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# Creating a Virtuous Circle: Developing IP and Innovation Policy and Strategies in Public R&D Institutions and Universities to Facilitate the Transfer of Technology

- Casablanca, Morocco
- May 11 and 12, 2016

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# Presentation of the Zero Draft Document on the Establishment of an IP Policy and Strategy in Public Research Institutions and Universities to Facilitate the Transfer of Technological Innovation to Industry


***"Universities are the factories of the knowledge economy. IP adds another mechanism for universities to disseminate the knowledge that they generate and to have that knowledge used in the economic sector".***

WIPO Director General, Francis Gurry

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# Plan

1. Introduction
2. “Zero Draft Document” Put in a Context
3. Presentation of the “Zero Draft Document”
4. Conclusions

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# 1. Introduction

- Role of IP
- Relevance of Institutional IP Policy

# Role of IP in universities and PRIs

- IP and Research
  - Results in the form of inventions. Many are patentable.
  - Yet: many are no more than proofs of concept or laboratory-scale prototypes → require further R&D.

- How to bring research results to next stage of development?
- How to enhance dissemination of knowledge and technology transfer?
- Ways to generate income?

# Role of IP in universities and PRIs

- IP and Teaching
  - Teaching materials, theses, software, designs, etc.

- How to promote the creation, use, dissemination and preservation of teaching materials?
  - Publish course materials as open access materials (OER)?
- Access and right to use third party materials?

# What if there is no IP Policy?

# Three main benefits of IP Policy

- Clarifies **ownership of + right to use the IP** resulting from the institution's - own or collaborative – R&D activities

- Sets out rules on how to **identify, evaluate, protect** and **manage IP** for its development, usually by "commercialization" in some kind

- Framework for **cooperation with third parties** and guidelines on the **sharing of economic benefits**

# How can WIPO assist?

- Brandnew website
  - ✓ Database: 350 policies, model forms and agreements, guidelines
  - ✓ 22 FAQ
  - ✓ Literature resources
  - ✓ Case studies

Provisional link

http://www.wipo.int/policy/en/university_ip_policies/index.html

After: Under Top Menu

www.wipo.int/policy/en/

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# How can WIPO assist?

- Brandnew website

- Awareness raising
- Capacity building
- Policy analysis

- **WIPO Model IP Policy** for Universities in Countries in Transition
- **Guidelines** on Developing IP Policy for Universities and R&D Organizations in African Countries

