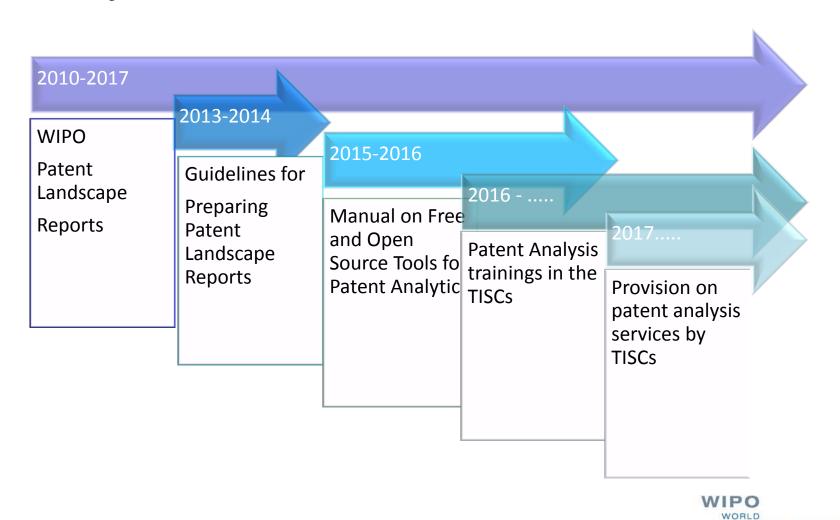


# WIPO Patent Analytics activities and their integration in the TISC program

Porto Alegre 19 October 2016

Irene Kitsara, IP Information Officer, Technology and Innovation Support Section, Access to Information and Knowledge Division

# Overview – Evolution of WIPO Patent Analytics activities



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# WIPO PATENT LANDSCAPE REPORTS

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### WIPO activities in patent analytics - Background





CDIP/4/6
ORIGINAL: English
DATE: September 25, 2009

WORLD INTELLECTUAL PROPERTY ORGANIZATION
GENEVA

COMMITTEE ON DEVELOPMENT AND INTELLECTUAL PROPERTY (CDIP)

Fourth Session Geneva, November 16 to 20, 2009

PROJECT ON DEVELOPING TOOLS FOR ACCESS TO PATENT INFORMATION (RECOMMENDATIONS 19, 30 AND 31)

Document prepared by the Secretariat

 The Annex to this document, containing the "Project on Developing Tools for Access to Patent Information", dealing with Recommendations 19, 30 and 31, was submitted to the Committee on Development and Intellectual Property (CDIP) at its third session held from April 27 to May 1, 2009. However, due to a shortage of time, discussion on this project document could not take place. Accordingly, the project document is resubmitted to the Committee for consideration.

2. The CDIP is invited to consider and approve the Annex to this document.

#### CDIP/4/6 Annex, page 2

#### Brief Description of Project:

This project aims to provide developing countries, including LDCs, upon request, with services which will facilitate the use of patent information on specific technology for facilitating their indigenous innovation and R&D in cooperation with other intergovernmental organizations. In order to achieve these aims, the project will implement the following elements:

- Patent Landscaping Reports will be drafted which exploit the vast resources of patent information to provide an analysis of specific technologies and related existing IP rights for selected areas of technology;
- An e-tutorial available on DVD or on the Internet will provide training on using and exploiting patent information, in particular focusing on the preparation of technology and patent search reports similar to Patent Landscaping Reports; and
- Conferences, including workshops and training courses, will be organized for users, in particular for staff of Technology and Innovation Support Centers, in order to exchange experiences and best practices regarding the use of patent information, as well as to develop specific skills such as preparing Patent Landscaping Reports by local research institutions and universities.

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- Among WIPO Strategic Goals: "Facilitating the Use of IP for Development"
- Launched in 2010 as Development Agenda Project "Developing Tools for Access to Patent Information", adopted by the CDIP (CDIP 4/6)VIPO
- Since January 2014: WIPO regular activity

### WIPO Patent Landscape Reports Project

Output: preparation of patent analysis reports in areas of importance for developing and least developed countries:

- Public Health
- Food and agriculture
- Environment, Climate change and Energy
- Disabilities



### WIPO Patent Landscape Reports (PLR) - Approach

- Demand-driven (UN-Agencies, Member States, NGOs)
- Provide technical, business and legal information on the subject matter to support specific needs/decision-making
- Cater for researchers, policy/decision makers, patent information users – different part of the reports address different user needs
- Transparent and instructive: extensive description of the patent search methodology
  - Search queries
  - Patent search results in Excel table
- Showcase various databases, methodological approaches, analysis types and analysis/visualization tools



