensors at the workplace level.

### Plum'air solution

### OUR GOALS

**Align the 3 new production lines planned with the World Bank threshold**

 Ongoing



## Key figures 2019

# 43%

Fluoride gas annual pollutant load reduction compared to 2018

Production lines aligned with the World Bank threshold (<5mg/Nm<sup>3</sup>)

Safi

# 100%

Load reduction thanks to the progressive commissioning of emission washing units on phosphoric acid production lines in Safi since July 2019.

Jorf Lasfar

# 100%

**100%** aligned with the Moroccan law



## Key figures 2019

# 100%

chimneys below 50 mg/Nm<sup>3</sup> and aligned with the World Bank threshold

GRI 103-2 | GRI 103-3

## Hydrogen sulfur



-  **Activities:** sulfur melting and phosphoric acid pre-treatment
-  **Industrial sites:** Safi & Jorf Lasfar processing platform

We are continuously improving our prevention and remediation tools :

- **Hydrogen sulfide gas washing unit** for new sulfur melting in Jorf Lasfar
- **Hydrogen sulfide gas washing system** for all phosphoric acid pre-treatment units
- **Plum'air solution**

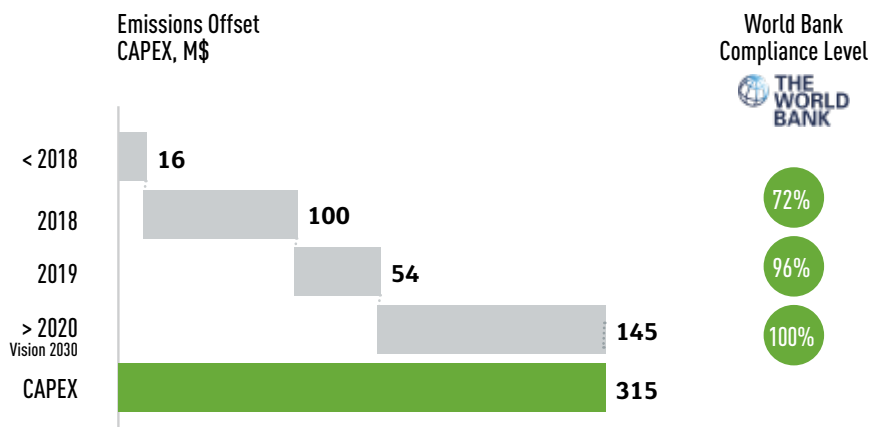
Upgrading of old sulfur melters at the two sites has been carried out in 2019 and still. Construction projects for washing units for hydrogen sulfide gases are ongoing and expected to be completed by the end of 2021. These projects include the installation and commissioning of on-line gas analyzers hydrogen sulfide on all chimneys.

## Particulate matter (dust)

-  **Activities:** phosphate drying and calcination units, dry phosphate grinding units, fertilizer production units, MCP / DCP units.
-  **Industrial sites:** all sites

Our efforts focus on the continuous improvement of our prevention and remediation tools :

- **Monitoring measures** through stations, measurement campaign led by third parties, and online analyzers on each chimney
- **Plum'air solution**
- **Progressive shutdown of the phosphate drying units**
- **Filters equipment for all dry phosphate grinding units**



Check out our policies & standards 

GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 302-1

## DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY

primary material topic



|  |  | 2017             | 2018             | 2019             |
|--|--|------------------|------------------|------------------|
| <b>Total Energy consumption within the organization from non-renewable sources</b> | Industrial fuel 2                        | 8,919.63         | 9,963.68         | 10,584.24        |
|  | Diesel                                   | 2,269.23         | 2,575.29         | 2,726.35         |
|  | Natural gas                              | 784.52           | 1,215.25         | 1,200.53         |
|  | Purchased electricity from National Grid | 4,171.65         | 3,699.34         | 1,959.30*        |
|  | <b>Total (TJ)</b>                        | <b>16,145.03</b> | <b>17,453.56</b> | <b>16,470.42</b> |
| <b>Total energy consumption within the organization from clean sources</b>         | Wind From PPA                            | 542.55           | 856.48           | 1,952.10         |
|  | Self-generated clean electricity         | 6,545.01         | 7,554.05         | 9,982.80         |
|  | <b>Total (TJ)</b>                        | <b>7,087.56</b>  | <b>8,410.53</b>  | <b>11,934.90</b> |
| <b>Total energy consumption</b>  | <b>Total (TJ)</b>                        | <b>23,232.59</b> | <b>25,864.09</b> | <b>28,405.32</b> |
| <b>Total energy production</b>   | Electricity consumed internally          | 6,545.01         | 7,554.05         | 9,982.80         |
|  | Electricity sold                         | 845.05           | 182.95           | 198              |
|  | <b>Total (TJ)</b>                        | <b>7,390.06</b>  | <b>7,737.00</b>  | <b>10,180.80</b> |

Growing industrial capacities to meet the increasing fertilizer demand doesn't have to impact OCP's energy footprint. Aligned with its circular economy framework, OCP has developed an Energy Program with the goal of diversifying its energy mix and achieving self-sufficiency. The program is based on the following key pillars:

- **Implementation of energy efficiency measures**
- **Development of cogeneration capacity**
- **Increased use of renewable energy in the energy mix**

Extraction and beneficiation activities account for 40% of total consumption, while processing accounts for 60%. Energy can be electrical (powering various equipment such as engines, conveyors, etc.) or thermal (fossil fuels for trucks and mining machinery, for drying phosphate, etc.).

\*The decrease in purchased electricity from national grid is due to substitution by clean energy - renewable & cogeneration.



## GRI 103-2

- **Implementation of energy efficiency measures:**

- > Real-time energy management and smart energy automation.
- > Eco-design to consider energy efficiency during the implementation of industrial projects

- **Development of cogeneration capacity :**

It consists in recovering exothermic energy released during the sulfuric acid production process for conversion into electrical energy. Through cogeneration, OCP produces 25% of Morocco's clean electricity, creating the equivalent of approximately 7% of the country's annual electricity consumption. Morocco's goal is to produce 52% of its electricity from renewable and clean sources by 2030. OCP plans to invest a further \$463 million over the next 10 years to develop its cogeneration capacities.

- **Increased use of renewable energy in the energy mix:**

Power Purchase Agreements (PPAs) are still being implemented to supply wind power to OCP's sites as well as innovation and R&D projects which have been further developed and brought to field in 2019 such as:

- > **Green ammonia and hydrogen:** project with Fraunhofer Institute for Microstructure of Materials and Systems. Green hydrogen, obtained by electrolysis of water using electricity produced from renewable energy sources, can be transformed into many products for the fertilizer production. Green ammonia, composed of green hydrogen and nitrogen, can be used, among other things, as a raw material for producing fertilizers. Essential component of fertilizer, ammonia production accounts for more than 1% of global CO<sub>2</sub> emissions.

In 2019, OCP has launched a public tender for the acquisition of a pilot for the green ammonia production at Jorf Lasfar with a capacity of 4t / day (4 MW electrolysis) – construction will start from Q4 2020 for a completion period of 18 months.

- > **Green methanol as well as carbon capture and valorisation** projects are still under development.
- > **Solar energy:** Projects with the Green Energy Park and UM6P for solar energy testing, research, and training - platform located in the Green City of Benguerir developed by the Institute of Research in Solar Energy and New Energies (IRESEN) with the support of the Ministry of Energy, Mining, Water and Environment – resulting to 20 projects launched in 2019.

In 2019, a solar plant was launched in Benguerir with a LCOE - Levelized Cost of Energy - of 0,37 DH/kwh and total capacity of 15 MW while feasibility studies are planned in 2020 for a 90 MW capacity and 0,28 DH/Kwh LCOE plant in Khouribga. Solar exposition studies have also been running in OCP sites to further diversify the energy mix while the potential of solar energy to desalinate seawater is still under scrutiny. Pilot tests for calcining phosphates using solar energy (SOLPART project) have been driven; this transition will represent a potential reduction in OCP Group's footprint estimated at more than 450,000 metric tons of CO<sub>2</sub> eq./year.

- > **Renewable energy storage:** through the Stemphos project to develop phosphate-based materials with UM6P to improve and scale up thermal energy storage solution
- > **Sustainable mobility** of both our employees and our goods through the development of electrical and hydrogen powered vehicles within our sites.



GRI 103-2 | GRI 103-3

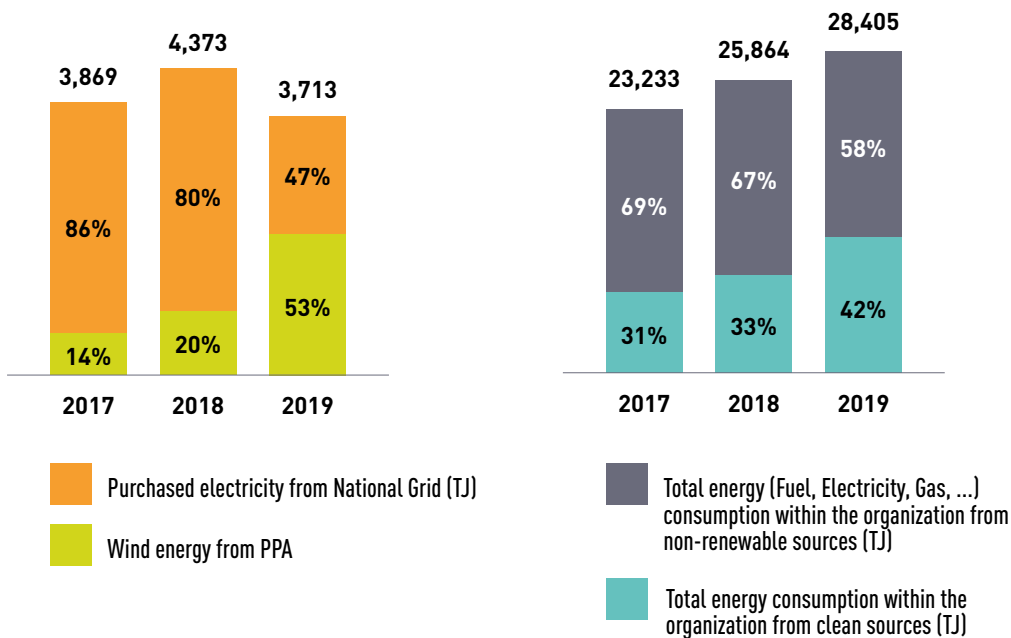
## Growing efforts to promote renewable energy

The OCP energy vision is turned towards clean and renewable energies, energy efficiency practice, innovation and R&D in new green technologies, new processes and new ways to integrate these innovations within the group's supply chain.

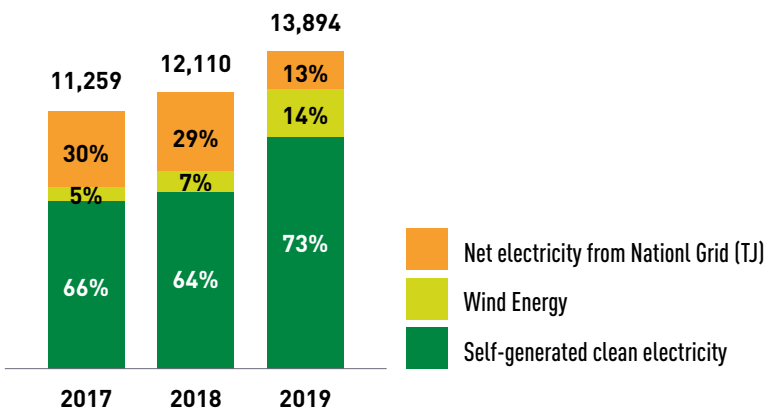
Through PPA (Power Purchase Agreement), the group OCP sources electricity from wind sources. The mining sites are the first to benefit from this advantage, and sites like Gantour and Phosboucraa already have a 100% energy balance sheet renewable.

From 2018 to 2019 the part of the renewable energy has significantly increased from 20% to 53% of the whole electrical energy purchased.

Also the part of the clean energy in the total energy consumed increased from 33% to 42% from 2018 to 2019.

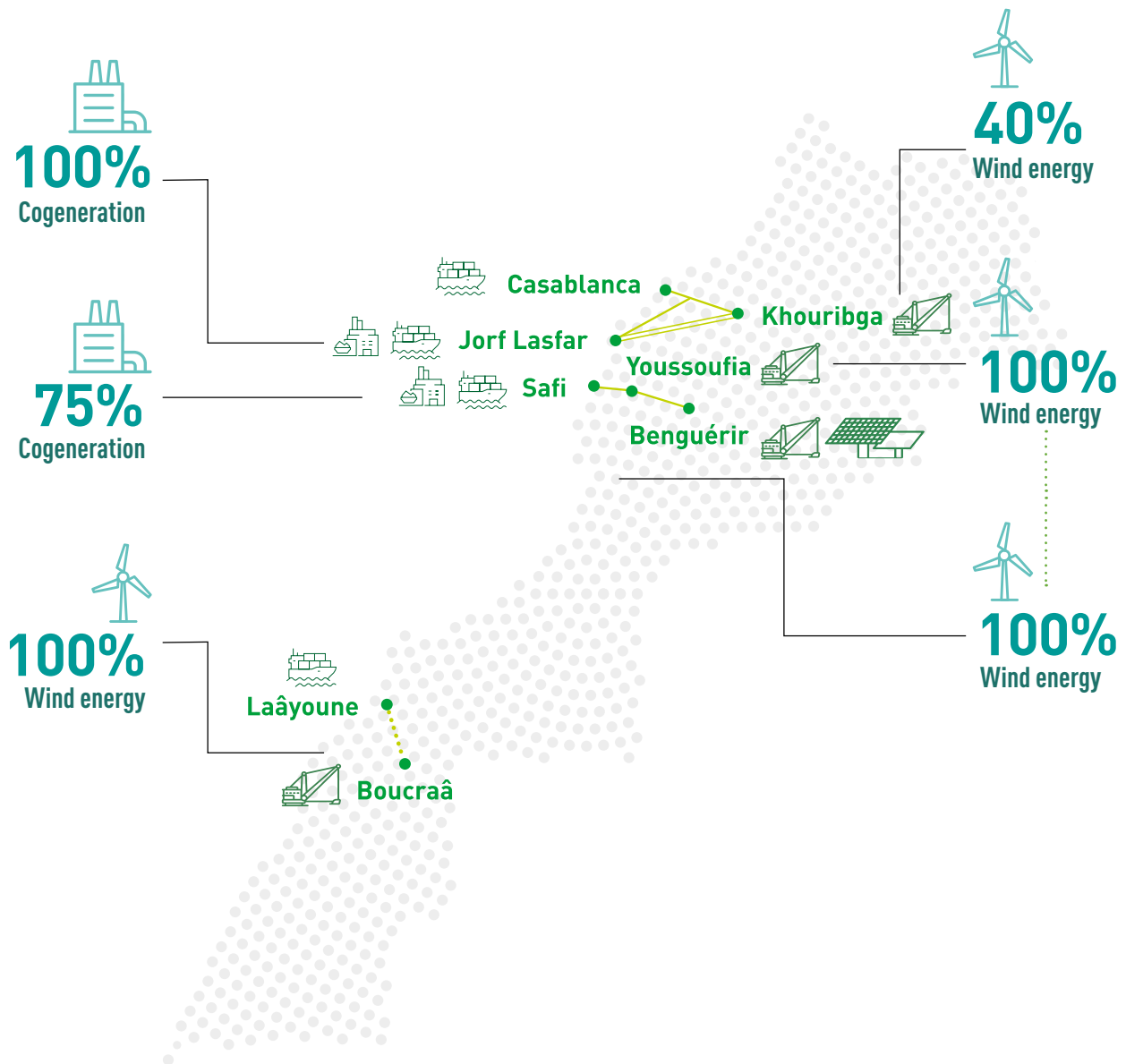


If we considered only electricity consumption, the ratio of clean energy per the total electricity consumed increased from 71% to 87%



Check out our policies & standards

GRI 103-2 | GRI 103-3



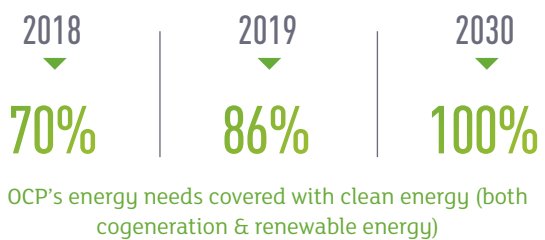
### Key figures 2019

**2 MT** CO<sub>2</sub> eq./year avoided compared to traditional energy routes

**\$21,3 million** (equivalent to MAD 200 million) invested in 2019 for energy-related research.

**25%**

of the Moroccan clean energy produced by OCP



GRI 103-2

## OUR GOALS

### 90 % of electricity need covered by cogeneration and renewable energy by 2020

- > Increase cogeneration capacity by 300 GWh/year



Ongoing

### Energy efficiency

- > Certification and energy efficiency assessment for all processing sites by 2020



Ongoing

### Green & Smart Building Park

- > Develop an international testing, research and training platform for green buildings: energy efficiency and smart grids for buildings



Ongoing

### First Green Ammonia Industrial Pilot

- > Pilot unit for green Ammonia production using renewable energy by 2021



Ongoing

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



Ongoing





GRI 103-3 | GRI 303-3 | GRI 102-48

## WATER MANAGEMENT

primary material topic 

|                            |   | 2017                     | 2018           | 2019           |
|----------------------------|---|--------------------------|----------------|----------------|
| Volume of fresh water used | <b>Total (Mm<sup>3</sup>)</b>   | <b>81.76</b>             | <b>85.23</b>   | <b>90.68</b>   |
|                            | Reservoirs  | <b>70.01</b>             | <b>75.08</b>   | <b>80,76</b>   |
|                            | Groundwater   | <b>2.95</b>              | <b>1.85</b>    | <b>0,773</b>   |
|                            | Stormwater accumulated in abandoned mines                                 | <b>2.14</b>              | <b>1.70</b>    | <b>1,252</b>   |
|                            | Domestic wastewater (from cities surrounding OCP Group mining activities) | <b>6.58</b>              | <b>6.54</b>    | <b>7,85</b>    |
|                            | Municipal water supply  | <b>0.08</b>              | <b>0.07</b>    | <b>0.0405</b>  |
|                            | Volume of water recycled and reused                                       | Total (Mm <sup>3</sup> ) | <b>153.43</b>  | <b>166.63</b>  |
| Percentage                 |   | <b>188%</b>              | <b>196%</b>    | <b>191%</b>    |
| Seawater volume*           | <b>Total (Mm<sup>3</sup>)</b>   | <b>1392.32</b>           | <b>1408.85</b> | <b>1482.43</b> |

\* including the volume of seawater used for desalination in Jorf Lasfar and Laayoune, whose fresh water output is used for OCP Group's industrial activity (26 Mm<sup>3</sup>/year on average) It should be noted that OCP also supplies water to villages bordering its mining sites in partnership with the institutions concerned.



