GLOBAL DOSSIER – 5 PRIORITIES Preliminary Results of IP5 ANS pilot project

IP5 WG2 Meeting | 30 January 2018 | Tokyo



1. Overview

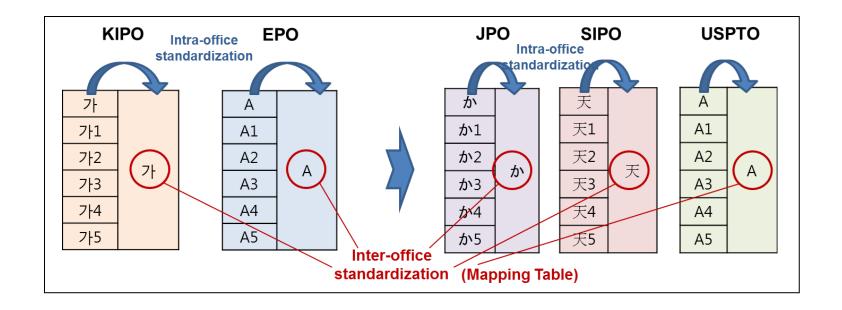
Recent progress

- Enhanced scope document for Applicant Name Standardization(ANS) was endorsed | Heads Meeting (Jun. 2016)
- KIPO completed its intra-standardization for foreign company names in 2016
- ❖ IP5 Offices agreed to conducting an ANS pilot project with 20 companies
 | DHs Meeting (Apr. 2017)
- The status report on ANS was submitted to WIPO CWS in May 2017 |
 Agreed at DHs Meeting (Apr. 2017)

ANS Pilot Project

Objectives

- To check the feasibility of intra-standardization and inter-standardization with patent family information
- To develop and verify algorithm of ANS automation to minimize manual jobs
- To build a sample mapping table of international applicant names



ANS Pilot Project: Approach of the Analysis

Korean Applicant
Names
(KIPO's Applicant Name
Database)



KR publications with the names (KR publication DB)



Family IDs



Applicant Names in Publications of Cross Filings (US, JP, EP, CN)

Standardized Applicant Name at KIPO : 쓰리엠 컴퍼니

Various Applicant Names in Korean : 쓰리엠 컴퍼니 쓰리엠 이노베이티브 프로퍼티즈 컴파니 쓰리엠 이노베이티브 프로퍼티즈 <mark>컴</mark>파니

3D innovative properties company **3M** 3M INNOVATIVE PROPERTIES COMPANY 3M INNIVATIVE PROPERTIES COMPANY 3M INNOBATIVE PROPERTIES COMPANY 3M INNOCATIVE PROPERTIES COMPANY 3M INNOOVATIVE PROPERTIES COMPANY **3M Innovaive Properties Company 3M Innovation Properties Company 3M Innovative Properties Company 3M Innovative Company** 3M INNOVATIVE PORPERTIES COMPANY 3M INNOVATIVE PPROPERTIES COMPANY 3M INNOVATIVE PROPERTIE COMPANY **3M Innovative Properties 3M Innovative Properties Co** 3M Innovative Properties Co. **3M Innovative Properties Comapany 3M Innovative Properties Comapny 3M Innovative Properties Company**

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2. Method of Analysis

Considerations for Analysis

- KIPO's IP5 publication DB(for prior art search system) and KIPO standardized applicant name DB
- ❖ Publication data between 2005~2015 for the 1st analysis
 - Publication data with only one applicant
- Statistic Approach to review an algorithm for ANS automation
 - The primary applicant name: the highest number of applicant names in publications
 - Address comparison with the addresses of the primary applicant name
 - Linking applicant names in EPO publications with those in other offices' publications

Common Analysis: 1st Analysis (1)

(1) Basic publication data extraction using Korean applicant's name DB, family IDs, IP5 publication data

Korean Applicant
Names
(KIPO's Applicant Name
Database)

Standardized Applicant Name at KIPO : 쓰리엠 컴퍼니



KR publications with the names (KR publication DB)



Family IDs



Applicant Names
in Publications of Cross
Filings
(US, JP, EP, CN)

Various Applicant Names in Korean : 쓰리엠 컴퍼니 쓰리엠 이노베이티브 프로퍼티즈 컴파니 쓰리엠 이노베이티브 프로퍼티즈 캄파니

3D innovative properties company **3M** 3M INNOVATIVE PROPERTIES COMPANY **3M INNIVATIVE PROPERTIES COMPANY** 3M INNOBATIVE PROPERTIES COMPANY 3M INNOCATIVE PROPERTIES COMPANY 3M INNOOVATIVE PROPERTIES COMPANY **3M Innovaive Properties Company 3M Innovation Properties Company** 3M INNOVATIVE PORPERTIES COMPANY **3M INNOVATIVE PPROPERTIES COMPANY** 3M INNOVATIVE PROPERTIE COMPANY 3M Innovative Properties Co 3M Innovative Properties Co. **3M Innovative Properties Comapany 3M Innovative Properties Comapny 3M Innovative Properties Company**

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Common Analysis: 1st Analysis (2)

Country code	Pub. Num	Pub. Date	Appl. Num	Appl. Date	Doc Type	Family ID	Applicant Name	Applicant Address
EP	02014402	20090114	07011625.6	20070613	Α	00000000000043667221	SIEMENS AKTIENGESELLSCHAFT	Wittelsbacherplatz 2 80333 Munchen DE
EP	01937513	20080702	06793840.7	20060926	Α	00000000000043671534	Continental Automotive GmbH	Vahrenwalder Strasse 9 30165 Hannover DE
EP	02461515	20120606	12150589.5	20050902	Α	00000000000043713972	Siemens AG	Postfach 22 16 34
EP	01714216	20061025	05797756.3	20050924	Α	00000000000043822424	Siemens AG	Wittelsbacherplatz 2 80333 Munchen DE
EP	01938398	20080702	06778379.5	20060828	Α	00000000000043876715	OSRAM Opto Semiconductors Gmb	Leibnitzstrasse 4 93055 Regensburg DE
EP	01881650	20080123	07021723.7	20050602	A	00000000000043908715	Siemens Home and Office Communication Devices GmbH & Co. KG	Hofmannstrasse 61 81379 Munchen DE
EP	01959227	20101222	07150011.0	20071213	Α	00000000000043962115	Mahner, Bernward	Landsberger Strasse 51
EP	01977044	20081008	07711140.9	20070110	Α	00000000000043962115	ThyssenKrupp Transrapid GmbH	Henschelplatz 1 34127 Kassel DE

