

IN FOCUS: KUWAIT AND QATAR

Introduction to Session

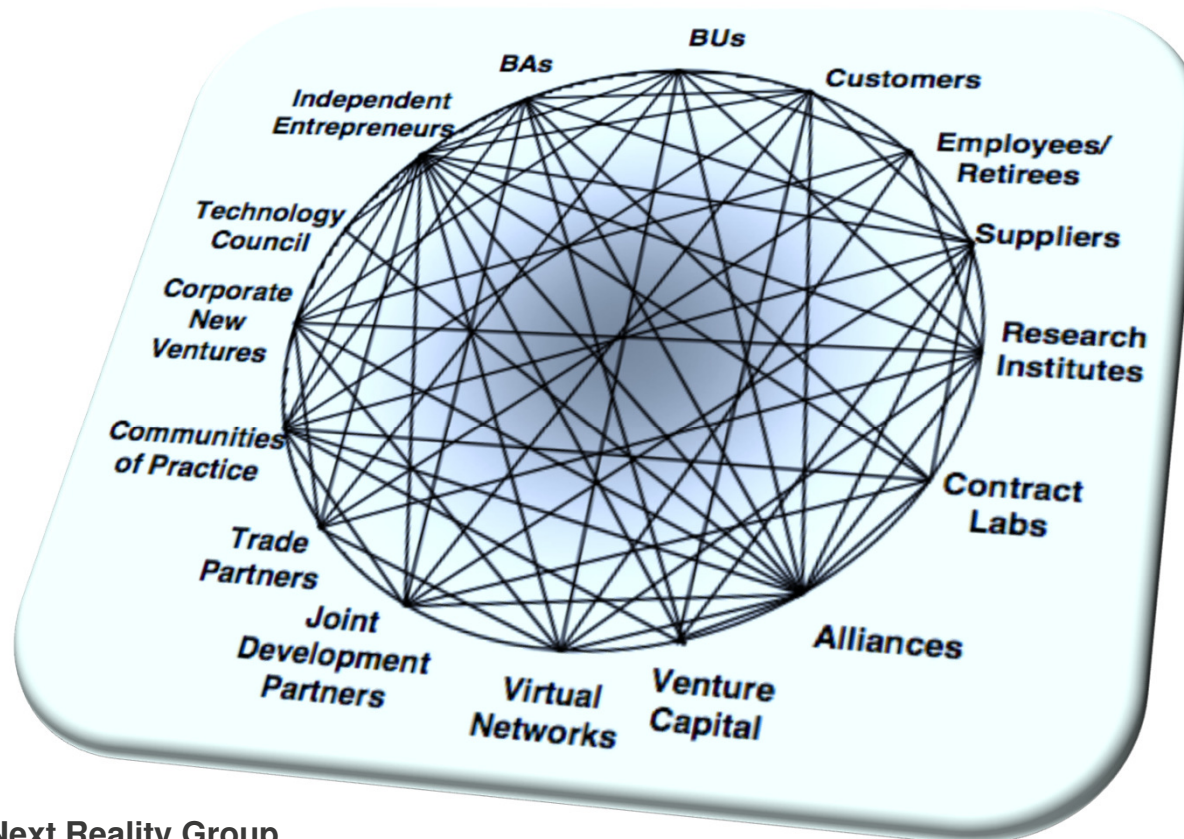
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The ME seeks a stronger role in the global innovation system

- **The need to reduce dependence on hydrocarbons;**
 - Oil price volatility and long term 'low cost' availability
 - Increasing domestic use of oil resources
 - Need to add-value to hydrocarbons via new technology
- **Various waves of diversification require innovation and networks;**
 - Wave 1: real estate and construction
 - Wave 2: services; tourism, financial, education and health
 - Wave 3: knowledge and innovation