GRI 103-1 | GRI 103-2 | GRI 103-3

## WATER RISK ASSESSMENT

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

We have built our water program on a sound water scarcity risk assessment that is regularly reviewed and strengthened in line with our continuous improvement approach. Our assessment is structured around the main following steps:

- > Identify water supply risks
- > Evaluate the impact of risks and control measures
- > Propose a mitigation plan for the most critical risks

In 2019, we have deepened our analysis by geographical zone, starting with the central axis of the country. A similar exercise will be carried out for the north axis as well as the south axis.

## WATER RISK MANAGEMENT

Thanks to our continuous risk assessment process, we are working on a two-pronged water mitigation program:

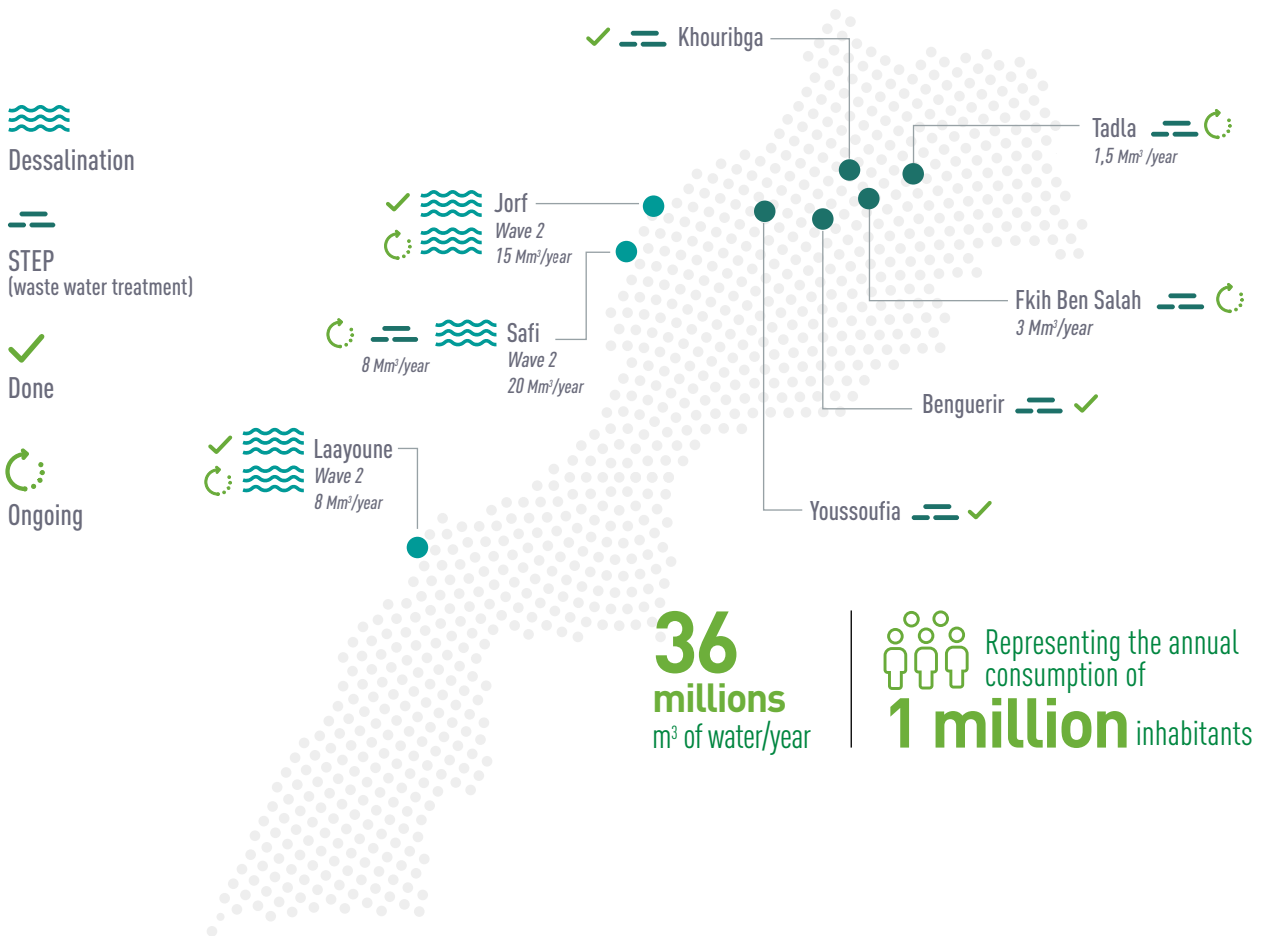
- **Water efficiency**

Water is used at each stage of OCP Group's value chain from mining activities and transport to processing. OCP Group has been further working on innovation and R&D projects to reduce the consumption volume. Among the key flagship innovation is the slurry pipeline, which transports washed phosphate to the main processing platform, has already resulted in a savings of nearly 3 million m<sup>3</sup> of water per and is expected to be extended to Safi-Gantour by 2030.

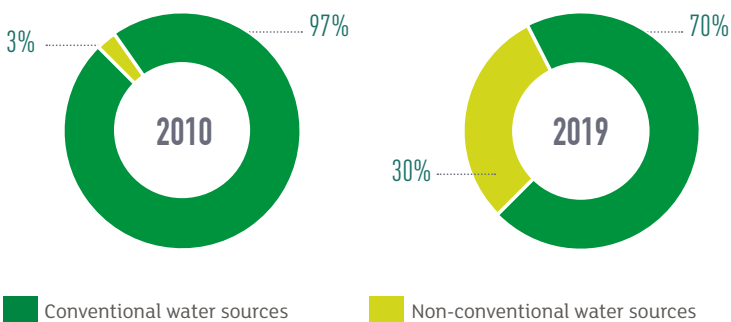
|   |                           | 2016            | 2017            | 2018            | 2019            |
|---|---------------------------|-----------------|-----------------|-----------------|-----------------|
| Total Fresh Water Consumption   | Million m <sup>3</sup>    | <b>97,73</b>    | <b>81,76</b>    | <b>85,24</b>    | <b>91,04</b>    |
| Revenues  | MAD Million               | <b>42 471</b>   | <b>48 503</b>   | <b>55 906</b>   | <b>54 092</b>   |
|   | USD                       | <b>4 331</b>    | <b>5 005</b>    | <b>5 956</b>    | <b>5 625</b>    |
| <b>Water intensity</b><br>(quantity needed to produce one dollar revenue) | m <sup>3</sup> /MAD       | <b>0,022568</b> | <b>0,016334</b> | <b>0,014311</b> | <b>0,016186</b> |
|   | m <sup>3</sup> /Million\$ | <b>22 568</b>   | <b>16 334</b>   | <b>14 311</b>   | <b>16 186</b>   |

GRI 103-2 | GRI 103-3

- **Use of non-conventional resources** through treated wastewater and desalinated seawater



### Evolution of industrial fresh water supply sources



Beyond our infrastructures investment, we are continuously working on R&D and innovation projects. Among the main 2019 achievements, the industrialization of a solution for recovering process water from gypsum water has been launched.

Check out our policies & standards

GRI 103-2

## OUR PARTICIPATION TO MULTI-STAKEHOLDERS & INDUSTRY INITIATIVES

Sharing and learning from each other is central to shape and scale sound solutions to water stress. That is why we have further worked in 2019 on participative initiatives at different levels:

### Local emulation

Water is the resource we all rely on and therefore the resource we need to preserve and celebrate. At the occasion of World Water Day in April 2019, OCP has organized opening days to share its main achievements, projects and gather feedback from local stakeholders – be it local communities, authorities, ministries, students, researchers and partners and employees when it comes to water management. More than 100 participants had the opportunity to discover the flagship Khouribga waste water treatment plant (STEP) which has inspired back in 2010 the STEP network OCP has developed – and still - across Morocco. Aligned with our circular economy strategy, we turn waste water from local communities to precious input for our washing plants in our mining sites to transition away from conventional water sources while providing sustainable water infrastructures for our country.

**33 million m<sup>3</sup>**

of water treated in the Khouribga since 2010

**190**

students informed of water eco-friendly tips in 2019 in the Ouled Abdoun city.

GRI 103-2

## National commitment

OCP participates in the ministerial water committee, in charge of establishment of the “National Water Plan” on which will be based the national water policy for the next 30 years from 2020 to 2050. OCP contributes to this committee as one of the major industrial actors on the market, with a very important water program that contributes to water savings and promotes the use of non-conventional water. Created on the initiative of the General Confederation of Moroccan Companies (CGEM) in 2016, the Moroccan Coalition for Water (COALMA) is a non-profit association which aims at strengthening exchange and sharing between public and private sectors as well as non-governmental organizations and academic institutions to ensure the sustainable management of water resources. Joining the COALMA is one more step OCP took further towards the Agenda 2030 for sustainable development. Enhancing the Moroccan expertise on an African and international scale, the COALMA is elected in the World Water Council’s board of Governors for the 2019-2021 period and values South-South partnerships and sharing of expertise.

## International inspiration

During the 6<sup>th</sup> edition of the International Technologies Exhibition of Water and Sanitation (SITeau) in June 2019, OCP had the opportunity to share its experience in the circular economy, allowing preservation of resources while meeting growing development needs. The theme of the event “Water, climate change and new development models” was therefore perfectly in line with the group’s vision. We are committed to share this vision but also to challenge it aligned with our continuous improvement approach. That is why our teams welcomed visitors in our customized booth and participated to a wide range of discussion panels and conferences.

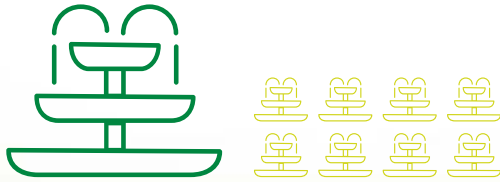
“The challenge is to meet the growing development needs, and especially to ensure food security, while preserving resources as much as possible.”

**Kamal El Omari,**  
Project Portfolio Lead –  
Circular economy program  
at the discussion panel  
‘Prioritizing water into the  
new development model:  
support & governance’

GRI 103-2

# 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:

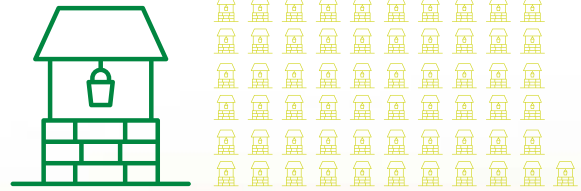


## Connection to the ONEP\* network with installation of water fountains

**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.



**1.** Identification of douars and local associations to encourage local ownership



**2.** Identification of the digging point in partnership with local authorities and douars' residents



**3.** Commitment of the association on the management and maintenance of wells

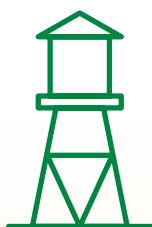


**4.** Local excavation and business equipment



**5.** Training of local associations and young people to manage and maintain wells

GRI 103-2



## Connection to OCP's water

**450** families in two douars chkhalba and Oulad Abdelkader benefiting from drinking water supplied by the processing site Jorf Lasfar

### OUR GOALS

#### Implement 2 Wastewater treatment plants at Safi & Fkih Ben Salah towns by 2022

- > An overall additional capacity of 10 Million m<sup>3</sup>/year recovered from urban wastewater

Ongoing

#### Recover 90% of Water used in Phosphate Washing Plants

- > Invest in dehydration technologies at the MERAH, DAQUI and YOUSOUFIA washing plants to recover 50% of the remaining water from the residual sludge by 2021

Ongoing

#### 90% reduction of water used for watering mine runways

- > Leveraging on cutting edge runways treatment technology and saving 2 Million m<sup>3</sup>

Ongoing

#### 15% water total consumption reduction by 2024

Ongoing

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

Ongoing



GRI 103-1 | GRI 103-2 | GRI 103-3

## EFFLUENTS MANAGEMENT

Water scarcity and quality are challenges OCP is working very hard to mitigate, and effluents play a key role. Effluent is defined as any liquid discharge resulting from an industrial process (including the liquid leaving an effluent treatment station), which is then discharged into a natural environment in the public domain. OCP industrial sites located on the maritime coast (Safi, Jorf Lasfar and Laâyoune) are concerned by this type of effluent discharged into the Atlantic Ocean. The other sites (Khouribga & Gantour) do not have industrial liquid effluents.

OCP's industrial effluents mainly consist of:

- Cooling seawater
- Sea water for phosphogypsum removal
- Water from the phosphate laundromat (only in Laâyoune)

Our management relies on complementary prevention and remediation measures we are continuously strengthening :

- Systematic monitoring of effluent quality (by internal resources and a third party)
- All internal laboratories for measuring liquid effluents are accredited, according to the international standard ISO 17025
- All chemical stocks have retention basins for collection and recycling in the event of an accidental spill
- Observation and monitoring by third parties are periodically carried out to characterize the quality of the receiving environments (such as : sea - groundwater)
- Environmental assessment studies of the impact on flora and fauna are also periodically carried out by specialized, leading international organizations expert in this area.
- There is a continuous process of initiating and implementing actions to improve environmental performance, especially: EMS certified ISO14001 version 2015, as well as numerous environmental assessment studies that are regularly carried out.

### On-site cutting edge technologies

A major improvement at the Jorf Lasfar site is the development of submarine outfalls fitted with diffusers, at their downstream ends, which allows for a better dispersion of liquid effluents resulting in a very significant impact reduction.

These emissaries are a world first in terms of design in how the treated effluent is transported, prior to its release. A unique pipeline, comprising a hydraulic system that allows for a management of the levels of dilution; with a length of up to approximately 3 km. They were produced in partnership with leading international specialists in the marine field. This project, on which we invested around 1.2 billion dirhams, made it possible to obtain seawater quality around the emissary in accordance with internationally recognized standards.

### In-depth study on marine biodiversity

In order to track both the direct and indirect impacts of our activities and precisely measure the efficiency of our solutions, we have designed in 2019 a in-depth study of the impacts of OCP's processing sites effluents on marine environment – to be achieved by mid-2021. The main goals are to:

- Confirm the positive impacts following the investments made by OCP
- Assess the ecological impact on the sea
- Validate the compliance with international legislation
- Update the biodiversity situation of the two coastal areas (Safi & Jorf Lasfar)
- Identify new avenues and recommendations for environmental improvement.

Check out our policies & standards 



GRI 103-2

## OUR GOALS

**Setting up high-performance Environmental Management Systems in accordance with the international standard ISO 14001: 2015**

 Ongoing

**100% compliance in dispersion of liquid effluents as outlined by national and international regulations (IFC-WB for discharges and WHO for the quality of natural environments)**

 Ongoing

**Transition from phosphogypsum (PG) spills into the marine environment to storage, with a view to developing PG as a coproduct.**

- > The first onshore storage will come into effect in 2023 at two integrated industrial units at the Jorf Lasfar site ; equivalent to around 15% of the site's production in PG
- > The process of storage for the PG produced at Safi is also planned to start by 2023.

 Ongoing

**Enhanced monitoring of the impact on the marine environment by setting up online measurement means, continuous dispersion supervision models, forecasting systems according to sea conditions and periodic studies of environmental assessment, based on a field diagnosis.**

 Ongoing

**Reach Zero effluents coming from any form of freshwater by 2028. This target has already been reached at mining sites due to the early adoption of water consumption optimization programs across all OCP locations.**

 Ongoing



GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 307-1

## AN EFFICIENT ENVIRONMENTAL MANAGEMENT SYSTEM

primary material topic



All OCP sites, whether existing or under development, are subject to environmental impact assessments carried out by the Moroccan authorities. Sites respect the regulations governing extraction authorizations. In addition, OCP has initiated a process to certify its production sites according to best in class international standards.