Common Analysis: 1st Analysis (3)

(2) Assign the primary applicant name and the list of its addresses with a statistic approach

3M Innovative Properties Company of 3M Center Biophan Technologies, Inc. Paice LLC Whitland Research Limited Medtronic, Inc. Koninklijke Philips Electronics N.V. President, Kyoto University MEDRAD, INC. ALLERGAN, INC. Linear Technology Corporation 9 3M Center 9 3M Center 9 3M Center Post Office Box 3M Center, Post Office Box 3M Center, P.O. Box 33427 St 3M Center P.O. Box 33427 St 3M Center, < BR > < /BR > P.O. 2M Center, < BR > < /BR > P.O. 2M Center, < BR > < /BR > P.O. 2M Center, < BR > < /BR > P.O. 2M Center, < BR > < /BR > P.O. 3M Center, P.O. Box 33427 St 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 3M Center, < BR > < /BR > P.O. 4M Center, < BR > < /BR > P.O. 4M Center, < BR > < /BR > P.O. 4M Center, < BR > < /BR > P.O. 4M Center, < BR > < /BR > < /	3427 Saint Paul, MN 55133-3427 US	Number of applications 1668
MINNESOTA MINING AND MANUFACTURING COMPANY 3M Innovative Properties Company of 3M Center Biophan Technologies, Inc. Paice LLC Whitland Research Limited Medtronic, Inc. Koninklijke Philips Electronics N.V. President, Kyoto University MEDRAD, INC. ALLERGAN, INC. Linear Technology Corporation 74 3M Center Post Office Box 3 3M Center, Post Office Box 3 3M Center, P.O. Box 33427 St 3M Center, P.O. Box 33427 St 3M Center, SR> Office of Intellectual Properties M Center, P.O. Box 33427 St 3M Center, SR> Office of Intellectual Properties M Center, P.O. Box 33427 St 3M Center, SR>	3427 3427 Saint Paul, MN 55133-3427 US	1668
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Biophan Technologies, Inc. Paice LLC Whitland Research Limited Medtronic, Inc. Koninklijke Philips Electronics N.V. President, Kyoto University MEDRAD, INC. ALLERGAN, INC. Linear Technology Corporation Biophan Technologies, Inc. Medtronic, Inc. Medtronics N.V. Medtr	3427 3427 Saint Paul, MN 55133-3427 US	166
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Medtronic, Inc. Koninklijke Philips Electronics N.V. President, Kyoto University MEDRAD, INC. ALLERGAN, INC. Linear Technology Corporation Medtronic, Inc. 3M Center Post Office Box 3M Center, Post Office Box 3M Center, P.O. Box 33427 St 3M Center P.O. Box 33427 St 3M Center P.O. Box 33427 St 3M Center, SR>P.O. Office of Intellectual Propertion Medtronic, Inc. 3M Center, Post Office Box 3M Center, Post Office District Post Office Box 3M Center, Post Office District Post Office District Po	3427 Saint Paul, MN 55133-3427 US	
Koninklijke Philips Electronics N.V. President, Kyoto University MEDRAD, INC. ALLERGAN, INC. Linear Technology Corporation 3M Center, Post Office Box 33427 St 3M Center, P.O. Box 33427 St 3M Center P.O.Box 33427 St 3M Center P.O.Box 33427 St 3M Center, P.O. Office of Intellectual Propert 3M Center, P.O. Box 33427 St 3M Center, P.O. Box 34427 St 3M Center, P.O. Box 34427 S		33
President, Kyoto University MEDRAD, INC. ALLERGAN, INC. Linear Technology Corporation 2 3M Center P.O.Box 33427 St 3M Center P.O.Box 33427 St 3M Center P.O.Box 33427 St 3M Center, P.O. 2 3M Center, P.O. 2 Office of Intellectual Properting St 2 St 3M Center P.O. Box 33427 St 3M Center P.O. Box 34427 St 3M		
MEDRAD, INC. ALLERGAN, INC. Linear Technology Corporation 2 3M Center P.O.Box 33427 3M Center, P.O. 2 3M Center, P.O. 2 Office of Intellectual Propert		32
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Linear Technology Corporation 2 Office of Intellectual Propert	ox 33427 Saint Paul, MN 55133-3427 US	8
	Counsel 3M Center, Post Office Box 33427 Saint Paul MN 55133-3427 US	5
	Paul, MN 55133-3427 US	5
Cuno Incorporated 2 3M Center, P.O. Box 33427 St	Paul, MN 55133-3427 US	4
The University of New Mexico 2 PO Box 33427		4
P.O.Box 33427 St. Paul, Minn	sota 55133-3427 US	3
P.O. Box 33427		3
3M Center P.O. Box 33427		3
3M Center P.O.Box 33427, S	Paul MN 55133-3427	1
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	aint Paul, Minnesota 55133-3427 US	1
	3ox 33427 St. Paul, MN 55133-3427 US	1
P.O.Box 33427 St. Paul, 	c/BR>Minnesota 55133-3427 US	1

Limitations of the 1st Analysis (1)

- a small number of publications with a certain applicant name extracted from Family IDs
 - Address comparison(EPO, JPO) is not statistically meaningful if the number of publications with a certain applicant name is small

Applicant Name	Number of applications
3M Innovative Properties Company	3255
3M Innovative Properties Co.	106
MINNESOTA MINING AND MANUFACTURING COMPANY	74
3M Innovative Properties Company of 3M Center	9
Biophan Technologies, Inc.	6
Paice LLC	5
Whitland Research Limited	4
Medtronic, Inc.	4
Koninklijke Philips Electronics N.V.	3
President, Kyoto University	2
MEDRAD, INC.	2
ALLERGAN, INC.	2
Linear Technology Corporation	2
Cuno Incorporated	2
The University of New Mexico	2

