



STATE OF PALESTINE

A man in a dark suit stands with his back to the camera, looking out from a dark, rocky cave opening. The view through the cave is a panoramic view of a dense city skyline, likely New York City, with the Freedom Tower prominently visible in the center. The scene is bathed in a cool, blue-green light.

Science and Technology Parks  
In Arab Countries with a focus on the State of Palestine

**Dr. Maysoun Ibrahim**

Member of Board of Directors, Higher Council for Innovation and Excellence

Member of the National Scientific Research Council

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# Agenda

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## Introduction

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- Benefits of STPs
- The 2030 Agenda & the 17 SDGs

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## STPs

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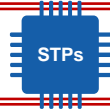
## Recommendations

# Introduction: Definition of STPs

There is **no commonly agreed-upon** definition of the **Science and Technology Parks (STPs)**.

“**STP** is an **organisation** managed by **specialised professionals**, aims at increasing the wealth of its community by promoting the culture and diffusion of **innovation** and the **competitiveness** of its associated businesses and **knowledge-based** institutions.”

(International Association of Science Parks & Areas of Innovation, 2014)



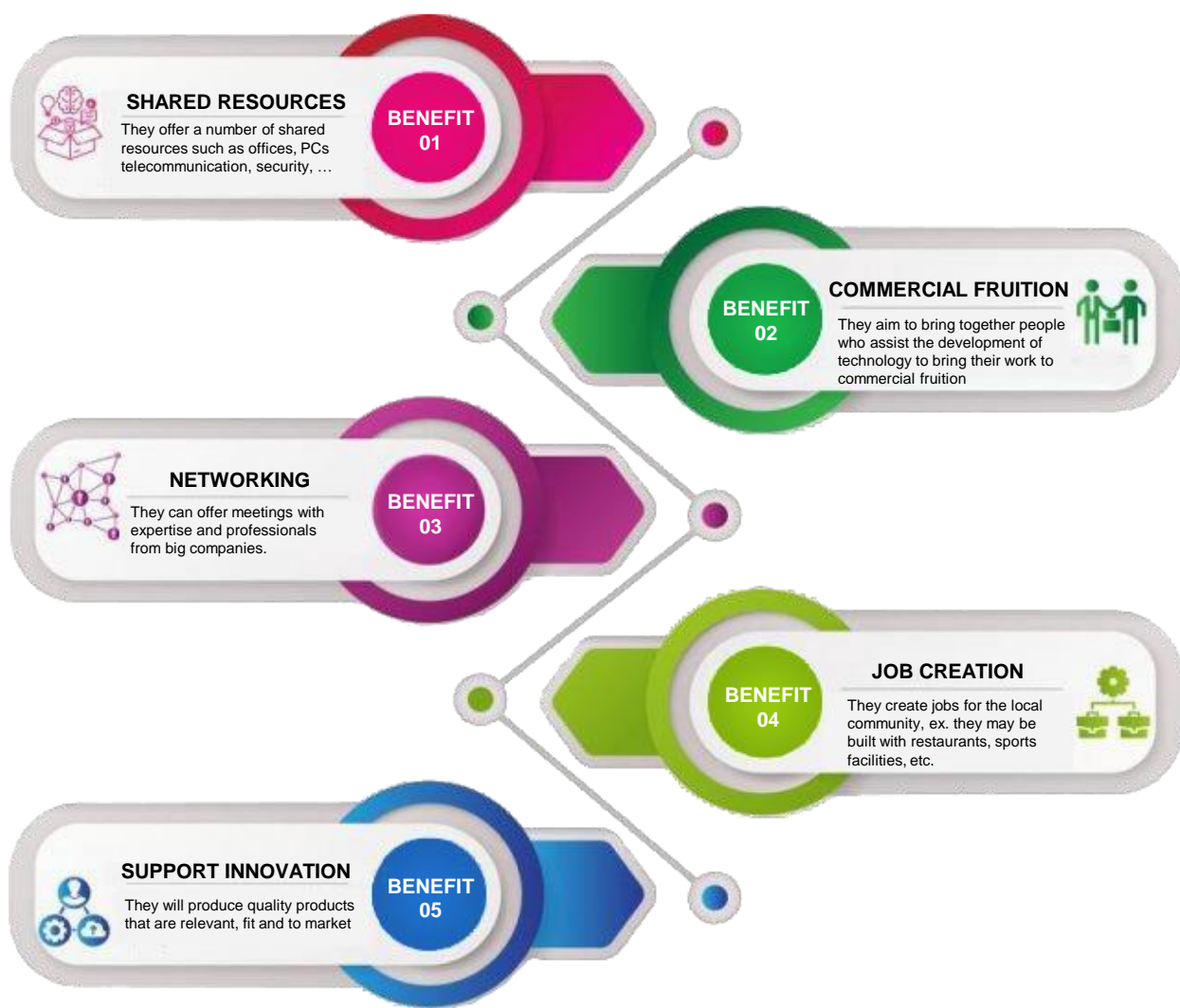
"مجمعات العلوم والتكنولوجيا هي منظمات يديرها متخصصون، هدفهم الرئيسي زيادة الثروة المجتمعية من خلال تعزيز ثقافة الابتكار والقدرة التنافسية للشركات والمؤسسات المرتبط بالمعرفة."

