

# ~~REVIEW~~

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CHAPTER 6 Innovative Entrepreneurship

CHAPTER 7 The Role of Innovation in International Economic Integration

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**INNOVATION PERFORMANCE REVIEW OF TAJIKISTAN 2015**

# GOALS

- Estimate the clarity of state-of-the-art to a non-expert in the specific country situation
- Focus attention on critical points of the subject
- Suggest additional recommendations

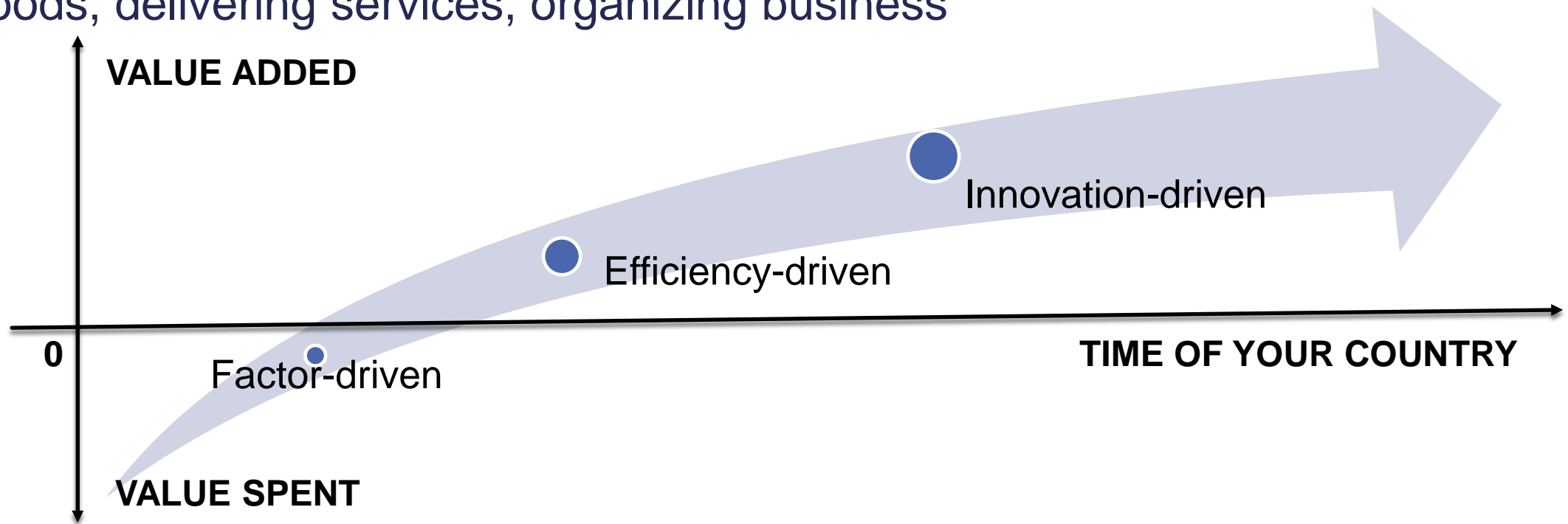


# CHAPTER 6 Innovative Entrepreneurship



# WHY INNOVATIVE ENTREPRENEURSHIP?

- Schumpeter (1912): *The role of entrepreneur is to "reform ...the mode of production by searching for inventions ... or untested technological capabilities"*.
- It drives the development of economy by finding new and better ways of producing goods, delivering services, organizing business



# KEY CONSTRAINTS FOR INNOVATIVE ENTREPRENEURSHIP IN TJ

Corruption & bribery  
Unclear and contradicting laws  
Frequent revision of legislation  
A large number of sublaws  
Law enforcement  
Red tape  
Quality of public services

Rules

Knowledge

Technological readiness  
Higher education and training  
Innovation management skills  
Skills for business internationalization  
Competencies of policy-makers and policy-implementers

