BORG AL ARAB INNOVATION CLUSTER
POWERED BY TIEC

Final Closure Report

2017 - 2021

EiTESAL

Content

- About the cluster
  - Cluster Formation & overall objectives,
  - who are the members, target customers. etc…
  - The infra structure put together (cowork space – Fablab -…)
- Activities done over 5 years
  - Entrepreneurship – Incubation
  - Venture Capital fund
  - IOT & AI Challenge, including its evolution
  - Robotics
  - Fanni Mobtaker
  - R&D Projects
- 5-Years in Numbers
  - Expenditure VS Budget
  - Contractual KPI's status
  - Community Reach

Content

- Assessment of cluster performance
  - GAP Analysis (over achievement vs failure) reasons and recommendation
  - Define business model (Management, governance, Budget sharing scheme, etc.
  - Business model drawbacks (risk analysis etc..)
- Recommendations how to move forward
  - New Business model structure
  - New activities if applicable
  - Proposed budget and sharing scheme.

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Cluster Overview

Historical Milestones

July 2016

ITIDA announced tender to establish Innovation Clusters in Borg Al Arab & New assuit

Nov. 2016

EiTESAL leading a consortium of 17 entities submitted a proposal finalized.

- 4 academin members
- 7 ICT companies
- 2 investment companies
- 4 innovation & consulting companies

2017

February 2017

Contract dated Jan. 1st was signed

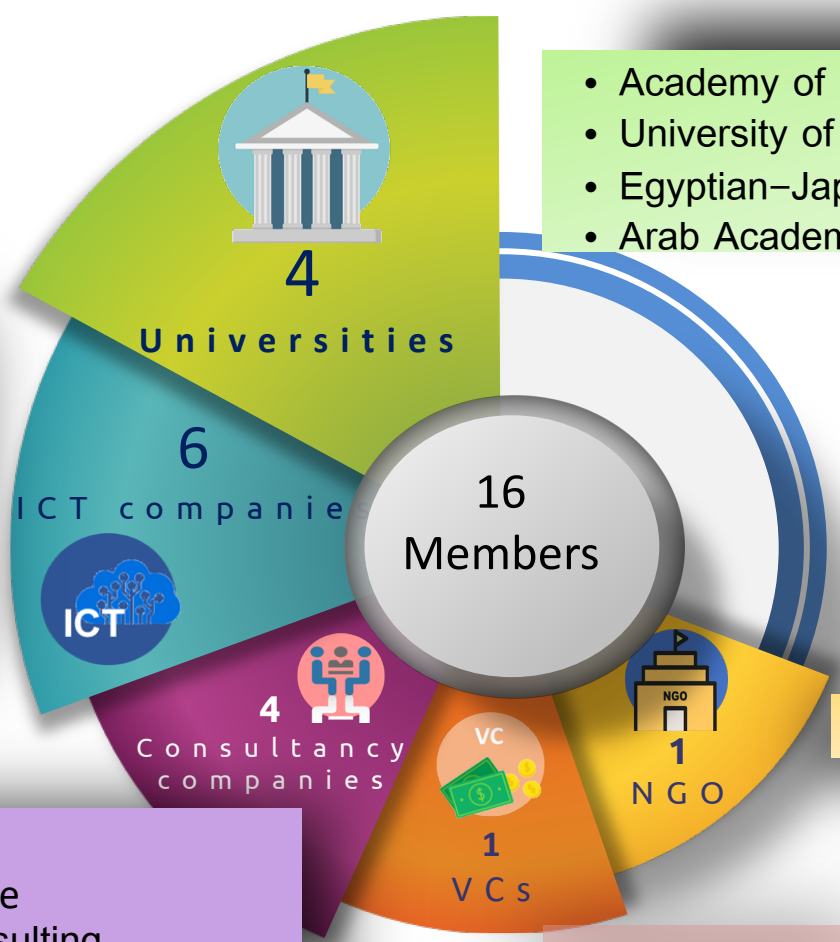
April 2017

The Cluster started operation

2018 2019

4 companies left & 2 other participated

Current Cluster Members



- Academy of Science & Technology
- University of Alexandria
- Egyptian-Japanese University
- Arab Academy of Technology & Maritime

