

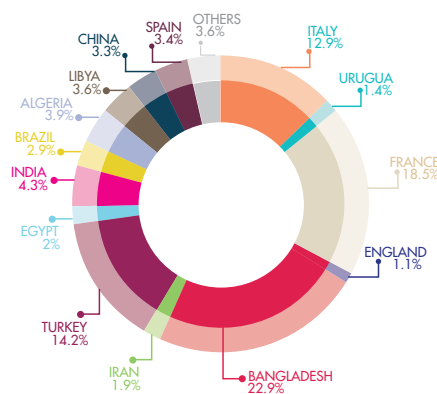
# GCT SALES

## 2014 GCT EXPORTS BY DESTINATION

In the year 2014, about 74% of GCT production has been exported to 21 countries all over the world. GCT serves agriculture worldwide by marketing its products through networks matched to each country's specificities (cooperatives, trade offices, wholesalers, traders, local producers, etc).

Major export destinations are listed below:

Area	Country	Million US\$		% of total sales
		2013	2014	2014
Europe	Italy	91.6	88.7	12.9
	France	137	127.5	18.5
	Spain	57.6	23.5	3.4
	England	8.1	7.6	1.1
Far East Asia	India	20	29.9	4.3
	China	13.1	22.9	3.3
	Bangladesh	119	157.3	22.9
Near, Middle East and Africa	Turkey	150.2	97	14.2
	Egypt	7.8	14	2
	Libya	29.4	25	3.6
	Algeria	7.5	26.7	3.9
	Iran	0	12.8	1.9
South America	Brazil	89.8	19.9	2.9
	Uruguay	18.3	9.4	1.4
Others		52	24.8	3.6
<b>TOTAL</b>		<b>801</b>	<b>687</b>	<b>100</b>



# QUALITY MANAGEMENT

**The GCT quality management ensures that an organization, product or service is consistent. It has four main components: quality planning, quality control, quality assurance and quality improvement.**



Quality management is focused not only on product and service quality, but also on the means to achieve it. Quality management, therefore, uses quality assurance and control of processes as well as products to achieve more consistent quality.

Following GCT's Quality Control Laboratories Accreditation (according to ISO / IEC 17025) in 2008, GCT started in 2008 the preparation process to certificate all its structures (factories and Departments) according to the ISO 9001.

In 2010 the GCT Mdhilla plant was certified according to the ISO 9001: 2008, and was renewed in 2012 for three years.

The GCT policy is to hire a progressive certification program for establishment of an Integrated System QSE "Quality Safety and Environment" after the generalization of the Quality Management Certification according to the ISO 9001.

The certification program takes into account the geographic scope and diversity of products. After there certification according to ISO 9001, all GCT plants and different structures the GCT will be certified according to the Environment Certification (ISO 14011) and the Safety Certification (OHSAS 18011).

The activity of the Quality Department in 2012 was characterized by:

The maintenance of accreditation of GCT's Quality Control laboratories (according to ISO / IEC 17025) in March 2012 by TUNAC (National Accreditation Council) ;

The purchase of materials and equipment necessary to improve analysis quality ;

The extension of the ISO 9001 certification for the Purchasing Department until the completion of the implementation of GMAO;

The renewal of the Quality Management Certification of GCT Mdhilla factory (in 2012) for 3 years ;

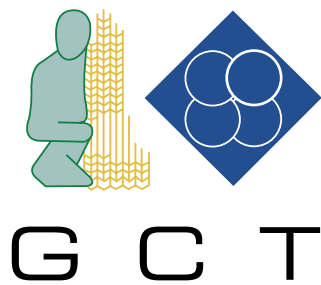
Designation of two shifts for the implementation of the Quality Management Certification of Skhira factory and Ammonium Nitrate factory in Gabes ;

Preparation for the renewal of GCT's Quality Control Laboratories according to ISO / IEC 17025 expected in February 2013 ;

The renewal of GCT safety data sheets for all products exported to Europe (with translation into seven languages) ;

The preparation and analysis of registration request to submit subsequently to the European Chemicals Agency.

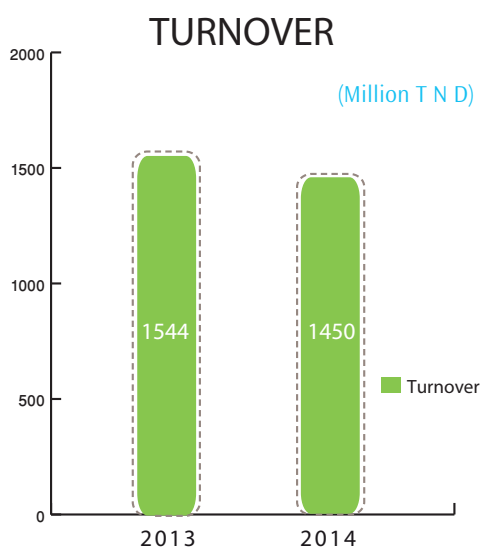
**All GCT products exported to Europe are registered REACH**



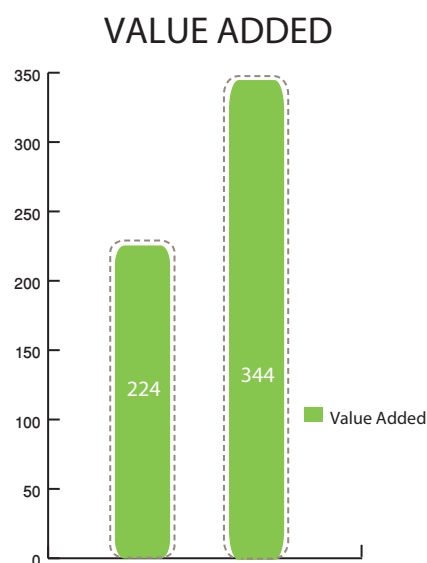
# Financial Overview

- ➞ FINANCIAL INDICATORS
- ➞ FUNDING AND LIQUIDITY
- ➞ ACCOUNTING OVERVIEW
- ➞ INVESTMENT PROJECTS

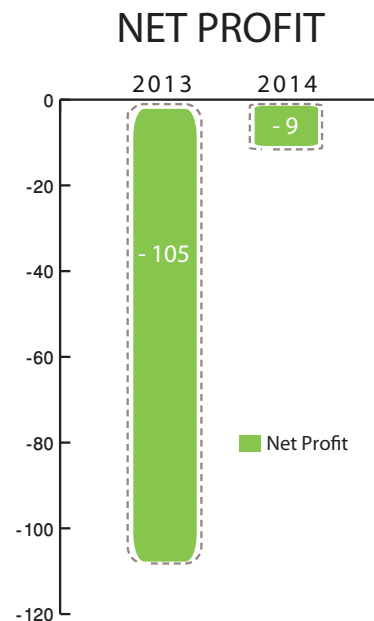
# FINANCIAL INDICATORS



The turnover shows a 6% decline compared to 2013, dropping from 1 544 Million TND in 2013 to 1 450 Million TND in 2014. This decrease is mainly due to the decrease of the selling quantity.



