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# **THE CATALYTIC ROLE OF PATENTS & UTILITY MODELS IN THE PROMOTION OF TECHNOLOGIES AND INNOVATION: EAC REGIONAL PERSPECTIVE**

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# PRESENTATION OUTLINE

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- Introduction
- Overview of Intellectual Property Rights (IPRs)
- Role of Patents & Utility Models in Technology Life Cycle
- Role of Patents & Utility Models in Promoting Innovation
- EAC Regional Perspective: Role of Patents & Utility Models in Innovation
- EAC Regional Perspective: Required Interventions

# INTRODUCTION

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- The **Technology Life Cycle (TLC)** can be divided into distinct phases;
  - Invention
  - Research and Development (R&D) or Design Modification
  - **Intellectual Property (IP) Rights Protection**
  - Product development
  - Exploitation – marketing, commercialization, uptake and diffusion
- Different **instruments** can be employed to promote innovation during each of these phases.
- These instruments include **Intellectual Property Rights (IPRs)**.
- In their fullest context, IPRs pertain to “**the ownership of intellectual findings in industrial, scientific, literary and artistic fields**”.

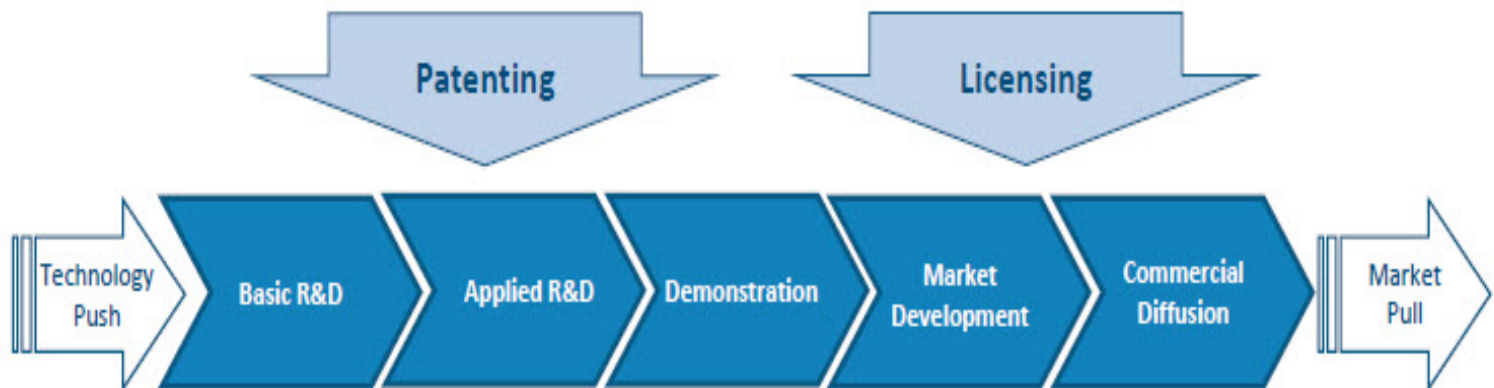
# OVERVIEW OF INTELLECTUAL PROPERTY RIGHTS (IPRs)

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- IPRs are instruments that grant inventors certain **exclusive rights** over their creations, in order to **promote innovation and creativity**, by ensuring a fair return on their investments.
- IPRs were traditionally divided into two categories; **Industrial Property Rights** and **Copyright**.
- Industrial Property Rights pertain to innovative ideas or distinguishing signs or designations in industrial & commercial fields and include; **patents**, **utility models** and **industrial designs** for the protection of inventions as well as **trademarks** and **trade secrets**.
- Copyright pertains to rights accorded to creators for their literary and artistic creations (e.g. books, music, art, films etc).
- Other IPRs have come to prominence in more recent years, including; **geographical indications**, **seed & plant varieties** and **circuit layouts**.