Electricity connection  
Connectivity and digital divide  
R&D infrastructure

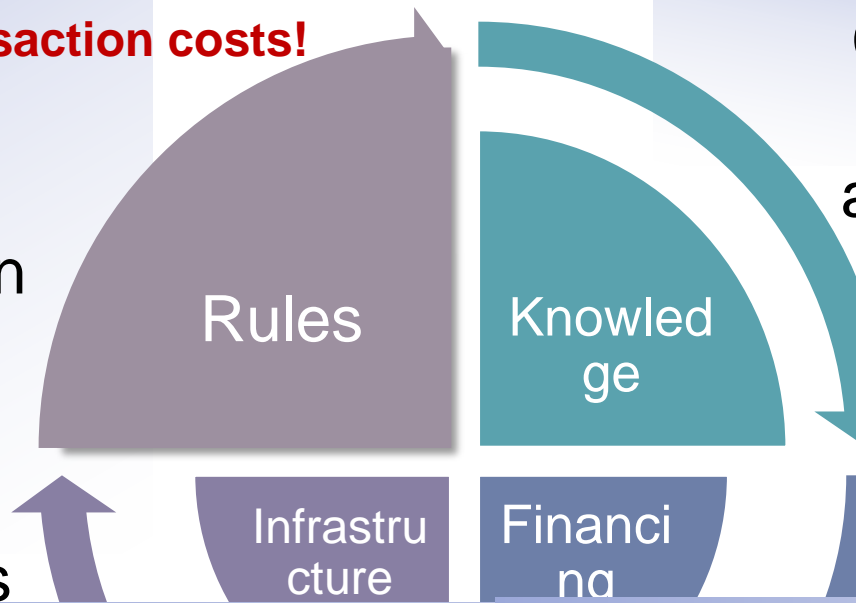
Infrastructure

Financing

High instability of financial sector  
Access to financing  
Tax rates and regulation  
Loan collateral

# KEY CONSTRAINTS FOR INNOVATIVE ENTREPRENEURSHIP IN TJ: INSTITUTIONS

- Corruption & bribery **Transaction costs!**
- Unclear and contradicting laws
- Often change of legislation
- Law enforcement
- Red tape
- Quality of public services
- Government effectiveness



## Competencies of policy-makers

- **More training at both high and local level**
- **National Strategy for Innovative Development**
- **Empowerment of bodies to fulfill + allocation of resources, also for training**

## IMPLEMENTATION OF REFORMS

- Business associations not adequately involved
- Ministries and agencies do not feel ownership of the reforms
- Insufficient assessment of funding required for implementation of new laws

- **Invest more in preparatory work, feasibility studies, survey of related stakeholders**
- **Field studies and pilot testing of new policies**

# KEY CONSTRAINTS FOR INNOVATIVE ENTREPRENEURSHIP IN TJ: INFRASTRUCTURE

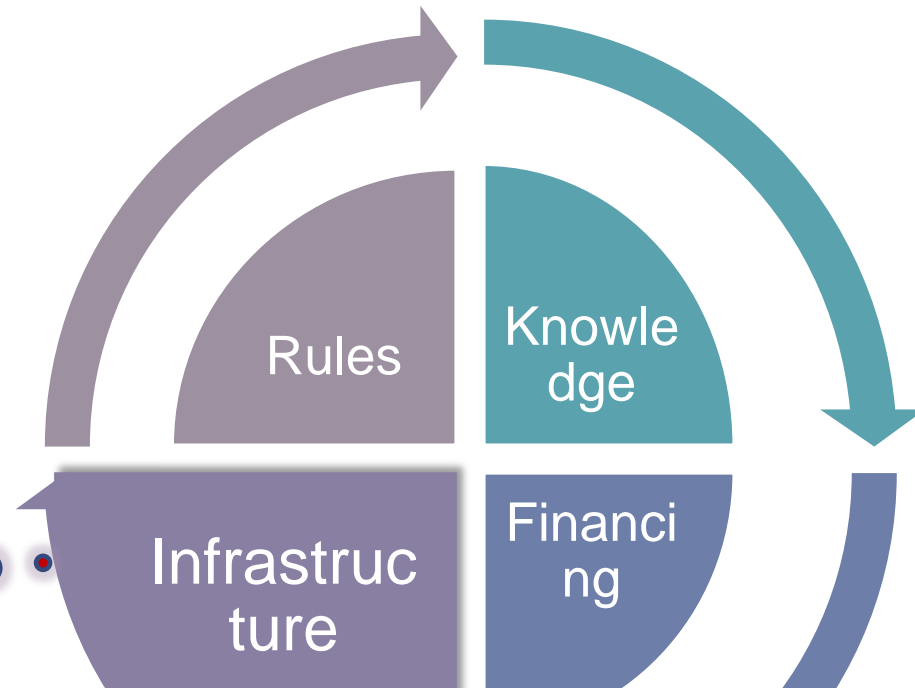
- Corruption & bribery
- Unclear and contradicting laws
- Often change of legislation
- Law enforcement
- Red tape
- Quality of public services

