Industrial Research and Consultancy Center (IRCC)

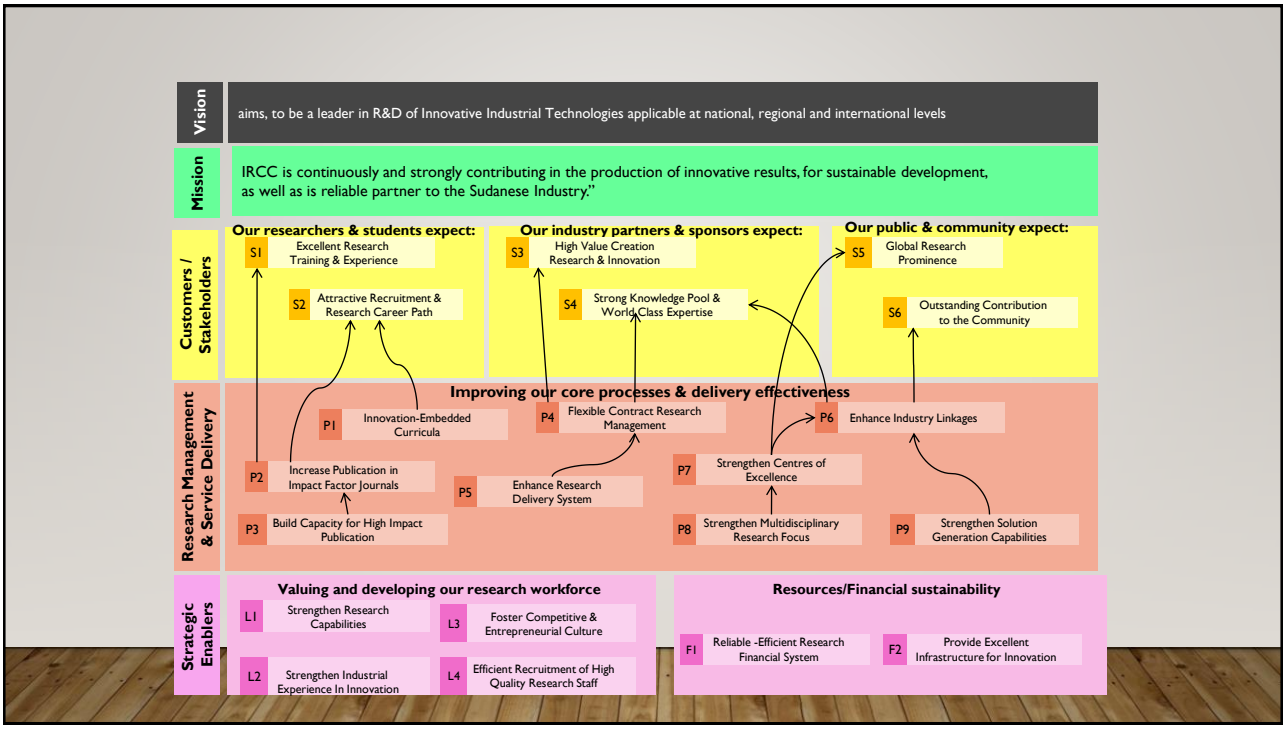
Dr. Widad Hassan Abdulhalium

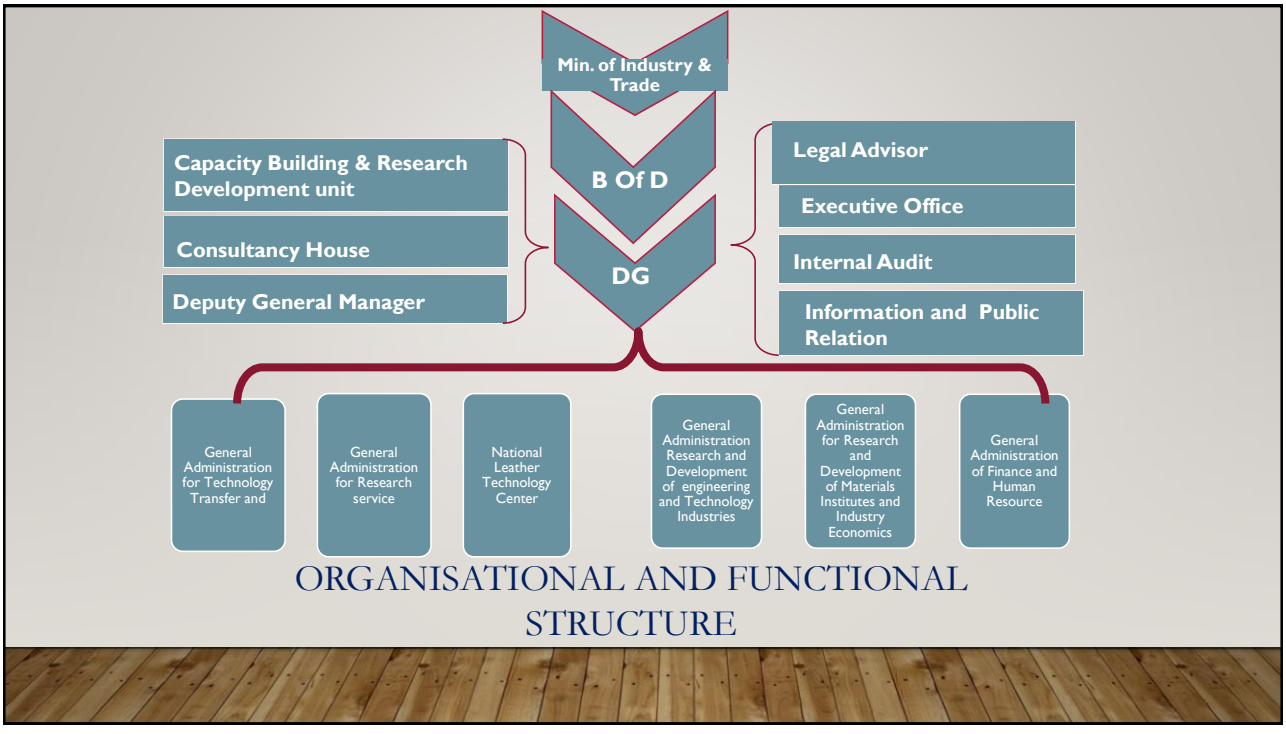
IRCC, Director-General

IRCC is a nonprofit organization with moral personality, having eminent Board of Directors. Working on the light of IRCC (act 1968 amended 2018).

IRCC Mandate: to undertake Industrial Research and Consultancy Services and disseminate findings that will have a positive impact on national industrial development .

IRCC Services:





ORGANISATIONAL AND FUNCTIONAL STRUCTURE

IRCC Facilities

- Consultancy House
- **Fully Equipped and Integrated Tannery**
- **Physical and Mechanical Lab**
- **Electronic quality control and testing lab**
- Engineering Design Lab
- **Advanced industrial information Centre**
- **Pilot plants**
- **Research Farm**

- **IRCC is member of Sudan Academy of Sciences Federal union.**

Certified college in :

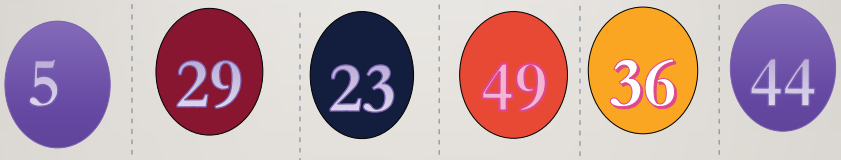
- **MSc of Cleaner production**
- **MSc of Mechanical Engineering Design**
- **MSc of Refrigeration & Air conditioning**
- **MSc of Electrical energy production**

BY courses prog.

- **MSc &PhD By research In all Research Industrial sectors**

SUDAN ACADEMY OF SCIENCES

RESEARCHERS



professor	Associate Professor Researchers	Assistant Professor researchers	Researchers	Assistant researchers	Technician

2018 PROGRESS REPORT
major Activities

Research & Development

2018 Research Plan

Industry –Academia collaboration -Arab Industrial Development and Mining Organization (AIDMO)

Valuing and developing our research workforce

Establishment of :-
National Cleaner Production center (Industrial Waste Management and SMEs Entrepreneurship Hub in Sudan)
Institute of design engineering and institute of Nano-technology
UNISCO–chair in technology transferee (Technical incubators for packaging product,)

consultancy

Development and value addition at the community level to support resilient and diversified livelihoods and resilience of local communities
Development of Oil, Flour & Salt Industry
Industrial Geo-Database

Consultancy services

National level :
Profiles (22)
Evaluation (7)
Technical Reports (18)
Feasibility Studies (12)

International level :
Verification Audit of HCFC Phase-out Management Plan Auditing
Tanning Water Treatment Plant - White Nile State

Helping SMEs to grow through innovation

2018 PROGRESS REPORT major Activities

Technology transfer

Assessment of the technological gap in the industrial sector- adopting Inventors & Entrepreneurs.
An implementation of small scale production units:- Banana Stem Shredder –essential oil extractor

Training and Capacity Building

Capacity Building Programs	Number of Trainees
Post graduate-studies	10 (4PhD, & 6 MSc)
Short training courses	3
Institutional and Technical training	20

