

# Achieving the SDGs

## The Key role of ICT, Innovation & Partnership



Workshop on  
“Fostering Innovation  
in the Public Sector of  
Arab Countries ”

Cairo, Egypt, 30-31 October 2017



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# Achieving the SDGs

## The Key role of **ICT, Innovation** & Partnership

Introduction

SDG Goals and ICT

Key Role of Innovation and Partnership

Key challenges and opportunities in the Arab Region

Need of Regional Multistakeholder Model

AICTO's Commitment

Ways Forward

« WE CANNOT SOLVE OUR PROBLEMS  
WITH THE SAME THINKING WE USED  
WHEN WE CREATED THEM»

[Albert Einstein]

# Introduction

## Arab Region : status quo

### Common values

- History
- Culture
- Language

### Shared Visions & Ambitions

- Increasing mutual cooperation
- Bridging Gaps
- Achieving social and Economic growth
- Merging within the Global Digital Economy
- Arab Digital Single market

- GDP at market prices  
(current US\$)

**\$2.501 trillion 2016**

- Population, total
- 406.45 million 2016**

- GNI per capita, Atlas method  
(current US\$)

**\$6,646 2016**

Credit:WB

# Introduction

## ICT : a corner stone tool for transformation and growth

- The rapid development of ICT-based services and systems offers the possibility for the needed deep transformation of the Global Economy and worldwide societies.
- ICTs are “leapfrog” and transformational tools, enabling all countries to bridge overall kind of gaps and key enablers for Innovation.
- Strong Regional & Interregional Partnerships and cooperations are essential in building/strengthening National and Regional Innovation systems and models leading to innovative and sustainable initiatives

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# SDG Goals



# SDG Goals

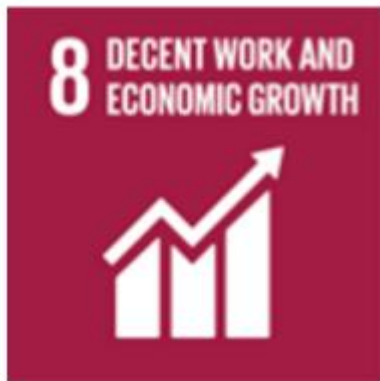


**There is tremendous potential to improve education globally, and especially in the developing world, using ICTs.**

- Mobile devices can be used for literacy training, numeracy training, interactive tutoring, using smartphones as e-books or e-readers, and for ‘educative games’,
- Digital services such as e-learning programs , online certification programs, and student advisory services open up a whole new world of learning assets to students that in turn lead to new livelihood opportunities.



# SDG Goals



**ICT skills have already become a prerequisite for almost all forms of employment,**

ICT capacity building must therefore be prioritized in national youth employment and entrepreneurship strategies in all countries.

ICTs are transforming traditional employment sectors including farming, manufacturing and the health sector, as well as creating brand new employment opportunities in areas such as social media management, gaming and the mobile apps economy.

# SDG Goals



**ICTs play and will continue to play an essential role in building resilient infrastructure, in promoting inclusive and sustainable industrialization, and in fostering innovation.**

Global and local infrastructure in the 21st century is controlled, managed and optimized by ICTs – whether power networks, water supplies, transportation systems, or indeed communications networks themselves.

# SDG Goals



**ICTs will be essential in offering innovative approaches to managing cities more effectively and holistically**  
smart buildings, smart water management, intelligent transport systems, and new efficiencies in energy consumption and waste management are the building blocks of a smart city.

Using ICTs to make cities more eco-friendly and sustainable is vital – not just for the well-being of urban inhabitants, but also for the sustainability of the planet.

# SDG Goals



*‘The spread of ICTs and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies.’*

ICTs will clearly be crucial in achieving all of the SDGs, since ICTs integrate and accelerate all three pillars of sustainable development – economic growth, social inclusion and environmental sustainability – as well as providing an innovative and effective means of implementation in today’s inter-connected world.

ICTs have a key role to play through: enhancing international cooperation and coordination; promoting technology transfer; capacity building; forging multi-stakeholder partnerships; and enabling and improving data monitoring and accountability.

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# Key role of innovation

Innovation : Engine for Economic and social Growth

Innovation has become « the Ideology of the 21st Century »

*Jan-Evert Nilsson - Blekinge Institute of Technology*

# Key role of innovation

## Innovation : Engine for Economic and social Growth

- **ICT** must be coupled by **innovation** to keep up with the more and more demanding consumers, and a constantly changing environment
- **ICT & Innovation** are the seeds of the social and economic growth
- **Innovation** has been needed since always and will be forever
- Humanity has profited from **innovation** starting with the invention of the wheel till the emergence of the internet and its related services
- **Innovation** has a transformational impact on our daily lives
- Innovative trends have generated significant transitions in the ICT field during the last years with a positive impact on the socio-economic development

# Key role of innovation

## Innovation : Engine for Economic and social Growth

**Innovation has always the settlement for the rising issues :**

- Economic and social growth
- Unemployment & Jobs creation
- Climate change, energy supply and rarity of resources
- Health
- Education
- Food safety and sustainability of water
- Etc .....



