



### **IT Challenges in IP Office Operations**

Using Advanced Data Analytics and Automation Techniques

December 5, 2022 | IPOPHL MPH

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# IPOPHL Rising at 2

**Creating a Silver-Bright Future** 

Gawad Yamang Isip Awards & Stakeholders' Night

### 6 June 2022 | 5:00 PM

IPOPHL | www.ipophil.gov.ph

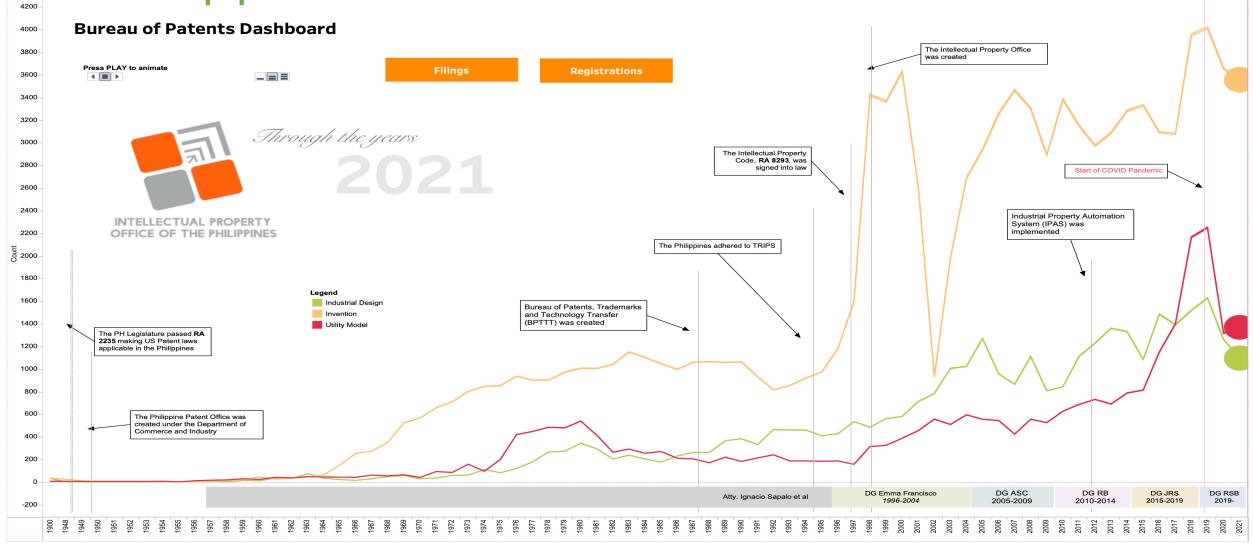


### IPOPHL celebrates 25 years of advancing innovation, creativity through the IP Code

for o POPHL | www.ipophil.gov.ph



## Philippine Patents Over The Years

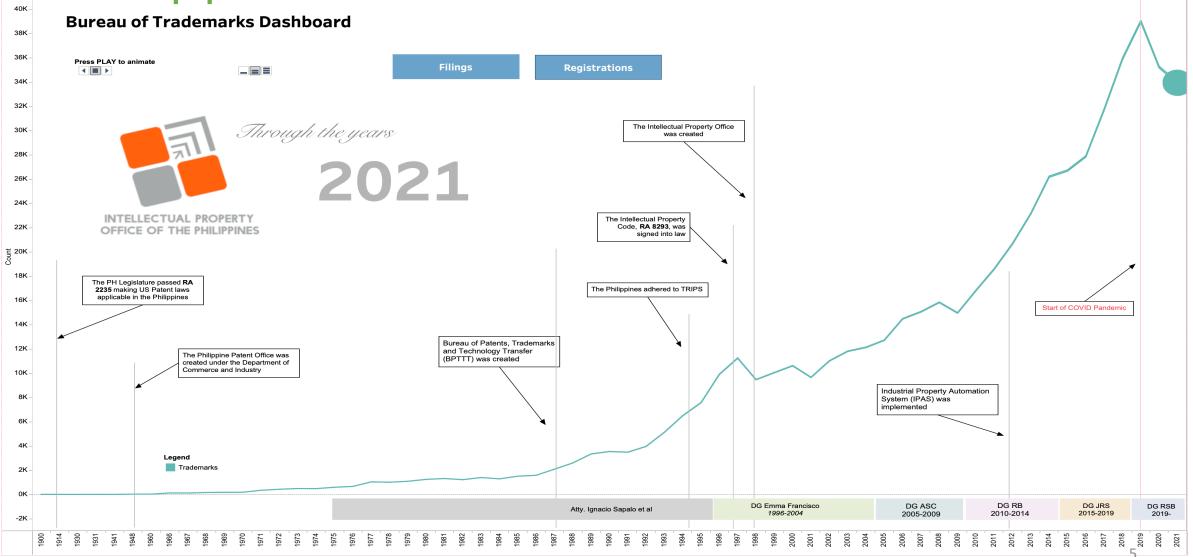


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IPOPHL Business Intelligence 2.0 v2021-CAM.

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## Philippine TMs Over The Years



IPOPHL BI v2021-CAM Copyright © 2021 Intellectual Property Office of the Philippines. All rights reserved

42K

Datasource IP\_TRADEMARKS (IPOPHL-BI-2021) as of 11/23/2021 8:47:30 PM

# **Our Main Office**

Intellectual Property Center #28 Upper McKinley Road McKinley Hill Town Center Fort Bonifacio, Taguig City 1634 Philippines





### **IPOPHL REACHING OUT TO THE PROVINCES**

# **Call Center and Satellite Offices**

### **General Information**

For IP related concerns such as processing and general queries about our services.

Trunkline: (02) 7238-6300



FB Messenger: m.me/IPOPHL

Customer Service: customerservice@ipophil.gov.ph

www.ipophil.gov.ph/contact-main-office



The IPOPHL recognizes that effectively harnessing the intellectual property system towards economic development is a coordinated, nationwide undertaking.