State information systems



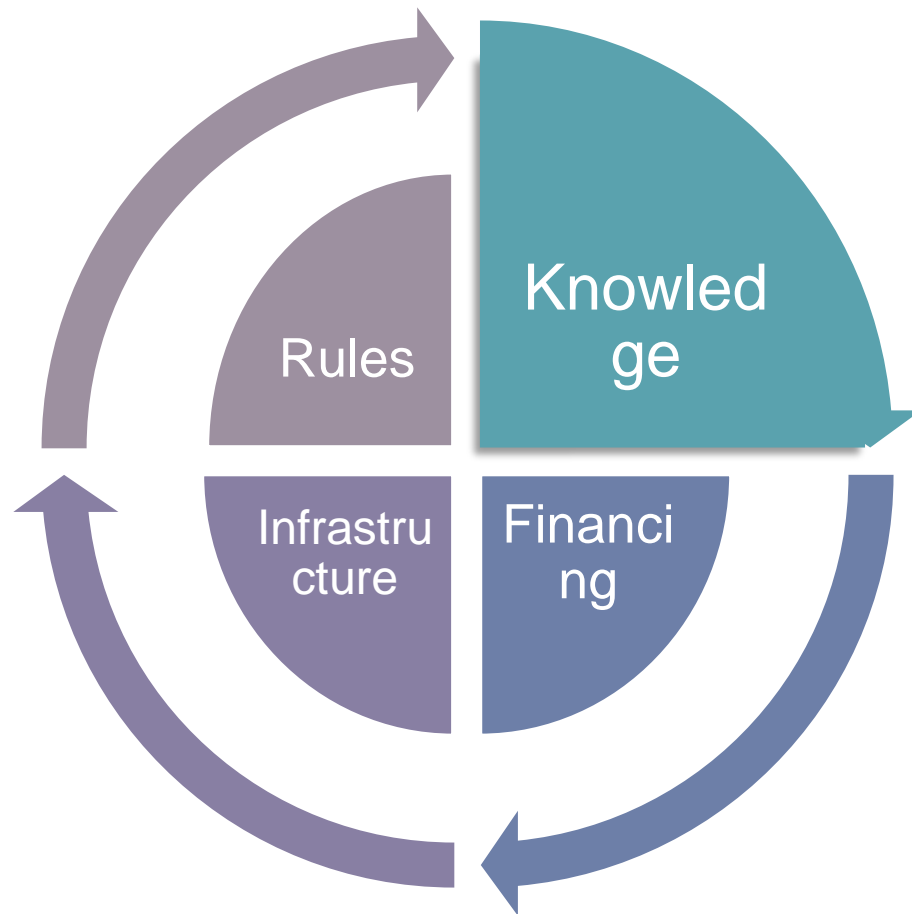
G-Cloud

Electricity connection  
Connectivity and digital divide  
R&D infrastructure



**Internet will be the unique chance for development of international entrepreneurship given the weak industrial basis, low technological development capacities and low primary capital accumulation by population!**