Innovation will come from various providers and networks



Source: Next Reality Group

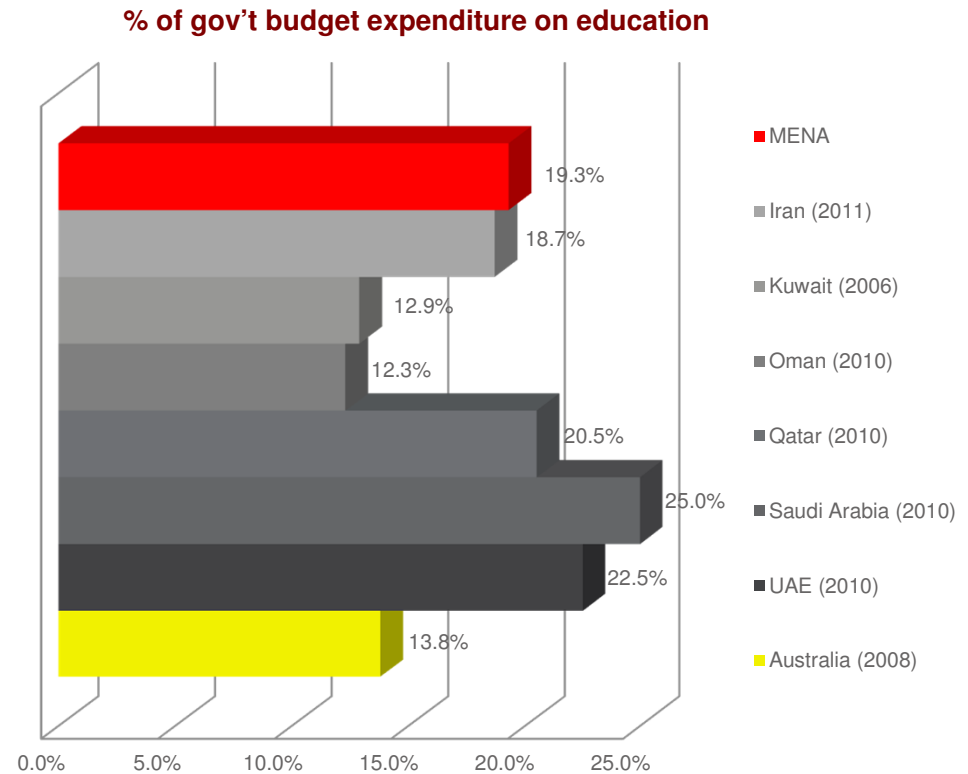
Important factors within the Middle East

Increased education spend:

Governments in the region are investing on average over 19% of their budgets on education

Regulatory reforms:

Education reforms are fuelling growth in private school and higher education markets. The region also attracts foreign branch campuses.



Source: World Bank
<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/0,,contentMDK:20754713~menuPK:2448306~pagePK:210058~piPK:210062~theSitePK:282386,00.html>

Important factors within the Middle East

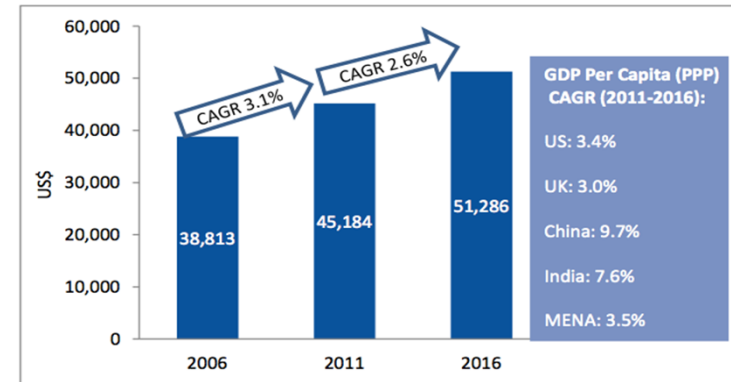
English language:

English is becoming more prominent as the medium of instruction for Maths and Science. In the UAE, it is increasingly the language of instruction in primary and secondary schools.