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### WIPO PLR: cooperation partners



### WIPO Patent Landscape Reports Topics















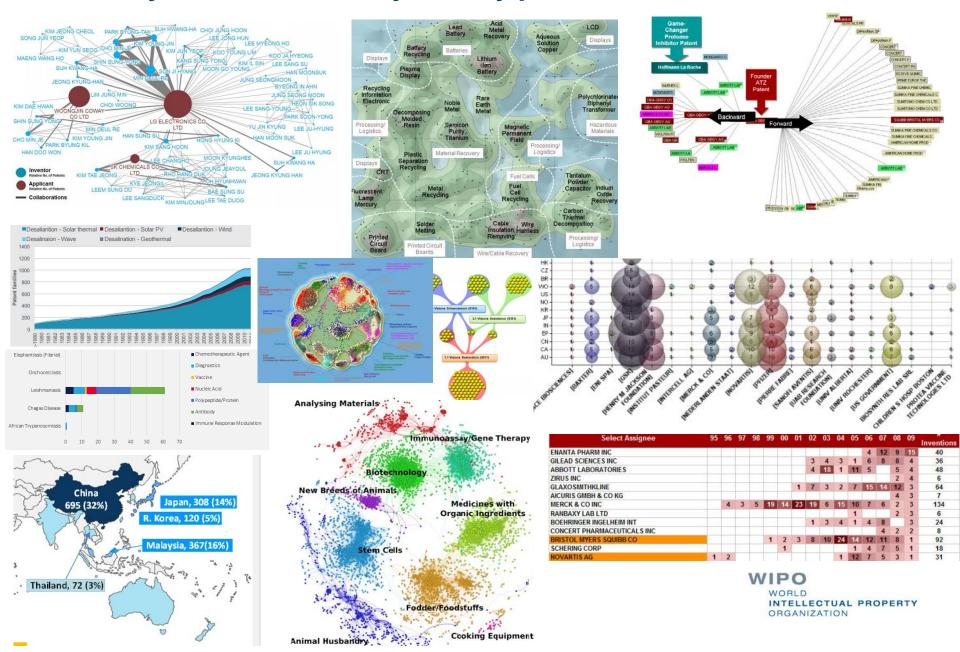




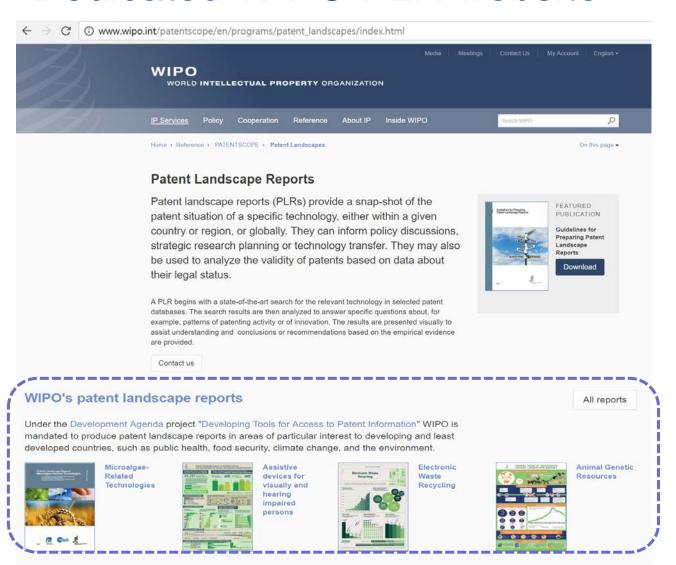


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### Variety in the analysis types and tools used



