



Centre for Water researches and Technologies 'CERTE'

The 21st Meeting of COMSATS
Coordinating Council



ALMATY (Kazakhstan): 3- 4 April 2018

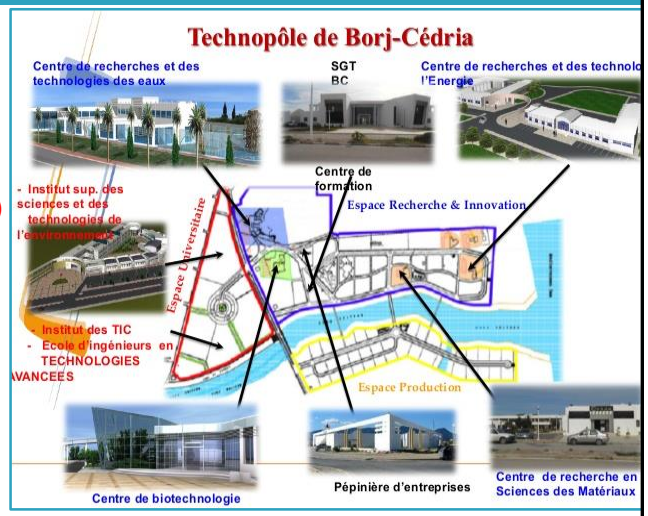
Technopark (Technopole of Borj Cedria)

89 ha



TECHNOPOLE BORJ CEDRIA
prenez une technologie d'avance

- **RD&I area (4 Research Centres)**
 - Water: **CERTE**
 - Energy: **CRTen**
 - Biotechnology: **CBBC**
 - Material: **CNSM**
- **Education area (3 High Education Institutes)**
 - TIC: **ISTIC**
 - Environment: **ISSTE**
 - Advanced Technology: **ENSTAB**
- **Production area**
 - Incubator
 - Space for innovative Industry linked to the Research Centres topics.



PRESENTATION OF CENTRE

Mission, Organization, Statistic
(Activities : 04/2017 – 03/2018)

Missions of CERTE

1 / 2

- According to the **CERTE** creation decree (2005), the main mission of CERTE is to carry out **Research Innovation** activities and **Technological Development in Water** sector and to **Transfer of the Scientific results to the Socio-economical sectors**.
- Performing research programs and projects in the framework of contracts signed with the Government (4 years programmes: 2015-2018);
- Carrying out research activities, experimentations, expertise in water sector for ministries, national institutions, public and private establishments

Missions of CERTE

2/2

- ❑ Carrying out research programs on sustainable water management
- ❑ Ensuring the transfer and the diffusion of the technologies related to water preservation, treatment and reuse;
- ❑ Valorization of the research results and establishment a partnership agreements ;
- ❑ Contribution to the formation of PhD, Masters and Engineers.



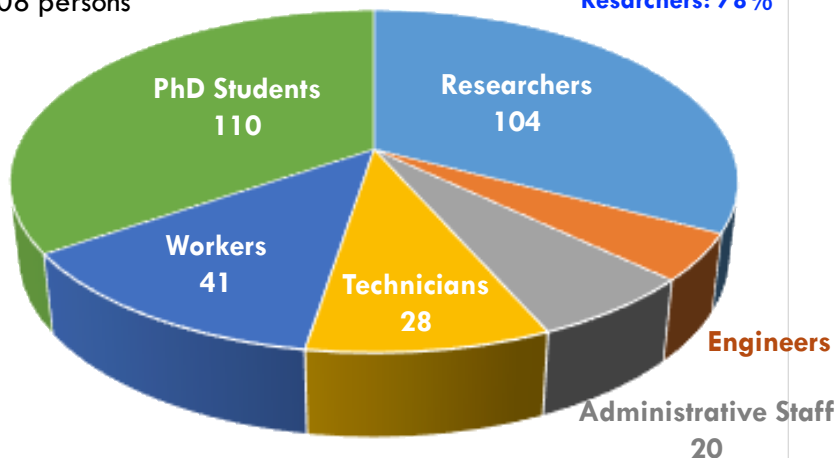
Organisation of CERTE





Human Resources (December, 31-2018)

308 persons



Collaboration / Partners of CERTE

Socioeconomic Partners (Tunisia)

CETTEX, ONAS, SONEDE, BPEH, DGGREE, DGRE, CRDAs, ETAP, GCT, ANPE, CITET, Cité des Sciences de Tunis, Office du Thermalisme.

Partners from Universities and Research Institutions

CRTEn, CBBC, CNSM, INAT, INGREF, FST, FSB, ENIT, ENIG, ENIS, INSAT, FSS, ESIER, ESAM, ESSTT, ESSTHS.