# Key role of innovation

Innovation : Engine for Economic and social Growth

Global innovation is a win-win proposition –  
everyone stands to gain from it

[Message of the Global Innovation Index (GII) 2016]





# Key role of innovation

Innovation : Engine for Economic and social Growth

## Innovation Driven Economy



Credit : The National Innovation Agency (NIA) - Thailand

# Key role of innovation

Innovation : Engine for Economic and social Growth

Techno-Economic Paradigms: 6<sup>th</sup> Revolution ?

## Kondratieff Waves of Innovation

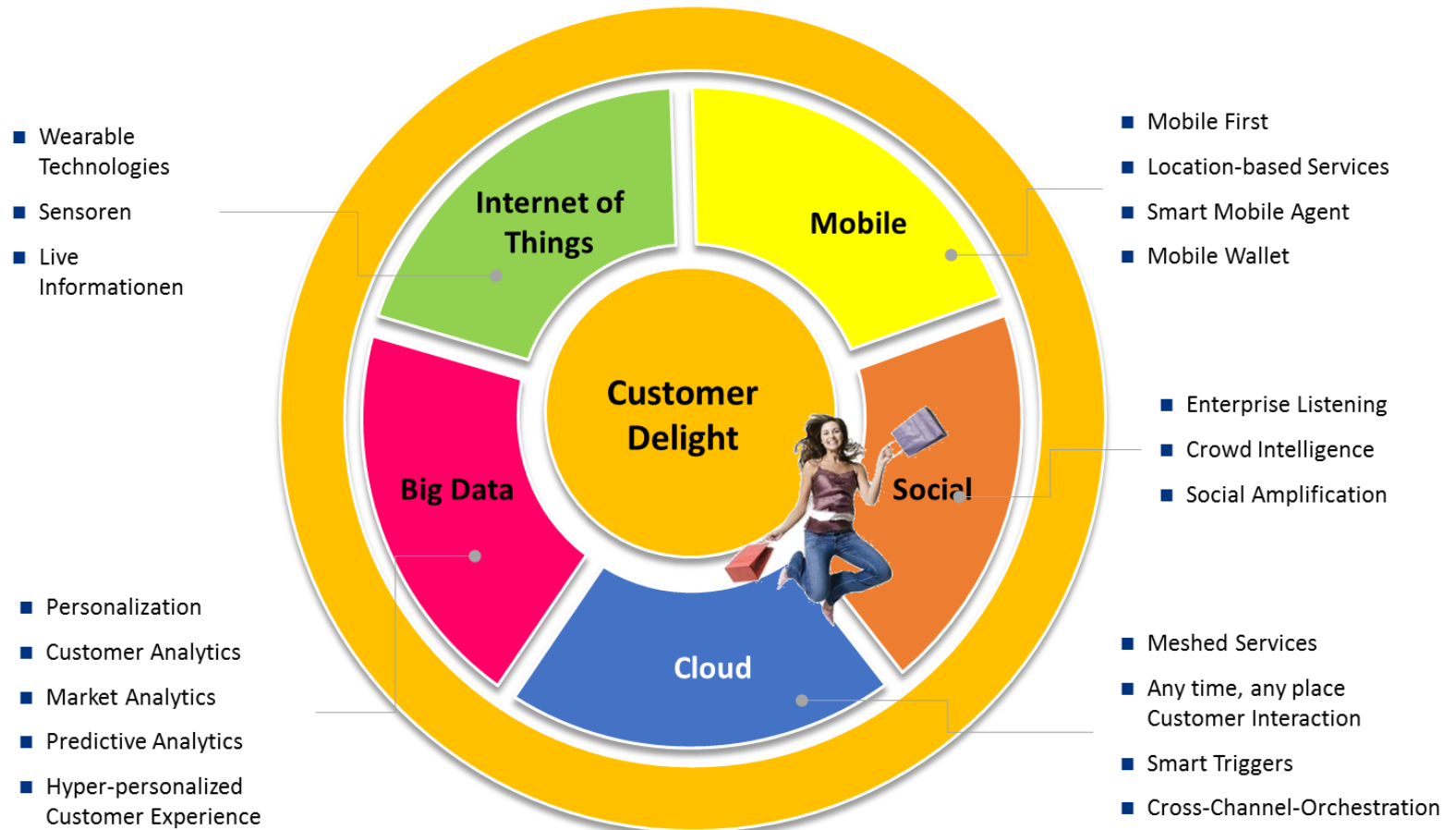
Waves:	1 <sup>st</sup> Wave: Industrial Revolution	2 <sup>nd</sup> Wave: Industrial Production	3 <sup>rd</sup> Wave: Scientific Revolution	4 <sup>th</sup> Wave: Scientific- Technical Revolution	5 <sup>th</sup> Wave: Information and Telecom Revolution	6 <sup>th</sup> Wave: ...
Date range:	~1780 – 1830	~1830 – 1880	~1880 - 1930	~1930 – 1970	~1970 - 2010	~2010 – 2050
Economic trend (US S&P 500)						
Key developments	Steam engine, industrialization	Railways, steel, heavy engineering	Electricity, chemistry, chemical industry	Automobile, mass production, petrochemical industry	Microcomputers, information, telecom	
Events near the peaks	War of 1812	US Civil War	World War I	Vietnam War, Six-Day War		
Events near the troughs		1873/79 Depression	1929 Depression	1974/80 Oil crises	2007/09 Financial crisis	