Applicant name	Address	Number of publications
3M Innovative Properties Company of 3M Center	P.O. Box 33427	9
	Suite 215, 150 Lucius Gordon Drive West Henrietta, NY 14586 US	4
Biophan Technologies, Inc.	Suite 215, 150 Lucius Gordon Drive West Henrietta, NY 14586 US	1
	P.O. Box 33427 Suite 215, 150 Lucius Gordon Drive West Henrietta, NY 14586 US Suite 215, 150 Lucius Gordon Drive West Henrietta, NY 14586 US 15 Schoen Place Pittsford, NY 14534 US 6830 Elm Street McLean, Virginia 22101 US 22957 Shady Knoll Drive Bonita Springs, FL 34135 US 22957 Shady Knoll Drive Whitland Abbey Whitland, Dyfed SA34 0LG GB Whitland Abbey Whitland, Carms SA34 0LG GB Whitland Abbey Whitland, Dyfed SA34 0LG GB Whitland Abbey Whitland, Dyfed SA34 0LG GB Whitland Abbey Whitland, Dyfed SA34 0LG GB 710 Medtronic Parkway NE 710 Medtronic Parkway N.E. Groenewoudseweg 1 36-1, Yoshida-Honmachi, Sakyo-ku Kyoto 606-8501 JP One Medrad Drive Indianola, PA 15051 US One Medrad Drive	1
	6830 Elm Street McLean, Virginia 22101 US	2
Paice LLC	22957 Shady Knoll Drive Bonita Springs, FL 34135 US	2
	22957 Shady Knoll Drive	1
	Whitland Abbey Whitland, < BR > < /BR > Dyfed SA34 0LG GB	1
Whitland Research Limited	Whitland Abbey Whitland, < BR > < /BR > Carms SA34 0LG GB	1
	Whitland Abbey Whitland, Dyfed SA34 0LG GB	1
	Whitland Abbey Whitland, Dyfed SA34 0LG GB	1
Madtronic Inc	710 Medtronic Parkway NE	3
Medtronic, Inc.	710 Medtronic Parkway N.E.	1
Koninklijke Philips Electronics N.V.	Groenewoudseweg 1	3
President, Kyoto University	36-1, Yoshida-Honmachi, Sakyo-ku Kyoto 606-8501 JP	2
MEDDAD INC	One Medrad Drive Indianola, PA 15051 US	1
MEDRAD, INC.	One Medrad Drive	1
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Limitations of the 1st Analysis (2)

- Insufficient information to identify the sameness of applicant names
 - Not enough address information in SIPO publications
 - No address information in USPTO publications

→ Other factors to identify the sameness of applicant names are required !!

Limitations of the 1st Analysis (3)

different companies, but same addresses

Applicant name	Address	Number of Publications
LG Chem, Ltd.	20, Yoido-dong	643
LG Chem, Ltd.	20, Yoido-dong Youngdungpo-gu, Seoul 150-721 KR	248
	20 Yeouido-dong Yeongdeungpo-gu	1
LG Electronics Inc.	20 Yeouido-dong Yeongdeungpo-ku	1
	20, Yoido-Dong Yongdungpo-Gu	1
I.C. Hausva I.t.d	20, Yeouido-dong Yeongdeungpo-gu	1
LG Hausys, Ltd.	20, Yoido-dong	2

→ Intelligent methods to distinguish three companies !!!

Additional Analysis: 2nd Analysis (1)

2nd analysis for EPO & JPO publications(compare with address info)

- (Objective) to extract potentially same applicant names by comparing their addresses with addresses of the primary applicant name
- (Method) extract address information having the applicant names who are detected at the 1st analysis from KIPO's IP5 publication DB → compare additionally extracted addresses for each applicant name with addresses of the primary applicant name

Additional Analysis: 2nd Analysis (2)

The primary applicant name: 3M: EP case **3M Innovative Properties Company** Number of Publications Applicant name Address Groenewoudseweg 1 5621 BA Eindhoven NL 13560 Groenewoudseweg 1 Groenewoudseweg 1, 5621 BA Eindhoven The same addresses as those of Groenewoudseweg 1 5621 BA Eindhoven NL Groenewoudseweg 1,5621 BA Eindhoven; NL Koninklijke Philips Electronics N.V. the primary applicant name High Tech Campus 5 High Tech Campus 44 Groenewoudseweg 1, 5621 BA Eindhoven High Tech Campus 44 P.O. Box 220 High Tech Campus 44 5656 AE Eindhoven NL 3M Center,
P.O. Box 33427 St. Paul,
Minnesota 55133-3427 US 1921 3M Center, P.O. Box 33427, St. Paul, Minnesota 55133-3427 1741 3M Center, < BR > < /BR > P.O. Box 33427 St. Paul, < BR > < /BR > Minnes ta 55133-3427 581 Potentially same applicant name 419 3M Center, P.O. Box 33427 as the primary applicant name 365 3M Center, P.O. Box 33427 St. Paul, Minnesota 55133-3427 US 363 3M Center,
 </BR> P.O. Box 33427 St. Paul,
 </BR> Minnesota 5513₹-3427 US 153 3M Center, P.O. Box 33427 St. Paul, Minnesota 55133-3427 US 125 <ctry>US</ctry> 76 66 P.O. Box 33427 St. Paul, < BR > Minnesota 55133-3427 US 46 3M Center St. Paul, Minnesota 55101 US 46 MINNESOTA MINING AND MANUFACTURING COMPANY 3M Center, P.O. Box 33427, St. Paul, Minnesota 55133-3427 30 3M Center St. Paul. < BR > Minnesota 55101 US 22 3M Center, P.O. Box 33427 St. Paul Minnesota 55133-3427 US 18 3M Center, St. Paul, Minnesota 55101 18 3M Center, P.O. Box 33427 P.O. Box 33427 St. Paul,
 </BR> Minnesota 55133-3427 US 17 17 3M Center,
P.O. Box 33427,
2501 Hudson Road,
Building 220, 12W01 St. Paul,
Min 17 3M Center Saint Paul < BR > Minnesota 55144-1000 US P.O. Box 33427, St. Paul, Minnesota 55133-3427 16 14 3M Center P.O. Box 33427 St. Paul, Minnesota 55133-3427 US 13