**Protect & sustain** – IFA's product stewardship initiative covers the main quality, environment, health, and occupational safety aspects of ISO 14001, 50001, 9001 and 45001 certifications



### PROGRESS STATUS

5/5

**ISO 14001**  
(Safi, Jorf Lasfar, Khouribga)



3/5

5 operational sites: Jorf Lasfar, Safi, Khouribga, Gantour & Boucraa

We relies on a sharp environmental policy and management systems, clear definition of roles and responsibilities, measurable goals and deadlines, performance reporting, audits, and corrective and preventive actions.

Environmental issues are factored into the global performance management system at various levels of governance. Bimonthly senior management HSE committees meet in order to review environmental performance. At each site, HSE committees hold monthly meetings with industrial operation site managers. Environmental correspondents (assigned per area) ensure an optimized top-down and bottom-up risks and opportunities process. HSE performance reviews are regularly held at all sites and levels, including with the HSE Management Committee led by the Executive Vice President of Industrial Operations. A complaint management mechanism also bolsters environmental governance. An automated compliance monitoring and evaluation system is also available through dedicated computer platforms.

## Key figures 2019

0

fine amount & non-monetary fine  
– similar to 2017 and 2018



GRI 103-2

Standards have been developed together with the Dupont OCP Operations Consulting joint venture and adopted internally while being a continuous source of improvement:



| Category                | Code         | Name   | Description and Goal   |
|-------------------------|--------------|--|--|
| Operational             | <b>EKPI</b>  | Environmental Measurement and Reporting                    | Standardizing environmental performance testing and using it for OCP's industrial performance, while considering environmental regulations and international best practices in positioning the company.  |
| Operational             | <b>SGD</b>   | Waste Management Standard                                  | Determining OCP's prevention and waste management requirements based mainly on applicable regulations and best practices. This standard ensured that reduction principles are applied at the source and that OCP waste is managed in an environmentally friendly and safe manner throughout the entire waste disposal life cycle (pre-collection, collection, storage, sorting, transport, disposal, beneficiation, and elimination).  |
| Operational             | <b>GPA</b>   | Secondary Product Management                               | Developing and implementing management principles for the safe and eco-friendly use of secondary products (SP) while protecting employees from risk exposure and preventing uncontrolled leakage or loss of these products.  |
| Management & Governance | <b>EVEPS</b> | Visible Commitment, Exemplarity, & HSE Performance Control | This standard defines the HSE (Health, Safety, and Environment) actions that managers are to follow at OCP sites and entities in order to demonstrate visible and exemplary commitment, control performance, and promote HSE culture.  |
| Management & Governance | <b>GIASE</b> | Incident Accident Safety Environment Management            | Tool for achieving and maintaining the Zero Incident and Accident goal that makes it possible to identify, record, communicate, and analyze incidents and ensure that the associated preventive and corrective actions are taken. The standard includes incidents as well as dangerous product emanations and accidents involving people or property.  |
| Operational             | <b>ADRPT</b> | Workstation Risk Analysis                                  | As part of the Zero Accident goal, the ADRPT standard defines the method for controlling workstation risks by identifying, evaluating, and mitigating them. It provides input data for establishing and/or updating work directives and operating methods.   |
| Operational             | <b>GEE</b>   | HSE Management of External Companies                       | Controls HSE risks and prevents accidents and incidents when external companies intervene at OCP sites.  |
| Operational             | <b>VOSE</b>  | Safety and Environment Visits and Observation              | <ul style="list-style-type: none"> <li>□ Observe employees at their workstations, working conditions and practices, and safe or unsafe behaviors;</li> <li>□ Start interactive and positive dialogue about safety and the environment based on the observations;</li> <li>□ Take immediate action to stop any dangerous situations or actions;</li> <li>□ Ensure that employees are committed to working in a safe and environmentally friendly manner;</li> <li>□ Provide immediate feedback on the observations and recommendations to the person directly responsible for the visited sector in order to define additional action.</li> </ul> |
| Management & Governance | <b>SAHSE</b> | Health, Safety, & Environment Audit Standard               | Standard aimed at measuring and attaining objectives and steering HSE performance through structured and systematic audits.  |

Recurring training campaigns to guarantee that target populations learn HSE/environmental standards.

## OUR GOALS

**100% of processing sites certified ISO 50001 by 2020**

🔄 Ongoing

**100% of industrial sites certified ISO 14001 by 2020**

🔄 Ongoing

GRI 103-1 | GRI 103-2 | GRI 103-3 | 304-2

## 3.2.2.3 Transformation & recycling



|                                | 2017 | 2018 | 2019 |
|--------------------------------|------|------|------|
| Hectares of rehabilitated land | 509  | 707  | 864  |

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

### SOIL MANAGEMENT & BIODIVERSITY

primary material topic

Striving for a circular economy, eco-design is the heart of the OCP's rehabilitation process structured around a 3-pillar approach:



**Integration of the rehabilitation into the planning of the mining operations**



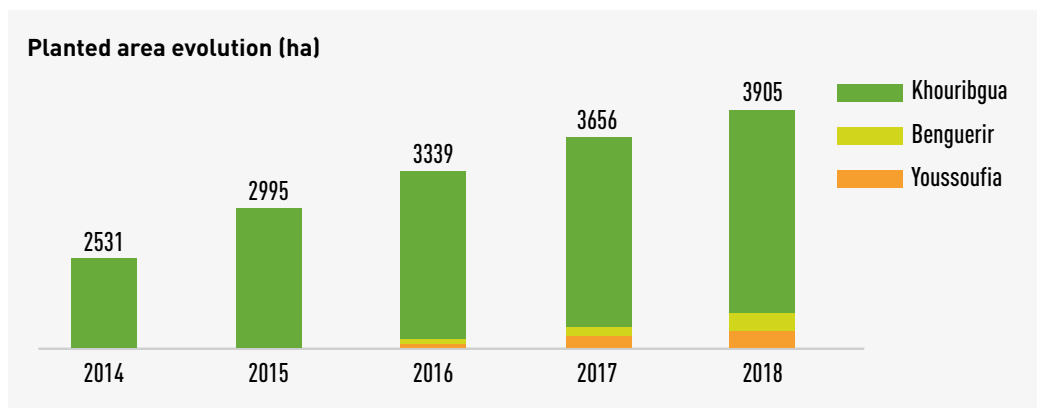
**Expansion of the rehabilitation to the surrounding areas**



**Support to local and smart agriculture projects**

Our approach relies on the following steps:

- Collecting and storing topsoil
- Earth working
- Spreading of topsoil
- Planting



We are continuously working on our approach to improve the environmental footprint of our operations. That is why several research projects are ongoing in 2019 – e.g. valorisation of by products such as the phosphogypsum washing sludge, carbon farming – to improve the land's initial fertility in collaboration with UM6P. Different research platforms are mobilized, namely Center for Soil and Fertilizer Research in Africa (CESFRA) and its AgroBioSciences program as well as the experimental mine at Benguerir.

GRI 103-2 | GRI 103-3 | GRI 304-2



## Carbon farming

Tapping into arid zone to capture CO<sub>2</sub> 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 CO<sub>2</sub>. OCP launched in October 2018 the 'Carbon Farming' project in tripartite partnership with the UM6P and St1, a Finnish energy company. The objective is to create a validated and approved tool for climate change mitigation through the establishment of carbon sinks via the rehabilitation of old mining sites and the afforestation of marginal lands in dry and semi-dry environments.

The Carbon farming project should be carried out in three phases: a pilot project, a demonstration and a large-scale project. Funded by St1, led by the UM6P with the assistance of the Natural Resources Institute Finland (LUKE) and the Regional Center for Forest Research (CRRF), the pilot project has been ongoing in 2019. Its aim is to identify local and exotic fast growing plant species and optimize their growth in arid and semi-arid areas, using different irrigation techniques and soil improvement mixes to reduce water evaporation and increase the soil's water holding capacity and nutrient availability. Therefore, maximizing the sequestration of CO<sub>2</sub> per hectare and per liter of water used in these complex environments.

The pilot will span over 3 years, and its results will be used to successfully implement the demonstration project on a larger scale – from 500 to 5000 ha of mining and marginal non-agricultural land rehabilitated – and eventually scale up the approach on all our mining sites. The project will also bring socio-economic benefits for small farmers exploiting the planted areas and potentially selling carbon units in the long-term.

## Valuing former mining land to local communities

We are continuously working to experiment new crops and techniques as well as to develop an innovative local agricultural value chain. From 2018, two experimental farm have been set up and running crops experimentation in two of our four mining sites: Yousseoufia and Khouribga to better adapt our planting approach to the soil's properties and local available natural resources. Common steps are thoroughly followed to ensure an integrated approach delivering both environmental and economic value for the local communities:

- Soil analysis and diagnostic among local communities to understand needs
- Crop test
- Training of farmers
- Creation and/or support to existing cooperatives – including commercialization

## Key figures 2019

3,120

Farmers trained

26

Local cooperatives supported

675

Jobs at stake

67

OCP's volunteers

GRI 103-2 | GRI 103-3 | GRI 304-2

Adapted crops are now growing on rehabilitated sites such as Quinoa for Youssoufia and Argan tree Khouribga.

OCP wants its rehabilitation approach to be a continuous source of learning and improvement. New agricultural practices have been tested in 2019 such as hydroponics in Youssoufia to produce 300kg of fodder per day while saving 399 l/kg and 1,1 Dhs/kg. The Centre for Agricultural Innovation and Technology transfer was also inaugurated in 2019. The Youssoufia’s experimental farm has been fuelled with soil and plant analysis laboratories together with additional activities to strengthen cooperatives’ technical and management capacities and communicate on quinoa value across the country. In 2019, OCP has also further developed the concept of experimental farms within its African ecosystem through discussion with key partners in Ivory Coast, Senegal, Ghana and Guinea.

**Looking into the Quinoa value chain  
IDRC-ICBA-UM6P cooperation**

Started in 2018, the "Development of the quinoa value chain to improve food and nutrition security in rural communities of Rhamna " project has been further developed in 2019. Funded by the International Development Research Centre (IDRC) – Canada, the three-year project is implemented in the province of Rhamna, where a significant part of the population lives below the poverty line. A quinoa value chain already exists but is significantly 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 ICBA in Dubai) carried out at the UM6P experimental

farm and among farmers from the province of Rhamna 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 SIAM 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

**Using blue economy**

We have been tapping into the potential of thistle in 2019 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 | Yields  |
|------------------------------|---|
| Cellulose                    | 5,25t/ha i.e. 11 000 DH/ha                      |
| Fodder                       | 4 tonnes barley equivalent/ha i.e. 51 000 DH/ha |
| Aviculture                   | 480 Kg proteins/ha i.e. 1 440 DH/ha             |
| Fatty acid                   | 400 Kg/Ha i.e. 156 000 DH/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.



GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 304-1 | GRI 304-2

### Program for Saharan agriculture

In 2019, we have been further working on :

- Strengthening the entrepreneurial capacities of 64 agricultural and agrifood cooperatives in the Laayoune Sakia El Hamra region in partnership with Moroccan SMEs
- Organizing the first international forum on biosaline agriculture with the presence of 12 countries and 200 participants
- Camel health campaign organized in Es-Semara with 120 trained breeders and 9,200 dromedaries treated



It started with an exhaustive study focused on land environment designed by JESA, the joint venture between OCP Group and Jacobs Engineering, at the Boucraa mine to map the existing flora and fauna, list endemic, rare, endangered species; assess the natural regeneration of biodiversity of exploited land; and the pressures and threats of mining activity on biological diversity. This assessment resulted in an action plan – further implemented in 2019 – and in a best in class framework to be rolled out across all of our site by late 2021.



An in-depth study has also been designed in 2019 to study the impacts of OCP’s processing sites effluent on marine environment

## Biodiversity

We want biodiversity to be incorporated in every decision we make in the stages of planning, implementing, operating and dismantling of its facilities. OCP is committed to defining specific objectives, supervising and assessing impacts that OCP projects and facilities are having at every stage, performing risk assessment to control main direct and indirect risks and implement specific training programs for OCP employees and contractors.

Each industrial site we operate underwent a biodiversity analysis during the permit process from the national authorities. In 2019, no activity site owned, rented, or managed by OCP was located in or beside protected areas or areas rich in biodiversity. In addition, each site has a management plan for its green spaces and areas surrounding the site. Numerous projects have emerged - including planting aligned with the soil properties. Green belts have already been implemented both in and around many sites.

Beyond this, we are progressing on our step-by-step journey to prevent negative impacts on land and marine environment.

Check out our policies & standards

## Preserving cultural heritage

Respect for cultural heritage and artifacts is also an important component of the mine planning process. According to legal requirements, all industrial development projects undergo acceptability studies before being authorized. These include cultural considerations and respect for protected areas. If, when operating the mine, OCP discovers locations with cultural value for the local population, such as places of worship or sacred sites, project plans are revised and the sites are preserved. The wave of industrial development that has occurred over the past ten years has involved a number of modifications to construction plans in order to preserve cultural property. This is also true for fossils and other geological objects discovered during mining operations. In such cases, OCP calls on relevant authorities to initiate the assessment and conservation process.

Find out more about the way we enhance our cultural heritage

### OUR GOALS

#### 1000 ha/year reclaimed land

- > Restore 1000 ha of old mines using highly efficient reclamation techniques and advanced agriculture technologies



#### Soil Plantation to create economic value for local community

- > Develop agro-economic models to valorize planted land and generate employment and sustainable economic value for communities around our industrial sites



#### Redevelop twice the land exploited



GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 306-2

## WASTE MANAGEMENT

primary material topic 

|                                     |              | 2017   | 2018         | 2019         |               |
|-------------------------------------|--------------|--|--------------|--------------|---------------|
| Total weight of hazardous waste     | <b>Total</b> | <b>17540</b>   | <b>22450</b> | <b>16855</b> |               |
|                                     | Total        | <b>Reused</b>  | <b>100</b>   | <b>101</b>   | <b>123</b>    |
|                                     | Total        | <b>Recycled</b>                                      | <b>474</b>   | <b>1120</b>  | <b>1697</b>   |
|                                     | Total        | <b>Recovered (including energy recovery)</b>         | <b>355</b>   | <b>797</b>   | <b>388</b>    |
|                                     | Total        | <b>Buried</b>  | <b>5480</b>  | <b>6729</b>  | <b>11173*</b> |
|                                     | Total        | <b>Stocked on site, awaiting treating / recovery</b> | <b>11131</b> | <b>13703</b> | <b>3474</b>   |
| Total weight of non-hazardous waste | <b>Total</b> | <b>13804</b>   | <b>14906</b> | <b>23188</b> |               |
|                                     | Total        | <b>Reused</b>  | <b>3151</b>  | <b>3094</b>  | <b>1511</b>   |
|                                     | Total        | <b>Recycled</b>                                      | <b>2466</b>  | <b>3098</b>  | <b>1353</b>   |
|                                     | Total        | <b>Recovered (including energy recovery)</b>         | <b>3636</b>  | <b>2904</b>  | <b>4636</b>   |
|                                     | Total        | <b>Buried (including household waste)</b>            | <b>2468</b>  | <b>2474</b>  | <b>693*</b>   |
|                                     | Total        | <b>Stocked on site, awaiting treating / recovery</b> | <b>2084</b>  | <b>3336</b>  | <b>8756</b>   |



Waste management is a key point of the circular economy strategy of OCP. Integrating the regulatory aspect imposing identification and classification and treatment of waste according to their type, the standard OCP 'Waste Management' has been developed in accordance with international good practices. The standard governs the identification and classification of waste, the collection, sorting and recovery phases, infrastructure and resources and the audit and training process. The standard emphasizes waste recovery by aiming at the maximum intrinsic value of the waste. Thus, landfilling is reserved for waste for which the valuation paths are not mature, while incineration is to be abolished in favour of recycling, regeneration and reuse.

Subcontractors and service providers are rigorously selected and must have government approvals to be awarded contracts collection and sorting. OCP also requires receipt of recovery and treatment of all waste removed to ensure that it is recycled : traceability (BDS: Bordereau de suivi des déchets).

Check out our policies & standards 

\*The variation is due to the evolution of the calculation methodology including new waste streams into this category - including inert wastes.



GRI 103-2

**Sulphur ash from ocp’s industrial sites: a waste transformed into a high value-added resource**

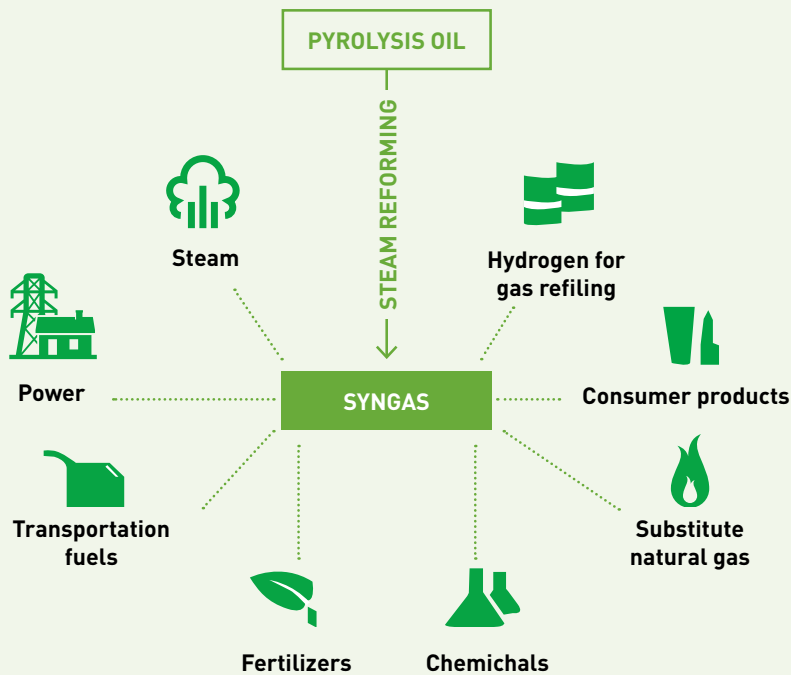
Sulphur ash from the sulphur smelting and filtering facilities at OCP’s processing sites has always been considered a waste. The examination of an innovative solution to treat the ashes by hydrometallurgy to produce 98% sulphuric acid is well advanced in 2019. The latter will be reused at OCP at the Safi and Jorf Lasfar sites. A perfect circular project, it will enable the recovery of more than 18,000 tons of waste and will not only generate environmental and economic gains for the stakeholders but will also contribute to the creation of permanent jobs for the ecosystem. With this solution and in addition to other projects initiated, OCP confirms its desire to make its waste a new lever for the development of its ecosystem with the integration of new sustainable businesses within the framework of its Circular Economy program.

