

REPORT
SAMPLE

3D Non-Volatile Memory

Patent Landscape Analysis

March 2018

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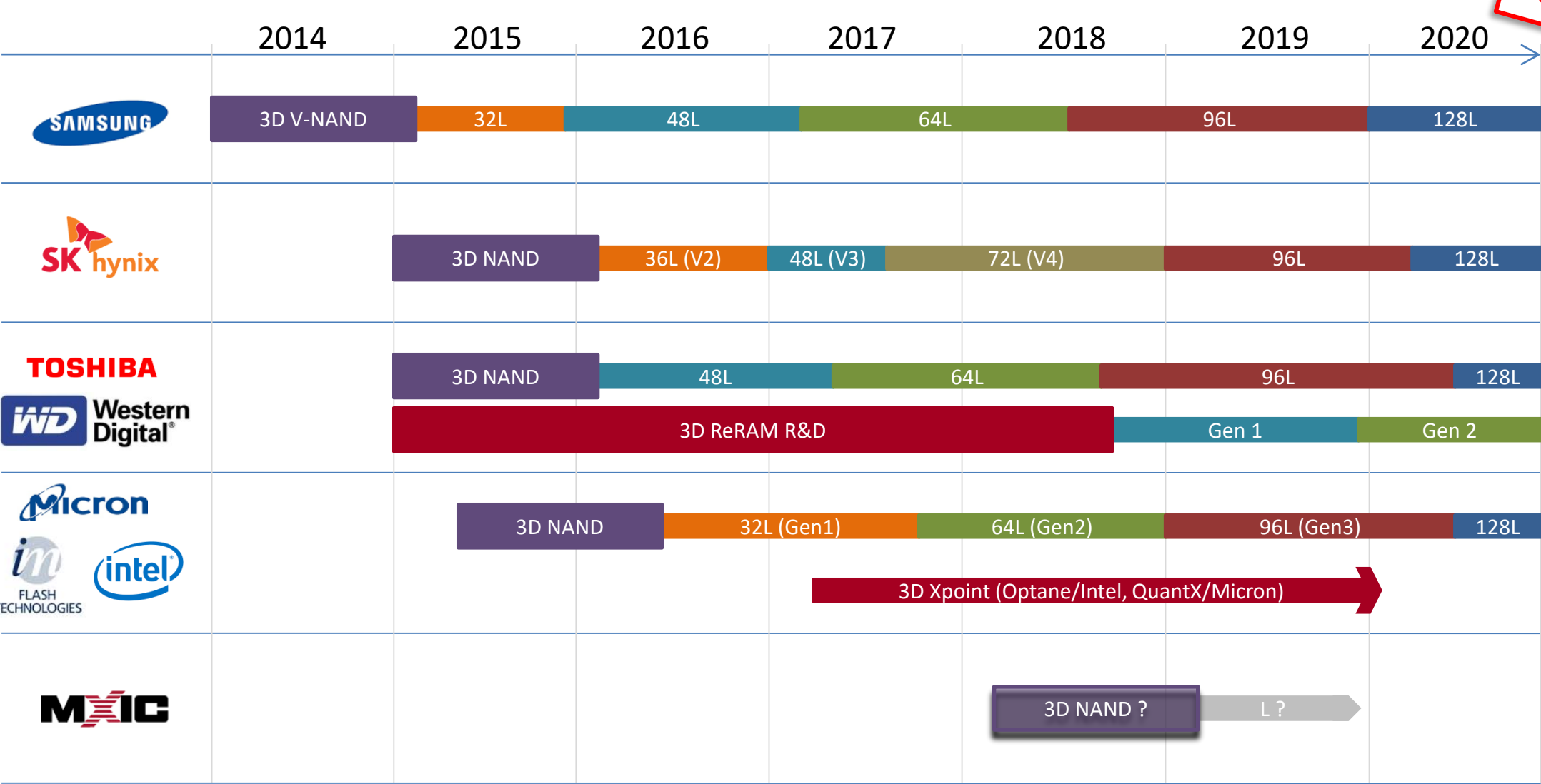
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(2D, 3D, DRAM, SRAM, Flash, emerging memories)	
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Western Digital/SanDisk, Samsung, Toshiba, Micron Technology, SK Hynix, Macronix International.	
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TECHNOLOGY OVERVIEW

3D NVM Roadmap

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Source : TechInsight 2017, modified by KnowMade

INTRODUCTION

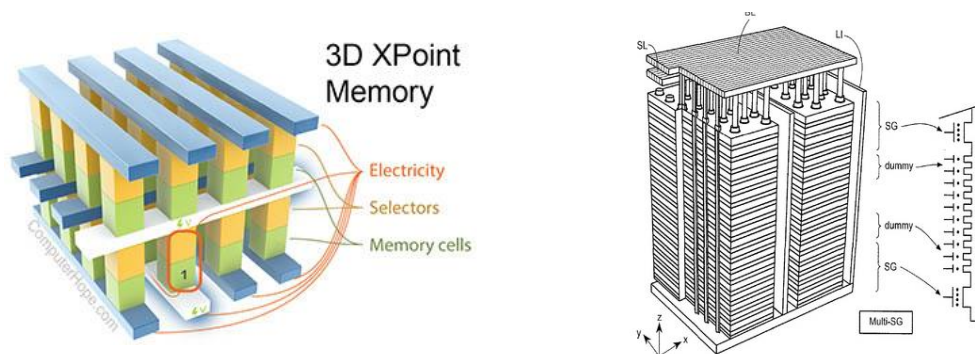
Scope of the Report

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- This report provides a detailed picture of the patent landscape for **3D Non-Volatile Memories**.
- This report covers **patents published worldwide up to June 2017**.
- We have selected and analyzed more than **3,416 patent families** relevant to the scope of this report.

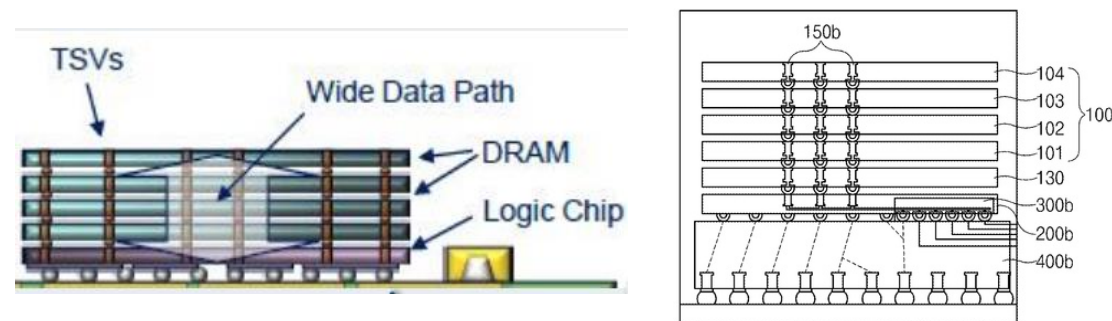
Included in the report

- ✓ Patents related to non-volatile memory stacked monolithically (3D NVM) and whose the claims are dedicated to the 3D structure.



Not included in the report

- X 3D NVM with TSV or wire-bonding.
- X Patents related to 3D NVM in which the stack is not part of the core of the invention (3D memory only mentioned in the description of the document).