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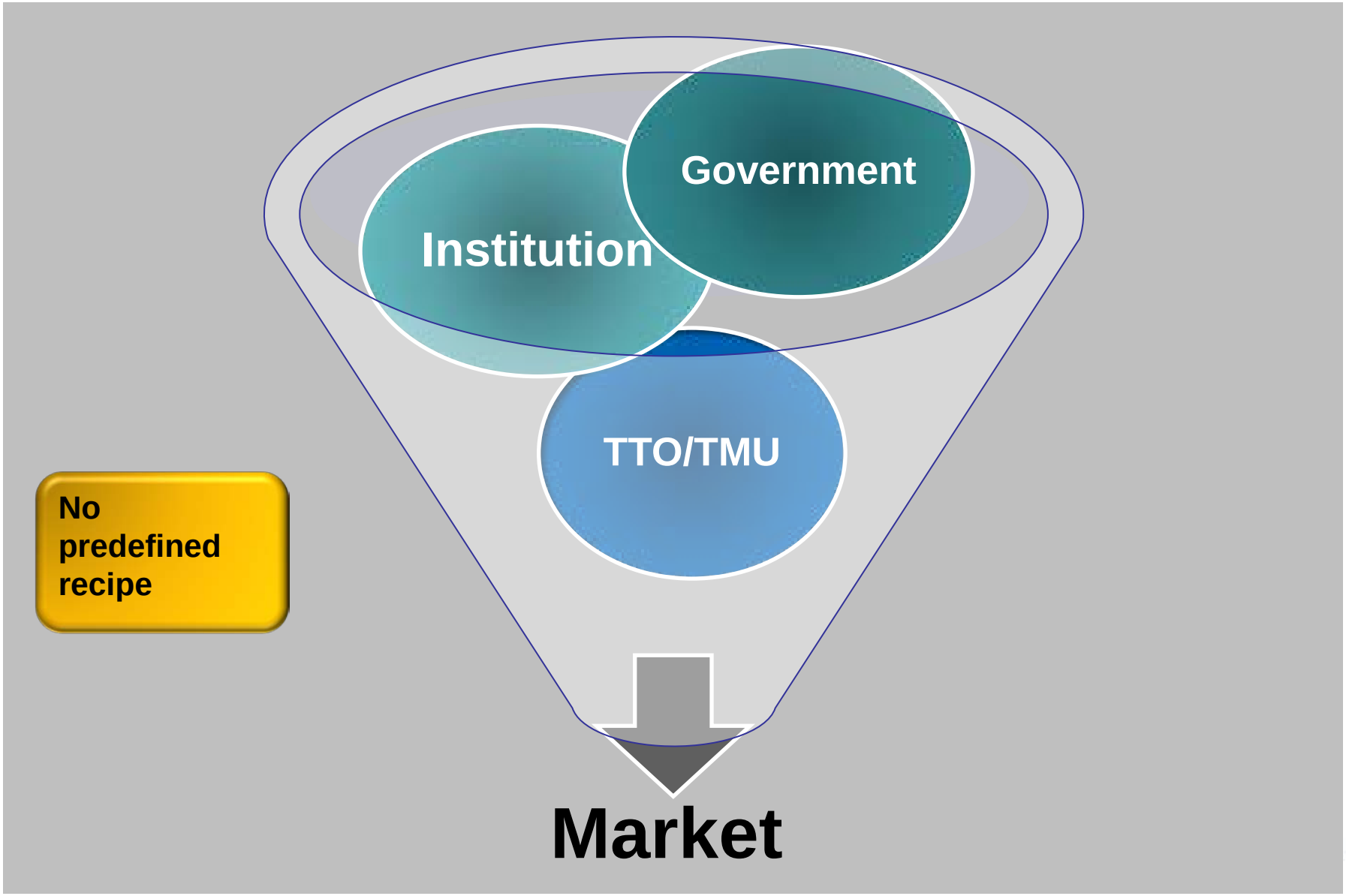
# 2. The “Zero Draft Document” Put in a Context

# a) Institutional IP Policy is no guarantee for successful transfer of technology

- **Use of IP policies** to foster TT from government-funded research institutions
  - ✓ requires a set of **pre-conditions**
  - ✓ demands careful **design and implementation** of the policies

- See: *Developing Frameworks to Facilitate University-Industry Technology Transfer. A Checklist of Possible Actions*

# Preconditions to Foster IP-based Technology Transfer - Holistic Approach

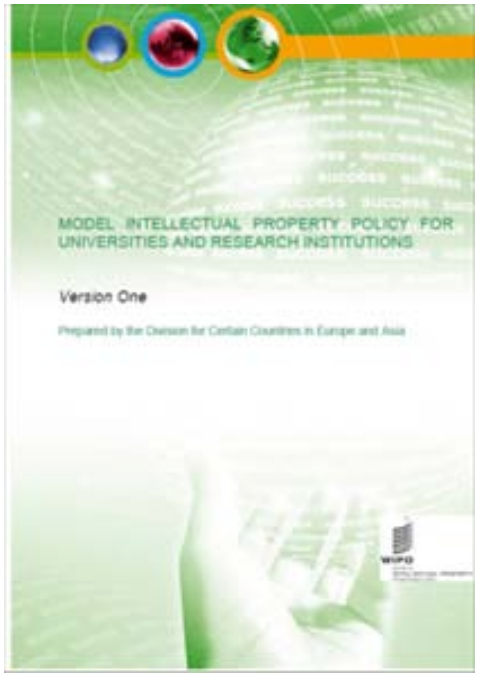


# b) Impossible to come up with a one-size-fits-all IP Policy

- **No universally-applicable** policy can be applied across all institutions or countries
  - ✓ country-specific settings
  - ✓ institutional differences
  - ✓ different levels of absorptive capacity

- Countries and institutions are **still experimenting** with a mix of different institutional IP Policies and practices

# WIPO's Model IP Policy for Universities and Research Institutions in Countries in Transition




- aims to assist senior university managers in developig their internal IP Policy
- and to provide a checklist of key features that need to be addressed
- Purpose today…

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# 3. Presentation of the “Zero Draft Document”

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# Addressed issues

- Definitions
- Scope of the policy
- Legal issues relating to the status of researchers
- External sponsorship, research collaboration with third parties
- Ownership of IP
- Disclosure, protection and exploitation of IP
- Revenue sharing
- Conflict of interest and confidentiality issues.

