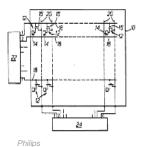
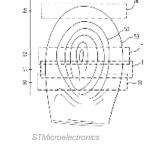
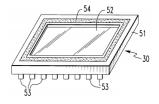
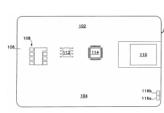
# Capacitive Fingerprint Sense Patent Landscape SAMPLE



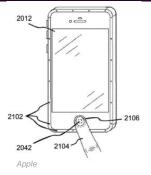




Harris Corp.



IVI Smart Tech.





2405 route des Dolines 06902 Sophia Antipolis, France Email: contact@knowmade.fr Web: www.knowmade.com

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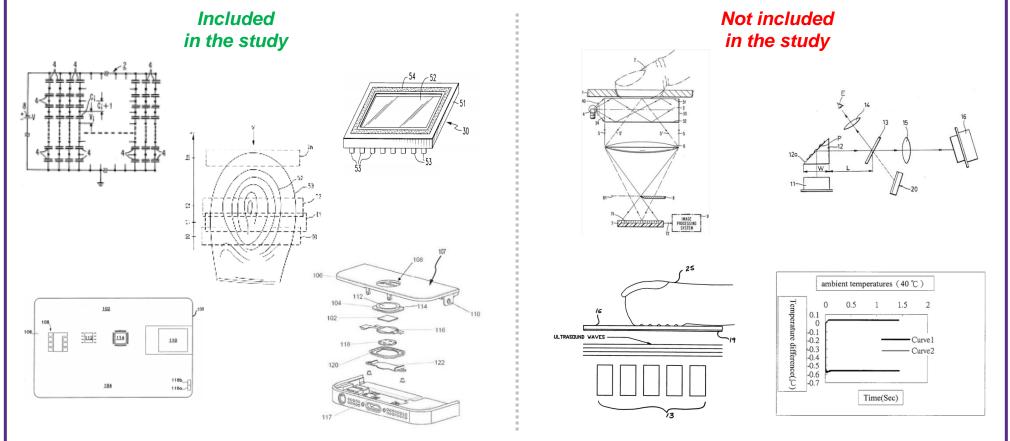


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#### **Scope of the Report**

This report provides a detailed picture of the patent landscape for <u>capacitive fingerprint sensors</u>. Only patents related to capacitive fingerprint sensing technologies (sensors, arrays, devices, methods,...) were considered. This report does not include patents related to image processing or other fingerprint sensing technologies (optical, ultrasound, thermal, pressure,...). This report covers patents published worldwide up to October 2014. <u>More than 650 patent</u> families relevant to the scope of this report have been selected.

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# Key Features of the Report (1/2)

- The report provides essential patent data for capacitive fingerprint sensors.
- It identifies more than 15+ major holders of capacitive fingerprint sensor related intellectual property. It provides in-depth IP analysis and industrial key players including:

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- Time evolution of patent publications and countries of patent filings.
- Current legal status of patents.
- Ranking of main patent applicants.
- Joint developments and IP collaboration network of main patent applicants.
- Key patents.
- Granted patents near expiration.
- Relative strength of main companies IP portfolio.
- Overview of patent litigations.
- Matrix applicants/technology issues for more than 15 companies.
- The "capacitive fingerprint sensor IP" profiles of 15+ major companies is presented, with key patents, technological issues, litigations, licenses, partnerships, and IP strength and strategy.

# Key Features of the Report (2/2)

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- The report also provides an extensive <u>Excel database</u> with all patents analyzed in the report.
- This database allows multi-criteria searches:
   <u>Patent information</u>
  - Patent publication number
  - Hyperlinks to the original documents
  - Priority date
  - Title
  - Abstract
  - Patent Assignees
  - Legal status for each member of the patent family
- This report does not provide any insight analyses or counsel regarding legal aspects or the validity of any individual patent: KnowMade is research firm that provide market and technical analysis and opinions. The research, technical analysis and/or work contained herein is not a legal opinion and should not be construed as such.

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### **Objectives of the Report**

#### **Objectives of this patent landscape is to:**

- ✓ Understand the IP landscape for capacitive fingerprint sensors.
- ✓ Identify key patents.
- Understand trends in capacitive fingerprint sensors IP.
- ✓ Identify the major IP players in capacitive fingerprint sensors and the relative strength of their patent portfolio.
- ✓ Identify new IP players in capacitive fingerprint sensors.
- ✓ Identify IP collaboration networks between key players.
- ✓ Identify main patent litigations.



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# Methodology (1/2)

•The data were extracted from the FamPat worldwide database (Questel-ORBIT) which provides 90+ million patent documents from 95 offices.

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•The patents search was performed in October 2014, hence patents published after this date will not be available in this report.

•The patent selection was done manually.

Number of selected patent families for the capacitive fingerprint sensor IP Investigation: 676 over a number of returned results > 5,000