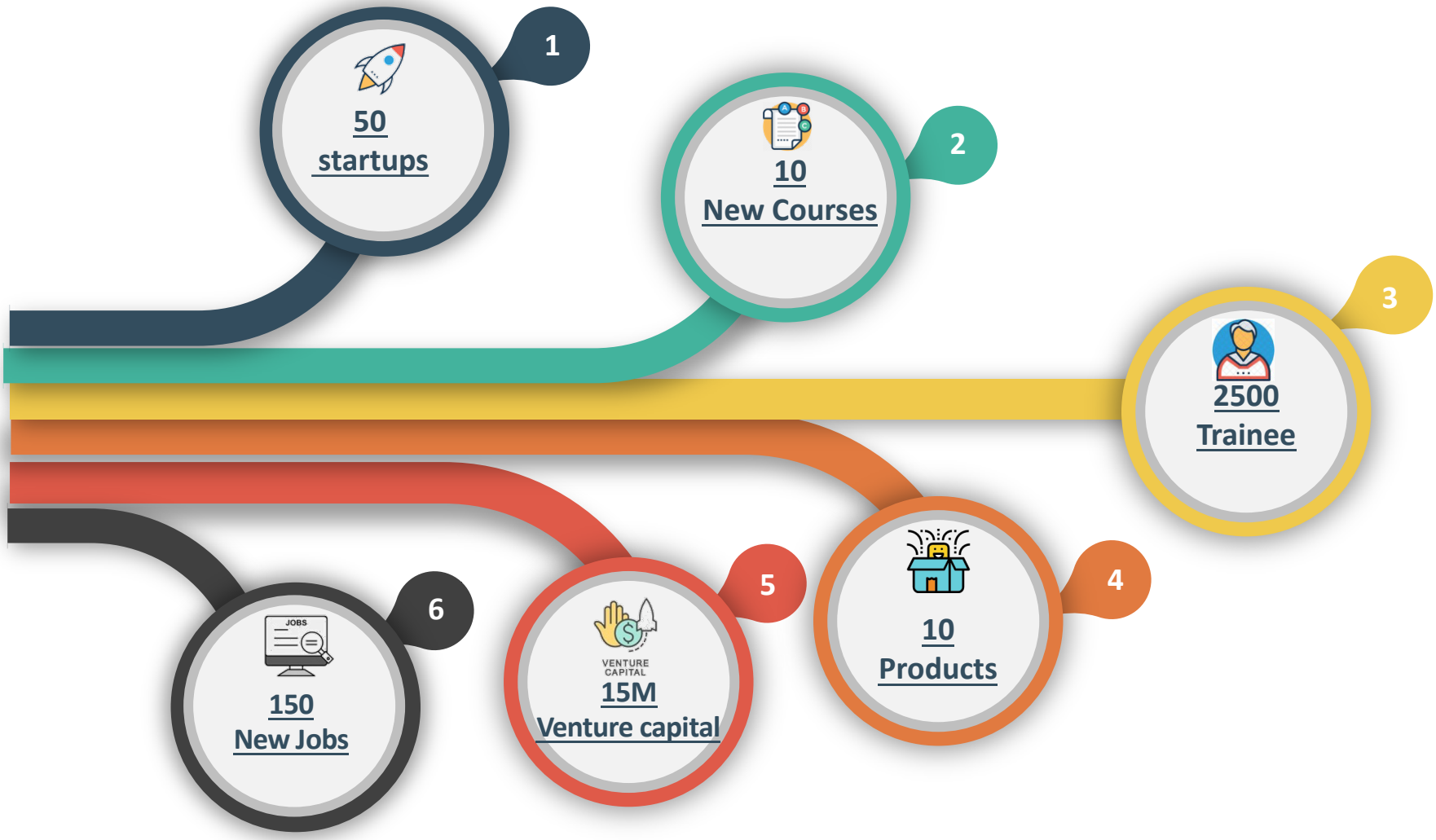
- ITQAN
- New PC Planet
- Mentronix
- Si-Ware
- SMACRS
- Brightskies

- EiTESAL

- Idea-space
- Delta-Square
- Practiq consulting
- Academy Company for ICT

- Innoventures

Contractual KPI's



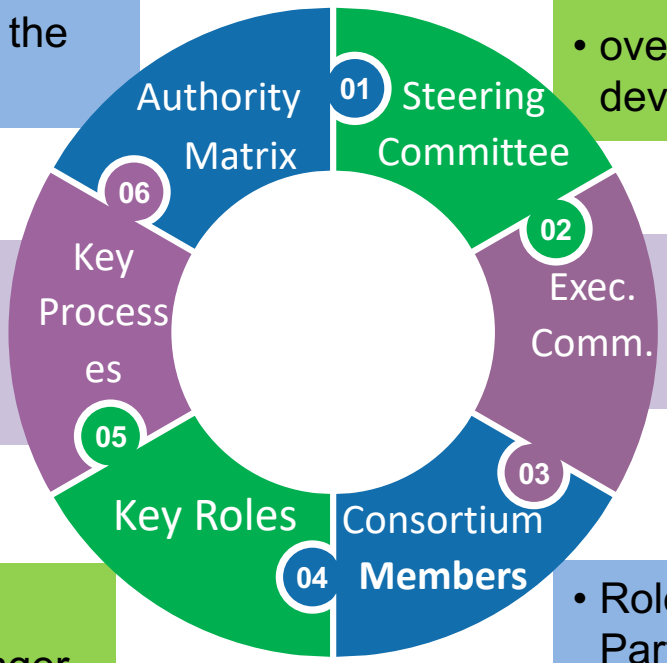
Cluster Governance Model

A document defining the chain of command & the RACI matrix

- Lead the consortium
- oversee and approve the development of the strategy,

Policies & Procedure document.

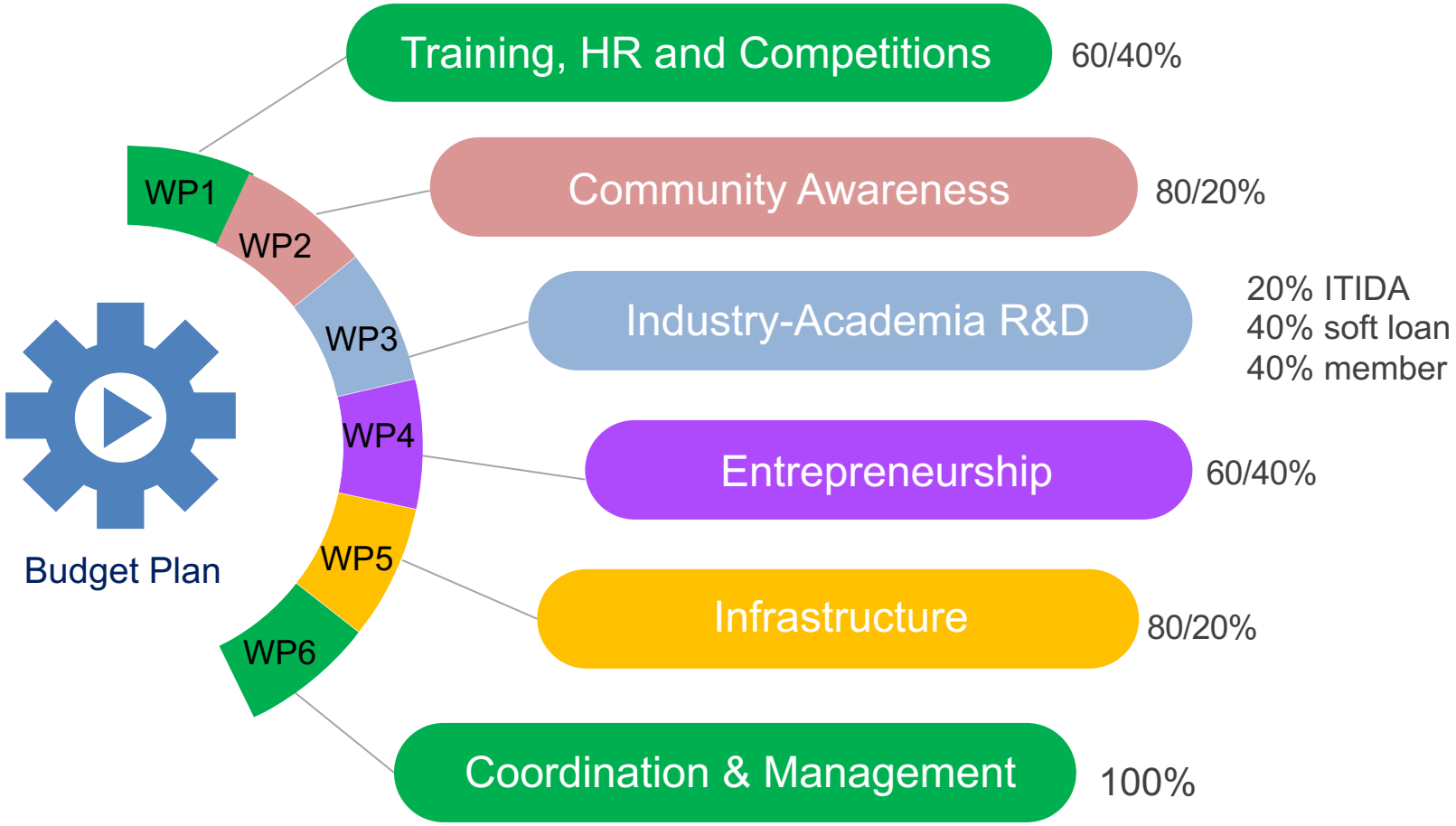
Supervise the execution of work packages & day to day functioning