**Development of eco-technologies for the production of vanadium oxide**

New prospects are emerging for the OCP Group with the vanadium oxide project carried out with a local company. The new process represents a better approach to recovering hazardous waste from OCP into products with high added value for OCP and its ecosystem and a great achievement in reducing hazardous waste generated by our activities. The first promising results of the project thus point to a breakthrough in terms of technical innovations but also in economic and environmental terms. In addition, the availability of new technologies for the recovery of vanadium resources locally would allow Morocco to reduce its dependence on imports of ferro-vanadium and silica. It could also enable local company to position themselves in the by-product processing market with the potential for direct and indirect job creation as well as for the development of the local ecosystem. This would extend the scope of this production beyond the fertiliser industry in terms of the recovery of vanadium waste from other industries. In 2019, OCP has continued to implementing the process and reached 1,500 m<sup>3</sup> of used vanadium catalyst waste recovered.

**Waste to power: coming soon to fuel and electricity from ocp waste**

With its ambitious Circular Economy program and in order to make the most of industrial waste, OCP aims in the near future to build the first unit pyrolysis in Morocco. In 2019, OCP has been working to get this pilot unit ready at the Khouribga site – expected to be commissioned in 2021- before being deployed to all operating sites. Through this technology, OCP would be able to treat more than 3,000 tonnes per year of hydrocarbon waste, including some hazardous waste like used oil, to transform it into fuel, diesel, black carbon, and electricity.



The project of the pyrolysis unit is built under the ‘ecosystem’ approach to create wealth for both OCP and its entourage through jobs creation, training for young people and development of new industry in Morocco. OCP pyrolysis unit will reach a new milestone not only in terms of circularity and value creation but also in terms digitalization and artificial intelligence, thus ensuring high efficiency level of waste recovery activities within OCP sites.

GRI 103-2

## OUR GOALS



**70% of hazardous waste recovered by 2023**  
**80% of non-hazardous waste recycled and valued by 2023**

Ongoing

**Sulfur ashes waste converted into commercial grade sulfuric acid by the end of 2021**

> Partnership to adapt a hydrometallurgical process for sulfur ash recovery

Ongoing

**Vanadium Recovery**

> Partnership for a local treatment unit to recover more than 2000 t per year of used vanadium catalyst waste in higher added-value products by the end of 2021

Ongoing

**Initiating solid partnerships with companies highly specialized in recycling and waste treatment by 2021**

Ongoing

**Setting up training programs for OCP employees to further explain and promote the 3Rs by 2021.**

Ongoing

**Waste to powery**

> Recovery of 2,000 to 3,000 tonnes / year of hydrocarbon waste into fuel, electricity, black carbon and steel using clean pyrolysis technology by 2021

Ongoing

**Recovery of organic waste by 2023**

> Based on its expertise in terms of fertilizer production, OCP will produce, from organic waste and other raw materials, organic and organo-mineral fertilizers in order to feed the world this will also strengthen the leadership of OCP on the sustainable agriculture.


Ongoing



GRI 103-1

# 3.2.3. Ensuring long term food security

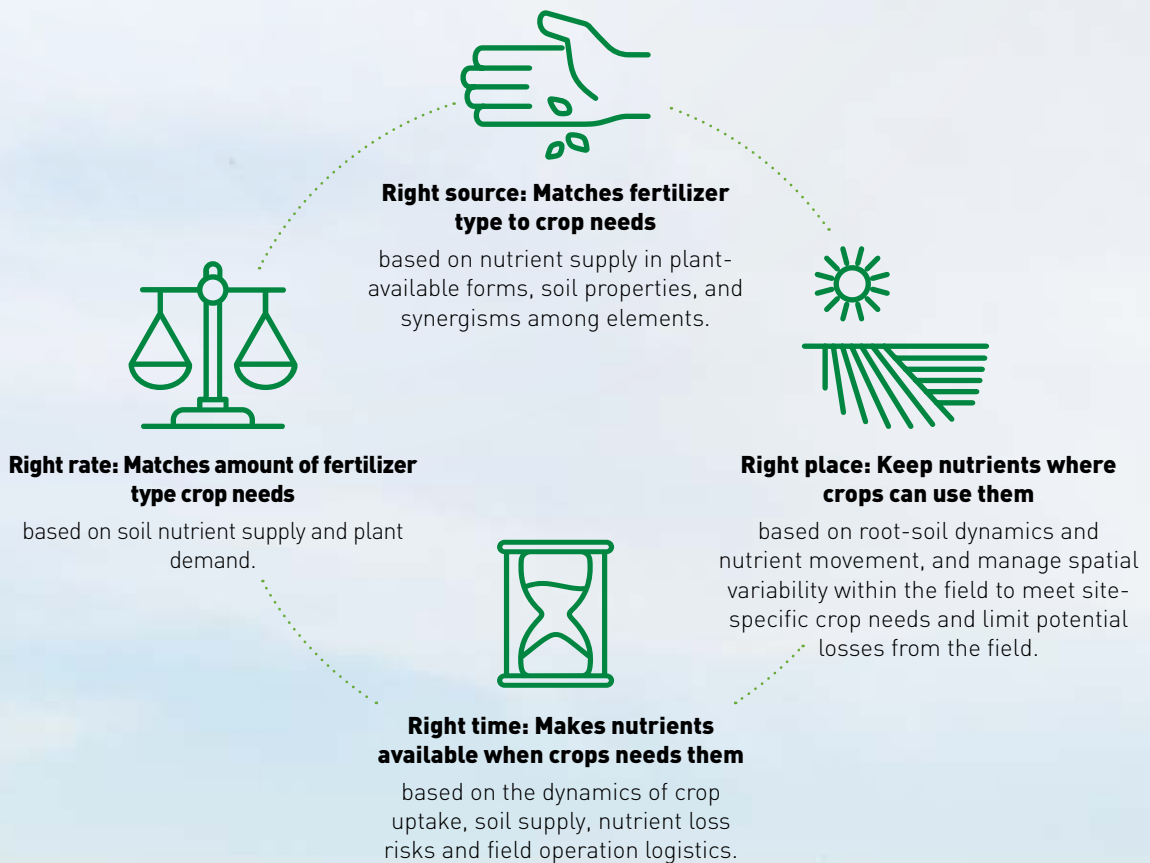


primary material topic 

As leader in the fertilizer industry, food security is at the heart of OCP’s mission to ensure long-term access – both in volume and quality – to food all over the world. And we will succeed by dealing with three major trends:

- **Growing needs** – consequence of a growing world population;
- **Agricultural environmental impacts** – depleting natural resources agriculture relies on;
- **Economic transition of agriculture** – to provide and sustain a decent livelihood for farmers and the agro-food sector.

OCP is therefore continuously improving its products and services offer towards a smart agriculture around the 4R’s framework:



GRI 103-1

This framework embeds every actions we take, large and small, to provide sustainable answers to farmers' needs:



Furthermore, we do focus on Africa as a potential solution to the global food security challenge since the continent enjoys:



**60%** of the world available arable land and the world's largest stock of underdeveloped arable land



**Significant water resources** (Congo, Nile, Zambèze, Niger rivers; Victoria Lake, etc.)



**60%** of labor force employed in agriculture



GRI 103-2 | GRI 103-3 | GRI 203-2

## OCP ECOSYSTEM

To support a continent-wide agricultural green revolution, OCP is building a sound ecosystem and enhancing collaboration and key strategic partnership



GRI 103-2 | GRI 103-3 | GRI 203-1 | GRI 203-2



## Availability

Beyond its Moroccan production capacities, OCP 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.



### Our integrated approach in Ethiopia

OCP's action in Ethiopia goes from production, logistics, farmer production and training as well as market linkage; and has been further strengthened in 2019 through:

- Domestic production planned capacity of 2.5 million tons through an overall \$2.4 billion investment
- Farmer production: 5,000 seeders distributed to support mechanization
- Farmer training:
  - 1,848 plots of demonstrations to spread new technologies
  - 16,248 beneficiaries of Input Voucher System to promote smart use of fertilizer



GRI 103-2 | GRI 103-3 | GRI 203-1 | GRI 203-2



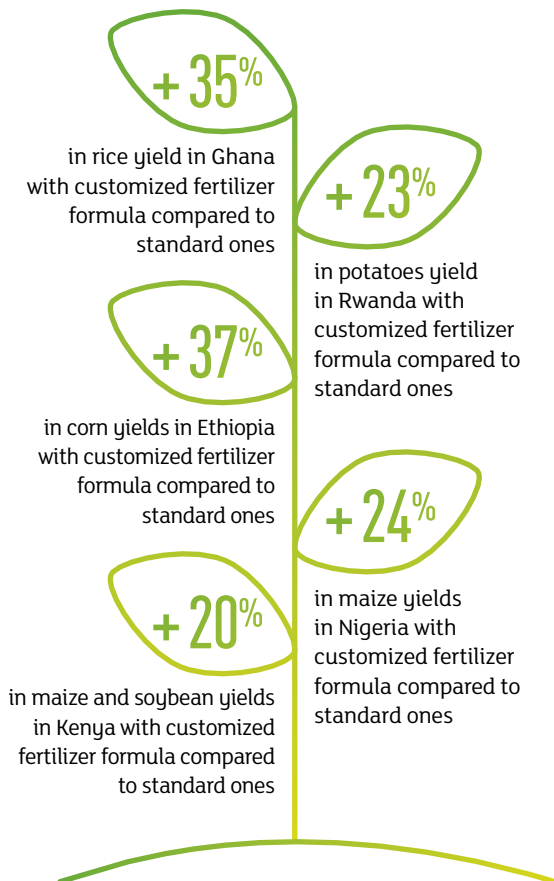
## Customisation

Developing customized products requires a deep understanding of the soil-crop-environment system and the farmers practices. Our approach is based on 3 levels of information:

1. **In-depth assessment of soil and crops response:**
  - Soil analysis to get soil fertility data of targeted regions
  - Onsite field trials testing the crop response to recommended fertilizers
  - Partnerships with local & international research and agronomy institutes to facilitate the dissemination of our results
2. **In-depth assessment of current agronomic practices:**
  - Partnerships to collect macro information on the farmer and his/her environment
  - Conduct surveys to collect data on current agronomic practices and farmers behaviors towards new products/solutions. Our goal is to develop adapted, affordable and scalable solutions for farmers
3. **Geospatial technologies for developing nutrient management platforms:**

We use frequently satellite imageries and geospatial data (climatic, pedologic, agro-ecologic, vegetal index, land use, etc.) as a third layer of information, in order to match it with the onsite information, thus enhancing the quality of our results and helping make decisions about new formulas development. The geospatial tools are important for developing DSM (digital soil mapping) related to soil fertility and yield forecasts. Some works have been engaged in this field to create thematic maps of nutrient deficiencies and contribute to develop a complete nutrient management platform dedicated to sub-Saharan countries.

## Key figures 2019



**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**

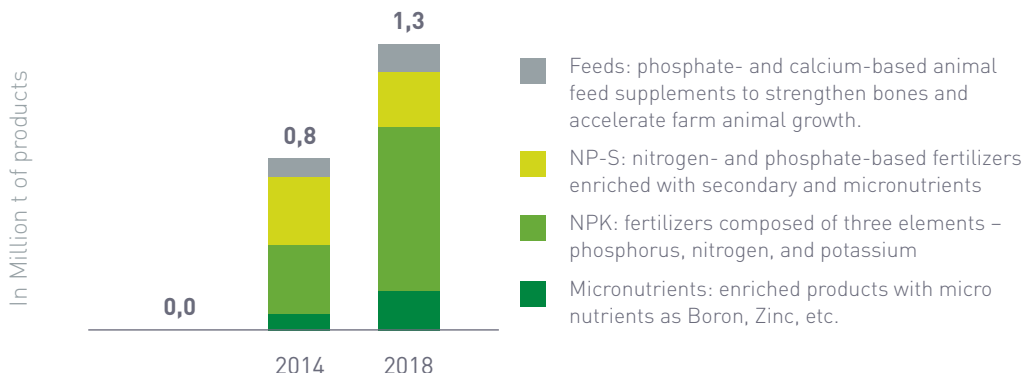
Countries covered by fertility mapping:





GRI 103-2 | GRI 103-3 | GRI 203-2

**Evolution of OCP's customized fertilizers production (Africa - excluding Morocco)**



This sound understanding of the soil-crop-environment system and the farmers practices significantly drives OCP's Research & Development and innovation program on farmers solutions in collaboration with UM6P and structured around:

- **UM6P's entrepreneurship & innovation space** – Farmers solutions strategic stream  
[Find out more](#)
- **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. Among the different services developed include a soil sensor system that determines, in real time, the exact quantity of water required for healthy growth and the Disease Identification software that enables farmers to use a cell phone as a phytosanitary diagnostic tool.
- **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. In 2019, the Group continued its development program in biotech products, aiming not only at enhancing nutrient use efficiency but also at alleviating different kinds of environmental stresses. Several products, currently developed within a dedicated business unit, are showing very positive results and are passing successfully the pass-gates toward market launch in the coming years. Circular economy being at the core of such developments, a special focus is given to available resources in Morocco, that could be enhanced sustainably for the benefit of agriculture. Worldwide biostimulants and biofertilizers market is expected to grow by more than 10% annually.
- **Innovation partnerships** such as the one with Fertinagro Biotech – global R&D reference in sustainable agronomic solutions. In 2018, OCP took 20% stake into the company and in 2019, OCP signed an agreement 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. It will especially focus on the following areas : training teams for Europe and Africa in Agro-biosciences, providing access and transfer of solutions for farmers and ranchers, and research and development programs in fields such as the study of agricultural ecosystems for the minimization of the environmental impact related to agriculture, biorefinery based on biomaterials, the biological capital of soils or seaweed farming.

GRI 103-2 | GRI 103-3 | GRI 203-1 | GRI 203-2



## 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
- **Nutrient Expert (in partnership with APNI)** : a digital platform to help farmers in their decision making process. The tool enable farmers to take more informed decisions based on their soil needs, expected yields, cost and profit analysis

In cooperation with local partners, these 'school-labs' travel to meet farmers where they are, even in the most remote areas, work with them to test their soil, as well as provide fertilizer application recommendations for their soil and crop mix. By 2019, OSL has assisted over 410,000 farmers across Kenya, Nigeria, Togo, Burkina Faso, Ghana, Senegal and Côte d'Ivoire. As part of OCP Africa's plan to develop customized fertilizer products over the next years, agronomic trials have been implemented in Nigeria, Ethiopia, Rwanda, Côte d'Ivoire and Cameroun, providing opportunities for researchers to gather information about specific soil types and crops including maize, cocoa, cassava and teff.

“People already come to me for recommendation and I tell them about OCP. They thought I used magic to grow my crops.”


Nigerian farmer having benefited from OCP School Lab.



GRI 103-2 | GRI 103-3 | GRI 203-2

## Key figures 2019

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

Check out our integrated Agribooster and Al Moutmir programs to find out more on our educational tools 



GRI 103-2 | GRI 103-3 | GRI 203-1 | GRI 203-2



## Affordability

Having agriculture back to the forefront of the continent's economic transformation goes through farmers' economic empowerment. They 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'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.



As a sustainable agricultural revolution requires a macroeconomic approach, OCP also invests in broader research & development on agriculture. The UM6P's P-Curiosity Lab 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.



**Digitalization** is at the heart of our work to create a connected farmer, empower the ecosystem and encourage end-to-end modelling. Deployed in 2019, the digital platform Udongo offers farmers access to the input and fertilizer market, advice and recommendations as well as to a marketplace for selling agricultural products. Beyond Nigeria, this initiative will potentially be developed in strategic countries while integrating new services.

