

KNOWLEDGE TRANSFER BEST PRACTICES AMONG APEC ECONOMIES

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POLICIES FOR KNOWLEDGE TRANSFER IN THE HEALTH SECTOR

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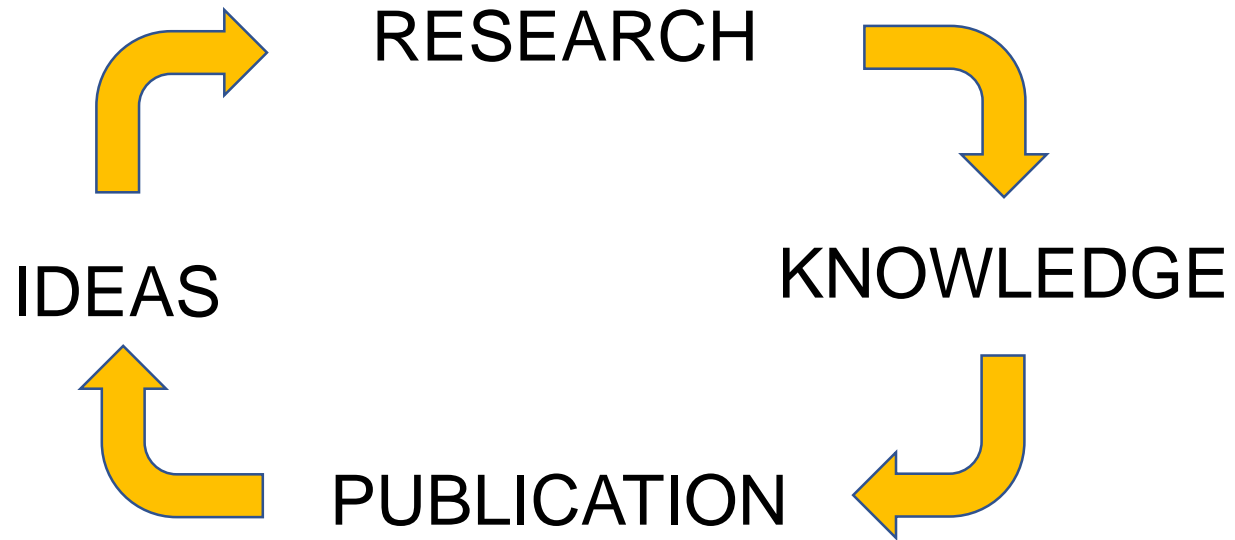
Introduction

- Studies have shown new trends in intellectual property (IP) policies at public research organizations (PROs)(OECD, 2003):
 - Increased protection of IP by public research organizations
 - National legislative reforms
 - Closer interaction with industry
 - Strengthening of IP rights in the knowledge based economies.
- A more active IP position by PROs raises a number of policy issues.
- As a result, policies on ownership of IP and transfer of knowledge have been adopted by most PROs worldwide.
- Although legislation is not the only policy option, establishing guidelines can help: greater coherence in national rules might induce cross-border harmonization.