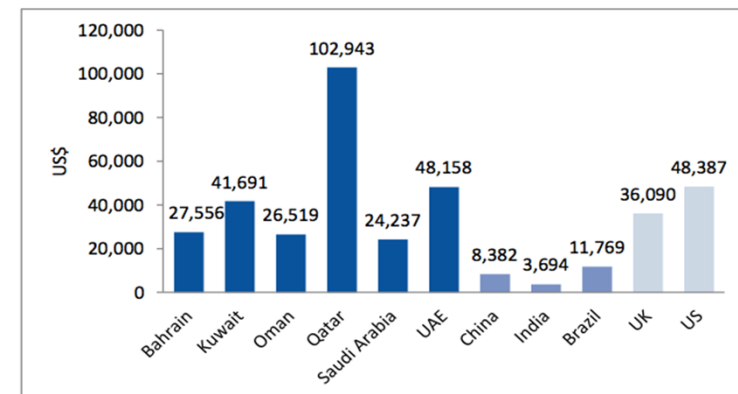
Relative wealth:

Average GDP per capita increased from US\$39k in 2006 to US\$45k in 2011, expected to reach US\$51k by 2016 (IMF). Individual wealth levels are significantly higher than economies of China, Brazil, and India.

Average GDP Per Capita (PPP) of the GCC (2006-2016)



Average GDP Per Capita (PPP) (2011)