Check out our integrated tools on the next pages →

GRI 103-2 | GRI 103-3 | GRI 203-2



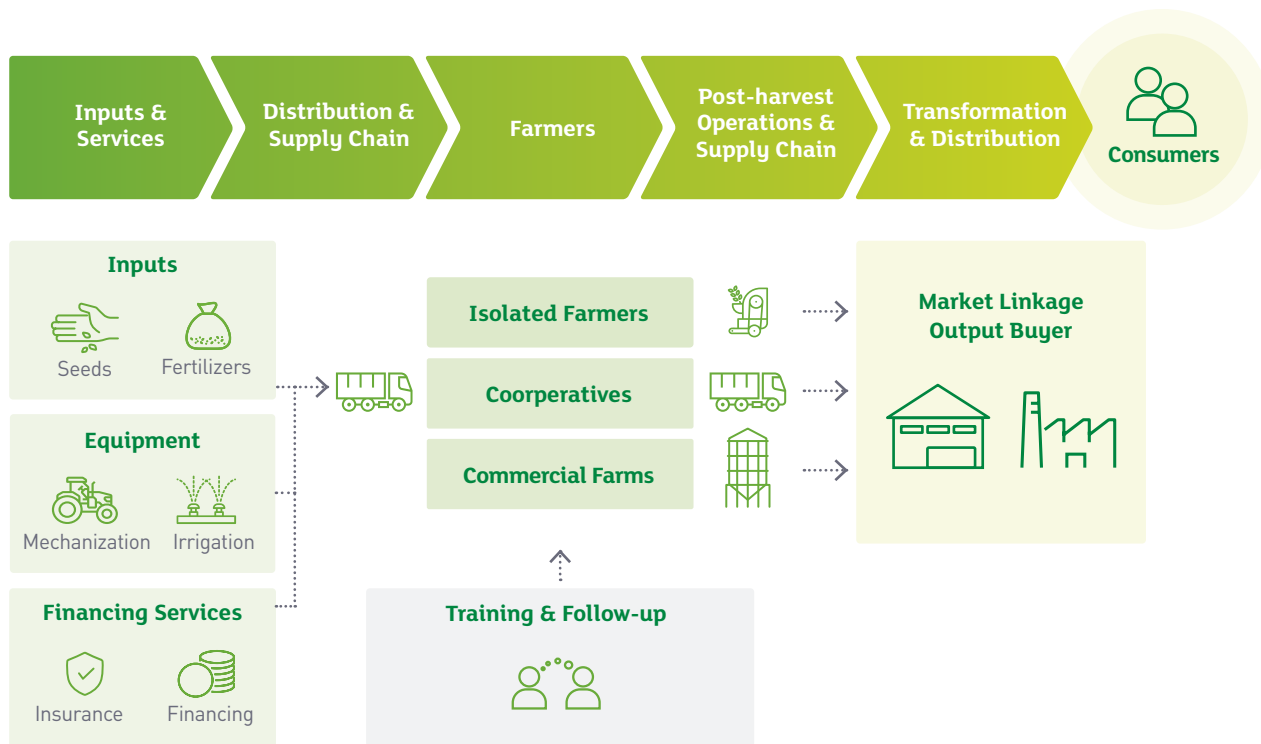
## Integrated tools

### AGRIBOOSTER

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. To enhance a sustainable farmer ecosystem, it includes:

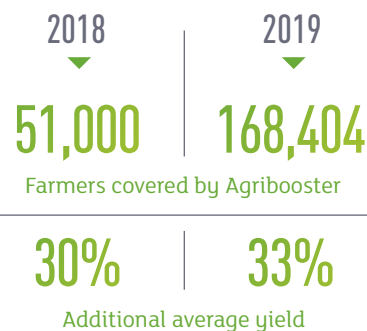
- Inputs (fertilizers, seeds and crop protection products);
- Training on sustainable agricultural practices (type, volume, frequency, moment to use fertilizers);
- Market linkages
- Financial services (loans and insurance).

The Agribooster has been deployed in Ivory Coast, Nigeria, Ghana, Kenya, and Senegal.



Agri-Promoters have been created as a single point of contact between smallholder farmers and the rest of the agriculture value chain to optimize the Agribooster offer while creating jobs for educated young people in agriculture. The young graduates are trained and supported to coordinate farmers' challenges – input (seeds, fertilizer, etc.), training extension, off-take, loan & insurance, mechanics and warehouse – with the right partners: input suppliers, financial services providers, and commodity buyers. Launched in 2018 in Ghana, the pilot project focused on rice and maize has shown significant results in 2019 with more than 22 agri-promoters who in turn mobilised 5,000 lead farmers.

### Key figures 2019



GRI 103-2 | GRI 103-3 | GRI 203-2

## AL MOUTMIR

As long-standing partner of farmers, OCP remains strongly committed alongside the entire ecosystem in order to support the transformation of agriculture in Morocco and more widely in Africa and around the world. The aim is to contribute to the emergence of inclusive agricultural development models that create sustainable value and impact.

In a partnership approach with the Ministry of Agriculture, Fisheries, Rural Development, Water and Forests, OCP Group through the Al Moutmir initiative mobilizes its teams with a view to closely supporting farmers, especially the little ones. It thus continuously stimulates the innovation loop with the various driving forces of the agricultural sector to respond with agility to the challenges and to bring out new adapted and accessible solutions for all.

Al Moutmir has thus designed and implemented a multiservice offer based on the scientific approach to ensure sustainability and on digital as a key lever to multiply the impact and serve a maximum of farmers across the country: the Smart Blender technology, the demonstration platform program, the direct sowing program and the free mobile application @tmar for all.

This approach is made possible thanks to various national partners, in particular scientific institutions (INRA, IAV, ENA and UM6P), the departments of the ministry, our partner manufacturers-distributors and resellers, professional organizations and farmers.

### Key figures 2019

**65%** of agricultural yield compared to the national average in Morocco



GRI 103-2 | GRI 103-3 | GRI 203-2

Several services and levers have been developed to foster best agricultural practices:

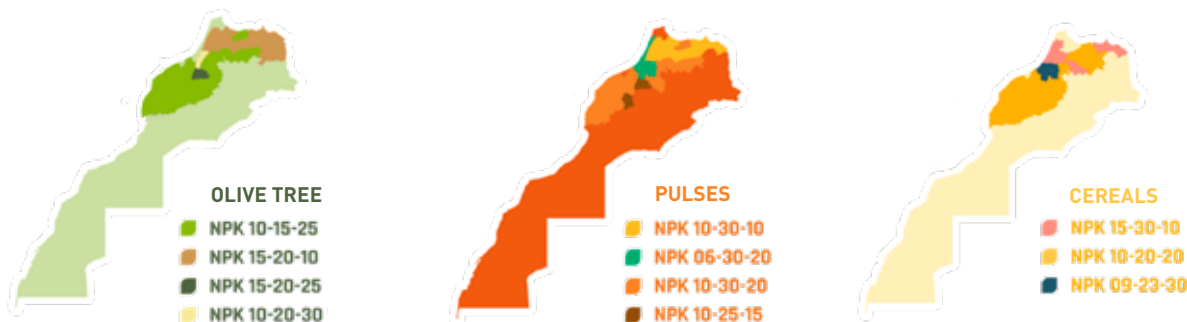
**Soil analysis**

Al Moutmir hinges on soil analysis to provide smart agriculture and fertilizing solutions carried out by both mobile laboratories across Morocco and Mohammed VI Polytechnic University (UM6P) laboratories. Significant human and technical resources are invested to support farmers and allow them to implement scientific sampling. Several sessions of explanation and demonstration are organized on the fields and completed by Al Moutmir mobile solutions. Educational tools are also distributed to farmers (flyers, demonstrative videos, etc.) to enable them to be autonomous and scientifically carry out sampling.

**Towards adapted and tailor-made products to improve yields while preserving natural resources**

OCP and its manufacturer-distributor partners continue to support the sector by supplying the national market with regional NPK fertilizers.

Indeed, our market supply is about delivering these partners with package contracts of phosphate fertilizers produced by OCP, but also of potassium and nitrogen fertilizers if necessary. This makes it possible to support the provision to the end customer, the farmer, of fertilizer formulas adapted by crop and by region and in the best conditions. These formulas, derived from the recommendations of the Soil Fertility Map of Morocco, are manufactured by OCP's manufacturer-distributor partners equipped with technological equipment for mixing "Bulk-Blending". Thereafter, these fertilizers are transported to the different regions and marketed through a national network of retailers who help to bring fertilizers closer to farmers.



**Going deeper to customized & smart fertilizers**

To go further towards optimizing natural resources and the adequate use of N, P and K nutrients, OCP introduced the Smart blender technology in late 2018. The latter consists of making NPK formulas tailored to each agricultural plot on the basis of its own soil analyzes and its potential yield. The deployment of Smart Blender production units in partnership with fertilizer distributor and national aggregator partners has now enable to produce customized NPK Blend fertilizers at proximity units based as close as possible to farmers.

**Key figures 2019**



soil analysis carried out since the launch of Al Moutmir in September 2018.

**Key figures 2019**



sale points of the smart blender are operational.

GRI 103-2 | GRI 103-3 | GRI 203-2



**6000** demonstration platforms since the start of the program in September 2018

## Key figures for the 2019-2020 for the no-till campaign:

 **2,000+** farmers

**10,000+** ha of cultivated area

**35+** seeders made available to cooperatives

**600** dedicated demonstration platforms.

### Demonstration platform: believe what you see

Covering 4 crop families - cereals, pulses, arboriculture and horticulture – the platforms are a powerful outreach tool for demonstrating scientific recommendations and agricultural innovations. Co-constructed and carried out in partnership with the agricultural ecosystem and in particular the scientific ecosystem (INRA, IAV, ENA UM6P), these platforms are set up in the fields of volunteer farmers and allow to demonstrate the considerable impact of best agricultural practices on the yield and quality, the income generated and also on fertilizers consumption. Each platform relates to the application of the best inputs, agricultural operations and techniques, from working the soil to harvesting. This allows, as the culture cycle progresses, to compare between the impact of good practices versus the average practices across localities or regions. The objective is to create an emulation and induction effect carried by the farmers who hosted these demonstration platforms, true ambassadors of good practice and keepers of effort continuity.

### Scaling up innovative and resilient agricultural practices

Facing climate change, we need to look into territorial agro-ecological transition models that can scale up varied and complementary adaptation measures. In this context, OCP launched its new direct sowing offer in October 2019 with the help of several agricultural associations and cooperatives at national level.

Key pillar of conservation agriculture, direct seeding consists in using adapted seeders with zero tillage, thereby preserving soil, water stocks and microbial life. This technique was introduced by several institutions and national partners such as the Ministry of Agriculture, Marine Fisheries, Rural Development, and Water and Forests, UM6P, INRA, etc. The seeders were made available to the cooperatives, who were responsible for the roll out in coordination with our agricultural engineers - stimulating collective decision-making. The objective of the inclusive Al Moutmir initiative is to considerably support this momentum and thus accelerate the adoption of no-tilling as a key lever of the new agro-ecological transition model of agriculture in our country.

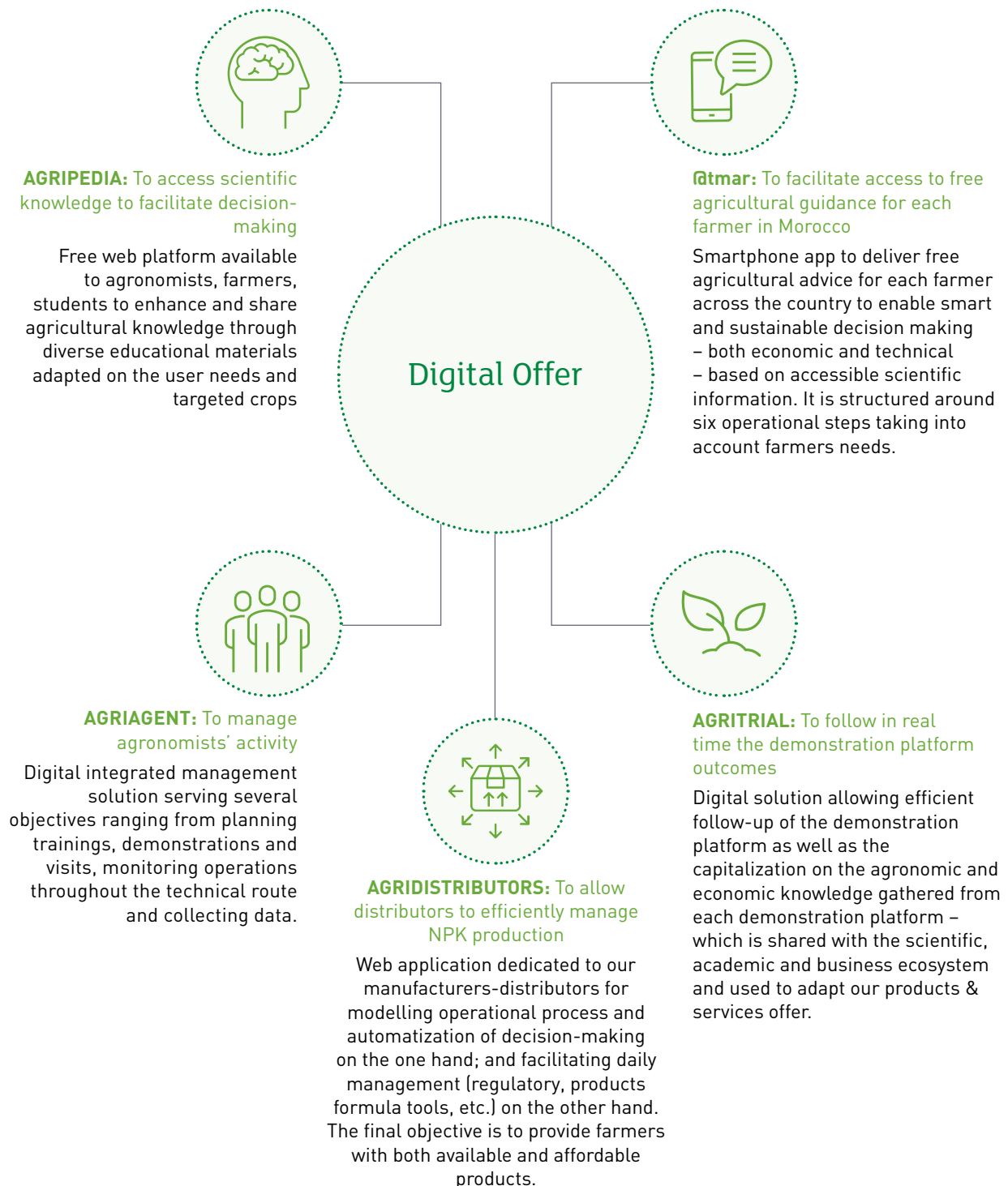


GRI 103-2 | GRI 103-3 | GRI 203-2

**Digitalization**

The digital solutions are at the heart of the Al Moutmir system since they not only make it possible to capitalize on the exchanges between our team and the farmers but also to shorten the distances and have a multiplier effect. Based on advanced technological concepts and models such as artificial intelligence and satellite imagery, these solutions enable tailor-made recommendations to each farmer.

The Al Moutmir initiative thus offers an advanced digital bouquet that support the farmer throughout the production chain:



GRI 103-2 | GRI 103-3 | GRI 203-2

One click will get you there: 6 operational services providing customized guidance for each farmer:

**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 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.

Launched in 2019, @tmr already covers several of the most widespread crops in Morocco: cereals, pulses, arboriculture and horticulture. Made in Morocco and available in French and Arabic, the app has been designed with farmers and will be enriched progressively according to the farmers' needs and feedback.

Key figure:

140,000

loadings during the month after kick-off



GRI 103-2 | GRI 103-3 | GRI 203-2

**Training & capacity building**

Education is the essential driver to sustainable change, that is why more than 10,000 training sessions were provided during the 2018-2019 agricultural season. Targeting farmers, women, cooperatives and young leaders, these courses covered more than 150 cultures and spanned over the entire technical itinerary of each culture. Technical supports are deployed to spread agricultural knowledge and facilitate the adoption of best agricultural practices by farmers. Expert partners are also engaged as close as possible to farmers to meet various training needs.

Having women be leader of change, enhancing their activities, developing their agricultural and entrepreneurial capacities – both individual and collective – and encouraging networking to achieve common and impacting actions, such is the goal of the ElleMoutmir program set up in 2019. This program includes four initiatives to meet the needs of rural women:



**Women Farmers Program:** includes local agronomic support for women farmers in various provinces of the country.



**Young Women Program:** targets young women who are active in rural communities and have an entrepreneurial potential.



**Women Cooperatives Program:** targets cooperatives and other professional women's organizations, working in the production and enhancement of agricultural and terroir products.