Additional Analysis: 2nd Analysis (3)

the list of potentially same applicant names as the primary applicant name

The primary applicant name : 3M Innovative Properties Company

Applicant name	Number of publications	Number of publications having the same address as that of the primary applicant's address	Potentially same applicant name
MINNESOTA MINING AND MANUFACTURING COMPANY	6195	5661	0
ADC Telecommunications, Inc.	316	14	Х
3M Innovative Properties Co.	155	155	0
3M Innovative Properties Company of 3M Center	19	19	0
3M COMPANY	13	13	0
Koninklijke Philips Electronics N.V.	20462	0	Х
Honeywell International Inc.	7241	0	х
SEIKO EPSON CORPORATION	6012	0	х
Delphi Technologies, Inc.	5737	0	х
Applied Materials, Inc.	1851	0	х
Dow Global Technologies LLC	1807	0	х
E. I. du Pont de Nemours and Company	1678	0	х
L'Oreal	1557	0	х
The Regents of the University of California	1354	0	х
Syngenta Participations AG	1106	0	х

Additional Analysis: 2nd Analysis (4)

- 2nd analysis for SIPO and USPTO publications(connecting with EPO's applicant name)
 - (Objective) to extract potentially same applicant names by linking English applicant names in EPO publications with applicant names in SIPO & USPTO publications
 - (Method) extract applicant names from EPO publications having family IDs which are detected by the 1st analysis → guess English applicant names for applicant names in SIPO & USPTO publications → compare the primary applicant name and the list of potential applicant names from the 2nd analysis

Additional Analysis: 2nd Analysis (5)

3M: CN case

Country code	Pub. Num	Pub. Date	Pub. Type	Appl. Num	Appl. Date	Appl. Type	Family ID	Applicant Name	Applicant Address
CN	1036276	19891011	Α	88109194	19881104	Α	00000000000044066777	n幕尔杜邦公司	美国特拉华州
CN	1033220	19890531	Α	88107764	19881108	Α	00000000000044195707	各雷斯公司	美国纽约州
CN	1036362	19891018	Α	88109221	19881126	Α	00000000000043738470	青工爱普生株式会社	日本东京都
CN	1036908	19891108	Α	88103617	19880518	Α	00000000000044195626	n幕尔杜邦公司	美国特拉华州
CN	1039499	19900207	Α	89104907	19890715	Α	00000000000044206754	主发电装株式会社	日本三重县四日市
CN	1003465	19860924	Α	86101414	19860311	Α	00000000000044027796	n幕尔杜邦公司	美国特拉华州威尔明顿
CN	1016295	19880210	C	86108128	19861129	Α	00000000000045333876	月尼苏达州采矿制造公司	美国明尼苏达州
CN	1043514	19900704	С	89108364	19891007	Α	00000000000043874058	主友电装株式会社	日本三重县

Country code	Pub. Num	Pub. Date	Pub. Type	Appl. Num	Appl. Date	Appl Type		Applicant Name	Applicant Address
EP	00315121	19890510	A 3	88118175.4	19881101				1007 Market Street Wilmington < BR > Delaware 19898 US
EP	00316741	19890524	A2	88118641.5	19881109	Α	00000000000044195707	V.R. Grace & CoConn.	Grace Plaza, < BR > 1114 Avenue of the Americas New York, < BR > New York 10036 US
EP	00336043	19891011	A2	88311202.1	19881125	Α	00000000000043738470	EIKO EPSON CORPORATION	4-1, Nishishinjuku 2-chome Shinjuku-ku Tokyo-to JP
EP	00336999	19891018	A 3	88107943.8	19880518	Α	00000000000044195626	'AIR LIQUIDE, SOCIETE ANONYME POUR	75, Quai d'Orsay F-75321 Paris C⊚dex 07 FR
EP	00352049	19900124	A1	89307229.8	19890717	Α	00000000000044206754	umitomo Wiring Systems, Ltd.	1-14, Nishisuehiro-cho Yokkaichi-shi Mie-ken JP
EP	0194774	19860917	A1	1986301260	19860221	Α	00000000000044027796	ti explosives	Toronto Dominion Centre, IBM Tower, Ste. 2904, Toronto, Ontario M5K 1A2
EP	00254785	19880203	A2	86308029.7	19861016	Α	00000000000045333876	MINNESOTA MINING AND MANUFACTURING COMPANY	3M Center, P.O. Box 33427 St. Paul, Minnesota 55133-3427 US
EP	00362872	19900411	A3	89118593.6	19891006	Α	00000000000043874058	UMITOMO WIRING SYSTEMS, LTD.	1-14, Nishisuehiro-cho Yokkaichi City Mie 510 JP

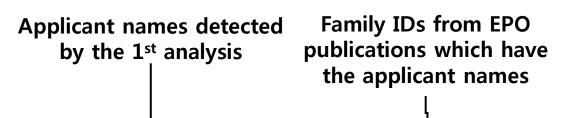
Additional Analysis: 2nd Analysis (6)