Credit:SRC

# Key role of innovation

Innovation : Engine for Economic and social Growth

## Key Future Trends/innovations in the digital world



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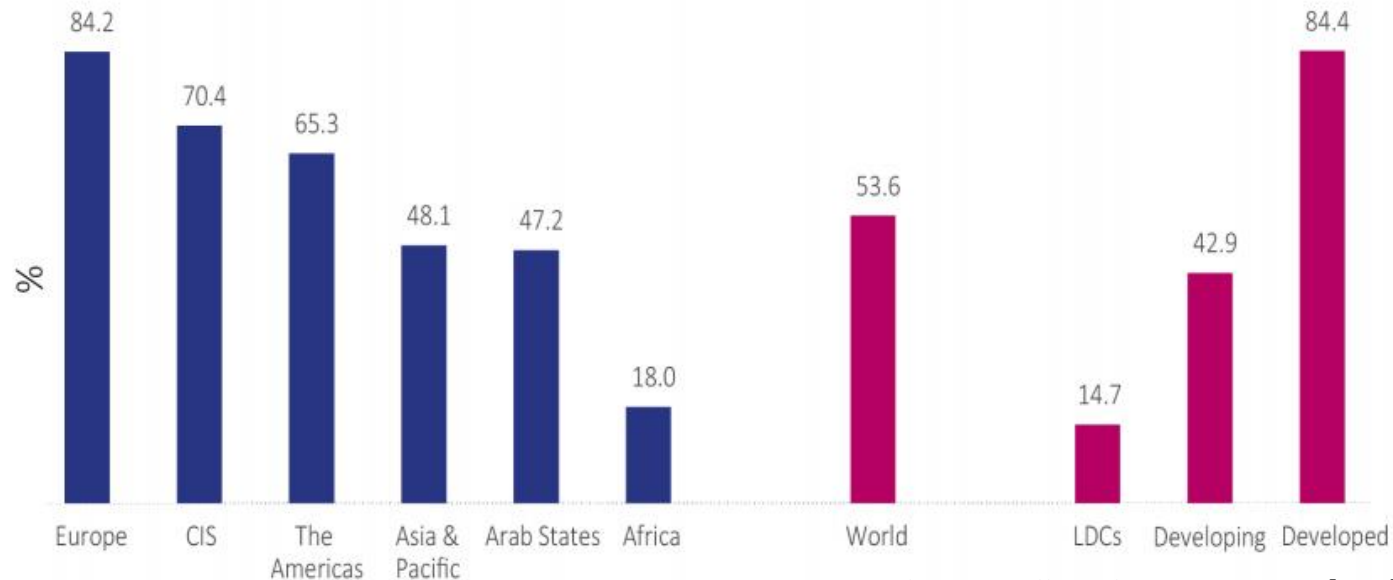
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# Internet Penetration

Proportion of Households with Internet Access by Region, 2017



Credit: Broadband Report 2017 [ITU]

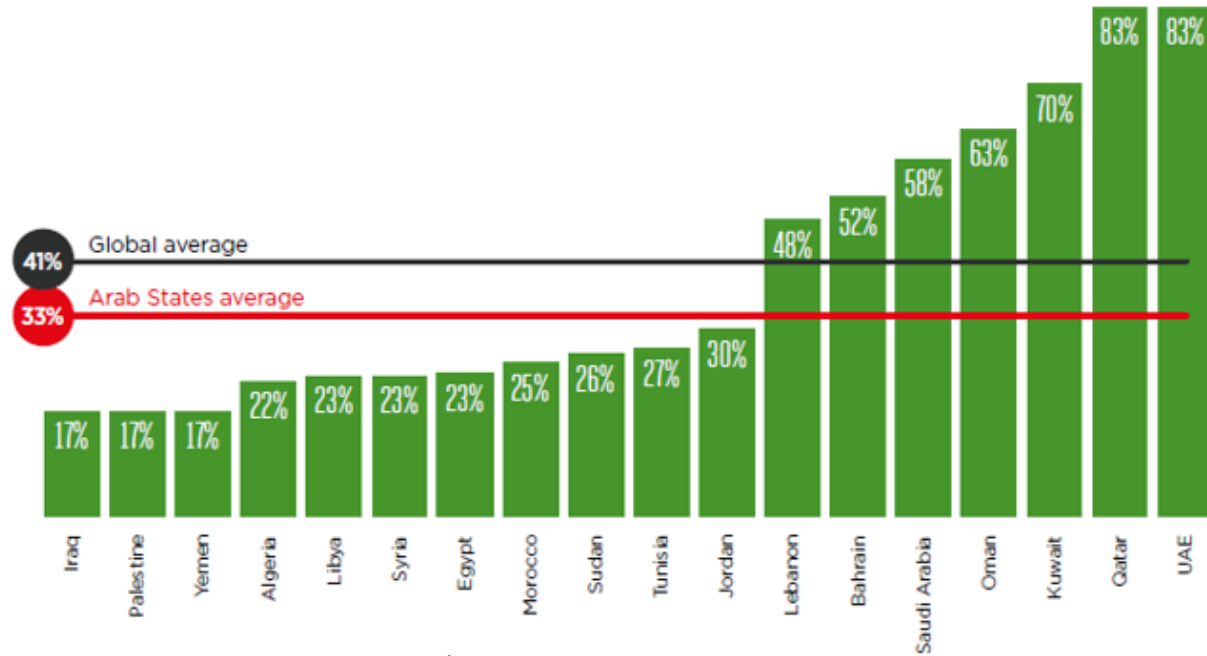
- Internet Penetration in the Arab region is higher than developing countries average, but still lower than World average.
- An existing gap to bridge among Arab countries
- Major efforts are needed towards the development of Arabic digital content in order to stimulate access
- More focus needed on leveraging the opportunities offered by Internet in job creation, entrepreneurship and socio-economic development