**Women Agri-retailers program** offers women entrepreneurs in the fertilizer sector a capacity-building program through a partnership approach mobilizing all stakeholders concerned with the development of the rural women's living conditions



GRI 103-2 | GRI 103-3 | GRI 203-2

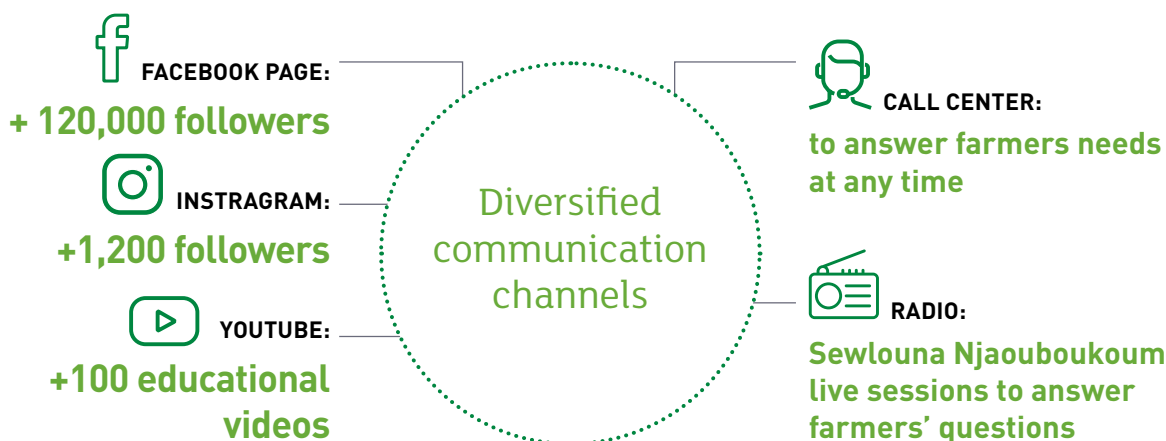
### Sharing & Communication

#### Al Moutmir Open Innovation Lab: sharing platform with the ecosystem

Set up in July 2019, the exchange and sharing platform "Al Moutmir Open Innovation Lab" aims to explore innovative and inclusive models for the dissemination and sharing of scientific and technical knowledge with farmers towards a prosperous and sustainable agriculture. Several meetings are planned around different themes: demonstration platforms, women, youth and attractiveness of the rural environment, capacity building, etc. In 2019, two editions were dedicated to the following themes:

- "Demonstration platforms: an essential lever for channelling scientific knowledge to small and medium-sized farmers" held at UM6P and brought together the scientific triptych: agricultural engineer and farmer.
- "Rural women" on the occasion of the International Day of Rural Women on October 15 held at UM6P and brought 550 participants including women farmers, entrepreneurs, economists, agronomists, artists, finance manager, nonprofit sector, as well as representatives of several international and continental organizations (FAO, World Bank, UN).

#### Al Moutmir communication channels



#### Peer-to-peer sharing



Striving for impact maximization, we have also initiated in 2019 with voluntary farmers with whom we work a series of videos called "Min Ila Al Fallah" broadcast in Youtube and Facebook. In each video, a farmer proposes to share with his peers agricultural practices learned thanks to the support of the Al Moutmir team. Being in Darija – Moroccan Arabic – and coming from the farmer, the videos have been very successful and fostered the adoption of best farming practices.

| 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     |

GRI 103-2 | GRI 103-3 | GRI 203-2



## OUR GOALS

### Partnerships for yields

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

 Ongoing

### Farmer intimacy

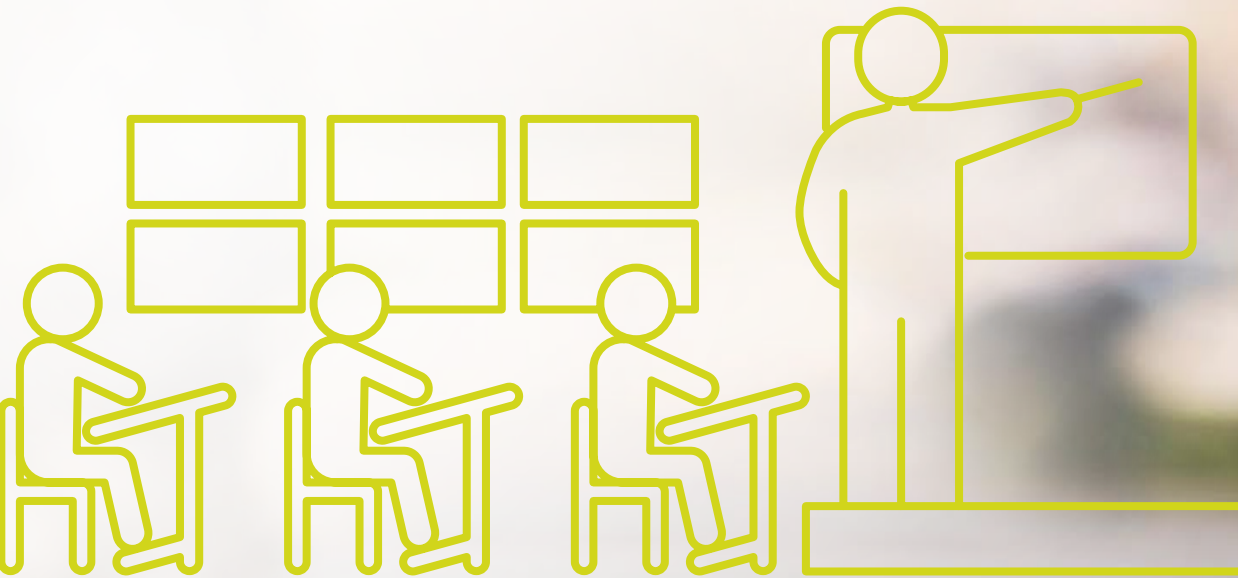
- > Increase the geographical area and the number of beneficiaries covered by sound agricultural practice support programs

 Achieved



# 3.3

## COMMITMENTS TO SHARED VALUE CREATION





primary material topic



GRI 103-1 | GRI 103-2 | GRI 103-3 | GRI 203-1 | GRI 413-1

OCP 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 where development meets the needs of the present, without compromising the ability of future generations to meet their own. Breathe, eat, drink, work, learn are very basic needs we – as employees, investors, parents, political leaders, citizens, etc. – all depends on; but whose satisfaction is still being threatened. As a responsible company, 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.

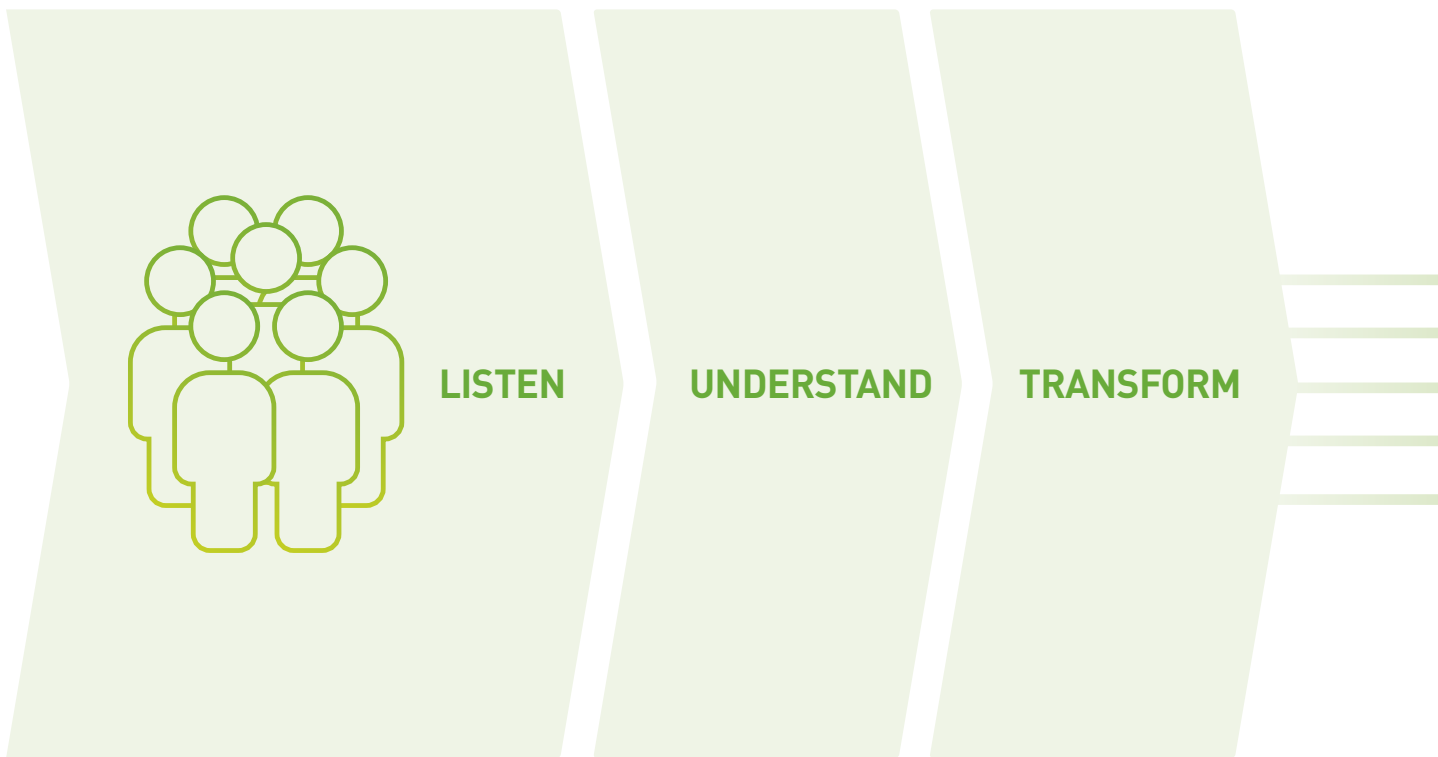
### Key figures 2019

**\$ 195**

million of community investments

**35%**

increase in community investments increased compared to 2018



ACT4COMMUNITY

OCP FOUNDATIONS

OCP BUSINESS UNITS



GRI 203-1 | GRI 413-1



SHARED VALUE

GRIEVANCE MECHANISMS

GRI 103-2 | GRI 103-3 | GRI 203-1 | GRI 413-1

## ACT4COMMUNITY

Launched in 2018, Act4Community is fuelled with dedicated teams for each operational sites and backed by OCP's resources. To maximise sustainable impacts, it relies on key engagement levers such as :

- Thematic workshops;
- Door-to-door;
- Trade forum;
- Meetings with targeted stakeholders (local associations, communities, local authorities, projects owners, etc.);

It also hinges on a network of volunteer employees -- who can donate up to 30 days of their time annually. Act4Community is governed by a committee responsible for allocating human and financial resources according to the OCP's operational sites' local needs and impacts identified through our stakeholders engagement tools. Each site is represented in the committee, and any personal connections and interest with the surrounding communities has to be disclosed by members.

## Key figures 2019

**+51%**

of employees engaged in Act4Community compared to 2018, via 3 307 employees in 2019.

**+102%**

of volunteering hours compared to 2018, representing 11,110 hours in 2019.



**8,500**

persons engaged as part of our stakeholders engagement program.

|           |       |
|-----------|-------|
| Khouribga | 5,300 |
| Safi      | 1,600 |
| Gantour   | 1,600 |

## OCP FOUNDATIONS

OCP has two foundations – the OCP foundation and the Phosboucraâ Foundation – both aiming to trigger capabilities and build a sound economic, social and environmental development where OCP operates.

-  **The OCP foundation** is governed by a committee – composed of different business units representatives – responsible for allocating human and financial resources depending on local, national and international impacts and needs identified through key engagement levers.
-  **The Phosboucraâ foundation** is driven by different stakeholders engagement tools to deepen our understanding of our communities.

## GRIEVANCE MECHANISMS

In addition to our Ombudsman platform dealing with suggestions from all external parties such as its clients, suppliers, NGOs, etc.; each operational site receives oral & written complaints that are processed according to the complaint type; and integrated in the sites management meetings' agenda to continuously improve the way we operate. Each site also ensures that dialogue occurs to reach consensus during any significant operational changes related to its activities such as restructuring, outsourcing of operations, closures, expansions, new openings, takeovers, sale of all or part of the organization, or mergers.

Find out more on our stakeholders engagement tools 





GRI 103-2 | GRI 103-3 | GRI 203-2



# THE WAY WE LEARN



Education is one of the most important investments a country can make in its future. Breeding confident, ethical and well-rounded successful individuals who will become responsible and resourceful citizens to sustainably develop our society – and our companies. That’s why in 2019 we continue our journey to:

## ENSURE A QUALITY LEARNING ENVIRONMENT

OCP deploys complementary resources to provide students with attractive education infrastructures through:

- Rehabilitation of existing infrastructures & creation of new ones;
- Mobility solutions (bus, bikes, etc.);
- School supplies and equipment;
- Training of the educative teams;
- Summer camps;
- Complementary financial sponsorship.

## Key figures 2019

**100**

Schools rehabilitated, equipped or sponsored

**21,520**

Children beneficiaries

GRI 103-2 | GRI 103-3 | GRI 203-2

## DEVELOP EXCELLENCE & INNOVATION

### Mohammed VI Polytechnic University (UM6P): shaping cutting-edge technologies and learning

#### Key achievements 2019:

1. New schools and institutes: School of Architecture, Planning & Design to promote sustainable architecture; Institute of Science, Technology and Innovation, Center for Agricultural Innovation and Technology Transfer (IST&I) to catalyse research & development in chemicals, materials, applied mathematics, industrial technologies, health science, etc.); School of Collective Intelligence, spanning cognitive and data science, ethics and innovation.
2. IMPULSE programme in partnership with the American accelerator MassChallenge to boost Moroccan and international startups in the fields of agritech, biotechnologies, nanotechnologies and mining technologies.
3. Thematic workshops, conferences, bootcamps and summer schools on artificial intelligence, computer science, energy storage, entrepreneurship, etc.



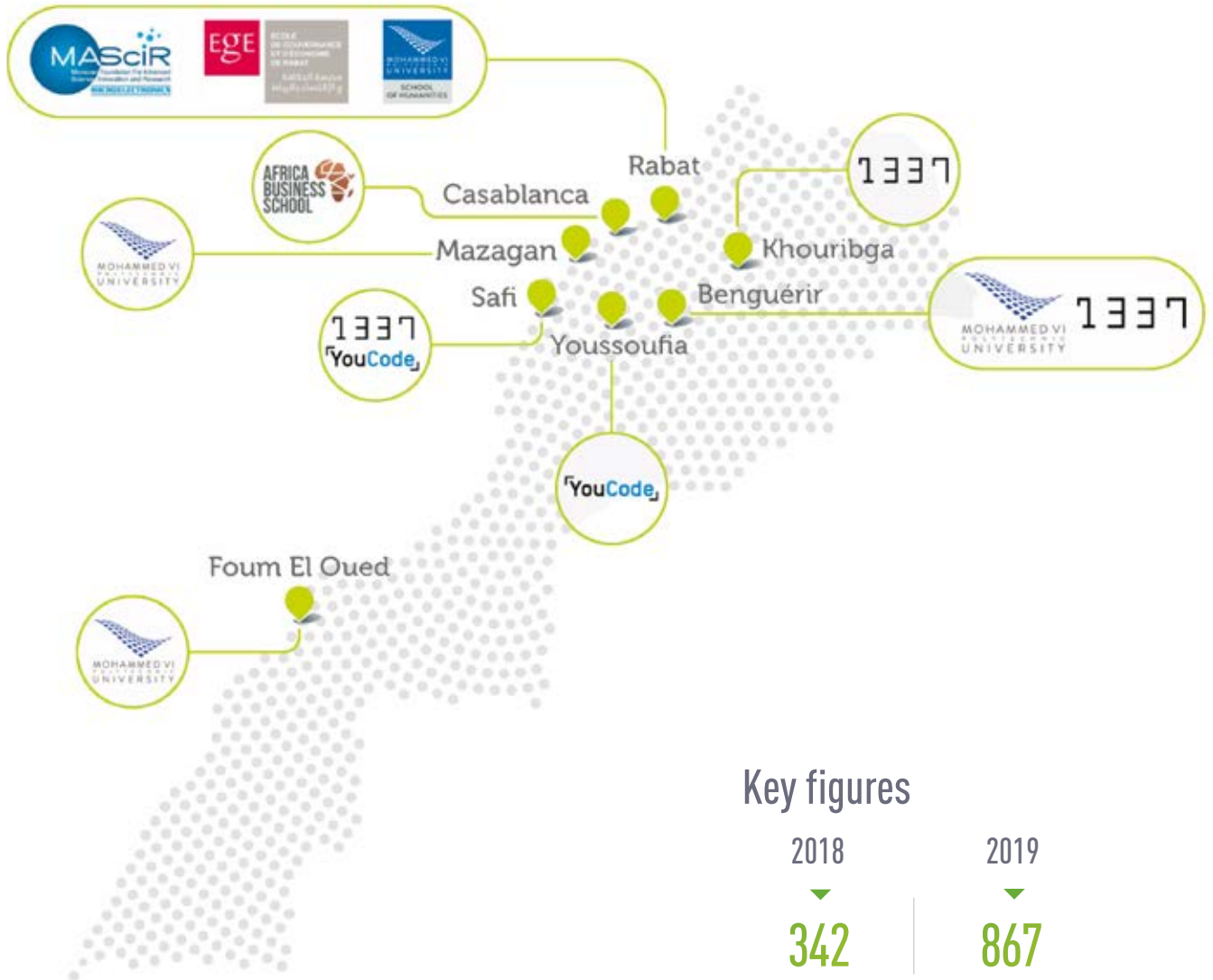
4. New training programmes: Education fellow – mathematics and physics preparation for future teachers from EMINES (School of Industrial Management), executive master in crop nutrition, etc.

5. New initiatives to strengthen links between companies and students: Meet & Greet days to monthly welcome a world-class company in the school and share vision, activities and challenges with students; job interview simulations, job talks, hiring days, opening day, cross-universities competition to promote entrepreneurship among students, etc.
6. The Sustainable Development Department (SDD) to set in motion a collective and participatory dynamics and to engage the UM6P community in strengthening and integrating sustainability in our missions. This will especially go through a Sustainability Tracking, Assessment & Rating System™ (STARS) - transparent, self-reporting framework for 900 participating colleges and universities in 30 countries to measure their sustainability performance.