(2014، الرابطة الدولية للمجمعات العلمية ومجالات الابتكار)



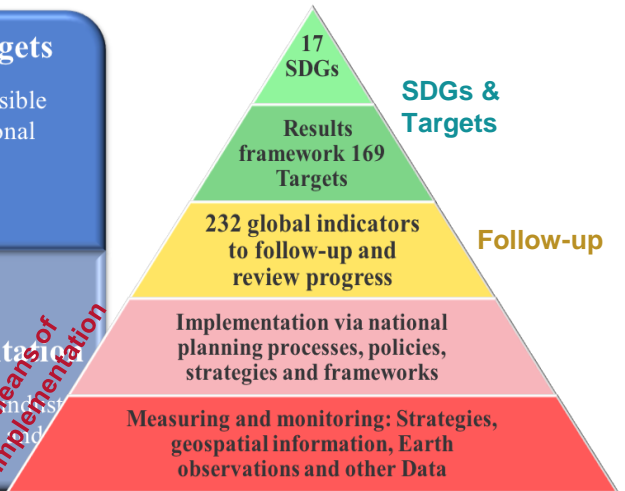
Source: <https://www.metro-edge.org/edge-events/edgex-making-meetings-count/>

# BENEFITS of STPs



# Introduction: The 2030 Agenda

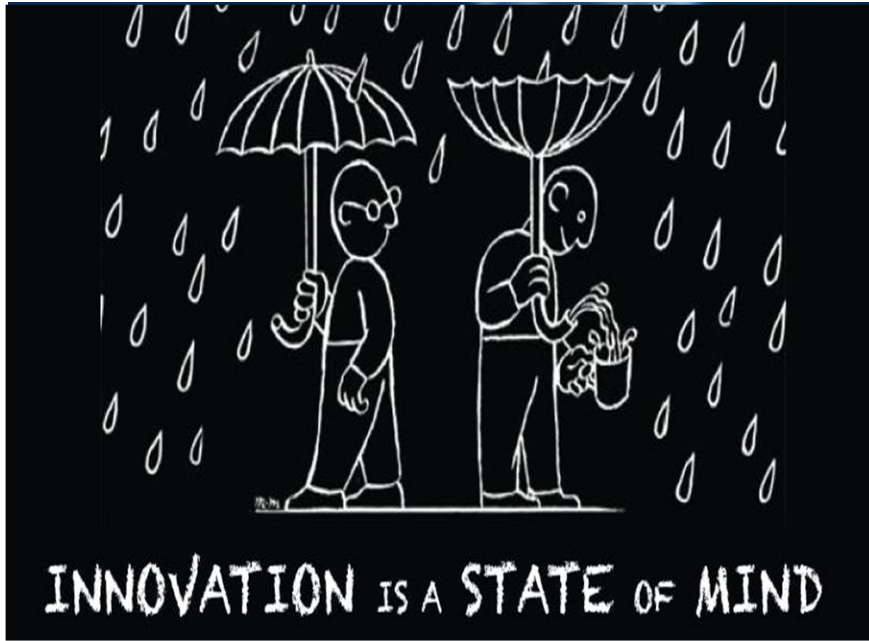
- The **2030 Agenda** is “a *plan of action for people, planet and prosperity* which seeks to strengthen **universal peace** in larger freedom”.
- The 2030 Agenda consists of **four** main components and based on **five** dimensions (5Ps):