The added value was 344 Million TND in 2014 registering a 54% growth compared to the previous year; the improvement is essentially due to the decrease of consumed quantities of inputs.



The GCT net profit shows a substantial 91% increase from 2013, at -9 Million TND against -105 Million TND



# FUNDING AND LIQUIDITY

The capacity of the M'dhilla 2 plant for the production of TSP will be 500 thousand tons of super triphosphate per year, which will increase the total production of 960 thousand tons per year of TSP. The completion of this project takes place with the use of the most modern technical world.

**85%**  
Credit

**15%**  
Equity.

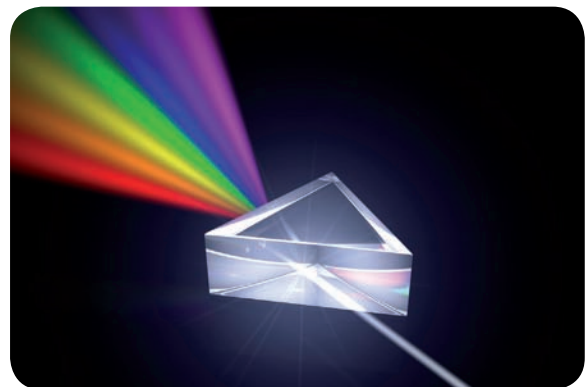
The project cost is estimated at 620 million dinars (MDT). The financing plan of the project is as follows:

**85%** Credit

**15%** Equity.

- In 2011, a long term loan of **140 Million Euros equivalent to 280 MDT** was given by the European Investment Bank (EIB) to finance M'dhilla 2 Project.

- 125 MTD as credit will be obtained by the GCT from the Arab Fund for Economic and Social Development (FADES), to create **500 job opportunities**.



# ACCOUNTING OVERVIEW

In this financial section, unless otherwise indicated all financial information has been prepared in accordance with generally accepted accounting principles in Tunisia, and derived from audited financial statements.

GCT is considered as a wholly engaged export company (as defined by article 10 of Tunisian Investment Incentives Code) as at least 70% of its production is intended for foreign countries or companies rendering services abroad or in Tunisia for use abroad. In this respect, GCT benefits from a special fiscal status.

- ▶ Project GCT's Environmental Rehabilitation Plan
- ▶ Project Technical acid and soluble fertilizers
- ▶ Project realization of a seawater desalination plant by osmosis...

## AN AMBITIOUS INVESTMENT

GCT is pursuing a very ambitious investment program whose main purpose is to increase the GCT's production capacity, improve its operational efficiency, contribute to a better environmental balance and diversify its products. There may be mentioned:

- ▶ Project Mdhilla 2 consists in building a triple super phosphate (TSP) plant of 500000 tons annual

## WORKING CAPITAL MANAGEMENT

Working Capital Requirement (defined as accounts receivable plus net inventory less accounts payable) has significantly increased since 2006 (from 16.4% of total sales to 21.1% in 2010) then decreased and returned to a 12.2 % rate in 2014, as both accounts receivables and accounts payables increased. This can also be explained by the prices changes.

	2007	2008	2009	2010	2011	2012	2013	2014
WORKING CAPITAL REQUIREMENT / TOTAL SALES %	18.9	10.4	19.5	21.1	4.7	17.6	10.7	12.2

# INVESTMENT PROJECTS

Generally, a viable investment project aims at achieving a profitable return that ensures :

- ▶ Timely payment of interest and principal
- ▶ Attractive return on the invested capital
- ▶ Positive and consistent cash flows.

In this context the planned investment in GCT in the 10th, 11th and 12th Plan can be classified into five categories:

- ▶ Investment development
- ▶ Investments related to the production tool
- ▶ Investments environmental upgrading
- ▶ investment in scientific research
- ▶ Investment for informatics development

GCT is pursuing a very ambitious investment program, whose main purpose is to increase the GCT's production capacity, improve its operational efficiency, contribute to a better environmental balance and diversify its products.

There may be mentioned:

## Project «Mdhilla 2»

The Mdhilla 2 project is a substantial interest for the GCT and for the region. The capacity of this plant will be 500,000 tons of super triphosphate per year, which will increase the total GCT production of that 960 thousand tons per year. The promising opportunities to the creation of 600 jobs will be considered.

**500,000**  
tons of TSP / year

**600**  
jobs

Its realization in 4 lots has already started:

**Lot No.1:** Sulfuric Acid Unit

**Lot No.2:** Diluted and Concentrated Phosphoric Acid Unit

**Lot No.3:** Interconnecting utilities and logistics

**Lot No.4:** TSP Unit

This project takes place with the use of the most modern techniques in global elimination of gas produced by the manufacture of sulfuric acid and phosphoric acid.





# INVESTMENT PROJECTS

## Project «GCT's Environmental Rehabilitation Plan»

The objective of the Groupe Chimique Tunisien (GCT) Environmental Upgrade Project in Tunisia is to upgrade certain facilities of GCT according to international best practices to eliminate or reduce environmental pollution.

Since 2008, the Tunisian Chemical Group (GCT) has spent 313 million DT on 16 environmental projects.

Through the various environmental projects GCT envisages an environmental upgrading of all its production units located in Sfax, Gabes, Skhira and Mdhilla for a total investment of about 800 million DT.



# INVESTMENT PROJECTS

One of these projects envisaged at Gabes industrial site, is a system to monitor the emissions of GCT facilities into the atmosphere, equipping smokestacks with instruments to analyze and control emissions.

Another would reduce the emission of ammonia from company facilities.

## • Project «Purified Phosphoric acid»

The project involves building a complex dedicated to the production of purified phosphoric acid.

