

Capacity-Building for Innovation and Technology: The Philippine Experience

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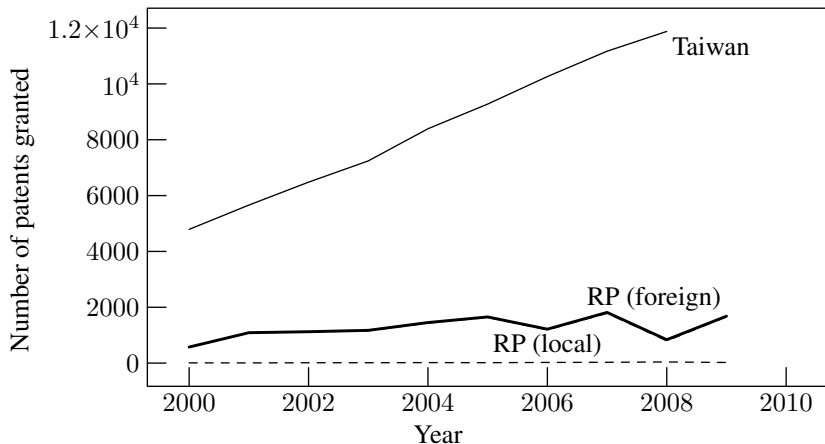
Part I

Background

Outline

- 1 The Innovation Landscape in the Philippines before 2010
 - Patent Filing History
 - Funding for Research
 - Philippine Global Competitiveness
- 2 Efforts for Improvement of the Philippine Scenario
 - National Efforts Aimed at the Education Sector
 - First Organized Attempt at Capacity-Building
- 3 Observations

Patent Filing History



A Closer Look at Philippine Patent Filings

Patents Granted 2005–2009

Year	Foreign	Local	Total
2005	1638	15	1653
2006	1191	24	1215
2007	1785	29	1814
2008	797	41	838
2009	1657	22	1679

Data from IPOPHL

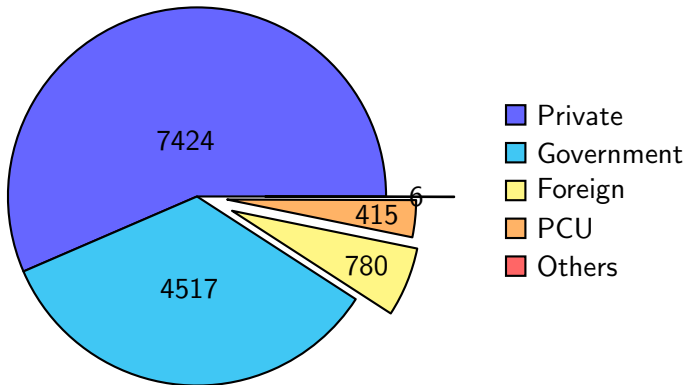
Remarks

- Minuscule contribution from universities
- Most local filings by individual inventors
- Local inventors also involved in some of the foreign patents

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Philippine R&D Expenditure in 2011 (in Million Pesos)



Source: DOST Compendium of Science and Technology Statistics 2011 Update

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Philippine Global Competitiveness in 2007

Selected Indicators	Ranking Among 125 Countries
Property rights	70
IPR Protection	84
Quality of educational system	61
Availability of research and training services	75
Quality of research institutions	79
University-industry collaboration in R&D	67
Availability of scientists and engineers	84
PCT applications	-
Overall	71

(Data from the World Economic Forum Global Competitiveness Report 2006-2007)

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Efforts for Improvement of the Philippine Scenario

Main Thrusts

- Raise the critical mass of research scientists and engineers (RSE's) to the UNESCO benchmark
- Upgrade institutions of higher education
- Promote R&D and innovation in academic institutions

UNESCO Benchmark

67 RSE's per 10,000 population

Graduate Scholarship Programs

- Engineering R&D for Technology (ERDT)
- Accelerated S&T Human Resources Development Program (ASTHRDP)
- PGMA-Science & Engineering Graduate Scholarships (PGMA-SEGS)
- Higher Education Development Project - Faculty Development Program (HEDP-FDP)

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Strategies

- Establishment of centers of development
- Upgrading of curricula
- Accreditation and ranking of universities
 - Local accreditation
 - ABET
 - Washington Accord
 - OBE