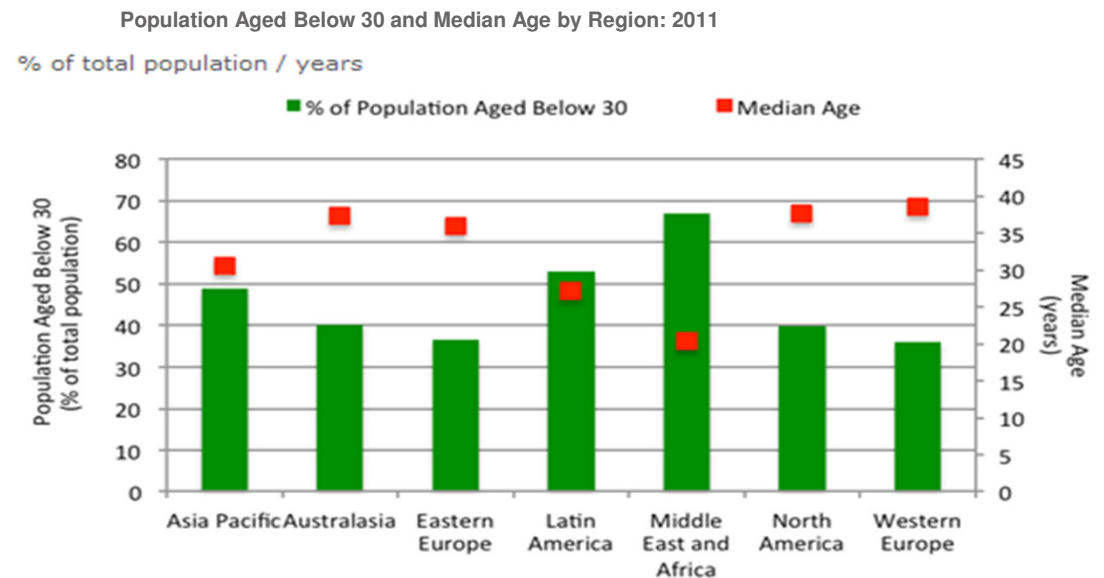


Source: IMF, World Economic Outlook Database, April 2012

Important factors within the Middle East

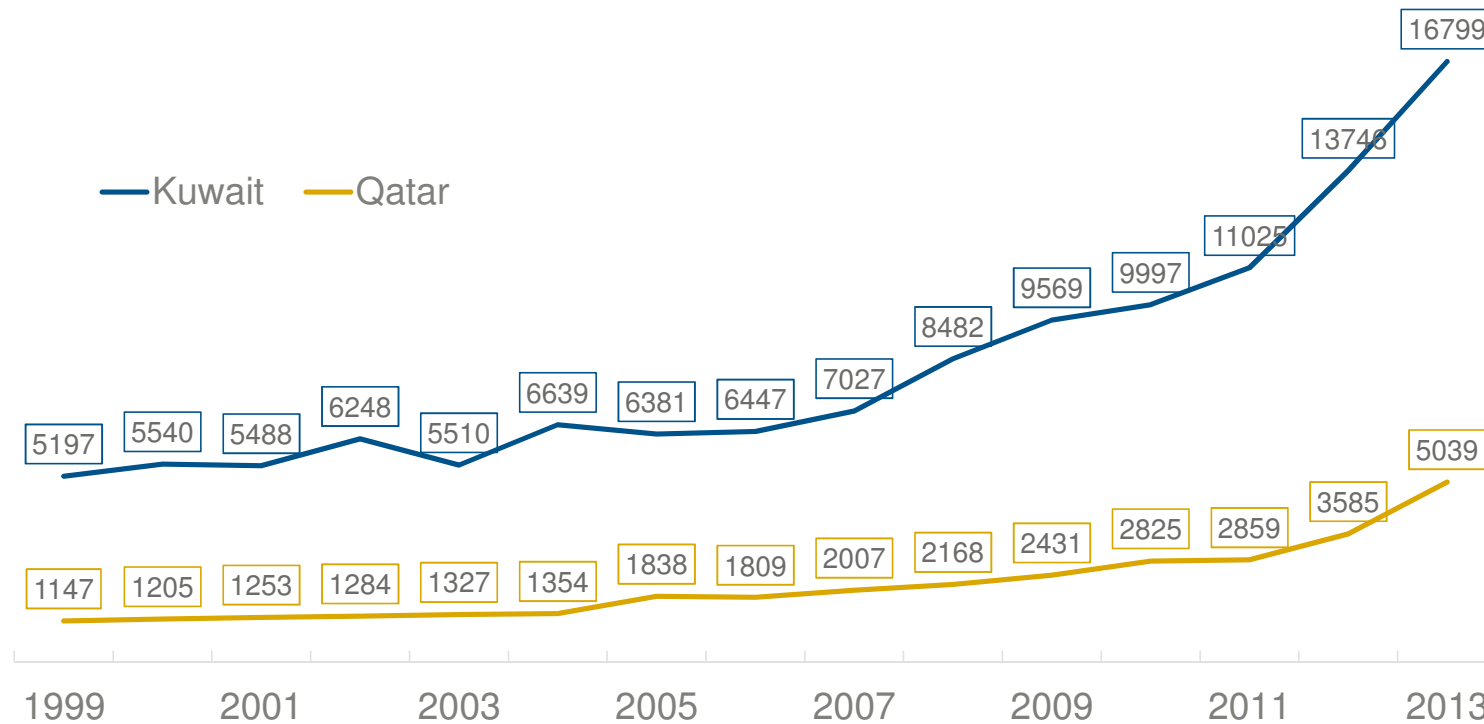
Demographics:

The young population is driving demand for education. It is the youngest population region in the world with 66.8% of the population aged below 30 in 2012 compared to Latin America (52.9%) and Asia (48.8%).



Source: Euromonitor International from national statistics/UN
<http://blog.euromonitor.com/2012/02/special-report-the-worlds-youngest-populations-.html>

Growth in international mobility of students



Source: UNESCO

Kuwait – Innovation Landscape

- Impressive economic growth – oil revenues remain greatest contributor to growth and main source of government income
- Sector diversification to manage risk around oil industry reliance is a key priority
- Building a knowledge economy by developing an effective STEM ecosystem;
 - Kuwait Foundation for Advancement of Sciences (2012-16 Strategic Plan)
- Belief that innovation should inspire sustainable business advantage and act as a catalyst for corporate growth (KFAS Innovation Challenge 2016 competition)

Kuwait – Education Landscape

- Focus on increasing STEM education capabilities to address future workforce needs
- Education reform has been undertaken in collaboration with the World Bank (School Education Quality Improvement Program) and focussed on:
 - curricular reform
 - the development of national assessment systems
 - improvement of school leadership
 - creation of professional standards

Qatar – Innovation Landscape

- In addition to substantial oil revenues Qatar has become the world's largest exporter of liquefied natural gas
- Commitment to reinvest extensive hydrocarbon revenue to transform itself into a modern knowledge-based economy
- Research is a core plank of market diversification that is reflected through national research priorities:
 - engineering and technology, physical and life sciences, medicine, humanities, social sciences, and the arts (Qatar National Research Fund)
- Developing local human resource capacity is a key strategy to meet workforce needs in a more diversified economy (Qatar National Vision to 2030)