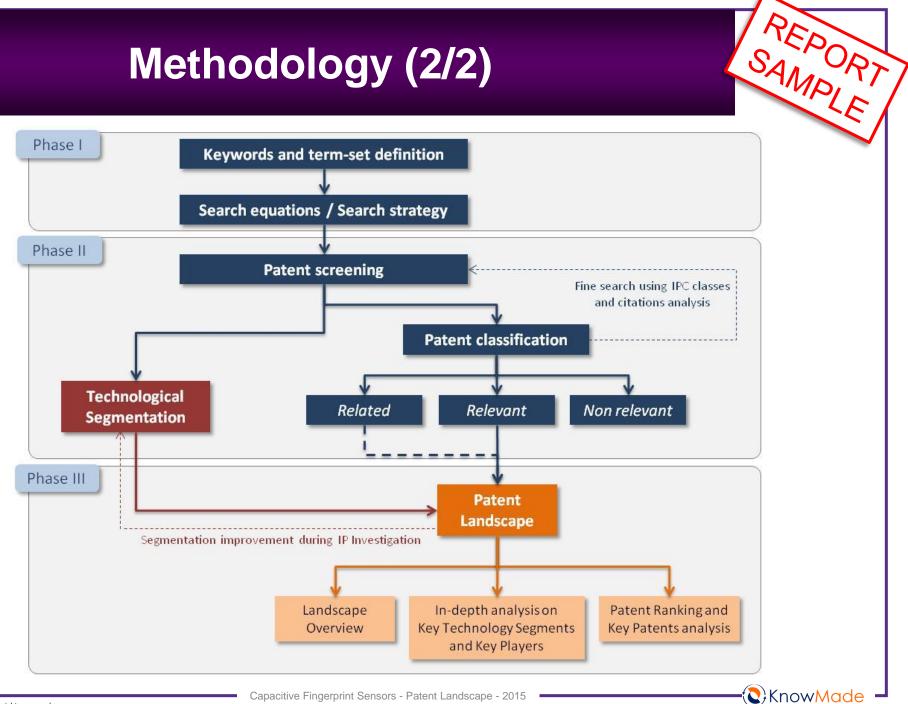
•The statistical analysis was performed with Questel Orbit IP Business Intelligence software.

•The patents were manually categorized using keyword analysis of patent title, abstract and claims, in conjunction with expert review of the subject-matter of inventions.

•The patents were organized according to FamPat's family rules (variation of EPO strict family): A *Patent Family* comprises patents linked by exactly same priority numbers (strict family), plus comparison of priority and application numbers, specific rules by country and information gathered from other sources (national files, legal status ...).

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# Methodology (2/2)



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#### **Patent Search Strategy**

	STEP	SEARCH EQUATION	RESULT
Patents related to capacitive fingerprint sensors	Step-1	(XXX+)/BI AND (XXX+ OR XXX OR XXX+ OR XXX+ OR XXX+ OR XXX+ OR XXX+)/BI AND (XXX+)/BI/CLMS	> 900
Key firms	Step-2	(XXX OR XXX OR XXX OR XXX OR XXX OR XXX OR XXX OR XXX)/PA.FLD	> 390,000
Citing and cited patents	Step-3	CITING AND CITED PATENTS OF SELECTED PATENTS FROM STEP-1 AND STEP-2	> 5,000
Manual selection	Step-4	Selected patent families	676

• + Truncation replacing any number of characters

- ? Truncation replacing zero or one character
- # Truncation replacing one character
- \_ Truncation for word that may have a space (ex: semiconductor, semi conductor)
- OR Finds references containing at least one of the words
- · AND Finds references containing all words
- S Finds references containing the terms in the same sentence
- nD Finds references containing adjacent terms, regardless of the order, and may be separated by a maximum of n words

• nW Finds references containing adjacent terms, in the order specified, and may be separated by a maximum of n words

REPORT

- ( ) Parentheses are necessary to combine different operators
- /TI/OTI Search in Title
- /BI Search in Title and Abstract
- /CLMS Search in Claims
- /DESC/ODES Search in Description
- /PA.FLD Search in Patent Assignees
- /IC Search in International Patent Classification (IPC)

### **Assignees Mentioned in this Report**

SEIKO EPSON, SONY, AUTHENTEC, STMICROELECTRONICS, INFINEON TECHNOLOGIES, ALPS ELECTRIC, LIGHTUNING TECHNOLOGY, HIMAX TECHNOLOGIES, APPLE, SIEMENS, NTT, FUJITSU, PHILIPS, UPEK, O-FILM TECH, IDEX, NEC, BIOMETRIC TECHNOLOGY, SYNAPTICS, SAMSUNG ELECTRONICS, EGIS TECHNOLOGY

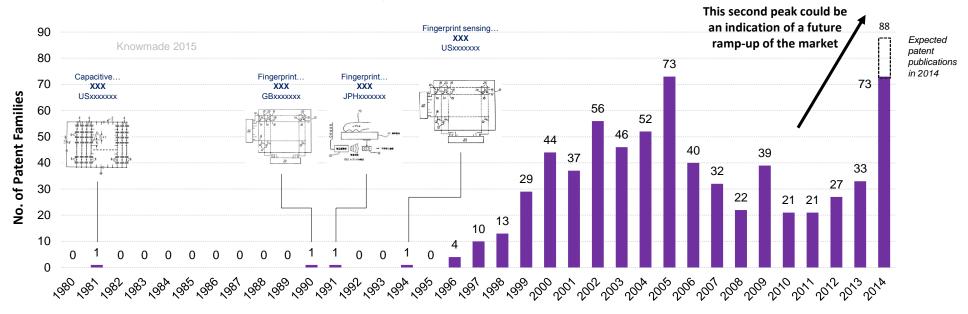
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CHANGSHU RESEARCH INSTITUTE, UNIVERSITY OF CAMBRIDGE

## **Time Evolution of Patent Publications**

#### **Capacitive Fingerprint Sensors Patent Publications**



Earliest publication year of each patent family

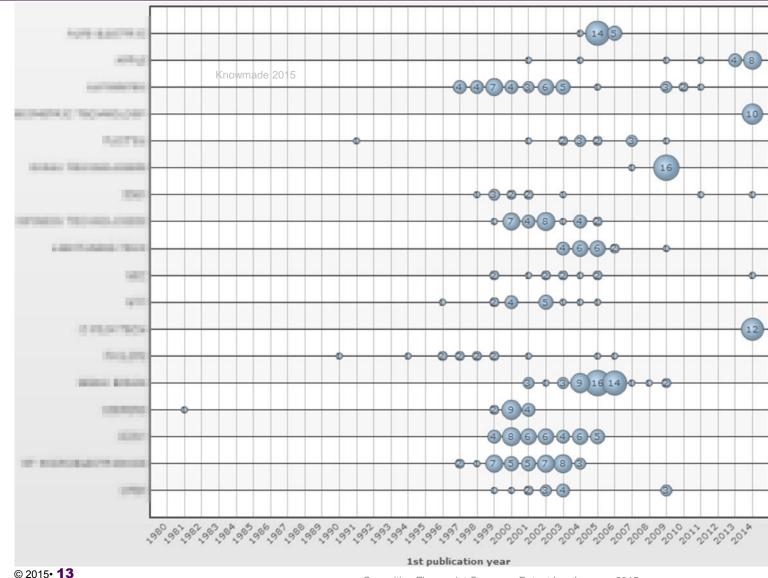
Note: The data corresponding to the year 2014 are not complete since the patent search was done in October 2014.