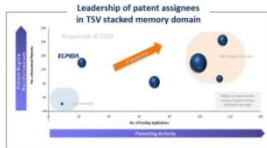


INTRODUCTION

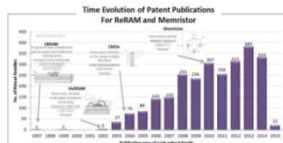
Related Reports

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You may also be interested in our previous reports:



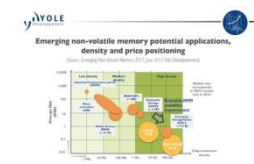
- TSV Stacked Memory Patent Landscape (2016) ([link](#))



- Resistive Memory Patent Landscape (2015) ([link](#))



You may also be interested in those market analysis reports of our partner Yole Développement:



- Emerging Non-Volatile Memory 2017 report (2017) ([link](#))



METHODOLOGY

Patent Search, Patent Selection, Patent Analysis (1/2)



- The data were extracted from the **FamPat worldwide database** (Questel-ORBIT) which provides 100+ million patent documents from 95 offices.
- The search for patent was performed in **June 2017** hence patents published after this date will not be available in this report.
- The patents were grouped by **patent family**. A patent family is a set of patents filed in multiple countries to protect a single invention by a common inventor(s). A first application is made in one country – the priority country – and is then extended to other countries.
- The selection of the patents has been done both automatically and manually (all details in next slides).

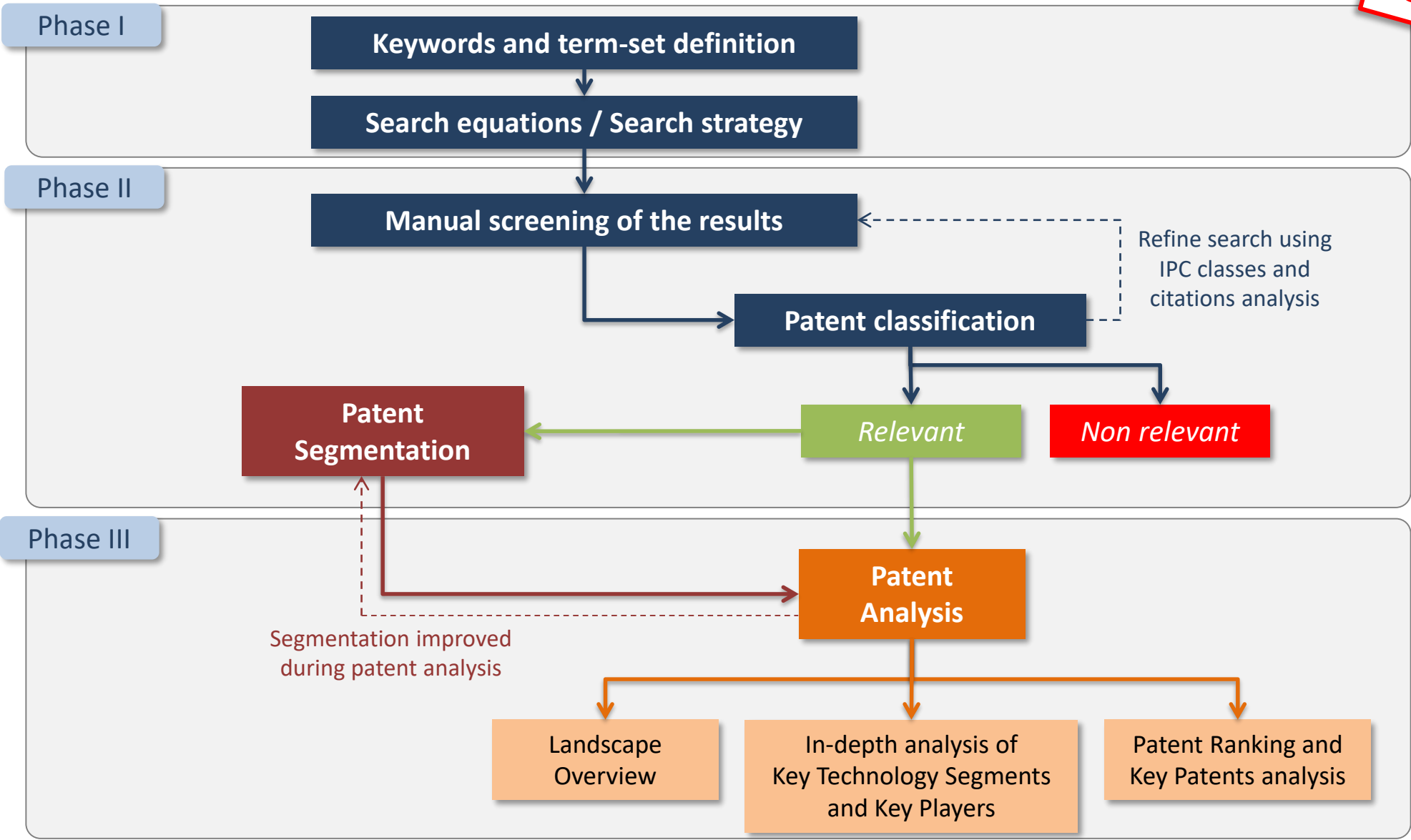
Number of selected patent families for the 3D Non-Volatile Memory Patent Landscape Analysis:
3,416 over a number of returned results > 10,000

- The statistical analysis was performed with **Orbit IP Business Intelligence web based patent analysis software from Questel**.
- The patents were **manually categorized in technical segments** using keyword analysis of patent title, abstract and claims, in conjunction with expert review of the subject-matter of inventions (all details in next slides).
- For legal status of European (EP) and PCT (WO) patent applications, EPO Register Plus has been used. For legal status of US patents, USPTO PAIR has been used. For legal status of other patents, information have been gotten from their respective national registers.

METHODOLOGY

Patent Search, Patent Selection, Patent Analysis (2/2)

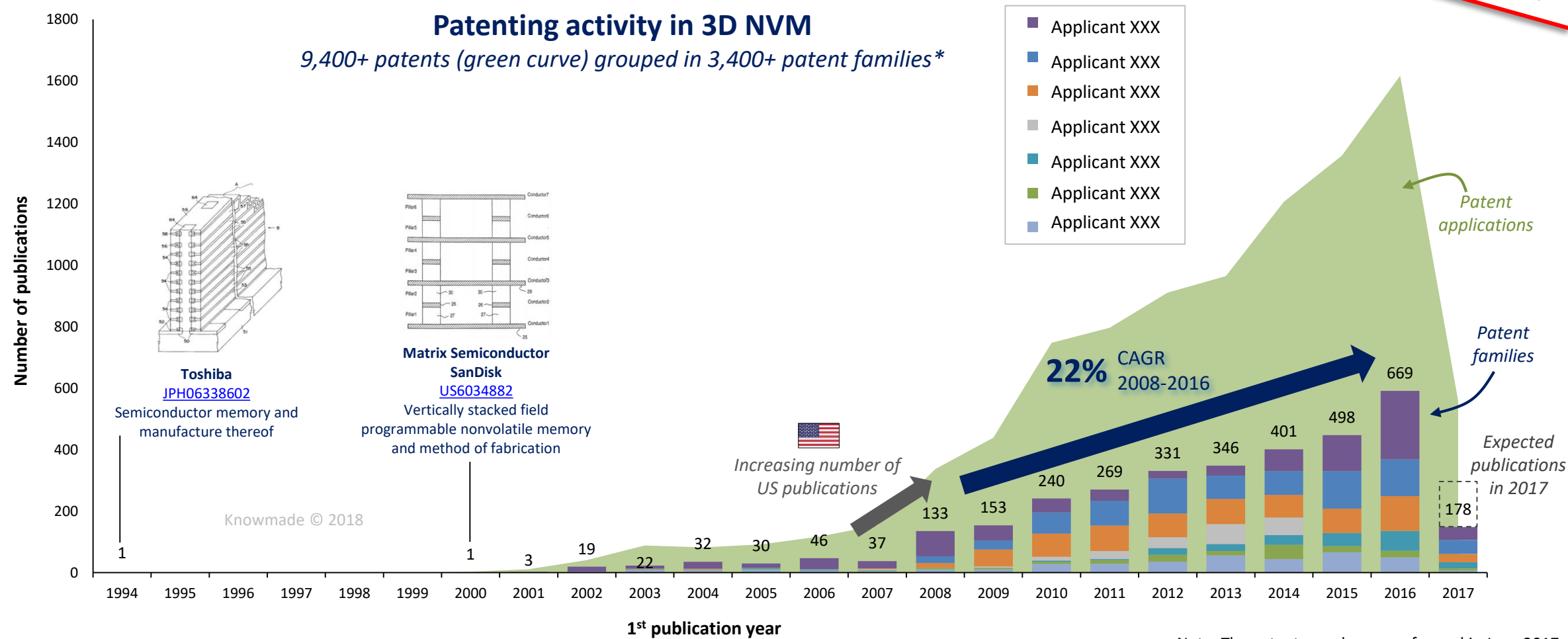
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IP OVERVIEW