Applicant Name in SIPO publications	Corresponding Applicant namein EPO publiciations	Number of publications	Potentially same applicant name	
美国3M公司	MINNESOTA MINING AND MANUFACTURING COMPANY	1017	0	Statistically
明尼苏达州采矿制造公司	MINNESOTA MINING AND MANUFACTURING COMPANY	116	0	meaningful!
3M新设资产公司	3M Innovative Properties Company	5	0	
3M 创新有限公司	3M Innovative Properties Company	3	0	
3M创新产权公司	3M Innovative Properties Company	1	0	
3M中国有限公司	3M Innovative Properties Company	1	0	
威福公司	3M Innovative Properties Company	1	0	
皇家飞利浦电子股份有限公司	Koninklijke Philips Electronics N.V.	7581	X	Ī
精工爱普生株式会社	SEIKO EPSON CORPORATION	4769	X	
纳幕尔杜邦公司	E.I. DU PONT DE NEMOURS AND COMPANY	2051	v	1
霍尼韦尔国际公司	Honeywell Interr			
陶氏环球技术有限责任公司	Dow Global Tec Using the 2 nd analysis resu	It of FPO applica	nt name stand	Hardization
史密丝克莱恩比彻姆公司	SMITHKLINE BEE	it of Li o applica	int marine stant	adiaization
应用材料股份有限公司	Applied Materia			
辛根塔参与股份公司	Syngenta Participations AG	210	X	
格雷斯公司	W.R. Grace & DConn.	128	X	
泰科保健集团有限合伙公司	Tyco Healthcare Group LP	95	X	
美国联合包裹服务公司	UNITED PARCEL SERVICE OF AMERICA, INC.	85	X	
爱特梅尔公司	ATMEL CORPORATION	73	X	
葛兰素史密斯克莱有限责任公司	GlaxoSmithKline LLC	65	X	
梅德拉股份有限公司	MEDRAD, INC.	54	X	
ADC长途电讯有限公司	ADC TELECOMMUNICATIONS, INC.	44	X	
ATI科技无限责任公司	ATI Technologies ULC	42	X]
弗雷塞尼斯医疗保健控股公司	Fresenius Medical Care Holdings, Inc.	39	X	7
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Additional Analysis: 3rd Analysis (1)

- ❖ 3rd analysis (connecting with KIPO's applicant name DB)
 - (Objective) to extract potentially same applicant names by linking KIPO's applicant name DB(applicant code) with applicant names in EPO, JPO, SIPO, USPTO publications
 - (Method) Family IDs from EPO publications having the applicant names detected by the 1st analysis → extract corresponding KIPO's applicant codes related to the family IDs from KIPO's standardized applicant name DB → compare the applicant code of the primary applicant name with corresponding KIPO applicant codes

Additional Analysis: 3rd Analysis (2)



Country	Pub.	Pub.	Applicant Name	Family ID	KIPO pub.	KIPO's standardized applicant name	KIPO's
Code	Num	Type	Applicant Name	Family ID Num		KIPO s standardized applicant name	standardized code
EP	01573798	Α	Koninklijke Philips Electronics N.V.	00000000000043662067	1020050085607	엔엑스피 비 브이	520070325809
EP	02269707	Α	Donaldson Company, Inc.	00000000000043662235	1020050098922	도날드슨 컴파니, 인코포레이티드	519980624426
EP	01667364	Α	NIPPON TELEGRAPH AND TELEPHONE CORPORATION	00000000000043662344	1020060020601	니폰 덴신 덴와 가부시끼가이샤	519980604497
EP	01071128	Α	Applied Materials, Inc.	00000000000043663029	1020010029984	어플라이드 머티어리얼스, 인코포레이티드	519980587458
EP	01592125	Α	SEIKO EPSON CORPORATION	00000000000043663923	1020060043278	세이코 엡슨 가부시키가이샤	519980961456
EP	01056670	Α	MINNESOTA MINING AND MANUFACTURING COMPANY	00000000000043664327	1020010024932	쓰리엠 컴퍼니	519980661948
EP	02019081	Α	Honeywell International Inc.	00000000000043665053	1020090010930	허니웰 인터내셔널 인코포레이티드	520000502217

Comparison

KIPO's standardized code for 3M: 519980661948

Additional Analysis: 3rd Analysis (3)

Applicant Name (EPO publication)	KIPO's standardized applicant name	KIPO's standardized code	Number of publications
MINNESOTA MINING AND MANUFACTURING COMPANY	쓰리엠 컴퍼니	519980661948	2420
3M Innovative Properties Co.	쓰리엠 컴퍼니	519980661948	64
ESK Ceramics GmbH & Co.KG	쓰리엠 컴퍼니	519980661948	4
The University of New Mexico	쓰리엠 컴퍼니	519980661948	2
HALKEY-ROBERTS CORPORATION	쓰리엠 컴퍼니	519980661948	2
Esk Ceramics GmbH&Co. Kg	쓰리엠 컴퍼니	519980661948	2
Paice LLC	쓰리엠 컴퍼니	519980661948	1
Whitland Research Limited	쓰리엠 컴퍼니	519980661948	1
Cuno, Inc.	쓰리엠 컴퍼니	519980661948	1
Wave	쓰리엠 컴퍼니	519980661948	1
Gage Products Company	쓰리엠 컴퍼니	519980661948	1
Pentapure Incorporated	쓰리엠 컴퍼니	519980661948	1
LANDMARK GRAPHICS CORPORATION	쓰리엠 컴퍼니	519980661948	1
Cryomedix, Llc	쓰리엠 컴퍼니	519980661948	1
University Of Windsor	쓰리엠 컴퍼니	519980661948	1
Berry & Associates , Inc.	쓰리엠 컴퍼니	519980661948	1
Medtronic GBI, Inc.	쓰리엠 컴퍼니	519980661948	1
Koninklijke Philips Electronics N.V.	코닌클리케 필립스 엔.브이.	519981119581	9435
Applied Materials, Inc.	어플라이드 머티어리얼스, 인코포레이티드	519980587458	1119
E. I. du Pont de Nemours and Company	이 아이 듀폰 디 네모아 앤드 캄파니	519980771475	771
Dow Global Technologies LLC	다우 글로벌 테크놀로지스 엘엘씨	520020158236	718
Honeywell International Inc.	허니웰 인터내셔널 인코포레이티드	520000502217	649
Syngenta Participations AG	신젠타 파티서페이션즈 아게	520000540042	297
L'Oreal	로레알	519980639828	210
ALLERGAN, INC.	알레간 인코포레이티드	519980725729	183
Delphi Technologies, Inc.	델피 테크놀로지스 인코포레이티드	519990284739	167
Schering Corporation	머크 샤프 앤드 돔 코포레이션	519980697384	142

Statistically meaningful!