In 1981, the first patent of a fingerprint sensor using capacitance technology was published by COMPANY XXX (patent number <u>USxxxxxx</u>). Less than 10 patents have been published in the 15 years following COMPANY XXX's patent, suggesting obstacles in the early development of the capacitive fingerprint sensing technology. After this latency period, the number of patent publications increased significantly between 1996 and 2005 before slowing down. The increase observed in 2009 is due to the publication of COMPANY XXX's patents. The number of new patents has initiated a second growth in the last couple of years, encouraged by an attraction for the biometric technology and the development of the use of capacitive fingerprint sensors in various devices and services (phones, tablets, laptops, cards, personal data access, digital payments,...). The strong rise in 2014 is mainly due to Chinese patents. By the end of 2014, more than 650 patent families related to capacitive fingerprint sensing technologies have been published.



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### **Time Evolution of Patent Applicants**



Dates are defined from the earlies publication date for each patent family. Bubble size represents the number of published patent families. The data corresponding to the year 2014 may not be complete since the patent search was done early July 2014.

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Between 1999 and 2004, COMPANY XXX, COMPANY XXX, COMPANY XXX and COMPANY XXX were the most active, their activity being reduced since then.

**COMPANY XXX**, who owns the most patent families in the field, has published most of its patents in the 2004-2006 period. Some companies have a unique and high activity concentrated on very short period of time like **COMPANY XXX**, **COMPANY XXX** or **COMPANY XXX** in collaboration with **COMPANY XXX**.

**COMPANY XXX** has increased its activity in this technology in the last 2 years.

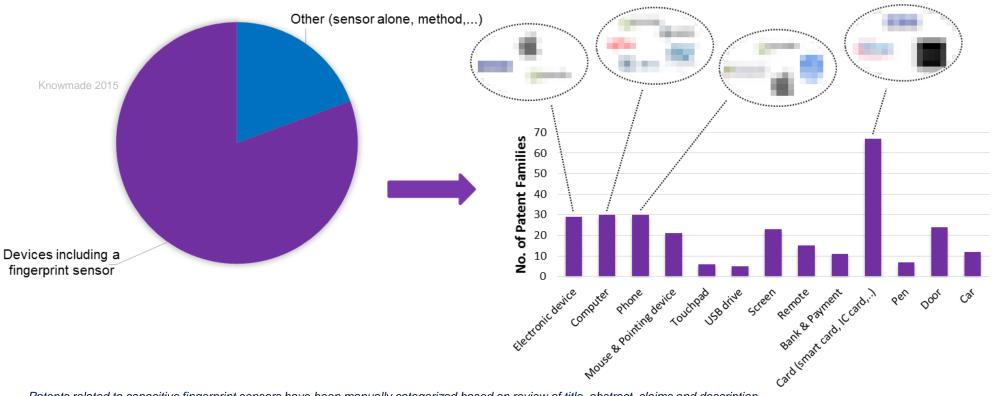
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## **Technology Issues**

#### Patent Distribution According to Technology Issues

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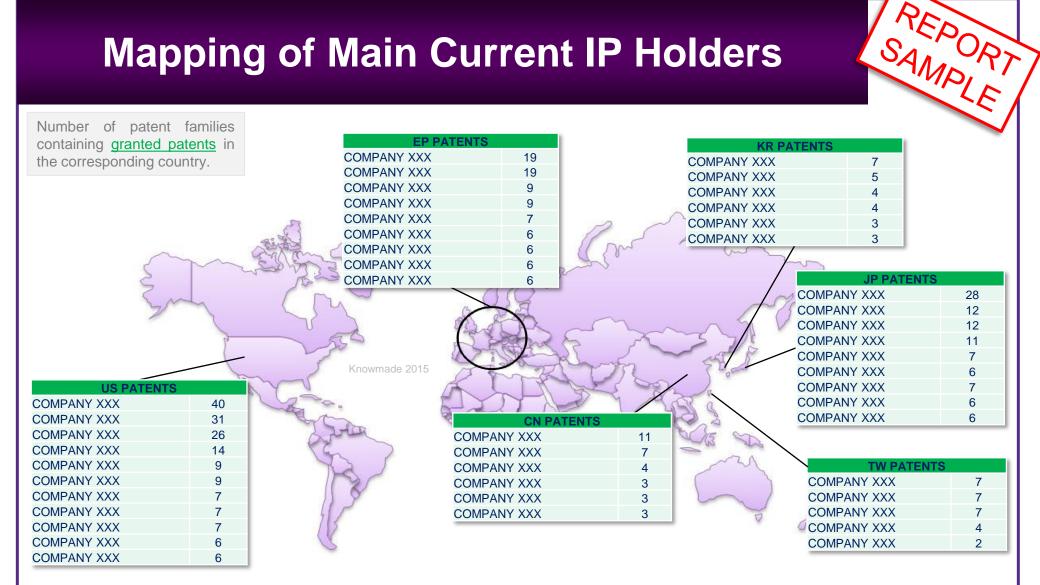
Patents related to capacitive fingerprint sensors have been manually categorized based on review of title, abstract, claims and description. Note that a patent can be found in several categories.