# KEY CONSTRAINTS FOR INNOVATIVE ENTREPRENEURSHIP IN TJ: KNOWLEDGE & TECHNOLOGIES



Technological readiness  
Higher education and training

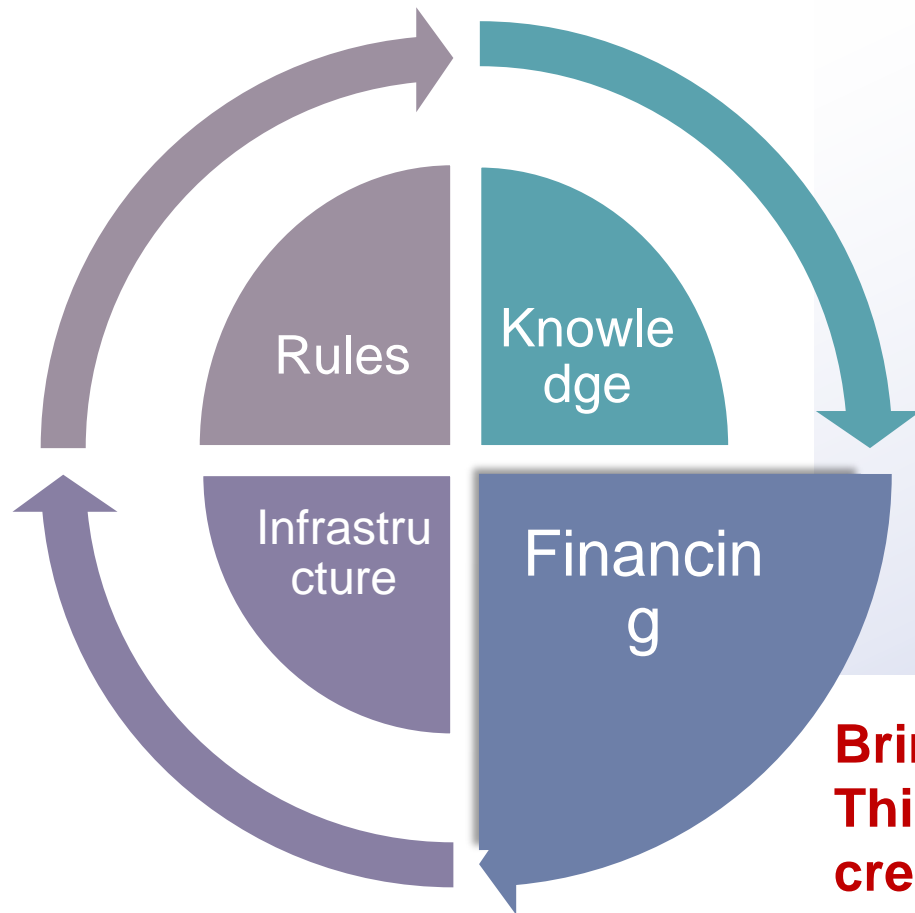
Innovation management skills  
Skills for business internationalization

Competencies of policy-makers &  
implementers

Analytical and evaluation capabilities to  
assess the innovation policy performance  
Poor professional education for civil services  
Brain-drain of ministries' staff, low incentives



# KEY CONSTRAINTS FOR INNOVATIVE ENTREPRENEURSHIP IN TJ: FINANCING



## HIGH INSTABILITY OF FINANCIAL SECTOR:

Inflation

Low trust in bank system

Low deposits of population, including labour migrants

High dollarization of deposits

Low share of firms using bank system

## TAX RATES AND REGULATION

**Bring inflation to natural level.**

**This is a critical condition for passing from bank credits and foreign investments to domestic financing of innovative start-ups.**