Set design capacity of the unit is 60,000 tons  $P_2O_5$  per year of food by the acid concentration of 61.5%  $P_2O_5$ ;

The total approximately investment cost is 200 million dinars.

The degree of purification depends on the final use of the acid. The raw material is a merchant-grade green phosphoric acid concentrated at 54%  $P_2O_5$ .

The purification process consists of:

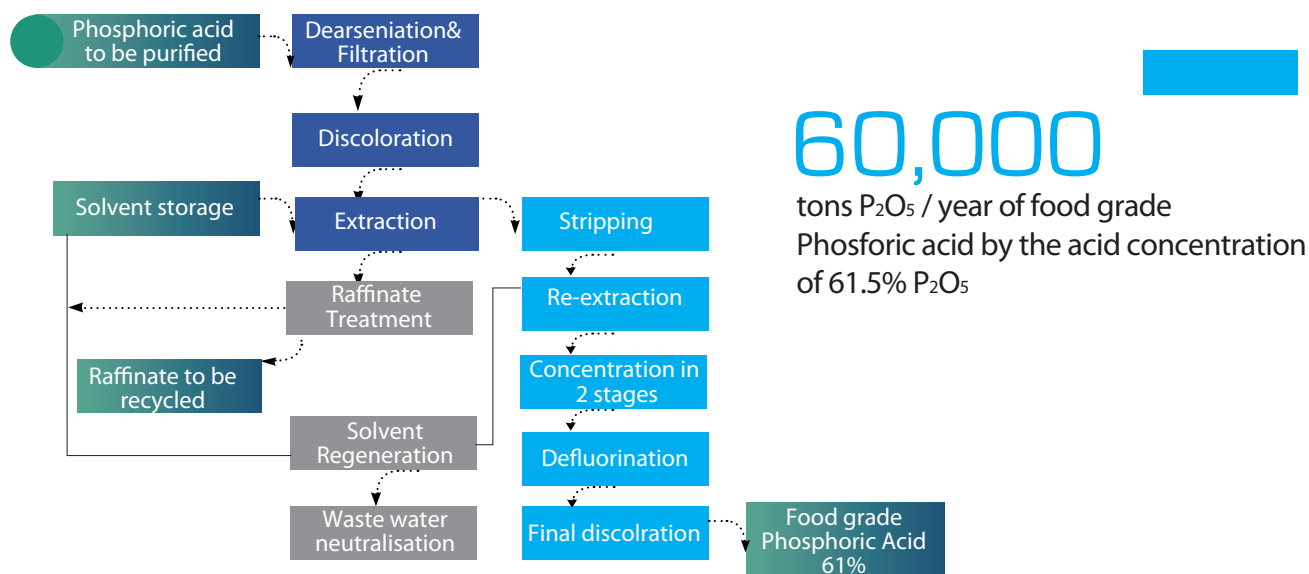
- A filtration unit
- An organic matter removal unit
- A heavy metal removal unit
- A concentration unit
- A defluorination unit

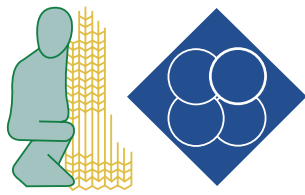


The main characteristics of this acid are summarised below:

- %  $P_2O_5$ : 61
- Heavy metals: <10ppm
- Sulphates: <40ppm
- Fluorine: <3ppm
- Arsenic: <1ppm

This food-grade phosphoric acid is suitable for human consumption, and is used to acidify foods and beverages such as various colas.





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# Environmental Performances

- ➔ GCT'S ENVIRONMENTAL STRATEGY
- ➔ GCT'S ENVIRONMENTAL PLAN (2009/2016)
- ➔ MAJOR PROJECTS COMPLETED



# GCT'S ENVIRONMENTAL STRATEGY

Environmental issues concerning the production of phosphoric acid and fertilizers include potential pollution of air, water and land. There are hazards to be avoided in each part of the production chain, as well as questions of occupational health and safety for all those who work in close proximity to these products and for the citizens who live around the places of production. The GCT industry has made significant progress to improve its efficiency and thus reduce its environmental footprint.

## GCT'S ENVIRONMENTAL STRATEGY

GCT has implemented a new environmental strategy focusing on the reconciliation of the company with its environment. This strategy will deal with the following actions:

- ▶ Environmental Rehabilitation Plan of production units by introducing the best available technologies «BAT».
- ▶ Adopting environmental phosphogypsum Disposal mode.
- ▶ Adopting Sustainable Water Management.
- ▶ Continuous Environmental Monitoring.

## OBJECTIVES

- ▶ Gas emission in conformity with standards.
- ▶ Zero-outflow for liquid effluents.
- ▶ Environmental PG disposal.
- ▶ Preservation of water resources.
- ▶ High energy production & use efficiency.
- ▶ Better public image & better company-community relations.

To achieve its objectives, the GCT has adopted a comprehensive environmental approach that seeks reconciliation of the company with its environment.

This approach is embodied in a program of action based on:

- ▶ Adopting the best technologies for development projects
- ▶ Emissions in compliance with standards and zero-liquid discharge
- ▶ Introduction of BAT technologies to enhance the Environmental plant level
- ▶ Environmental Management Phosphogypsum
- ▶ Preservation of water resources
- ▶ Better control of energy
- ▶ Environmental Monitoring
- ▶ Best business-community relationships
- ▶ Plantations green curtains and improve the visual appearance
- ▶ Introduction of the integrated system QSE (Quality Safety Environment).

# GCT'S ENVIRONMENTAL PLAN (2009/2016)

This Plan aims to improve the environmental situation in all GCT production sites with a cost of almost 370 Million Tunisian Dinars. In this regard, GCT has concluded a loan agreement with the European Investment Bank (EIB) to finance the GCT's environmental rehabilitation Plan, which amounted to 55 Million Euros with a bonus from the European Commission estimated at 10 Million Euros. The realization of GCT's environmental rehabilitation plan is going to spread out until year 2016.



## Taking into consideration:

- ▶ The specificity of GCT's phosphogypsum;
- ▶ The expected Environmental, Operating & Economic Advantages of new wet discharge :
  - Protection of land, surface and ground water.
  - Reduction dust emission.
  - High recovery rate of P2O5.
  - Low downtime ratio.
  - Reduced maintenance system.
  - Low operating cost.

For its new projects, GCT opted for a Wet stacking method with implementation of the following mitigation measures:

- Bottom line.
- Water under drain system.
- Lateral drain system.
- Pond water.
- Monitoring and reporting system.