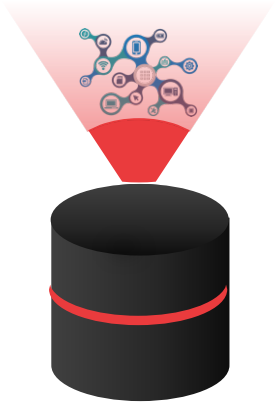
- Steering Committee.
- Cluster Executive Manager .
- Executive Committee.

- Role & Responsibilities of Partners.
- External Funding..

Work Packages & Cost Sharing

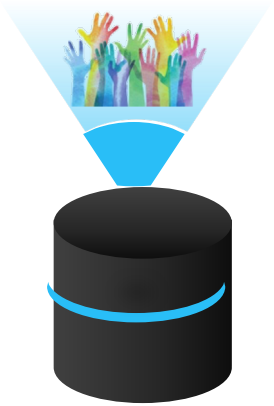


Cluster Methodology & Values

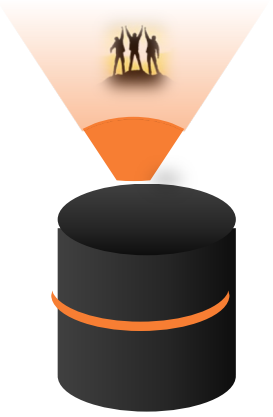


Integration
of Members' activities

Implementing
1-2 main projects including all members



Reaching
out to industrial & business associations who are interested in innovation



Achieving
success stories that position the cluster & inspire others

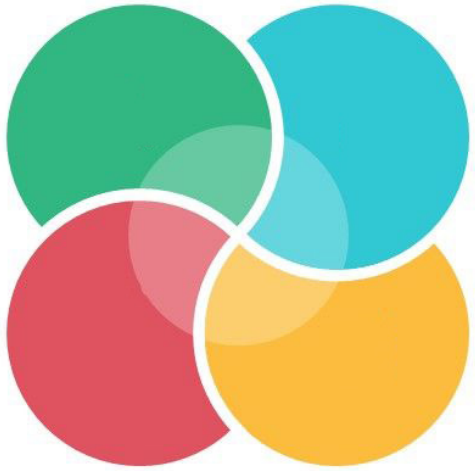
Cluster Strategy Pillars

SOCIO ECONOMIC DEVELOPMENT

Attracting investments of the business sector of the cluster's geographical region

HUMAN DEVELOPMENT

Introducing new curricula for IOT education in the universities..



BUSINESS DEVELOPMENT

Establishment of labs for development, calibration, standardization and certification of products.

ENTREPRENEURSHIP DEVELOPMENT

Establish an incubator with a capacity of 10 companies, aiming to incubate 50 new startups companies within 5 years.

Cluster Facility Structure

2.23 M
Infrastructure

437,000
Furniture

1.8 M
Fab Lab

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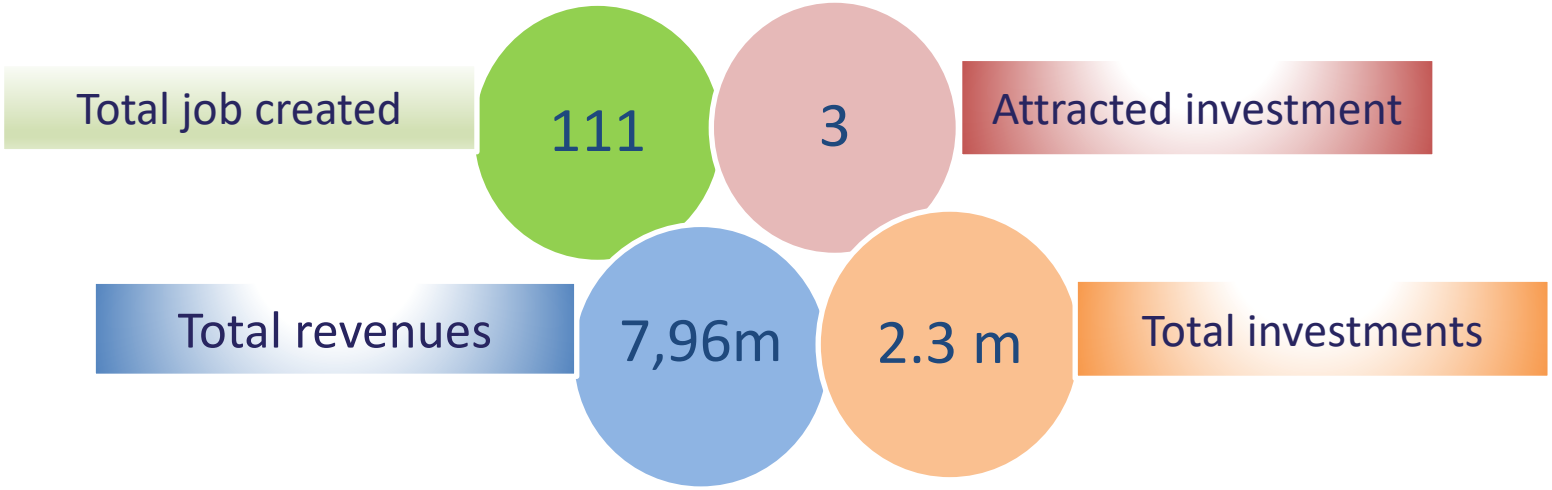
Entrepreneurship