# Smartphone Adoption in the region

- Growing mobile broadband and smartphone usage is driving an explosion in mobile data.
- An existing gap to bridge among Arab countries
- An increase in mobility and productivity.
- More focus needed on leveraging the opportunities offered by localized Mobile applications development in entrepreneurship and socio-economic development

Arab States smartphone adoption  
(Percentage of connections, Q2 2015)



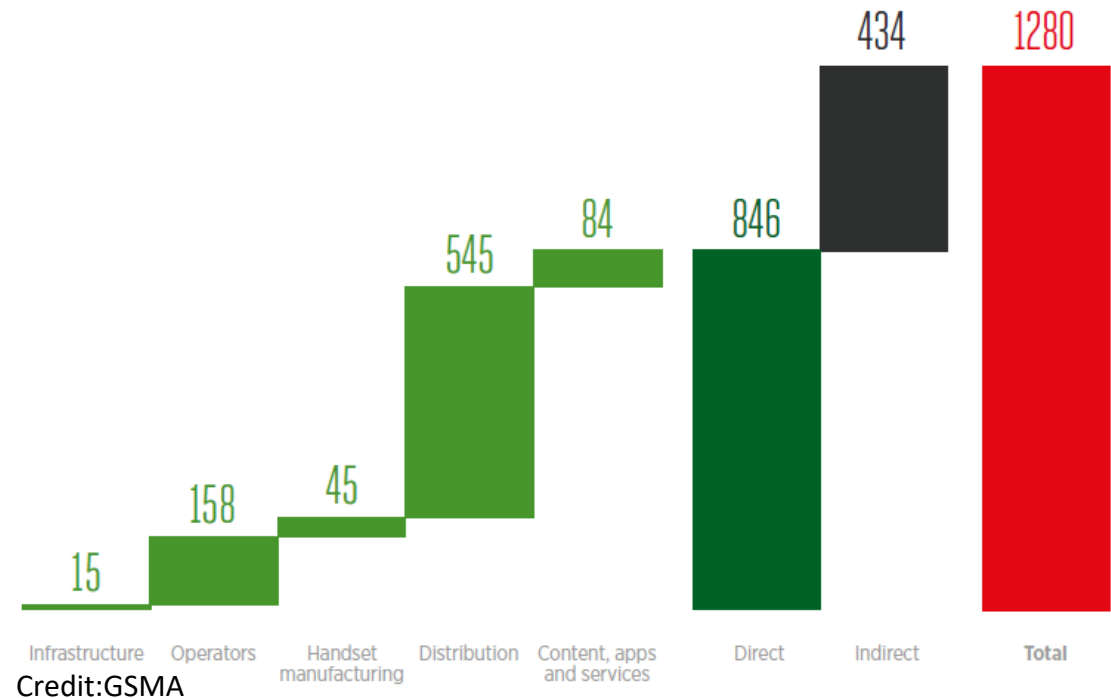
Credit:GSMA

# Mobile Industry and employment

- Major impact on direct job creation is driven by Distribution (over 64%)
- More focus needed on value creation through innovation at the level of infrastructure as well as content and services development.
- Necessity of joint efforts for the creation of Market of scale for Arab entrepreneurs

Arab States: employment impacts of the mobile industry

Jobs (000s)