Time Evolution of Patent Publications in 3D NVM

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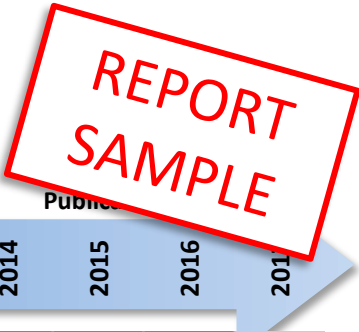


* A patent family is a set of patents filed in multiple countries to protect a single invention by a common inventor. A first application is made in one country – the priority country – and is then extended to other countries.

Note: The patent search was performed in June 2017, thus the data corresponding to the year 2017 are not complete. At the time of the patent search, 178 patent families had been published in 2017.

PATENT LANDSCAPE ANALYSIS

Time Evolution by Country of Filing



FILING COUNTRY	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CHINA									1	6	4	4	9	9	29	25	60	59	74	87	113	135	166	64
GERMANY (EP)									1		1	4	3	2	3	5	5	4	7	7	8	4	11	10
EUROPE								1	1	9	2	4	4	10	17	16	32	24	17	19	15	23	33	24
JAPAN	1							1	1	5	6	2	11	11	37	77	110	122	111	131	103	68	62	22
KOREA								2	2	6	1	5	4	11	43	52	139	143	183	165	161	206	229	96
TAIWAN								2	1	8	4	6	4	23	34	52	74	49	56	28	89	81	94	25
USA							1	3	19	30	35	42	55	47	123	149	246	300	368	431	533	666	819	267
WO (PCT)							1	1	5	2	13	5	17	20	38	49	53	45	52	47	87	97	109	32

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Note: International (WO) and European (EP) applications may hide other countries that are not yet published.
The data corresponding to the year 2017 are not be complete since the patent search was done in June 2017.

- 1-9 patent families
- 10-19 patent families
- 20-49 patent families
- 50-99 patent families
- 100-499 patent families
- ≥ 500 patent families

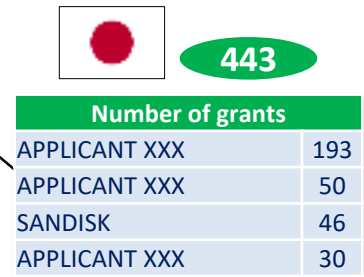
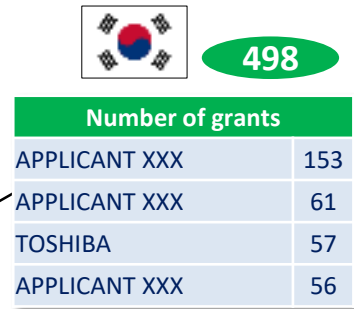
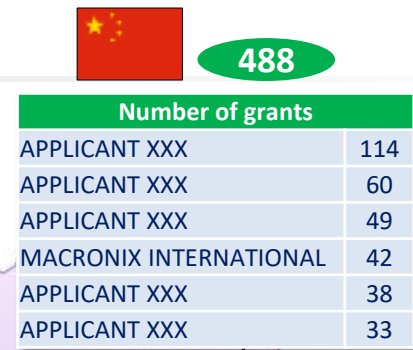
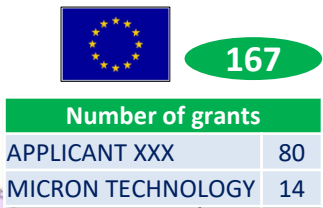
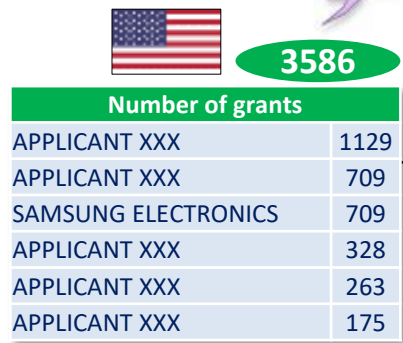
- The **USA** have been at the **1st place** for patent filings since the early development of 3D NVM. Besides, an explosion of patent filings is experienced by the country in the period 2014-2016.
- In **China** and **Korea**, the IP activity related to 3D NVM started at the same time, with a level of patent publications in Korea slightly higher than in China. This Korean IP dynamics results in the presence of Korean applicants in the top IP ranking.
- Patent filings in **Japan** are showing quite the same profile than Korea, with a first patent filed by **Applicant XXX** in early 1990s. However, we note a decrease in patent filings in Japan these last years.

PATENT LANDSCAPE ANALYSIS

Mapping of Main Current Patent Holders

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Number of granted patents in the corresponding country.



- Among the main assignees, **Applicant XXX** shows the most **worldwide IP strategy** with a lot of granted patents in all geographic areas. This **strongest position** in the map of granted patents gives to **Applicant XXX** a high **blocking potential** with the capability to limit the freedom of operation of the other firms in key countries.
- **Applicant XXX** has a patent portfolio mainly focused on **Korea** and **USA** with XXX and 700+ patented inventions in force respectively.
- **Asian** patent owners have no enforceable patents in **the European area**.