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Elements

- Leadership by Department of Science and Technologies, Commission on Higher Education and 8 universities
- Graduate scholarship programs
- Support policy: Tech Transfer Act of 2009
- Funding for R&D and technology incubators

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EIMAC: A Forerunner of the ITSO Network

What It Is

Name : ERDT Intellectual Property Mapping and Commercialization

Goal : Commercialization of IP from research

Action Plan : Educate key persons on IP

ERDT

- Engineering R&D for Technology
- Consists of 8 universities with mature graduate programs

Components of the ERDT

- Human Resources Development
- Research
- Infrastructure
- EIMAC

Seminar on IP Management at Taiwan's ITRI



ERDT Delegation that Studied IPM at ITRI



End of EIMAC

- Second round of trainings did not materialize.
- Government cost-cutting resulted in effective discontinuation of EIMAC in 2012.

Important Observations

- Recognition and awareness of the Philippine scenario before 2011
- Continuation of efforts to address issues
- Stage set for the ITSO network of IPOPHL

Part II

The ITSO Network

Outline

- 4 Prelude to the ITSOs
 - IP Policies in Universities
- 5 Establishment of the ITSOs
 - The ITSO's
 - Timeline of the ITSO Network
 - The Spread of the ITSO Network
- 6 Functions and Organization
 - Functions
 - Staff Training
- 7 The PPIP
- 8 Summary

Creating the Groundwork: IP Policies in Universities

Initiative

Memorandum of agreement on the conduct of IP Policy workshops
(Nov. 2006)

Signatories

- Intellectual Property Office of the Philippines
- Commission on Higher Education
- Ayala Foundation Inc.

Support Policy

Joint Circular of May 2008 by IPOP HL and CHED
mandating universities to develop and implement IP Policies

Source: The Metamorphosis of the Innovation and Technology Offices (IPOP HL publication)

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The ITSOs

The Name



Innovation and
Technology
Support Office

How it Works

- A franchise of IPOPHL
- Organizationally part of a host institution

Originator



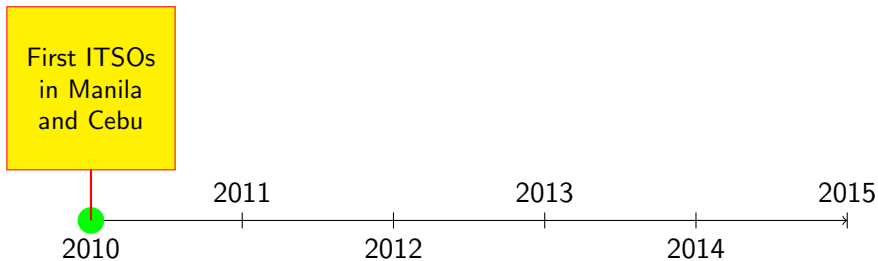
Former IPOPHL Dep. Dir.-Gen
Atty. Andrew M. Ong, founder
and architect of the ITSOs

Outline

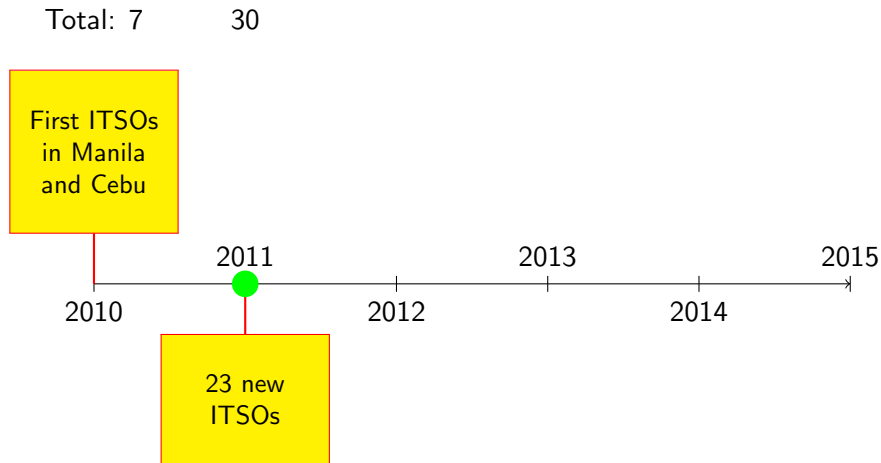
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Timeline of the ITSO Network

