EGM on Innovation and Technology for achieving the 2030 Development Agenda

The challenges
On the path towards an innovative environment

By Nicolas NAHAS
Definition

**Innovation** is the multi-stage process, whereby organizations **challenge themselves** to transform ideas into improved products, service or processes, in order to

- advance,
- compete
- differentiate

successfully in their marketplace.
R&D v/s GDP per Capita
Innovation the Path for Growth

• **Innovative effort is on the rise** as a share of economic activity.

• The importance of **innovation** has been reinforced both by **globalization** and by rapid advances in **new technologies**.

• A society’s ability to **increase** its wealth and welfare, critically hinges on its **potential to innovate, develop, exploit and diffuse knowledge**, thereby influencing growth.

• Since the Industrial Revolution, much of the **rise in living standards** is due to **innovation**.
BRIC’s Trade Pattern

The changing structure of BRIC’s\(^1\) manufacturing trade by technological intensity

1. BRIC: Brazil, Russia, India and China.

Source: OECD, Bilateral Trade Database.
WEF – GCI Index

GLOBAL COMPETITIVENESS INDEX

Basic requirements subindex

Pillar 1. Institutions
Pillar 2. Infrastructure
Pillar 3. Macroeconomic environment
Pillar 4. Health and primary education

Key for factor-driven economies

Efficiency enhancers subindex

Pillar 5. Higher education and training
Pillar 6. Goods market efficiency
Pillar 7. Labor market efficiency
Pillar 8. Financial market development
Pillar 9. Technological readiness
Pillar 10. Market size

Key for efficiency-driven economies

Innovation and sophistication factors subindex

Pillar 11. Business sophistication
Pillar 12. Innovation

Key for innovation-driven economies

See Appendix A for the detailed structure of the GCI.
Growth Type Economies

'factor'-driven economies, where countries compete primarily on the use of unskilled labor and natural resources and companies compete on the basis of price as they buy and sell basic products or commodities.

'efficiency'-driven economies, where growth is based on the development of more efficient production processes and increased product quality.

'innovation'-driven economies, where companies compete by producing and delivering new and different products and services by using the most sophisticated processes.
Arab Countries Rating

The World Economic Forum considers*

• Bahrain, Qatar and the United Arab Emirates as stage 3 economies, i.e. **innovation driven**;

• Egypt, Jordan, Morocco and Tunisia as stage 2 economies, i.e. **efficiency driven**;

• Lebanon, Oman and Saudi Arabia as in transition from stage 2 to 3.

• Mauritania and Yemen are in stage 1, i.e. **factor driven**;

• Algeria and Kuwait are transitioning from stage 1 to 2.

* ESCWA: The Innovation Landscape in Arab Countries A Critical Analysis
Arab Countries Rating

The knowledge economy


06/12/2017 NN Expert Group Meeting on Innovation and Technology
The Economics of Innovation

➢ Economic growth ➢ higher nation output

➢ Higher output ➢ higher added value, ➢ higher productivity, ➢ Innovation ➢ higher competitiveness

➢ Innovation pillars:Culture evolution
Government policy,
fund allocation
human education and skill
Policies Needed

UNCTAD has noted the “modest performance” of the national innovation systems in the region,

Thus, national development policies in Arab countries should include **innovation policies** that stress the following key aspects:

- It is important to consider *global knowledge and technology* in *national competencies* and when *drawing inspiration* from *local culture* and identity

- the importance of **political leadership** that inspires all economic sectors;

UNCTAD: UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Cultural Evolution

It is important to consider *global knowledge and technology* in *national competencies* and when *drawing inspiration* from *local culture* and identity that we build on:

- Human right and dignity
- Non-oppressive environment
- Freedom of mind
- Value driven v/s Rigid model, society
- Challenging culture v/s Resilience culture
Government Policy - 1

• **Political leadership** is needed to inspires all economic sectors and to engage the commitment of the deep state institutions

• **Update the regulatory and institutional framework** within which innovative activity takes place

• An **expansion in public research** can support business sector research.

• Government should act on:
  - Clear Vision and strategy how to reach a performant knowledge society. It is a holistic approach
  - Develop Infrastructure (legal, educational, economic, etc...)

Scientific Research and its Role in The Sustainable Development of Societies
The culture of scientific research from economic perspective
Government Policy - 2

- Mentoring programs that connect entrepreneurs with experienced business professionals
- Constant budget allocation and incentives
- Human capital and research development
- Incentive programs and tax abatements
- State-funded seed and venture funds
- Market sophistication enhancement
- Business sophistication
Innovation Enablers - 1

Recent analysis has shown that increases in R&D intensity and innovation are driven by a wide range of factors including:

1. Stable macroeconomic conditions and low real interest rates which encourage the growth of innovation activity by creating a stable and low-cost environment for investment in innovation.

2. Fiscal incentives, which can be effective in raising R&D, especially when firms face financial constraints.
Innovation Enablers - 2

3. **Tax relief** for private R&D is often found to provide a stronger stimulus to business R&D than direct government support.

4. **Availability** of internal and external **finance**.

5. **Openness to foreign R&D**, which is associated with higher productivity growth, especially when domestic R&D investment and capabilities are also high.
Gary Hamel Opinion

• **Gary Hamel** ranks as one of the world’s most influential business thinkers and leader in innovative management strategy (WSJ).

• He developed with [C.K. Prahalad](#) the **Core Competence Model**.

  “We've reached the **end of incrementalism**.

  Only those companies that are capable of creating industry revolutions will **prosper in the new economy**”
Gary Hamel Opinion

• “Today, we’re seeing the rise of the innovation economy, and those who cling to old ways of doing business are getting left behind.”

• Innovation by itself is not enough. Everyone is focused on creating innovations. To win, you need to create killer innovations which I define as:

  A killer innovation is what would be difficult to duplicate.

• In order to be a true leader in any industry, a business must focus on creating killer innovations.
Conclusion

• In innovation economics, innovation is viewed as a central tenet that
  • should be encouraged by government policies
  • bolstered by knowledge, technology, and entrepreneurship

• Quality in education and accumulation of knowledge heritage are keys to enable centre of excellence in R&D