### **Dedicated WIPO PLR website**



2015 statistics: **54.500 PDF** downloads

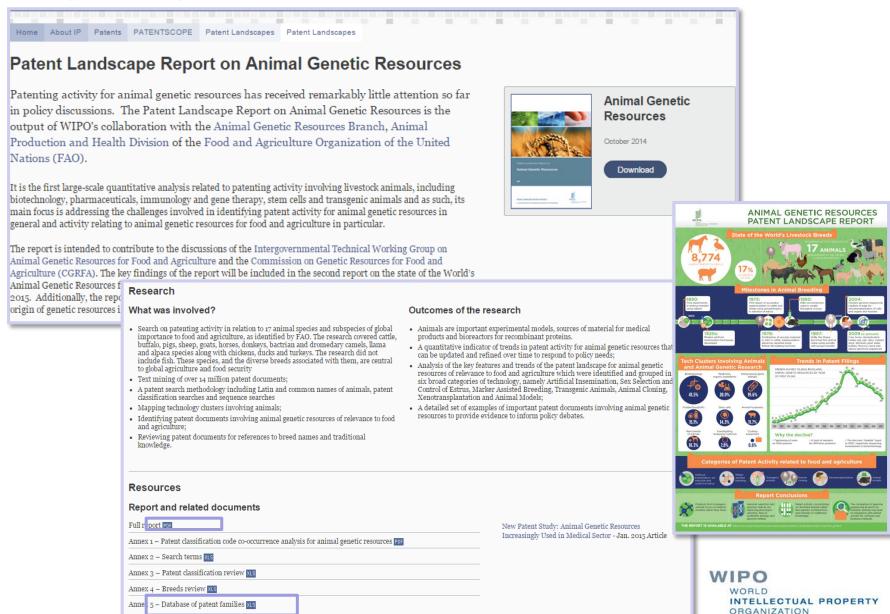
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**PLR Guidelines** 

Reports by other organizations

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### Report-specific websites



### Report-specific websites (2)

#### Patent dataset



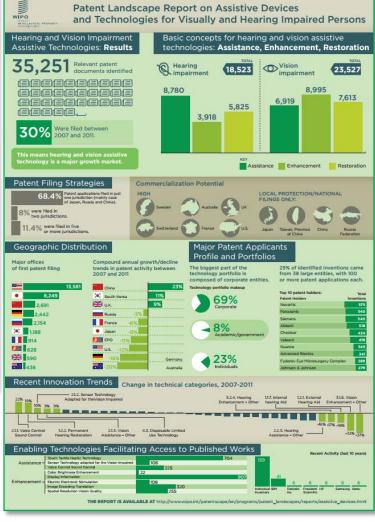
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Links to full documents

Documents tagged based on clusters and other grouping criteria

#### Infographic



#### Recent and future work

- Recently published:
  - Palm Oil Production and Waste Exploitation





Microalgae-related technologies





- Patent Landscape Reports soon to be published:
  - Accelerator technologies and their medical and industrial applications
  - Selected Neglected Diseases



New PLR (FIT-JP): Marine genetic resources













#### Area of growing interest

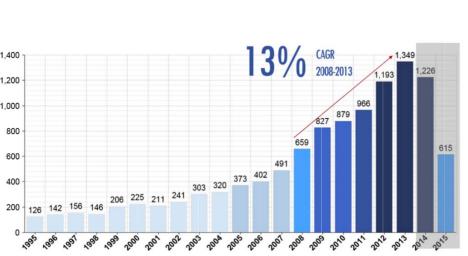


Figure 1 - Number of Patent families per Earliest Priority Year<sup>3</sup> (1995-2015)

#### **Mainly national filings**

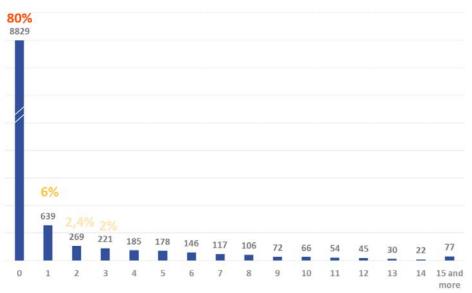
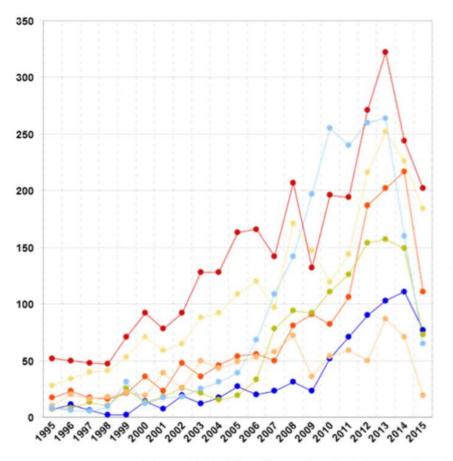


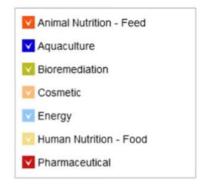
Figure 9 - Distribution of Patent Families by Number of OSF patent applications were filed