# 1. Scope of the policy

- *This Policy shall apply to all IP created on or after [date] and all IP Rights associated with them.*

- *This Policy shall apply to all Researchers who have established legal relationship with the Institute based on which the Researcher is bound by this Policy.*
  - ✓ *provision of law*
  - ✓ *collective agreement*
  - ✓ *individual agreement (e.g. employment contract).*

# 2. Legal issues relating to the status of researchers

- *The … Institute shall ensure that the employment contract … between the Institute and the Researcher includes a provision placing the Researcher under the scope of the Policy.*

- *Students shall be required to sign an agreement to be bound by this Policy before commencing any research activity. But …*

- *Visiting Researchers shall sign an agreement to be bound by this Policy and an assignment agreement in respect of ownership of IP created by them in the course of their activities that arise from their association with the Institute before commencing any research activity at the Institute. But …*

# 3. Research collaboration with third parties

- **Collaboration agreements** that safeguard their rights to continue to use existing IP and to make use of the IP that arises from research.

- IP issues to be clarified at **early stages** of discussions
  - ✓ each party needs to have a good understanding of the processes and policies tto manage collaborative research.

- Good practice: publish **standard collaboration agreement templates**.

- *It is the responsibility of the Researcher to ensure that prior to commencing any research activity in collaboration with any third party, the terms and conditions of cooperation be set forth in a written agreement (Research Agreement).*

- *Researchers shall not have the right to enter into a Research Agreement with third parties on behalf of the Institute unless they are authorized to do so by an official representative of the Institute.*

- *Depending on the relative intellectual and financial contributions of the Institute and the third party to the conception of the IP, it may be appropriate for either cooperating party to obtain certain IP Rights and/or share in the revenue generated from its commercialization.*

- *In the absence of a Research Agreement … IP Rights shall be distributed among the cooperating parties in the proportion that reflects the proportions of contributing to the creation of the IP.*
  - ✓ *In order to enable to establish such proportions, it is expedient that the parties maintain regular, well-documented records of the research activities*

- *The **Research Agreement** shall include provisions with respect to*
  - *IP already existing at the Institute prior to entering into the agreement (background IP)*
  - *IP arising from research activities set out in the agreement, after entering into it (foreground IP)*
  - *Confidentiality requirements*
  - *Terms of public disclosure.*

- *Any confidentiality provision of a Research Agreement aiming at the delay of public disclosure for the purpose of protection should not usually have effect for longer than ... months from the time the concerned party is notified of the intent to publish.*

- Public disclosure is essential part of research agreement
- Can include any form of public dissemination of research results: articles, abstracts, poster sessions, both informal and formal seminars, talks, information posted on the Internet, and grant applications.

- Most institutions entering collaboration want to put limitations on the right to public disclosure. Such a delay may be necessary to ensure that patent applications can be filed for discoveries made under the agreement.

# Sample collaboration agreements
# Sample confidentiality agreements

Browse our **Database of Intellectual Property Policies from Universities and Research Institutions**

**www.wipo.int/policy/en/university_ip_policies/index.html**

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# 4. Ownership of IP

- **Ownership of IP created in university/PRI**
  - Employees (researchers)
  - Students
  - Visiting researchers

- **Ownership of IP created < collaboration / sponsorship agreements**
  - Industry sponsor → agreement
  - Government → laws?