Qatar – Education Landscape

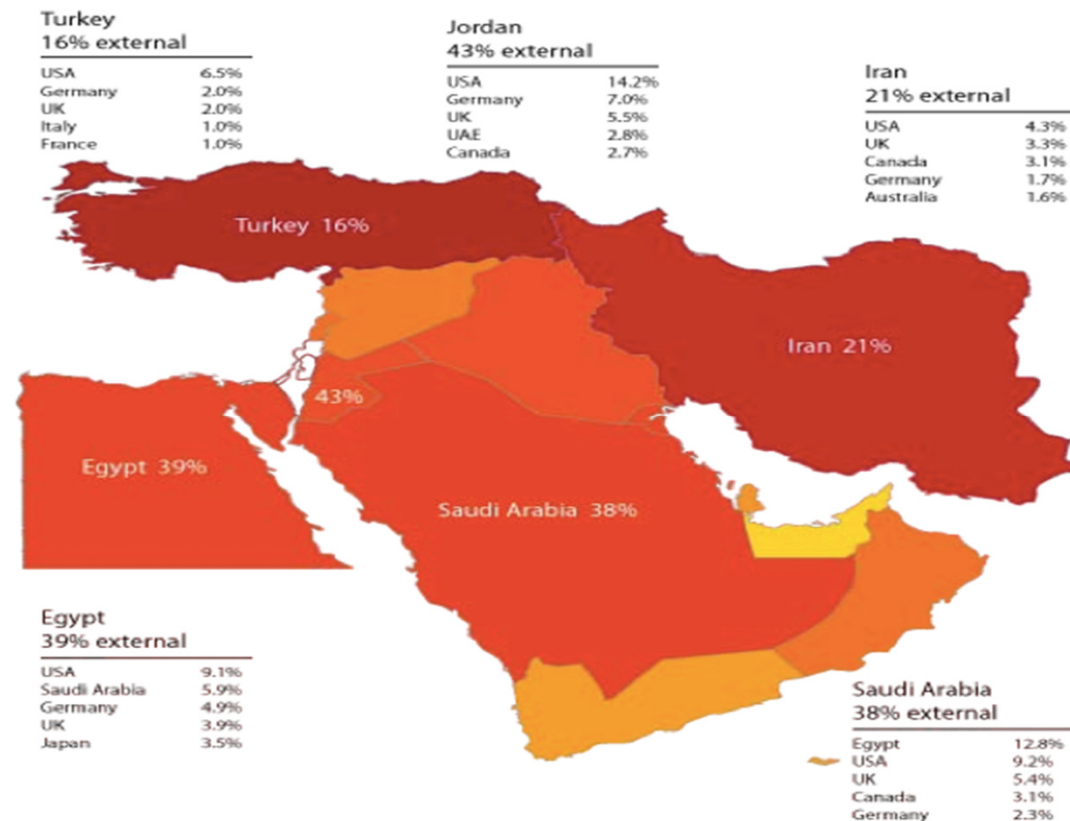
- Focussed on education excellence – Qatar has an innovative and distinguished learning environment
- Building English language capability to enhance global connectivity and opportunity for graduates
- National Road Safety Strategy – Qatar University to take the lead and has just established a road trauma research centre
- Qatar Education City has 8 foreign university branch campuses including Weill Cornell Medical College, Carnegie Mellon University and University College London

The US and UK dominate R&D interaction with the region

Top collaborating partners for the 5 most prolific research publishing nations in the Arabian Middle East.

Color intensity reflects research output volume, with deeper colors corresponding to greater output.

The numbers in each country refer to the percentage of national output that has an international co-author.