Intake 1 Results

90%
Success Rate

9
Graduates

44%
# of startups created revenues



Startups Training Courses

Management Courses

- Business model canvas
- The Lean Startup
- Management for start-up
- Financial planning and Finance for Non-financials
- Customer Validation and personas mapping
- Market Validation and Research
- Sales Management + Auditing
- Marketing + Digital Marketing
- Legal Term Sheets & Contracts
- Strategic Management (2)
- Dealing with Investors

Technical Courses

- Product Design
- Software development life cycle + UI/UX essentials
- Digital Fabrication
- Design For Manufacturing
- Product Design Tips
- Pitching for entrepreneurs
- Dealing with Investors
- BCP Designs Tips

Incubation Success Stories

XIOT

smart home solutions technology develops UX centric products.

SEAVO

SEAVO provides green water entertainment and rescue.

Rafahia tech

Rafahia Tech smart home system to raise home luxury level.

Incubation Success Stories

iSchool is providing tech education for students ages 6 to 16 years

Renile provides effective solutions for environmental services

City brain enables remote control of the public lighting power panels

Incubation Success Stories

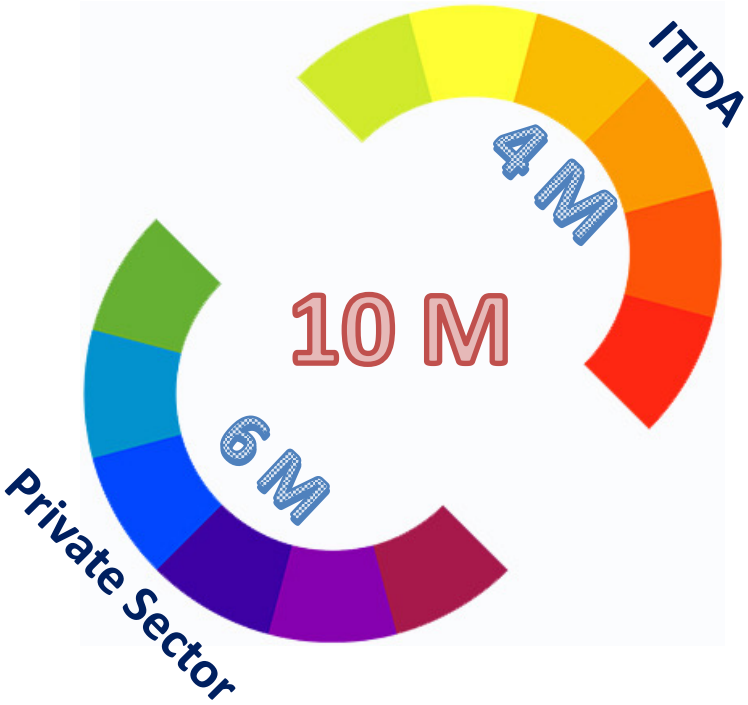
QEYE improves production quality in agriculture, Food, Textile industries

Lino is smart queue machine connected to mobile application.