# ROLE OF PATENTS & UTILITY MODELS IN TECHNOLOGY LIFE CYCLE

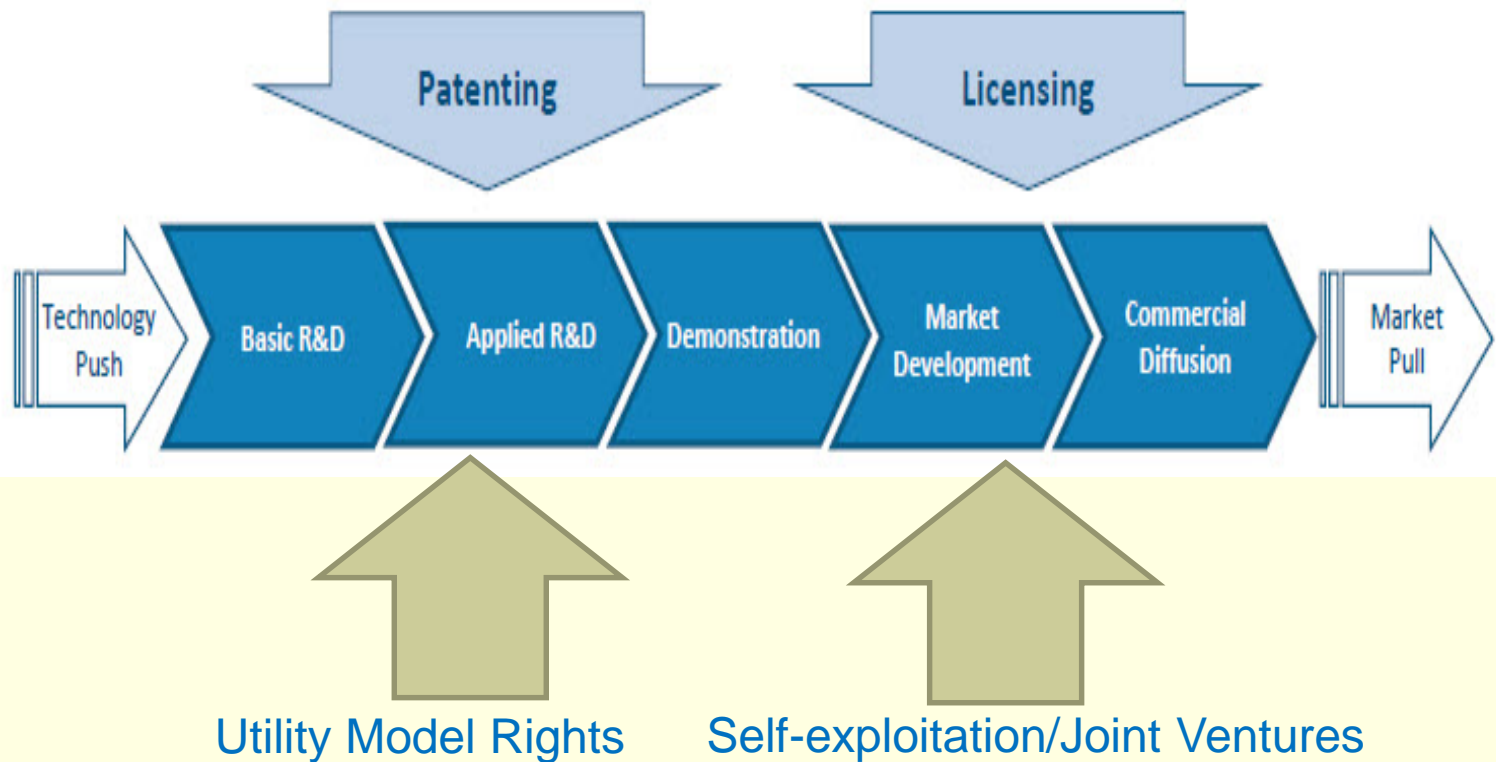
- Patents & Utility Models protect the outcomes of innovation (“inventions”).
- They facilitate advances throughout the technology life cycle, from inception (“technology push”) to market (“market pull”).



- In recent years, **Utility Model rights\*** have evolved to play a prominent role to in this space.

\*The traditional context of invention and innovation has related to the creation of entirely new products and processes. However, the essence of invention has grown to embrace “significant improvements to known products and processes”. It is these that are eligible for Utility Model rights.

# ROLE OF PATENTS & UTILITY MODELS IN TECHNOLOGY LIFE CYCLE...



- Self-exploitation and joint venture approaches are also playing a more prominent role in Patent & Utility Model utilization.

# ROLE OF PATENTS & UTILITY MODELS IN TECHNOLOGY LIFE CYCLE...

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- Patents and Utility Models play a “catalytic role” in the promotion of technology and innovation by;
  - Enhancing the credibility and visibility of inventors and their innovations.
  - Enabling inventors/innovators to appropriate returns on their R&D and product development investments.
  - Accelerating commercialization through self-exploitation (via spin-out companies started by inventors/innovators).
  - Expanding financial investment opportunities through strategic partnerships with third parties (via licensing and joint ventures).
- They are powerful “business tools” which allow inventors/innovators attain exclusivity over new products, services & processes, resulting in development of stronger market positions and more substantial revenues.

# ROLE OF PATENTS & UTILITY MODELS IN PROMOTING INNOVATION

- Patents and Utility Models promote innovation in several ways:
  - Stimulating new ideas and inventions through dissemination of known technology.
  - Requiring inventors to disclose protected inventions to the public, so that others can access new knowledge and utilize it for further innovation and technology development, in return for exclusive rights.
  - Generating revenues through exploitation.
  - Facilitating new market-driven partnerships.
  - Spurring development of competing technologies.
  - Contributing to technology development (e.g. through use of old patents for reverse engineering).
  - Facilitating technology transfer in a manner that benefits both technology suppliers and recipients.
  - Providing a baseline for technical R&D activities.