PATENT LANDSCAPE ANALYSIS

Summary of Assignees' Patent Portfolio

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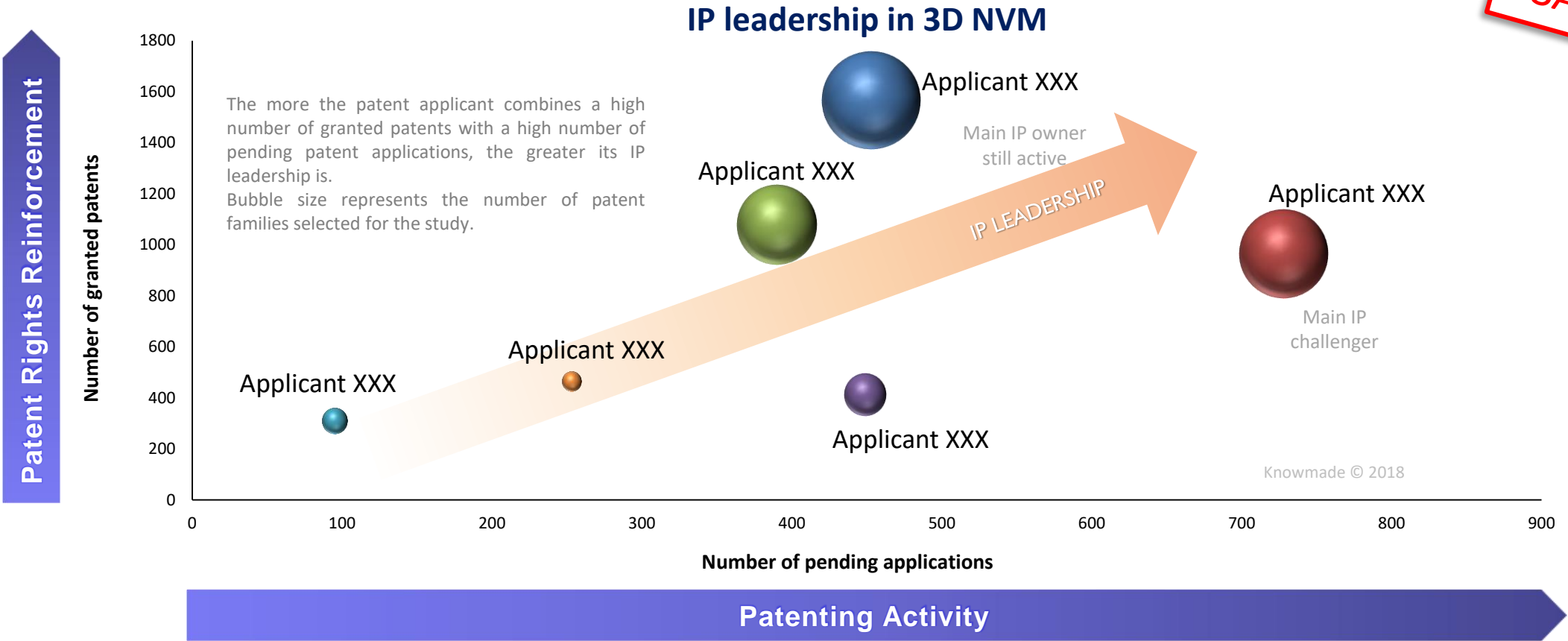
ASSIGNEE	No. of patent families	Oldest priority date of the portfolio	Average number of families / Year	Number of patent applications	Average number of patents / Family	Average age of patents (year)	% of granted patents	% of pending patent applications	% of dead patents (expired, abandoned or rejected)	Number of alive patents / Family (granted or pending)	Number of granted patents by country					
											US	EP	JP	CN	TW	KR
APPLICANT XXX	XXX	19XX	42	XXX	XX	XX	XX%	XX%	XX%	XX	1,129	80	46	114	11	56
APPLICANT XXX	XXX	20XX	XXX	XXX	XX	4	XX%	38%	XX%	0.9	709	6	30	49	15	153
APPLICANT XXX	XXX	19XX	XXX	1,863	XX	XX	XX%	21%	22%	XX	709	4	193	33	102	57
APPLICANT XXX	XXX	20XX	30	XXX	2.7	XX	42%	XX%	12%	0.9	328	0	5	38	6	34
APPLICANT XXX	217	20XX	XXX	XXX	XX	3	XX%	XX%	XX%	XX	175	1	4	42	85	3
APPLICANT XXX	XXX	2002	XXX	720	4.4	XX	63%	XX%	4%	XX	263	14	50	60	62	61

highest value in column lowest value in column

PATENT LANDSCAPE ANALYSIS

IP Leadership of Patent Assignees

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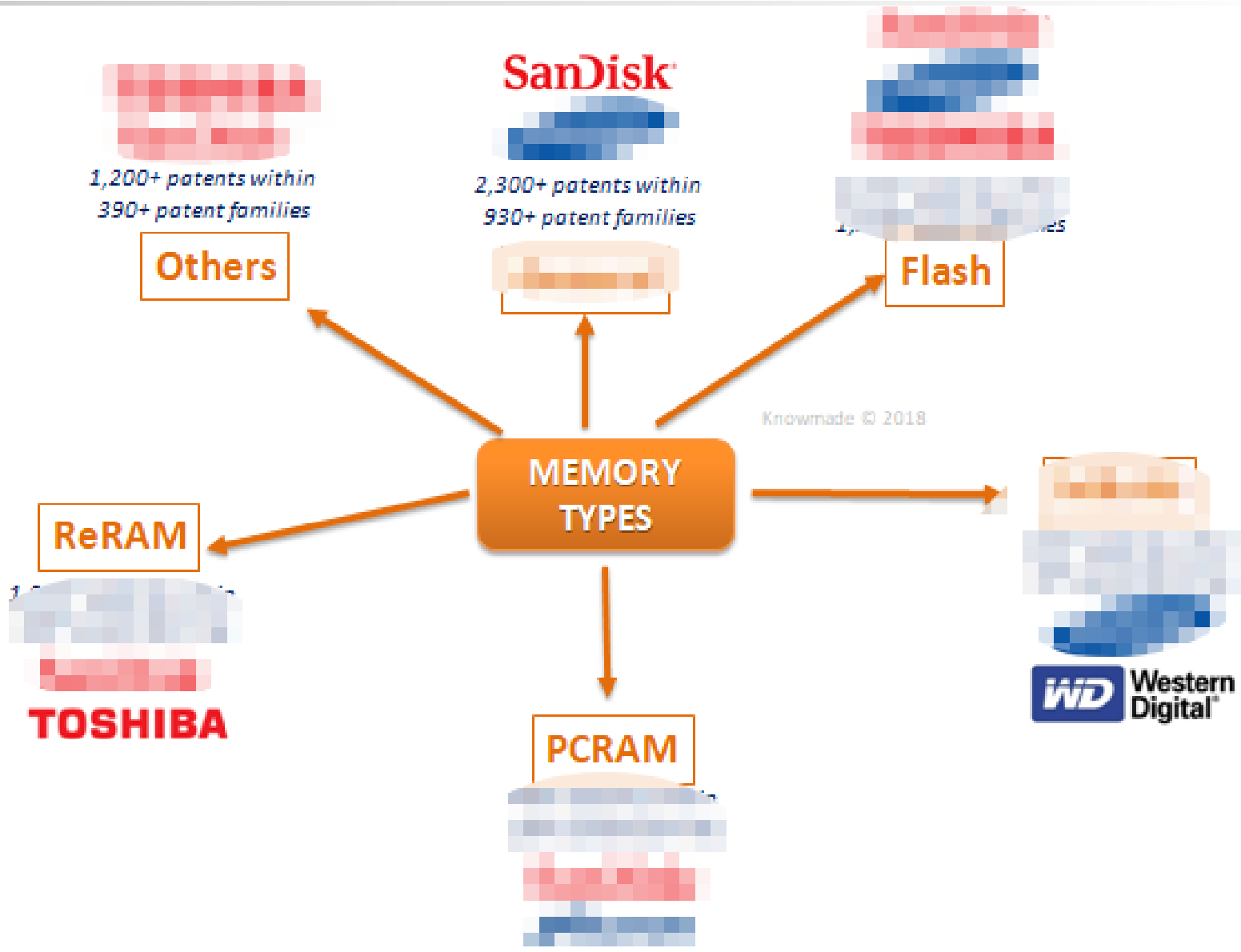


- **Applicant XXX** shows high IP leadership. The company combines a high number of granted patents with a lot of pending patent applications.
- **Applicant XXX** has a strong IP position thanks to a large number of granted patents and still a lot of patent filings.
- **Applicant XXX** could see its IP leadership increase in the future, considering their current patenting activity.