To extend its services and capture IP creators outside of Metro Manila, IPOPHL maintains a network of Intellectual Property Satellite Offices (IPSOs) throughout Luzon, Visayas, and Mindanao, housed in Department of Trade and Industry (DTI) offices. Find an IP office near you!

+	BAGUIO [CAR]	+ NAGA [REGION 5]	CAGAYAN DE ORO [REGION 10]
Ð	VIGAN [REGION 1]	E ILOILO [REGION 6]	<b>DAVAO [REGION 11]</b>
Ð	TUGUEGARAO [REGION 2]	E CEBU [REGION 7]	<b>GENERAL SANTOS [REGION 12]</b>
ŧ	PAMPANGA [REGION 3]	<b>DUMAGUETE</b> [REGION 7]	E CARAGA [REGION 13]
ŧ	NCR	TACLOBAN [REGION 8]	
+	LEGASPI [REGION 5]	<b>2AMBOANGA [REGION 9]</b>	7

# IPOPHL REACHING OUT ONLINE IN THE CYBERSPACE

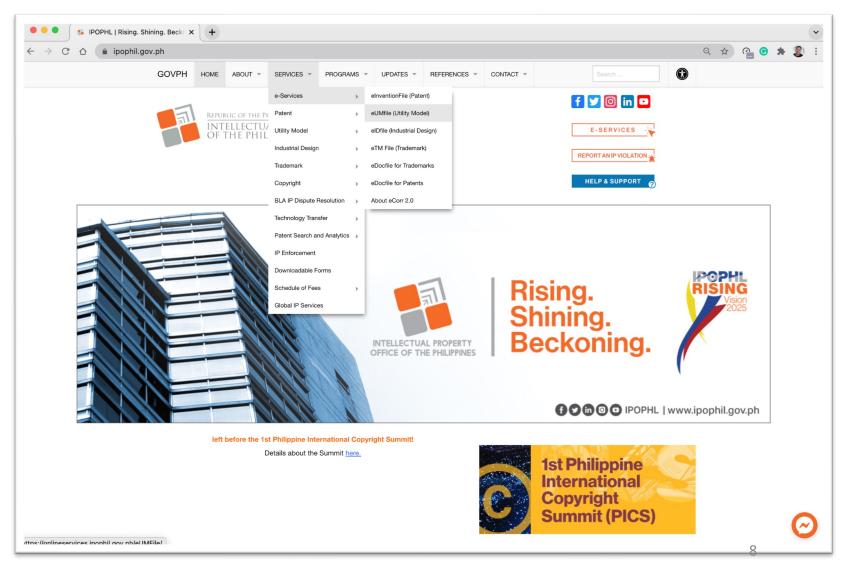
#### **Online Filing:**

- Patents elnventionFile
- Industrial Design -eIDFile
- Utility Models eUMFile
- Trademarks eTMFile
- Copyrights and Related Rights
- Commercial Patent Search
- Technology Transfer
- Patent Search PatentScope
- TM Search TMView

### **Post Filing Services:**

- Doc Submission eDocFile
- Correspondence eCorr
- Virtual Mediation
- WebChat/ChatBot, etc.





# IPOPHL REACHING OUT IN THE MOBILE SPACE

### **Online Filing:**

- Patents elnventionFile
- Industrial Design -eIDFile
- Utility Models eUMFile
- Trademarks eTMFile
- Copyrights and Related Rights
- Patent Search
- Technology Transfer

#### **Other Services:**

- Office Locator
- Report Violations
- Contact IPOPHL
- Pocket Reference
- Alerts/Notifications



Launch in October 2020

### IPOPHL REACHING OUT ONLINE

### **IPOPHL** Website





### September 24, 2021

### IPOPHL unveils newly enhanced analytics platform

### Dives deeper into 4IR

https://www.ipophil.gov.ph/news/4ir/



#### IPOPHL Levels Up Service with New Mobile App, Partners with DTI to Expand MSME Reach

October 19, 2020

Aiming to reach out to more creators and innovators and provide them an easier way to secure their intellectual property (IP) assets, the IP Office of the Philippines (IPOPHL) launched Monday, Oct. 19, its very own mobile application it named "IPOPHL Mobiliz."

### **IPOPHL** unveils newly enhanced analytics platform, dives deeper into 4IR

September 24, 2021

The Intellectual Property Office of the Philippines (IPOPHL) is one of the leading government agencies taking the Philippines into the realm of the Fourth Industrial Revolution (4IR). The agency proves this once again with its recent launch of the Business Intelligence (BI) v2.0 Online platform.



The newly released data visualization platform incorporates cutting edge machine learning/AI and advanced analytics features into its existing Big Data Infrastructure, which has intellectual property (IP) information collected from over 50 years.

"With the launch of our Business Intelligence v2.0 Online, IPOPHL expects a dramatic improvement in the agency's

# Business Intelligence 2.0 / Data Analytics



# And we live happily ever after, EOS, right?



### INTELLECTUAL PROPERTY OFFICE OF THE PHILIPPINES

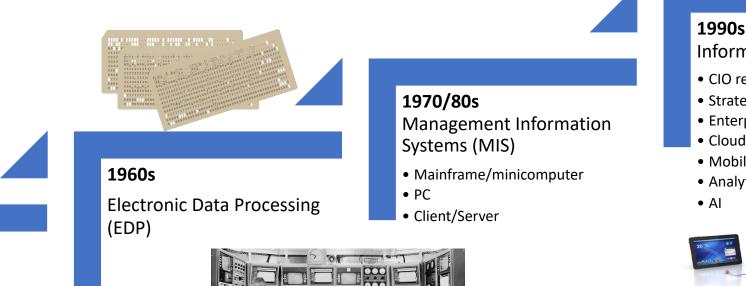


- Our automation goals are not optimized: *Our online filing facilities are barely there at only 15% utilization!*
- Awareness and appreciation on using advanced IT tools such as: Data Analytics, Data Visualization barely register on users, especially among the top management
- For example, releasing our first ever mobile app was just a one-day event



And of course, it can also be said that we at IPOPHL are a bunch of IT overachievers and nerds who cannot sit still. We are always ready to do more!