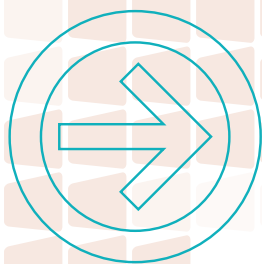
## GCT's

environmental plan with a cost of almost 370 Million Tunisian Dinars.

## GCT's

environmental rehabilitation plan is going to spread out until year 2016.





## GCT'S ENVIRONMENTAL REHABILITATION PLAN

Item	PROJECTS
Skhira site	<ol style="list-style-type: none"> <li>1. The integration of Double Absorption technology with HRS in sulphuric acid production units to reduce sulphur dioxide emissions and to recover energy</li> <li>2. Retrofit of phosphoric acid production units to stop discharge of waste-water into sea</li> <li>3. Construction of dike around phosphogypsum stack to protect environment</li> <li>4. Construction of treatment station for domestic waste water</li> <li>5. Construction of phosphogypsum discharge, using wet stacking mode with bottom liner, under-drain and water recycle system</li> </ol>
Mdhilla site	<ol style="list-style-type: none"> <li>1. The integration of Double Absorption technology with HRS in sulphuric acid production unit to reduce sulphur dioxide emissions and to recover energy</li> <li>2. Construction of phosphogypsum discharge, using wet stacking mode with bottom liner, under-drain and water recycle system</li> <li>3. Fuel switching project from bunker fuel oil to natural gas (MDP Project)</li> <li>4. Retrofit of fertilizer sieving stations to reduce the spread of dust</li> <li>5. Retrofit of phosphoric acid production units by integration of Flash cooler system and water closed loop process</li> </ol>
Gabes site	<ol style="list-style-type: none"> <li>1. Phosphogypsum discharge Project, using transport by pipe line and wet stacking mode with bottom liner, under-drain and water recycle system</li> <li>2. Retrofit of gas washing system at "DAP" fertilizer production units in Gabes to reduce ammonia emissions</li> <li>3. The integration of Double Absorption technology with HRS in sulphuric acid production (ex ICM2 unit) to reduce sulphur dioxide emissions and to recover energy</li> <li>4. Tertiary treatment of urban waste water to reuse as industrial water</li> </ol>
Joint Projects of GCT	<ol style="list-style-type: none"> <li>1. Implementation of gas emissions Monitoring system at GCT's production sites</li> <li>2. Green belts around production centres</li> </ol>
Total cost	770 Million Tunisian dinars



# MAJOR PROJECTS COMPLETED

Construction of protective levees and isolation for platform implementation heap of phosphogypsum in Skhira with recovery of drainage water

Retrofit two sulfuric acid production units to reduce SO<sub>2</sub> emissions by way of double absorption in Skhira

Retrofit of the sulfuric acid plant to reduce SO<sub>2</sub> emissions through double conversion / double absorption to Mdhilla

## ENVIRONMENTAL MONITORING SYSTEM

- ▶ Remediation of grinding stations - sieving of TSP units Mdhilla
- Studies of environmental characterization factories GCT
- ▶ Reducing ammonia emissions of DAP in Gabes units

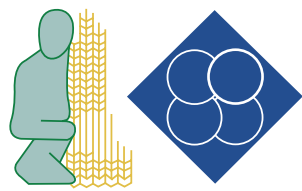
## PRESERVATION OF WATER RESOURCES

The GCT planning the following actions:

- ▶ Desalination of seawater reverse osmosis plant to the new TIFERT,
- ▶ tertiary treatment by membrane ultrafiltration of wastewater and water rejected by the SONEDE station for industrial purposes
- ▶ Recovering Drainage of phosphogypsum discharges in the process
- ▶ Optimization of water consumption

## ACTIONS FOR ENVIRONMENTAL COMMUNICATION

- ▶ The last few years can be considered years of enhancing cooperation and communication between GCT and civil society living in cities where there are industrial sites belonging to GCT.
- ▶ GCT clearly expressed and demonstrated that social commitment is geared towards a smooth integration of the group formed by young people, into the Tunisian social environment.



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# Research and Development

- ➞ NEW RESEARCH CENTERS
- ➞ OBJECTIVES
- ➞ GCT PORTFOLIO OF LICENSES
- ➞ PARTNERSHIP WITH UNIVERSITIES
- ➞ QUALITY IMPROVEMENT AND PRODUCT INNOVATION
- ➞ URANIUM EXTRACTION FROM PHOSPHORIC ACID
- ➞ ENVIRONMENTAL RESEARCHES





## NEW RESEARCH CENTERS

Innovation based on research and development is the foundation of GCT's strategy for profitable growth and business success. Highly-qualified Engineers are working to find answers to the challenges of the futures and respond quickly to market developments.

GCT has planned the construction of three research centers: in Sfax, Gabes and M'Dhilla. The new research centers whose construction is planned to start in 2014:

- ▶ will include experimental laboratories and pilot plants dedicated to research in processing chemistry in connection with the activities of the GCT and,
- ▶ will give us the opportunity to attract qualified students and researchers from specially Tunisian universities who are proficient in these critical elements of our business.



# OBJECTIVES

- ▶ Reducing production costs.
- ▶ Satisfaction of customer requirements.
- ▶ Development of new manufacturing processes.
- ▶ Valuation of different types of waste.
- ▶ Product diversification.
- ▶ Valuation of strategic elements.
- ▶ GCT is considered one of the companies that is equipped with advanced and extensive research capabilities to improve the production.
- ▶ It is the policy of GCT to conduct all business in a manner that complies with environment, health and safety standards.

# GCT PORTFOLIO OF LICENSES

GCT has its own broad portfolio of technologies and patents. The most important licenses are:

- ▶ Production of TSP from Tunisian phosphate rock.  
Removal of cadmium, iron and heavy metals from phosphoric acid.
- ▶ GCT process of reduction of heavy metals in MGA.
- ▶ GCT process of regeneration of spent catalyst.
- ▶ Removal of cadmium, fluorine and chlorine from phosphoric acid.
- ▶ Production of phosphoric acid from Tunisian phosphate rock.

The patent relative to phosphoric acid production referred to as "License SIAPE – GCT Process" was successively updated in 1968, 1979, 1995, and most recently in 2009.

Plants using SIAPE Process were constructed in the following countries: China, Syria, Turkey, Bulgaria, and Greece.

