Ministry of Communications and Information Technology

TIME FOR EGYPT

Egypt

The Destination of Choice
ICT-Electronics

Position Egypt as the regional hub for electronics manufacturing and world destination of choice for electronics design and innovation

egypt makes electronics

itida
IT INDUSTRY DEVELOPMENT AGENCY

Fast-Paced Economy

ICT in GDP

3.2% 2018

4 % 2019

4.4% 2020

FDI

$5.9B

2020*

ICT Sector

$ Exports

3.2 B 2018

3.6 B 2019

4.1 B 2020

Fastest growing sector **16%**

Largest contributor to GDP growth

200,000 Offshoring Jobs

*UNCTAD

Increased Global Confidence

Progressive Sector Acknowledgment

Egypt improved in **business dynamism, and innovation** capability
Oct 2019

Egypt progressed **6** places in **Ease of Doing Business**
Oct 2019

IMF support packages will help **boost investor confidence** in Egypt
May 2020

#1 MEA and #15 Top Global Services Location
April 2021

Egypt is the **only** country in **MENA** to witness **positive real GDP growth**
Oct 2020

Egypt is well placed to **attract international investment** and emerge from this **difficult period** in **a strong position**
Aug 2020

Egypt is the **4th** Most favored **offshore CX delivery** locations
March 2021

Egypt is **Africa's top FDI destination**
Jun 2021

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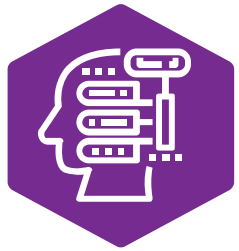
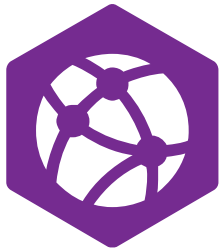
Strategy & Tracks

Electronics Design and Innovation



Empowering R&D in Electronics



Innovation / Entrepreneurship

Electronics Manufacturing

Training / Talent Development

Enable Local Manufacturing

Investment Attraction

Leverage Export (Testing / Accreditation)

EME Value Proposition

Market Demand
& Export Potential

Unmatchable
Cost

On-Ground
Success

Government
Support

Industry Segments

- Product/System Definition & Design
- IC Design & Development
- Contract Manufacturing (ODM/OEM)
- Semiconductors
- Logistics, Repair & Recycling

Industry Products

- Smart Phones, Tablets, and GPS
- LED Lighting/Displays
- Smart Meters
- Solar Systems
- IoT Devices/Smart Solutions
- Industrial Electronics

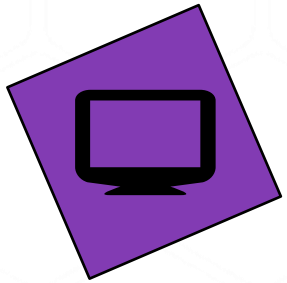
Focus Industry Products (Investment Opportunities)

Promising Products with Quick Impact and Highly Demand of Local & Regional Markets & Growth Rate

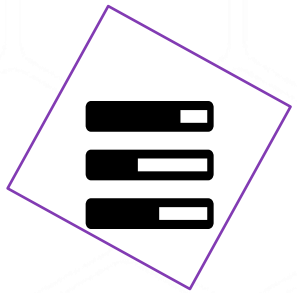
Telecom
(Mobile Phones, Tablets, GPS, Fiber Optics)

LED Lighting
(LED Chips)

Solar
(Panels/Cells/Inverters..)



LED Displays
Opencell Panels/ Optical films..)



Smart Meters

IoT Devices / MEMS/ Sensors

IC Fab
(Semiconductors)

Printed Circuit Boards Fabrication

Lithium Batteries

Industrial Electronics

ABUNDANT TALENT

100+ Million
Population

50%
Aged 15 - 44

Multi-lingual talent pool of **550K**

graduates Largest in the Arab speaking world and second largest in EMEA region

370,000
business services

60,000
IT & Electronics related

50,000
IT & Electric Technicians

80% speaks English & other European languages

65+ International schools
American, British, French, German

Low Labor Attrition

+ 20 Languages served

Across **+ 100 countries**

80% of working population speaks English & other European languages

Culturally Compatib
with Western Bus

egypt makes electronics

next technology leaders initiative

egyptfw initiat

Certified high-value training in **30+ Technology Tracks** targeting **100,0 youth in** collaboration with online learning platforms, MNCs, and leadir universities

coursera edX UDACITY

at&t Google amazon web services

Developed Industry

&

Leading Design Players

IC Chip Design
RF / Analog/Mixed / Digital / MEMS / EDA Tools

Mentor Graphics
SIEMENS
Silicon Vision
Innovative IC Solutions
SYNOPSYS
Silicon to Software
Si-WARE SYSTEMS
ANALOG DEVICES
AHEAD OF WHAT'S POSSIBLE
mixel
Mixed-Signal Excellence
GOODiX
life.augmented
BOOST VALLEY
Taking you that extra step
MEMS VISION
Pearl
varkon
Semiconductors
Cpedia
Axxcelera
BROADBAND WIRELESS
vidatronic
Scenario
your brain extension
PULSAR
microelectronics
SilGenix
SUITERA