# IP created by university employees: Two typical approaches

- Professor/Researcher
- Institution

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# Model 1: Professor Privilege

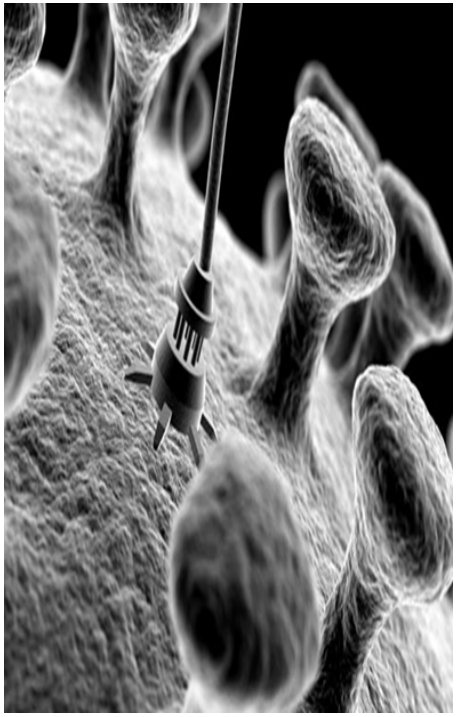
- The **ownership** of the invention/creation as well as responsibility for its **development** and **commercialization** lies solely with the inventor/creator.

  - University professors and researchers maintain ownership of patents resulting from publicly funded research.
  - Can decide whether or not to patent and how to commercialize their discoveries, even if the underlying research was supported by public funds.
  - Can get support from TTO for commercialization.

# Model 1: Professors' Privilege

- May include elements which **compensate** the input of **the institution**:
  - Non-exclusive license to use the invention
  - Priority to develop it in its laboratory

- Examples: Sweden, Italy.



# Model 2: Institutional Ownership

- The IPR/results of publicly-funded research are **owned** by the university or R&D institution where the researcher works and not the researcher personally.

- Vests the institution with the responsibility for **protection and further development** of inventions (establishment of technology transfer units, adequate procedures, webs of contacts with the industry, etc.).

# Model 2: Institutional Ownership

- To **compensate the inventor**, the institution may give:
  - share of the revenue from commercialization
  - academic recognition.

- Globally predominant.

- Two primary systems of institutional ownership:
  - Automatic
  - Optional (voluntary)

# Model 2: Institutional Ownership

- **Automatic ownership**: The institution is automatically the first owner of the IPR, which is usually subject to few, if any, obligations towards the inventor.

- Examples: USA, Denmark, Finland, Germany, Norway, Cyprus, Estonia, Latvia, Poland, Slovak Republic and Slovenia.

# Model 2: Institutional Ownership

- **Optional (voluntary, pre-emption rights)**: The first owner is the employee/inventor, but the institution is entitled to claim the invention, most usually within a specified period of time.

- In most of these pre-emption rights systems, the employer must pay some form of remuneration to the employee inventor as compensation for transferring the rights.

- Examples: Czech Republic, Romania, Hungary and Lithuania.

# The WIPO Model IP Policy: Institutional, automatic ownership

- *All rights in IP devised, made or created by an employee of the Institute in the course of employment shall belong automatically to the Institute.*

- *If an employee of the Institute creates IP outside the normal course of his duties of employment, with the significant use of Institute Resources, he will be deemed to have agreed to transfer the IP Rights in such IP to the Institute as consideration for the use of Institute Resources.*

- *IP created in the course of, or pursuant to a sponsored research or other type of agreement with a third party, shall initially belong to the Institute and then ownership shall be determined according to the terms of such agreements.*

- Special provisions

  - ✓ Employees pursuing research activities at other institutions (academic visit to another institute)
  - ✓ Visiting Researchers
  - ✓ Students.

- *All rights in Copyrighted Works are owned by their creators regardless of the use of Institute Resources.*
  - ✓ *Exception: Copyrighted Works specifically commissioned by the Institute or developed in the performance of a sponsored research or other third party agreement. The provisions of such agreements shall be taken into account.*

- ***If the Institute cannot, or decides not to, exploit the IP***
  - *Institute shall notify the Inventors*
  - *Inventors shall have the option to acquire related IP Rights*
    - ✓ *However, the Institute may claim a share from the income of any subsequent exploitation of the IP to the extent equalling the verified expenditures of the Institute incurred in connection with the protection + commercialization of the IP.*
    - ✓ *The Institute may also claim for a perpetual non-exclusive royalty-free license for research purposes without the right to business exploitation and without the right to sub-license.*
    - ✓ *The Institute may also claim for a … (usually 5-20%) percentage of any net income generated by the inventors from the commercialization*