# Arab Region Knowledge Economy Status

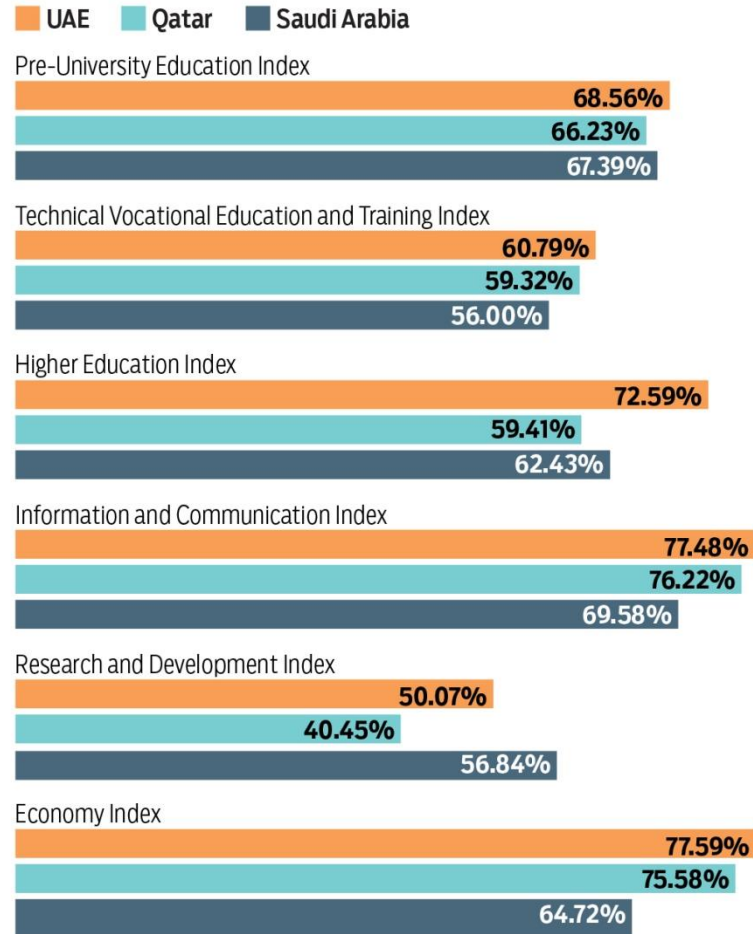
The Knowledge Economy Index (KEI) prepared by the World Bank indicates an insufficient performance and an increasing gap between the Arab region and other regions of the world, from 2000 to 2012 (Ref. UNDP Arab Knowledge Report 2014)



# Arab Knowledge Index

## Highest Performing countries [2015]

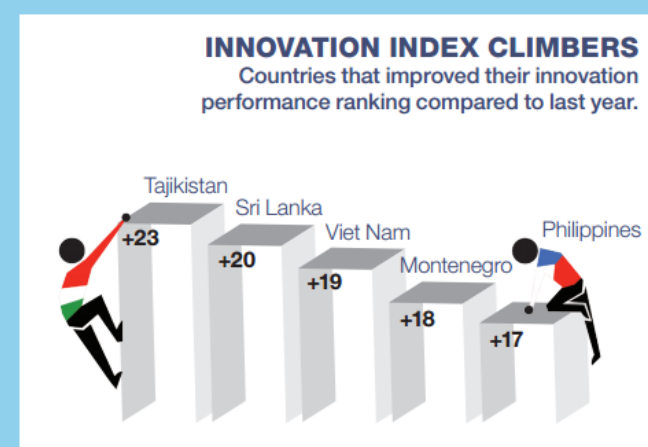
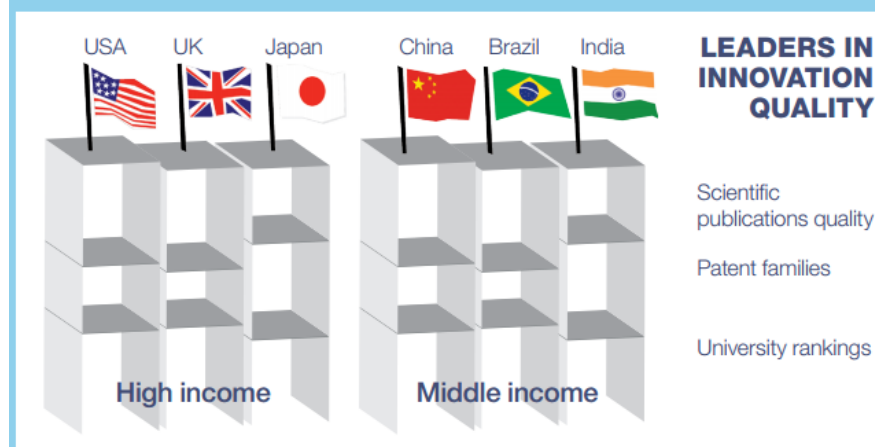
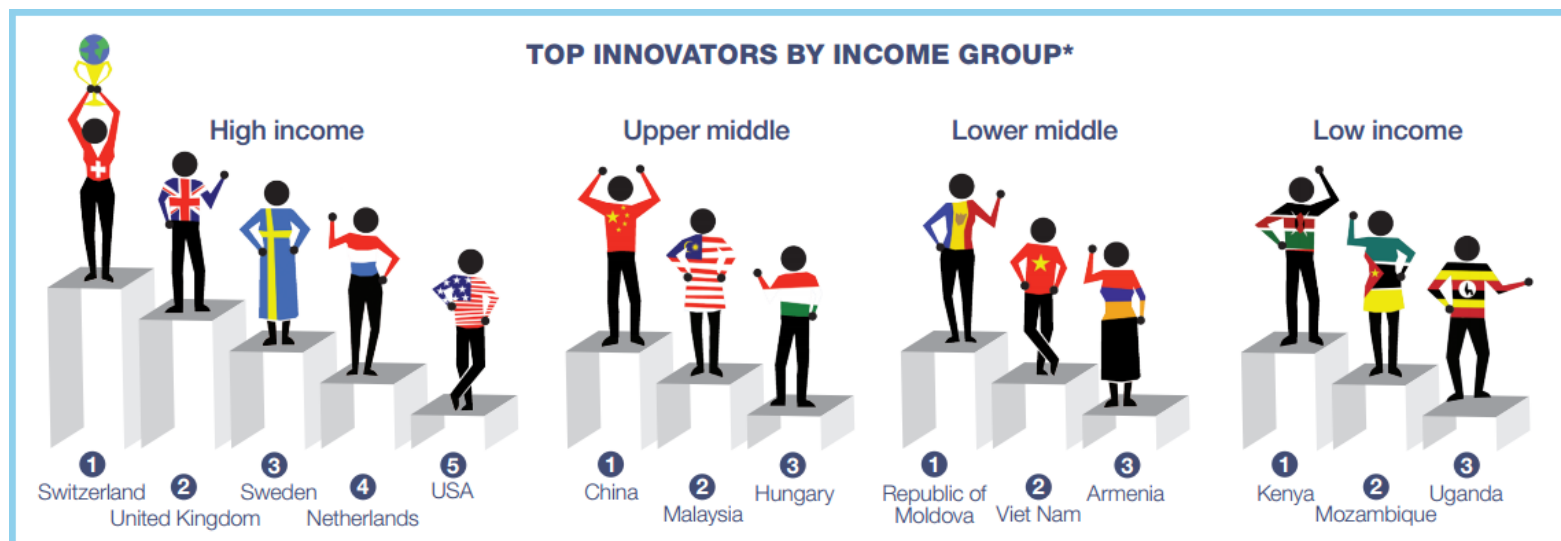
### 2015 ARAB KNOWLEDGE INDEX Highest performing countries