Products & Systems Development

Valeo
IBM
avelabs
BioBusiness
Brightskies
Consultix
AvidBeam
GLOBALTRONICS
ENPIRION
EAB Minds
NMI
EGYROBO
EL SEWEDY ELECTROMETER
ALFA
SWIFT ACT
YOU DREAM, WE ACT
VEHICLEVO
Smartec
Smart Technology
Integrated Solution
Mentronix
EOIP
Engineering Office for Integrated Projects
Swiftronix
DevisionX
deep vision systems
GARMENT IO

High Value Market & Service Provider

Growth +40% over 3 years

Engineering Services EDA Tools

Mentor Graphics

Siemens EDA

+450 Engineers

Automotive Electronics

mixel Mixed-Signal Excellence

+65 Engineers

Analog/Mixed Signal - Sensors

GOODiX

+95 Engineers

RF/Analog IC Design (R&D)

ANALOG DEVICES AHEAD OF WHAT'S POSSIBLE™

+50 Engineers

RF/Mixed Signal/Digital/MEMS R&D

SI-WARE SYSTEMS

+80 Engineers

RF/Mixed Signal IC Digital IC

Silicon Vision Innovative IC Solutions

SYNOPSYS® Silicon to Software™

+360 Engineers

Product Development / R&D

Valeo +2400 Engineers

Brightskies +170 Engineers

life.augmented +40 Engineers

avelabs +400 Engineers

EL SEWEDY ELECTROMETER® +70 R&D Engineers

Unmatchable Cost Offering

Monthly Manufacturing Services Salary

	EGYPT	CHINA	TURKEY	INDIA
BLUE COLLAR	$200	$550	$700	$200
SKILLED TECHNICIAN	$400	$1100	$1500	$500
ENGINEER	$450	$1200	$2500	$600
SENIOR ENGINEER	$1200	$2000	$2500	$1300
MIDDLE MANAGER	$2000	$3000	$3000	$2000

Annual Design/R&D Fully Loaded Cost

	EGYPT	USA	CHINA	INDIA
JUNIOR	$20K	$120K	$30K	$25K
ENGINEER	$28K	$160K	$45K	$40K
SENIOR	$42K	$220K	$60K	$50K
TEAM Leader	$60-70K	$260K	$80K	$70K

Source: ITIDA industry survey 2020

INSPIRING INNOVATION

Design & Development Opportunities

- Electronics IC Chips & Circuits design
- AI / IoT / Data Analytics' and Smart cities solutions
- Automotive Electronics Systems
- Industry 4.0 Digital Transformation Solutions
- Embedded systems development
- Healthcare biomedical equipment.

Government provides attractive incentive package for establishing electronics design house inside Knowledge city furnished with whole electronics eco-system

Design Enterprise Development Program

Establishment of prototyping & Innovation labs and competence centers in advanced technologies and to be located in technology parks and smart villages

- **Terms and Conditions:** Labs include IoT, Wearable Electronics, Smart Cities, PCB Fabrication Lab, FABLAB, LED Chip Technology, and Micro-electronics & MEMS Technology lab. (Labs funding is EGP 220 Mn)

Fund electronics development, and innovation projects

Design electronic products and components, ready for mass production, projects for the development and design of electronic parts, components, systems, the automotive systems, IoT solutions & devices. Etc.

- **Terms and Conditions:** Fund up to EGP 5 Mn.

Fund EDA tools and development kits.