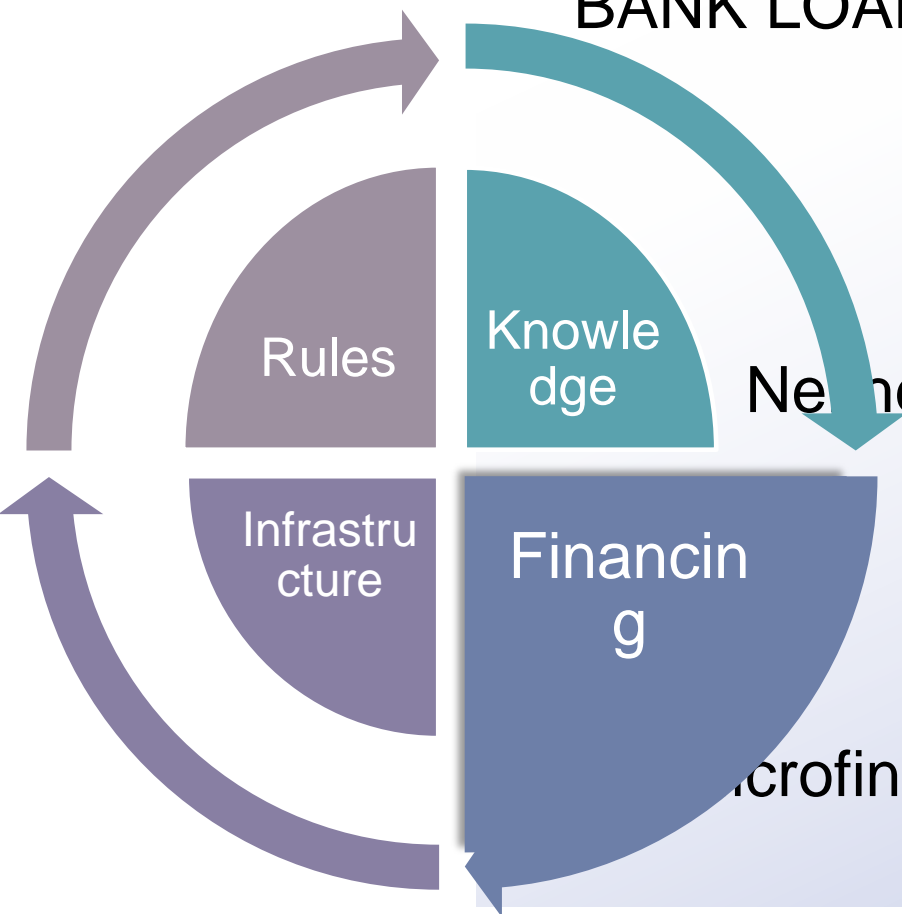
# KEY CONSTRAINTS FOR INNOVATIVE ENTREPRENEURSHIP IN TJ: FINANCING

## BANK LOANS FOR TECHNOLOGIES ADOPTION & INNOVATION:

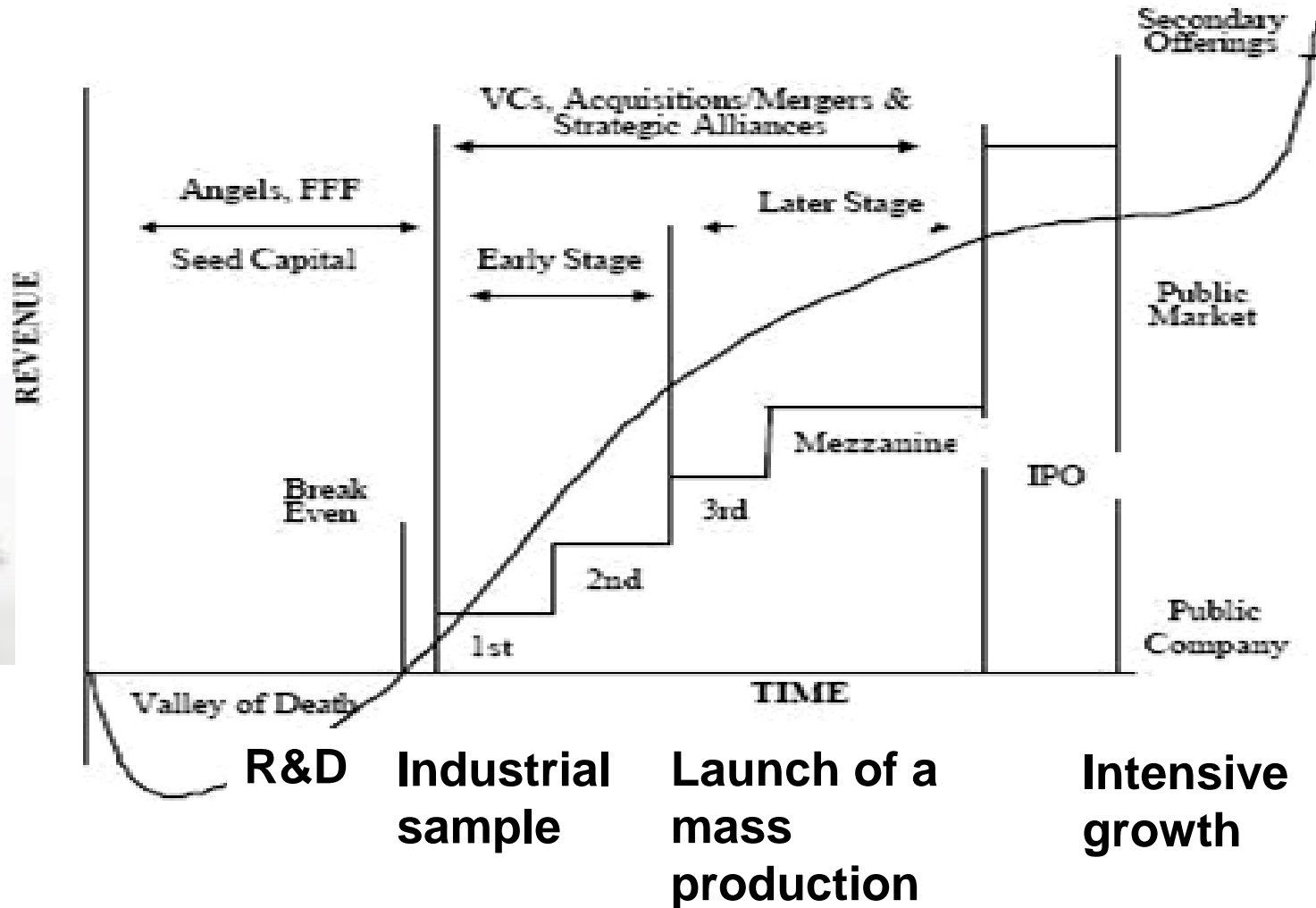
Bank loans too expensive and short-term  
Insufficient skills & tools to assess borrower risk  
Lack of transferable land-use rights  