PATENT SEGMENTATION

Memory Types: Number of 3D NVM Patents and Main Patent Assignees

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CHINA MEMORY LANDSCAPE

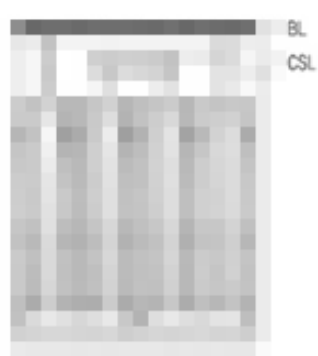
Key Market Players and Partnerships in China

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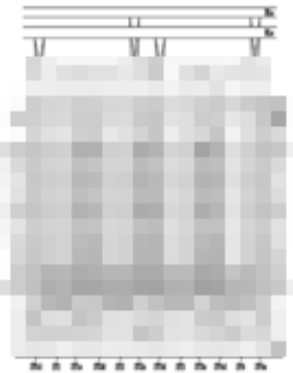
Key patents linked to the 3D NAND (U-Shaped String)

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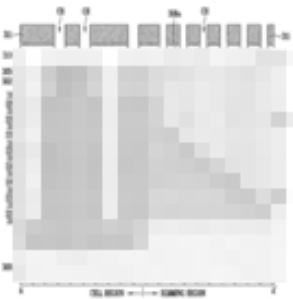


[USxxxxxxx](#) – Pending

in a PUC-shaped non-volatile memory

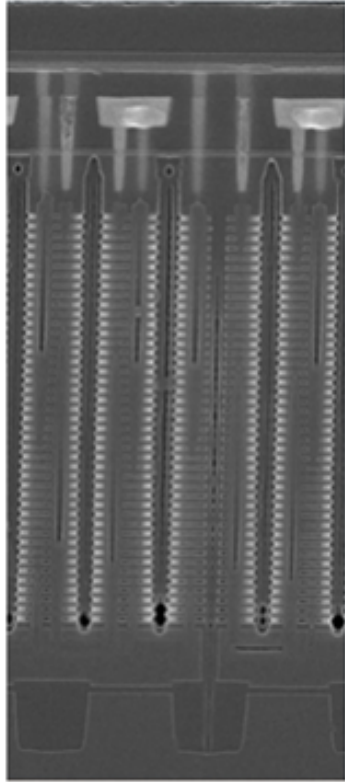


[USxxxxxxx](#) – Pending



[USxxxxxxx](#) – Granted

SK hynix
3D NAND (U-36L)
U-Shaped String
1.45 Gb/mm²
CTF



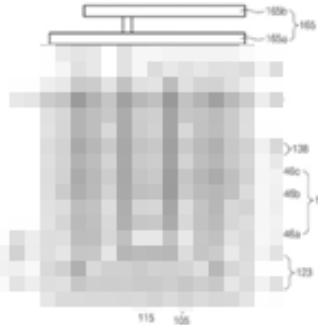
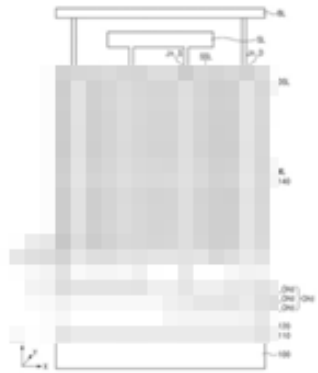
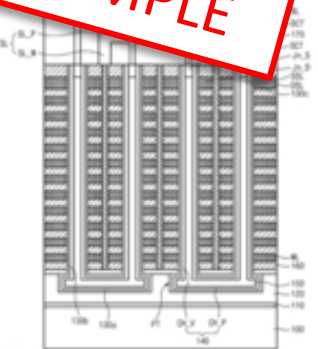
[SK Hynix 3D NAND array structure with U-shaped NAND string \(SEM Image\), TechInsight Website](#)

[USxxxxxxx](#) – Granted

A nonvolatile memory device including a source line having a 3D cap shape. A nonvolatile memory device having a U-shaped channel layer. An embodiment also relates to increasing an area of a source line of a nonvolatile memory device, resulting in reduction of resistance of the source line. As a result, operational characteristics of the nonvolatile memory device are improved.

[USxxxxxxx](#) – Granted

[USxxxxxxx](#) – Pending

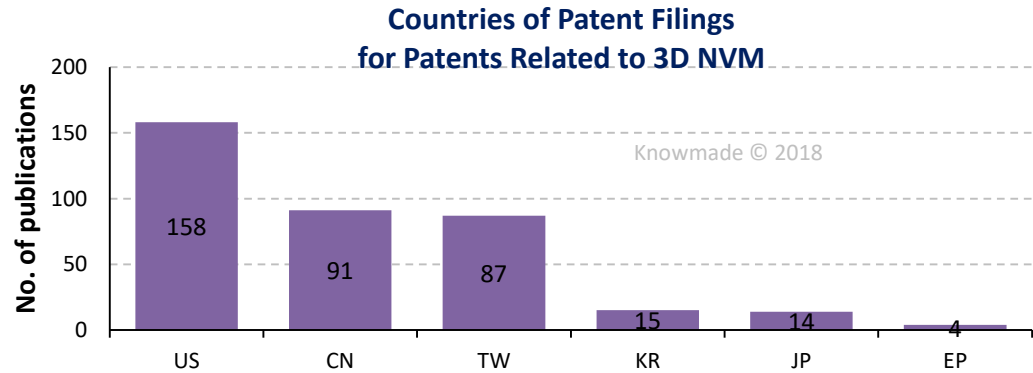
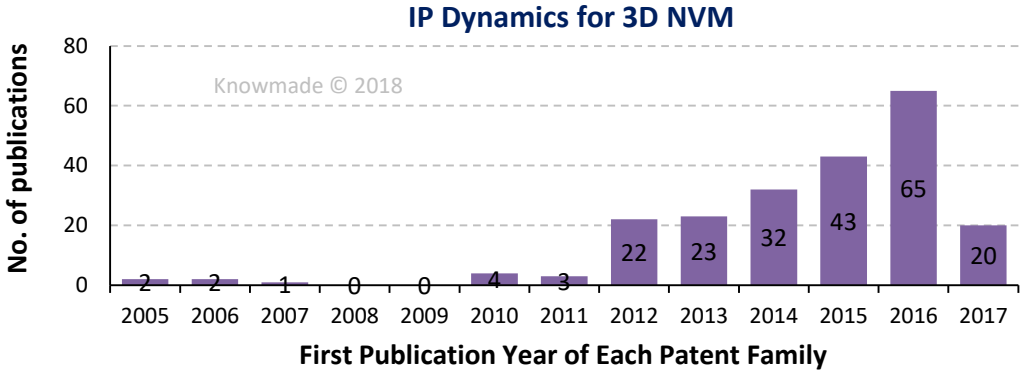