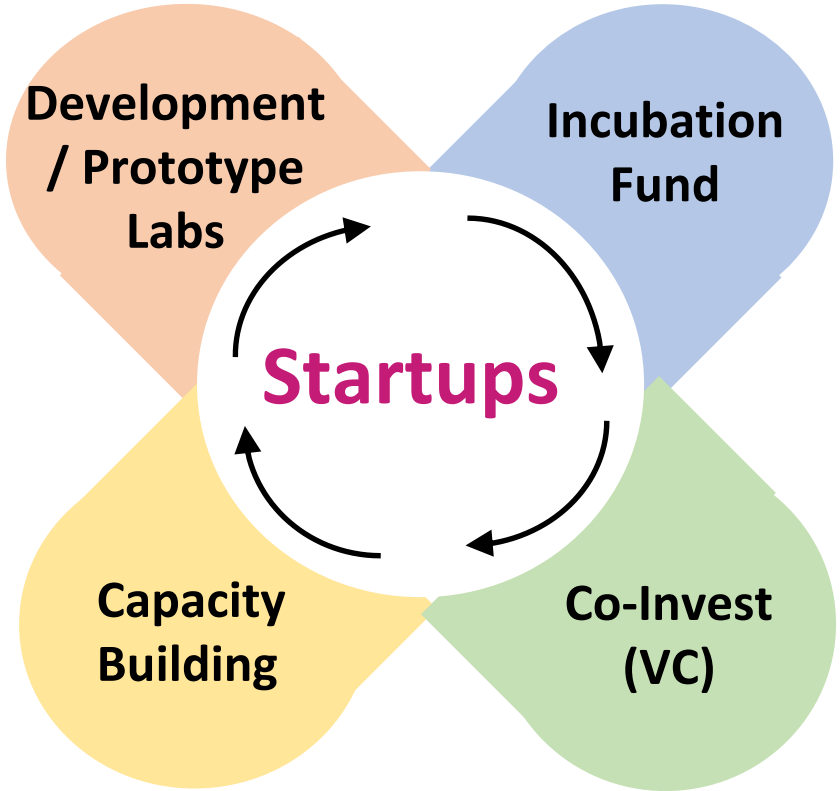
- **Terms and Conditions:** Funding with a maximum of EGP 5 Mn over three years,

Fund costs for patents at the international level

- **Terms and Conditions:** Funding with a maximum of EGP 1 Mn.

Foster Electronics Startups

- Electronics Innovation Complexes
- Funding EDA Tools



- Seed Fund up to EGP 1M

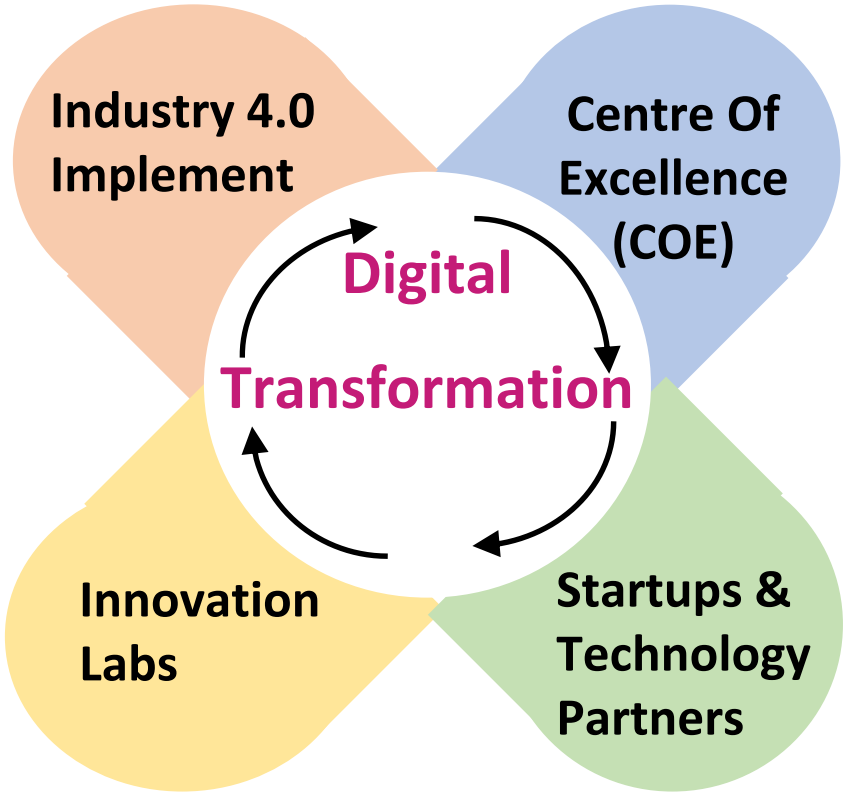
- Upscaling technical & business skills

Startups Development

- Startup Support Partnership
- Direct Investment (Co-Invest)
- Hosting in Tech Parks

Industry Digital Transformation Eco-System

- Skills Development
- Industry Assessment
- Case Studies



- Consultation
- Industry 4.0 Adoption
- Simulation Showcases
- Analyze
- Smart Manufacturing

- Develop
- Digital Fab
- Prototype
- Training

- Smart Applications
- Industry IoT
- Robotics
- Energy Management

Fraunhofer IPK SIEMENS

Quality and Scalable Infrastructure
(Technology Parks)