# Introduction: The SDGs

STP is promoting the culture and diffusion of **innovation** and the **competitiveness** of its associated businesses and knowledge-based institutions.”

<b>1</b> NO POVERTY 	<b>2</b> NO HUNGER 	<b>3</b> GOOD HEALTH 	<b>4</b> QUALITY EDUCATION 	<b>5</b> GENDER EQUALITY 	<b>6</b> CLEAN WATER AND SANITATION 
<b>7</b> RENEWABLE ENERGY 	<b>8</b> GOOD JOBS AND ECONOMIC GROWTH 	<b>9</b> INNOVATION AND INFRASTRUCTURE 	<b>10</b> REDUCED INEQUALITIES 	<b>11</b> SUSTAINABLE CITIES AND COMMUNITIES 	<b>12</b> RESPONSIBLE CONSUMPTION 
<b>13</b> CLIMATE ACTION 	<b>14</b> LIFE BELOW WATER 	<b>15</b> LIFE ON LAND 	<b>16</b> PEACE AND JUSTICE 	<b>17</b> PARTNERSHIPS FOR THE GOALS 	 <b>THE GLOBAL GOALS</b> For Sustainable Development



# Innovation & Economic Growth

## Innovation Need

The importance of **innovation** as a **critical dimension** for **economic change** was introduced by Joseph Schumpeter in his book titled "***The Theory of Economic Development***" (1934).

For him, **innovation** is very closely linked to the **emergence**, **growth**, and **decline** of **industries**, which historically mark the development of **economy** worldwide.

## What is Innovation?

*"The implementation of a **new** or significantly **improved** product (good or service) or process, a new marketing method, or organizational method in business practices, workplace organization or external relations"*

(OECD, 2005)



# Innovation & Economic Growth

## Innovation Need

- ✓ Innovation is divided into four main types: **Product**, **Process**, **Marketing**, and **Organizational** innovation.
- ✓ Many studies emphasize that the long run **productivity** and **economic growth** is **highly dependent** on the **creation** and **fostering** of an environment that encourage **innovation** and application of new technologies.
- ✓ Countries that **boost** the generation of **innovation**, creation of new **technologies**, and encouraging **adoption** of these new technologies **grow and develop faster** than those that do not.



# STPs

## ARAB COUNTRIES

Total Funding and Deals



Top 5 Arab Countries by total funding (\$) and number of deals (#) in 2019 YTD.

The **United Arab Emirates** (UAE) continues to account for the lion's share of total funding, **62%** in 2019 YTD.

**Egypt** ranked first by number of deals in 2019 YTD for the **first time** this year.






Total funding: \$517M

Number of deals: 354

### Funding








**\$517M**  
total  
funding

		% of total '19 YTD	% Change ('19 YTD vs '18 YTD)
	UAE	62%	21% ✓
	Egypt	13%	1% ✓
	Saudi Arabia	9%	3% ✓
	Jordan	5%	-1% ↘
	Lebanon	5%	-12% ↘

### Deals



**354**  
total  
deals

		% of total '19 YTD	% Change ('19 YTD vs '18 YTD)
	Egypt	27%	0% →
	UAE	25%	0% →
	Lebanon	11%	2% ✓
	Saudi Arabia	9%	1% ✓
	Tunisia	5%	2% ✓

# STPs

## ARAB COUNTRIES

Total Funding and Deals



Top 5 Arab **industries** by total funding (\$) and number of deals (#) in 2019 YTD.

