Overview of Phosphate Industry

IYCr2014 "Crystallography for the next generation: the legacy of IYCr"

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Summary

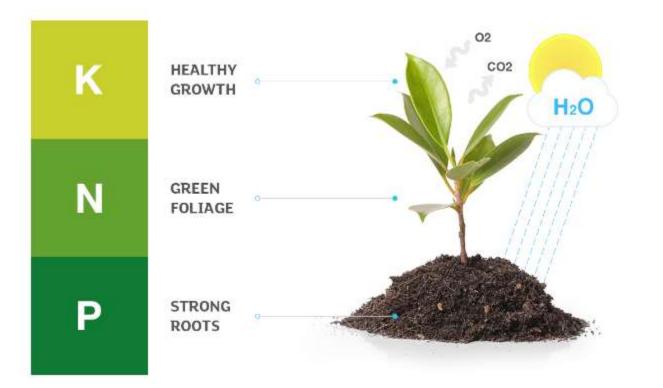
- **1.** Introduction
- 2. Keys OCP facts and figures
- **3.** Overview of OCP Value Chain
- 4. Phosphate Market Situation
- **5.** OCP Development Program

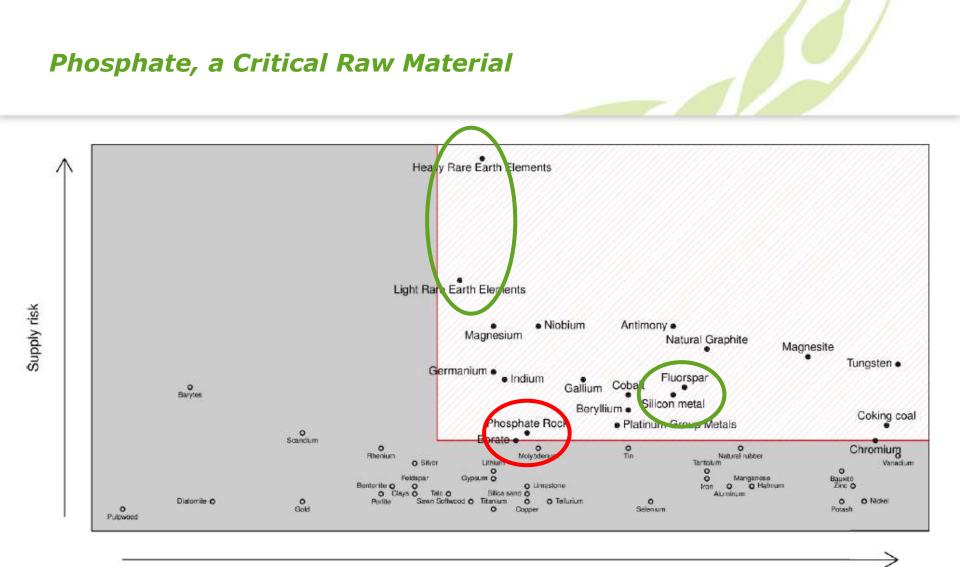
OCP Logo

OCP logo symbolizes a shark tooth (Lamna obliqua) that are current Fossil in Moroccan phosphates. This figure is reproduced five times, representing the five stars of the national flag and on the other hand, the destinations of our products to the five continents. The set is in a circle around which are placed two ears folded in an arc, that symbolize the fertility and growth