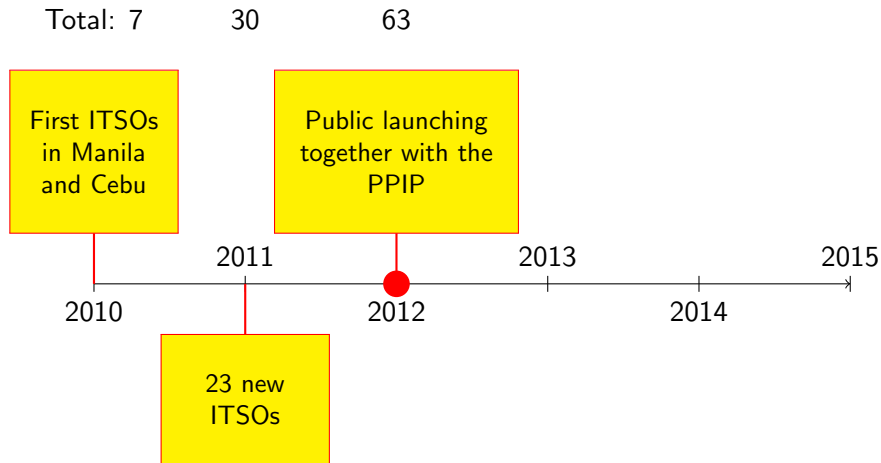
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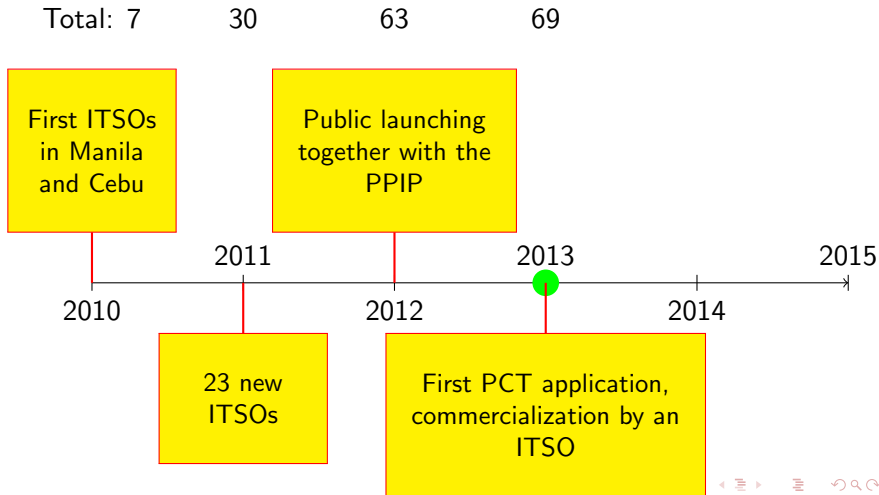
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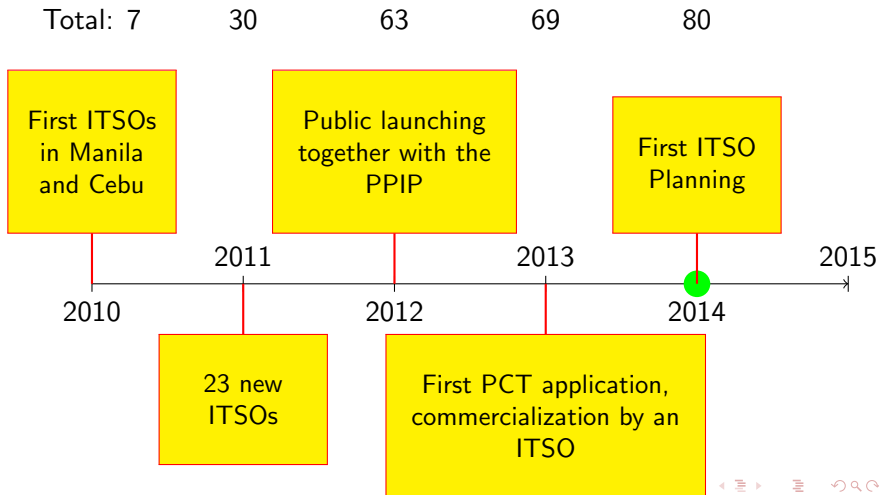
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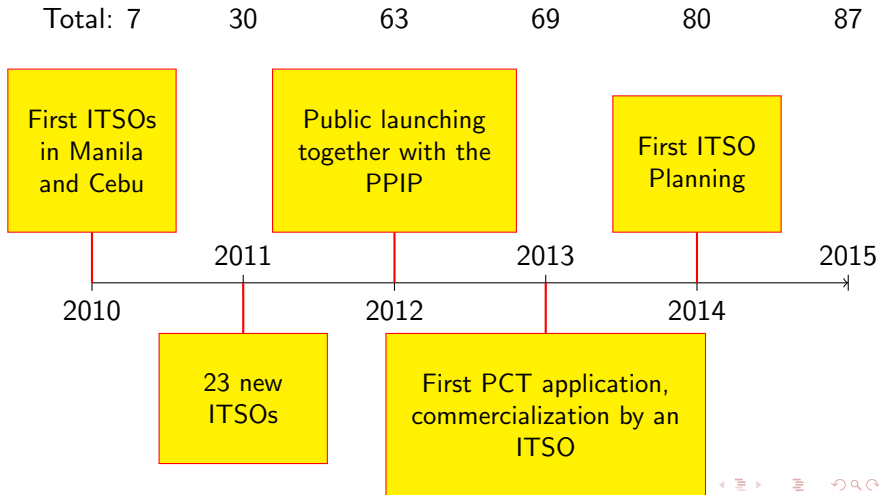
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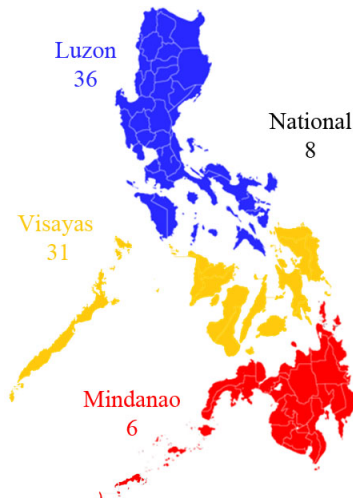
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Regional Distribution of the ITSOs by 2014