S-WAT is a pioneer Solar and Wind technology company

Startups Categories

Innoventures Fund, *SAE*



Innoventures Fund, *SAE*

IoT Challenge

2016 Started by Intel & TIEC .

2017 Started by Borg Al Arab cluster

2018 Graduation Projects & Stem Schools

2019 Expand to Arab IoT & AI Challenge.

2021 Part of the Africa IoT & AI Challenge.

Egypt IoT Challenge & AI
5 Years outcome

High School

266 Projects

738 Students

Graduation Projects

303 Projects

1060 Graduate Students

Startups

106 Startups

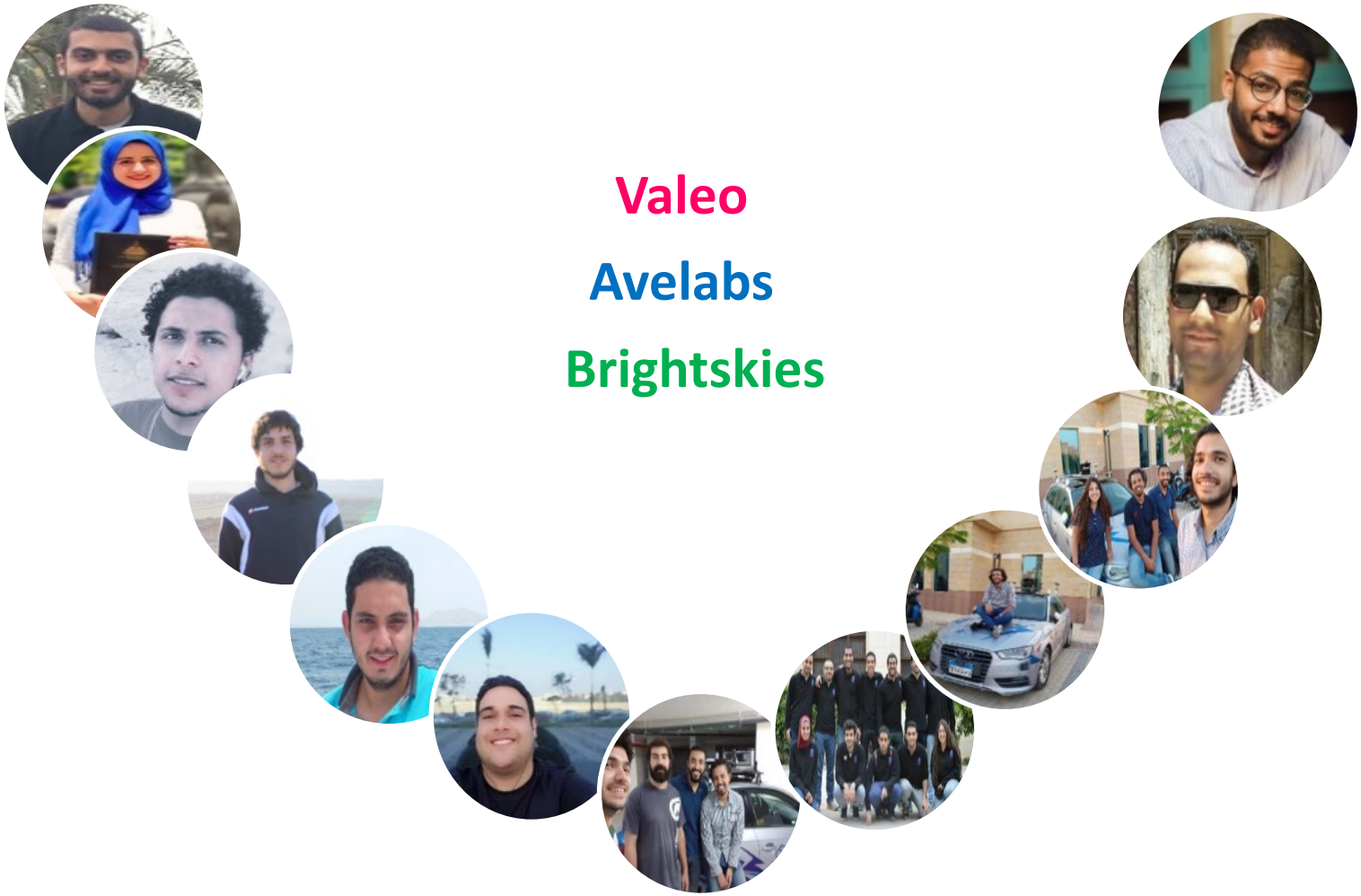
381 Participants

Egypt IoT Challenge

	16 -17	17-18	18-19	19-20	20-21
Graduation Projects	----	111	102	78	213
Startups	60	15	10	14	----
High Schools	----	----	112	140	210
Governorates	----	17	14	16	21
Stem Schools	----	----	----	----	15

New Jobs Created

Success Stories (more than 750)



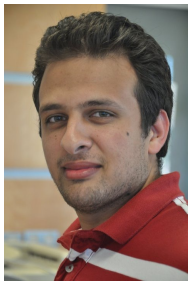
Valeo

Avelabs

Brightskies

New Jobs Created

Success Stories (more than 750)



Abd El Rahman Abo El kiher
Dortmund University, Germany

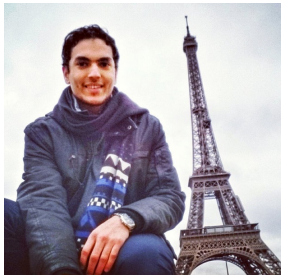
Ahmed Hady, University of
L'Aquila, Italy

Samer Abaza,
Ruhr University, Germany

Ahmed Altawil
Shenzhen, China

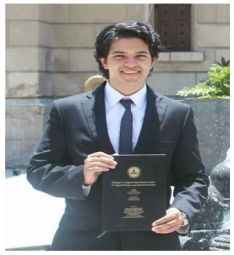
Ziad Hassan,
Torino University, ItalyE

Mohamed elnahas
Siemens Healthineers



Abdelhamid Kassem,Denemark

Mohanad Hamad
Continental Company, Germany



Ahmed El-Sayad
ASML, Netherlands

Karim Yehya, University of
L'Aquila, Italy

GCIOT
Facts & Statistics

	2017	2018	2019	2020
Participating Countries	7	14	27	36
Papers	13	29	80	26
Attendees	200	300	250	465
Speakers	23	19	120	180

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Global Conference on INTERNET OF THINGS 2017

GCIOT 2017	Bibliotheca Alexandrina, Egypt
GCIOT 2018	Bibliotheca Alexandrina Egypt
GCIOT 2019	Jumeirah Emirates Towers Hotel, Dubai
GCIOT 2020	Virtual Conference

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Global Conference on INTERNET OF THINGS 2017

Organizing Partners

IEEE TEMS Technology & Engineering Management Society

جامعة دبي UNIVERSITY of DUBAI

IEEE UAE Section

region 8 IEEE

Strategic Partners

TRA هيئة تنظيم الاتصالات TELECOMMUNICATIONS REGULATORY AUTHORITY

ITU

IEEE Women in Engineering WIE

NTRA National Telecom Regulatory Authority الجهاز القومي لتنظيم الإتصالات

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Global Conference on IoT & AI