**Real Estate** and **Renewable Energy**'s total funding was mainly due to the **\$100M** and **\$65M** respectively.

**FinTech** received the largest number of investments in 2019 YTD, accounting for **14%** of all deals – an increase of **3%** compared to the same period in 2018.

Total funding: \$517M

Number of deals: 354

<u>Funding</u>		% of total '19 YTD	% Change ('19 YTD vs '18 YTD)	
	Real Estate	19%	19%	✓
	E-Commerce	17%	-11%	↘
	Delivery & Transport	16%	10%	✓
	Renewable Energy	13%	11%	✓
	FinTech	6%	-4%	↘
<b>\$517M</b> total funding				

<u>Deals</u>		% of total '19 YTD	% Change ('19 YTD vs '18 YTD)	
	FinTech	14%	3%	✓
	E-Commerce	10%	-2%	↘
	Delivery & Transport	8%	1%	✓
	Food & Beverage	7%	1%	✓
	IT Solutions	6%	0%	→
<b>354</b> total deals				

# STPs

## ARAB COUNTRIES



Selected Arab Parks, incubators, accelerators and co-working spaces.

Illustrative

Non-exhaustive



# STPs













## ARAB COUNTRIES



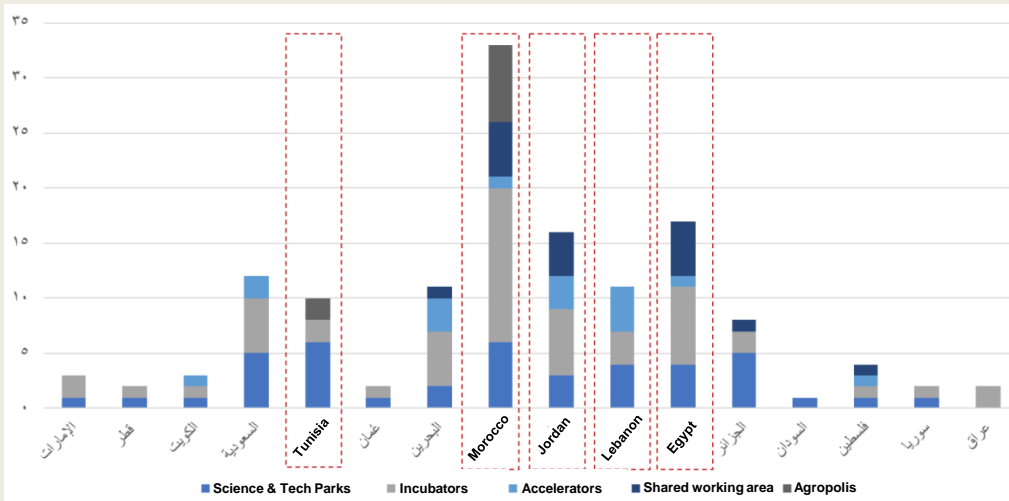
Services provides by selected Arab Parks, incubators, accelerators and co-working spaces.

Illustrative

Non-exhaustive

إدارة الابتكار	التشبيك	الحوافز	حماية الملكية الفكرية	الدعم القانوني	التشبيك مع مصادر التمويل	الاحتضان	البحث والتطوير	الموقع	البنية التحتية	
X	X					X	X	X	X	 Smart Village القرية الذكية
		X					X	X	X	 وادي التكنولوجيا في سيناء
X	X		X	X		X	X	X	X	 مدينة الحسن العلمية El Hassan Science City
		X					X		X	 شركة تطوير مدن تقنية المعلومات والصناعة
X	X				X	X	X	X	X	 القطب التقني لجامعة القديس يوسف
	X					X		X	X	 ومنتزه كازابلانكا للتكنولوجيا
	X					X	X	X	X	 Oasis of Knowledge واحة المعرفة مسقط
X	X	X			X	X	X	X	X	 واحة قطر للعلوم والتكنولوجيا
X			X		X	X	X	X	X	 مدينة الملك عبدالعزيز للعلوم والتقنية
X	X				X	X	X	X	X	 مدينة الأمير عبدالله بن عبد العزيز للعلوم
X	X				X	X			X	 Elgazal Technopark
X						X	X	X	X	 Palestine Techno Park