**Our Research&Development Topics are organized around Five Axes:**

- ▶ Process innovation
- ▶ Quality Improvement
- ▶ Strategic elements Extraction from phosphoric acid
- ▶ Product innovation
- ▶ Environmental research and safeguard



Research and development

PARTNER

## PARTNERSHIP WITH UNIVERSITIES

The GCT considers that innovation increasingly depends on the ability of university and industry experts to work together across a number of topics related of the GCT activities.

In this context we have built since 2006 a new system of collaboration with the University based on the sponsorship of university researchers to address questions related to the activities of the GCT in order to propose solutions to issues relating to the methods of manufacture, extraction of strategic elements, improving the quality by reducing the levels of impurities in the phosphoric acid industry. The researcher prepares a thesis or a master and receives a monthly allowance which will be paid by the GCT. Progress meetings will be scheduled by mutual agreement in order to complete and complement the research previously scheduled by mutual agreement.

Among subjects treated with Tunisian universities during the last three years, we cite the following examples:

- ▶ Purification of the industrial phosphoric acid to reach the food grade.
- ▶ The extraction of uranium from the industrial phosphoric acid.
- ▶ Treatment of air emissions from sulfuric and phosphoric units.
- ▶ Manufacture laboratory scale multitudes liquid fertilizer formulations.
- ▶ Manufacture laboratory scale multitudes solid fertilizer formulations.

## QUALITY IMPROVEMENT AND PRODUCT INNOVATION

The processing industry of acid phosphates and fertilizers is based on the production processes. To survive in a demanding market, and still be successful, it is necessary to achieve the high level of the products quality. High product quality results from the high quality of manufacturing process.

Our research activities are focused on the development of innovative production processes that will make us even more competitive. We are also continuously improving our existing products.

In developing new products we look at the needs of our customers and take advantage of the opportunity offered by introduction of new products with high added value.

For example we developed an innovative products based on the incorporation of elements such as Zinc, Sulfur and Boron in fertilizers manufactured in our production units.

In this regard, a consistent research work was devoted for the identification of the best process parameters required for the production of:

- ▶ DAP with Zinc,
- ▶ TSP with Zinc,
- ▶ DAP with Sulfur,
- ▶ DAP with Boron.



The goal of the GCT research is to find appropriate systematic approach to quality improvement in our products.

## URANIUM AND REE EXTRACTION FROM PHOSPHORIC ACID

Phosphate plays an important role as fertilizers, animal feed supplements and additives in food. They also contain some quantities of uranium.

Sedimentary phosphate rock deposits contain uranium in varying concentrations, generally between 30 and 300 parts per million (ppm) U3O8. The Phosphoric acid derivate from the phosphate transformation is an attractive source for uranium. It contains enough uranium to serve as a potential fuel source for nuclear power plants.

A research study was conducted in collaboration with the Gabes National School of Engineers (ENIG) concerning the extraction of uranium from the industrial phosphoric acid obtained

by reaction of sulphuric acid on calcium phosphate rocks (wet process phosphoric acid pathway – WPA). In this regard, an innovative Liquid-liquid extraction process was considered and tested in batch conditions and led to:

- ▶ Optimization of the main parameters,
- ▶ Elaboration of process flow sheet.
- ▶ REE elements are recovered as a co product of the uranium.

The overall results were quite satisfactory and encouraging further development.

A process flow sheet was proposed for the selective extraction of uranium and REE from phosphoric acid from various sources.





# ENVIRONMENTAL RESEARCHES



Patchy germination and growth of peppers on a sodic soil after phosphogypsum application in Besisi – Gabès



Patchy germination and growth of tomatoes on a sodic soil after phosphogypsum application in Besisi – Gabès



Patchy germination and growth of Corate vegetable on a sodic soil after phosphogypsum application in Chenini – Gabès

Environment is considered by the GCT as the sources of value creation that contribute positively to our development. GCT involves the development of a new research and innovation strategy for the waste minimization in the phosphoric acid industry.

The main aim is the development of ecologically sustainable, environmentally friendly, resource and energy saving industrial process technology for the production of a wide-class of phosphorus-containing substances.

To ensure the success of its Commitment to serving sustainable development strategy, GCT constantly seeks novel technologies which are tested in laboratory and on a pilot plant scale for the treatment mainly of:

## Studies relative to the use of phosphogypsum in agriculture

### Phosphogypsum in agriculture:

Soil amendment by phosphogypsum (PG) application is becoming of increasing importance in agriculture.

Phosphogypsum produced by the Gropue Chimique Tunisie contains besides high content of Ca and sulfate significant amount of phosphorus and humic acid.

The scientific study elaborated at field level and using this by product was aimed at:

1/ ameliorating saline and sodic soils by adding Ca to replace the excess of Na and Mg to the soil. The common source of Ca for the improvement of Na and Mg affected soils is gypsum ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ), which is the major component of Phosphogypsum.

2/ improvement of soil structure and increasing crop yield potential.

The study was conducted in collaboration with institutes from the Ministry of Higher Education and Scientific Research as well as the Ministry of Agriculture, respectively at two sites located at:

- ▶ Chenini – Gabès (with IRA – Gabès)
- ▶ Besisi – Gabès (with CRDA – Gabès)

The applied rate of phosphogypsum in considered saline soils varied from 25 to 50 t / ha.

The tests included the following seeds:

- ▶ Corete vegetable
- ▶ Peppers
- ▶ Tomato
- ▶ Turnips

The results of the field experiments by using phosphogypsum alone «without adding nitrogen or phosphate fertilizers» were very promising. However further tests are required to optimize the amount of PG to be applied by unit area and monitoring of selected Trace Elements distribution and mobility in soil of the selected parcels applied with PG.

### Gas emissions

As part of its commitments to reduce emissions of air pollutants generated by Phosphoric and TSP units to be in conformity with the national standards GCT has undertaken a comprehensive program consisting of testing at a pilot plant scale a treatment that includes:

- ▶ Chemical precipitation
- ▶ Electrochemical oxidation
- ▶ Chemical absorption.

### Liquid waste products

The main objective of the research activities undertaken in this field is to find out the best solutions for conditioning and recycling liquid streams between the different units of the plant. The final objective being Zero-outflow for liquid events.