# Key findings in the microalgae PLR

#### Microalgae applications





Application	CAGR (2009-2013)
Animal Nutrition - Feed	16%
Aquaculture	35%
Bioremediation	11%
Cosmetic	19%
Energy	6%
Human Nutrition - Food	14%
Pharmaceutical	19%

Figure 39 – Timeline of activity in applications of microalgae

# Brazil in the microalgae PLR

#	Country	95-99	00-04	05-09	10-14	2015	Total
1	CHINA	112	282	897	3450	600	5341
2	UNITED STATES	102	222	568	546	3	1441
3	JAPAN	285	269	352	243	1	1150
4	KOREA	33	137	275	607	5	1057
5	FRANCE	37	45	81	104	0	267
6	GERMANY	36	67	60	44	0	207
7	EUROPE	15	31	65	63	0	174
8	RUSSIAN FEDERATION	33	39	32	65	2	171
9	TAIWAN	0	14	46	85	0	145
10	INDIA	9	26	34	58	2	129
11	THAILAND	28	32	45	13	0	118
12	WORLD	5	15	38	59	0	117
13	MOLDOVA	6	24	42	32	0	104
14	SPAIN	4	18	31	39	0	92
15	UNITED KINGDOM	9	12	28	26	2	77
16	AUSTRALIA	7	12	25	10	0	54
17	UKRAINE	1	10	27	15	0	53
18	BRAZIL	0	0	23	29	0	52
19	ITALY	8	7	13	19	0	47
20	CANADA	10	6	6	11	0	33
21	MEXICO	1	0	7	16	0	24
22	ROMANIA	3	3	1	13	0	20
23	ISRAEL	9	2	4	4	0	19
24	NEW ZEALAND	3	5	5	3	0	16
	SWEDEN	9	4	3	0	0	16

3	AUSTRALIA	155	226
4	CHINA	73	156
5	UNITED STATES	103	184
6	CANADA	109	171
7	JAPAN	113	179
8	KOREA	45	103
9	INDIA	25	91
10	MEXICO	22	69
11	BRAZIL	45	79
12	SPAIN	64	
13	ISRAEL	30	51
14	GERMANY	83	87
15	AUSTRIA	68	102
16	TAIWAN	22	36
17	RUSSIAN FEDERATION	9	36
18	NEW ZEALAND	22	29
19	ARGENTINA	16	22
20	DENMARK	33	40
			NA.

Country
WORLD

2 EUROPE

patent families per Office of Second Filing D ORGANIZATION

95-99 00-04 05-09 10-14

patent families per Office of First Filing

# Brazil in the microalgae PLR

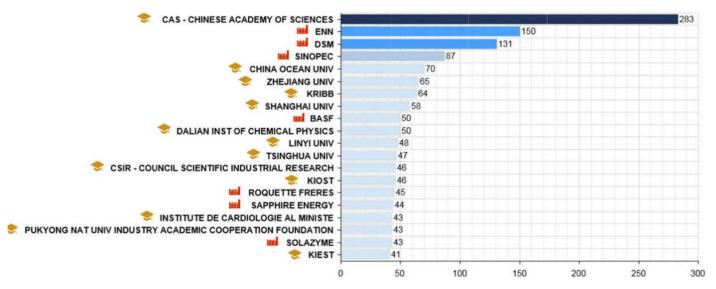
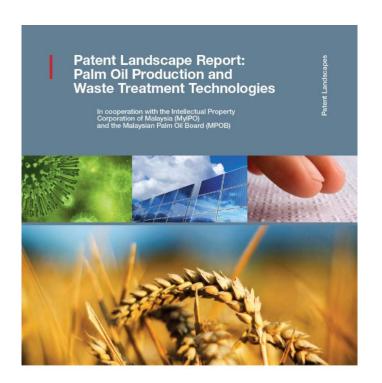