Phosphate, a Key Element for Plants Grow



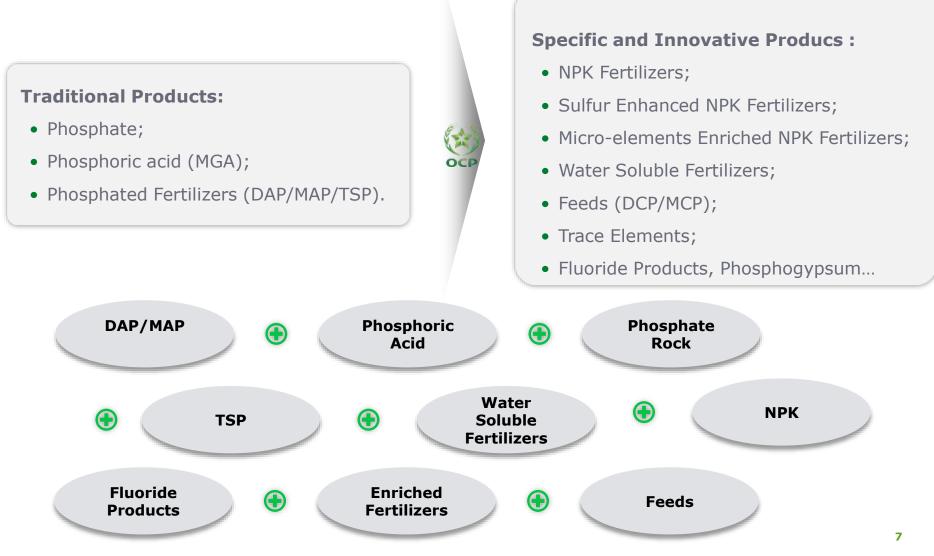


Economic importance

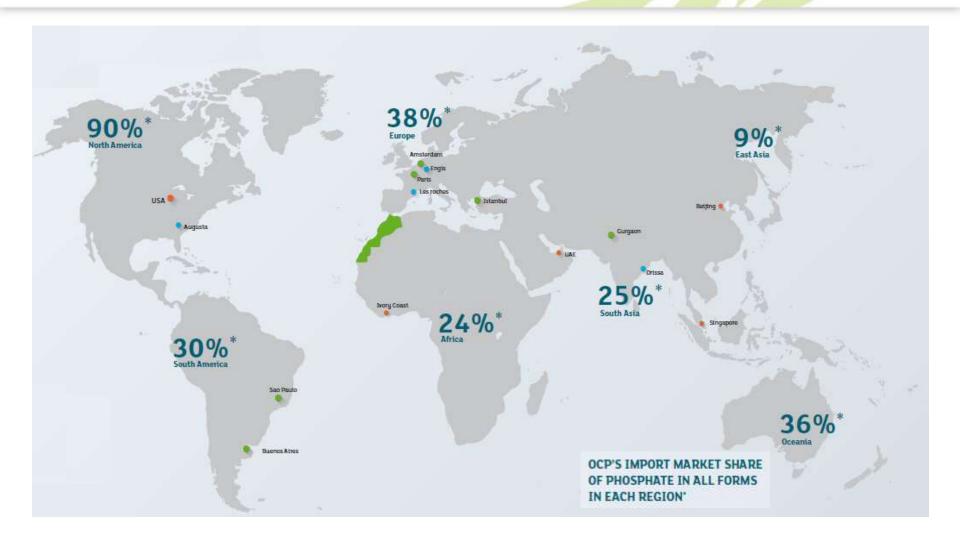
OCP, Facts and Figures

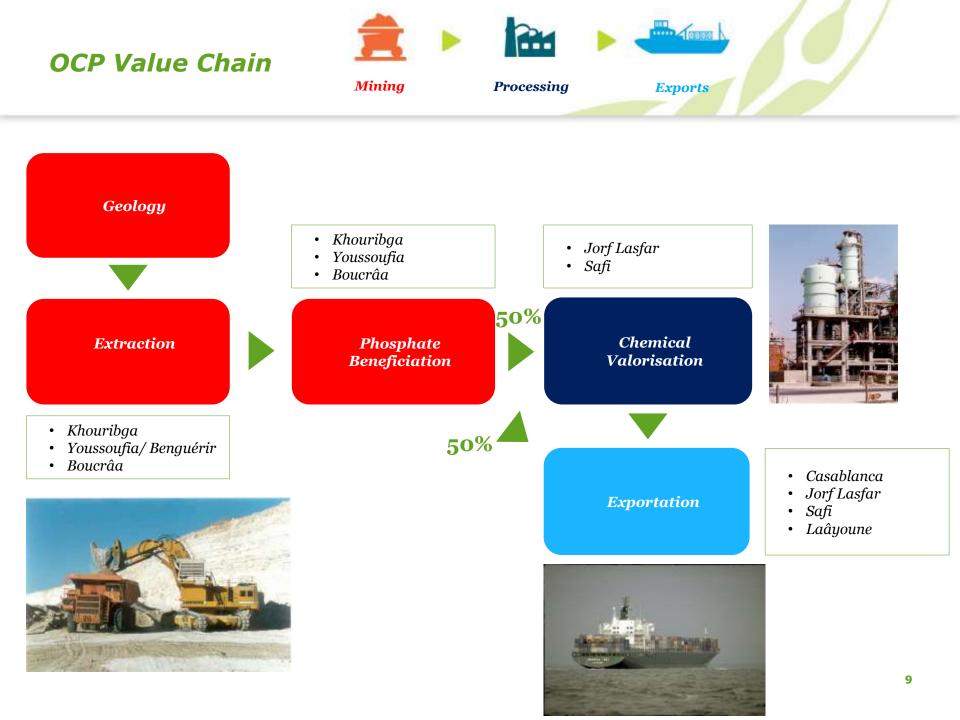
#1 Phosphate Producer	 #1 Phosphate producer/exporter Over than 50% of proven reserves worlwide Most competitive phosphate rock cost position 	Mining	Processing	Exports
30% Global Trade Market Share	Market share by product category : • Phosphate : 33% • Phosphoric Acid : 47% • Fertilizers : 19%	Phosphated Rock Production 26.4 MT		Phosphated Rock 8.6 MT
\$5.5bn revenues	 Turnover: USD 5.5 billion EBIDTA: USD 1.3 billion Employees: 23000 employees 		Phosphoric Acid Production 4.4 MTP2O5	Phosphoric Acid 2.0 MTP2O5
\$16bn Investment (2008-2025)	 Doubling of mining capacity Tripling of fertilizer production capacity Massive cost reduction through value chain optimization 		Phosphated Fertilizers Production 4.8 MT	Phosphated Fertilizers 4.3 MT
Strong Contribution to Moroccan Economy	 20.2% contibution to national exprots 4.3% contirbution to Domestic GDP 			