About 80% of the 676 patent families related to capacitive fingerprint sensors concern a device including a sensor. Among those, 2/3 don't claim an application for a specific device. Most of the applications claimed concern **electronic devices**, particularly **computers** and **phones**. The most developed application is **a card comprising a sensor** (smart card, credit card, card containing personal data, ID card,...) and the main assignee for this application is **COMPANY XXX**.

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### Mapping of Main Current IP Holders



COMPANY XXX holds most of the granted patents in Asia, especially in Japan, and has also well protected its technology in the USA and in Europe. COMPANY XXX is the main IP holder in the USA and Europe, and has interest in Japan and China as well. COMPANY XXX shares the 1<sup>st</sup> place with COMPANY XXX in Europe and is 2<sup>nd</sup> in the USA where the company has its largest granted patent portfolio.

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# Summary of Applicant's Patent Portfolio

Knowmade 2015 Patent Applicants	No. of patent	Oldest priority date of the patent	No. of patent families	No. of patents	No. of patents / Patent	Patents average	granted nending lansed family						ted famil	ly patents by country				
	families	portfolio	filed / yr (average)	documents	<b>family</b> (average)	age (Y)	granteu	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	expired	(granted, pending)	US	EP	JP	CN	KR	TW
<b>COMPANY XXX</b>	50	19XX	XX	ХХ	XX	9	XX%	XX%	XX%	2,6	XX	XX	XX	xx	хх	7		
<b>COMPANY XXX</b>	XX	19XX	2	99	XX	XX	XX%	XX%	XX%	XX	XX	19	12	XX	1	1		
COMPANY XXX	XX	19XX	2	xx	2,3	XX	XX%	XX%	79%	0,5	XX	XX	1	3	2	1		
COMPANY XXX	38	19XX	xx	xx	XX	XX	XX%	XX%	XX%	1,8	XX	19	XX	1	ХХ	XX		
COMPANY XXX	XX	19XX	2	157	XX	XX	XX%	XX%	XX%	XX	7	9	XX	1	4	1		
COMPANY XXX	XX	20XX	XX	49	xx	8	XX%	XX%	XX%	1	ХХ	ХХ	6	XX	1	XX		
COMPANY XXX	XX	20XX	XX	xx	1,8	9	XX%	XX%	XX%	xx	5	XX	1	XX	ХХ	7		
COMPANY XXX	XX	20XX	2	21	xx	XX	100%	0%	0%	1,2	7	XX	XX	XX	ХХ	7		
COMPANY XXX	16	19XX	XX	xx	xx	2	XX%	XX%	XX%	xx	5	XX	XX	1	1	XX		
COMPANY XXX	XX	1980	<1	xx	5,6	15	XX%	XX%	XX%	xx	5	6	XX	1	ХХ	XX		
COMPANY XXX	XX	19XX	1	xx	3	XX	XX%	0%	XX%	2,7	5	ХХ	12	XX	ХХ	XX		
COMPANY XXX	XX	19XX	XX	83	xx	10	XX%	XX%	XX%	xx	XX	9	7	XX	ХХ	XX		
COMPANY XXX	13	19XX	XX	xx	xx	10	XX%	XX%	XX%	4,4	ХХ	6	XX	3	3	XX		
COMPANY XXX	XX	19XX	XX	xx	9,8	15	XX%	XX%	XX%	хх	ХХ	6	1	XX	3	1		
COMPANY XXX	XX	20XX	XX	12	1	0	0%	100%	0%	1	ХХ	ХХ	XX	12	XX	XX		
COMPANY XXX	11	19XX	XX	xx	ХХ	ХХ	XX%	XX%	XX%	9,3	9	6	XX	XX	XX	XX		

highest value in column

lowest value in column

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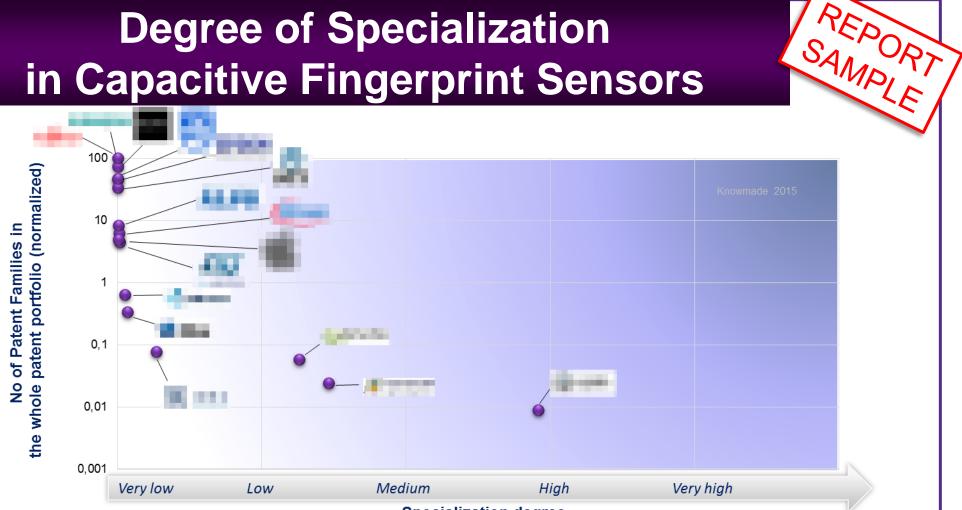
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# Summary of Applicant's Patent Portfolio