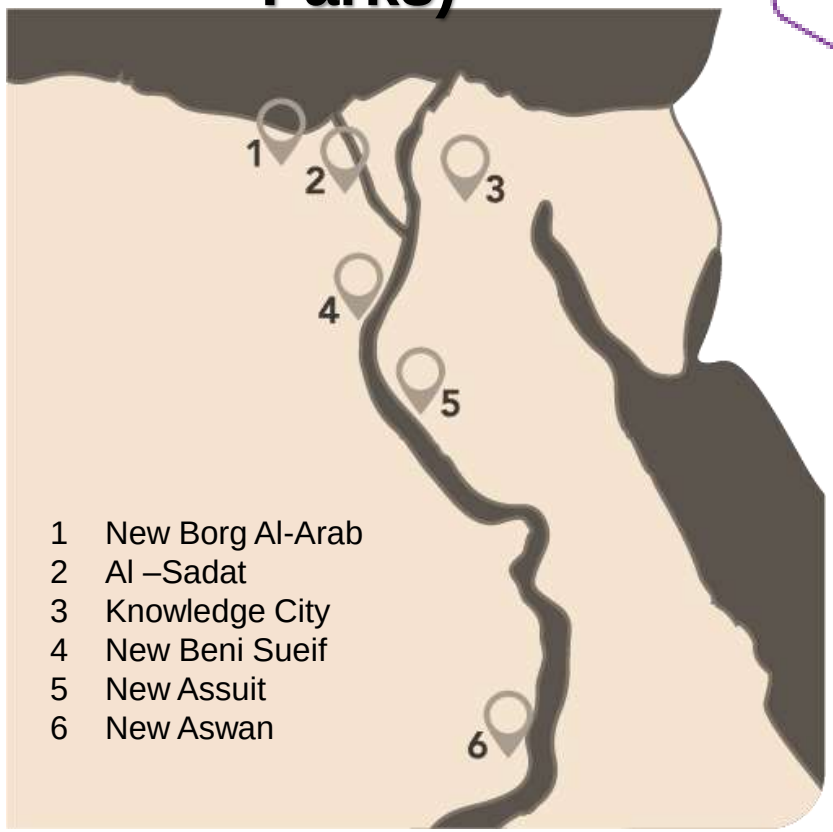
Smart Village

Maadi Technology Park

- ✓ Spread Science and Technology Parks across 2nd tier cities.
- ✓ Reach out to Egypt's talented youth everywhere
- ✓ Provide the ecosystem
- ✓ Enable innovation and technological advancements.

- **Plug & play solutions**
- **Top-notch infrastructure**
- **Dedicated areas for Electronics Design & Manufacturing with low rate.**

(2nd Tier Technology Parks)



1 New Borg Al-Arab
2 Al –Sadat
3 Knowledge City
4 New Beni Sueif
5 New Assuit
6 New Aswan

Strategic location in the heart of new cities nearby universities, and with access to major national roads, rail networks & principal international airports

Knowledge City

- Egypt has always been leading in Electronics Design with many success stories. The Presidential “Egypt Makes Electronics” Initiative supervised by MCIT and executed by ITIDA targets to promote the Egyptian capabilities even further and thus announces the establishment of the iconic Knowledge City Electronics Innovation Center in the new Administrative Capital.
- The Center provides an integrated work environment equipped with state-of-the-art smart infrastructure that includes clean room, advanced laboratories (Microelectronics, MEMS, the fourth industrial generation Industry 4.0, Internet of Things, robotics, multimedia), training academy, technology incubator, professional business services, and work spaces for companies. All and above the Center is one component of a larger ecosystem involving local and international universities and institutes.

Innovation Hub – Knowledge

Foreign & Local Electronics Design Companies

Technology Incubator

Microelectronics & MEMS Lab

For Electronics IC and System Design

Multimedia & VR/AR Lab

IoT & Robot Lab

Training Academy (EDA & CAD/CAM)

Time to JOIN

Ind 4.0 Innovation Lab

Innovation Hub – Knowledge City (Incentives)

Attract new or existing design companies, international or Egyptian, to the Knowledge City Innovation Hub, and enable companies to expand.

Conditions

- ❑ New or existing company engaged in the design of electronic products, systems, or components.
- ❑ Plan to expand (design and development employees or total revenue) by a minimum of 30% over 3 years.

Incentives (over 3 years)

- ❑ Financing capacity building of new employees according to the following table:

1-4 Yr Experience Design & Development Employee	$6 K
4+ Yr Experience Design & Development Employee	$10 K

- ❑ Company's annual capacity building financing is up to a maximum of EGP 6 million.
- ❑ Companies only bear the expenses of security, maintenance, and cleaning services, up to $5/m^2/month.
- ❑ Companies are exempted from all Internet and utility costs.
- ❑ Financing transportation cost in the amount of $800/person/year.
- ❑ Companies enjoy lab services at non-profit cost during and after program ends.
- ❑ Companies bear rent cost of $3/m^2/month for two years after program ends.

Electronics Technology Incubator Based (Hosting 15 Startups Annually)

Establishing new Egyptian design companies with high-growth potential and attractiveness to investment, engaged in designing advanced electronic products, systems, or components.

Conditions

- ❑ Deep-tech legal startup , or
- ❑ Entrepreneurial team targeting startup establishment upon incubation.