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Robotics

Egypt ROV Competitions

67 Teams

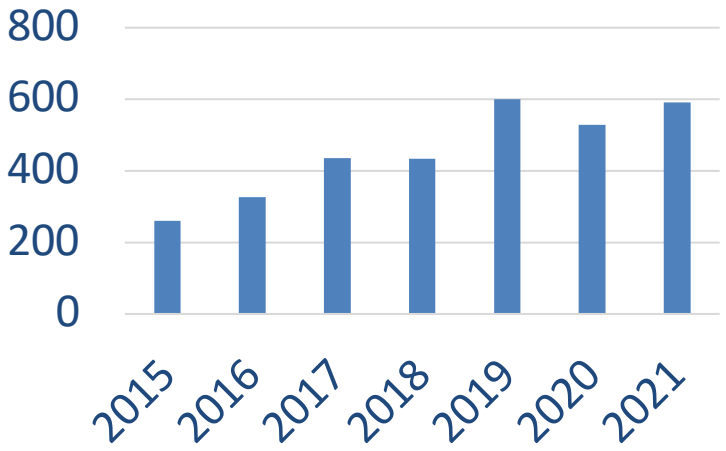
465 Students

146 Teams

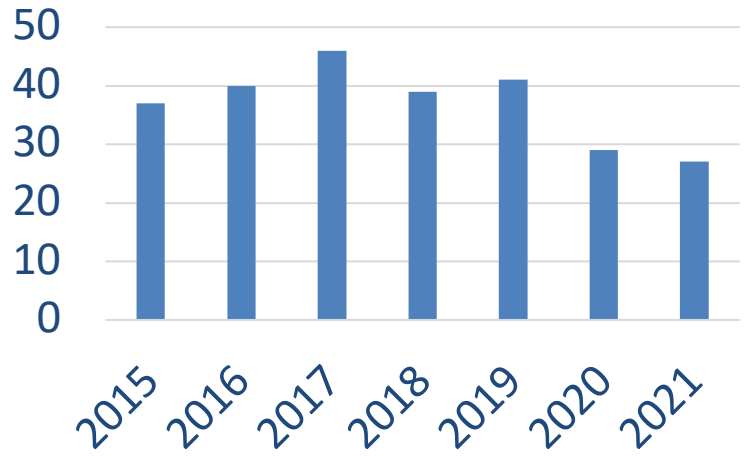
1168 Students

Robotics Statistics

Students



Teams



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MATE ROV COMPETITION
Egypt

Excite, Educate, Empower: Students Engineering Solutions to Global Problems

3100 Participants

115 Universities & Schools

6 Countries

Egyptian Teams awarded

2018
1st & 3rd places

2019
2nd place

2021
2nd & 3rd places

Organizers & Partners

NTRA
National Telecom Regulatory Authority
الجهاز القومي لتنظيم الإتصالات

Delta Square
Evolve & Endure

URTC

AQUA PHOTON

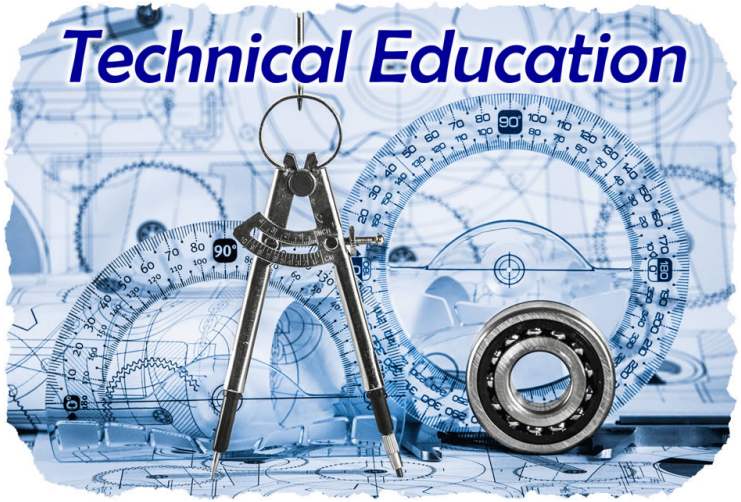
BANQUE MISR
بنك مصر

Alamein Robotics Championship

Organizers

Competitions

Fanni Mobtaker



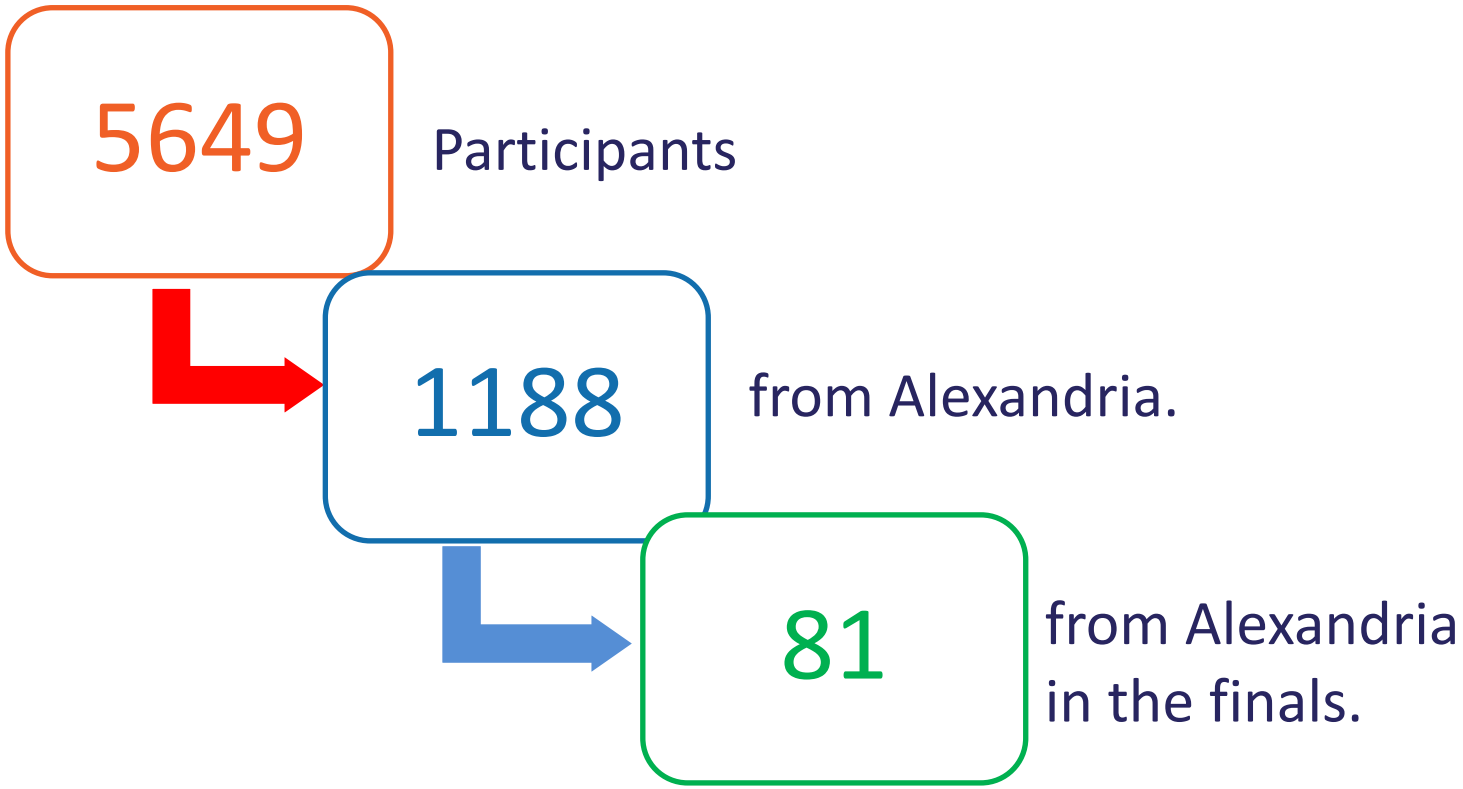
Fanni Mobtaker

This is the first time that the technical education was integrated in the innovation & entrpreneurship ecosystem