**COMPANY XXX** owns the most patent families and has XX% of granted patents (mainly in the USA and Japan), most of them were filed over a 2004-2006 period. **COMPANY XXX** is the 3<sup>rd</sup> top assignee but 79% of its patents are dead, indicating that **COMPANY XXX** has reduced its activity in the fingerprint authentication domain using capacitance. With the oldest priority date of the patent portfolio in 1980, COMPANY XXX was the pioneer in the field. However, with an average of 15 year of age for its portfolio and XX% of dead patents COMPANY XXX is not a current patent leader. Although, it must be taken into account that **COMPANY XXX** spun off its semiconductor activity as COMPANY XXX in 1999. COMPANY XXX shows the same kind of profile as COMPANY XXX in its patent activity on capacitive fingerprint sensors. COMPANY XXX is a new player in the field (20XX), thus it is no surprise all its patents are currently pending (in China, the company's country of origin). The whole patent portfolio of **COMPANY XXX** is granted, the company having focused its IP strategy on Taiwan, China and the USA. Currently, **COMPANY XXX** has no pending patents. The company had a peak of patent filing in the domain on a very short period of time. **COMPANY XXX** has the fewer family portfolio of this list but the **highest** ratio of patents per family (XX) and the highest number of alive patents per family (9,3). COMPANY XXX has a worldwide IP strategy with granted patents in many countries. With XX% of pending patents and more than half of its patent families filed in 20XX, COMPANY XXX is showing a new interest for capacitive fingerprint sensors. In particular, **COMPANY XXX** is working on improvement of the efficiency and quality of the acquisition step and its processing.

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# **Degree of Specialization** in Capacitive Fingerprint Sensors



Specialization degree

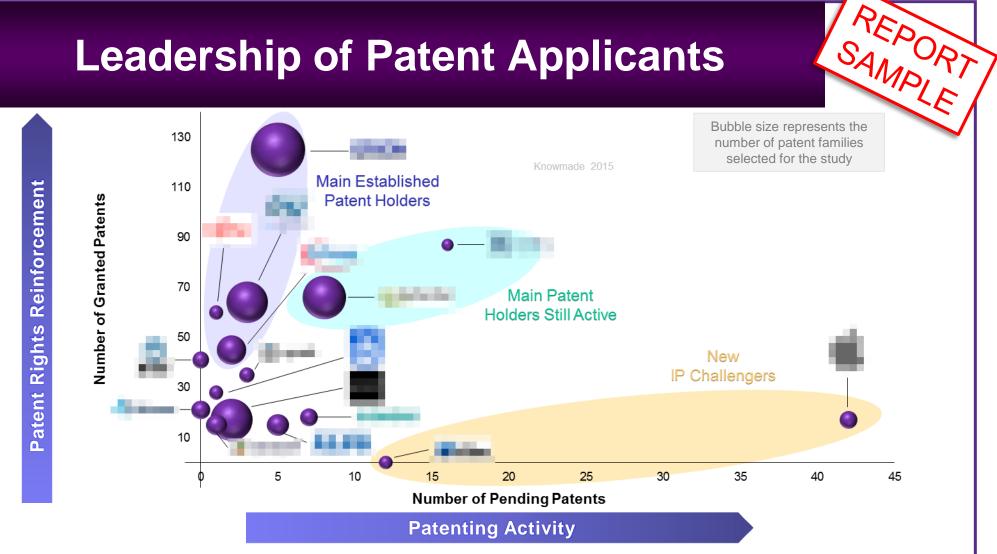
Specialization degree: The specialization degree of a company represents the percentage of patents filed in a specific field over the whole patent portfolio of the company. It is an indicator of the patenting activity on a specific field.

Companies like COMPANY XXX, COMPANY XXX, COMPANY XXX, COMPANY XXX, COMPANY XXX or COMPANY XXX cover a wide range of technologies with their patent portfolios and therefore have a low specialization degree. Other companies, such as **COMPANY XXX** and **COMPANY XXX**, are less diverse and have a higher specialization on capacitive fingerprint sensors in their patent activities. Among the main patent applicants, COMPANY XXX has the smallest patent portfolio, a significant part of this portfolio is dedicated to capacitive fingerprint sensing technologies. Thus, COMPANY XXX can be considered as an IP pure player in this technology.

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### Leadership of Patent Applicants



COMPANY XXX is the major granted patent holder. Currently, the company is maintaining 125 patents worldwide. COMPANY XXX has the 2<sup>nd</sup> largest granted portfolio and is also 2<sup>nd</sup> in term of number of pending patents. Thus, the company continues to innovate in this technology. In the same way, COMPANY XXX is filing patents regularly, showing a steady interest in the field. COMPANY XXX and COMPANY XXX are the main patent holders still active. COMPANY XXX is a new-comer in the field and filed all its patents in 2014. It is too soon to judge the strategy and the value of the company in this domain. COMPANY XXX has more pending than granted patents (42 and 17 respectively) and is coming into play strongly. COMPANY XXX 's interest for capacitive fingerprint sensors is expected to continue to grow following the acquisition of COMPANY **XXX** in 20XX and the desire of the company to develop the use of such sensors for its devices. © 2015• 19

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# Impact Factor of Patent Portfolios (1/2)