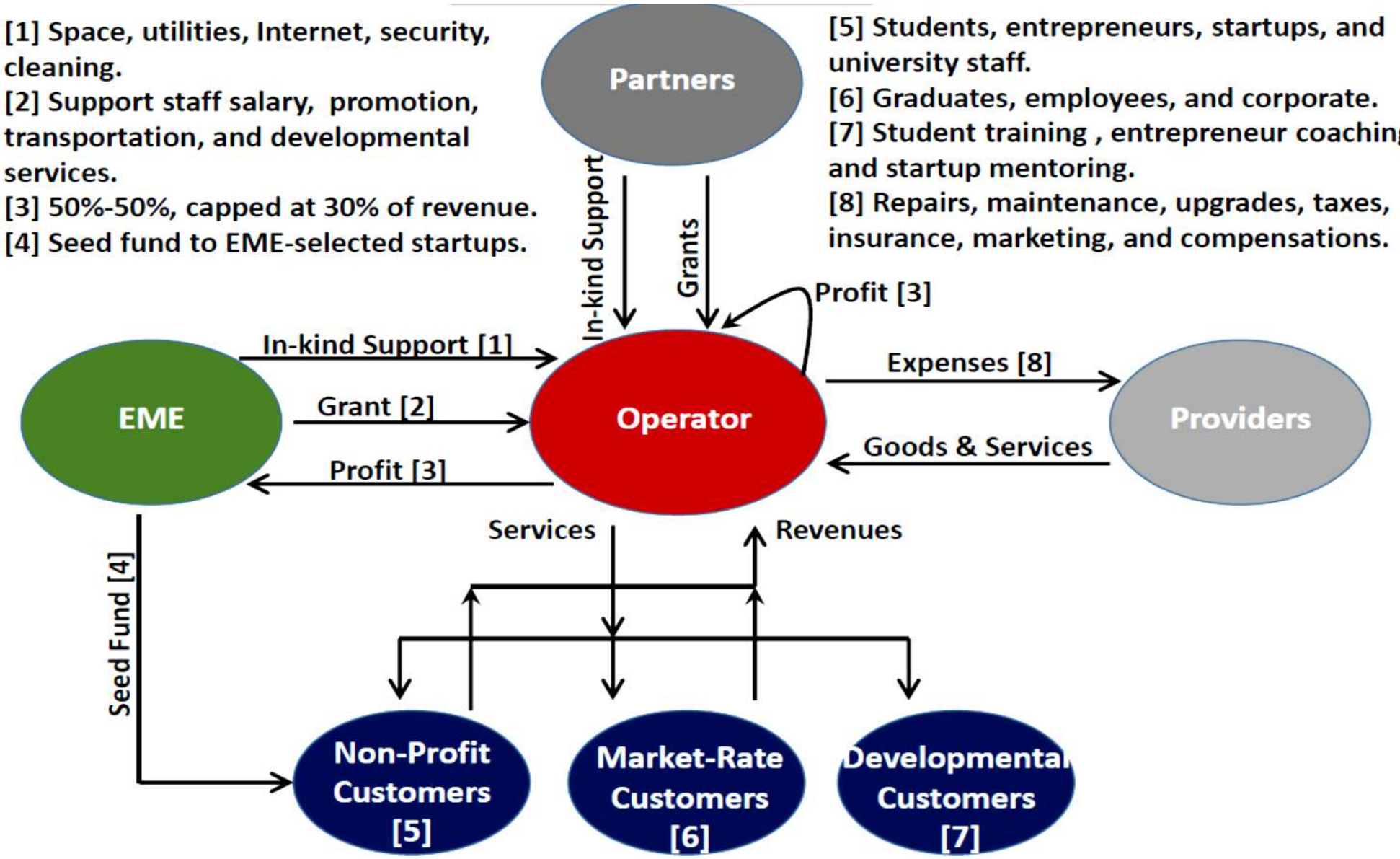
Incentives (over12 month)

- ❑ Office space.
- ❑ Cash grant of EGP 120K and in-kind grant of EGP 880K against biz plan performance indicators.
- ❑ Financing transportation cost in the amount of $800/person/year.
- ❑ Companies enjoy lab services at non-profit cost during and after program ends.

Incubator Operation Program

[1] Space, utilities, Internet, security, cleaning.
[2] Support staff salary, promotion, transportation, and developmental services.
[3] 50%-50%, capped at 30% of revenue.
[4] Seed fund to EME-selected startups.

[5] Students, entrepreneurs, startups, and university staff.
[6] Graduates, employees, and corporate.
[7] Student training , entrepreneur coaching, and startup mentoring.
[8] Repairs, maintenance, upgrades, taxes, insurance, marketing, and compensations.