Additional Analysis: 3rd Analysis (4)

	Applicant name	Address	Number of Publications
	LG Chem, Ltd.	20, Yoido-dong	643
Result of 1st analysis:	LG Chem, Ltd.	20, Yoido-dong Youngdungpo-gu, Seoul 150-721 KR	248
Same companies <		20 Yeouido-dong Yeongdeungpo-gu	1
	LG Electronics Inc.	20 Yeouido-dong Yeongdeungpo-ku	1
\		20, Yoido-Dong Yongdungpo-Gu	1
X	I C. Havrava, I tal	20, Yeouido-dong Yeongdeungpo-gu	1
	LG Hausys, Ltd.	20, Yoido-dong	2

Result of 3st analysis: / different companies!!

	Applicant name(EPO Publication)	Corresponding KIPO's	Corresponding KIPO's	Number of
		standardized applicant name	applicant code	publications
	LG Chemical Co. Ltd	주식회사 엘지화학	120010134563	58
	LG Chem Ltd.	주식회사 엘지화학	120010134563	52
↲▁	LG Chem. Ltd.	주식회사 엘지화학	120010134563	39
	LG Chemical, Ltd.	주식회사 엘지화학	120010134563	14
	LG Chemical Ltd.	주식회사 엘지화학	120010134563	9
L	LG Chemical Co., Ltd.	주식회사 엘지화학	120010134563	9
4 -	LG Electronics Inc.	엘지전자 주식회사	120020128403	7475
	LG Hausys, Ltd.	(주)엘지하우시스	120090148934	156
	LG Life Sciences, Ltd.	주식회사 엘지생명과학	120020308350	3

Final Decision Criteria(1)

❖ Decision based on the results of the 2nd and 3rd analysis

• If the applicant name is considered as the same applicant name as the primary applicant name according to both the 2nd analysis and the 3rd analysis, it is finally classified as the same applicant name as the primary applicant name

Final Decision Criteria(2)