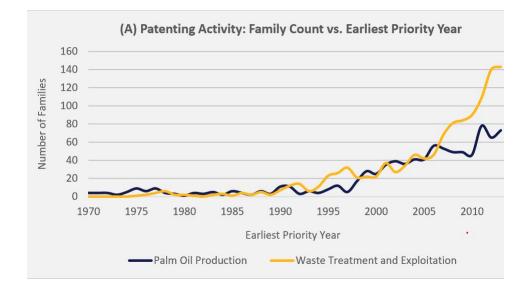
Figure 11 - TOP 20 Applicants

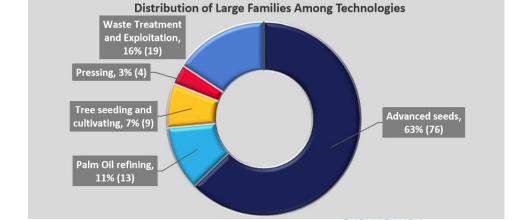
	TOP 10 APPLICANTS - LATIN AMERICA	Total
0	OURO FINO 🔤	11
0	UNIV PARANA <b>★</b>	8
(3)	INST TECN ESTUDIOS SUPERIORES MONTERREY	7
0	COSTA JORGE ALBERTO VIEIRA 🕏	4
	PETROBRAS Incl.	4
(	CENTER INVESTIG ESTUDIOS DEL IPN *	3
0	UNIV RIO DE JANEIRO 🕏	3
0	UNIV RIO GRANDE \$	3
0	UNIV SAO PAULO 🕏	3
0	AEON BIOGROUP	2
0	UNIV PERNAMBUCO ♥	2
(	UNIVERSITY AUTONOMA METROPOLITANA	2
0	UNIVERSITY OF CHILE \$	2



## Key findings in the WIPO Palm Oil PLR







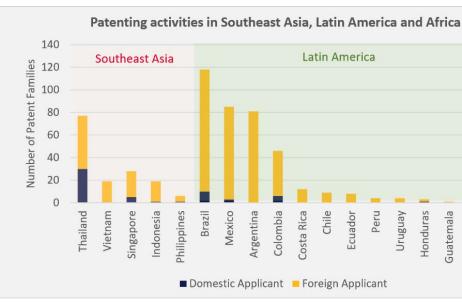






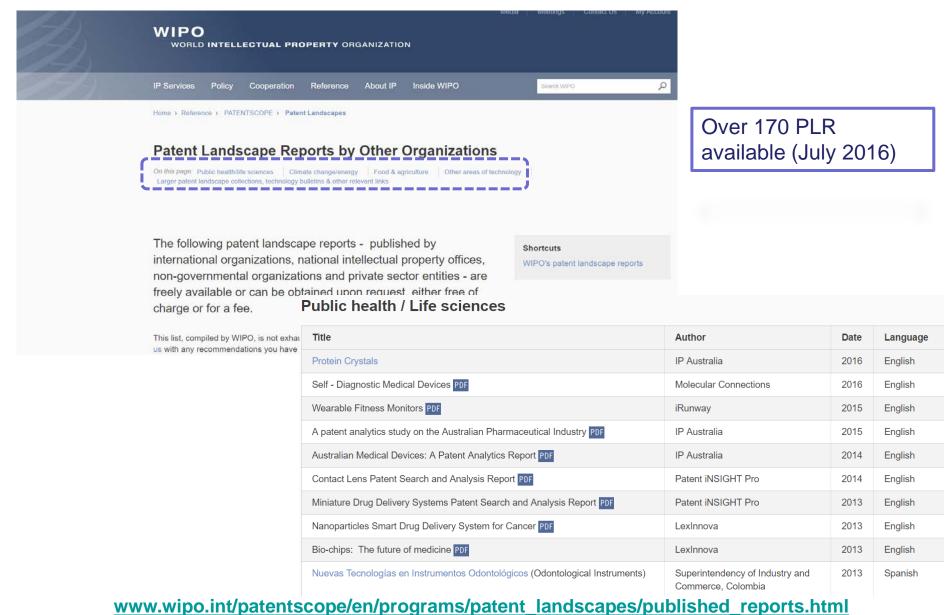
### Brazil in the Palm Oil PLR





	Most Active Applicants in Palm Oil Production								n -													
	wo	CA	EP	CN	ΑIJ	BR	ιs	AR	IN	MX	JP	DE	ES	AT	ZA	СО	ID	DK	KR	CR	RU	NZ
МРОВ	27	1	10	7	3	8	25		4		4	5		3		7	11			2		
BASF	86	70	51	48	5!	39	25	42	38	35	13	17	16	12	9	2		3	6	2	5	4
CATAS-CHINA																						
AGRINOMICS	24	7	5	11	7	12		6	1	10	1	1	2	1	10			2	1		1	
MONSANTO	19	14	15	11	18	11		7	5	1	3	6	4	7				3				1
SIME DARBY	12		1	1	1						1		1			3		1		3		
UNIV PUTRA	2																					
DUPONT	8	7	7	5	5	6		3	2	3	3	1	2		1	2						1
NESTLE	5	1		5	1				1	1	4										1	
FUJI OIL	4		3	1															2			
AGRIGENETICS	5	5						5														
CARGILL	4		1				П		1													
SUED CHEMIE	5	2	2	1				1	1	2	1		1			1						
ZHONG YONGTAI																						
CERES	4	3	2	2	2	1			2	2												
SWETREE TECH	2	2	3	3	2		,		1		2				1							1