### **EVOLUTION OF INFORMATION TECHNOLOGY** IT Evolution in an Organization



1950s **Data Processing** 

### Information Technology (IT)

- CIO reports directly to CEO
- Strategic partner
- Enterprise Computing
- Cloud Computing
- Mobile
- Analytics



# The Challenges of IT in Government 5, BUREAUCRACY

- Currently, the government looked at MIS only as a "support group" (post 1970s thinking)
- Limited CSC IT Plantilla IT Officer I-III, Information Systems Analyst I-III, Computer Maintenance Technologist I-III
- Difficulty in attracting IT talents, Management Roles vs Leadership Roles
- Marketing

# Lessons Learned from COVID-19



### GOVERNMENT

• Broke down traditional thinking that are counterintuitive and barrier to automation

- Massive investment to IT infra and mobile devices
- Enabling of WFH
- Access to more online payment options
- Bold and progressive-thinking leadership

# Shaking the Status Quo

Impacts of COVID-19 on the delivery of IPOPHL government services:

- Frequent lockdowns, limited face-to-face interactions
- IPOPHL projects around -65% revenue loss for 2019
- IPOPHL implements extreme cost-cutting measures
- Limited resumption of operations results to long queues and complaints
- Overburdened cashiering operations, increased overtime expenses
- Etc.

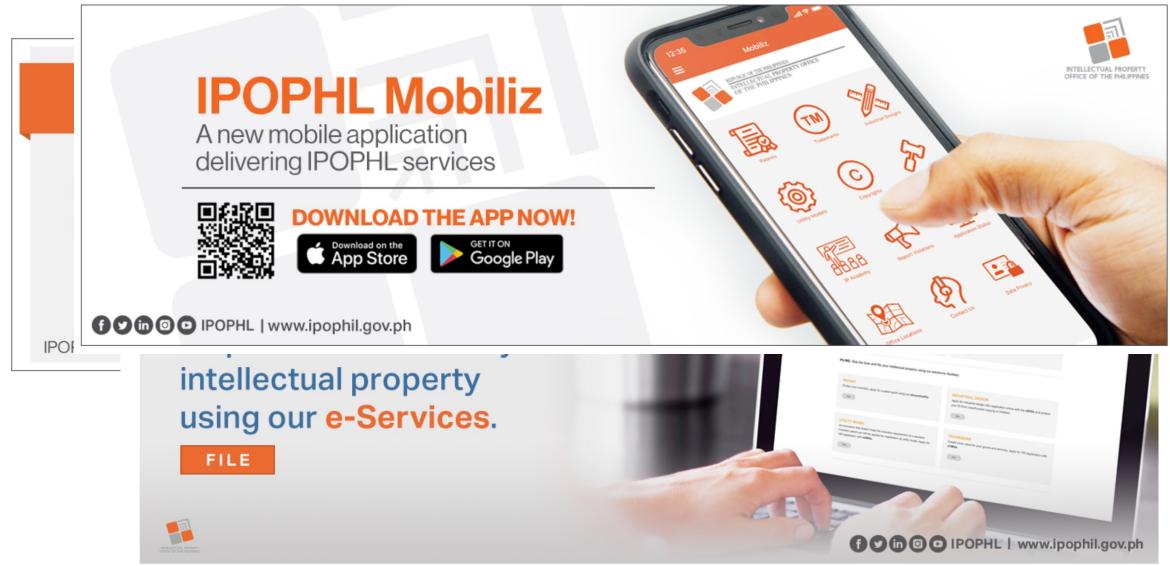
An opportunity presented itself to showcase the power of data analytics for in-depth analysis and data visualization. And bold management decision-making!