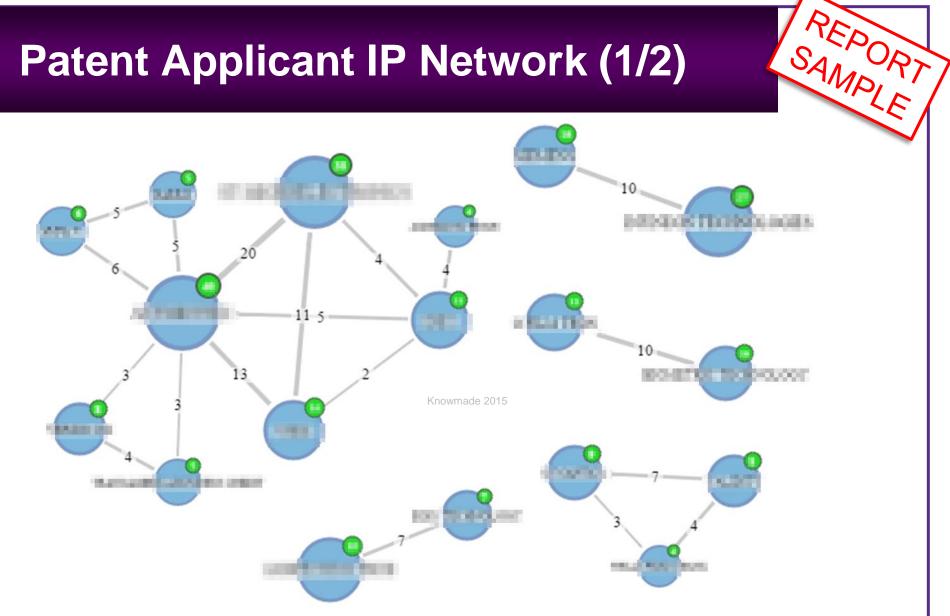
Impact Fa	ctor of I	Patent Portf	olios (	1/2) 🗸	REPOR
	Α	В	С	D	E
Knowmade 2015 Patent Applicants	No. of patent families	No. of citing patent families (excluding self-citations)	No. of citing patent families / patent family	Relative Impact Factor of the patent families	Strength index of the patent portfolio
			= B/A	= C/5,09 *	= A x D
COMPANY XXX	50	XX	ХХ	ХХ	ХХ
COMPANY XXX	XX	xx	XX	XX	154
COMPANY XXX	XX	177	XX	XX	XX
COMPANY XXX	38	XX	XX	XX	XX
COMPANY XXX	XX	XX	3,3	0,65	XX
COMPANY XXX	XX	114	XX	XX	22
COMPANY XXX	XX	XX	XX	0,91	XX
<b>COMPANY XXX</b>	XX	10	XX	ХХ	2
COMPANY XXX	16	XX	ХХ	ХХ	XX
COMPANY XXX	XX	XX	16,2	3,19	XX
COMPANY XXX	XX	XX	8,8	1,73	XX
COMPANY XXX	XX	203	XX	XX	40
COMPANY XXX	13	XX	XX	2,16	XX
COMPANY XXX	XX	401	ХХ	ХХ	79
<b>COMPANY XXX</b>	XX	0	0	0	0
<b>COMPANY XXX</b>	11	XX	ХХ	XX	47

highest value in column lowest value in column

\*676 patent families are cited by the whole of the 3,440 patent families, thus corresponding to an average of 5,09 citing patent families per patent family. A relative impact factor of 1 indicates that the portfolio is in the average range of citations. A relative factor of 2 indicates that the portfolio has two times more citations than the average, while a relative impact factor of 0.5 indicates that the portfolio is half that of the average.

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### Patent Applicant IP Network (1/2)



Number in black on each link between applicants is the number of co-assigned patent families in the data set of the study. Number up right to each bubble is the number of patent families for this applicant in the data set of the study. Bubble size is proportional to the number of patent families selected for the study.

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#### REPORT **Key Patent Families (1/2)** COMPANY XXX EPxxxxxxx Fingerprint... . . **COMPANY XXX** USxxxxxx **COMPANY XXX** System and method ... EPxxxxxx **COMPANY XXX** Small capacitance... UYxxxxx **COMPANY XXX** COMPANY XXX Secure biometric... USxxxxxxxxx Noxxxxxxx High dynamic... **COMPANY XXX** Integrated... WOxxxxxx Method and... **COMPANY XXX** USxxxxxx COMPANY XXX COMPANY XXX Farliest USxxxxxx Capacitive... **EPxxxxxx** publication Pointing device... Capacitance detector... date of the patent family 1995 1999 2004 2010 2011 2012 2013 1981 1994 1996 1997 1998 2000 2001 2002 2003 2005 2006 2007 2008 2009 2014 COMPANY XXX USxxxxxx COMPANY XXX Fingerprint sensing... NOxxxxxx Fingerprint... COMPANY XXX WOxxxxxxxxx **COMPANY XXX** Embedded... WOxxxxxxx **COMPANY XXX** COMPANY XXX **COMPANY XXX** A system... **EPxxxxxx** EPxxxxxx WOxxxxxxxx **COMPANY XXX** Scanning... Touchpad... Swipe... EPxxxxxx Integrated circuit...

The selection of key patent families is based on the family size, current legal status of patents, citations analysis and impact on the technological segment. See annexes for methodology for key patent identification. Patent numbers correspond to representative member of the families, assignee names take into account original applicants and reassignments.

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# **Granted Patents Near Expiration (1/2)**