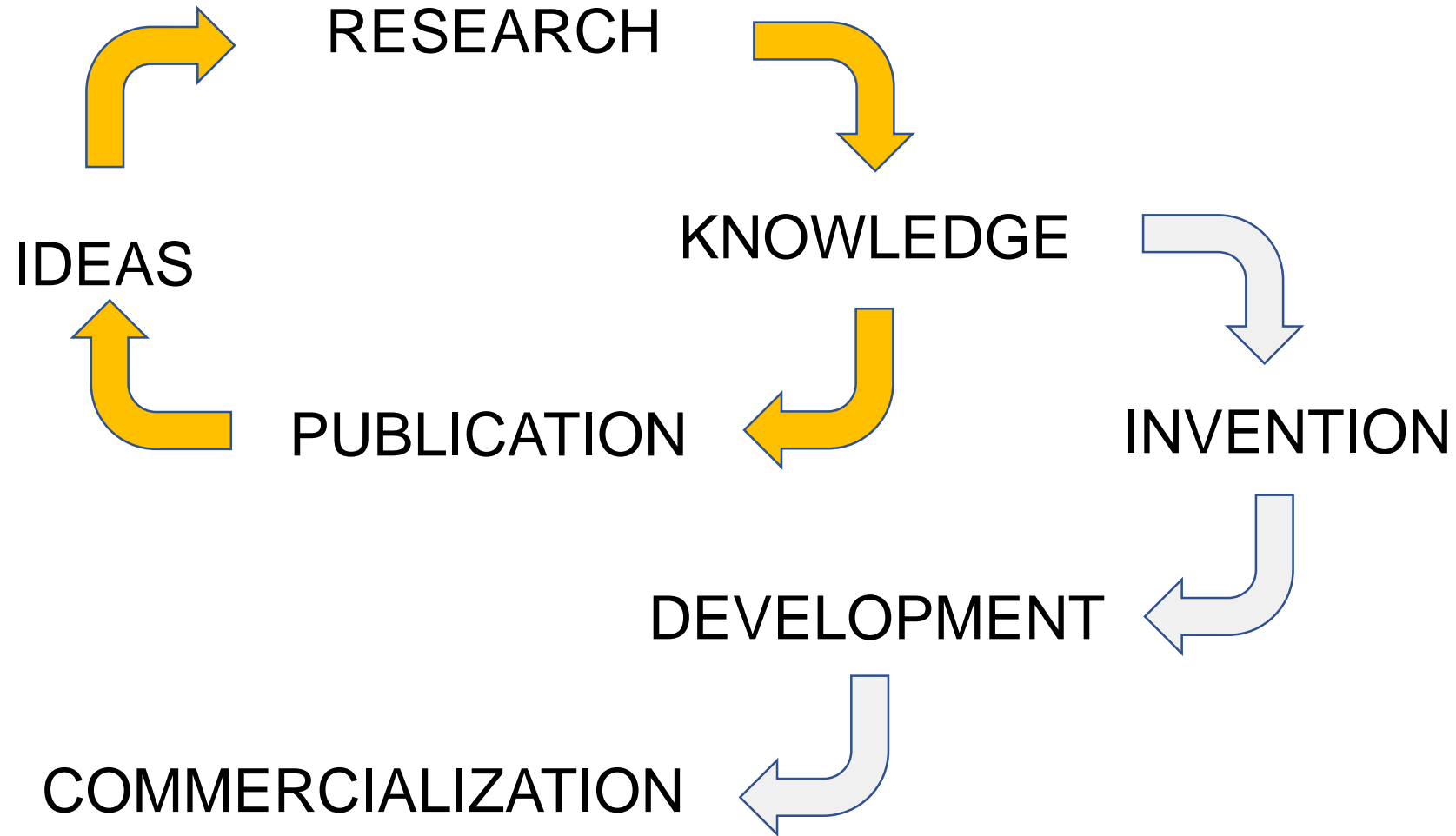
WHAT ARE POLICIES?

