الاقتصاد المعرفي: إلى أين

الدكتور عدنان بدران
المستشار الأعلى للجامعة ومجلس أمنائها
جامعة البتراء
2017/04/29

المؤتمر الاقتصادي الدولي الثالث
قضايا معاصرة في عالم المال والأعمال
الجمعية الأردنية للبحث العلمي
2017/04/29
Global Competitiveness index 2016-2017
ranking of countries of the world

Source: www3.weforum.org
The United States remains the world’s largest R&D investor spending in 2014. This is a globally competitive level of research intensity equal to 2.8% of U.S. GDP.

Total investment in R&D (as a percentage of GDP) stay relatively steady throughout the world in 2014:

<table>
<thead>
<tr>
<th>Area</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMERICAS</td>
<td>2.5%</td>
<td>2.4%</td>
<td>2.5%</td>
</tr>
<tr>
<td>ASIA</td>
<td>1.8%</td>
<td>1.9%</td>
<td>1.9%</td>
</tr>
<tr>
<td>EUROPE</td>
<td>1.9%</td>
<td>1.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>REST OF WORLD</td>
<td>0.9%</td>
<td>0.9%</td>
<td>0.9%</td>
</tr>
</tbody>
</table>
Investment in Science
Who funds what in R&D

Arab Region

OECD
Expenditures for R&D in selected countries & in Arab world (as a percentage of GDP) 2015

Source: data.OECD.org
Researcher-Ranked Global R&D Leaders by Technology Area

**United States**
- #1: Agriculture & Food Prod.
- #1: Commercial Aerospace & Non-Automotive Transport
- #2: Military Aerospace
- #2: Composite / Nano / Advanced Materials
- #2: Health Care & Life Science
- #3: Information & Communications
- #3: Instruments & Electronics
- #4: Energy Technology
- #4: Environment & Sustainability
- #5: Motor Vehicles

**United Kingdom**
- #2: Health Care & Life Science
- #5: Military Aerospace
- #5: Composite / Nano / Advanced Materials
- #5: Environment & Sustainability
- #5: Instruments & Electronics

**Germany**
- #1: Motor Vehicles
- #1: Energy Generation & Efficiency
- #1: Environment & Sustainability
- #2: Composite / Nano / Advanced Materials
- #2: Commercial Aerospace & Non-Automotive Transport
- #3: Health Care & Life Science
- #3: Instruments & Electronics
- #4: Information & Communications

**Japan**
- #2: Motor Vehicles
- #4: Information & Communications
- #4: Instruments & Electronics
- #5: Composite / Nano / Advanced Materials
- #5: Environment & Sustainability
- #5: Commercial Aerospace & Non-Automotive Transport
- #5: Energy Technology

**China**
- #2: Agriculture & Food Prod.
- #3: Military Aerospace
- #3: Energy Technology
- #3: Information & Communications
- #4: Commercial Aerospace & Non-Automotive Transport
- #4: Motor Vehicles
- #4: Composite / Nano / Advanced Materials
- #4: Instruments & Electronics
- #5: Health Care & Life Science

Source: Battelle, R&D Magazine
High – technology exports in the Arab World and in Selected Countries

Source: United Nations, Comtrade database
Patent Applications filed in the Arab World 2014

Non-Residents

<table>
<thead>
<tr>
<th>Country</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAE</td>
<td>1,447</td>
</tr>
<tr>
<td>Egypt</td>
<td>1,384</td>
</tr>
<tr>
<td>Morocco</td>
<td>742</td>
</tr>
<tr>
<td>Qatar</td>
<td>477</td>
</tr>
<tr>
<td>Tunisia</td>
<td>400</td>
</tr>
<tr>
<td>Jordan</td>
<td>339</td>
</tr>
<tr>
<td>Bahrain</td>
<td>199</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>135</td>
</tr>
<tr>
<td>Kuwait</td>
<td>111</td>
</tr>
</tbody>
</table>

Residents

<table>
<thead>
<tr>
<th>Country</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>752</td>
</tr>
<tr>
<td>Saudi Arabia</td>
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</tr>
<tr>
<td>Morocco</td>
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<tr>
<td>Tunisia</td>
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<td>Jordan</td>
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<tr>
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<tr>
<td>Bahrain</td>
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<tr>
<td>Qatar</td>
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</tr>
<tr>
<td>Kuwait</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: World Intellectual Property Organization (WIPO)
Resident patent applications per 100 billion USD GDP for the top 10 origins

my motto:

ICID
Initiate, Create
Innovate, Disseminate

Thank you For Listening