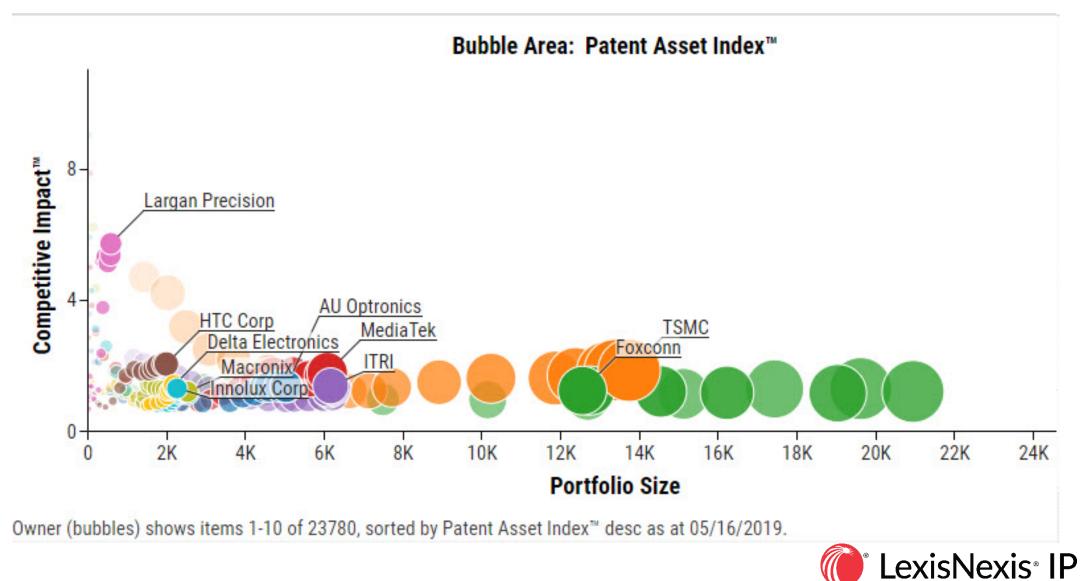


Practical Guidance in IP Management: From the Perspective of Patent Quality & Portfolio Strength

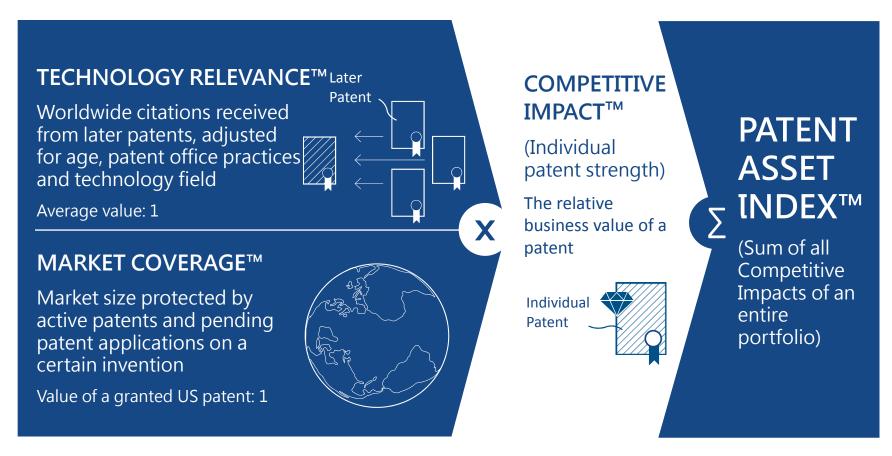
Miao Li Asia IP Consultant, LexisNexis® IP



#### Patent Portfolio Change of TW Corporations since 2000



#### PATENT ASSET INDEX<sup>TM</sup> & Relevant KPIs



The scientific publication was made in: Ernst, H., Omland, N. (2011): The Patent Asset Index – A New Approach to Benchmark Patent Portfolios. World Patent Information 33, pp. 34–41. An overview can be found in the document "Introduction to the Patent Asset Index" available from PatentSight.



