National Research Centre
Cairo-Egypt

www.nrc.sci.eg

NRC in Brief
NRC 2010

- 12 Feddans.
- 10 Research buildings.
- 2 Administration buildings.
- 10 Store rooms.
- Animal houses.
- Green houses.
- 5 Experimental stations.
- Research farm 350 feddans.
NRC

*The major multi-disciplinary R&D Institute in Egypt*

- Devoted to **basic** and **applied** research.
- The largest of all institutions affiliated to the **Ministry of Scientific Research**.
- Employs **70%** of all scientists working in these institutions.
- Correspond to the country’s key **production** and **services** sectors.
NRC Mission

Conduct Basic and Applied Research

in

Different Fields of Science and Technology

to

Strengthen the National Economy
NRC Objectives

- Contribute in national upgrading of science & dissemination of knowledge
- Guide national economy
- Strengthen scientific linkages and cooperation with local and international organizations
- Provide scientific services and consultations
- Training graduates and researchers
NRC Strengths

Man Power

- Research Staff : 3893
- Scientific Assistance : 954
- Administrative Staff : 2555
Organization Structure

Board of Directors

- President
- Vice President for Research
- Vice President for Technical Affairs
- Heads of 14 research divisions
- 5 experienced members selected on personal merit
Organization Structure (cont.)
Research Divisions

- Environmental Sciences
- Medical Sciences
- Human Genetics & Genome
- Oral and Dental Research
- Textile Industries
- Food Ind. and Nutrition
- Inorg. Chem. Ind. and Mineral Resources
- Engineering Research
- Pharmaceutical Industries
- Org. Chem. Industries
- Agriculture & Biology
- Veterinary Research
- Genetic Engineering & Biotechnology
- Physics

Colors:
- Yellow: Health and Environment
- Blue: Industrial Research
- Green: Agriculture and Biology
- Red: Basic Science
Research and Development

Research Projects

*Customer-Oriented*
Addressed to national needs

1- In-house projects - Governmental budget (18%)

2- National projects – contracts (30%)

3- International projects (52%)
Current Strategy

- Advanced Basic Scientific Research
- Interaction with Production and Service Sectors (applied research)
- International Relations
Advanced Basic Scientific Research
Centre of Excellence for Advanced Science (Road to Nobel)

Technological Incubators

- Laser technology
- Renewable energy
- Advanced materials and nanotechnology
- Safe agriculture
- Food risk analysis
- Cancer biology
- Prof. Dr. Mohamed Abdel Rehim’s lab. for drug research
- Medical and chemical information biology
- Plant molecular genetics
- Vaccines
- Infectious diseases and immunology
- Genetics of hydrobiology
- Stem cells research
- Marine natural products
- Medicinal chemistry and drug design
- Tumor molecular pathology
Production of Egyptian solar cells from nanoparticles

Use of gold nanoparticles for the diagnosis and treatment of cancer

Engineering and technological development of water desalination membranes
Study the Ancient Egyptian Mummies

- A medical and scientific research team study the Ancient Egyptian Mummies at the era of Ramses King.
- Egyptian research groups from NRC and the Faculty of Medicine In collaboration with Dr. Zahi Hawas general secretary of the Supreme Council of Antiquities.
Others

- Fuel Cells for Electricity Generation
- Construction with Rice Straw bales
  As a Sustainable Environment Friendly Building Material
- Bio Diesel Fuel
- Hydrogen as a premium quality clean energy
- Advanced Composites For Application in Special Structure
Biotechnology Plant Unit
Pilot Plant

A multipurpose Pilot Plant, a Chinese Grant
Some Plant Equipments

Distillation

2 Reactors

Multi-speed Centrifuge

Extraction

Filtration

Dryer

Absorption
Interaction with Production and Service Sectors
Current Strategy (Cont.)

Establishment of Businessmen and Investors’ Office.

Including key investors in the Board of directors and divisions.

R. & D. Council.

Special Service Units.
Current Strategy (Cont.)

- Organizing workshops, symposia, conferences and field visits and studies.

- Exhibitions for scientific products.

- Production-oriented Ph.D. research points.

- Central Unit for Analysis and Scientific Service (CUSS).
Current Strategy (Cont.)

CONTRACTS Signed between 
NRC and the Different Sectors

- Health
- Renewable Energies
- Industry
- Materials Testing
- Environment
- Pharmaceutical
- Agriculture

Sectors
Current Strategy (Cont.)

“Committee of Research & Development and Technology Transfer”

NRC

Federation of Egyptian Industries
Current Strategy (Cont.)

Service Units

NRC has 75 Specialized Service Units

Service Units in different sectors:

- Industry
- Health
- Agriculture and Veterinary
- Environment
- Information Technology
- General services
International Relations

International Relations Office:
Scientific channels with regional and international universities and research centers.
Projects, contracts and scientific agreements.

African Relations Office:
Promotes the Scientific cooperation with African countries

European Relations Office:
Promotes the Scientific cooperation with European countries
NRC Networking

**International Organizations:**

- Center of excellence (2004) by the Commission on Science and Technology for Sustainable Development in the South, COMSATS & for Biotechnology (2007)
- The interim regional hub in Biosciences for North Africa by the New Partnership for Africa’s Development, NEPAD
- Third World Academy of Science, TWAS
- Third World Network for Scientific Organizations, TWINSO
- World Association of Industrial and Technological Research Organizations, WAITRO
NRC Networking (Cont.)
Recently Signed International Protocols

- Korean Industrial Technology Foundation
- National Engineering Academy of Kazakhstan
- Yarmuke University in Jordan
- University of Lebanon
- Sudanese Food Research Centre
- Sudanese Centre for Research and Industrial Consultations
- ICT Trust Fund
- National Cancer Institute, USA
- Arab Union of Textile Industries
NRC Networking (Cont.)
Recently Signed International Protocols (Cont.)

- Burg Burerag Institute, Algeria
- Lancaster University in UK
- University of Basel, Switzerland
- University of California, San Diego, USA
- Industrial Accident Prevention Association (IAPA), Toronto, Canada
- World Food Program
- NABNET
- University of LEBREC, Czech Republic
Scientific Records
No. of Submitted & Accepted Patents

Year

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Training

Trainees

No. of Training Courses

- Training NRC Members
- National Training
- Commonwealth Training
- Arabic and African Countries Training
- Universities
- Graduates Training Program

2005-2006
2006-2007
2007-2008
2008-2009
2009
Contracts Through Businessmen and Investors' Office

Year

No. of Contracts

Income in L.E.

Contracts

Income in L.E.
NRC Prizes-2009

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Thank You