### SOLVING AN OLD PROBLEM USING NEW TOOLS AND FRESH PERSPECTIVE The Power of Insights On Demand

N. Anonymized Agent	1	2	3	4	5	6	7	8	9	2021
Grand Total	₱ 386,128	₱ 149,152	₱ 2,252,523	₱ 8,333,568	₱ 11,276,017	₱ 10,319,363	₱ 3,415,643	₱ 343,983	₽ 250,051	
****					₽ 8,497,410	₱ 7,897,576				Month
F *****	₱ 3,636		₽ 2,227	₱ 6,003,045	₱ 30,603	₱ 1,000	₱ 96,309	₱ 18,180		
C **** ***			₽ 359,900	₽ 323,138	₱ 592,770	₽ 477,718	₽ 1,303,011			May
H. ******			₱ 136,112	₽ 221,521	₱ 132,794	₱ 102,827	₽ 216,920			· · · · · · ·
E ** ** *****************************		<b>P</b> 500	₽ 2,912	₽ 124,225	₽ 278,002	₱ 6,320				
M. **** ** *****			₱ 22,968	₱ 43,884	₱ 41,413	₱ 169,684	₱ 70,066	₱ 78,178		100K Threshold
Q. ****	₽ 82,469	₽ 4,122	₱ 16,390	<b>P</b> 28,085	₱ 103,876	₱ 33,820	₽ 44,501	<b>P</b> 21,170		>₽100K
S ****** ****************************		₽ 1,212	<b>P</b> 138,791	₱ 33,496	<b>P</b> 37,657	₱ 48,054	₱ 62,758			Below ₱100K
B. ****** *****************************			<b>P</b> 37,427	₽ 14,932	₱ 7,466	₽ 25,070	₽ 23,864	<b>P</b> 730		
R. ************************************				₽ 177,630	₱ 56,322		₽ 10,359			
0. ****** *****************************		₽ 11,878	₱ 88,181	₱ 79,215	₽ 1,212	₱ 23,086	₽ 92,907		₱ 1,340	
C **** ****** * *****		₽ 1,320	<b>P</b> 32,036	<b>P</b> 30,603	₽ 76,550	₽ 19,278	₱ 61,328		₱ 39,208	
B. ************************************			₱ 20,705	₱ 6,496	₽ 2,618	₱ 30,301	₱ 39,556		₱ 1,212	
B. *****			₽ 186,541			₽ 4,242				
S ***** ****** ******			₽ 41,832	₱ 12,498	₱ 58,903	₱ 36,659	₽ 18,645		₽ 2,377	
V. ****			₽ 1,220	<b>P</b> 33,771	<b>P</b> 25,678	₱ 9,454	₽ 125,536			
S ***********************************			<b>P</b> 69,478	₱ 1,495	<b>P</b> 430		₱ 66,345			
V. ******* - *******************	₱ 79,992		<b>P</b> 32,969	<b>P</b> 21,334	₱ 17,696	₽ 22,503		₽ 17,574		
A. ***** ************************				₱ 6,262						
U. *****					₱ 43,834	₽ 21,816	₱ 44,238		₱ 44,238	
E *****				₽ 25,032	<b>P</b> 28,162	<b>P</b> 1,485	<b>P</b> 27,257	<b>P</b> 3,879		
A. ****** *****************************			₱ 39,037		₽ 4,242	₱ 5,819	₽ 13,272		₱ 57,594	
A. ** ** ****** * *****			<b>P</b> 17,877	₱ 7,660	₽ 21,986		₽ 41,208			
C ****** *****_***.			₽ 22,790	₱ 50,667		₽ 24,252	₱ 42,824			
C ***********************************			₽ 11,132	₽ 86,779	₱ 39,693	₱ 3,353	<b>P</b> 21,877	₽ 14,746		
S ***********************										
V. *******			₽ 20,749		₽ 21,942		₱ 13,591			
M. **** ************			₽ 10,545		₽ 9,455	₽ 92,051	₽ 47,985			
C ***** ** ** ***_***.			₽ 16,970		₱ 10,908		₽ 21,820			
M. ***** *****************			₽ 18,067	₱ 3,518		₽ 4,614				
M. ****_***	₱ 6,001		₱ 6,617	₱ 16,792	₱ 2,975	₱ 3,919	₱ 11,669			
M. ************************************			₽ 7,567		₽ 5,770		₽ 27,121			
B. ***** ******************************					₽ 8,484					
C *****						₱ 46,783	₱ 6,303			

### SOLVING AN OLD PROBLEM USING NEW TOOLS AND FRESH PERSPECTIVE Bold and Progressive Decision-Making



# Immediate Results



### GOVERNMENT

- 100% online filing
- More streamlined customer processing workflows
- Recognition of IT as a strategic partner to the organization and its survival "sink or swim"
- Increased demand and support for IT automation projects
- Major proponent for the institutionalization of WFH
- Etc.