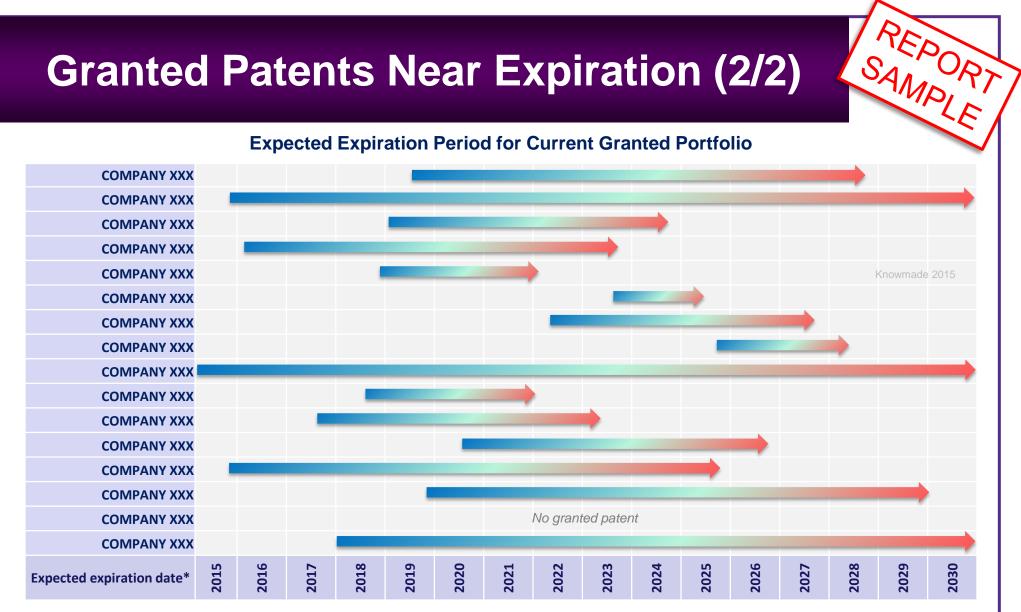
Grante	ed Patents Near Expiration	(1/2)	K Sx	REPOR
Assignee	Title	Publication Number	PDF	Expected Expiration Date *
COMPANY XXX	Capacitive sensing	KRxxxxxxxxxx	<u>Open</u>	2015-11-06
COMPANY XXX	Contact imaging	USxxxxxxx	<u>Open</u>	2015-11-06
COMPANY XXX	Capacitive fingerprint sensor	USxxxxxxx	<u>Open</u>	2015-12-15
COMPANY XXX	Capacitive	USxxxxxx	<u>Open</u>	2015-12-15
COMPANY XXX	Fingerprint sensor having	USxxxxxxx	<u>Open</u>	2016-01-26
COMPANY XXX	Electric field	USxxxxxxx	<u>Open</u>	2016-01-26
COMPANY XXX	Integrated circuit	USxxxxxx	<u>Open</u>	2016-01-26
OMPANY XXX	Enhanced security	USxxxxxx	<u>Open</u>	2016-01-26
OMPANY XXX	Capacitive distance sensor	EPxxxxxx	<u>Open</u>	2016-02-14
COMPANY XXX	Driver circuit	USxxxxxx	<u>Open</u>	2016-03-04
COMPANY XXX	Method	KRxxxxxxxx	<u>Open</u>	2016-04-09
OMPANY XXX	Tpm fingerprint	CNxxxxxxx	<u>Open</u>	2016-05-10
OMPANY XXX	System and method	FRxxxxxx	<u>Open</u>	2017-06-14
COMPANY XXX	Telephone	USxxxxxxx	<u>Open</u>	2016-09-16
OMPANY XXX	Random number generator	USxxxxxxx	<u>Open</u>	2016-10-09
OMPANY XXX	Contact imaging	EPxxxxxxx	<u>Open</u>	2016-10-30
OMPANY XXX	Apparatus	USxxxxxx	<u>Open</u>	2016-11-25
OMPANY XXX	Fingerprint	EPxxxxxxx	<u>Open</u>	2016-12-03

\* Expected Expiration Date is dependent on the accuracy and timeliness of the information provided by the patent offices. This indicator may change at any time without notice based on new information received from the patent offices. No decision should be made based solely on this indicators.

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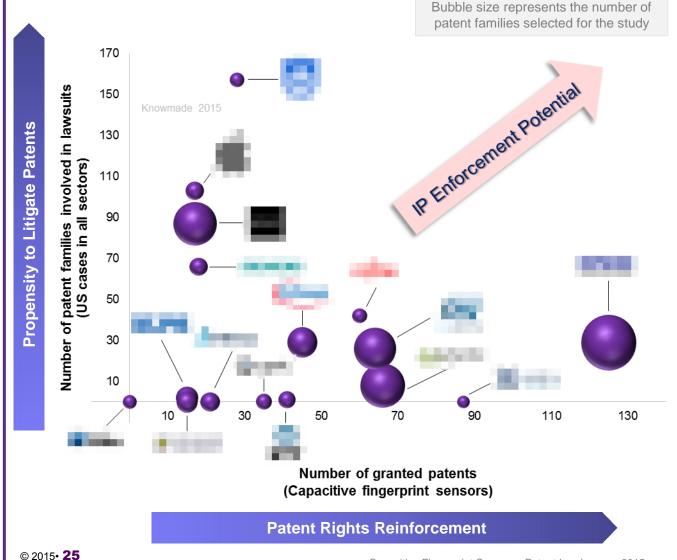
For example, the oldest patents of **COMPANY XXX**'s current granted portfolio are expected to expire mid-2019 and the latest patents currently granted should expire during the 2<sup>nd</sup> half of 2028.

\* Expected Expiration Date is dependent on the accuracy and timeliness of the information provided by the patent offices. This indicator may change at any time without notice based on new information received from the patent offices. No decision should be made based solely on this indicators.

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#### **Potential Future Plaintiffs**



**COMPANY XXX** doesn't have a particulate tendency to litigations in general. However, the company has been **involved in most of the recorded lawsuits** in the capacitive fingerprint sensor domain, which is its field of expertise. All the lawsuits were **infringement cases**. Whether the company was the plaintiff or a defendant, **COMPANY XXX became each time owner of its business rival's patents involved in the complaint**.

REPORT SAMPLE

**COMPANY XXX** is one of the companies of this study to be the most implicated in lawsuits. As the company is a new-comer in the field and is currently developing new technologies, it is expected for **COMPANY XXX** to have a **significant IP Enforcement Potential in the future**.

**COMPANY XXX** has the highest propensity to file complaints, but the company is not a current leader in the capacitive fingerprint sensor area nowadays.

**COMPANY XXX** and **COMPANY XXX** are involved in litigations regularly and are also important actors of the field.

Considering the size of its granted portfolio, COMPANY XXX has a sizeable IP Enforcement Potential.

**COMPANY XXX** has many granted patents on capacitive fingerprint sensors, but was only involved in a lawsuit as an **exclusive licensee**. The company never litigated any of its own US patents.