International Partners

- **Japan** : University of Tsukuba, University and Tokyo Ecopark, University of Miyazaki
- **Union European** : France, Germany, Italy, Spain, Belgium, Austria, Portugal, Kingdom, Greece, Suede
- **Amerique** : USA, Canada
- **Mediterranean Arabs Countries** : Algeria, Morocco, Egypt, Jordan, Turkey

Partnership with industries (2017)

CERTE/SGTBC/UTICA:

Convention cadre pour valoriser les résultats de la Recherche CERTE/UTICA/SGTBC

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CERTE/SGTBC/ETAP:

Convention cadre pour valoriser les résultats de la Recherche CERTE/ETAP/SGTBC

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CERTE/SGTBC/SITEP:

Convention cadre pour valoriser les résultats de la Recherche CERTE/SITEP/SGTBC (en cours de négociation)

?

CERTE/SGTBC/POULINA:

Convention cadre pour valoriser les résultats de la Recherche CERTE/Poulina-Holding/SGTBC (en cours de négociation)

?



Organisation of Scientific Events.

- **1st Atlas Geo-resources International Congress 'AGIC'2017**

Topics

- Basin Geosciences (Modelling, GIS, Statistics)
- Water Resources and Modelling,
- Environment and Climatic Change,
- Soil sciences and
- Geo-materials



2)- International Conference 3rd AOP'TUNISIA

**on
"Advanced
Oxidation Process for Sustainable
Water Management",**

**Hammamet- Tunisia,
2 - 4 November 2017.**



120 participants from 11 different countries, covering three continents: Africa, Asia and Europe.

Supported by : **DAAD** 



**INSTITUT
FRANÇAIS
TUNISIE**

**Higher Education
& Scientific
Research**



COMSATS sponsored 4 participants from **Sudan**, **Nigeria**, **Syria** and **Pakistan**, and covered partially their fees (Travel to Tunisia), but only two participants from Sudan and Nigeria attended the conference. For others participants, they canceled their participation at the last moment because it was difficult to cover their fees.



Exhibition & Fair and Promotion of CERTE

To promote technology transfer and know-how to economic, industrial and social partners, CERTE participated in the following exhibitions

To promote technology transfer and water sector related know-how to economic, industrial and social partners, CERTE participated in the following exhibitions



Water Forum
Sfax, 11-14
Oct. 2017



**National
Valorisation
Days: 13-14**
Dec. 2017

ENVIROTEC & ENERGIE EXPO-2017,
Tunis, 23 – 25, May 2017.



Next Seminar (2018)

Tunisian – Japanese Seminar **Innovation Discovery for Sustainable Water Management**

Organizers

- CERTE (Tunisia)
- Miyazaki and Tsukuba Universities

Date

November, 24-26, 2018

Research output (2017)

Publications (indexed, impacted)	96
International Oral Communications	100
Books / Chapters	5
PhD and HDR Diploma	18
Mester Diploma	47
Engineer Diploma	24
HDR	2

ON-GOING PROGRAMMES

OF RESEARCH LABORATORIES
CERTE (2015 – 2018)

(i)- Bilateral cooperation (by country)

Frame of the collaboration	New Projects
France PHC-UTIQUE (3 projects)	Depollution of natural waters loaded with minerals using the electrocoagulation technique for drinking Sustainable Olive Mill Wastewater management coupled with biofuel production and water recovery Development of polyoxometalate / polymer composites for photocatalytic treatment of emerging pollutants
Germany TRIFOLD	Technological Transfer and Innovation on TN Research Centres
Morocco CMPTM	Development of solar photo-nano-reactor for POPs degradation

(ii)- Multilateral cooperation (European Union: H2020)

Frame of the collaboration	New Projects
EU (H2020)	WATER-WORKS-(IRESA) 2017 Improving the retention and efficiency of water and nutrient use in agricultural production systems in Europe and North Africa WaterFARMING). Partners: Denmark, Netherlands, Germany, Egypt, Portugal, Italy, Tunisia (CERTE)
EU (H2020)	WA ter S aving in A griculture: Technological developments for sustainable management of limited water resources in the Mediterranean area (Water 109 WASA); 2017 Partners: Italy, Portugal, Morocco, Egypt, Turkey, Tunisia (CERTE)
Germany (DAAD)	Salt in transformation (2017 and 2018) Partners: University of Berlin, Germany; DAAD, (CERTE)

(iii)- Technology Transfer to the industrial and to the Society

Frame of the collaboration	New Projects
Project 1	Valorisation of wastes of soft drinking industries by production of interest microorganisms and metabolites.
Project 2	Treatment and Valorisation of the effluents of petroleum production
Project 3	Sanitation in rural primary Schools (local water management system) : Implementation of 3 pilots

What can CERTE offer ?

- Capacity Building (on water sector)
 - ▣ Workshop, Seminar, International Conference and Events, ...
 - ▣ Training on following Topics:
 - Pipes scaling: problems of Calcium Carbonate (limestone)
 - Wastewater Treatment and Reuse, local water management
 - Desalination of water (brackish and sea)
 - Low cost and sustainable technologies for small and rural villages
 - Post-doctoral and Doctoral exchange of students (Masters and PhD)
 - ▣ Platform Analysis of CERTE will open to COMSATS members

CERTE is a member of Networking



www.comsats.edu.pk

COMSATS: Commission on Science
and Technology for Sustainable
Development in the South

partner of

sustainable
sanitation
alliance

www.susana.org



www.iwa-network.org

Thank You