### Agenda

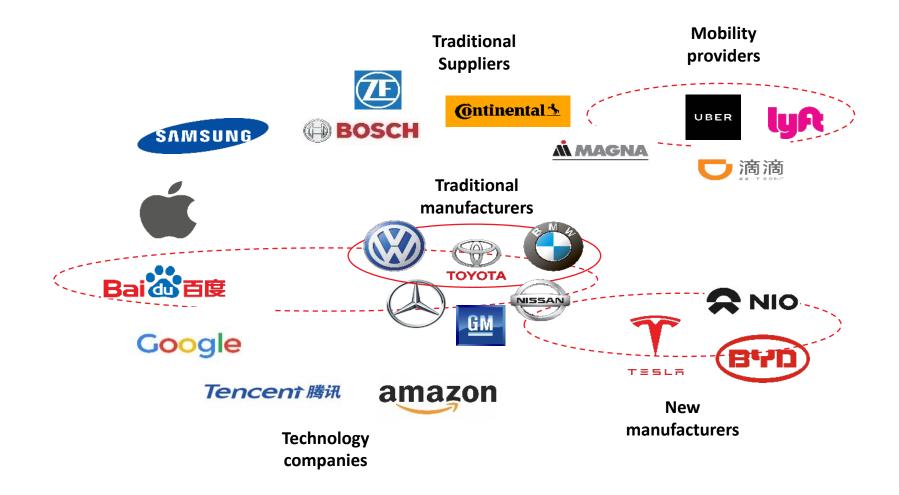
I. Patent landscape for Business Intelligence

II. Patent Portfolio Management



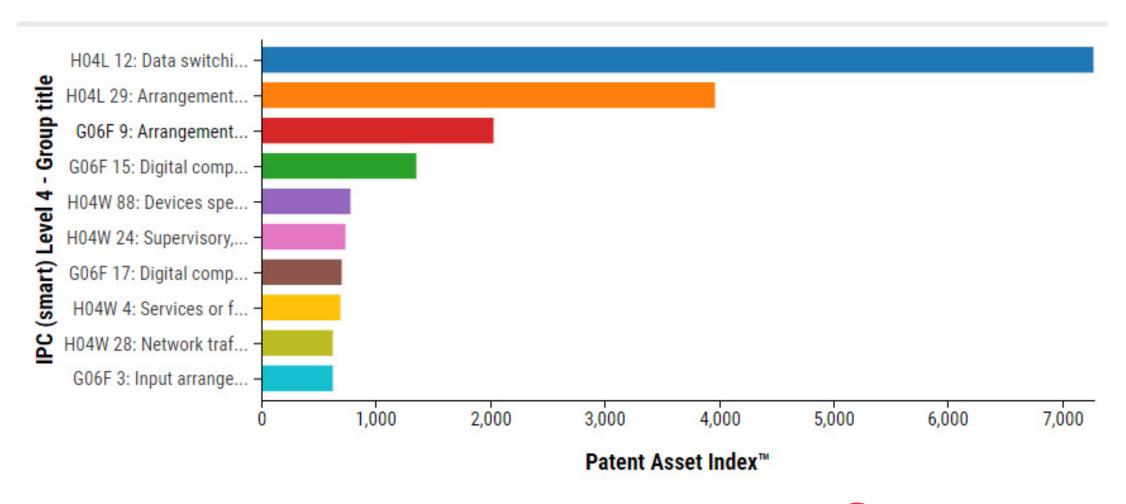
# I. Patent Landscape for Business Intelligence

#### I. Competition is CHANGING





#### I.1 Trend Scouting: Next Generation of Technology





#### I.1 Trend Scouting: Next Generation of Technology (Cont.)

#### Apple Acquires iPhone Power Management Technology in \$600 Million Deal With Chipmaker Dialog

Thursday October 11, 2018 3:56 am PDT by Tim Hardwick

Apple has finalized a business agreement with Dialog Semiconductor to license its iPhone power management technology and transfer technical assets, in a deal worth \$600 million.

As part of the agreement, Apple will acquire some of the Anglo-German chipmaker's assets and 300 of its R&D staff, which is around 16 percent of Dialog's workforce. Dialog's shares rose as much as 34 percent on the news, their highest since 2002.