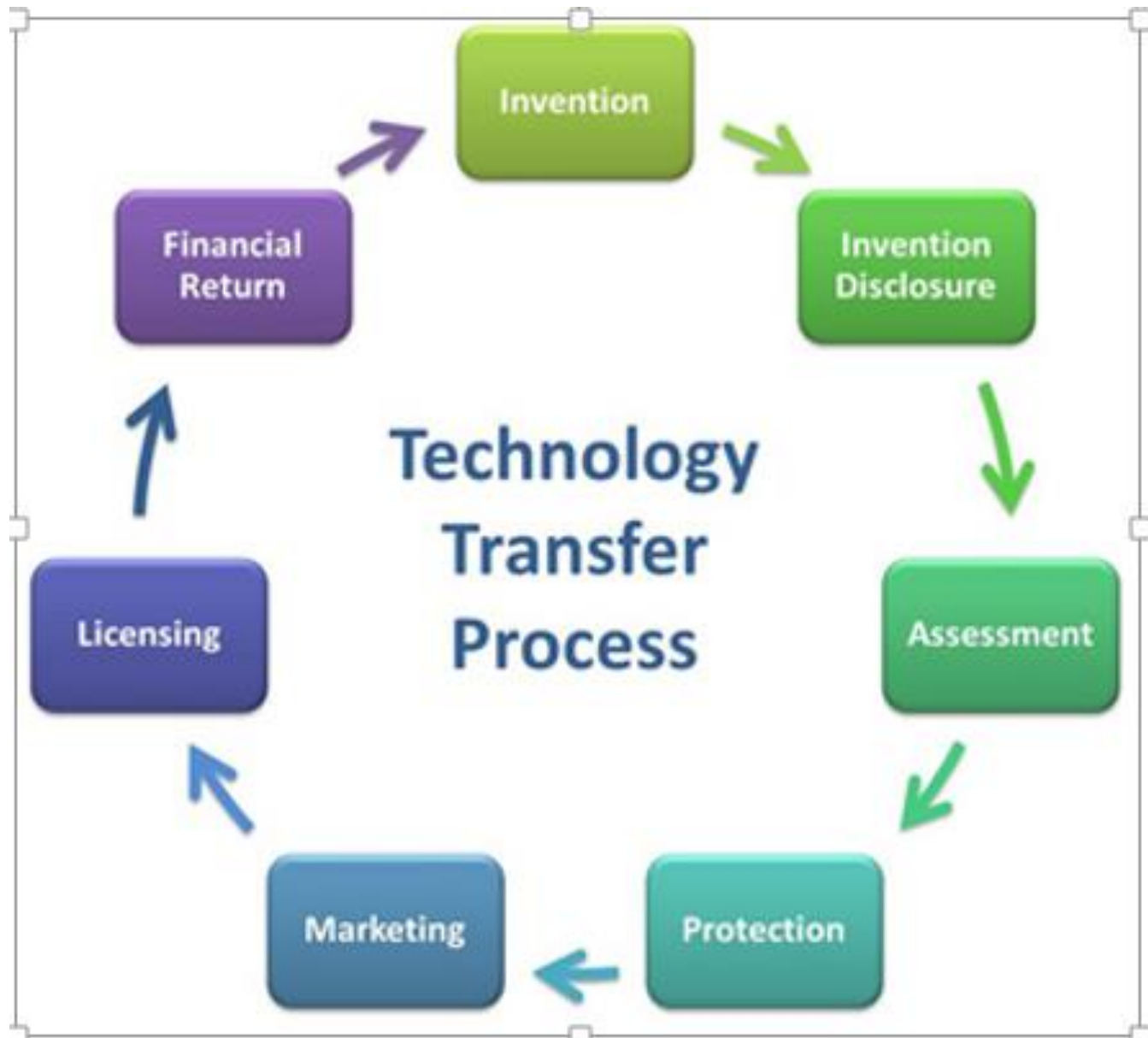
- They are rules or guidelines that express the **limits** within which an action must take place. These rules can often take the form of contingent decisions to resolve conflicts between specific objectives (Quinn, 2001).
- Also in politics there is a hierarchy throughout the organization.
- Important policies that guide the overall direction and position of the entity or determine its viability are called strategic policies.
- Institutional policies for IP protection and knowledge transfer are a fundamental instrument to support the actions of managers and to legitimize their decisions in negotiations with external partners.

From Ideas to Knowledge: Publish **OR** Patent?



From Ideas to knowledge and commercialization: Publish **AND** Patent





WHAT ARE IP AND KT INSTITUTIONAL POLICIES FOR?

- Define the obligation of employees, students, volunteers, visiting researchers
- Obligation to report disclosures
- Define the process of decisions regarding the management of intellectual property and knowledge transfer
- Royalties Division and sharing of economic gains with inventors
- Differences between patent and copyright procedures
- Creation of start-ups by researchers and equity share of academy in start-up companies.