### REINFORCEMENT IN THE NEW NORMAL Establish a Single Source of Truth



### REINFORCEMENT IN THE NEW NORMAL Increased Transparency and Availability



Desktops/TV

Tablets/PDAs

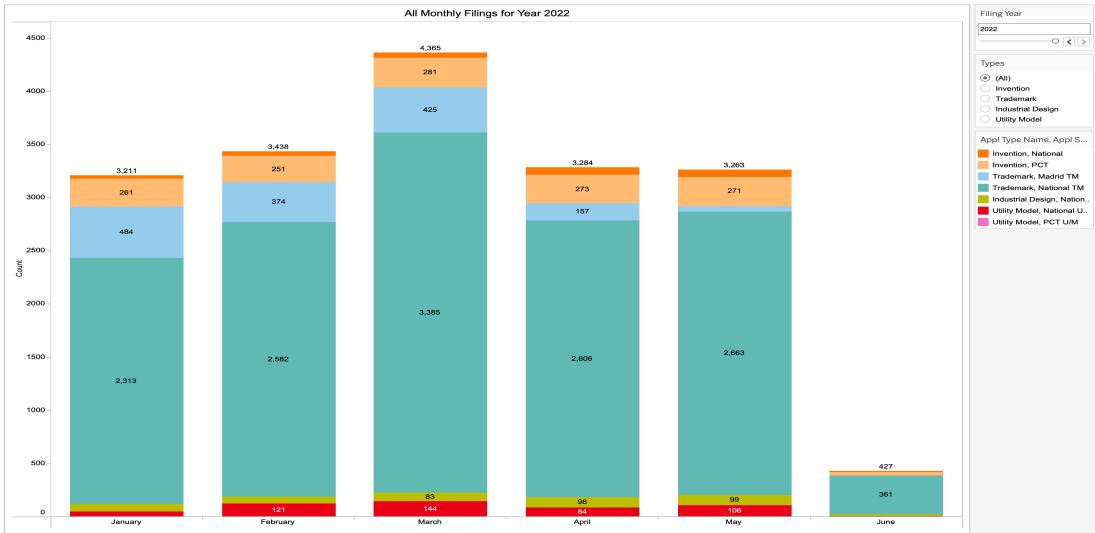
Phones

#### **REINFORCEMENT IN THE NEW NORMAL**

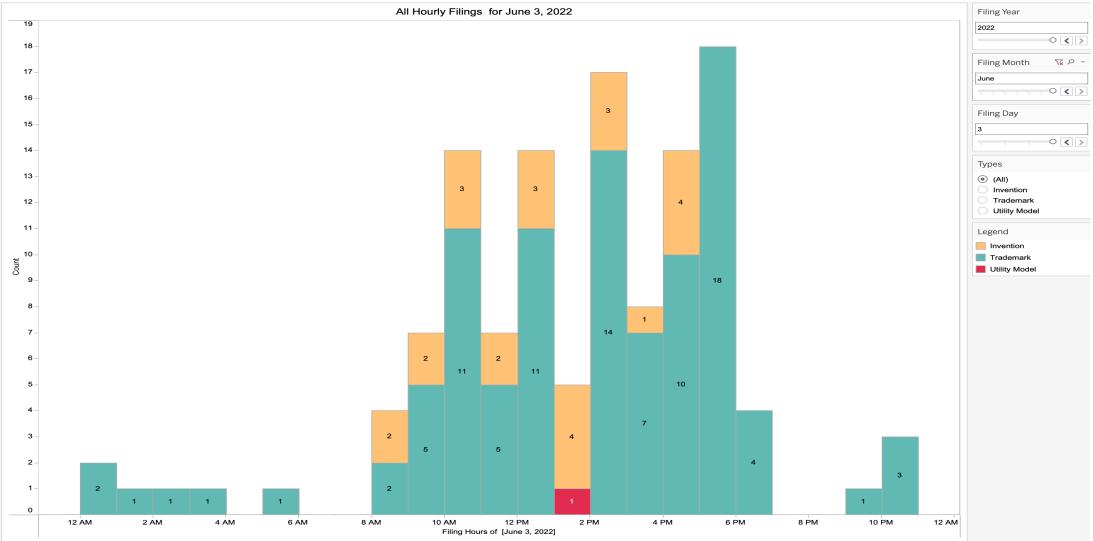
### Leveraging on the Value of Forecasting

Trademark Filing Trends and Forecasts 60K 55K 49.597 50K 47.597 45.596 45K 43,596 41.596 39,607 40K 39,063 35,962 35,290 35K Filing Year: 2022 41,596 Count: Indicator: Estimate 31,780 Lower Limit: 36,283 Sound 30K Upper Limit: 46,909 27,910 26,741 26.235 25K 23.189 20.698 20K 18,614 15K 10K 5K oк 2011 2012 2022 2013 2014 2015 2016 2017 2018 2019 2020 2021 2023 2026 2027 2024 2025 Year of Filing Date

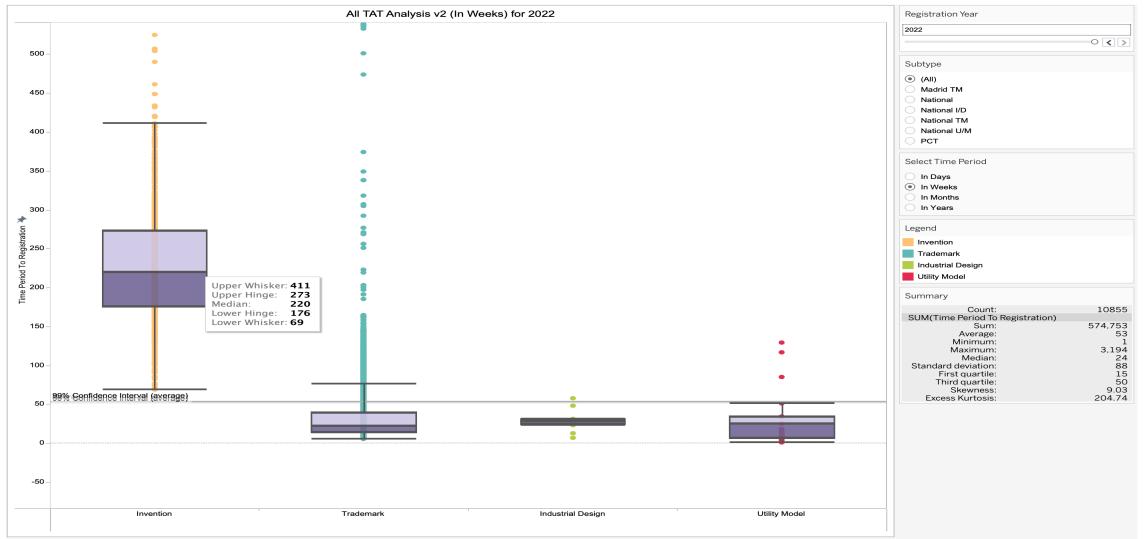
# Insights and Data-Driven Decision-Making