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### **SEIKO EPSON**

SEI	KO EPSON	REPORT
<ul> <li>Patenting activity</li> <li>Very XXXX patent portfolio (XXX patents within XXX patent families)</li> <li>Oldest priority date: 19XX</li> <li>Patent average age: XXX years</li> <li>Main country of patent filings: XX</li> <li>XXX granted patents (main countries : XX, XX)</li> <li>XXX pending patents</li> </ul>	Main Key Patent Families EPxxxxxx Sensor USxxxxxxxx Ic card EPxxxxxx Display control	<ul> <li>Impact of Patent Portfolio</li> <li>•XXXX IP Blocking Potential (XXX forward citations and XXX patent applicants citing patent portfolio).</li> <li>•XXXX IP Enforcement Potential (XXXX propensity to litigate patents, and XXX patents in-force mainly in XX and XX)</li> </ul>

The second se	Publication Number	PDF	Expected Expiration Date *
Fingerprint reader	JPxxxxxxxxxxx	<u>Open</u>	2019-08-12
Fingerprint	USxxxxxx	<u>Open</u>	2020-08-07
Fingerprint	CNxxxxxx	<u>Open</u>	2020-08-09
Fingerprint	USxxxxxx	<u>Open</u>	2020-08-11
Fingerprint	CNxxxxxx	<u>Open</u>	2020-08-11
Sensor	USxxxxxxxxxxx	<u>Open</u>	2021-12-20
Sensor	EPxxxxxxx	<u>Open</u>	2021-12-20
Sensor	DExxxxxxxx	<u>Open</u>	2021-12-20
The method of identifying	JPxxxxxxxxxx	<u>Open</u>	2021-12-21
Capacitance	JPxxxxxxxxxxx	<u>Open</u>	2022-03-04
Information device	JPxxxxxxxxxxx	<u>Open</u>	2022-09-06
Input device	JPxxxxxxxxxxx	<u>Open</u>	2022-09-24
Input device	JPxxxxxxxxxxx	<u>Open</u>	2022-09-24
This human	JPxxxxxxxxxxx	<u>Open</u>	2022-11-08

\* Expected Expiration Date is dependent on the accuracy and timeliness of the information provided by the patent offices. This indicator may change at any time without notice based on new information received from the patent offices. No decision should be made based solely on this indicators.

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patent assignees.

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#### **Excel Database**

#### with all patents analyzed in the report with technology segmentation

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.

REPORT / SAMPLE

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A	B	С	D	E	F	G
PATENT NUMBER	▼ PATENT APPLICANT ▼	PRIORITY DATE	TITLE	PDI 🔻	ABSTRACT 🗸	LEGAL STATUS
DES	SI	1980-06-05	Сара	Open	Са	LEGAL DETAILS FOR DE
GB	PI	199	Finge a second second	Open	Fires	LEGAL DETAILS FOR GB
GB9	Ph	199	Elect	Open	Ele	LEGAL DETAILS FOR GB
GB9	Phene	199	Finge	Open	Fin	LEGAL DETAILS FOR GB
US4	SI	198	Capa Capa	Open	Ca	LEGAL DETAILS FOR US
CN:	CH= = =====	199	Semi	Open	Ser	LEGAL DETAILS FOR CN
EP-	CC	199	Point	Open	Po	LEGAL DETAILS FOR EP
JPO	FU	199	Finge	Open	Fir	LEGAL DETAILS FOR
GB9	Phase	199	Сара	Open	Ca	LEGAL DETAILS FOR GB
GB	Ph	199	Сара	Open	Са	LEGAL DETAILS FOR GB
EP-	NE	199	Finge	Open	Fir	LEGAL DETAILS FOR EP
EP-	LU	199	Finge man a second s	Open	Firms and the second second	LEGAL DETAILS FOR EP(
EP-	SI	198	Сара	Open	Ca	LEGAL DETAILS FOR EP
GB9	Phane	199 -	Finge	Open	Fin	LEGAL DETAILS FOR GB
DE1	SI	199	Pass	Open	Pa	LEGAL DETAILS FOR
GB9	PH===	199	Сара	Open	Ca	LEGAL DETAILS FOR GB
CA2	LA	199	Deter Barner Barner	Open	De	LEGAL DETAILS FOR CA
EP-	PI	199	Finge	Open	Fir	LEGAL DETAILS FOR EP
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CAT	W	100	Math	Open	Me	LEGAL DETAILS FOR CA

#### **Order Form**

#### **Capacitive Fingerprint Sensors Patent Landscape**

#### PAYMENT METHODS SHIP TO Check Name (Mr/Ms/Dr/Pr): To pay your invoice using a check, please mail your check to the following address: KnowMade S.A.R.L. lob Title: 2405 route des Dolines, BP 65 06902 Valbonne Sophia Antipolis Company: FRANCE **Money Transfer** Address: 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: City: Payee: KnowMade S.A.R.L. Bank: Bangue populaire St Laurent du Var CAP 3000 - Quartier du lac- 06700 St Laurent du Var State: IBAN: FR76 1560 7000 6360 6214 5695 126 Postcode/Zip: **BIC/SWIFT: CCBPFRPPNCE** Paypal In order to pay your invoice via PAYPAL, you must first register at www.paypal.com. Then you can send money to the Country: KnowMade S.A.R.L. by entering our E-mail address contact@knowmade.fr as the recipient and entering the invoice amount. VAT ID Number for EU members: **RETURN ORDER BY** E-mail: contact@knowmade.fr Tel: Mail: KnowMade S.A.R.L. 2405 route des Dolines, BP 65 06902 Sophia Antipolis FRANCE Email: I hereby accept Knowmade's Terms and Conditions of Sale PRODUCT ORDER €2,990 – Single user license Signature: Date: Generate license €3,990 – Corporate license For price in dollars, please use the day's exchange rate. For French customer, add 20% for VAT. All reports are delivered electronically in pdf format at payment reception. $^{st}$ Single user license means only one person at the company can use the report. Please be aware that our publication will be watermarked on each page with the name of the recipient and of the organization (the name mentioned on the PO). This watermark will also mention that the report sharing is not allowed.

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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.

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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.

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#### 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.

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Banque populaire St Laurent du Var CAP 3000 - Quartier du lac- 06700 St Laurent du Var

BIC or SWIFT code: CCBPFRPPNCE

IBAN: : FR76 1560 7000 6360 6214 5695 126

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.

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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.

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