MAIN TOPICS IN POLICIES FOR KNOWLEDGE TRANSFER

- Objectives
- Scope
- Ownership
 - Who owns the ownership rights related to intellectual creations developed in the institution?
 - Co-ownership
- In case there is no institutional interest
- Rights and duties of the inventor / researcher / student
- Duties in the use of confidential information

MAIN TOPICS IN POLICIES FOR KNOWLEDGE TRANSFER (2)

- Disclosure of the invention and conditions for publication - articulation with the research policy of the institution
- Patent filing process
- Preliminary assessment
- Decision-making process
- Costing
- Filing inside the country and / or abroad
- Technology/knowledge transfer
 - Conditions
 - Exclusivity
 - Not exclusive

MAIN TOPICS IN POLICIES FOR KNOWLEDGE TRANSFER (3)

- Sharing economic gains with inventors
 - Conditions
 - Percentage distribution
- Use and transfer of biological material - in accordance with:
 - National current legislation
 - Institutional guidelines
 - Research ethics committees
- Indispensable conditions
 - Precautions
 - Owner's consent

MAIN TOPICS IN POLICIES FOR KNOWLEDGE TRANSFER (4)

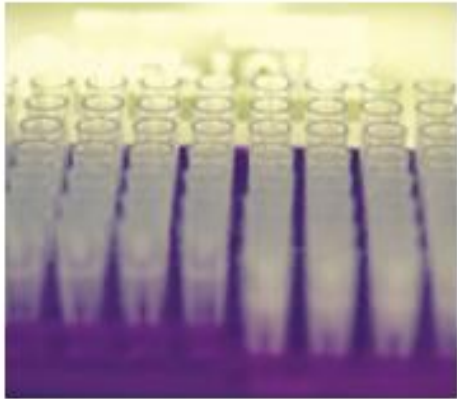
- IP rights in cooperative projects with companies
 - Formalization in legal instruments
 - Ownership
 - Economic exploitation
 - Deadline for use of priority right
- Companies' employees participation in intellectual creation
- Penalties
 - Measures to ensure the commitment of university community to institutional policy

KNOWLEDGE TRANSFER IN THE HEALTH SECTOR

Source: International Federation of Pharmaceutical Manufacturers & Associations (IFPMA),

- Knowledge transfer in the health sector is more than a question of “bricks and mortar” or providing a “tool box”.
- It involves many channels, all of which improve the economic capabilities of the recipient firm or institution.
- What is transferred may be a physical object or it may be pure knowledge.

Knowledge Transfer in the Health Sector



"Techno-ware":

For the pharmaceutical industry this would include the transfer of physical objects such as equipment for use in research laboratories or production equipment for the manufacture of pharmaceutical ingredients, or the formulation or packaging of final products.



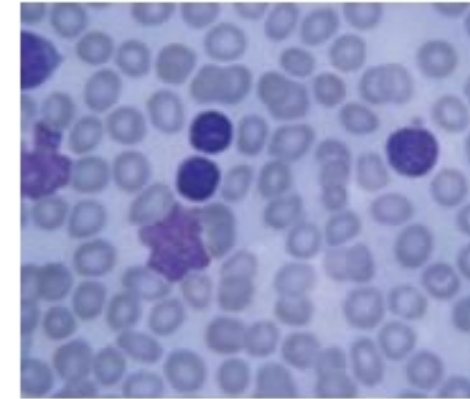
"Human-ware":

Skills and human aspects of technology management and learning, such as training for researchers or general practitioners. KT can also create positive spillover effects into associated industries and into the supporting public sector research infrastructure.



"Info-ware":

All techniques related to knowledge, information, and technology, in the form of a technology license.



"Orga-ware":

organizational and procedural knowledge needed to operate a given technology relating to a chemical or biological compound.