# 5. Disclosure, protection and exploitation

- Who?
  - Institution?
  - Specially dedicated office/unit?
  - External body?  (outsourced company, IP hub, IP Office…)
- What?
  - negotiates licenses with outside parties
  - reviews employee contracts
  - manages invention disclosure procedures
  - reviews sponsored research proposals
  - manages royalty sharing
  - establishes and manages spin-off companies
- Requires?
  - skills
  - funds

- *The person or department designated by the Institute is responsible for the protection and commercialization of the Institute's IP. The Inventor(s) however, shall be consulted in each phase of the procedure.*

- *Researchers… are obliged to disclose all IP to the person or department designated by the Institute.*
  - ✓ *Copyrighted Works shall be excluded from the disclosing obligation*

- *After full disclosure … the person or department designated by the Institute shall record the IP in its register.*

- *The person or department designated by the Institute shall determine whether any agreements provide for the sharing of IP Rights or other obligations overriding those set out in this Policy.*

- *After the date of disclosure, the person or department designated by the Institute shall immediately commence the evaluation of the IP.*
  - ✓ *a pre-evaluation to identify any major obstacles*
  - ✓ *a recommendation on whether to protect and exploit the IP*
  - ✓ *final decision*

- *The Inventor(s) shall be informed … If the Institute decides not to commercialize the disclosed IP, then the provisions of Paragraph 6.6. shall apply (option to acquire)*

- *Inventor(s) are required to give reasonable assistance in protecting and commercially exploiting the IP by providing information, attending meetings and advising on further development.*

- *The person or department designated by the Institute shall, within reasonable time, commence the process for acquiring legal protection...*

- *Inventor(s) are requested to avoid any public disclosure of research results prior to filing such applications. The Institute shall endeavor to avoid undue delays in publications.*

- *The person or department designated by the Institute and the Inventor(s) shall jointly determine an appropriate commercialization strategy*

# 6. Revenue sharing

- **Revenue sharing = Important incentive to foster commercialization culture**

- **Frequent rule 30% - 30% - 30%** (university, faculty, inventor)
- **Often revenue threshold** (% inventor decreases as revenues increase)

- Important to define the **base for revenue sharing**

## **Example**: City University of London Policy

| Total Net Income | Inventors (jointly) | School | University |
|---|---|---|---|
| *up to £5,000* | 100% | Nil | Nil |
| *From over £5,000 to £50,000* | 70% | 15% | 15% |
| *From over £50,000 to £100,000* | 50% | 25% | 25% |
| *over £100,000* | 33% | 33% | 33% |

**Worked example:** If net income amounted to £70,000 an individual would be entitled to a) 100% of the first £5,000 (£5,000) plus b) 70% of the amount between £5,000 and £50,000 (70% of £45,000 = £31,500) and c) 50% of the amount between £50,000 and £70,000 (50% of £20,000 = £10,000). Total due £46,500.

Source: City University of London Intellectual Property Policy, Version 1.0:141010

- *The Institute provides an incentive to Inventor(s) by distributing revenue generated from the commercialization of the IP.*

- *'Net income' shall mean all license fees, royalties and any other monies received by the Institute, arising from the commercialization of IP less all the expenses incurred in connection with the protection and commercialization of the IP at the Institute.*

- *The share of revenues from Net income shall be as follows*
  - ✓ *Inventors : …%*
  - ✓ *Department : …%*
  - ✓ *Institute: …%*

# Note: revenue sharing = only one type of incentive

- **Incentives to**
  - Encourage innovation and technological development
  - Encourage researchers to consider the possible opportunities for exploiting an invention so as to increase the potential flow of benefits to society.