# STPs ARAB COUNTRIES



## Group 1:

Countries with innovation policies along with a dynamic and integrated STPs.

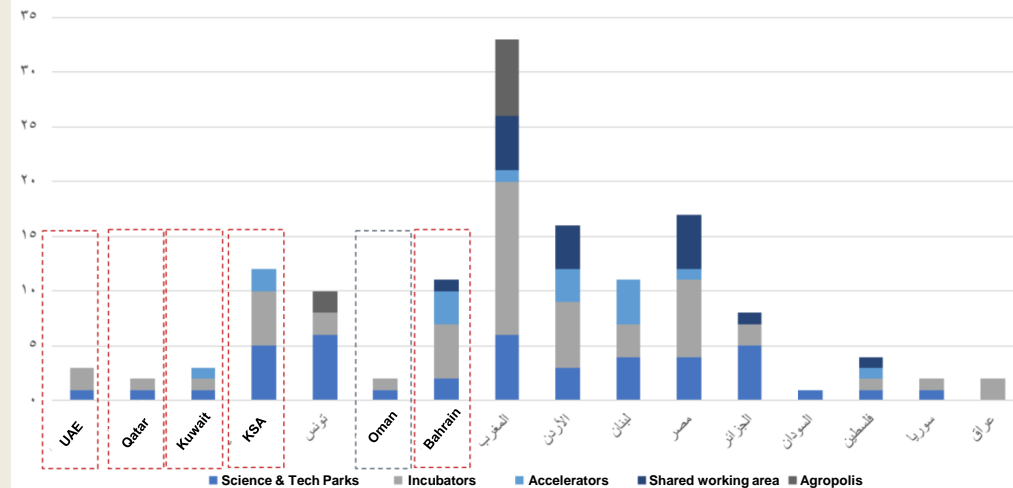
البلدان ذات سياسات الابتكار ومجمعات العلوم والتكنولوجيا الديناميكية والمتكاملة.

Divide the Arab countries into four main groups in terms of innovation policies, institutions and science and technology parks.

## Group 2:

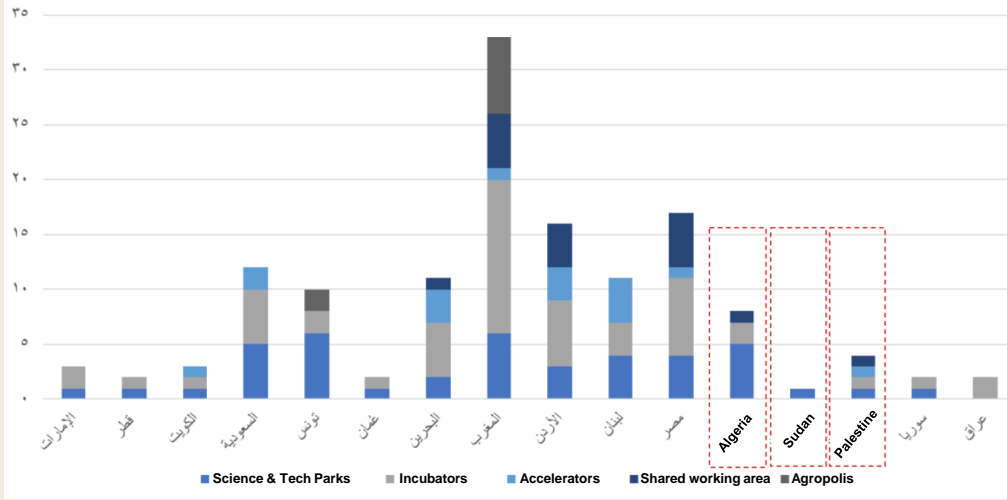
Countries with innovation policies and accelerated STPs to achieve economic diversification.