A check list for a national policy for knowledge transfer in the health sector



A VIABLE AND ACCESSIBLE LOCAL MARKET



POLITICAL STABILITY AND TRANSPARENT ECONOMIC GOVERNANCE



PROPER ACCESS TO INFORMATION



ADHERENCE TO HIGH REGULATORY STANDARDS



APPROPRIATE CAPITAL MARKETS



INNOVATION-FRIENDLY ENVIRONMENT WITH SOUND INTELLECTUAL PROPERTY RIGHTS



SKILLED WORKFORCE



CLEAR ECONOMIC DEVELOPMENT PRIORITIES



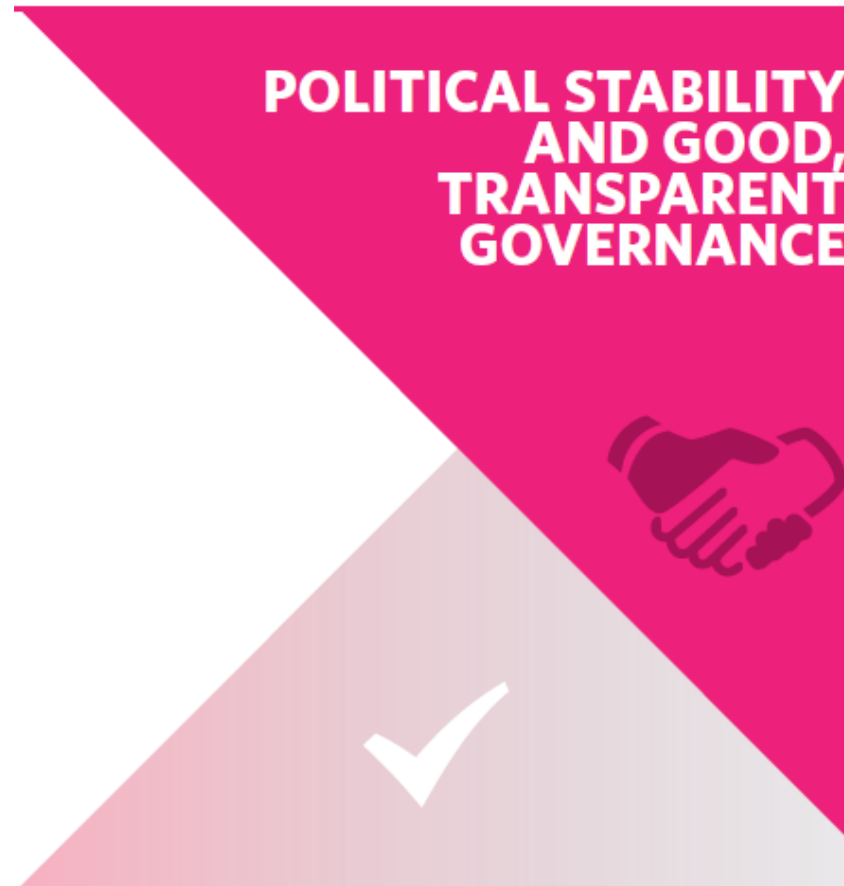
- Market size and/or prevalence of certain diseases.
 - National healthcare systems can be a valuable information source.
- Market equally accessible to domestic and foreign enterprises.
 - Access to the national market by foreign companies can help the dissemination of new technologies, especially in the area of pharmaceuticals.

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- Political and economic stability, including predictability in industrial policy-making.
- Political will to address health challenges and strengthen the capacity of the healthcare system.



Source: IFPMA Technology Transfer: A Collaborative Approach to Improve Global Health

- Effective systems for disseminating market-relevant information for technology holders and technology demanders to identify potential partners



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- Internationally recognized regulatory standards in place
- Efficiency in processing product registrations and other applications