GRI 103-2 | GRI 103-3 | GRI 203-2

## UM6P: a comprehensive offer and multi-site implementation



### Programs oriented toward local youth



Prepares students for higher education and preparatory classes for the Grandes écoles.



Training, practices and innovation to meet the challenges of human development in Morocco



Community College provides an educational offer for the Rhamna region that allows the improvement of "soft skills"

### Key figures

| 2018   | 2019  |
|--|-------|
| 342  | 867   |
| Students in the UM6P   |       |
| 671  | 1,117 |
| Students enrolled at the Schools of Excellence                               |       |
| 410  | 900   |
| Students in the digital schools  |       |
| 200  |       |
| OCP volunteers to raise awareness on environmental protection among students |       |

GRI 103-2 | GRI 103-3 | GRI 203-2

## 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:



GRI 103-2 | GRI 103-3 | GRI 203-2



## PROVIDE EQUAL OPPORTUNITY

**Scholarships** to enable all students to access prestigious schools. In 2019, UM6P, OCP and the OCP Foundation launched the Post-Graduate Excellence Scholarship program to support Moroccan students to pursue research master and PhD curriculum.

**Private tutoring** for primary and high schools students.

**Specific support for professional insertion of youth** through employability program in agriculture, hotel and construction industry and targeted training on both soft and technical skills. Established at four OCP sites – Youssofia, Benguerir, Laayoune, and Khouribga, skills centers also help youth to develop their entrepreneurial skills, set up projects, and launch businesses. Each has a capacity ranging from 600 to 1,000 participants.

**Medical and social centres targeting people with disabilities** through technical support, training and strengthening of professional skills provided by a specialized partner. People with disabilities then benefit from therapeutic care adapted to their type of disability, specific educational follow-up, and qualifying training to enable their socio-professional integration.



GRI 103-2 | GRI 103-3 | GRI 203-2

| Key figures   | 2018  | 2019   |
|---|-------|--------|
| 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%    |
| 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  |
| Medical and social centres  | 5     | 10     |
| People with disabilities supported through the medical and social centres   | 2,200 | 3,232  |
| Children receiving medical & educational support adapted to their disabilities  | 209   | 266    |
| Beneficiaries of educational support (infrastructures rehabilitation & development, training of teachers, private tutoring, etc.) |       | 21,520 |
| Students having benefited from private tutoring   |       | 2,145  |

### Zoom into Southern regions:

|   | 2018 | 2019 |
|---|------|------|
| Students receiving scholarships   | 157  | 114  |
| Members in the 6 reading centers coming along with 40 job creation and 51,517 visitors  |      | 835  |
| Members in the learning centers in Laayoune & Dakhla – among which 331 young people benefiting from trade skills trainings  |      | 697  |
| Young people preselected for the two integration programs for young people through economic activity in collaboration with the MOHAMMED V Foundation:   |      | 287  |
| <ul style="list-style-type: none"> <li>• in the Laayoune region Sakia EL Hamra with 50 microbusinesses created and 20 coaches to be trained</li> <li>• in the Guelmim Oued Noun region with 48 funded projects including 40 microbusinesses in creation and 19 trained coaches</li> </ul> |      |      |



GRI 103-2 | GRI 103-3 | GRI 203-2

## ENCOURAGING SOCIAL ECONOMY

OCP 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          |
|---|---------------|
| Local cooperatives trained & advised                      | 267           |
| Farmers trained   | 3,000         |
| Local cooperatives created                                | 88            |
| Orders to local cooperatives                              | 772.220 DH    |
| Human resources to advise local cooperatives              | 67 volunteers |
| Jobs at stake in the local cooperatives trained & advised | 1,246         |

### Zoom into Southern regions:

|                                      | 2019 |
|--------------------------------------|------|
| Local cooperatives trained & advised | 64   |
| Farmers trained                      | 120  |

## SHARING OUR EXPERTISE TO DEVELOP A SUSTAINABLE AGRICULTURE

OCP 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. 





GRI 103-2 | GRI 103-3 | GRI 203-2



# THE WAY WE DESIGN OUR HOME >>>>

Over the last century, OCP 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. All our urban development projects are inspired by the following pillars of smart cities:

- **Smart economy** to improve the overall business climate and attractiveness of start-ups, investors, businesses, etc. – providing opportunity, productivity as well as local and global interconnectedness
- **Smart environment** to manage the built and natural environment through smart buildings, resource management and urban planning limiting emissions, water consumption, waste generation and encouraging the energy transition
- **Smart mobility** to increase the efficiency and service quality of urban transportation to enhance the use and adoption of new mobility solutions as well as to increase people mobility through mixed modal access, clean & non-motorized mobility and integrated ICT
- **Smart people** to encourage education to facilitate career choices, labor market opportunities, vocational training as well as lifelong learning for all age groups and demographics but also talent development; inclusion and creativity
- **Smart government** to strengthen connections & interactions between public authorities and all stakeholders
- **Smart living** to increase the quality of life for residents and visitors through health, safety, culture and happiness infrastructures

We consider smart collaboration and innovation between public authorities, businesses, academia and civil society as essential for success. That is why we engage with our stakeholders in all of our projects to better target specific local needs and challenges.



GRI 103-2 | GRI 103-3 | GRI 203-2

# Benguerir Mohammed VI Green City

## LOCAL NEEDS SHAPING THE CITY

Beyond regulatory requirements, the urban development is supported by SADV (Société d'Aménagement et de Développement Vert) which organizes (workshops, survey, etc.) to better understand an answer local needs before carrying out urban strategic planning. Indeed, this work represents the first phase of territory analysis.

In order to take into account the evolutions of the territory, SADV works on urban planning which will lead to a new conceptual master plan for a green city, which will serve as a strategy for implementing the second and third phases of the Green City. This study will be based on the new local socio-economic indicators, the expectations and perception of the population and the ambitions of the project's owner.

## MAIN FEATURES

Built around the Mohammed VI Polytechnic University and aiming to offer an attractive living environment, this urban pole is designed as a living laboratory to experiment all the drivers of the urban planning of tomorrow which replace nature, human and knowledge at the heart of the city. The approach is structured around three pillars:

- 1. Academic excellence & research:** a value chain of education excellence and comprehensive applied research with state-of-the-art equipment and living laboratories. Among the key infrastructures: the world class Mohammed VI Polytechnic University (UM6P), Lycée d'Excellence (LYDEX), the coding school (1337), Industrial Expertise Centers and living labs open to the scientific community to test full-scale solutions in key areas - Green energy park, Green & Smart Building Park.
- 2. Economic development:** an economic activity zone dedicated to innovation players with a range of specific services and support. The city will feature business center, start-ups incubator, teleport, data centers and all the innovation ecosystem necessary - laboratories, academic & training institutions, etc.



GRI 103-2 | GRI 103-3 GRI 203-2

## Key figures

**80 ha**

of green belt along 4 km with 5 oasis

**15 ha**

of farming space

**30 ha**

de talwegs

**50,000**

trees

**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. It will feature:

- Green belt: backbone of the urban center, it will structure all the soft routes and will schedule the network of roads with all of the districts and the site. Nature is also enhanced before starting any new urbanisation project through pre-planting adapted to local soil and reintroducing native species.
- Autonomous districts to guarantee residents close access to shops and services, and helps reduce movement and CO<sub>2</sub> emissions
- Soft mobility routes (pedestrian & biking paths)
- Responsible water management (double circuit drinking & grey water, rainwater retention, recycling of wastewater)
- Recovery of waste
- Bioclimatic architecture and energy efficiency of buildings: urban shapes are designed to optimize the natural circulation of winds and sunshine.
- Quality urban services



The Mohammed VI Green City is being built in alignment with the LEED ND (Leadership in Energy and Environmental Design for Neighborhood Development) environmental certification process.

## Key figures

2045

|   |                |
|---|----------------|
|  ha  | <b>1,300</b>   |
|  Inhabitants                               | <b>100,000</b> |
|  Residential units                         | <b>25,000</b>  |
|  m <sup>2</sup> green space per inhabitant | <b>20</b>      |
|  Students & researchers                    | <b>20,000</b>  |
|  m <sup>2</sup> of shops                   | <b>200,000</b> |



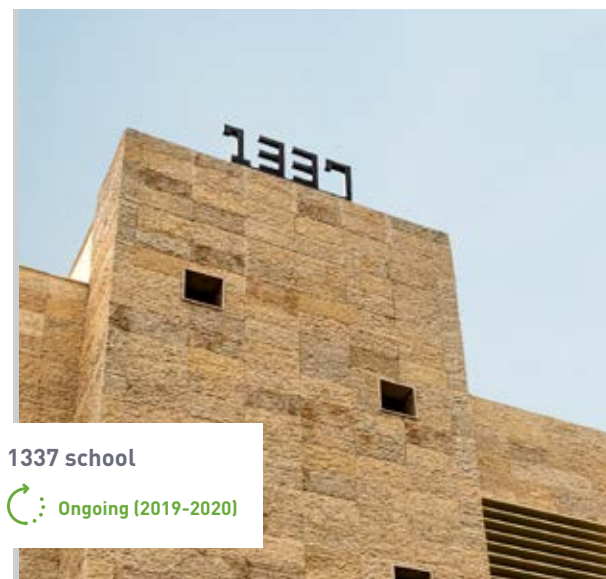
GRI 103-2 | GRI 103-3 | GRI 203-2

## PROJECT PHASES

Phase 1  Ongoing (2011-2025) - flagship infrastructures:



GRI 103-2 | GRI 103-3 | GRI 203-2



GRI 103-2 | GRI 103-3 | GRI 203-2



GRI 103-2 | GRI 103-3 | GRI 203-2

# FOUM EL OUED-LAAYOUNE

## LOCAL NEEDS SHAPING THE CITY

Beyond regulatory requirements, the urban development is supported by the Fondation Phosboucrâa. Before each project construction phases is initiated, consultations are organized with local communities. Launched in 2018, the specific consultation called 'Draw me a city' has fuelled discussions on urbanism in the Southern regions in 2019. The digital and educational survey enabled to better identify needs of local communities and to involve them to co-build their city and share idea on topics such as mobility, green space, sea exploitation, housing, etc.

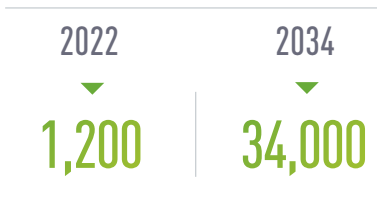
## MAIN FEATURES

Located on a 126-ha area, the Foum 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.).

The project is also in process to get the HQE Aménagement certification

## Key figures

Expected job creation



**\$2.11**

Billion investment

## PROJECT PHASES

Located on a 126-ha area, the Foum 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.).

The project is also in process to get the HQE Aménagement certification

**Phase 1:**  Ongoing (2018-2020)

**Phase 2 (2020-2022)**

# 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.



GRI 103-2 | GRI 103-3 | GRI 203-2

## 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, an R&D 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.

GRI 103-2 | GRI 103-3 | GRI 203-2

## OUR GOALS

### Strengthening OCP's local outsourcing ecosystem

- > Set up 5 SMEs incubators/ accelerators around the Group production sites with the objective of creating 500 new subcontracting SMEs

 Ongoing

### Creation of a local digital ecosystem

- > Extend coding schools to the 5 production sites aiming at training 1000 young programmers per year; and build 2 Digital Business Incubators to develop 50 startup in the digital sector

 Ongoing

### Development of sustainable and innovative employment in the agricultural sector

- > Set up 2 rural agricultural schools in OCP mining sites with the aim of training 1000 small farmers and supporting 100 women's cooperatives valorizing local products

 Ongoing

### Support local communities to develop economic activities on the rehabilitated mining lands

- > Plant 600 ha per year of fruit trees and other alternative crops and develop new agricultural sectors including Quinoa and Argan while establishing experimental farms and plant nurseries on mining sites

 Ongoing

### Preserve Cultural Heritage and promote Sports

- > Invest in projects for the preservation of cultural and mining heritage and develop incubators of young talents in culture and sport by setting up two sports academies and a cultural incubator

 Achieved

### Reach 30% of the volunteer employees involved in the OCP Community Service program

- > Encourage and train them in social innovation through the launch of masters classes on innovation and social entrepreneurship within the UM6P

 Ongoing







# ABOUT THIS REPORT



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This report is the official publication of OCP Group's sustainable development achievements and performance for 2019. This report has been prepared in accordance with the GRI standards: core option. It covers all OCP Group S.A. activities and entities for the period from January 1 to December 31, 2019, corresponding to the company's fiscal year. The reporting cycle is annual. The next publication will be released in 2021 and will cover OCP Group's sustainable development achievements and performance for 2020.

This report was supported by the sustainability advisory firm Forethix, which provided the methodology for the materiality analysis shown on 187.

All of our publications are available on our website: [www.ocpgroup.ma](http://www.ocpgroup.ma). OCP Group is at your disposal to provide any other information on our sustainability approach. To this end, we are providing an email address dedicated to our stakeholders that we encourage to give feedback on their expectations and concerns: [sustainability@ocpgroup.ma](mailto:sustainability@ocpgroup.ma)

# 4.1

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# GRI CONTENT PRINCIPLES NOTE



## GRI 102-46

In preparation for this report, OCP Group conducted a materiality analysis early 2019 to identify the priority topics to report on according to the Stakeholder Inclusiveness and Materiality principles, with the support of the sustainability advisory firm Forethix.

Aligned with the OCP Group's continuous improvement approach, this materiality analysis was strengthened early 2020 through the engagement of additional stakeholders groups. The purpose of this document is to describe the methodology followed by OCP to prepare its report using the GRI standards: core option.

## Methodology

The materiality analysis process used to prepare this report is grounded on both internal and external stakeholder engagement program, which consists of the following steps:

### A. Topic identification

In order to create a list of sustainability topics to consider in the stakeholder consultations, we based our methodology on:

1. A documentary analysis encompassing OCP's previous Annual Reports and Sustainable Development Reports as well as the Global Reporting Initiative's standards and mining sector supplement.
2. A comparative sectoral study of fertilizer industry companies based on their Sustainable Development reports. 45 topics were identified and subsequently underwent an impact analysis and a stakeholder assessment.

### B. Analysis of the significance of economic, social, and environmental impacts

The significance of the economic, social, and environmental impacts of OCP's activities was assessed through a quantitative evaluation questionnaire completed by internal OCP experts in the company's sustainability network. A quantitative survey was used in order to collect the maximum number of responses. Out of the 80 invited participants, 28 responded, bringing the participation rate to 35%. Three assessment criteria were taken into account:

1. The impact level (from 1 - not significant to 4 - very significant);
2. The impact frequency (from 1 - not frequent to 4 - very frequent);
3. The expertise level (from 1 - very high expertise to 4 - low expertise).

A rating scale of 1 to 4 was used to avoid averaging. The criteria were weighted identically (without a multiplier), giving each participant the same weight. The position of the areas on the matrix's X axis corresponds to the average results for the three criteria.

### C. Sustainability impact assessment and contributions to the SDGs

In order to refine the impact analysis carried out as part of developing the materiality matrix, a risk and opportunity analysis throughout the value chain was organized with members of OCP's internal sustainability network. The analysis was structured according to the UNGC and GRI recommendations (*Integrating the SDGs into corporate reporting: a practical guide*, 2018)

in order to identify strategic contributions to the SDGs. An assessment scale from 1 (low) to 4 (very significant) was used to assess the positive and negative impacts throughout the value chain. In 2019, OCP prioritized 5 SDGs representing the most significant impacts, risks and opportunities regarding its activities, products and services. Check them out page X.

GRI 102-42 | GRI 102-43 | GRI 102-46

## D. Stakeholders identification

The internal and external stakeholder groups were first mapped by the sustainability committee in charge of producing the report. Stakeholders were positioned in OCP's sphere of influence based on their influence in

the organization and how their interactions relate to the company's management, production, and shared value creation commitments.

## E. Stakeholder consultation

### 2019:

A questionnaire was sent to 40 stakeholder representatives based on the duration of their relationship with OCP and their sustainability maturity. The participation rate was 70%, with feedback received from 29 representatives from

the stakeholder groups disclosed in the mapping below. Only one rating criterion - the level of influence - was considered. A rating scale of 1 to 4 was used to avoid averaging.

### 2020:

New stakeholder groups were engaged to sharpen OCP's materiality analysis: the ESG rating agencies – representing investors' voice – and OCP's sales office – representing customers' voice.

A questionnaire was sent to 10 OCP's sales offices around the world. The participation rate was 40%. Only one rating criterion - the level of influence on the customers' assessment and decisions - was considered. A rating scale of 1 to 4 was used to avoid averaging.

Two major ESG rating agencies' issues scores were converted and integrated to the corresponding OCP's topics in the materiality matrix.

All stakeholders were weighted identically (without a multiplier) to give each participant equal importance.