- **Sticks or carrots**

# Incentives

## Sticks

- ✓ Legal or admin reqt to disclose inventions
- ✓ Legal or institutional reqt for open access

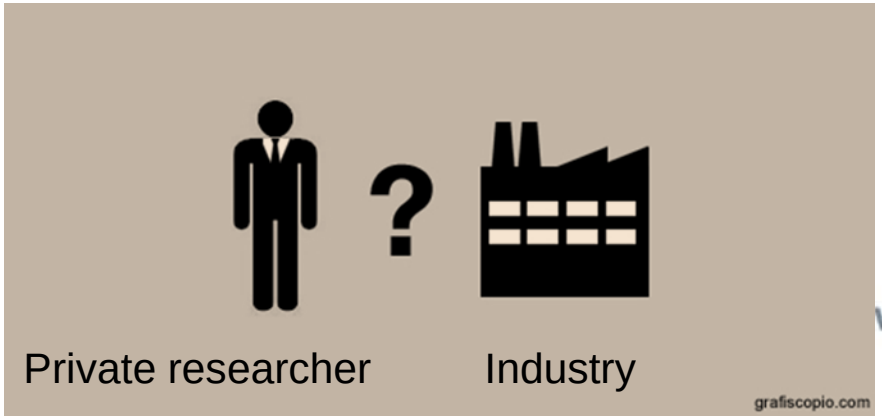
## Carrots

- ✓ Royalty sharing
- ✓ Equity participation in academic start-ups
- ✓ Recognition of patent activity in the evaluation recruitment of faculty
- ✓ Univ pays cost of publication
- ✓ Training
- ✓ Exchange programs

# 7. Conflict of interest

- **Increasingly, researchers/staff seek to participate personally in the commercialization process**
  - ✓ Faculty member seeks shares in start-up company
  - ✓ Faculty member is director of start-up company
  - ✓ Researcher provides private consultancy with industry partners

- **Conflict of interest:  if adverse impact on obligations towards institution**

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- **Can be managed**

- **Questions:**
  - ✓ Activity allowed To what extent? How many hours per week? Amount of money?
  - ✓ Revenue sharing with University?
  - ✓ IP Rights – Does university have rights on IP developed in the framework of consultancy contract of professor?
  - ✓ Procedures to disclose & manage conflicts

- *A Researcher's primary commitment of time and intellectual contributions as an employee of the Institute should be to the education, research and academic programs of the Institute.*

- *It is the responsibility of each Researcher to ensure that their agreements with third parties do not conflict with their obligations to the Institute or this Policy. This provision shall apply in particular to private consultancy and other research service agreements concluded with third parties. Each Researcher should make his or her obligations to the Institute clear to those with whom such agreements may be made, and should ensure that they are provided with a copy of this Policy.*

- *Researchers shall keep the Institute's business secret in confidence.*
  - ✓ *Every fact, information, solution or data related to the research carried out at the Institute, whose public disclosure, or its acquisition or exploitation by unauthorized persons could damage or endanger the Institute's lawful financial, economic or market interests shall qualify as business secret.*

**Example - University of Nairobi Policy:**

**Article 17: Conflict of Interest or Commitment**

(1) Any of the following factors may signify a conflict of interest, which will be taken into account prior to waiving or licensing UoN's rights to inventors, innovators, creators, breeders under this policy;

- An adverse impact on UoN educational responsibility to its students;
- Undue influence on the employment commitment to UoN in terms of time or direction of effort;
- A detrimental effect on UoN obligations to serve the needs of the general public; and
- Potential conflict of interest as defined in the national laws, UoN code of ethics, regulations,
- policies and procedures.

**Example - University of Nairobi Policy:**

**Article 17: Conflict of Interest or Commitment (Con't)**

(2) An employee shall disqualify himself or herself from participating in any licensing negotiations or other matters of technology transfer where the University is likely to be disadvantaged by such a decision in the following circumstances:

a) Where an employee has an external relationship with a company that itself has a financial interest in a University project; or

b) Where the University official serves on a board of a company that has financial transactions with the University; or

c) Where an employee has equity holding or royalty expectations that could influence the decision; or

d) Where the employee of the University is an interested party and by virtue of his or her position is likely to influence the decision.

# Conclusions

- Develop **your own** Institutional IP Policy !
- Involve **all stakeholders** (researchers, students, local firms) – it has to be their policy as well.
- Language and content should be **"user friendly"** and understandable also for those who are not lawyers.
- **Communicate** the text, make it publically available.
- It may be helpful to have **models (templates)** of the main technology transfer agreements – with the understanding that it should be used as a base – each situation has its own specificity.
- **Monitor** implementation, evaluate and improve.