OCP's Product Portfolio



OCP International Presence



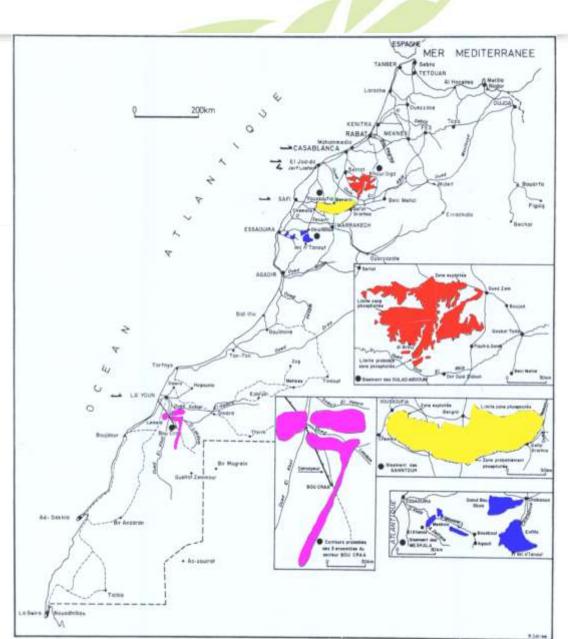


Geology

□ Main constituant = Apatite (Ca, Na, Mg)₁₀ (PO₄)_{6-X} (CO₃)_X F_{Y} (F, OH)₂

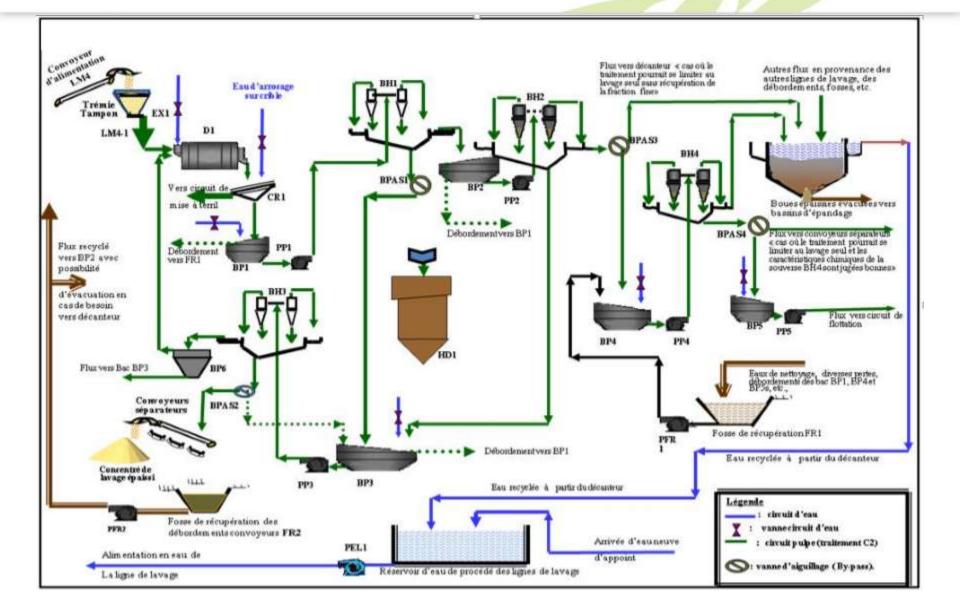
□ Associated minerals :