#### IPC (smart) Level 3 - Sub...

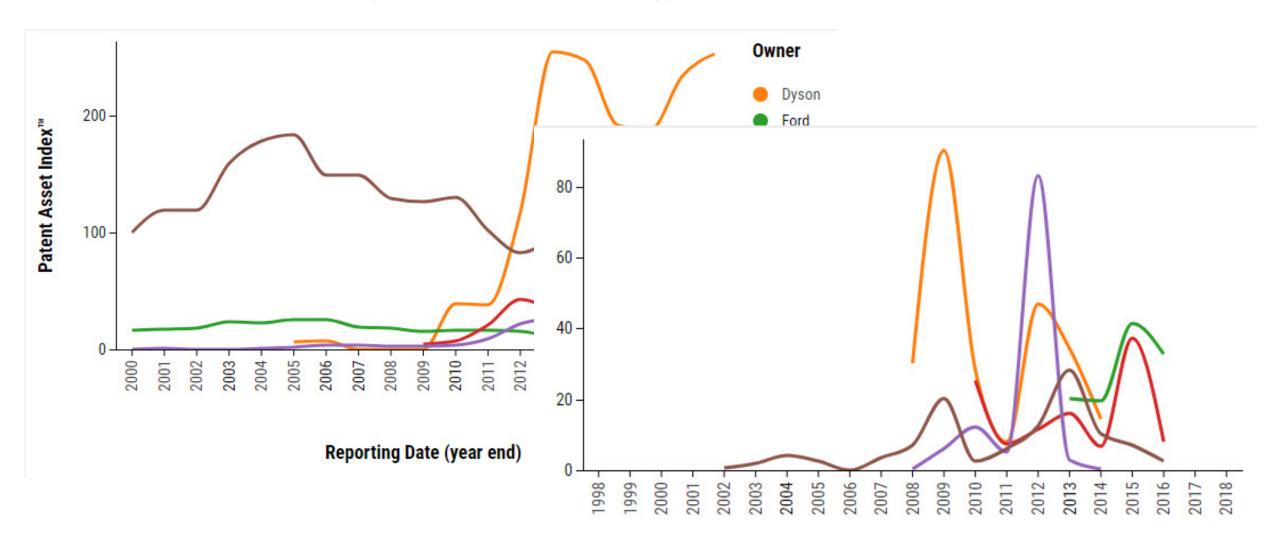
- B01D: SEPARATION
- A61B: DIAGNOSIS | SURGERY | ...
- G06T: IMAGE DATA PROCESSI...
- G06K: RECOGNITION OF DATA ...
- H02J: CIRCUIT ARRANGEMENT...
- H01L: SEMICONDUCTOR DEVI...
- A61M: DEVICES FOR INTRODU...
- B01J: CHEMICAL OR PHYSICA...
- F02M: SUPPLYING COMBUSTI...

Oct 2018

H05K: PRINTED CIRCUITS | CA...