Details

	National Capital (NCR)	17
	Cordillera Admin. (CAR)	1
I	Ilocos	2
III	Central Luzon	5
IV-A	Calabarzon	5
IV-B	Mimaropa	4
V	Bicol	1
VI	Western Visayas	16
VII	Centrall Visayas	11
VIII	Eastern Visayas	4
IX	Zamboanga	1
X	Northern Mindanao	2
XI	Davao	2
XIII	Caraga	1

ITSOs Spread Across Types of Host (2014)

Academic Institutions

68



(Source: IPOPHL)

Government Agencies

8



Cooperating Institutions

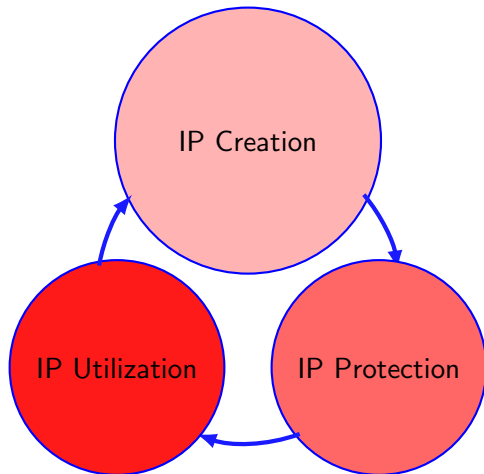
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Outline

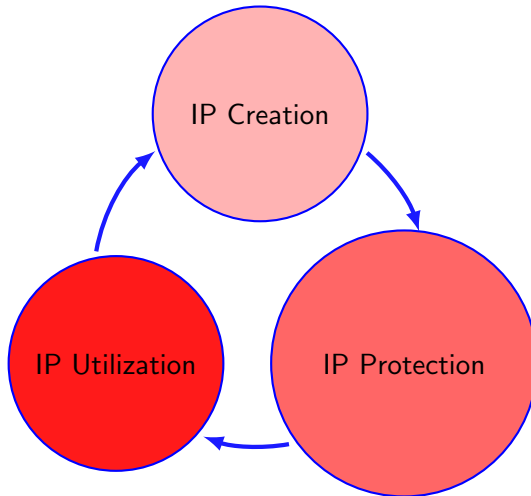
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Functions of the ITSO: Support IP Creation



