

# **Non-Technological Innovation for Growth and Jobs**

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## **Global Trends in Knowledge Economy**

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# Issues

**Definitions of Knowledge Economy**

**Growth of Innovation Hubs**

**Implications for Non-Technological Innovation**

**Project: Slovenian Innovation Hub**

# Knowledge-based Developments

More than ever in the past – particularly over last 30-40 years -- companies, cities, regions, and countries increasingly **systematically** build development strategies on high value-added activities, characterized by important knowledge and innovation components.

They make **systematic efforts** to improve living conditions for their members and strengthening general welfare through enhancing their economies' competitiveness based on knowledge and innovation.

The process of **globalisation**, and the **information revolution** have enhanced these trends by making many economic activities subject to global competition: products, as well as services.

# Defining Knowledge Economy

**Knowledge economy** -- and indeed **knowledge society** -- is a mature community which has accepted **knowledge and innovation as key values**, and recognizes each member's contribution to satisfying the legitimate, sustainable needs as well as finding the solutions to problems faced by the society.

This concept is built on the **balance between the forces of market, and role of government** in securing public interest and support the weaker members of society.

# Defining Knowledge Economy - 2

The **World Bank** defines four major pillars (2002) :

(1) a supportive **economic and institutional regime** to provide incentives for the use of existing and new knowledge and entrepreneurship;

(2) an **educated and skilled population** to create, share and use knowledge;

(3) a **dynamic information infrastructure** to communicate, disseminate, and process information;

(4) an efficient **innovation system of firms, research centres, universities, consultants**, and other organizations to tap into the stock of global knowledge.

# Defining Knowledge Economy - 3

N.E. --- is an economy in which growth is dependent on the **quantity, quality, and accessibility of the information available**, rather than the means of production.

**Professor R.A. Mashelkar** claims that in modern economy „**we are all knowledge workers**“ **WHY?**

**Not just because we are better educated and equipped with competences, but primarily because we know what we are doing, we know why we are doing it, and we are aware of our work's consequences.**

Obviously most politicians do not belong to the category of „knowledge workers“!?

# Advantages of Knowledge Economy

Why is K.E. becoming the **strategic target** and **preferred policy orientation**?

## Major advantages:

- **less dependence** on limited natural, and more **optimal use of human resources**;
- **higher productivity**, thanks to creativity enabling technological & social innovation, making business sector more profitable, and reducing the cost of social services – leading to prosperity (hopefully for all?);
- bigger **flexibility and adaptability** of the economy to accelerated pace of change;
- **rule of law and quality governance** at all levels, consensual democracy with high level of public participation, and transparent procedures and responsible administration – independent of ruling political parties;

# Explosion of Innovation & Entrepreneurship Support Environments

- **Governmental departments** for science, higher education, innovation, technology, and entrepreneurship (but not yet for creativity, social innovation, only Korea for K.E., now for science, IT and planning the future);
- **Funding agencies** for R&D, and entrepreneurship (specially start-ups);
- A real explosion of **industrial, science & technology parks, „technopoles“ , incubators, clusters, and more recently innovation hubs** -- basically attempts to copy „Silicon Valley“ (unique also in US – turnover 250 bn \$);
- Central idea: concentration of R&D capability, interaction with entrepreneurs and investors (particularly VC);
- Often „technology park“ just **a physical facility** (premises) rented favourably to young entrepreneurs – little or no R&D or marketing interaction among them;

# Explosion of Innovation & Entrepreneurship Support Environments 2

There is hardly any country in the world without innovation hubs of some sort, public, public-private, or completely private establishments:

In France, Belgium - **Technopolis**

Gulf states they have Knowledge Cities

Swedish Incubators & Science Parks (SISP) is national association for business incubators and science parks -- a non-profit association with national coverage, its **65 members** (organizing 43 business incubators and 33 science parks) having **5,000 companies** with more than **70,000 employees**.

# Slovenian Innovation Hub

Initiative: UNI LJ, UNI Primorska, Development Agency of Ljubljana Urban Region, Jozef Stefan Institute, Ljubljana Technology Park, SBRA, several companies.

## Objectives:

- Facilitate collaborative projects among R&D and business community;
- Support start-ups by connecting them to possible partners and investors;
- Encourage regional (axes: Trieste-Ljubljana-Maribor-Graz) and more international collaboration;
- Develop links with relevant centres of excellence (particularly in life sciences).

Legal Form: European Economic Interest Grouping (EU Regulation of 1983);

Funding: Hub Members, EU funds, Slovenian Government, foreign partners.