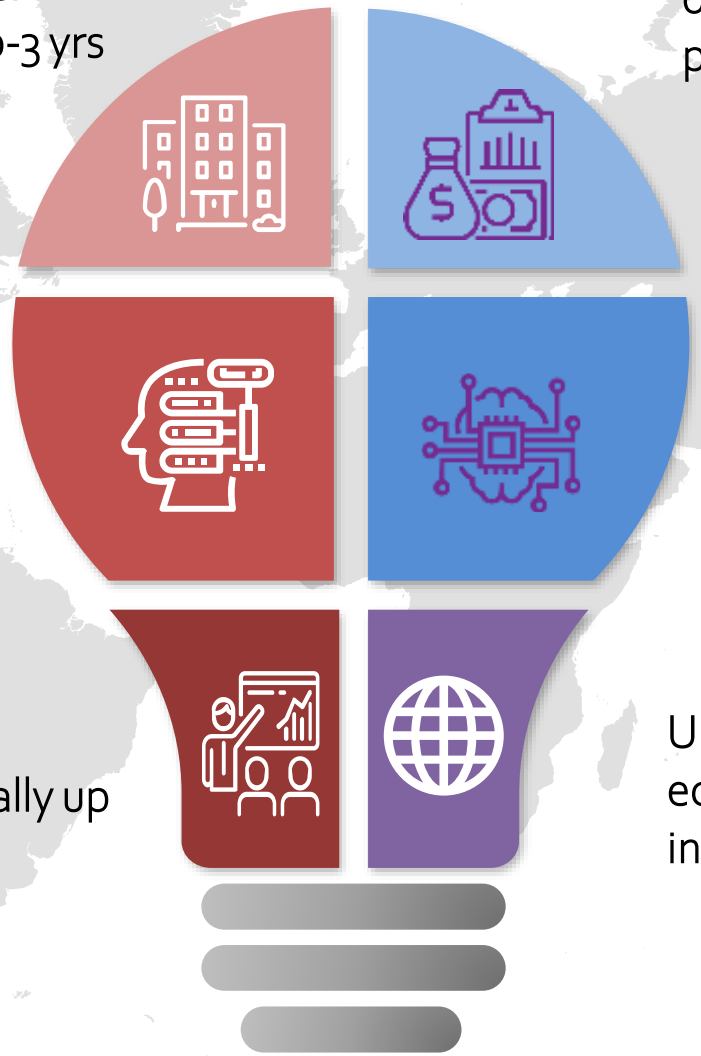
Operator Benefits at Innovation Hub

Knowledge City

01 Enjoy of Grant for rental cost & utilities at knowledge City Hub-3 yrs

02 Benefit from Pool of Engineering Talent with Unmatchable cost

03 Fund for HR development for technical enterprise staff , annually up to EGP 6M over 3yrs



04 Benefit of Financing the operation of innovation hub plus profit share over 3yrs

05 Benefit of access & services of Advanced electronics labs

06 Upscaling within integrated eco-system of electronics industry

Microelectronics Lab

Advanced laboratory for measuring, characterizing and testing integrated electronic components and circuits, including (RF, Analog/Mixed Signal, Digital Circuits and Optical MEMS Devices), in addition to establishing a laboratory for manufacturing sensors and micro-electromechanical systems MEMS inside the clean room on an area of 700 square meters in the creativity complex in Knowledge City.

This lab functions as a major component of an integrated eco-system, for the design of microelectronics.

Industry 4.0 Innovation Center

- Awareness on Industry 4.0 technologies and use cases for smart factories, providing consultation
- Training on Industry 4.0 technologies (IIoT, AI, 3D printing, Digital Twin, Robotics, Cybersecurity, Data Analytics, Smart Factory, AR/VR)
- Support in design & innovation for developing smart factories applications







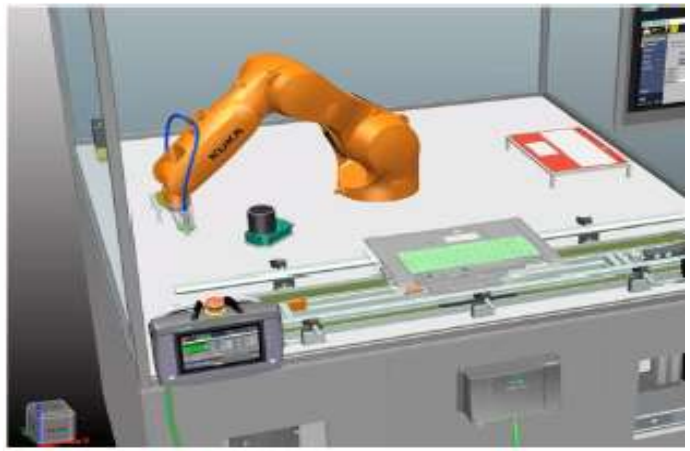
Smart Factory Showroom & Simulation Center for I4.0 Apps'