Applicant name(EPO publ.)	number of publication	number of publications having the same address as that of the primary	potentially same applicant name	Applicant name(EPO publ.) KIPO's standardized applicant name	KIPO's standadized code	numbe publicat
3M Innovative Properties Co.	155	155	0	3M Innovative Properties Co. 쓰리엘 컴퍼니	519980661948	64
INNESOTA MINING AND MANUFACTURE	6195	5661	0	MINNESOTA MINING AND MANUFACTURING CD SANY 쓰리엠 캠퍼니	519980661948	242
Seressia materia arts marteraciona	0200	2002	, i	materiation material and meteorial record control and a second control a	222200002240	
ice LLC	5	0	x	Paice LLC Apply Apply Paice LLC	519980661948	1
	4				519980661948	1
hitland Research Limited		0	x	Whitland Research Limited 쓰리엘 컴퍼디		_
edtronic, Inc.	892	0	x	Medtronic, Inc. 메트로르닉 인코프레이터로	519990067040	7
oninklijke Philips Electronics N.V.	20462	0	x	Koninklijke Philips Electronics N.V. 코닌클리케 필립스 엔.보이.	519981119581	943
resident, Kyoto University	3	0	×	President, Kyoto University 교또 다이가꾸	519980593434	1
IEDRAD, INC.	82	0	x	Medrad, Inc. 바이엘 엠쓰케어 엘엘씨	520030222729	
LLERGAN, INC.	629	0	x	ALLERGAN, INC. 알레간 인코프레이티드	519980725729	18
near Technology Corporation	204	0	×	Linear Technology Corporation 리니어 테크늘러지 코프레이션	520010322489	3
uno Incorporated	77	0	x	Cuno Incorporated 쿠노인코퍼레이티드	51998022391	-
	12	0	×		F10000001040	
he University of New Mexico				The University of New Maxico 쓰리엘 캠퍼니	319900001948	
ow Global Technologies LLC	1807	0	x	Dow Global Technologies LLC 다우 글로벌 테크놀로지스 엘엘씨	520020158236	7.
esenius Medical Care Holdings, Inc.	145	0	x	Fresenius Medical Care Holdings, Inc. 프레제나우스 메디칼 케어 중당스 인코퍼레이티드	520050343619	2
ALKEY-ROBERTS CORPORATION	29	0	×	HALKEY-ROBERTS CORPORATION 쓰리엘 컴퍼니	519980661948	
hunk GmbH & Co. KG Spann- un	35	0	x	Schunk GmbH & amp; Co. KG Spann- und Greiftechnik 슈운크 게임베하 운토 콤파니 카게 파브릭 푸어 스판-운토 그레이프베르크체우게	520020278563	1
ino, Inc.	8	0	x	Cuno, Inc. 쓰리엠 컴퍼니	519980661948	
nomas, Thomas N.	1	0	x	#N/A #N/A	#N/A	#1
eeya Energy, Inc.	11	0	×	Deeya Energy, Inc. 이머지 파워 시스템스 인코프레이티드	520140253278	-
	19				520010272028	
oley Pharmaceutical Group, Inc.		0	X	Coley Pharmaceutical Group, Inc. 클레이 파마시티컬 그룹, 인코프레이티드		
elphi Technologies, Inc.	5737	0	×	Delphi Technologies, Inc. 열피 테크놀로지스 인코프레이티드	519990284739	1
rngenta Participations AG	1106	0	X	Syngenta Participations AG 신전타 파티서페이션즈 아게	520000540042	2
onaldson Co			×	Donaldson Company, Inc.	519980624426	3
rtex Pharma			×	Vertex Pharmaceuticals Incorporated	519987014936	1
nerican Hom			x		519980716663	
RO AG	^d ana	Mycic	x	American Home Products Corporation NERO AG DYNIEON LLC	520060521528	
(NEON LLC	alic	11 Y D 1 D	x x	DYNEON LIC 3 allalysis	519980611556	1
		<i></i>				_
ook Medical			x	Cook Medical Technologies LLC	520110369690	
I du Pont de memours and company	2070		×	E. I. du Pont de Nemours and Company 이 아이 때문 다 대보이 모드 물짜다	519980771475	7
unesis Pharmaceuticals, Inc.	35	0	x	Sunesis Pharmaceuticals, Inc. 선에시스 파마슈티컬스 인코프레이티드	520040172041	
dwards Lifesciences Corporation	392	0	×	Edwards Lifesciences Corporation 에드워즈 라이프사이언시스 코프레이션	520000223347	
HE COLEMAN COMPANY, INC.	44	0	x	THE COLEMAN COMPANY, INC. 더 클맨 컴파니 인코프레이티드	519980620446	
K Ceramics GmbH & amp; Co.KG	23	0	x	ESK Ceramics GmbH &tamp Co.KG 쓰리엘 컴퍼니	519980661948	
NITED PARCEL SERVICE OF AMERICA, IN	260	0	x	UNITED PARCEL SERVICE OF AMERICA, INC. 유나이티드파아슬서어비스오브아메리카인코오프레이티드	519952091142	
k Ceramics GmbH&Co. Kg	2	0	x	Esk Caramics GmbH&Co. Kg 쓰리엠 컴퍼니	519980661948	
	1	_			519980661948	-
ave	_	0	x	Wave 쓰리엠 컴퍼니		
plied Materials, Inc.	1851	0	x	Applied Materials, Inc. 어플라이드 머티어리열스, 인코프레이티드	519980587458	1
arite Universitatsmedizin Berlin	19	0	x	Charite Universitatsmedizin Berlin 샤리떼 우니베지테츠메디친 베를린	520100204120	
age Products Company	8	0	x	Gage Products Company 쓰리엠 컴퍼니	519980661948	
ice Corporation	1	0	x	Paice Corporation 페이스 코프레이션	520010083068	
axoSmithKline LLC	202	0	x	GlaxoSmithKline LLC 급략소스미스클라인 열열씨	519980700211	
entapure Incorporated	3	0	x	Pentapure Incorporated A-218 Baru	519980661948	,
	9	0			520080044658	
eatpoint Energy, Inc.	_	_	x			
hering Corporation	588	0	X	Schering Corporation 면로 샤프 앤드 를 코프레이션	519980697384	1
Andme, Inc.	1	0	×	#N/A #N/A	#N/A	#1
nithkline Beecham Corporation	34	0	x	Smithkline Beacham Corporation 글락소스미스콜라인 엘엘씨	519980700211	
oneywell International Inc.	7241	0	x	Honeywell International Inc. 허니멮 인터내셔널 인코프레이티드	520000502217	6
	168	0	x	Suntary Holdings Limited 산호리 중당스 가부시키가이샤	520090174560	
intory Holdings Limited		0	x	ATI Technologies ULC 에이티아이 테크늘러지스 유열씨	520020241554	
	122		×	Synganta Participations AG. 실전타 파티케이션은 아게	520000540042	
I Technologies ULC	122		X .			
I Technologies ULC ngenta Participations AG.	17	0			519980661948	
I Technologies ULC ngenta Participations AG. NDMARK GRAPHICS CORPORATION	17 32	0	x	LANDMARK GRAPHICS CORPORATION 쓰리엘 캠퍼니		
I Technologies ULC ngenta Participations AG. NDMARK GRAPHICS CORPORATION yomedix, Uc	17 32 2	0	x	Cryomedix, Lic 쓰리엠 컴퍼니	519980661948	
Technologies ULC ngenta Participations AG. NDMARK GRAPHICS CORPORATION romedix, Lic	17 32	0			519980661948 519980667736	
I Technologies ULC genta Participations AG. NDMARK GRAPHICS CORPORATION jornedix, Uc kter International Inc.	17 32 2	0	x	Cryomedix, Lic 쓰리엠 컴퍼니		
I Technologies ULC ngenta Participations AG. NDMARK GRAPHICS CORPORATION yomadix, Uc kter International Inc. to Healthcare Group, LP	17 32 2 105	0 0	x x	Cryomedix, Lic 쓰리엘 컴퍼니 Bexter International Inc. 박스터 인터내스날 인코프레이티드 Tyco Healthcare Group, LP 코비디엔 엘피	519980667736	
Technologies ULC Igenta Participations AG. INDMARK GRAPHICS CORPORATION omedix, Uc teer International Inc. to Haelthcare Group, LP real	17 32 2 105 444 1557	0 0 0 0	x x x	Cryomedix, Uc 소리엠 컴퍼니 Baxter International Inc. 학소리엠 컴퍼니 Tyco Healthcare Group, LP 코비디앤 엘피 L'Oreal 로레알	519980667736 520010036518 519980639828	2
Technologies ULC genta Participations AG. NDMARK GRAPHICS CORPORATION romedix, UL star International Inc. to Healthcare Group, UP Ireal iversity Of Windsor	17 32 2 105 444 1557 3	0 0 0 0	x x x x	Cryomedic, Uc 요리엠 컴퓨니 Baxter International Inc. 박스티 인터넷소날 인코프레이티드 Tyco Healthcare Group, LP 코테디에 엘피 L'Oreal 코레알 University Of Windsor 소리엠 컴퓨니	\$19980667736 \$20010036518 \$19980639828 \$19980661948	2
Tachnologies ULC Igenta Participations AG. NDMARK GRAPHICS CORPORATION omedic, Ulc ter International Inc. to Haelthcare Group, UP real iversity Of Windsor Illinckrodt Inc.	17 32 2 105 444 1557 3 262	0 0 0 0 0	x x x x	Cryomedix, Uc Baxter International Inc. Baxter International Inc. Tyco Healthcare Group, UP 코비디앤 설립 UOveral UOveral University Of Windsor Mallinckrodt Inc. 마인크로 인크교레이티드	\$19980667736 \$20010036518 \$19980639828 \$19980661948 \$19980653446	2
Technologies ULC genta Participations AG. UMARK GRAPHICS CORPORATION omedix, Uc ter International Inc. o Haelthcare Group, LP real warsity Of Windsor llinckrodt Inc. R. Grace & Lamp; CoConn	17 32 2 105 444 1557 3 262 59	0 0 0 0 0 0	x x x x x x x x x x	Cryomedix, Uc Baxter International Inc. Baxter International Inc. Tyce Healthcare Group, LP L'Oreal University Of Windsor Mallinckrodt Inc. W. R. Grace & Barng; CoConn 다 등록 및 그레이스 앤드 컴파니-콘-	\$19980667736 \$20010036518 \$19980639828 \$19980661948 \$19980653446 \$19980617737	2
I Technologies ULC genta Participations AG. NOMARK GRAPHICS CORPORATION romedix, Lic ster International Inc. to Healthcare Group, LP treal iversity Of Windsor illincirculat Inc. R. Grace Stamp; CoConn try Stamp; Associates , Inc.	17 32 2 105 444 1557 3 262 59	0 0 0 0 0 0	x x x x	Cryomedix, Uc Baxter International Inc.	\$19980667736 \$20010036518 \$19980639828 \$1998063948 \$1998063446 \$19980617737 \$1998061948	2
I Technologies ULC genta Participations AG. NOMARK GRAPHICS CORPORATION promedix, Lic ster International Inc. to Healthcare Group, LP breal liversity Of Windsor ellincierodt Inc. R. Grace Stamp; CoConn rry Stamp; Associates , Inc.	17 32 2 105 444 1557 3 262 59	0 0 0 0 0 0	x x x x x x x x x x	Cryomedix, Uc Baxter International Inc. Baxter International Inc. Tyce Healthcare Group, LP L'Oreal University Of Windsor Mallinckrodt Inc. W. R. Grace & Barng; CoConn 다 등록 및 그레이스 앤드 컴파니-콘-	\$19980667736 \$20010036518 \$19980639828 \$19980661948 \$19980653446 \$19980617737	2
Intory Holdings Umited IT Technologies ULC Ingenta Participations AG. INDMARK GRAPHICS CORPORATION yomedix, Lie exter International Inc. to Healthcare Group, LP Oreal Iniversity Of Windsor Illinckroot Inc. Te, Grace Stamp; CoConn erry Stamp; Associates, Inc. bebott Medical Optics Inc. detronic GSI, Inc.	17 32 2 105 444 1557 3 262 59	0 0 0 0 0 0	x x x x x x x x x x	Cryomedix, Uc Baxter International Inc.	\$19980667736 \$20010036518 \$19980639828 \$1998063948 \$1998063446 \$19980617737 \$1998061948	2