Thomson Reuters Web of Knowledge, 2011

Many models exist for international partnering

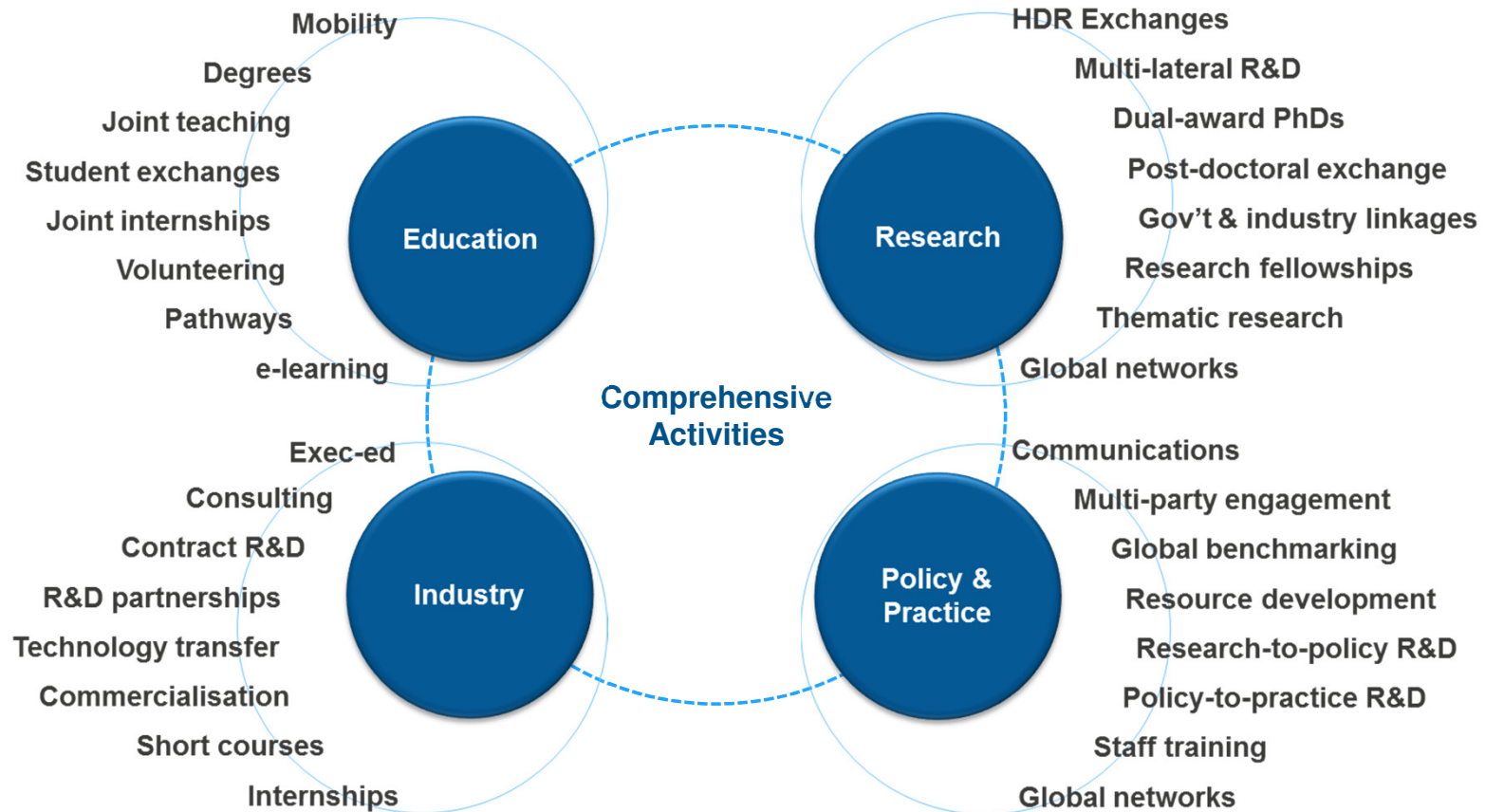
Traditional



• Individual/group partnering model

- Variable resourcing requirement
- Simple governance models
- Researcher driven/led
- Ad-hoc funding

The basis of collaboration is broadening



Summary

- The ME region is moving to an innovation-economy based model requiring greater collaboration with the global innovation-system
- Traditional 'academic to academic' partnering is growing but strategic (critical mass) areas need greater facilitation
- Opportunity for international collaborations that;
 - Have greater capacity to span the global solutions 'value-chain'
 - Create (global) critical-mass and access capability at minimal cost
 - Link research and education leaders in areas of impact