## PARTNERSHIP

# MAIN SUBSIDIARIES

Business line: Chemistry  
Capital: 476 MDT  
GCT Share: 100%

**ALKIMIA**



Business line: Chemistry  
Capital: 19.47 MDT  
GCT Share: 39.1%

**TIFERT**



Business line: Chemistry  
Capital : 225 MDT  
GCT Share: 35%

**Sino-Arab  
Chemida  
Fertilizers**



Business line: Chemistry  
Capital: 17.5 M USD  
GCT Share: 60%

**CIL**



Business line :Chemistry  
Capital :282 M Rs  
GCT Share :1,65%

**FRDCM**



Business line: Fund  
Capital : 32 MDT  
GCT Share: 19.61%

**POLITECH**



Business line: Industry  
and Technology  
Capital : 20 MDT  
GCT Share: 80%

**TECI**



Business line:Engineering  
Capital : 8.4 MDT  
GCT Share: 40.25%



**CITECH SBZ**  
Business line: Industry  
and Technology  
Capital : 5 MDT  
GCT Share: 80%

**BFPME**



Business line: Banking  
Capital : 100 MDT  
GCT Share: 22%

**SODESIB**



Business line: Investment  
Fund  
Capital : 5 MDT  
GCT Share: 80%

**SEPJ**



Business line: Environment  
Capital : 8 MDT  
GCT Share: 100%

**GRANUPHOS**



**GRANUPHOS**  
Business line: Chemistry  
Capital: 1 MDT  
GCT Share: 10.26%

# PROJECTS PARTNERSHIP

The development strategy of the Tunisian phosphate sector is based on implementing new projects with partners. GCT successfully implemented SACF JV in China with CNCCC and TIFERT in Tunisia with CIL and GSFC from India. GCT is approaching traditional customers with potential capacity of marketing phosphatic fertilizers to launch new projects.



## ► SACF

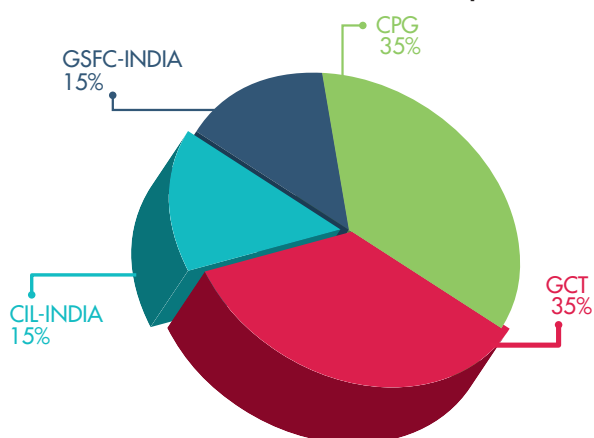
GCT and CNCCC (the Chinese partner) launched a merger process aimed at enlarging the production capacity to 1 200 000 T/Y of NPK.

## ► TIFERT Phosphoric Acid project

TIFERT was incorporated in September 26, 2006.



## Global Fertilizer Consumption



## ► Main Shareholders:

TIFERT will process around 1.5 million per year of Tunisian phosphate rock. This should raise the annual production capacity of CPG from 8.5 million to 10 million tons  $P_2O_5$ /year.

All MGA 54% (360 000 T/Year) will be exported in equal shares to CFL and GSFC.

Process for phosacid production is a Tunisian (SIAPE) new design reactor of 1100 T  $P_2O_5$ /day.

TIFERT should rigorously commit with the international environmental standards



# TIFERT PROJECT SKHIRA SITE

- **Creation:** September - 2006
  - **Head Office:** 7, Rue du Royaume d'Arabie Saoudite  
– 1002 Tunis – Belvédère.
  - **Plant:** LA SKHIRA - TUNISIA
  - **Registered Capital:** 225 million TND (185 million US\$)
  - **Production Capacity:** 360 KT  $P_2O_5$  / Y
    - Phosphate consumption: 1.4 million T/Y (CPG)
    - Sulphur consumption: 0.36 million T/Y (Imported)
  - **Investment:** 497 million US\$  
All production is to be taken off by Indian partners CIL and GSFC
  - **Shareholding:** Tunisia 70% ( CPG & GCT ),  
India 30% (CIL & GSFC)
  - **Employment:** 465
  - **Commissioning:** 2013
- TIFERT should rigorously commit with the international environmental standards.







G C T



## Sustainable human development

➞ SOCIAL COMMITMENT

➞ MANPOWER

➞ TRAINING

➞ SAFETY AND SECURITY  
MANAGEMENT

➞ IMPLEMENTATION  
OF CORPORATE

➞ SOCIAL  
RESPONSIBILITY



# SOCIAL COMMITMENT

## Social activities

GCT considers that the pillars of sustainability can be described as such:

- ▶ Healthy Environment
- ▶ Economic Growth
- ▶ Social Justice

This strategic orientation goes hand in hand with GCT's ambitious industrial development program. The Group considers sustainable development as an important source to reduce costs and strengthen competitiveness.

## HUMAN RESOURCES

Human resources at GCT are considered one of the most important elements of the success of the enterprise due to its active role in the development of the capacity of the company and providing the necessary human resources whether workers or officers in all specialties as well as providing a sound social environment within the enterprise and in its outside environment.

The last years can be considered years of strengthening cooperation and communication between the GCT and civil society living in cities where there are industrial sites belonging to the GCT.

GCT has clearly expressed and demonstrated that social engagement is oriented towards a harmonious integration of the Group formed by the young people, in the Tunisian social environment.

In other words, GCT believes that these young people will be helped to gain greater independence so that the spirit of innovation, creativity and professionalism can be proven and demonstrated.

## SOCIAL ACTIVITIES

GCT is well known for its efforts to promote internal social programs and for its allocation of important funds to finance social activities in order to maintain the serene and stable social climate in the company.

The company programme of sporting and social / cultural activities for its personnel and their families continued to develop and included sporting activities, children's club, holiday's camps and cultural excursions.

**The GCT social contribution has developed in social, cultural and sporting activities aimed at reconciliation between the company and its environment.**

### ▼ ACTIVITIES

- ▶ Support to Agricultural Development Groupings by GCT's contribution to the cost of irrigation water
- ▶ Contribution of GCT in the health sector through the acquisition of ambulances and hospital equipment
- ▶ Contribution in the education sector through the acquisition of equipment and building human resource capacity
- ▶ Contribution to regional councils to support the infrastructure of neighboring areas to factories
- ▶ Grants to sports associations of regions
- ▶ Contribution to the financing of cultural events
- ▶ Participation in clean-up campaigns by providing equipment
- ▶ Social associations aid

# SOCIAL COMMITMENT

## GCT PARTICIPATION IN THE NATIONAL ECONOMIC GROWTH

The GCT plays a major role in the national economy. It mobilizes significant resources towards agriculture by:

### ► “Precision agriculture” concept

Through research sponsored by the GCT and in collaboration with instances belonging to the Ministry of Agriculture, GCT works to improve yields while maintaining ecosystem and the environment.