1. Fanni Mobtaker is a national competition covering 12 governorates
2. Started in Borg Al Arab Innovation Cluster in 2019

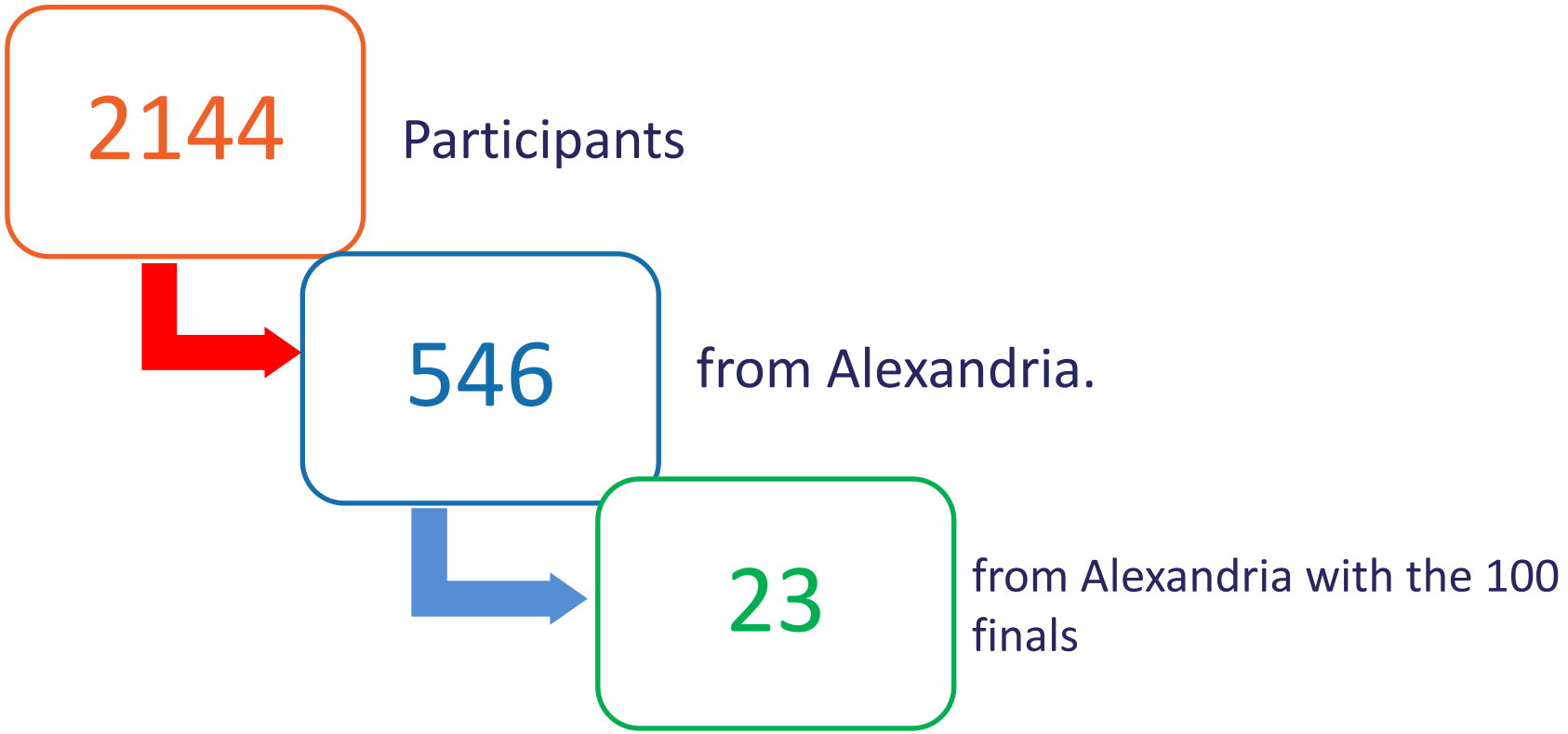
Fanni Mobtaker

Students' statistics



Fanni Mobtaker

Projects' statistics



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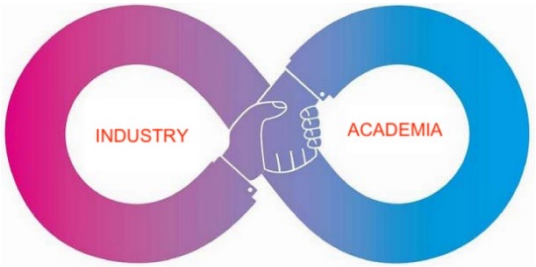
R & D Projects



R&D Projects

- **CANTrack Tool**

  CANTrack is a Windows-based development and testing software tool for automotive manufacturers.

- **IoT based- Infection Prevention System**

  Reducing HealthCare-associated Infection by enforcing Hand Sanitization as The Main Cause of HAI is the Hand Pollution

R&D Projects

- **Si Ware - NeoSpectra Food Analyzer**

  Design and implement a working prototype for a food analyzer, Focus on a major food item: Milk.

- **SMERTEGE Adaptive Learning Management System**

  SMERTEGE uses the Bio sensors, machine learning, and cognitive science customize course content presentation to each learner's profile and real time status.