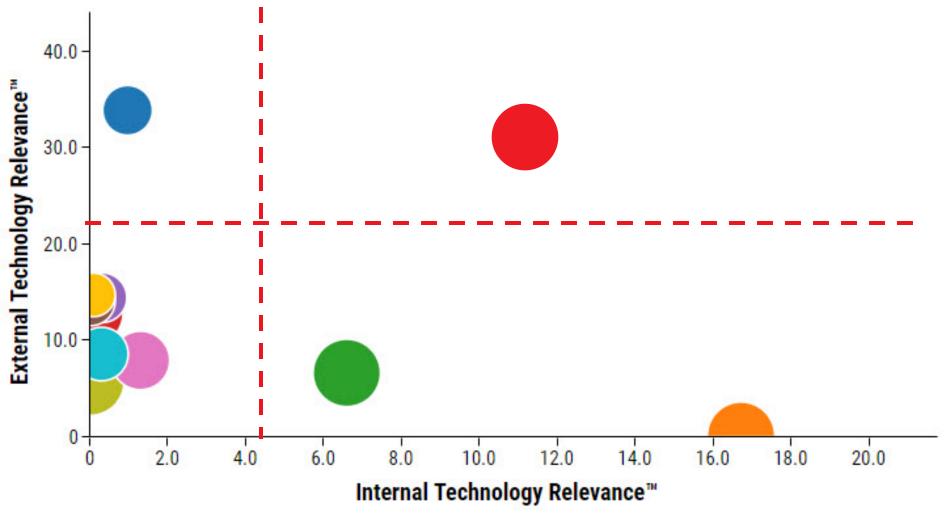


#### I.2 Who is Building on Your Technology?



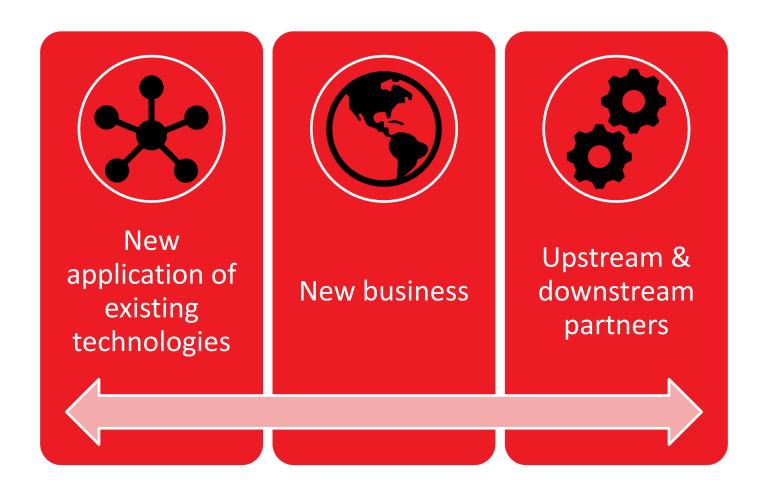
**Filing Year** 

#### I.3 Technological Impact





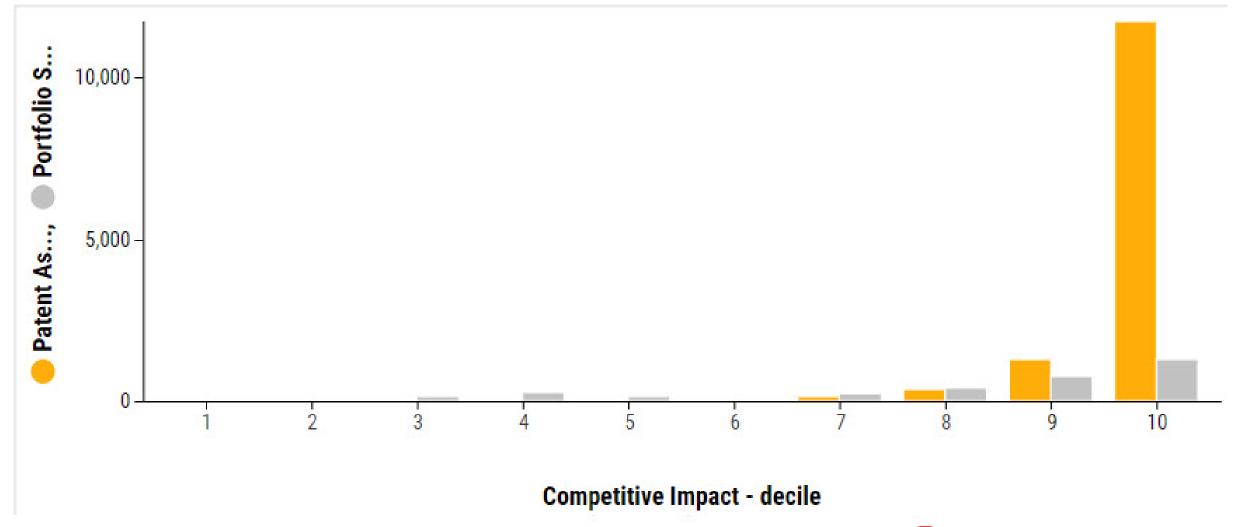
#### From Patent Landscape to Business Intelligence