Scientific Events

- **Household Industry According to the Modern Scientific Bases and its Role in Industrial Development (15- 16 October 2018, IRCC & FASRC, Khartoum)**
- **International Industrial Expo (1-2 April 2019, IRCC, Khartoum)**
-

International relationship

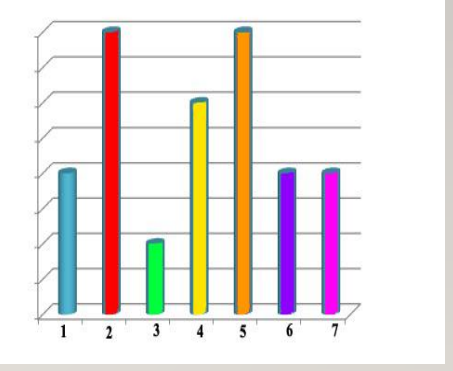
WAITRO membership activation



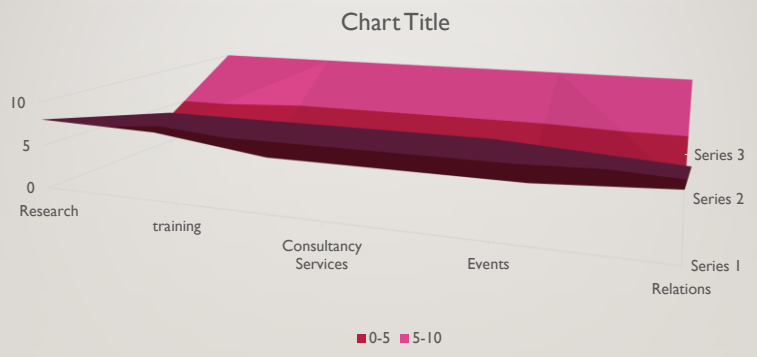
ONGOING ACTIVITIES : RESEARCH AREAS 2018

A total of 18 research projects in different 7 sectors are implemented

1. Small Business Development (2)
2. Local Knowledge and Rural Industrialization Development (4)
3. Renewable Resources and Sustainability (1)
4. Efficiency of Manufacturing Processes (3)
5. Innovation in Agro- Industrialization (4)
6. Modern Technologies – Nanotechnology (2)
7. Competitiveness of the Sudanese Industry (2)



2018 PROGRESS



2019 INITIATIVES

Focus Area	Objectives	Action Item	Activities
Policies & Strategies Strategic review – IRCC 2019-2025 strategic report	Valuing and developing our research workforce	All the key activities for strategic planning	➢ - Strengthen Research Capabilities ➢ - Foster Competitive & Entrepreneurial Culture ➢ - Strengthen Industrial Experience In Innovation ➢ - Efficient Recruitment of High Quality Research Staff
Applied research towards sustainable development	-To agree on collaborative research program between. - High quality research	-Mapping the research needs -To identify areas for interaction. -Lab accreditation - Thematic joint programs	- IRCC 2019 research plan as follow : ➢ 5 projects in Development of knowledge and Small Industries ➢ 6 projects in Agricultural manufacturing and renewable resources utilizations ➢ 3 projects in Efficiency of industrial business
Consultancy services for industrial sector	Create strong and innovate industrial sector	To build a knowledgeable and experienced technical platform to provide consultation to industry	➢ Marketing ➢ training ➢ Food Based System Approaches to improve the Health and Wellbeing and Poverty Alleviation ➢ Industrial Waste Management and SME Entrepreneurship Hub in Sudan ➢ Packing and Packaging Incubators
Technology transfer	Bridge the existing technology gaps for national industrial sector .	-Technology Needs Assessment. -Share experience and best Practices	➢ Innovation prototype development . ➢ IP management ➢ Technology license
Capacity building and knowledge dissemination	Enhance constituent capacity at member level towards social protection	-Advising policy makers -Collaborative training and awareness, workshops, seminars	➢ Customized Research Methodology. ➢ An Integrated structural approach to join research for excellence in publication and community empowerment
UNISCO Chair for technology transfer	Act as a plat form that allows commu. And coordi. Between different stake holder	Research Training Scientific forum Adopting inventors and	➢ Industrial Waste Management Workshop