البلدان ذات سياسات الابتكار ومجمعات العلوم والتكنولوجيا المتسارعة لتحقيق التنوع الاقتصادي.



# STPs

## ARAB COUNTRIES



### Group 3:

Countries with innovation policies and emerging STPs.

البلدان ذات سياسات الابتكار ومجمعات العلوم والتكنولوجيا الناشئة.

### Group 4 (Others):

Countries with very limited policies and researches.

البلدان ذات السياسات والبحوث الصغيرة جدا. تم تطوير بعض الجامعات فيها ولكن مؤشرات الأداء الرئيسية الخاصة بها منخفضة (لم يتم توضيحها في الدراسة).

Iraq

Syria

Mauritania

Yemen

Divide the Arab countries into four main groups in terms of innovation policies, institutions and science and technology parks.

تقسيم الدول العربية إلى أربع مجموعات رئيسية من حيث سياسات الابتكار والمؤسسات ومجمعات العلوم والتكنولوجيا.

# STPs in Palestine



Source: <https://www.azernews.az/region/126680.html>

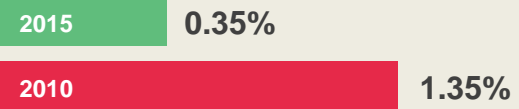
Due to **hard-living conditions** in Palestine, Palestinians start to believe in the power of **innovation** as one of the main three pillars of the **knowledge-based economic**, that are **education**, **research**, and **innovation**.

- Many well-educated and fresh graduates start converting their **innovative ideas** into **startups** with the aim of improving their **living-conditions** and **communities**.
- These Small and Medium-Sized Enterprises (SMEs) are the key to advancing the **local economic** development in the **future**.
- Different organizations **emerged** and are being emerged to support converting **innovative ideas** into **SMEs**:
  - **HCIE - Palestine Investment Fund - Al Nayzak** (Jerusalem)
  - **Gaza Sky Geeks** (Gaza), **Techno park** (Birzeit University).

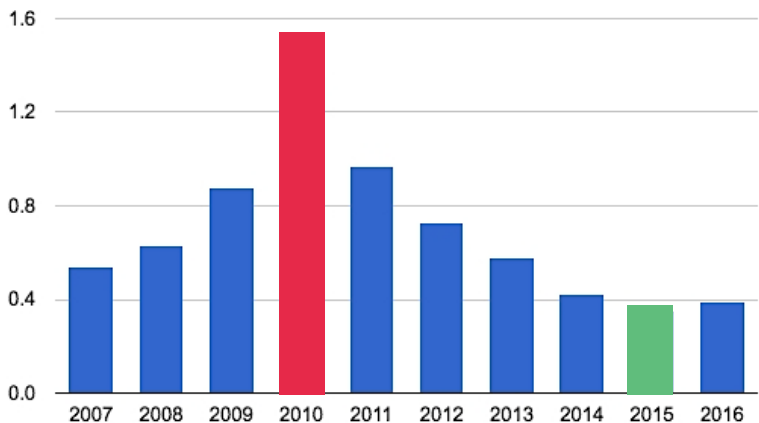
# STPs in Palestine: Statistical Figures

