Intellectual Property & Innovation for Economic Development

*a perspective on the wider impact of research, development and innovation*
Using science and technology to improve Jordanian lives and livelihoods
For Jordan since 1970

The RSS is an independent non-governmental, not-for-profit multidisciplinary science institution established by Royal Charter.

Founded in 1970 as a national organisation to actively support the development of Jordan with sound technical and policy advice, testing services and consultations.

Committed to building a sustainable knowledge-based economy in Jordan that can empower and retain talent, and bring greater prosperity to all.
iPARK, at the Heart of Jordanian Innovation

IPCO was set up in order to realize RSS vision, goals and policies especially those related to the economic development in Jordan.

IPCO is an advisory office and an IP agent serving all Jordanian innovators with a mission to help innovators gain.
IPCO Supporting the Innovation Ecosystem

- **Partnership** planning and matchmaking
- **Investment** advisory and deal making
- **Strategic** advisory and route to market
- **IP Policy** (governance frameworks)
- **IP strategy and implementation**
- **Jo Tech Transfer Network** central office
How do we Innovate? Why do we Innovate?

old industry vs. new industry
Terminology

Creativity: the use of imagination or original ideas to create something

Innovation: a creation of the mind that is new and non-obvious

Invention: technological solution to technical problem
Creations of the mind: Inventions; Literature, Arts, Music, designs, symbols, names, images (used in commerce).

IP is an asset, somebody owns it.

The right to use certain IP may be protected by law (intellectual property right).
Tradional Industry

Product Development Process

- Obtain legal license
- Build lab
- Install coffee machine
- Hire research team
- Hire admin assistants

- Proofs of principles
- New concepts 1-8, yay
- Conceptualize and more coffee
- Brain storm with coffee
- Study

- Seeking holiday
- Fall concept 1,2,3,5,6,7
- More testing and more coffee
- More proof
- Introduce dental plan due to industrial action

- Customer testing
- Beta version ok, smells funny
- More product development
- Prototype 8 works ok, maybe
- Concept 4 fail

- New Product offering
- Open shops
- Provide Finance
- Compete for Customers
- Profit??

Development is Long, Expensive, and Risky
Potential Economic Outcomes of Innovation

- Move ahead of competition
- New added-value features
- New aesthetic features
- Improvement in processes (cost, quality, ...)
- New pricing or marketing
- Improve logistics
- Relaunch existing product under new context
- Expansion into unconventional markets
A Balanced Solution

Reward innovation

• Inventors are safe from unfair competition (temporary or permanent)

Rewarding spreading of knowledge

• Inventors that spread knowledge receive (temporary) official protection
IP Leads to Investment

Successful management of patents leads to a new industry trend

Sometimes, no patent means society loses out! (new medicine)
Innovative Development

- Innovation starts with a team
- More development = more resources
- More development = more partnerships
- Significant capital is only required close to commercialization
New Industry/Economy

Technology moves forward through **partnerships**

Industry reduces risk and cost by shifting early development to the wider global community

The smallest innovator in smallest institution in smallest country can have a **BIG** role in development and enterprise
Innovate or Perish

attitudes and macroeconomic consequences
Innovate or die

I: Introduction  II: Growth  III: Maturity or Stabilization  IV: Decline

Annual Sales Volume vs. Time
Innovate or die

I: Introduction  II: Growth  III: Maturity or Stabilization  IV: Decline

Annual Sales Volume vs. Time

12/15/2019, Cairo
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Innovation is most closely associated with finding **added value**, making the most of what you have, beating the competition…

The more innovative you are (comparatively), the more you are ahead of the competition.

Does this translate to the macroeconomy?
Research and Development Index (RDI) as an indicator for Economic development, *E.M.R. Kiremire, Faculty of Science, University of Namibia*

RDI can be utilized as a good indicator to determine the level of economic development of countries

So.... What is this “evidence” telling us?
Too Much of a Good Thing?

More R&D $\rightarrow$ more firm survival

Too much R&D $\rightarrow$ creative destruction

Inverted-U relationship between R&D intensity and survival: Evidence on scale and complementarity effects in UK data

Mehmet Ugur, Eshref Trushin, Edna Solomon

*University of Greenwich Business School, United Kingdom
*Durham University Business School, United Kingdom
Too Much of a Good Thing?

More IP Protection → more innovation

Too much protection → suppress innovation

Economics Letters
Volume 109, Issue 2, November 2010, Pages 99-101

Intellectual property protection and innovation: an inverted-U relationship ★

Yuichi Furukawa ★, ★
Conclusions

RDI might not lead to economic development

But sustainable economic development is unlikely to come without RDI

Economic strategy must incorporate RDI considerations

In a knowledge economy, knowledge is the product

RDI can grant a firm/economy competitive advantage out of (almost) nothing (Swiss model?)
New Paradigm

Modern Industry

Knowledge is a factor of production, just like raw materials

Knowledge Economy

Technology is a product!
Business Planning in a Modern World...

A partnership plan is the only plan worth making!