This reflects the desire of the GCT to highlight the concept of sustainable development through agricultural practice respecting «the right amount of fertilizer at the right place at the right time» This should allow the use of chemical fertilizers in the best conditions.

- Revitalize the local fertilizer market.
- Knowing the soil and its needs.

The flagship project «National Soil Fertility Map» is a major contribution of GCT for agricultural development. The primary objective is the evaluation of soil fertility on the whole country and needs fertilizer quantities and qualities to ensure better returns.

This project was initiated with the INAT (Institut National Agronomique de Tunisie) and deserves to be supported financially.



### Promoting entrepreneurship and innovation for sustainable agriculture

To raise the level of Tunisian agriculture and raise challenges and in accordance with the objectives of national competitiveness, GCT launched a driving program with the Ministry of Agriculture through UTAP (union tunisienne de l'agriculture et de pêche) for the extension of solid fertilizers manufactured by GCT applications through open fields on different vegetable crops and fruit trees.

This project, which began in 2009 is funded and sponsored by the GCT has put innovation and entrepreneurship at the heart of its mission.

GCT is ready to further mobilize the human and financial resources to ensure the integration of our initiatives in the context of sustainable development, and recognizing the need to provide support and advice at different levels.



# MANPOWER



The Tunisian Chemical Group has continued to encourage the voluntary retirement of its employees in order to create other opportunities for the recruitment of unemployed people enabling them to contribute particularly in the construction of the new phase of the phosphate sector and facing all the challenges, and to the development of the national economy.

## Manpower

Compared with 2013, the number of employees in the Tunisian Chemical Group in 2014 fell by -6.61%, this decrease is due to the massive departures following the decision of encouragement for departure to the voluntary early retirement .

By cons, all remaining planned recruitments were postponed to 2015 for the number requiring lengthy procedures.

Data	▼ 2013	▼ 2014
Number of permanent employees	7438	6946
Development rate	5.31 %	5.17 %
Entry rate	11.68 %	-
Exit rate	4.97 %	7.13 %



# TRAINING

## Objectives

The Strategy of the GCT in the area of HRM is essentially to work toward the consolidation of the role of the HR function in GCT:

- ▶ Maintain a favorable social climate by the continuous dialog.
- ▶ Develop the enterprise culture by the total harmonization.
- ▶ Strengthen the current structures by the recruitment in diversified specialties
- ▶ Ensure succession.
- ▶ Develop the skills by training
- ▶ Develop civic responsibility of the company.

## Training

The strategy of the company in the field of training has as objectives:

- ▶ improve the qualifications and skills of the staff. The latter is reflected in term of efficiency at work and of the threshold of high profitability.
- ▶ Ensure a match between the training strategy and the development plan of the enterprise»
- ▶ Ensure the versatility and professional mobility to enable staff to adapt to

technological developments and to the professional environment.

- ▶ Develop a strong work ethic, the rational management, calculated risks, innovation and creativity.
- ▶ Foster the professional development by linking the training to the management of careers
- ▶ Ensure the training of new recruits

This policy is reflected by the development and implementation of a master plan for participatory training and in adequacy with the development plan of the company.

### This training plan aims:

The organization of training actions with the integrated centers and academic institutions.

- ▶ Animation of actions of specific training in the GCT by managers in the group or through foreign companies in order to follow the technological development of production and maintenance.
- ▶ Programming of actions of training to familiarize the employees to use the computer applications appropriate to their jobs.
- ▶ Programming of training actions in security, maintenance, energy and quality.

Category/Year	▼ 2012	▼ 2013	▼ 2014
Number of training days	8389	8411	6848
Number of participations	2655	2446	2340



# SAFETY



During the year 2014, and following the special situation generated by unstable social climate from the period 2011-2013.

Tunisian chemical group led safety actions in addition to regular security activities.

## The most important as well :



- ▶ Conduct training and awareness in safety items and risque management.
- ▶ Ensure recycling of rescuers from the site staff.
- ▶ Conduct in current September 2014 a safety audit for the ammonia storage inside the ammonium nitrate plant.
- ▶ Launching a mechanization system of handling bags in order to reduce accidents in this area.
- ▶ Ensure the review of internal operational plans (POI) for gages plants.
- ▶ Furthermore the security of the staff; a safety project of all the plants was launched by the company.

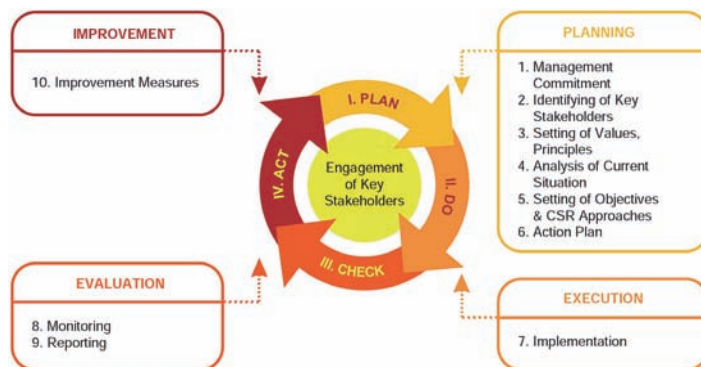
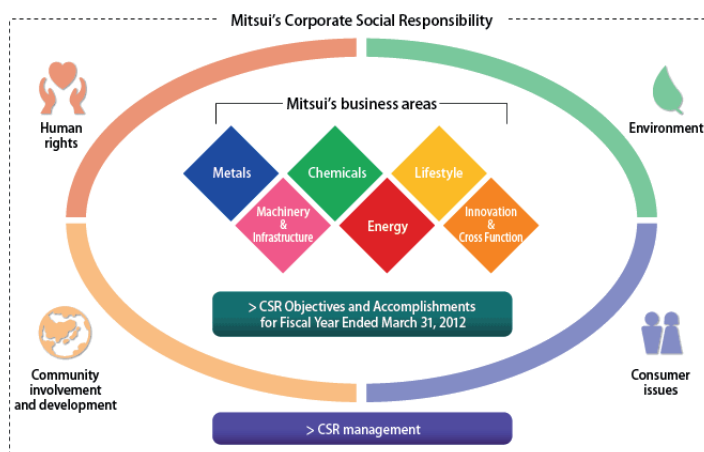
It was manifested by the construction of a new fence equipped with a video control system around the plants.