# Drill-down and In-depth Analysis

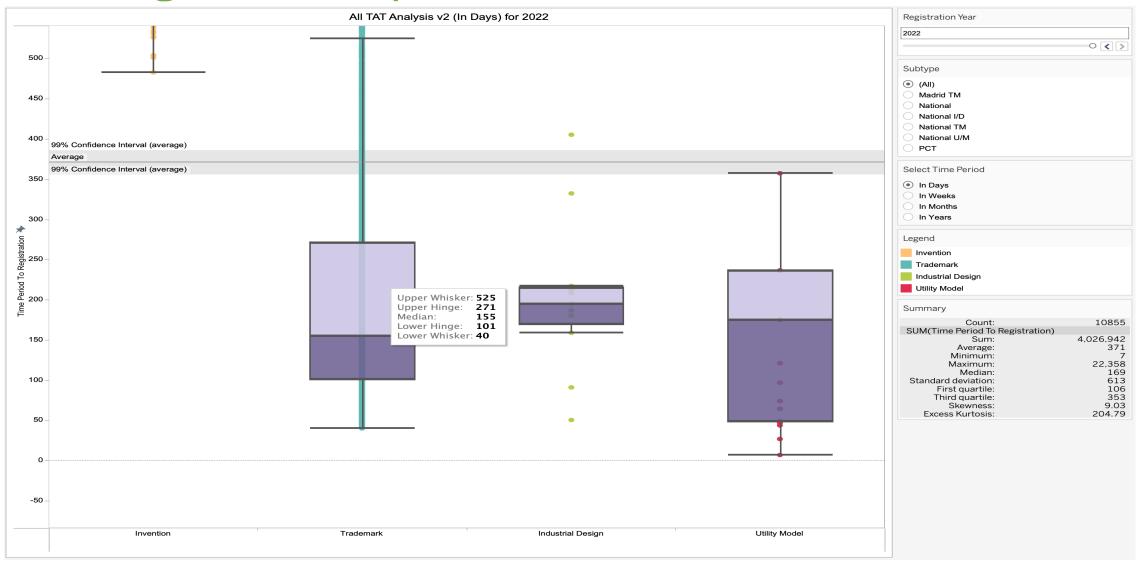


# Advanced Stats, Algorithms, ML and Al



#### REINFORCEMENT IN THE NEW NORMAL

# Ability to Compare Across Time



#### NEW NORMAL

# IT As A Strategic Partner In An IP Office



# IPAS As The Core Application in an AMS



A new level of cooperation A new level of Support Data Exchange

Shared and Mutual Responsibility

Raise awareness, complain, demand for a better setup!

An ever-emerging challenge

# **Best Practice Sharing**

# Social and Economic Progress Indicators

With roughly 80 indicators, the GII ranks the countries in the world with their innovation capabilities.





The Philippines **ranks 54th among the 129 economies.** The Philippines ranks 6<sup>th</sup> among the 26 lower middle-income economies.

The Philippines ranked **50th in** 2020, up four notches from its ranking in 2019. "Based on the (GII) report, the Philippines produces more innovative outputs relative to its level of investments".



The Philippines ranks 51st

In the GII 2021 report, the Philippines ranked 4th among the 34 lower middle-income group economies and 11th among the 17 economies in Southeast Asia, East Asia, and Oceania.

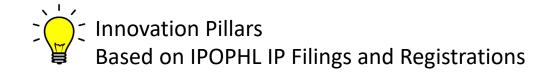


# Latest Government Focus











# Hold on. Just one problem...



Based on IPOPHL IP Filings and Registrations





# But wait. There is data!

Information Technology and Crowdsourcing to the rescue!





More than 30 years worth of operational data We just need to be convert into a usable format!



# Addresses to be Remapped

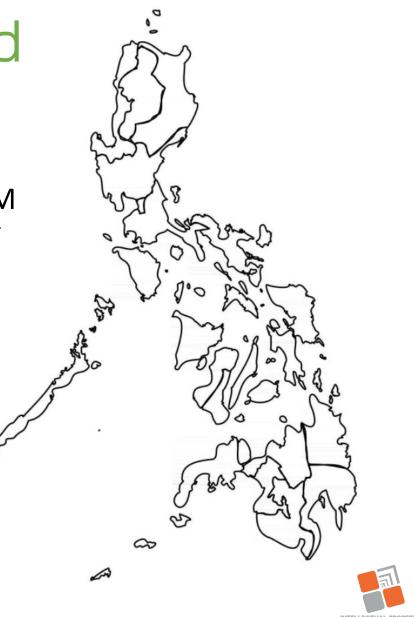
**536,125** addresses for Trademarks **602,366** addresses for Patents, I/D and U/M

### Total **1,138,491** addresses

### **CROWD-SOURCING ESTIMATES:**

Speed:4 addresses/minHours Per Day:2 hours/day# of Participants:100 employees

Days To Complete: 24 days



# Addresses to be Remapped

**536,125** addresses for Trademarks **602,366** addresses for Patents, I/D and U/M

### Total **1,138,491** addresses

### CROWD-SOURCING ESTIMATES:

Speed:5 addresses/minHours Per Day:8 hours/day# of Participants :200 employees

Days To Complete: 2 days



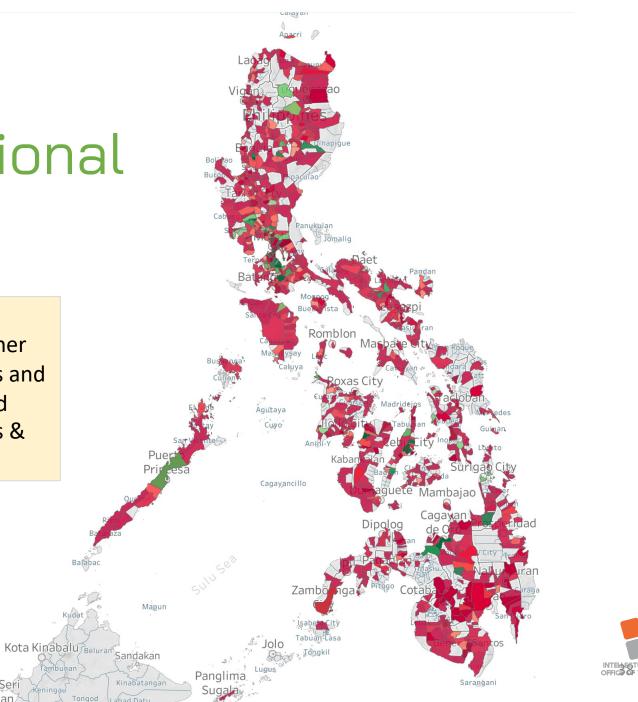
### Address Remapper App

Main Site Dashboard Online Services -	♦ Theme ▼ charles.merioles@ipophil.gov.ph Log out	
Address Remapper		
Address Editor		
Reference Address of 12345 / 789 in Trademarks		
123 Street, BF Northwest Village, Paranaque City, Metro Manila, PH, 1720	le la	
NEW U Street address	JPDATED VALUES	
Unit #, Floor, Block/Lot, Street address	\$~	
Village/Barangay/District		
Village/Barangay/District	<b>≠~</b> Q	
Town/City/Municipality	Province/State	
Enter town or city or municipality	Q Enter province or state	
Country	Zip Code	
Enter country	Q Enter zip code $7 - Q$	
Yes, I confirm the address is valid		
Image: Save A Mark As Invalid		
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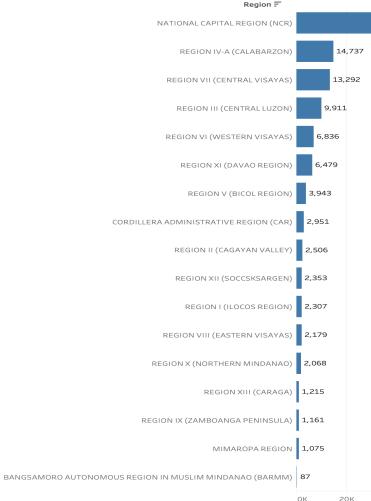
# Mapping the National IP Landscape