- Dolomite & calcite
- Quartz & opale
- Montmorillonite & attapulgite
- Gypsum & halite

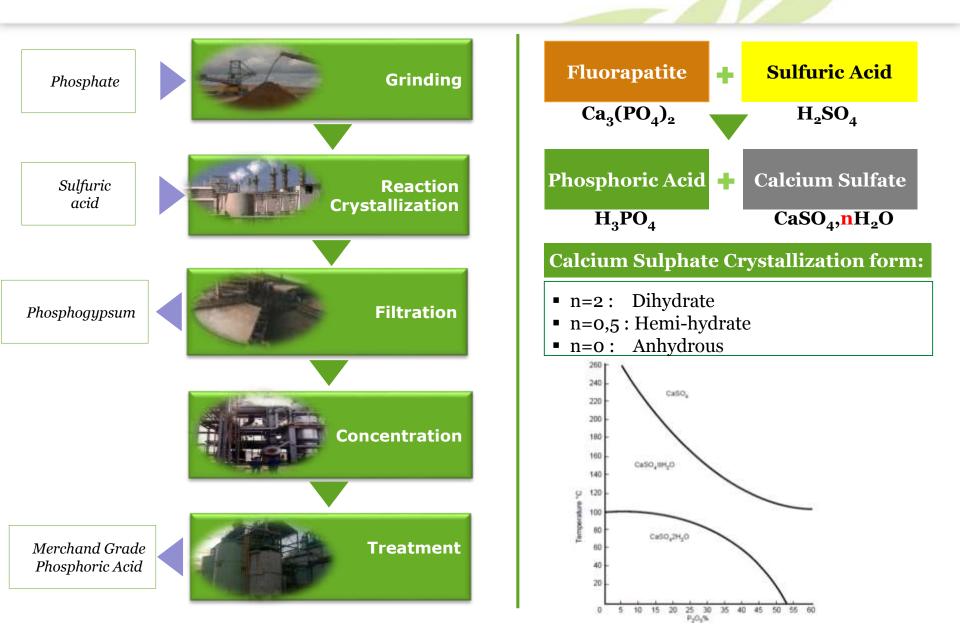




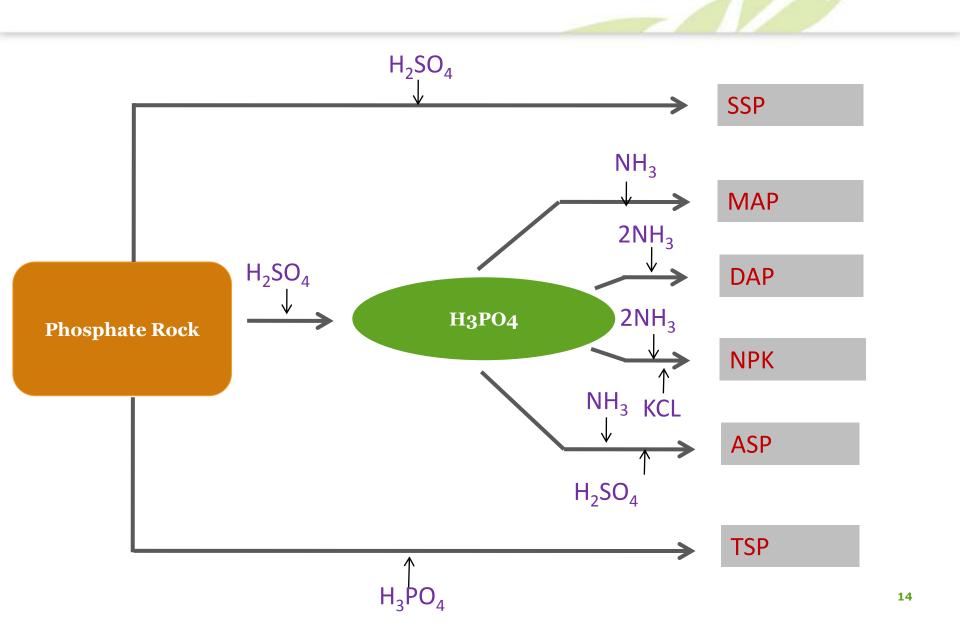
Phosphate Beneficiation



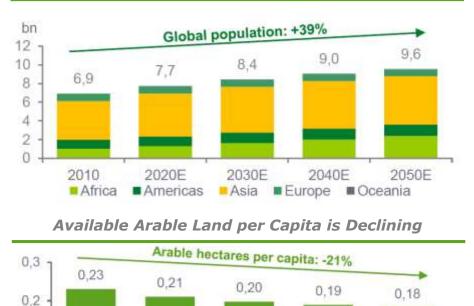
Chemical Valorisation – Phosphoric Acid



Chemical Valorisation - Fertilizers

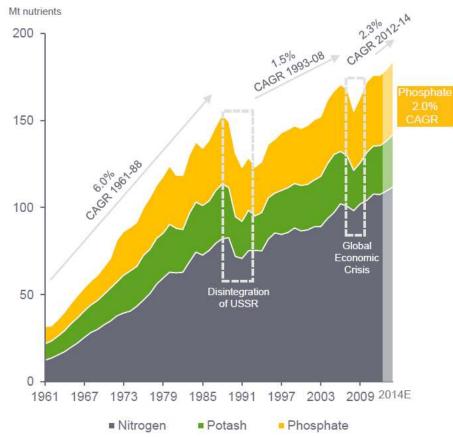


Strong Long-Term Demand Fundamentals



Global Population is Steadily Increasing

Global Fertilizer Demand Has Grown Over The Long-Term



• 80% increase in global crop production will be required within the next 40 years;

• Agriculture yield improvment through the use of fertilizers is the major driver to address the imbalance between food demand and supply.

2030E

2040E

2050E

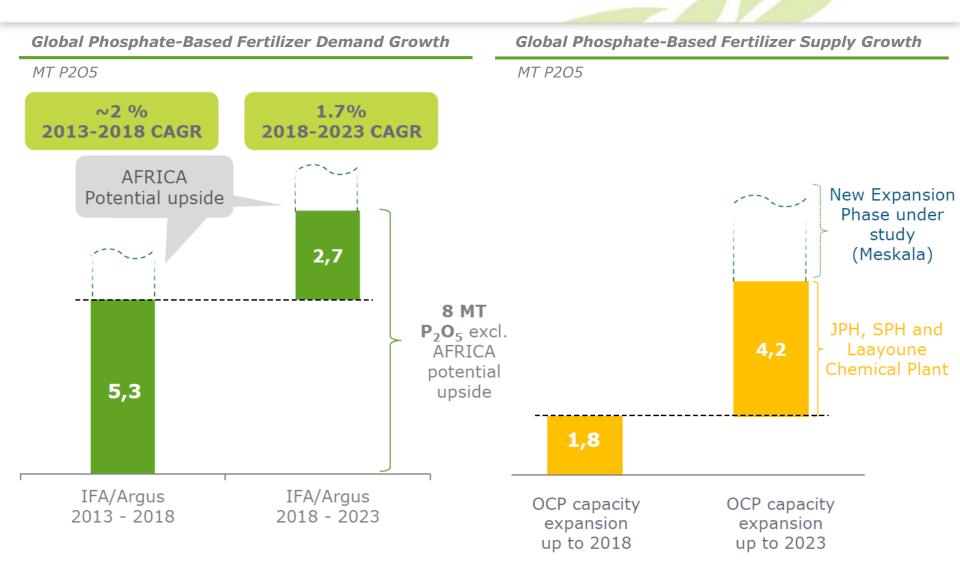
2020E

0,1

0.0

2010

OCP Additional Capacity Poised To Support Demand Growth



OCP Launched an Important Investment Plan of \$16Bn

New Mines and Benefeciation Plants



Additional Mining Capacity :

 More than 25 MT in Khouribga, Gantour, Meskala and Laayoune;

□ New Rock Beneficiation Plants:

- 3 in Khouribga;
- 1 at Gantour,
- 1 at Meskala,
- 1 at Laayoune.



Slurry Pipelines:

- Khouribga Jorf Lasfar (Operational) 38 MT/year;
- Gantour Safi Pipeline (Planned) 10 MT/year.

A World Class « Plug & Play » Chemical Platform



- Jorf Phosphate Hub handling up to 10 new integrated fertilizer units & expansion of logistical infrastructures (storage, port...)
- Safi Phosphate Hub and Phosboucraa Chemical Complex.

The Slurry Pipeline as a Cornerstone of the Development Program





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