Source: 2015 Arab Knowledge Index report

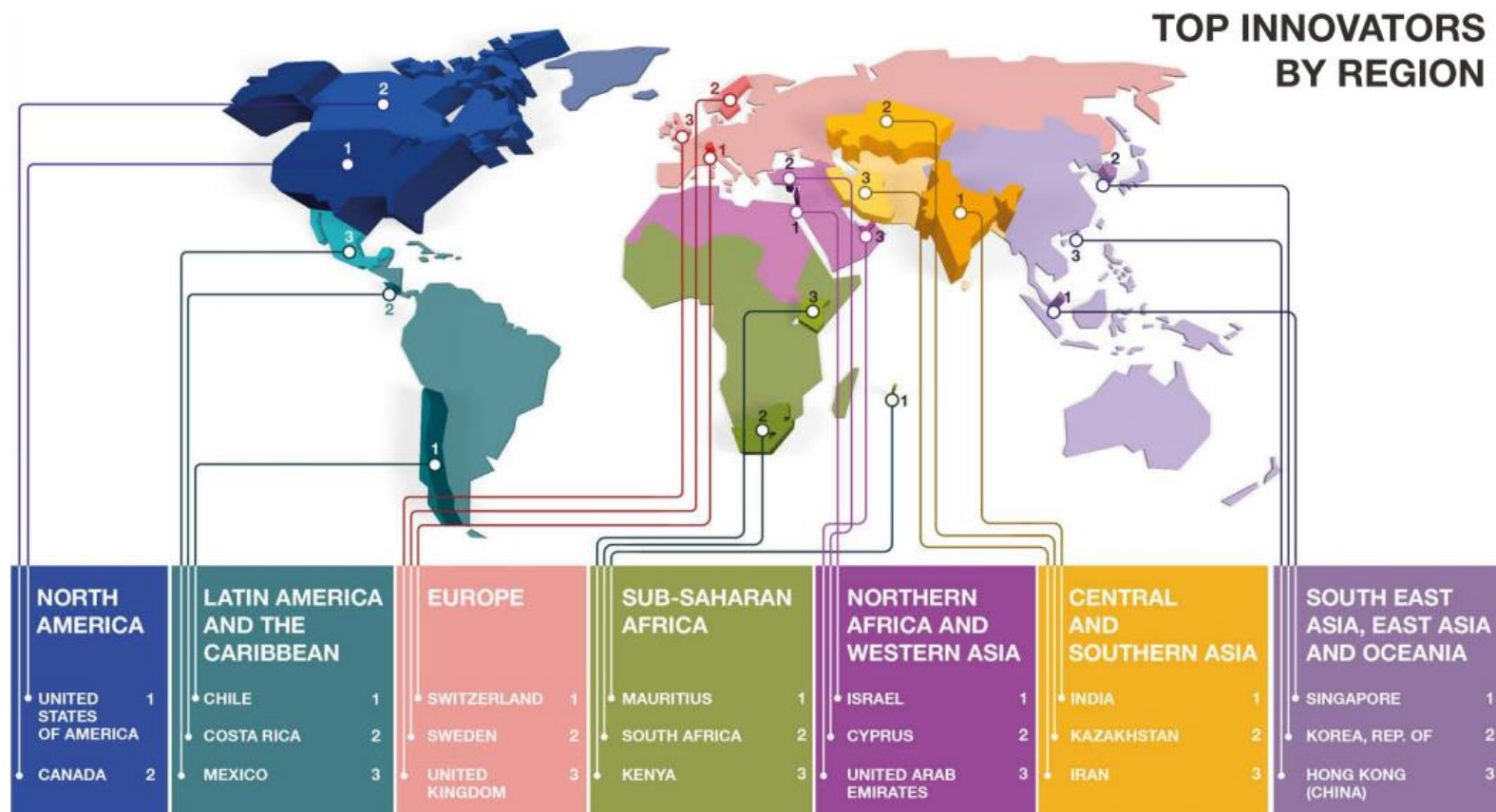
©Gulf News

# Performance at the global stage



Global innovation index. 2015

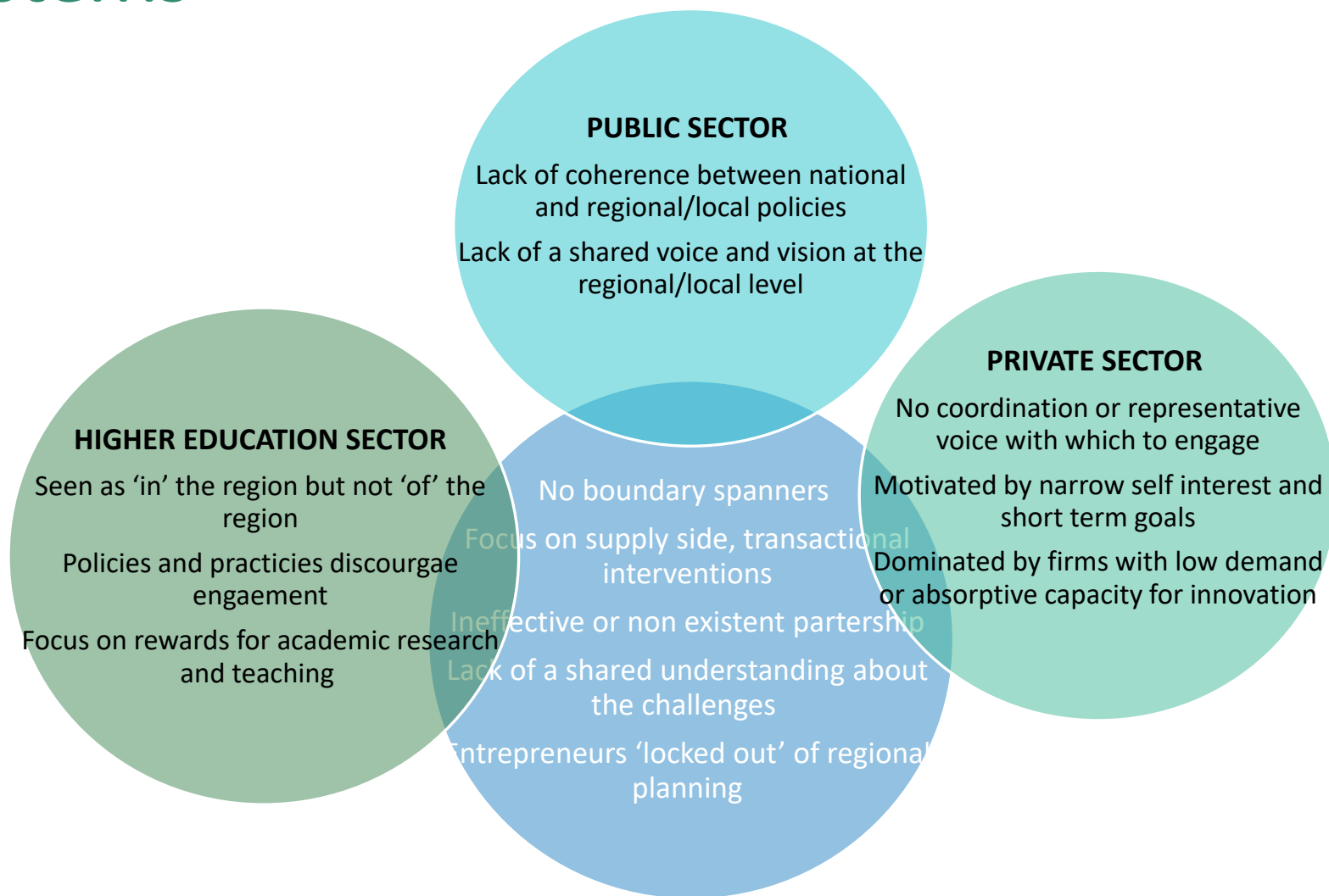
# WHO is leading INNOVATION



## The Global Innovation Index 2016

Every year, the Global Innovation Index ranks the innovation performance of nearly 130 countries and economies around the world. Each country is scored according to 82 indicators.