## Technology as an **Enabler** for Innovation

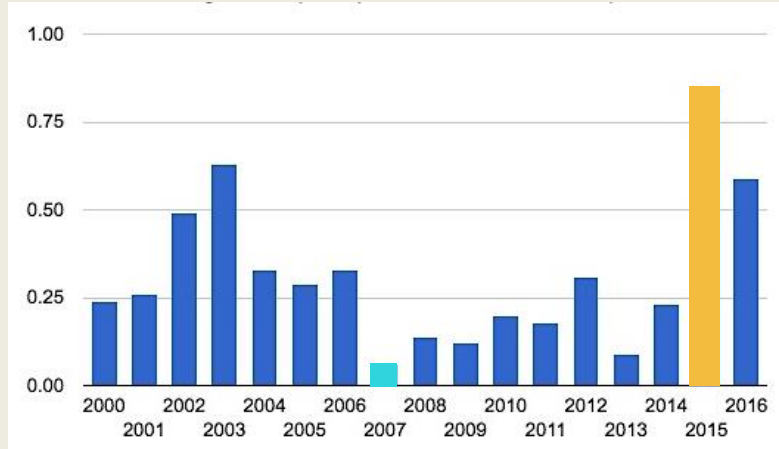
According to the UN statistical data, the average value of the **Information Technology Exports indicator** from year 2007 to 2016 was **0.68%** with a **minimum** of **0.35%** in 2015 and a **maximum** of **1.35%** in 2010.



State of Palestine – Information Technology Exports, period 2007-2016



High Tech Exports, percent of manufactured exports, period 2000-2016



For **High-Tech Exports Indicator**, the average value for Palestine during the period 2000 – 2016 was **1.04** million U.S. dollars with a **minimum** of **0.17** million U.S. dollars in 2007 and a **maximum** of **5.1** million U.S. dollars in 2015.

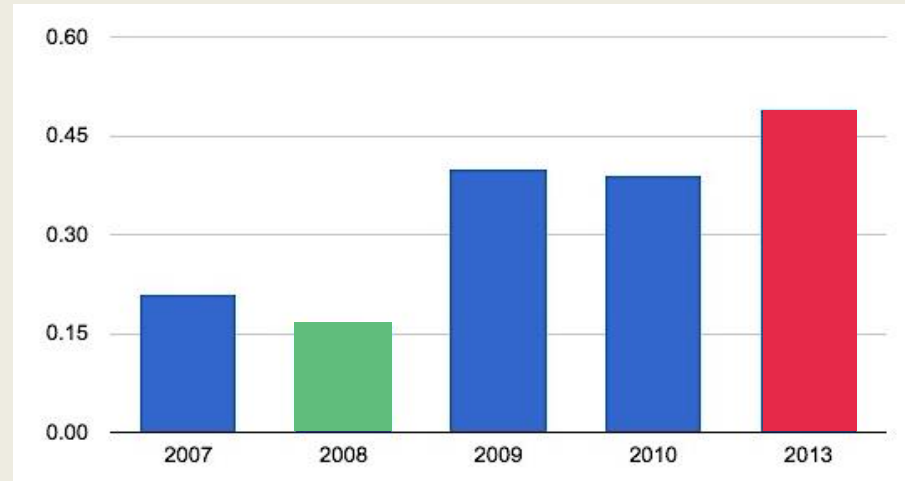


Source: Maysoun Ibrahim, EUROMENA, 2018, Implementing the 2030 Agenda for Sustainable Development in Palestine: An Innovation-Centric Economic Growth Perspective

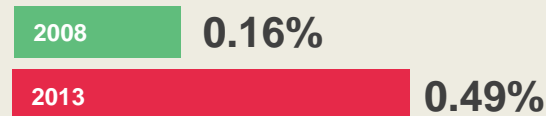


# STPs in Palestine: R&D

- ✓ The R&D expenditure reached **\$61.4** million in 2013, that is **0.49%** of Palestine GDP – Gross Domestic Product in 2013, which is **very low** compared to many other Arab countries.
- ✓ The average value of the UN **R&D expenditure, percent of GDP, indicator** for Palestine from 2007 to 2013, was **0.33%** with a **minimum** value of **0.16%** in 2008 and a **maximum** value of **0.49%** in 2013.
- ✓ This low value is related to the **inadequate** financial resources and **weakness** of interest and awareness on the **importance** of R&D as a major lever for the economy by different parties.