Applicant XXX

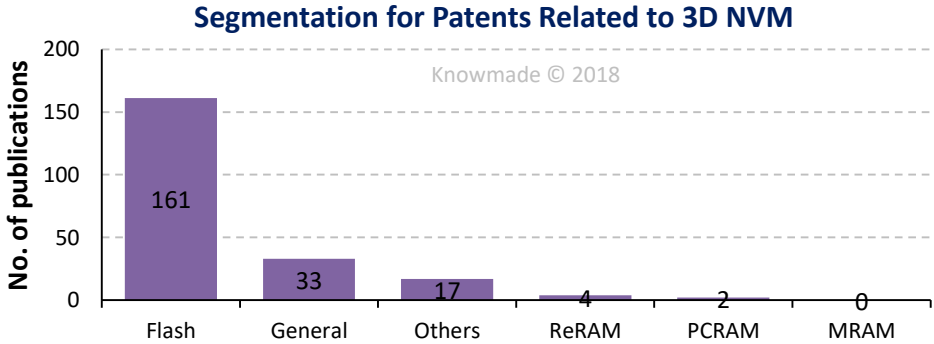
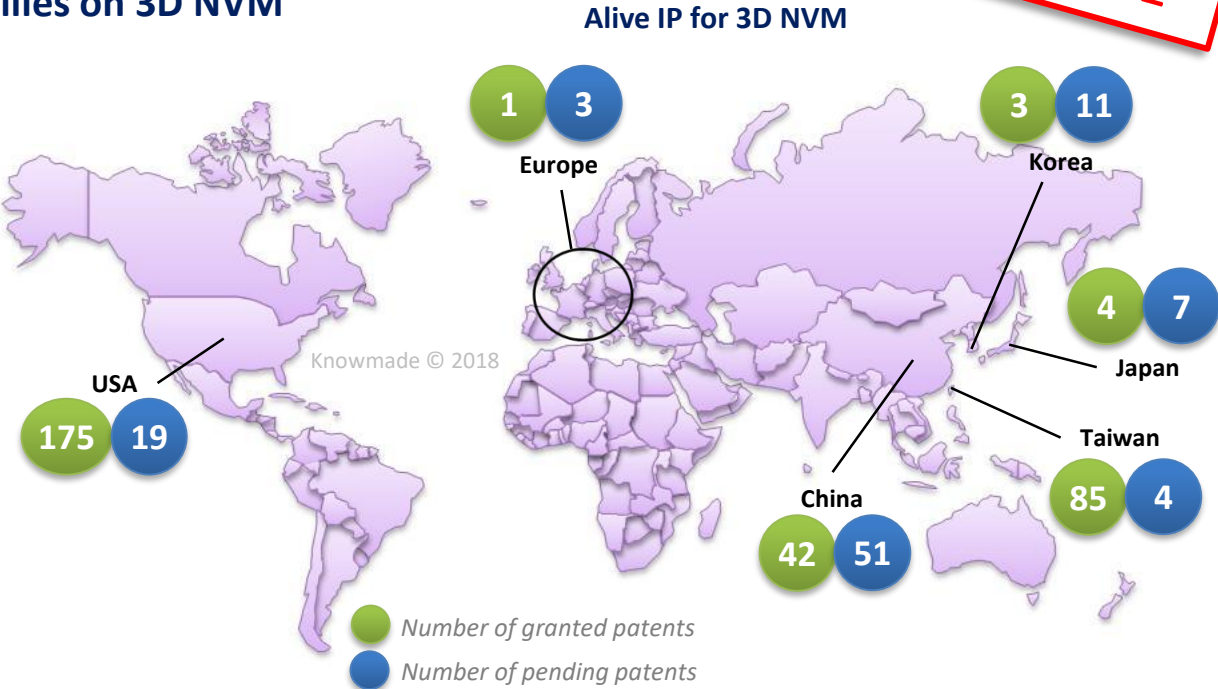
3D NVM IP Portfolio

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418 patents within 217 patent families on 3D NVM



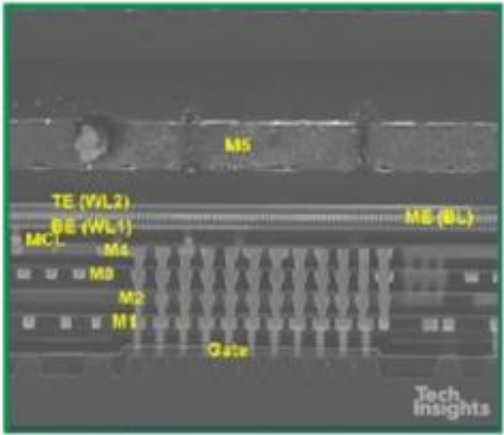
- Applicant XXX is actively working on improving 3D memory architectures (high density array, improving programming, contact pad structure fabrication method) since 2014.
- Most of applicant XXX' patent publications are related to Flash Memories.
- Applicant XXX doesn't have a worldwide IP strategy in 3D NVM. Indeed, applicant XXX has a very strong IP presence in USA, China and Taiwan and neglect Europe and other Asian countries. Its influence in China should evolve in next years with high number of pending patent applications.



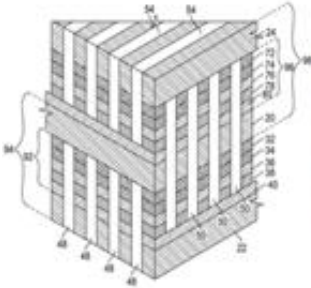
XPoint: Process Integration

- GST-based PCM (Phase Change Memory) between M4 and M5
- Storage layer vertically stacked on Selector
- Se-Ge-Si ternary phased OTS Selector with As doped
- Double memory cell stacked
- 1 Poly Si (Co-silicide), 5 Metals (excluding memory/WL/BL layers)

Source :
TechInsight
Presentation
(FMS 2017)



SEM X-Section (Array)

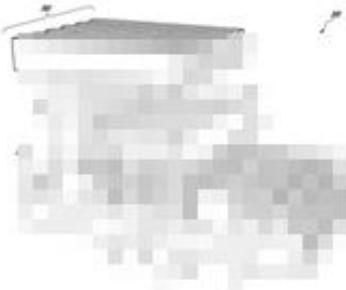


[USxxxxxxx](#) – Micron (2016)

An isometric view of a dual-deck memory array



[USxxxxxxx](#) - Intel (2015)



[USxxxxxxx](#) - Micron (2014)



[USxxxxxxx](#) – Micron (2013)



EXCEL DATABASE

Containing all the patents analyzed in this report with technology segmentation

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This database allows multi-criteria searches and includes patent publication number, hyperlinks to the original documents, priority date, title, abstract, patent assignees, and legal status for each member of the patent family.