List of standardized applicant names

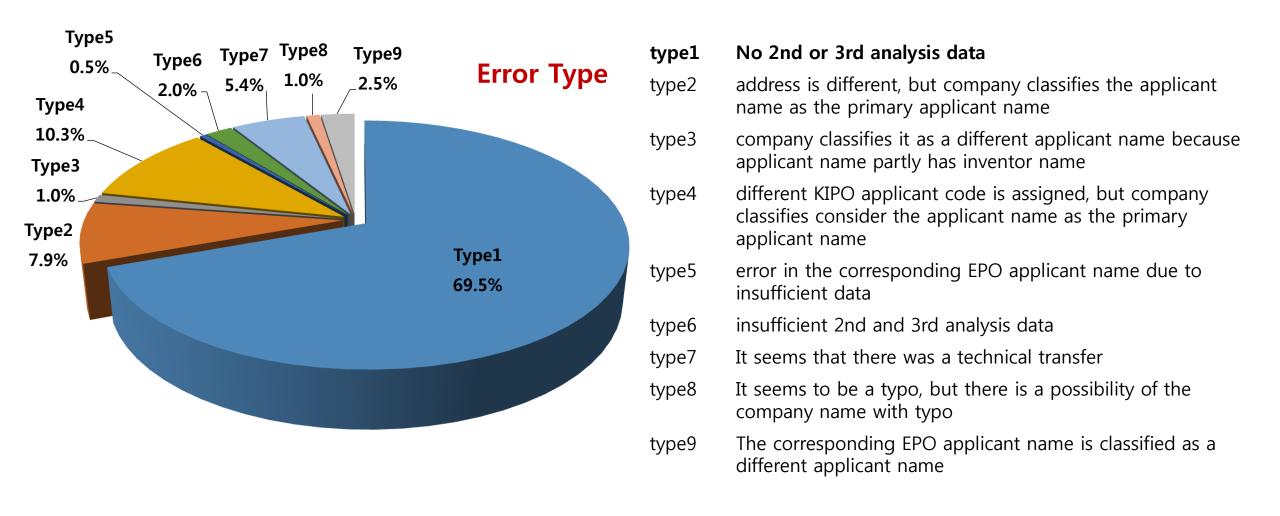
Primary applicant name:

3M Innovative Properties Company

3M Innovative Properties Co.

MINNESOTA MINING AND MANUFACTURING COMPANY

Error in the Final Decision



3. Possibility and Limitation of IP5 ANS project

Possibility & Limitation

- ANS can be automatized only for the applicants having statistically meaningful amount of cross-filings at IP5 Offices
- limited information in publications required to analyze and identify the same applicant names

The possible way to enhance the accuracy of ANS at each Office

- Exchanging bibliographic data including cross-filing information as soon as applications are filed at each IP5 office
 - There is a high possibility of applicant name changes during the period between the application date to the publication date

4. Next Stage

Next Stage

- (1) IP5 Offices will share their standardized applicant name DB(if available), and their experiences and information related to applicant name standardization
- (2) Each IP5 Office will conduct its own intra-standardization by making best use of the shared DB and information, or by collaborating with external stakeholders which are interested in applicant name standardization
- (3) IP5 Offices will conduct the inter-standardization by mapping each office's standardized applicant names which represent all the various expressions of certain company names, and will update the mapping table of the interstandardization periodically

Future plan

Decision on the next stage on ANS Project : 2018 WG2 &GDTF meeting

❖ Amendment of the scope document : 2018 IP5 DHs meeting

Endorsement of a new scope document : 2018 IP5 Heads meeting



Thank you!