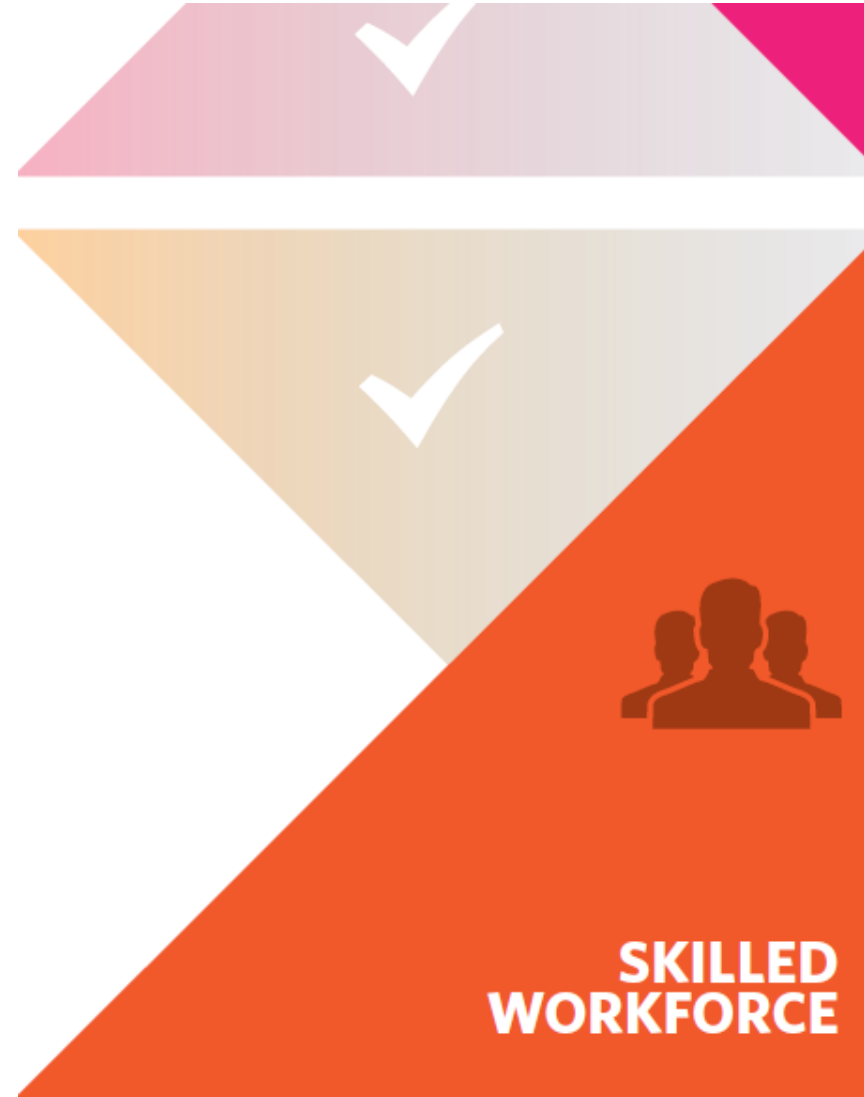
- Sufficient resources to meet high quality and safety standards
- High-quality facilities and equipment for scientists and healthcare professionals
- Promotion of inward investment through incentives designed to encourage tech transfer from foreign companies



- Strong legal framework and enforcement ensuring secure intellectual property rights, data confidentiality, transparency and certainty for investors, licensees, and customers.



- Educated workforce with engineering and management skills.
- Free movement of scientists and other experts strengthen healthcare system capacity.



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CLEAR ECONOMIC DEVELOPMENT PRIORITIES



- Promotion of technology transfer matching overall economic policy goals.
- Investment in domestic healthcare systems and infrastructure as a priority in the development agenda.

Source: IFPMA Technology Transfer: A Collaborative Approach to Improve Global Health

Final Considerations

- The immediate objective in policy planning should be to give **transparency**, **strengthen capacity** and to **understand the appropriate framework** to facilitate knowledge/technology transfer.
- The newly industrialized countries will have a key role to play over the medium term in **promoting innovation** as part of their **economic development**.
- Focus on technology for which there is a **demand from local companies** and **markets** as this will motivate local companies to develop **innovation projects** to suit **local needs and markets**, and will generate **spillover benefits** that can be captured by the **local economy**;
- Share knowledge about management of the public/ private research interface.

Final Considerations

- To optimize their **national innovation systems**, enhance **sustainability**, and realize **maximum benefits** from globalization, governments should:
 - Provide **support** for the healthy development of national private sectors and implement a welcoming policy environment to **leverage global partnerships**;
 - Create funds for **financing prototypes and proof of concept**;
 - Finance **translational research** to promote the development of **new drugs** to consolidate the domestic industry and broaden the **benefits to society**;
- **Improve and strengthen** the role of the **national intellectual property system**, which is integral to efforts to promote learning from technology transfer and follow-on innovation;
- Establish special trust funds to support **training of scientific and technical personnel**.

THANK YOU

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