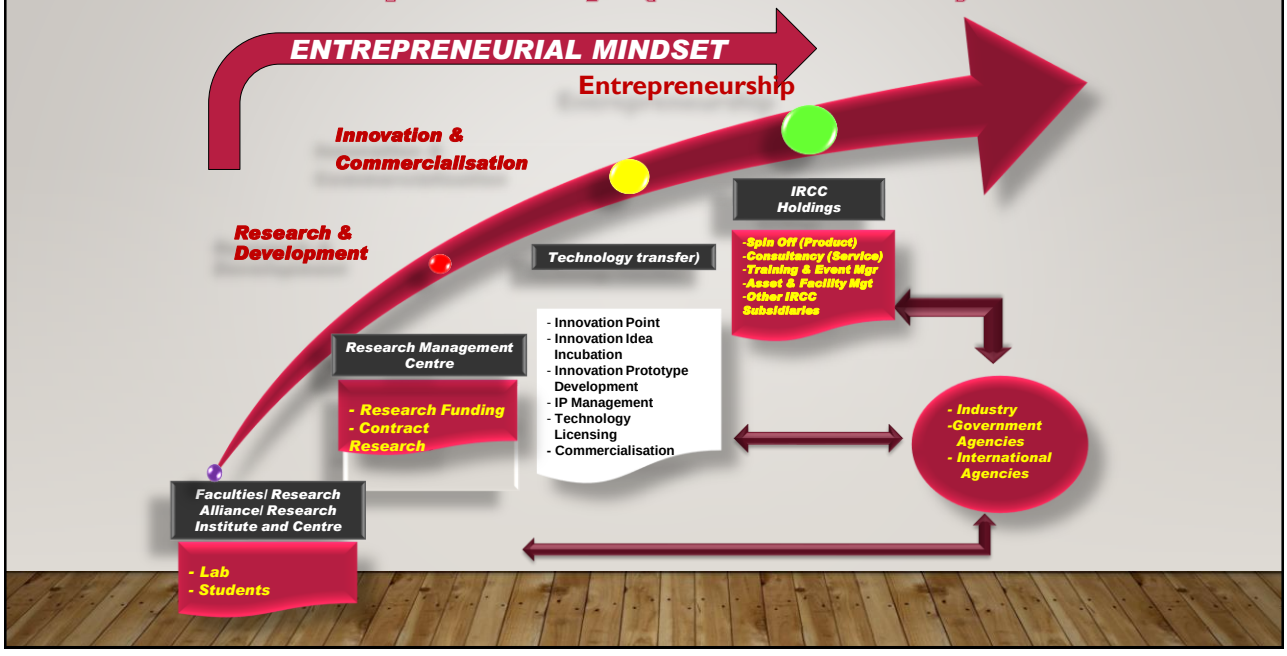
Collaborations with other Centers of Excellence

- Short-term visit program in Industrial Technology Institute (ITI) , Sir Lanka
- COMSATS' International Thematic Research Groups
- Establishment of COMSATS Center Branch in Sudan
- POC between PCSIR & IRCC
- Telehealth Program
- Postdoctoral fellowship (NRC, EAGYPT)
- Proposal for Research Laboratories aimed at socio-economic development
- Establishment of COMSATS Centre for Climate & Sustainability (CCCS)

Science and Technology for achieving SDGs

IRCC Intervention	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
➢ Sudan Cleaner Production Center																	
➢ Training programs in the voluntary return and displaced areas through The National Project for Industrial Development	■	■														■	■
➢ Preserve of vegetables and fruits in Darfur state	■	■															■
➢ IRCC Focal Point for :													■				■
➢ Sudan Third Communication Report for Climate Change													■				■
➢ Verification of Implementation of HCFCs (UNIDO)													■				■
➢ Rehabilitation of Suspended Factories Project through The National Project for Industrial Development .	■								■								■
➢ Industrial Waste Mapping / Technological Gap Analysis (UNESCOTT)	■							■									■
➢ Localization of engineering industries		■							■								■
➢ Application of the Extracted Essential Oil [	■				■				■								■
➢ Women Support Women (Green Houses) - Women UNESCO chair]																	
➢ Food Based System Project (WHO/ UNICEF)	■		■														■
➢ Health in All Polices (Ministry of Health)	■		■														■
➢ Development and value addition at the community level to support resilient and diversified livelihoods and resilience of local communities	■																■

IRCC pathway (2019- 2025)



Moving forward

IRCC Innovative Science & Technology for Prosperity aims to achieve:

1) High number of Intellectual Property Right (IPR), including original writings, Utility Innovation (UI), Industrial Design (ID), Copyright, Trademark and Patents filed, with commercial viability
2) High number of patents granted in the year
3) High number of new products licensed for commercialization and must have generated income in the year
4) High number of new technology know-how licensed in the year
5) Quality number of independent companies being set-up for the commercialization of IRCC research product or invention specifically with ready IP products or services
6) High amount of income generated from product commercialization / technology know-how licensing in the year


Thank you