Our new and demonstrated capability to monitor the IP landscape in a granular manner across time ushers in a new era of initiatives and innovations baselined on Big Data, advanced analytics, and data-driven decision-makings & insights.

> Bandar Ser Begawan



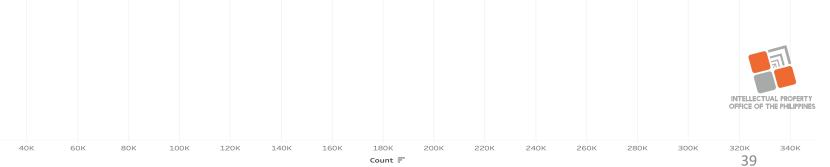
# Big Data Reveal – By Region



Current IP landscape is reflective of the Philippine economy and is concentrated mainly in the National Capital Region (NCR).

With the current focus on core automation and availability of online services: both web and mobile, IPOPHL is headstrong in opening and expanding its reach to make it even easier for our remote provincial users to register and protect their intellectual properties.

327,300



# Big Data Reveal – By City

QUEZON CITY METRO MANILA NATIONAL CAPITAL REGION (NCR) 71,195	MANILA CITY METRO MANILA NATIONAL CAPITAL REGION (NCR) 47,086		PASIG CITY METRO MANILA NATIONAL CAPITAL REGIOI 30,523	N (NCR)	CAINTA RIZAL REGION IV-A	CEBU CITY CEBU REGION VII (CENTRAL VISAYAS) 8,347
MAKATI CITY METRO MANILA NATIONAL CAPITAL REGION (NCR) 69,408	TAGUIG CITY METRO MANILA NATIONAL CAPITAL REGION (NCR) 20,987	CALOOCAN CITY METRO MANILA NATIONAL CAPITAL REGION (NCR) 11,171	SAN JUAN CITY METRO MANILA NATIONAL CAPITAL REGION (NCR) 9,280	VALENZUELA CITY METRO MANILA NATIONAL CAPITAL REGION (NCR) 8,717		
	MANDALUY Province: METR	IG CITY CO MANILA DNAL CAPITAL REGION (N 77 NATIONAL CAPITAL F (NCR) 7,870	CITY	R) CITY METRO MANILA NATIONAL CAPITAL REGION (NCR)	DAVAO DEL SUR REGION XI (DAVAO REGION) 5,931	
	PARAÑAQUE CITY METRO MANILA NATIONAL CAPITAL REGION (NCR) 12,869	MUNTINLUPA CI METRO MANILA NATIONAL CAPITAL F (NCR) 6,967	TY	IILA APITAL		

Quezon City, Makati and the City of Manila continue to be the main drivers of IP in the Philippines!



# Regional Coverage

Applicant Region	In-process	Released	Inactive			
NATIONAL CAPITAL REGION (NCR)	19,149	76,533	187,819			
REGION IV-A (CALABARZON)	2,757	6,807	13,214			
REGION VII (CENTRAL VISAYAS)	1,624	5,009	9,543			
REGION III (CENTRAL LUZON)	2,103	4,864	8,690			
REGION VI (WESTERN VISAYAS)	729	2,158	3,205			
REGION XI (DAVAO REGION)	777	1,747	3,878			
REGION V (BICOL REGION)	546	1,027	1,651			
CORDILLERA ADMINISTRATIVE REGION (CAR)	379	944	1,433			
REGION X (NORTHERN MINDANAO)	409	900	1,770			
REGION II (CAGAYAN VALLEY)	566	879	1,085			
REGION I (ILOCOS REGION)	423	772	1,128			
REGION XII (SOCCSKSARGEN)	219	739	1,492			
REGION VIII (EASTERN VISAYAS)	340	712	836			
MIMAROPA REGION	236	353	557			
REGION IX (ZAMBOANGA PENINSULA)	101	300	648			
REGION XIII (CARAGA)	202	268	503			
BANGSAMORO AUTONOMOUS REGION IN MUSLIM MINDANAO (BARMM)		33	124			

INTELLECTUAL PROPERTY OFFICE OF THE PHILIPPINES

### Provincial Coverage

											CMCI S <sup>4</sup>	tatus							
Applicant Region	Ŧ	Applicant Province			In-p	process					Relea	sed					Inactive	е	
REGION XI (DAVAO REGION)		DAVAO DEL SUR		654							1,561								3,556
		DAVAO DEL NORTE	63						113						241				
		DAVAO DE ORO	21						34						45				
		DAVAO ORIENTAL	36						33						34				
		DAVAO OCCIDENTAL	3						6						3				
			OK	1K	28	< 3	3K	4K	OK	1K	2К	ЗK	4	( 0	OK :	1K	2К	ЗK	4K
					Applica	tion Cour	nt			A	pplicatio	n Count				Appli	cation (	Count	