Innovation Lab for I4.0 Development

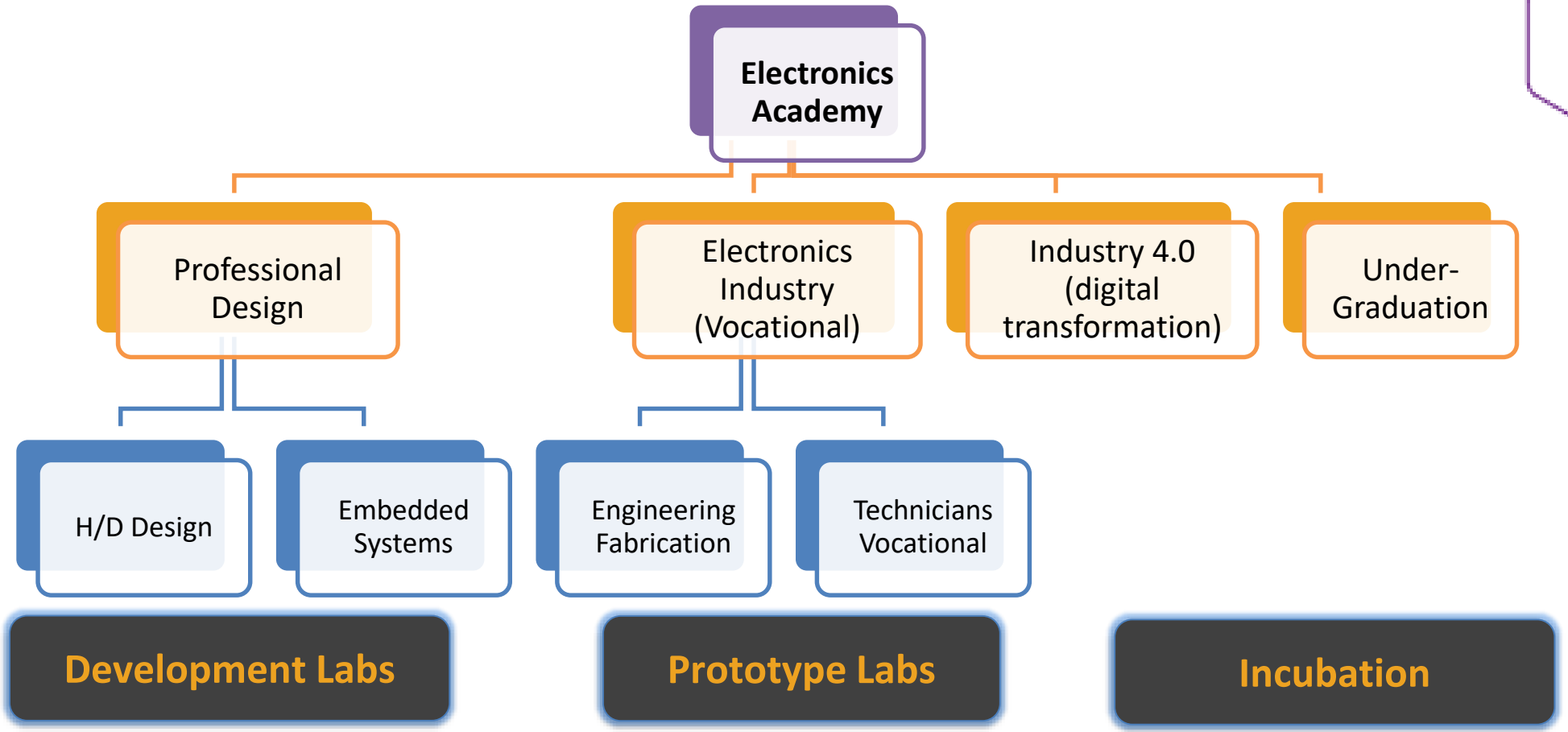
Training Center

IoT & Robotics Lab

- Create an integrated environment to support the design stages of electronic systems and products, starting with the idea of design, then implementing and developing the design, then manufacturing and assembling printed boards, then making prototypes for the outer frame of the product or its own templates, until reaching a complete product capable of quantitative production.
- Providing the appropriate tools, materials and work environment for the design and testing of electronic circuits and IoT systems and the development of automatic control systems, robots and artificial intelligence
- Nurturing and embracing promising ideas and products in the design of electronics products.
- Organizing events to showcase promising ideas and products in the design of electronics products



Electronics Academy



Partners:

ITI

NTI National Telecommunication Institute

SIEMENS

Military Production

Cairo Uni.

Fraunhofer IPK

Ain-Shams Uni.