# Unique compilation of PLR prepared by other organizations



# GUIDELINES FOR PREPARING PATENT LANDSCAPE REPORTS



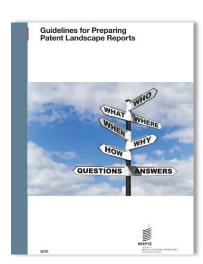
# Guidelines for Preparing Patent Landscape Reports

- Developed in the Framework of Phase II of the Development Agenda project "Developing Tools for Access to Patent Information"
- Addressed to patent information users, providers and/or recipients of PLRs
- Intended to be used also in capacity building activities on patent analysis



# Guidelines for Preparing Patent Landscape Reports(2)

- Authored by Tony Trippe with contributions from WIPO Secretariat
- Published in September 2015 and available on <a href="http://www.wipo.int/patentscope/en/programs/patent\_landscapes">http://www.wipo.int/patentscope/en/programs/patent\_landscapes</a>
- Structure:
  - Background information on patent information
  - Objectives and motivations for preparing PLRs
  - Different types of patent analysis
  - Tasks associated with the preparation of PLRs
  - Stages in the preparation of PLRs
  - Examples and experience from WIPO's work in PLR



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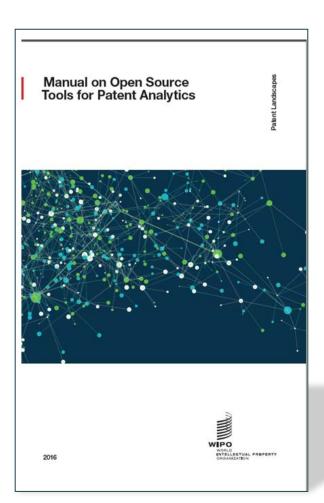
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# MANUAL ON FREE AND OPEN SOURCE TOOLS FOR PATENT ANALYTICS

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# The Manual on Open Source Tools for Patent Analytics

- Project launched in May 2015, funded by FIT-JP
- Key author of the Manual: Paul Oldham
- Aimed at exploring:
  - various free and open source tools which could be used for various patent analysis tasks by users in developing countries





# Technology and Innovation Support Centers (TISC)

#### TISCs: Services



- Core services
  - Access to patent and non-patent databases
  - Assistance in using databases
- Additional services (based on user need and office capacity)
  - Technology search services
  - Patent analytical services
  - Awareness-raising and training services



# Evolution of TISC Services based on development stage

#### **Progress**

#### **Advanced Stage Initial Stage Intermediate Stage** - Analysis of technical - Overview of - Citation Analysis trends and other types of databases - Competitor Analysis patent analysis (e.g. - Basic search Patent Landscape - Patentability searches strategies Reports) - Validity/Invalidity Searches - Overview of specific - Protection strategies types of search - Freedom to operate - Evaluation of - Legal status information - State of the art technologies for searches commercialization and/or licensing **Time**

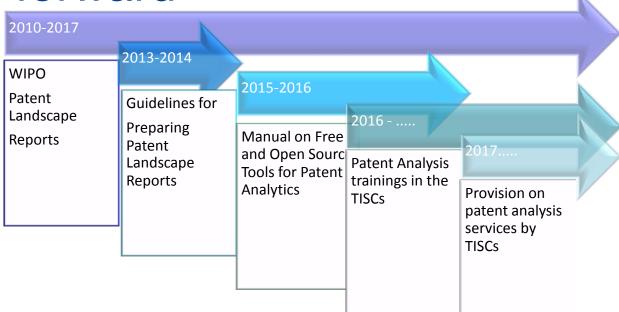
# TISC and patent analytics – way forward



Expected Results	Performance Indicators	Performance Indicators Baselines					
	No. of TISC Clinic requests submitted to TISCs	n/a (new)	10				
	No. of TISCs offering patent analytical services	n/a (new)	5				



Way forward



- TISC: Capacity building activities in the TISCs— support in their building their analytics services
- Patent Analytics:
  - Further work on specific topics and/or methodological approaches of patent landscaping
  - Further work on open source tools for patent analysis (further tools, towards an R package for patent data?)
  - Further enriching of the PLR compilation website with the PLR reports

Thank you for your attention!

Irene.Kitsara@wipo.int