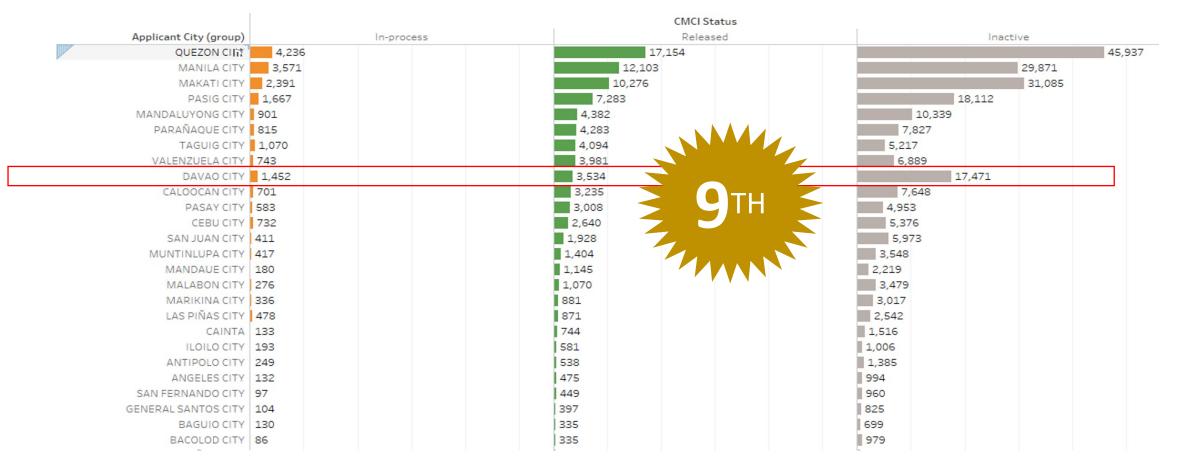


### Municipal Coverage

			CMCI Status Released	l la
Applicant Region	Applicant City (group)	In-process		Inactive
REGION XI (DAVAO REGION)	DAVAO CITY	603	1,510	3,41
	TAGUM CITY	34	67	187
	DIGOSCITY	40	43	89
	PANABO CITY	13	29	39
	MATICITY	31	23	16
	COMPOSTELA	13	11	7
	MONTEVISTA		6	3
	MALITA	3	6	2
	NABUNTURAN	7	5	14
	BANSALAN	2	4	3
	BANAYBANAY	1	4	3
	SAN ISIDRO	3	3	2
	MONKAYO		3	5
	MACO	1	3	
	ISLAND GARDEN CITY OF SAMAL	4	3	11
	SANTO TOMAS		2	4
	SANTA MARIA	1	2	2
	SANTA CRUZ		2	7
	PANTUKAN	1	2	8
	NEW CORELLA	1	2	1
	MATINA	3	2	3
	MAGSAYSAY		2	1
	CARMEN	1	2	1
	PANABO	2	1	
	NEW BATAAN		1	2
	MAWAB		1	
	MARAGUSAN		1	3
	MALALAG	1	1	5
	MABINI	1	1	2
	LUPON	-	1	8
	KIBLAWAN	1	1	2



### Municipal/City Ranking





### **Global Innovation Index**



#### Global Innovation Index (GII) 2021

**Tracking Innovation through the COVID-19 Crisis** 

Institutions	Human capital and research	Infrastructure	e Market sophisticatio	Business n sophisticati	Knowledg ion and techno outputs	e Creative ology outputs
90	80	86	86	33	24	65

\*2019, 2020 and 2021 Philippines in Knowledge and technology outputs

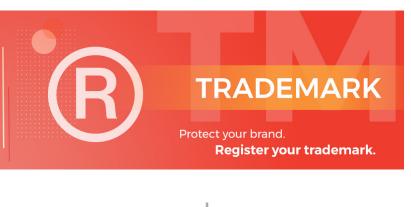
### Global Innovation Index



Ranked **59<sup>th</sup>** 

out of 132 countries/ economies

### Awards and Global Recognition





### Rising. Shining. Beckoning.

		Online metrics 8									
Ranking	Trademark office	Website functionality and user experience rating	Trademark e-filing roting	Website accessibility (downtime %)	Third-party database (API)	Third-party trademark office actions (API)	Use of AI functionality	Use of blockchain functionali			
1	European Union										
1	South Korea										
3	Singapore	Concession of the local division of the loca									
4	United Kingdom	The second se				1.					
5	Mexico	The summer of the local division of the loca									
6	Australia	The summer of the local division of the loca				0					
6	Brazil	The second se					Section 201				
6	Chile	The rest of the local division of the local									
9	Philippines										
9	Spain	The second se	Concession of the local division of the loca								
9	Switzerland										
12	Japan	The second se									
13	United States	The supervised in the local division of the									
14	France		Concession of the local division of the loca								
15	Austria	The state of the local division of the local						<u> </u>			
15	Peru	The second se									
17	Poland	Personal Person and Pe									
18	Benelux	The second value of the se				Rented		II Realization			
18	China	The survey of the local division of the loca									
18	Colombia										
18	Germany	The second se									
18 18 18	Rising	ng.									
18 INTELLEC		oning.			000		HL   www.ipop	ohil.gov.ph			

#### IPOPHL makes PH sole developing country in top 10 of global IP office

#### ranking

January 11, 2022

The Intellectual Property Office of the Philippines (IPOPHL) jumps to 9th place in the World Trademark Review's (WTR) 2021 IP (intellectual property) Office Innovation Ranking from 24th in the previous year, making the Philippines the only developing country to have an IP office in the top 10 out of 60 offices ranked worldwide.

### USTR







We welcome the overall positive assessment of the USTR on the Philippine IP environment. This is yet another testament that the IP Office of the Philippines (IPOPHL) and the National Committee on IP Rights (NCIPR) remain steadfast in fostering innovation, creativity and entrepreneurship and preserving the country's attractiveness as a destination for foreign IP assets to thrive.

**IPOPHLDirector General Rowel S. Barba** on PH being out of the USTR watch list for nine straight years.

for O POPHL | www.ipophil.gov.ph

#### PH keeps out of USTR watch list for nine straight years

**Q & A** 



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