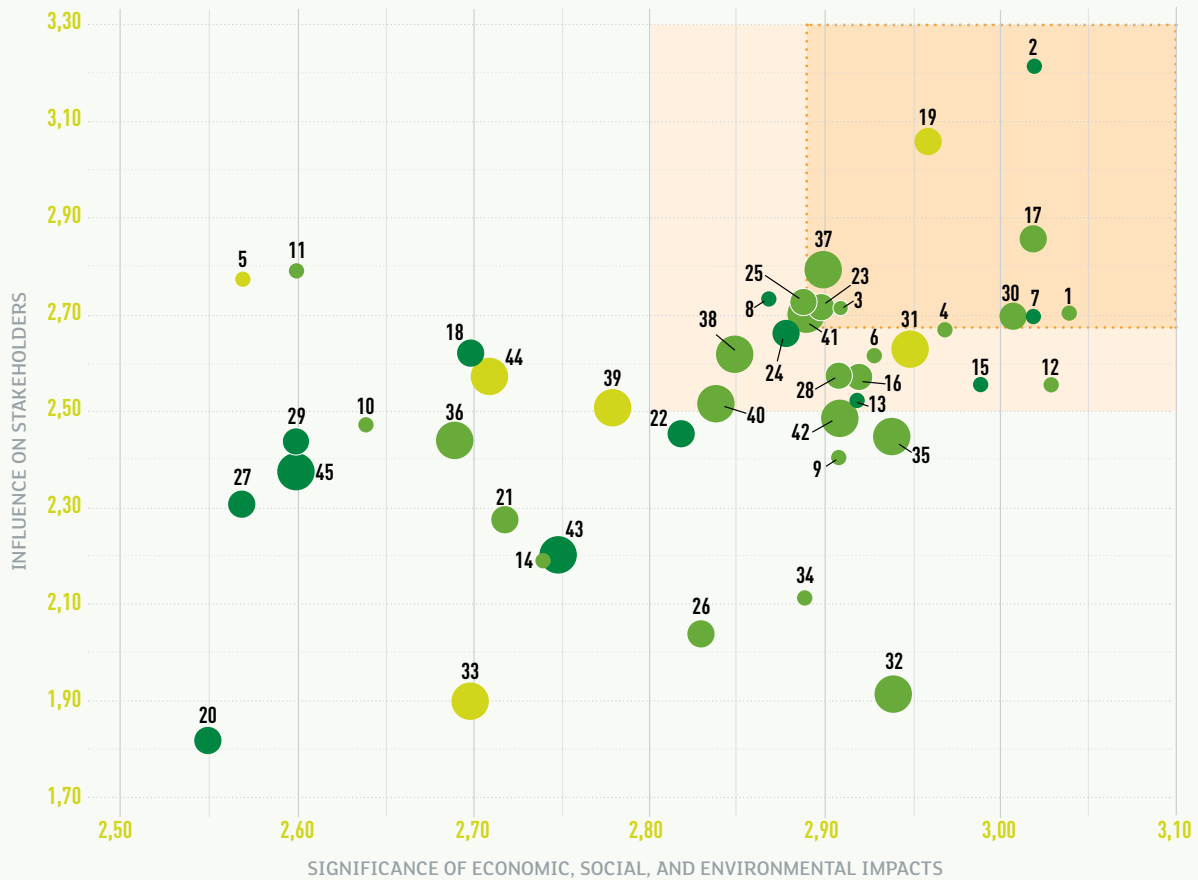


## F. Selection of topics

Through analyzing the activities' economic, social, and environmental impacts and consulting both internal and external stakeholders, the following materiality matrix was created:

GRI 102-44 | GRI 102-46 | GRI 102-47

### Materiality matrix



● Responsible management  
 ● Sustainable production  
 ● Shared value creation

**LEVEL OF PROFICIENCY**

Good level of proficiency  
  Moderate proficiency  
  Proficiency to be improved

- 1. Occupational Health and Safety
- 2. Economic growth
- 3. Operational excellence
- 4. Water management
- 5. Infrastructure development
- 6. Management of raw materials
- 7. Fertilizer market development
- 8. Job creation & retention
- 9. Supply chain efficiency
- 10. Energy management
- 11. Industrial partnership development
- 12. Customer satisfaction
- 13. Employee development
- 14. Information on products and services
- 15. Transparent and ethical governance
- 16. Cybersecurity

- 17. Food security
- 18. Human Rights
- 19. Community engagement
- 20. Political contributions and lobbying
- 21. South-South partnership & collaboration
- 22. Innovative governance
- 23. Environmental compliance of activities
- 24. Research & Development, innovation
- 25. Waste and hazardous products management
- 26. GHGs and other emissions
- 27. Freedom of association
- 28. Promotion of a sustainable agriculture
- 29. Diversity and non-discrimination
- 30. Renewable energy development
- 31. Indirect economic impacts
- 32. Mine site rehabilitation

- 33. Preservation of mining heritage
- 34. Farmer profitability
- 35. Digitalization and Industry 4.0
- 36. Future talent development (STEM)
- 37. Circular economy model
- 38. Sustainable agricultural productivity
- 39. Talent development in the creative and innovative fields
- 40. Climate change
- 41. Soil and biodiversity management
- 42. Synergies and local supplier network
- 43. Social assessment of suppliers
- 44. Local entrepreneurship
- 45. Environmental assessment of suppliers

Primary and secondary topics were established using a materiality threshold determined collectively by the OCP internal experts and validated by senior management.

1. The materiality threshold defining the primary material topics (orange area with dotted lines) corresponds to coordinates greater than or equal to [2.89, 2.67]

2. Materiality threshold defining with secondary material topics (light orange area) corresponds to coordinates greater than or equal to [2.85; 2.47]

3. The topics in white are defined as tertiary and are the least important.

GRI 102-56

## G. Next steps

OCP's sustainability approach is based on a process of continuous improvement and dialogue with stakeholders through a progressive stakeholder engagement program. This program will be further developed as detailed on page 24 and periodically renewed to continually involve new categories of stakeholders as part of the reporting process.

# Expert advice and review

---

In the context of the stakeholder engagement program and the work carried out to prepare this report, we confirm that the preparation of this report was based on the reporting content principles of the Global Reporting Initiative and the Accountability principles AA1000AP (2018) relating to the principles of Inclusivity, Materiality, Responsiveness & Impact.

The progress targets for the next fiscal years are as follows:

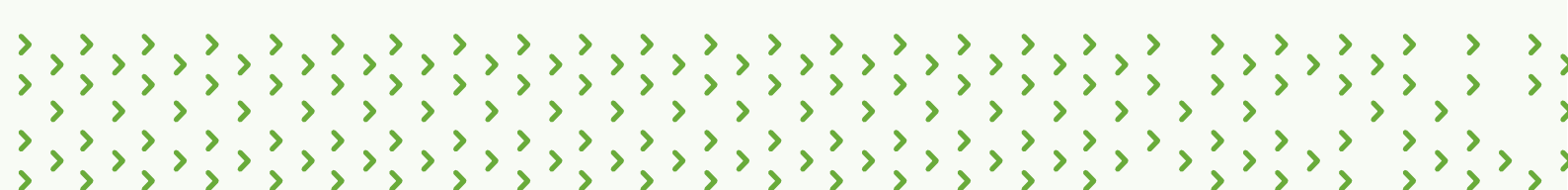
1. Expand and formalize internal and external stakeholders consultation to all significant business processes and functional area.
2. Adapt the global materiality analysis for each significant operational site;
3. Refine, quantify, and report on the 2025 objectives for management, production, and shared value creation commitments,
4. Promote and participate in regional sustainable development best practices;
5. Sharpen governance to integrate sustainability into each business processes and functional area.

April 20, 2020

**Forethix SARL**

Stéphanie Deltenre, Partner

**Forethix**  
Embedding Sustainability





# 4.2

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# GRI CONTENT INDEX





For the GRI Content Index Service, GRI Services reviewed that the GRI content index is clearly presented and the references for all disclosures included align with the appropriate sections in the body of the report.

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**ENVIRONMENT**

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**GRI 103: Management approach 2016**

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GRI 102-55

**SOCIAL**

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GRI 102-55

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| GRI 103-3   | Evaluation of the management approach  | 84       |
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# 4.3

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# CORRESPONDENCE TABLES

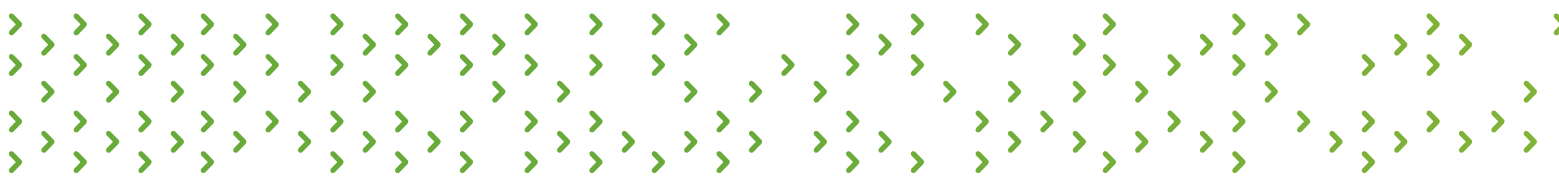




## CORRESPONDENCE WITH THE TCFD RECOMMENDATIONS

Climate change is a strategic risk with potential financial implications for our company and all our stakeholders. That is why we are working to align this report with the recommendations of the TCFD (Task force on Climate related Financial Disclosures).

| DISCLOSURE   | PAGE    |
|--|---------|
| <b>GOVERNANCE</b>  |         |
| a) Describe the board’s oversight of climate-related risks and opportunities.  | 110     |
| b) Describe management’s role in assessing and managing climate-related risks and opportunities.   | 110     |
| <b>STRATEGY</b>  |         |
| a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.                               | 106-109 |
| b) Describe the impact of climate-related risks and opportunities on the organization’s business, strategy, and financial planning.                          | 106-109 |
| c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario. | —       |
| <b>RISK MANAGEMENT</b>   |         |
| a) Describe the organization’s processes for identifying and assessing climate-related risks.  | 110     |
| b) Describe the organization’s processes for managing climate-related risks.   | 106-107 |
| c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management.     | 110     |
| <b>METRICS &amp; TARGETS</b>   |         |
| a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.    | —       |
| b) Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.   | 101     |
| c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.                          | —       |



## CORRESPONDENCE WITH THE UNGC PRINCIPLES

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|--|---|----------------------------|
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|  | GRI 413 - Local communities                                       | 142-157, 160, 162, 164-182 |
| <b>Principle 2</b> : Businesses should make sure that they are not complicit in Human Rights abuses  | GRI 412 - Human Rights assessment                                 | 54-59                      |
|  | GRI 414 - Supplier social assessment                              | 84-87                      |
| <b>LABOUR</b>  |   |                            |
| <b>Principle 3</b> : Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining | GRI 102-41 - Collective bargain agreement                         | 83                         |
|  | GRI 402 - Labor management relations                              | 82-83                      |
| <b>Principle 4</b> : Businesses should uphold the elimination of all forms of forced and compulsory labour                                   | GRI 412 - Human Rights assessment                                 | 54-59                      |
| <b>Principle 5</b> : Businesses should uphold the effective abolition of child labour  | GRI 414 - Supplier social assessment                              | 84-87                      |
|  | GRI 102-8 - Information on employees and other workers            | 68                         |
|  | GRI 401- Employment   | 66-67                      |
|  | GRI 404 - Training & education                                    | 78-81                      |
| <b>Principle 6</b> : Businesses should uphold the elimination of discrimination in respect of employment and occupation                      | GRI 405 - Diversity & equal opportunity                           | 72-73                      |
|  |   |                            |
| <b>ENVIRONNEMENT</b>   |   |                            |
| <b>Principle 7</b> : Businesses should support a precautionary approach to environmental challenges  |   | 96, 98-100                 |
|  | GRI 301 - Materials   | 116-120                    |
|  | GRI 302 - Energy  | 122-127                    |
| <b>Principle 8</b> : Businesses should undertake initiatives to promote greater environmental responsibility                                 | GRI 303 - Water   | 132-135                    |
|  | GRI 304 - Biodiversity  |                            |
|  | GRI 305 - Emissions   | 101-115                    |
|  | GRI 306 - Effluents & waste                                       |                            |
|  | GRI 307 - Environmental compliance                                | 128-129, 136-138           |
| <b>Principle 9</b> : Businesses should encourage the development and diffusion of environmentally friendly technologies.                     | GRI 308 - Supplier environmental assesment                        | 130-131                    |
|  |   | 84-87                      |
| <b>ANTI-CORRUPTION</b>   |   |                            |
| <b>Principle 10</b> : Businesses should work against corruption in all its forms, including extortion and bribery                            | GRI 102-16 - Values, principles, standards, and norms of behavior | 50                         |

## 4.4

## GLOSSARY

**EBITDA:** earnings before interest, taxes, depreciation and amortization  
**LTIFR:** Lost-time injury frequency rate  
**CAPEX:** Capital expenditures  
**SA:** Société Anonyme, Limited company  
**SDGs:** Sustainable Development Goals  
**UN:** United Nations  
**UM6P:** Mohammed VI Polytechnic University  
**NGOs:** Non-governmental organizations  
**ANP:** National Ports Agency  
**ONCF:** Office national des chemins de fer, national railway operator  
**ONEP:** Office national de l'électricité et de l'eau potable, National operator of electricity and drinking water  
**USGS:** United States Geological Survey  
**AFA:** Arab Fertilizer Association  
**AFAP:** African Fertilizer and Agribusiness Partnership  
**IFA:** International Fertilizer Industry Association  
**WBCSD:** World Business Council for Sustainable Development  
**TCFD:** Task Force on Climate-related Financial Disclosures  
**M&A:** Merger & Acquisition  
**R&D:** Research & Development  
**DAP:** Di-Ammonium Phosphate - most commonly used binary fertilizer  
**TSP:** Triple Super Phosphate - phosphate fertilizer  
**MAP:** Mono-Ammonium Phosphate - a binary fertilizer consisting of two fertilizing agents - phosphorus and nitrogen  
**NPK:** compound fertilizers composed of three elements - phosphorus, nitrogen, and potassium  
**PPP:** Performance Phosphate Products - the latest generation of fertilizers developed with a view to sustainable and efficient agriculture  
**NP+:** nitrogen and phosphate based fertilizers enriched with secondary and micronutrients to improve agricultural yields, protect soil from degradation, and offer highly concentrated solutions to improve fertility

**SOLUBLE FERTILIZERS:** fertilizers for high-value added and irrigated crops adapted to limited water resources and new micro-irrigation and watering systems;  
**DCP/MDCP:** Di-calcium Phosphate/ Mono Di-calcium Phosphate - phosphate and calcium based animal feed supplements used to manufacture mixed feed for farm animals. Feed phosphates strengthen bones and accelerate farm animal growth (cattle, sheep, poultry, goats, etc.).  
**TSP-S:** Triple Super Phosphate - Sulfur: phosphate fertilizer  
**NaCaP:** fertilizer featuring chlorine, calcium, and phosphate  
**MgP:** fertilizer featuring magnesium and phosphate  
**R&I:** Research & Innovation  
**CEA:** Commissariat à l'énergie atomique et aux énergies alternatives, Atomic Energy and Alternative Energy Commission  
**GEP:** Green Energy Park  
**JFC:** Jorf lasfar Fertilizer Complex  
**COSO:** Committee of Sponsoring Organizations of the Treadway Commission  
**IFACI:** French branch of the Institute of Internal Auditors - IIA  
**HSE:** Health, Safety & Environment  
**PG:** Phosphogypsum  
**JESA:** Jacobs Engineering SA  
**EMS:** Environment Management System  
**IFC-WB:** International Finance Corporation - World Bank  
**WHO:** World Health Organisation  
**3Rs:** Reduce, Reuse, Recycle  
**INRA:** Institut national de la recherche agronomique, National Institute for agronomic research  
**IAV:** Institut agronomique et vétérinaire, Agronomic and veterinary institute  
**ENA:** Ecole National d'Agriculture, National school of Agriculture  
**FAO:** Food and Agriculture Organisation - United Nations institutions  
**CSP:** Employees Status Commission  
**CAS:** Social Action Commission

**CHSE:** Health, Safety and Environment Committee  
**CNC:** the Collective Bargaining Committee  
**CE:** Work Council  
**CNSS:** Caisse Nationale de Sécurité Sociale  
**TAMCA-OE:** Technicians, supervisors, and administrative employees as well as Workers and Employees  
**IECs:** Industrial Expertise Centers  
**CATOX:** Catalytic Recuperative Oxidizer  
**HRS:** Heat recovery system  
**DNSSI:** National Directive on Information System Security  
**IMWS:** Fraunhofer Institute for Microstructure of Materials and Systems  
**FM6E:** Mohammed VI Foundation for Environmental Protection  
**PPAs:** Power Purchase Agreements  
**MRV:** Monitoring, Reporting, and Verification  
**SLR:** sea level rise  
**4R:** Right fertilizer, Right rate, Right time, Right place  
**PPM:** Parties par million, parts per million  
**IRESEN:** Institute of Research in Solar Energy and New Energies  
**LCOE:** Levelized Cost of Energy  
**COALMA:** Moroccan Coalition for Water  
**STEP:** Waste water treatment plant  
**CGEM:** Confederation of Moroccan Companies  
**BDS:** Bordereau de suivi des déchets, waste tracking slip  
**DSM:** digital soil mapping  
**OSL:** OCP School Lab  
**LYDEX:** Lycée d'Excellence, School of excellence  
**SADV:** Société d'Aménagement et de Développement Vert, Green urban development agency  
**HQE:** Haute qualité environnementale, high environmental quality - urban development certification  
**SMEs:** Small and medium enterprises  
**ICBA:** International Center for Biosaline Agriculture



**OCP S.A.**

Headquarters : 2 - 4, rue Al Abtal - Hay Erraha  
20200 - Casablanca, Morocco

[www.ocpgroup.ma](http://www.ocpgroup.ma)



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