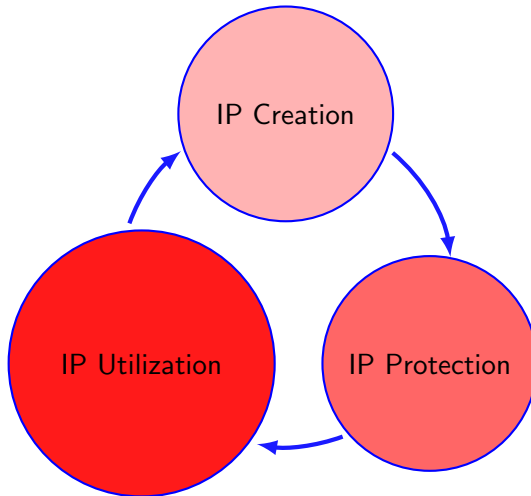
- Serve as library and search facility of patent information
- Provide training in patent search
- Offer patent search services
- Organize community of patent information users

Functions of the ITSO: IP Protection



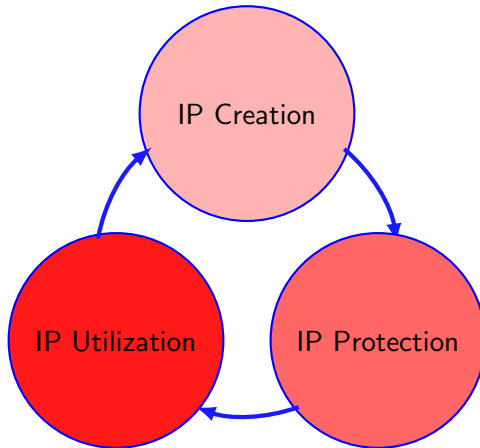
- Provide information on patents and patenting
- Provide training in patent drafting and prosecution
- Offer patent drafting and patent prosecution services
- Organize a community of experts to participate in patent examination

Functions of the ITSO: IP Utilization



- Render IP audit and valuation services
- Support licensing
- Advise on IP management and commercialization strategies
- Serve as a repository of patent documents and statistics

Functions of the ITSOs in Practice



- A number of ITSOs specialize in one function only.
- Main function of many: information dissemination and education.
- Not all ITSOs offer patent services.
- Utilization function is the least developed or practiced.

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Regular Curriculum

Foundation Courses

- Overview of the IP system
- Patent, copyright and trademark
- Patent information

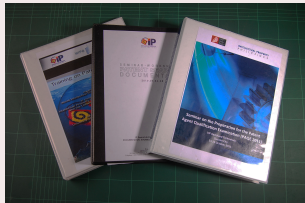
Patent Search and IPM

- Basic and Advanced Search
- IP Management

Drafting

- Drafting I & II
- Preparation for the PAQE

Delivery



- distance learning (WIPO)
- seminars and workshops (IPOP HL)
- webinars (WIPO)

Advanced Training

Topics

- Patent prosecution
- Claims interpretation
- Patent mapping
- Licensing
- Negotiation
- Valuation



Delivery

- Seminars
- Workshops

Partners

- EU Trade-Related Technical Assistance (EUTRTA)
- International IP Institute
- European Patent Office
- Marks and Clerk

PAQE-Qualified ITSO Staff Members

Year	Chemical	Non-Chemical	Total
2012	17	23	40
2013	3	19	22
Total	20	42	62

The PPIP

Juan's Thousand Inventions

- Patent Protection Incentive Package
- Launched in March 2012
- IPOPHL waives 100% of filing fees.
- defrays fees up to the 15th year of annuity
- more than 112 patents under this program

(Source: IPOPHL)

Section Summary

Interventions to Improve the Philippine Innovation System

- Network of ITSOs based in the academe
- Staff training
- Patent Protection Incentive Package
- Collaboration of WIPO, IPOPHL and other organizations

Part III

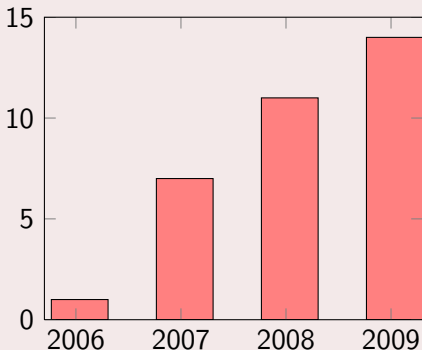
Impact of the ITSO Network

Outline

- 9 Direct Impact
 - Enactment of IP Policies
 - Teaching of IP
 - Patent Filings
- 10 Bandwagon Effect: Success Factors
- 11 Improved Global Competitiveness Ranking (WEF)
- 12 Summary