## II. Patent Portfolio Management

#### II.1 Patent Portfolio Management: Optimization



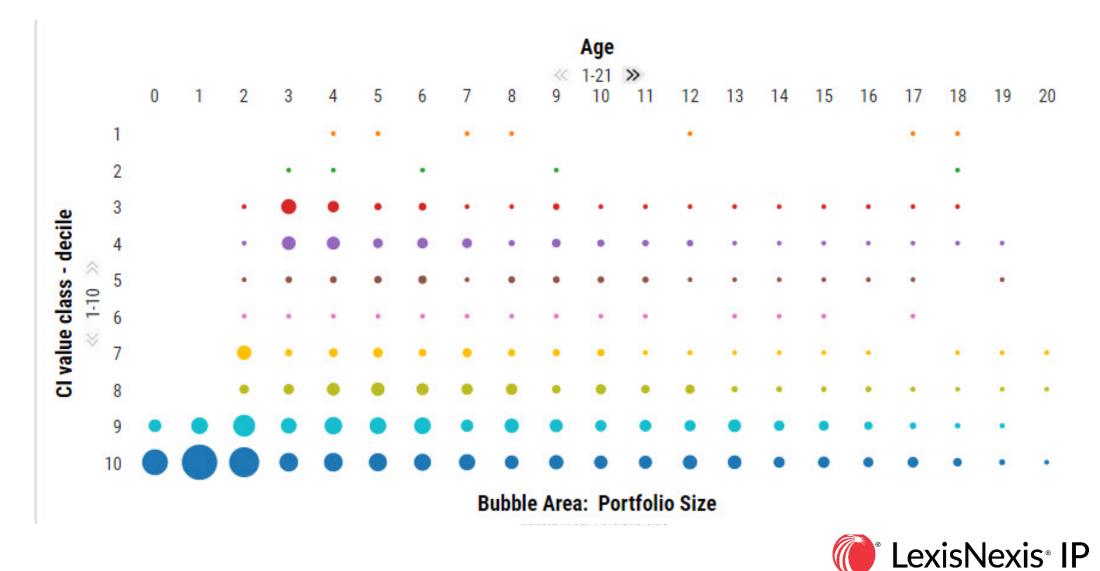


#### II.2 Traditional Portfolio Review

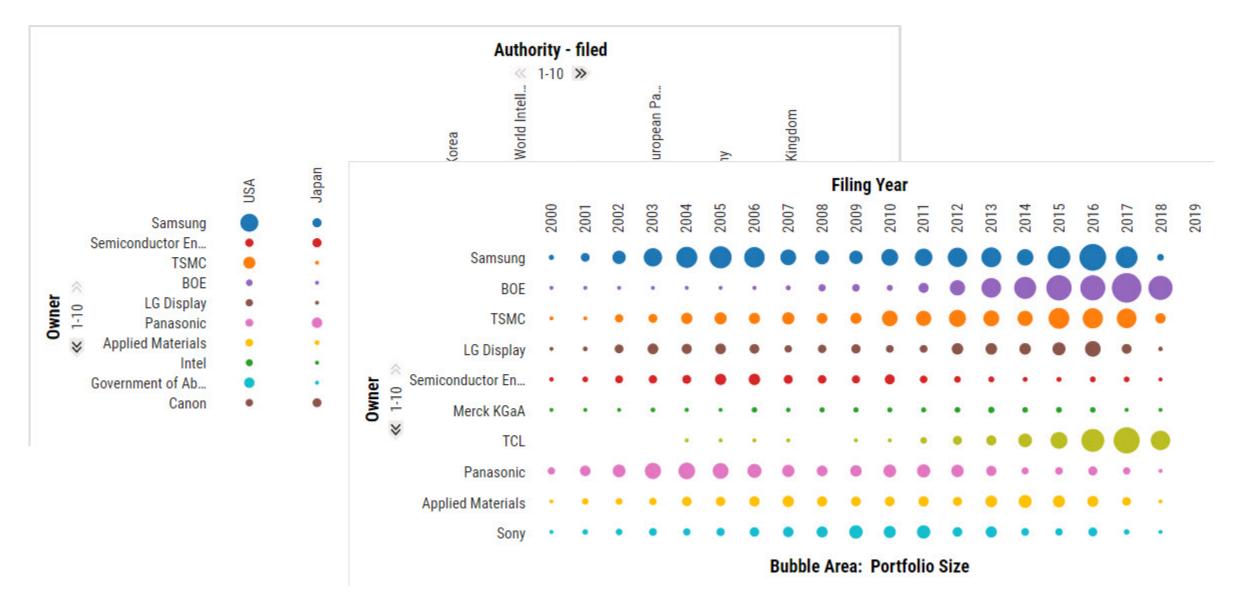
~	Patent family	Filing year	Publication year	Title	Abstract	Active countries	Current owne
1	US6649379.B1	1991	1993	Method and deregulated enzyme for threonine production	dehydrogenase (hom) for production of the amino	US	MIT
					acid threonine is described. The mutation caus		More
2	US6690966.B1	1992	1992	MOLECULAR SPECTROSCOPY TO	diagnosis and treatment are employed which	US	MIT
				PROVIDE FORTHE DIAGNOSIS OF TIS	utilize molecular spectroscopy to accurately dia		More
3	US6723893.B1	1993	1994	DIAGNOSIS, TREATMENT AND	the neurodegenerative diseases, particularly	US	MIT
				PREVENTION OF DISEASES OF CELL	Amyotrophic Lateral Sclerosis. Methods and co		More
4	US6309635.B1	1994	2001		A method is provided whereby cells having a desired function are seeded on and into biocompatible, biodegradable or non-degradabl	US	MIT UMass Memorial More
5	US6417967.B1	1995	2002		A multilevel optical phase element is illuminated swith a light source having a plurality of wavelengths of interest. The multilevel phase el	US	MIT More