→ It is a dynamic process! The IP Policy is a living document, adjusting over time to the needs of a given institution to ensure a best fit.

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# Your input is welcome !

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Thank you for your attention!

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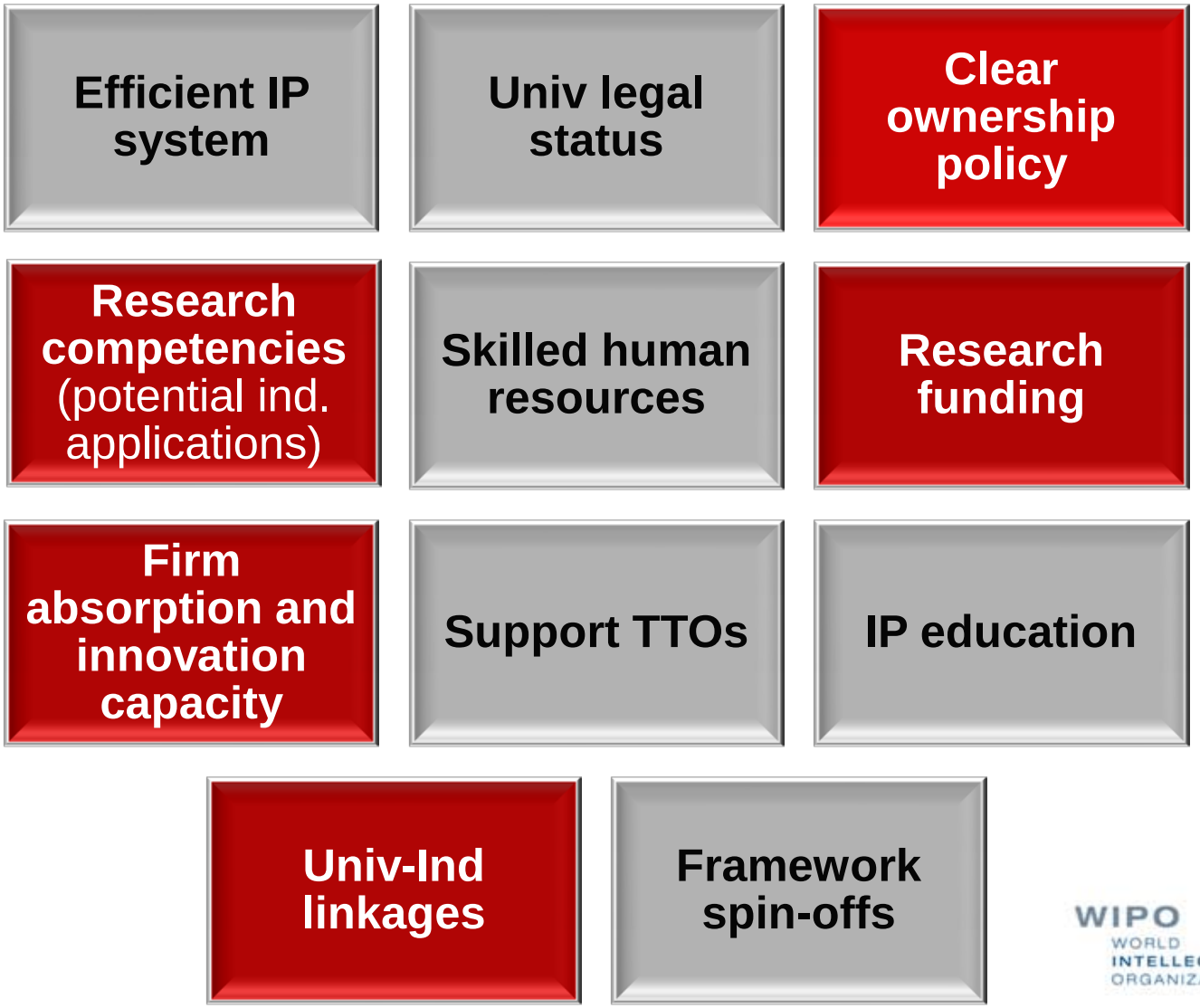
# Extra slides