Universities Adopting IP Policies

Number of New IP Policies per Year



Source: The Metamorphosis of the Innovation and Technology Offices (IPOPHEL publication)

Incentives Ushered in by Policies

- Patent and copyrights in criteria for tenure and promotion
- Clarification of IP ownership
- Sharing of royalties

Note

Before 2006, only 2 universities had IP Policies.

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Examples of Faculty Training Seminars



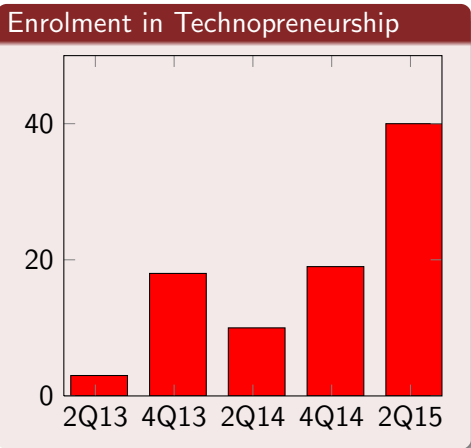
Internal faculty seminar on
invention-spotting



Participants in a
seminar-workshops on IPM
conducted for the faculty of
another university

Example: Mapúa Institute of Technology

- Technopreneurship as a graduate elective subject
- Part of a series of planned three-subject series
- Credit: 3 units

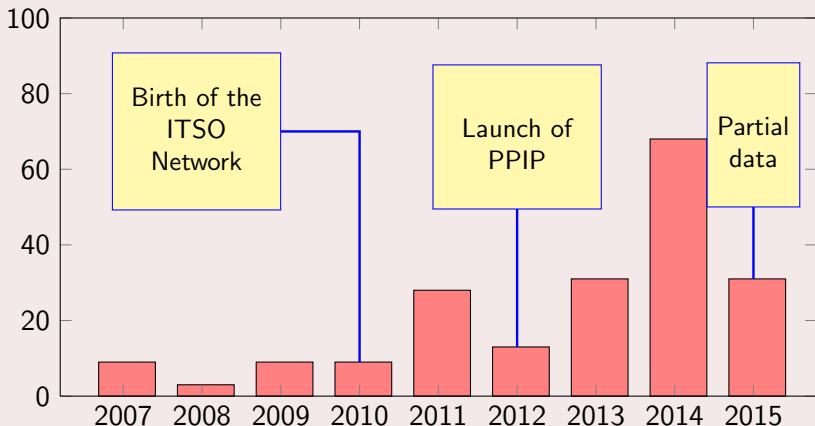


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Filing from Universities

University Filings per Year (IPOP HL Data)



Efforts of Selected Non-Governmental Groups

STRIDE (USAID)

- Scholarships in S&T
- Industry-academe collaboration
- Knowledge and Technology Transfer Offices
- Faculty exchange

IDEA (Phildev)

- Scholarships in S&T
- Technopreneurship bootcamps
- Training of teachers of entrepreneurship
- Linking US and Philippine universities

Ranking of the Philippines in Selected Areas

Selected Indicators	2007	2014
Property rights	70	61
IPR Protection	84	66
Quality of educational system	61	29
Availability of research and training services	75	49
Quality of research institutions	79	75
University-industry collaboration in R&D	67	55
Availability of scientists and engineers	84	71
PCT applications	-	86
Overall	71	59

(Data from the World Economic Forum Global Competitiveness Report 2006-2007, 2014)

Improved Global Competitiveness Ranking (WEF)

New Rank (World Economic Forum)

59

out of 144
economies

- Gain of 33 places since 2010
- Largest gain by any country during 2010–2014

Conclusion

Best Practices

- Adoption of IP policies in universities.
- Teaching IPR
- ITSO network
- Synergistic efforts by NGOs

Outcomes

- Patent and copyright in criteria for academic promotion
- Increased patent filings by universities
- Training opportunities in entrepreneurship
- IPR and entrepreneurship in higher education
- Better economic competitiveness indications

Thank you for your attention!