FAB Foundation

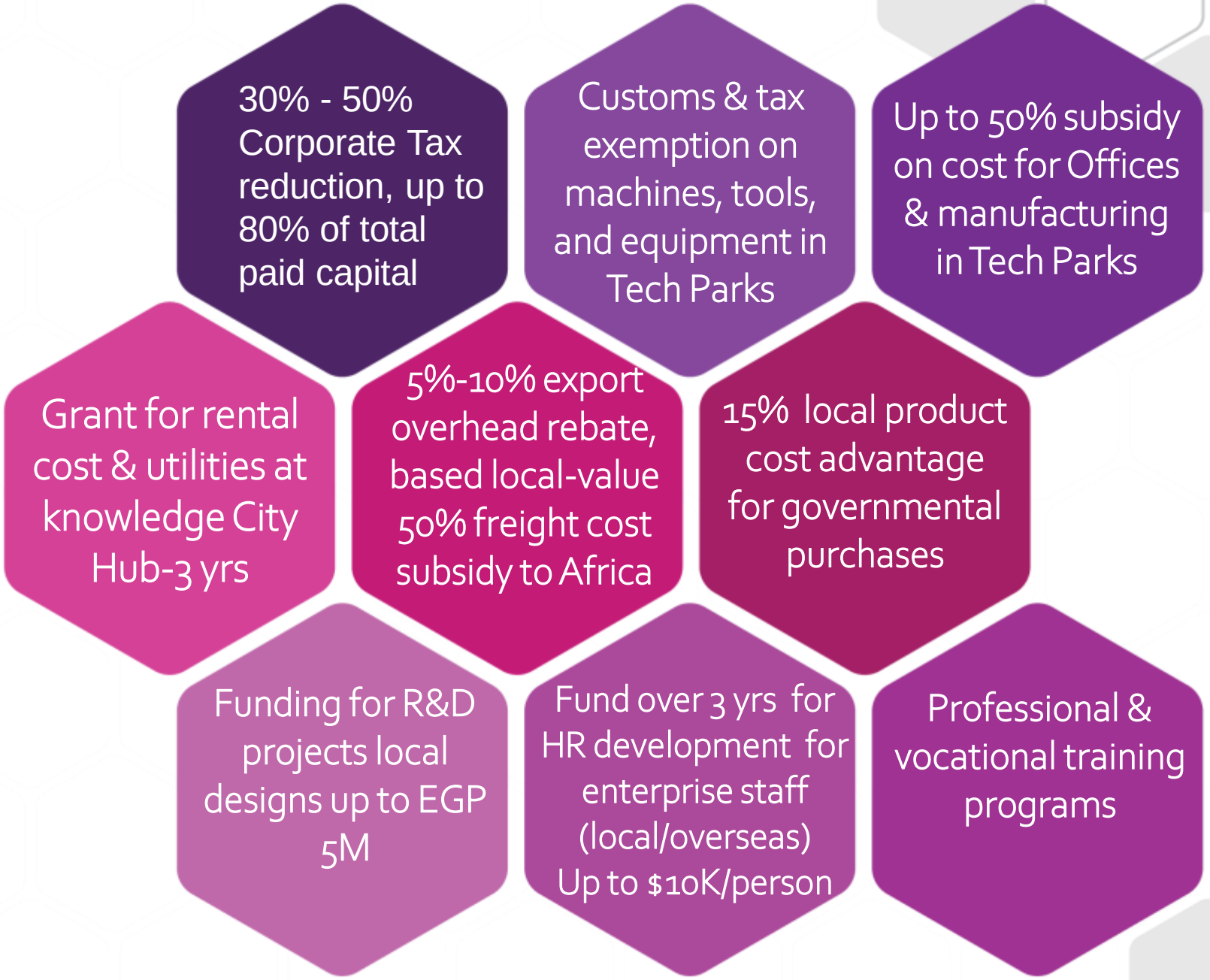
IPC BUILD ELECTRONICS BETTER

Professional Training

- **Terms and Conditions: Target minimum of 2000 engineers annually.**

#	Track	Topics
1	Digital IC Design	FPGA/ASIC Design, Scripting EDA Tools
2	RF & Analog/Mixed IC Design	Advanced Analog IC (Nano-CMOS), RF & Microwave, .., etc.
3	MEMS & Sensors	MEMS/NEMS Technology and Devices, Transducer/Sensors, Solid-State Devices, …, etc.
4	IC Fabrication & Characterization	Fabrication of Nano-materials for Films and Devices, Testing and Characterization Techniques, Power/High voltage ICs, .., etc.
5	HW System Design	PCB Design, Packaging, Measurements, DFM, Power Systems, Development Lifecycle, Electronics Procurement, .CAD/CAM ., etc.
6	Embedded Systems	Embedded of Automotive, Smart systems, Robotics,….
7	Electronic System Manufacturing	Electronics Assembly, SMT Assembly Line Operation & Management, Quality Assurance, …, etc.
7	Professional Master Degree	Applied Degree from International Uni.

Government Support



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Thank you

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TIME FOR EGYPT

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