Very high loan collateral requirements  
Neither land nor movable property can be used as a collateral

## VARIETY OF FINANCING SOURCES:

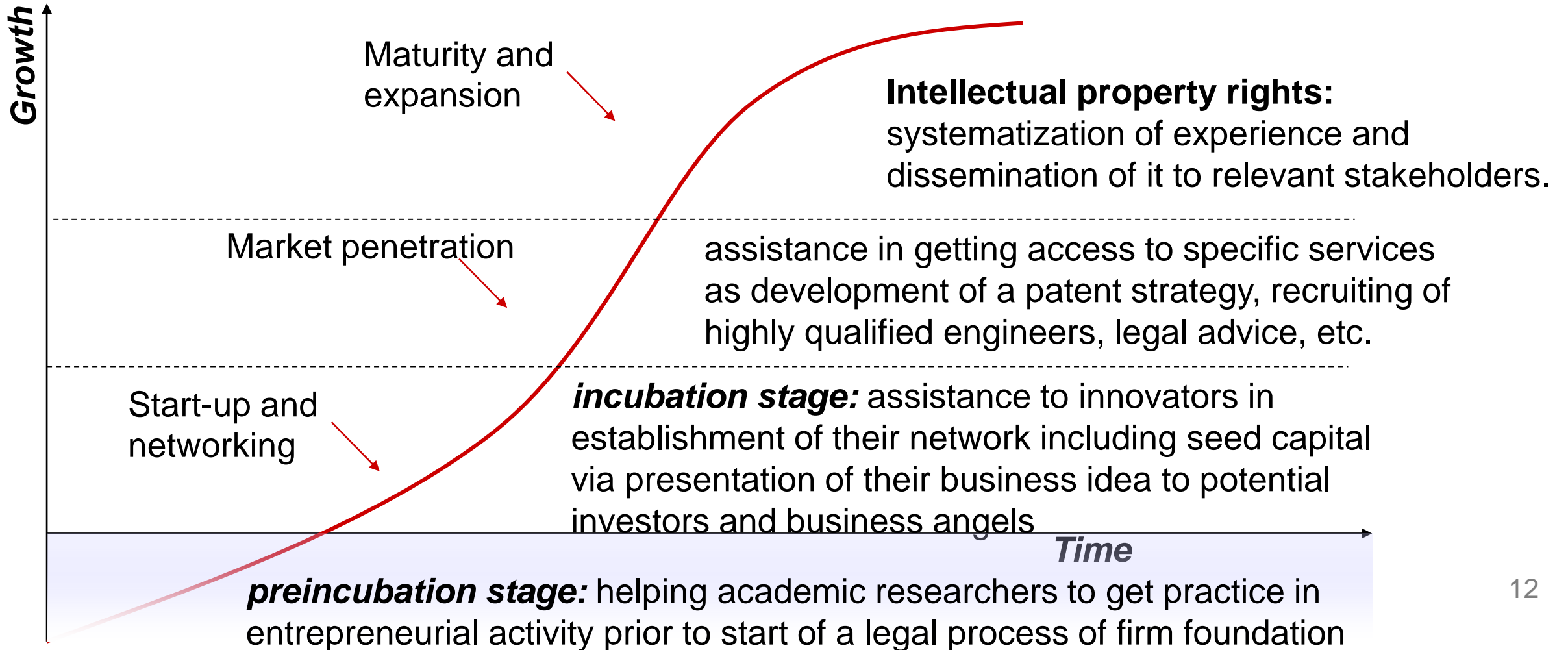
No venture capital  
No financing through local equity market  
Microfinancing, credit guarantee scheme, subsidised credit lines are available but their resources are insufficient