										Segmentation								
FAMILY NUMBER	PATENT NUMBER	PATENT ASSIGNEE	PRIORITY DATE	TITLE	ABSTRACT	PDF LINK	LEGAL STATUS	ACTUAL OR EXPECTED		Memory Type							Memory Structure	
										Flash	FeRAM	MRAM	ReRAM	PCRAM	General	Others	Vertical	Cross-Point
77998908	US20	SAMSUNG	2009-06-19	(US) programming methods for t	In a method of multiple-bit programming c	Open	GRANTED	2031-01-20							X		X	
77998908	JP2	SAMSUNG	2009-06-19	(JP) programming method for	PROBLEM TO BE SOLVED: To provide	Open	GRANTED	2030-06-21							X		X	
77998908	US20	SAMSUNG	2009-06-19	(US) programming methods for t	In a method of multiple-bit programming c	Open	GRANTED	2030-06-18							X		X	
77998908	KR20	SAMSUNG	2009-06-19	(KR) program method of non-	PURPOSE: A program method of a nonv	Open	GRANTED	2029-06-19							X		X	
77998908	US1	SAMSUNG	2009-06-19	(US) programming methods for	In a method of multiple-bit programming c	Open	GRANTED	2030-06-18							X		X	
77646067	IN20	LEEDY Glenn J ([US])	2015-09-11	(IN2) Configurable vertical int	The Configurable Vertical Integration [CV	Open	PENDING	2035-09-11								X	X	
76645851	CN1	SHANGHAI	2017-04-05	(CN) three-dimensional nonvo	The invention provides a three-dimension	Open	PENDING	2037-04-05								X		
76602349	CN1	SHANGHAI	2017-02-24	(CN) three-dimensional memo	The invention provides a three-dimension	Open	PENDING	2037-02-24								X		
76518833	CN1	SHANGHAI	2017-02-21	(CN) readout circuit and readi	The invention provides a readout circuit a	Open	PENDING	2037-02-21								X		
76195440	WO2	SANDISK ([US])	2015-11-20	(WO) d semicircular vertical n	A vertical memory device including dual n	Open	PENDING	2035-11-20	X								X	
76195440	US20	SANDISK	2015-11-20	(US) emicircular vertical NAN	A vertical memory device including dual n	Open	GRANTED	2036-01-28	X								X	
76195437	US20	SANDISK	2015-11-25	(US) Split memory cells with u	Split memory cells can be provided within	Open	PENDING	2036-07-26	X								X	
76195437	US20	SANDISK	2015-11-25	(US) Within array replacement	An alternating stack of sacrificial materia	Open	PENDING	2036-07-26	X								X	
76195437	WO2	SANDISK ([US])	2015-11-25	(WO) split memory cells with un	Split memory cells can be provided within	Open	PENDING	2035-11-25	X								X	
76195437	WO2	SANDISK ([US])	2015-11-25	(WO) ithin array replacement c	An alternating stack of sacrificial materia	Open	PENDING	2035-11-25	X								X	
76195434	US20	SANDISK	2015-11-20	(US) three-dimensional hand	A three-dimensional memory device incl	Open	PENDING	2036-11-17	X								X	
76195434	WO2	SANDISK ([US])	2015-11-20	(WO) three-dimensional hand	A three-dimensional memory device incl	Open	PENDING	2035-11-20	X								X	
76195434	WO2	SANDISK ([US])	2015-11-20	(WO) three-dimensional hand	A three-dimensional memory device incl	Open	PENDING	2035-11-20	X								X	
76195434	US20	SANDISK	2015-11-20	(US) e dimensional NAND d	A three-dimensional memory device incl	Open	GRANTED	2036-02-08	X								X	
76195434	US20	SANDISK	2015-11-20	(US) e-dimensional NAND d	A three-dimensional memory device incl	Open	GRANTED	2036-08-01	X								X	
76195433	US20	TOSHIBA MEMORY	2015-11-20	(US) Semiconductor device	According to one embodiment, a semico	Open	PENDING	2036-03-10								X	X	
76195395	US20	SAMSUNG	2015-11-25	(US) Three-dimensional semi	Three-dimensional (3D) semiconductor c	Open	PENDING	2036-11-16							X		X	
76195395	KR20	SAMSUNG	2015-11-25	(KR) 3 Three dimensional ser	A 3D semiconductor device is provided. T	Open	PENDING	2035-11-25							X		X	
76195395	CN1	SAMSUNG	2015-11-25	(CN) hree-dimensional semio	Three-dimensional (3D) semiconductor c	Open	PENDING	2036-11-18							X		X	
76194410	US20	SK HYNIX ([KR])	2015-11-23	(US) Memory system and op	This technology relates to a memory syst	Open	PENDING	2036-05-02							X		X	
76194410	CN1	SK HYNIX	2015-11-23	(CN) memory system and oper	This technology relates to a memory syst	Open	PENDING	2036-07-06							X		X	
76194410	KR20	SK HYNIX ([KR])	2015-11-23	(KR) Memory system and op	The present invention relates to a memoi	Open	PENDING	2035-11-23							X		X	
76194404	US20	SK HYNIX ([KR])	2015-11-19	(US) Memory system and op	A memory system includes a memory dev	Open	PENDING	2036-05-06							X		X	

ORDER FORM

3D Non-Volatile Memory – Patent Landscape Analysis 2018

Ref.:KM18003



SHIP TO

Name (Mr/Ms/Dr/Pr):

Job Title:

Company:

Address:

City:

State:

Postcode/Zip:

Country:

VAT ID Number for EU members:

Tel:

Email:

Date:

PAYMENT METHODS

Check

To pay your invoice using a check, please mail your check to the following address:

KnowMade S.A.R.L.
2405 route des Dolines
06902 Valbonne Sophia Antipolis
FRANCE

Money Transfer

To pay your invoice using a bank money wire transfer please contact your bank to complete this process. Here is the information that you will need to submit the payment:

Payee: KnowMade S.A.R.L.
Bank: Banque Populaire Méditerranée, CAP 3000 Quartier du lac, 06700 St Laurent du Var
IBAN: FR76 1460 7003 6360 6214 5695 139
BIC/SWIFT: CCBPFRPPMAR

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RETURN ORDER BY

E-mail: contact@knowmade.fr

Mail: KnowMade S.A.R.L., 2405 route des Dolines, 06902 Valbonne Sophia Antipolis, FRANCE

PRODUCT ORDER

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☐ €5,990 – Single user license*

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DEFINITIONS

“Acceptance”: Action by which the Buyer accepts the terms and conditions of sale in their entirety. It is done by signing the purchase order which mentions “I hereby accept Knowmade’s Terms and Conditions of Sale”.

“Buyer”: Any business user (i.e. any person acting in the course of its business activities, for its business needs) entering into the following general conditions to the exclusion of consumers acting in their personal interests.

“Contracting Parties” or “Parties”: The Seller on the one hand and the Buyer on the other hand.

“Intellectual Property Rights” (“IPR”) means any rights held by the Seller in its Products, including any patents, trademarks, registered models, designs, copyrights, inventions, commercial secrets and know-how, technical information, company or trading names and any other intellectual property rights or similar in any part of the world, notwithstanding the fact that they have been registered or not and including any pending registration of one of the above mentioned rights.

“License”: For the reports and databases, 2 different licenses are proposed. The buyer has to choose one license:

1. One user license: a single individual at the company can use the report.

2. Multi user license: the report can be used by unlimited users within the company. Subsidiaries are not included.

“Products”: Reports are established in PowerPoint and delivered on a PDF format and the database may include Excel files.

“Seller”: Based in Sophia Antipolis (France headquarters), Knowmade is a technology intelligence company specialized in the research and analysis of scientific and technical information. We provide patent landscapes and scientific state of the art with high added value to businesses and research laboratories. Our intelligence digests play a key role to define your innovation and development strategy.

1. SCOPE

1.1 The Contracting Parties undertake to observe the following general conditions when agreed by the Buyer and the Seller. ANY ADDITIONAL, DIFFERENT, OR CONFLICTING TERMS AND CONDITIONS IN ANY OTHER DOCUMENTS ISSUED BY THE BUYER AT ANY TIME ARE HEREBY OBJECTED TO BY THE SELLER, SHALL BE WHOLLY INAPPLICABLE TO ANY SALE MADE HEREUNDER AND SHALL NOT BE BINDING IN ANY WAY ON THE SELLER.

1.2 This agreement becomes valid and enforceable between the Contracting Parties after clear and non-equivocal consent by any duly authorized person representing the Buyer. For these purposes, the Buyer accepts these conditions of sales when signing the purchase order which mentions “I hereby accept Knowmade’s Terms and Conditions of Sale”. This results in acceptance by the Buyer.

1.3 Orders are deemed to be accepted only upon written acceptance and confirmation by the Seller, within [7 days] from the date of order, to be sent either by email or to the Buyer’s address. In the absence of any confirmation in writing, orders shall be deemed to have been accepted.

2. MAILING OF THE PRODUCTS

2.1 Products are sent by email to the Buyer:

- within [1] month from the order for Products already released; or

- within a reasonable time for Products ordered prior to their effective release. In this case, the Seller shall use its best endeavours to inform the Buyer of an indicative release date and the evolution of the work in progress.