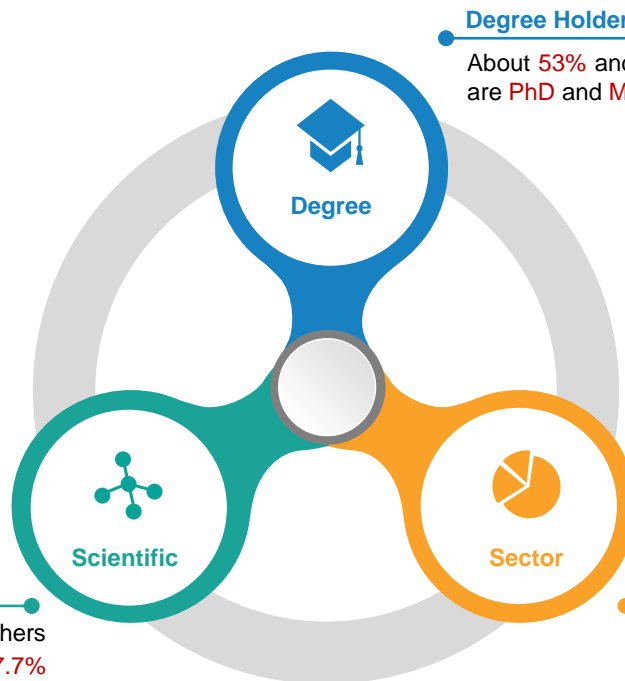


R&D Expenditure, percent of GDP, period 2007 – 2013



# R&D Statistics Palestine

According to the **PCBS**, 2017, the total number of Research and Development Personnel in Palestine was **8,715**.



## Degree Holder

About **53%** and **26%** of researchers in Palestine are **PhD** and **MA/MS** holders respectively.

## Scientific Research Field

By the scientific field, the number of researchers in R&D are **34.2%** that work in **humanities**, **27.7%** in **social science**, **11%** in **engineering**, **11%** in **natural science**, **5.8%** in **medical science**, **4.8%** in **agricultural science**, **5.5%** others.

## Sector

Number of researchers in R&D is **4,694** researchers in **academic** institutions (i.e. **54%** of the total number of researchers), **2,873** in **public sector** (i.e. **33%**), and **1,148** researchers in **NGO sector** (i.e. **13%**).

# STPs **Obstacles** in Arab Countries



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## Regional Challenges

- ✓ Financial system.
  - ✓ Regulations.
  - ✓ Brain drain.
  - ✓ Innovation system (policies, ...).
  - ✓ Models of development in the Arab world.
  - ✓ Trust in Science.
- 



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## Local Challenges / Palestine

- ✓ Control of Israel over the Palestinian economy, exports/imports.
  - ✓ Insufficient awareness of the importance of innovation.
  - ✓ Universities still depend on the old-fashioned educational methods.
  - ✓ Absence of an integrated innovation system.
-

# Recommendations



- \* Build a **strong** and **effective** national innovation systems.
- \* **Intellectual property protection** at the national and regional levels.
- \* Expand attention to **human capital**.
- \* Make innovation a clearly stated objective of **public policy**.



- \* Establish and foster the STPs with the needed **financial resources**.
- \* Develop a comprehensive **plan** to finance and stimulate **R&D**.
- \* **Interact** with others: international, regional and local shared projects.



- \* Fix the **cycle** between STPs, research, universities and society.
- \* Provide more **indicators** to measure innovation and R&D.
- \* Maintain **gender equality** in accession opportunities to and benefit from STPs.
- \* Make R&D a **political** topic.



**Think or Sink**

**Image only:** <https://innovationmanagement.se/2010/12/15/forget-your-customers-and-develop-innovative-business-models/>

A photograph of a cave entrance. The cave's interior is dark and rocky. Through the opening, a city skyline is visible, including the Freedom Tower. The image has a teal and blue color cast.

# Thank you

**Dr. Maysoun Ibrahim**  
maisonib@hotmail.com