# STARTUP FINANCING CYCLE



# REQUIRED SET OF SUPPORT TOOLS FOR RSOs: EVOLUTIONARY APPROACH





# CHAPTER 7 The Role of Innovation in International Economic Integration

# WHY INTERNATIONAL ECONOMIC INTEGRATION FOR INNOVATION?

## Resources:

access to lacking knowledge and competencies;  
access to new technologies;  
labour;  
capital

## Processes:

creation of new workplaces for researchers;  
stimulation of distribution of tacit knowledge

## Results:

targeted results of joint R&D;  
by-products of scientific research

## «Soft» factors of future cooperation development:

accumulation of combinatorial knowledge (experience => efficiency growth);  
long-term institutional linkages;  
personal networks of researchers

## FURTHER RECOMMENDATIONS

- Apply the “**smart specialization**” concept (D. Foray, 2011) as a framework to assess and prioritise subindustries with international competitive advantage for the targeted industrial and innovation policy.
- “**Partisan**” strategy for enterprises in the international market: find empty niches and maintain leadership there
- Continue attracting foreign investors by developing an **inward FDI-strategy** that would target FDIs’ activity to shape the advanced technological structure of economy:
  - incentives to come to the country (framework conditions + specific stimuli like taxation incentives),
  - orient into specific industries and innovation-intensive activities,
  - make knowledge transfer and training an obligatory condition.

## FURTHER RECOMMENDATIONS-3

- Establish links with **MNCs** (those already invested in TJ and those not present in the country but possessing competencies in the subindustries selected according to the “smart specialization” framework) for **students internships** at Master and PhD level, i.e. starting with Presidents’ International Scholarship Programme
- Promote links of **TJ enterprises with foreign academic institutions** in R&D and modernization projects, including from ex-Soviet Union countries, using them:
  - as a source of inexpensive technological solutions that can be tailored to the needs of Tajik enterprises (“technology localisation”);
  - as a source of all types of training;
  - for twinning and joint application for EU funds.



## FURTHER RECOMMENDATIONS-3

- Approach China for cheap solutions and all types of training, incl. innovation management and international marketing, capital and networks to VCs and MNCs
- Approach Scandinavian countries (esp. Finland and Sweden) for infrastructure development projects and rural areas support
- Approach USA for developing the state registries and information systems for combating illegal traffic and terrorism, including electronic IDs; for support of innovation projects and start-ups in agriculture, food and water safety, and energy provision
- Approach Belarus for machine-building, metal processing, construction and oil processing technological solutions



THANK YOU!

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