# IMPLEMENTATION OF CORPORATE SOCIAL RESPONSIBILITY

*The importance of CSR on both society and the industry has been widely discussed in the last two decades. Studies have demonstrated the positive impact of CSR on companies' reputation, customer satisfaction, employees' commitment, and financial performance. Consequently, GCT Company is increasingly incorporating CSR in their business strategies. However, implementing CSR remains a challenge for GCT.*

The GCT program in the implementation of corporate social responsibility able to:

- Adopt governance and responsible management.
- Engage the communities of reception and the other parts fascinating and interested.
- Contribute to the social and the development of the community.
- Protect the environment
- Safeguard the health and the safety of the workers and the local population.



# IMPLEMENTATION OF CORPORATE SOCIAL RESPONSIBILITY

In collaboration with Tunis International Center for Environmental «CITET» with the support of National Agency of Environment Protection «ANPE» and Deutsche Gesellschaft für Internationale Zusammenarbeit «GIZ», the «GCT» is engaged to improve its environmental communication while working out and by implementing a strategy and an action plan of interns and external environmental communication in the long run on the topics environmental. This strategy supports on:

**Transparency - Relevance - Credibility  
- Reactivity - Clearness**

This strategy is able to:

- Better include/understand waiting of the parts interested and to support mutual confidence.
- Help to include/understand environmental engagements of the company.
- Improve their perception of the company.
- Promote the achievements and the performances.
- Answer on the environmental risks.
- Increase the confidence of the socials partners.

## The Future

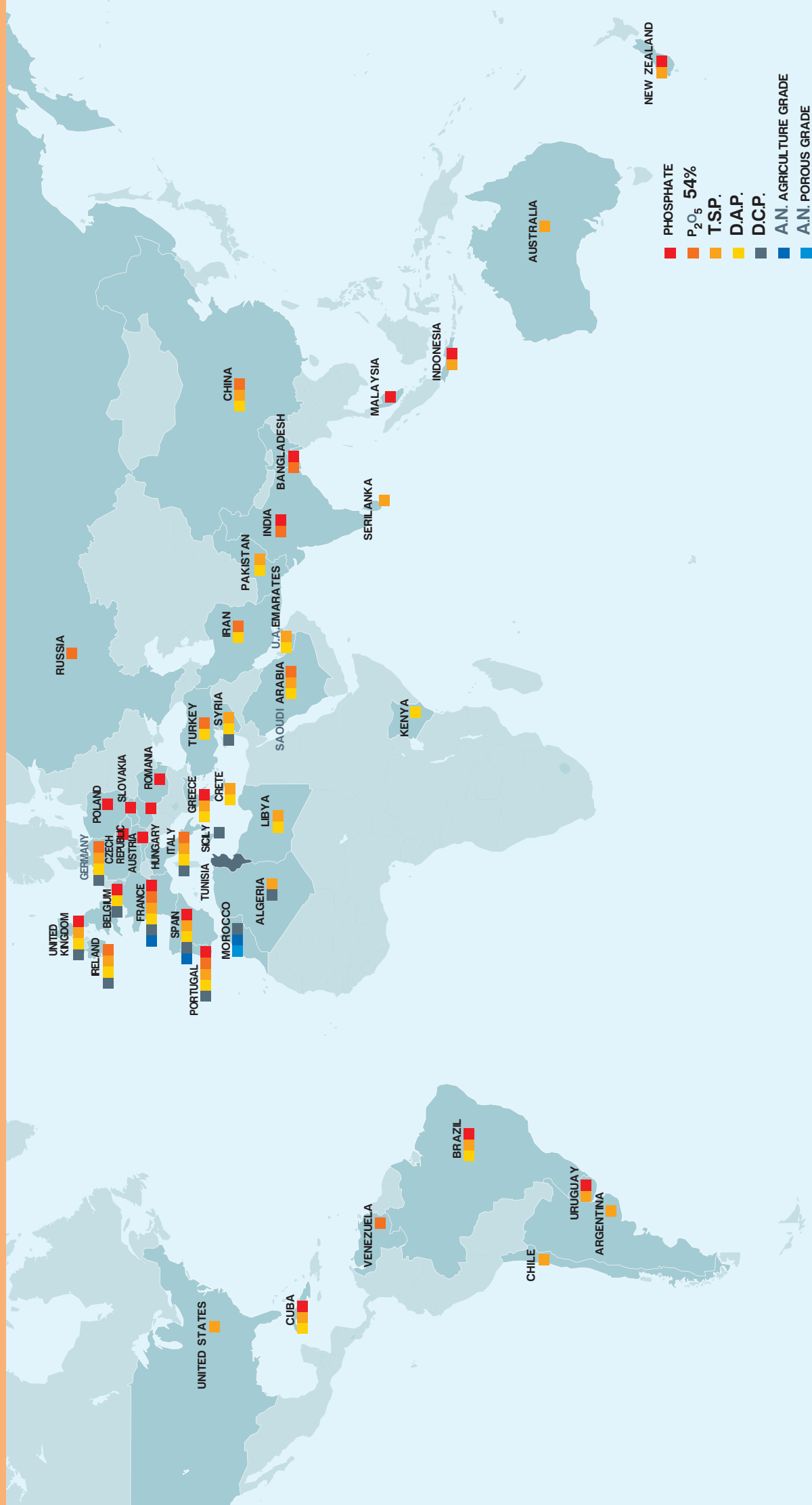
For GCT's new development projects (TIFERT & Mdhilla 2) : The best available technologies «BAT» for environment preservation (30% of the projects cost) have been adopted (Double Absorption, Heat Recovery System, Water Desalination, Fluorine recovery, closed loop water),

The target is to achieve sustainable development as a new approach for the GCT's fertilizer industry through production and innovation integrated environmental protection,

The GCT will be on the fore front of best available technology.



# WORLD WIDE PHOSPHATE ROCK AND FERTILIZERS EXPORT







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