# Weak and fragmented Innovation systems



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AICTO's commitment

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# Regional Multistakeholder Model

Need of a Multistakeholder model at the regional level to :

- Improve understanding of real challenges
- Provide inspiration for new approaches
- Help to design better (i.e. more realistic) strategies and tools/incentives
- Raise the awareness of public authorities to ensure the public support
- Design and implement Regional initiatives / set-up necessary KPIs for their evaluation

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# AICTO's Commitment

AICTO activities and actions dealing with innovation and SDGs achievement

## AICTO Strategic vision

Towards a harmonious Arab digital society based on the creativity and innovation, boosting the Arab-regional complementarity, ensuring the integration within the global digital economy while contributing to the implementation of the Sustainable Development Goals 2030 (SDGs 2030)

# AICTO's Commitment

AICTO activities and actions dealing with innovation and SDGs achievement

**Strategic Goal (4) : Boosting the Arab countries' contribution to the implementation of the Sustainable Development Goals 2030 while enhancing their inclusion in the global digital economy**

## **Main components:**

- Supporting efforts aiming to integrate Arab countries into the global digital economy
- Promoting and strengthening the contribution of Arab countries to the implementation of the Sustainable Development Goals 2030
- Appraising all Arab ICT initiatives and contributions designed for that end
- E-Innovation is one of the components of AICTO's Strategy 2020

# AICTO's Commitment

## AICTO activities and actions dealing with innovation and SDGs achievement

### [SDG 1] NO POVERTY

#### AICTO actions :

- Project “Promotion of e-accessibility within the Arab region”
- Awareness activities

### [SDG 2] ZERO HUNGER

#### AICTO actions :

- Project : “ICTs for a Sustainable Agricultural Development in the Arab Region”
- Studies & Awareness activities

### [SDG 4] QUALITY EDUCATION

#### AICTO actions :

- Project “Connecting schools in the Arab Least Developed Countries”
- Launching Huawei Seeds for the Future Program throughout the Arab region

# AICTO's Commitment

## AICTO activities and actions dealing with innovation and SDGs achievement

### [SDG 5] GENDER EQUALITY

AICTO actions :

- Project : “Arab Women empowerment through ICT”
- Project : E-souq for Arab andcrafts women

### [SDG 8] DECENT WORK AND ECONOMIC GROWTH

AICTO actions :

- Project : “Arab Youth Empowerment through ICT”
- WG + Studies + awareness activities

### [SDG 9] INDUSTRY, INNOVATION AND INFRASTRUCTURE

AICTO actions :

- Project : “Arab-African PKI Forum”
- Project : GNSS Innovation Center of excellence
- Project : “Promoting Cloud Computing in the Arab Region”
- WGs + Studies + Awareness activities

# AICTO's Commitment

## AICTO activities and actions dealing with innovation and SDGs achievement

### [SDG 11] SUSTAINABLE CITIES AND COMMUNITIES

#### AICTO actions :

- Initiative : Challenges and New Strategies CNS Platform©
- IOT WG + Study on «IOT state of the Art and perspectives in the Arab Region»
- A biannual events, for high level Arab Region Decision makers, focusing on : Smart Cities + IoT + Artificial Intelligence + Virtual Reality, .....

### [SDG 13] CLIMATE ACTION

#### AICTO actions :

- Capacity building program : «Early warning and disaster recovery »
- Contribution in the ITU-T WG5 « Environment, climate change and circular economy”

### [SDG 17] PARTNERSHIPS FOR THE GOALS

#### AICTO actions :

- Strengthening its partnerships with the Regional and International organizations to serve the Sustainable Development plan
- Active participation in the Arab and International efforts aiming at achieving the SDGs, especially those with a high need for the Arab region

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« Innovation is everyones  
responsibility, not just R&D »  
[Albert Einstein]

# Ways forward

## Regional and International actions

Fostering Resilient partnerships and active coordination between Regional stakeholders to ensure complementarity through an easy to apply approach and to avoid overlap

Set up coordination committee among Regional actors eg. LAS, ITU Arb, ESCWA, AICTO, UNDP etc..

Joint development fund for key initiatives for innovation and Digital Transformation

Raising awareness and establishing a multi-stakeholders dialogue on key topics: OTT, Roaming, SMP, IoT, MFS etc..

# Ways forward

**National Level : *Work closely with national players towards***

Setting up of regional networks and platforms

Sharing responsibilities for Sustainable Development in the Arab Region

Harmonizing legal and regulatory Frameworks

Ensuring Trust in Digital economy

Empowering youth in order to stimulate innovation and entrepreneurship

Empowering women to reduce the gender gap and to enhance their contribution in the economic development

*Thank you for your attention*

**Mohamed Ben Amor**

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