2.2 Some weeks prior to the release date the Seller can propose a pre-release discount to the Buyer.

The Seller shall by no means be responsible for any delay in respect of article 2.2 above, and including in cases where a new event or access to new contradictory information would require for the analyst extra time to compute or compare the data in order to enable the Seller to deliver a high quality Products.

2.3 The mailing of the Product will occur only upon payment by the Buyer, in accordance with the conditions contained in article 3.

2.4 The mailing is operated through electronic means either by email via the sales department. If the Product’s electronic delivery format is defective, the Seller undertakes to replace it at no charge to the Buyer provided that it is informed of the defective formatting within 90 days from the date of the original download or receipt of the Product.

2.5 The person receiving the Products on behalf of the Buyer shall immediately verify the quality of the Products and their conformity to the order. Any claim for apparent defects or for non-conformity shall be

sent in writing to the Seller within 8 days of receipt of the Products. For this purpose, the Buyer agrees to produce sufficient evidence of such defects.

2.6 No return of Products shall be accepted without prior information to the Seller, even in case of delayed delivery. Any Product returned to the Seller without providing prior information to the Seller as required under article 2.5 shall remain at the Buyer’s risk.

3. PRICE, INVOICING AND PAYMENT

3.1 Prices are given in the orders corresponding to each Product sold on a unit basis or corresponding to annual subscriptions. They are expressed to be inclusive of all taxes. The prices may be reevaluated from time to time. The effective price is deemed to be the one applicable at the time of the order.

3.2 Payments due by the Buyer shall be sent by cheque payable to Knowmade, PayPal or by electronic transfer to the following account:

Banque Populaire Méditerranée, CAP 3000 Quartier du lac, 06700 St Laurent du Var

BIC or SWIFT code: CCBPFRPPMAR

IBAN: : FR76 1460 7003 6360 6214 5695 139

To ensure the payments, the Seller reserves the right to request down payments from the Buyer. In this case, the need of down payments will be mentioned on the order.

3.3 Payment is due by the Buyer to the Seller within 30 days from invoice date, except in the case of a particular written agreement. If the Buyer fails to pay within this time and fails to contact the Seller, the latter shall be entitled to invoice interest in arrears based on the annual rate Refi of the «BCE» + 7 points, in accordance with article L. 441-6 of the French Commercial Code. Our publications (report, database, tool...) are delivered only after reception of the payment.

3.4 In the event of termination of the contract, or of misconduct, during the contract, the Seller will have the right to invoice at the stage in progress, and to take legal action for damages.

4. LIABILITIES

4.1 The Buyer or any other individual or legal person acting on its behalf, being a business user buying the Products for its business activities, shall be solely responsible for choosing the Products and for the use and interpretations he makes of the documents it purchases, of the results he obtains, and of the advice and acts it deduces thereof.

4.2 The Seller shall only be liable for (i) direct and (ii) foreseeable pecuniary loss, caused by the Products or arising from a material breach of this agreement

4.3 In no event shall the Seller be liable for:

a) damages of any kind, including without limitation, incidental or consequential damages (including, but not limited to, damages for loss of profits, business interruption and loss of programs or information) arising out of the use of or inability to use the Seller’s website or the Products, or any information provided on the website, or in the Products;

b) any claim attributable to errors, omissions or other inaccuracies in the Product or interpretations thereof.

4.4 All the information contained in the Products has been obtained from sources believed to be reliable. The Seller does not warrant the accuracy, completeness adequacy or reliability of such information, which cannot be guaranteed to be free from errors.

4.5 All the Products that the Seller sells may, upon prior notice to the Buyer from time to time be modified by or substituted with similar Products meeting the needs of the Buyer. This modification shall not lead to the liability of the Seller, provided that the Seller ensures the substituted Product is similar to the Product initially ordered.

4.6 In the case where, after inspection, it is acknowledged that the Products contain defects, the Seller undertakes to replace the defective products as far as the supplies allow and without indemnities or compensation of any kind for labor costs, delays, loss caused or any other reason. The replacement is guaranteed for a maximum of two months starting from the delivery date. Any replacement is excluded for any event as set out in article 5 below.

4.7 The deadlines that the Seller is asked to state for the mailing of the Products are given for information only and are not guaranteed. If such deadlines are not met, it shall not lead to any damages or cancellation of the orders, except for non-acceptable delays exceeding [4] months from the stated deadline, without information from the Seller. In such case only, the Buyer shall be entitled to ask for a reimbursement of its first down payment to the exclusion of any further damages.

4.8 The Seller does not make any warranties, express or implied, including, without limitation, those of

saleability and fitness for a particular purpose, with respect to the Products. Although the Seller shall take reasonable steps to screen Products for infection of viruses, worms, Trojan horses or other codes containing contaminating or destructive properties before making the Products available, the Seller cannot guarantee that any Product will be free from infection.

5. FORCE MAJEURE

The Seller shall not be liable for any delay in performance directly or indirectly caused by or resulting from acts of nature, fire, flood, accident, riot, war, government intervention, embargoes, strikes, labor difficulties, equipment failure, late deliveries by suppliers or other difficulties which are beyond the control, and not the fault of the Seller.

6. PROTECTION OF THE SELLER’S IPR

6.1 All the IPR attached to the Products are and remain the property of the Seller and are protected under French and international copyright law and conventions.

6.2 The Buyer agreed not to disclose, copy, reproduce, redistribute, resell or publish the Product, or any part of it to any other party other than employees of its company. The Buyer shall have the right to use the Products solely for its own internal information purposes. In particular, the Buyer shall therefore not use the Product for purposes such as:

- Information storage and retrieval systems;

- Recordings and re-transmittals over any network (including any local area network);

- use in any timesharing, service bureau, bulletin board or similar arrangement or public display;

- Posting any Product to any other online service (including bulletin boards or the Internet);

- Licensing, leasing, selling, offering for sale or assigning the Product.

6.3 The Buyer shall be solely responsible towards the Seller of all infringements of this obligation, whether this infringement comes from its employees or any person to whom the Buyer has sent the Products and shall personally take care of any related proceedings, and the Buyer shall bear related financial consequences in their entirety.

6.4 The Buyer shall define within its company point of contact for the needs of the contract. This person will be the recipient of each new report in PDF format. This person shall also be responsible for respect of the copyrights and will guaranty that the Products are not disseminated out of the company.

7. TERMINATION

7.1 If the Buyer cancels the order in whole or in part or postpones the date of mailing, the Buyer shall indemnify the Seller for the entire costs that have been incurred as at the date of notification by the Buyer of such delay or cancellation. This may also apply for any other direct or indirect consequential loss that may be borne by the Seller, following this decision.

7.2 In the event of breach by one Party under these conditions or the order, the non-breaching Party may send a notification to the other by recorded delivery letter upon which, after a period of thirty (30) days without solving the problem, the non-breaching Party shall be entitled to terminate all the pending orders, without being liable for any compensation.

8. MISCELLANEOUS

All the provisions of these Terms and Conditions are for the benefit of the Seller itself, but also for its licensors, employees and agents. Each of them is entitled to assert and enforce those provisions against the Buyer.

Any notices under these Terms and Conditions shall be given in writing. They shall be effective upon receipt by the other Party.

The Seller may, from time to time, update these Terms and Conditions and the Buyer, is deemed to have accepted the latest version of these terms and conditions, provided they have been communicated to him in due time.

9. GOVERNING LAW AND JURISDICTION

9.1 Any dispute arising out or linked to these Terms and Conditions or to any contract (orders) entered into in application of these Terms and Conditions shall be settled by the French Commercial Courts of Grasse, which shall have exclusive jurisdiction upon such issues.

9.2 French law shall govern the relation between the Buyer and the Seller, in accordance with these Terms and Conditions.