6	US5961804.A	1997	1998	IMPROVED MICROENCAPSULATED ELECTROPHORETIC DISPLAY	An application-ready electrophoresis material includes a carrier and a dispersion of	KR	MIT
1					microcansules therein, the microcansules each		More



#### II.2 In-depth Portfolio Review



#### II.3 Traditional Patent Filing Pattern



#### I.2 A More Informed Patent Filing Strategy

~	Owner	Portfolio Size	Active in USA	Active in China	Active at EPO	Active in Europe - EPC		
1	Samsung	10,830 (3.3%	3%) 74.6%	% 76.4%	8.0%	12.5%		
2	SMIC	8,987 (2.8%	12.19	90.29	6 2.4%	0.2%	0.0%	0.2%
3	Chinese Academy of	7,621 (2.3%	6.59	69.69	0.2%	0.6%	0.5%	0.1%
4	BOE	7,278 (2.2%	50.39	6 <b>9</b> 7.19	7.2%	1.8%	3.9%	4.7%
5	TSMC	6,408 (2.0%	86.39	93.59	0.3%	15.9%	3.3%	27.8%
6	Panasonic	5,109 (1.6%	48.29	43.49	3.1%	7.7%	48.1%	7.2%
7	Foxconn	4,972 (1.5%	41.69	46.69	1.2%	2.4%	31.0%	5.9%
8	TCL	4,046 (1.2%	41.79	6 <b>9</b> 7.39	0.1%	3.7%	2.9%	3.4%
9	Hua Hong Semicond	4,031 (1.2%	2.29	78.29	6 0.0%	0.0%	0.0%	0.0%
10	Tokyo Electron	3,752 (1.1%	54.89	62.69	1.4%	1.8%	68.1%	64.6%
11	Renesas	3,503 (1.1%	52.69	6 42.79	5.0%	1.6%	45.4%	14.4%
12	LG Display	3,426 (1.0%	94.39	92.99	17.3%	24.4%	28.7%	88.6%
13	Renesas (w/o Intersil)	3,415 (1.0%	52.59	6 42.89	5.1%	1.6%	46.5%	14.6%
14	Applied Materials	3,292 (1.0%	64.39	64.59	6 4.3%	4.4%	41.0%	58.9%
15	Sony	3,081 (0.9%	63.29	55.29	5.6%	6.1%	39.7%	23.1%





## THANKS!