# Factors Facilitating University-Industry Technology Transfer at National Level

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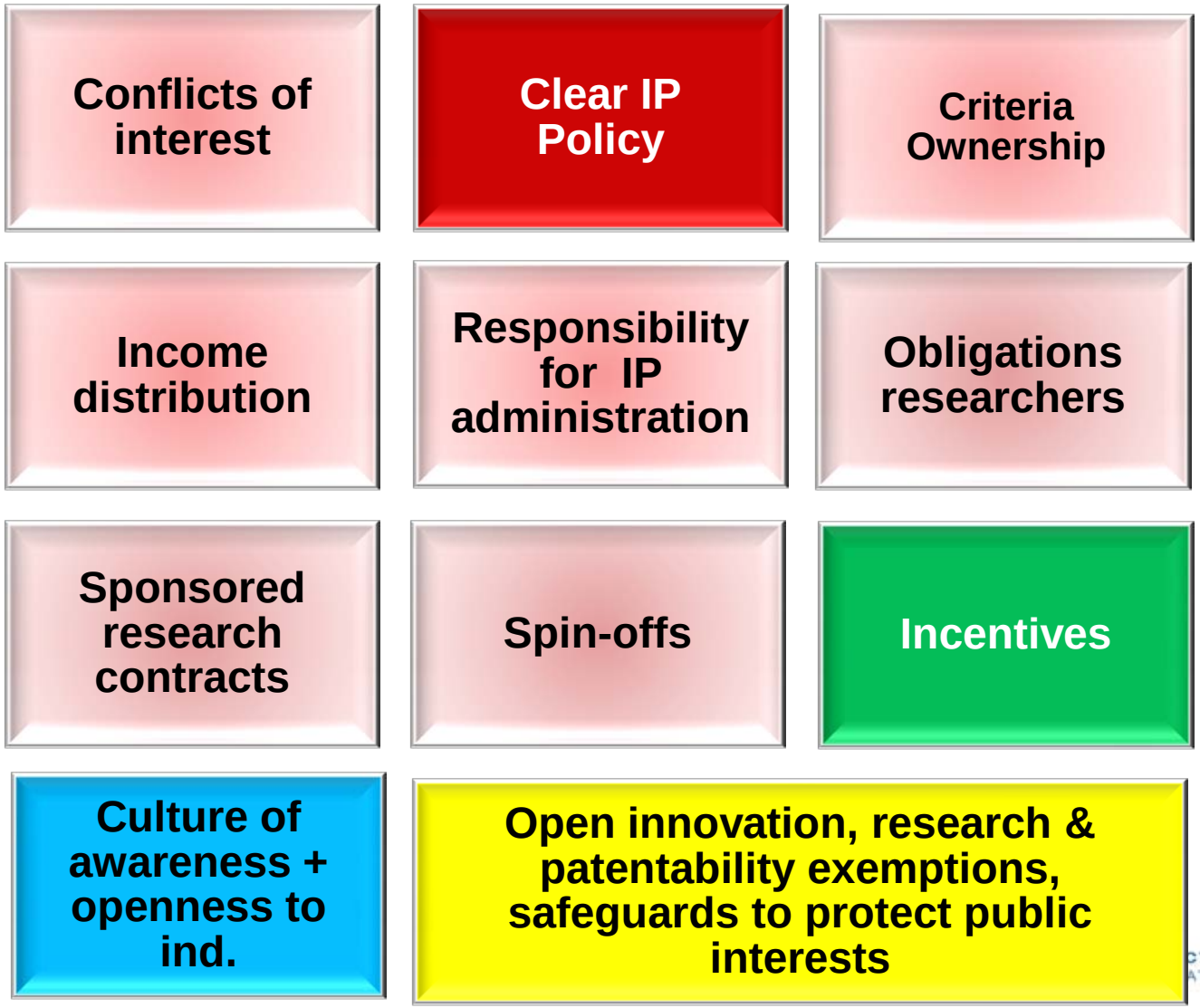
# Factors Facilitating University-Industry Technology Transfer at Institutional Level



# Factors Facilitating University-Industry Technology Transfer at the Level of KMUs

- Establishment KMUs / Joint KMUs
- Skills
- Financial support
- Simple & transparent procedures
- Research evaluation
  Patenting decisions
  Licensing
- Marketing university technology
- Platforms

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