R&D Projects

- **Augmented reality human 3D pose estimation for e-commerce applications.**

  R&D project for automated machine-made construction of an object's 3D model out of one or more images and/or videos of the object

- **IoT based- Infection Prevention System**

  Improve on an existing prototype with filed patent technology to enhance its real time localization ability (RTLS)

R&D Projects

❖ **Construction of 3D models of objects out of its 2D images and videos**

Automated machine-made construction of an object's 3D model out of one or more images and/or videos of the object.

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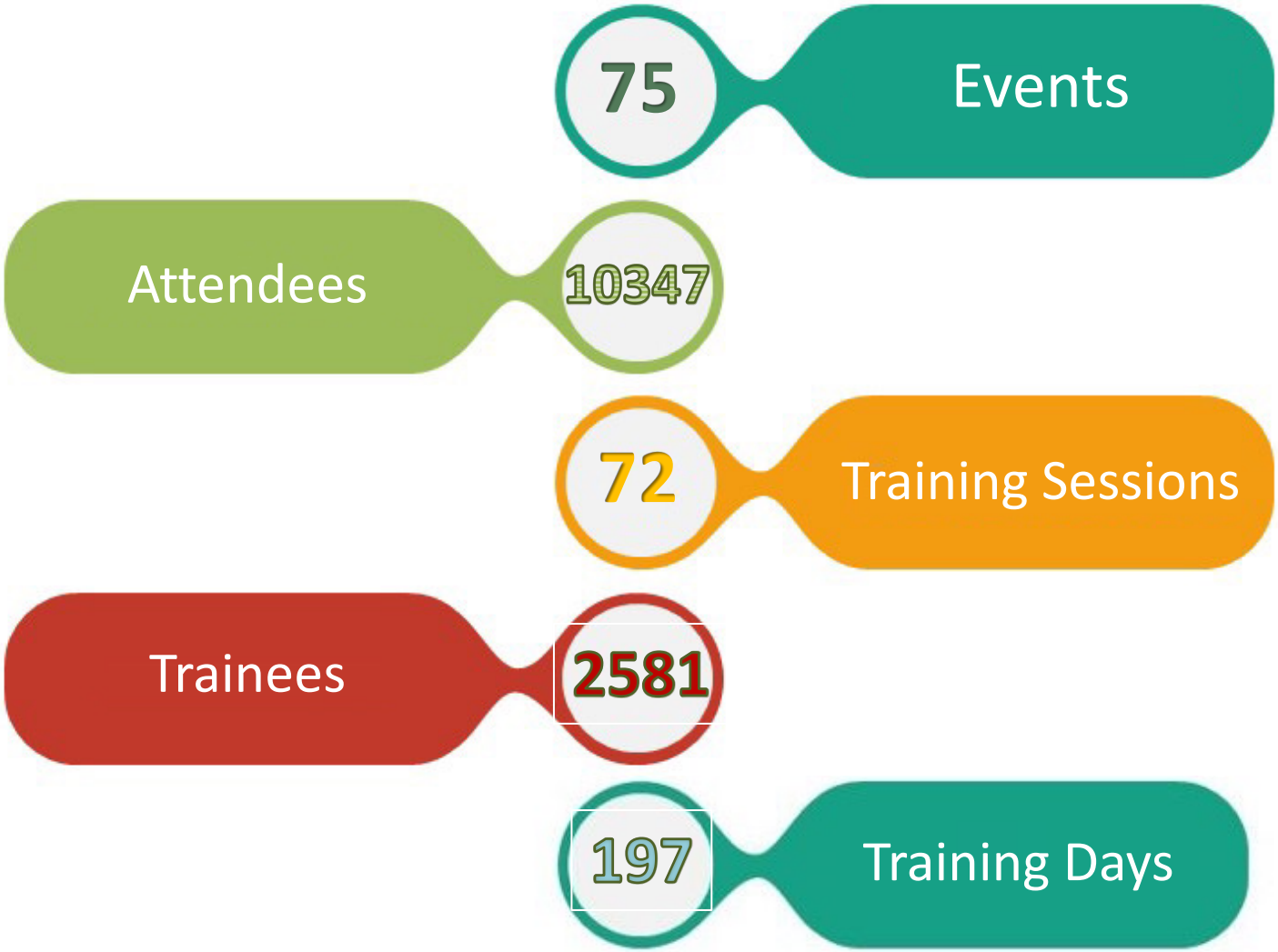
5-Years in Numbers

WPs' Expenditure

		Planned	Actual	Percentage	Member's Share
WP1	Training, HR and Competitions	4.5 M	4.5 M	100%	3.4M
WP2	Building Community Awareness	1.8 M	1.8 M	99%	94M
WP3	Industry-Academia R&D	7.2 M	4.5 M	63%	3.7M
WP4	Entrepreneurship	5.4 M	5.4 M	100%	4.8M
WP5	Infrastructure	3.6 M	3.6 M	100%	1M
WP6	Coordination and Management	2.2 M	1.6 M	72%	----
	Total	25 M	21.6 M	86%	14M

Contractual KPI's

Community Reach



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Performance Analysis

Analysis of the performance

- The Cluster was designed on 2016 for EGP25m funding, but with the currency floating the purchase power was decreased about 60%. That affected the dream.
- The Cluster took the first year to establish the premises, design the policies & procedures. It was not effective in performance.
- The business concept was that cluster partners will use ITIDA fund in growing their business delivering activities they are excelling. Members were obliged to share 40% of the budget from their own money. In fact business growth is not a matter of fund only.
- Activities were suggested based on the members' business interests rather than within strategic frame.
- The funding mechanism of startups seed fund was hindering progress, bearing in mind it is was governmental money

Analysis of the performance

- The R&D didn’t succeed for two reasons:
  - The allocated budget was not enough to create new product unless the industrial partner has already started development.
  - The Cluster didn’t have enough marketing power to promote new products
  - New products need enough time to be reached
  - ITAC funding is more appealing to the industry
- The management framework was based on the concept of group control. The members who benefit are those who deliver the service and decide the plan.
- Management cost paid the coordinator was not properly calculated.
- The settlement of fund was a complicated process for EITESAL since the members are SME’s whose internal administration is not rigorious.

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Thank you