# EAC REGIONAL PERSPECTIVE – ROLE OF PATENTS & UTILITY MODELS IN INNOVATION

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- Capacity to promote technology and innovation in the EAC through **locally generated patents and utility models** is informed by the prevailing IP situation in the region.
- Prevailing IP Situation in EAC\*

The freedom for innovation and creativity in the EAC is constrained by limited capacity for the generation, protection, commercialization and enforcement of IP rights for individuals and institutions. These constraints are:

- Lack of appropriate infrastructure to support innovation and creativity;
- Inadequate human capital development along the IP value chain; and
- Inadequate utilization of the IP System.

# EAC REGIONAL PERSPECTIVE – REQUIRED INTERVENTIONS

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- Enhancement of infrastructure for the generation, protection, exploitation and enforcement of IP in the EAC with focus on:
  - ❖ Strengthening Partner State IP Office **physical and technological infrastructure**, for more effective service delivery.
  - ❖ Facilitating and promoting utilization of appropriate **regional & international organization IP-related infrastructure and resources** (e.g. WIPO and ARIPO), in order to drive innovation and creativity.
  - ❖ Providing incentives that encourage **private sector contribution to R&D infrastructure**.
  - ❖ Creating dynamic regional **IP repositories that provide information** on public domain, protected and commercialized IP assets, for the benefit of IP owners; end-users; enforcement agencies; policy makers; and the general public.

# EAC REGIONAL PERSPECTIVE – REQUIRED INTERVENTIONS

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- Develop adequate human capital to support the generation, protection, exploitation and enforcement of IP in the EAC with focus on:
  - ❖ Developing and implementing an all-inclusive and fully integrated regional **IP skills capacity development strategy** that addresses growing needs for multidisciplinary IP expertise for sustainable innovation and creativity.
  - ❖ Conducting periodic regional IP **human capital audits** in order to identify and bridge critical capacity gaps.
  - ❖ Strengthening Partner State IP Office staffing and improving operational funding, in order to enable them effectively perform their functions.
  - ❖ Establishing a **regional IP academy** to facilitate the creation of a critical mass of skilled IP Professionals and Service Providers.

# EAC REGIONAL PERSPECTIVE – REQUIRED INTERVENTIONS

- Provide a conducive environment for utilization of the IP system in the EAC with focus on:
  - ❖ Promoting awareness of the value of IP asset protection and exploitation (including commercialization) among higher education institutions, research institutions, creative industries, private sector firms, informal sector, individuals and the general public.
  - ❖ Promoting an all-inclusive\* culture of innovation and creativity through incentives that enhance exploitation of quality IP assets.
  - ❖ Promoting development and operationalization of institutional IP policies, particularly among higher education and research institutions in Partner States.
  - ❖ Encouraging regional private sector firms towards improving their services, product quality/range and brands through use of IP;

\* This includes concerted efforts towards activities related to mainstreaming of IP in youth and gender equity development initiatives.

# EAC REGIONAL PERSPECTIVE – REQUIRED INTERVENTIONS

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- Promote IP-driven indigenous technology development and exploitation in the EAC with focus on:
  - ❖ Establishing **technology business incubators** (TBIs) in higher education and research institutions, in order to promote indigenous technology development and diffusion for commercial exploitation in the region and beyond.
  - ❖ **Strengthening** Partner State Research and Technological Organizations (RTOs) and Science and Technology University infrastructure for more effective reverse engineering of public domain technologies and local technology development for commercial exploitation.
  - ❖ Ensuring Partner State higher education institutions, research institutions, creative industries and private sector firms **develop dynamic capabilities** for the acquisition, assimilation, transformation and exploitation of knowledge and know-how.

# EAC REGIONAL PERSPECTIVE – REQUIRED INTERVENTIONS

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- Promote IP-driven technology transfer, adaptation and exploitation in the EAC with focus on:
  - ❖ Devising mechanisms to **safeguard the rights of technology IP right holders**, in order to encourage technology-centric Foreign Direct Investments (FDIs) and net transfer and exploitation of proprietary technologies into the region.
  - ❖ Promoting establishment of **science and technology parks; innovation hubs; and technology business incubators** in order to spur technology transfer, adaptation and exploitation in the region.
  - ❖ Encouraging technology transfer oriented **international collaborations** in Partner State higher education and research institutions.
  - ❖ Establishing a dynamic regional **technology transfer database** to facilitate M&E of technology transfer and exploitation progress.

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**THANK YOU FOR YOUR KIND ATTENTION**

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