DERWENT

TOP 100

GLOBAL INNOVATORS 2018–19

Derwent™

Clarivate Analytics

WELCOME

During its 353 years of existence, Saint-Gobain has continuously reinvented itself, consistently pushing boundaries to adapt to a changing environment. One such way it does this is by investing in technology for the future.

Over time, Saint-Gobain has grown its footprint and product portfolio considerably, which now covers applications in buildings, transportation, infrastructure and industry at a global level. A strong focus on research and development (R&D) and innovation have remained at the heart of our strategy, fueled by our passion for materials and our obsession with bringing value to existing and future customers. In practice, this means (i) working with our customers and partners to anticipate their needs and opportunities, (ii) keeping abreast of technological advances, and (iii) selecting projects to invest in that will deliver value to our stakeholders. In this context, growing intellectual property is a key strategic lever in quickly evolving and competitive markets: it protects our business operations and our technical differentiation over time, and it provides assets that can be maximized through partnerships or by generating royalties.

Many inspiring companies share these values, invest in innovation and use intellectual property – all to bring solutions quickly to different markets that aid in the collective development of society at large. We are very proud to once again be on this list of remarkable companies recognized by the *Derwent Top 100 Global Innovators 2018–19* award.

Our sincere congratulations to all, and we wish to express immense thanks to *Clarivate Analytics* for promoting the importance of innovation through this award. This is a great encouragement for Saint-Gobain to continue to invent the products, systems and services, that help improve daily life and wellbeing, and inspires us to be creative in looking for new and different ways to combine comfort and sustainability in our product portfolio.

Dr. Armand Ajdari, Vice President
Research & Development, Saint-Gobain

WHAT MAKES A SUCCESSFUL

Since we began our annual analysis in 2011, 204 different organizations have made the *Derwent Top 100 Global Innovators* list. Fifty-five have been recognized just once, but the majority has demonstrated consistent innovation to continuously make the list.

Of this majority, 35 have earned *Top 100* recognition every year since the inception of the program. We asked these companies for their views on what makes a successful innovator and what innovation means to their organizations.

INNOVATOR?

3M

"Game-changing innovations aren't created in a vacuum. They require vision, imagination and inspiration. They also require collaboration. At 3M, we leverage 46 groundbreaking technology platforms to collaborate with our customers and solve some of their biggest challenges — leading to industry-first innovations that span a variety of markets, from manufacturing and healthcare to defense, transportation and safety."

John Banovetz, Chief Technology Officer and Senior Vice President, Research & Development

HITACHI
Inspire the Next

"We believe that receiving the *Derwent Top 100 Global Innovators 2018–19* award for eight consecutive years is a result of our combination of intellectual property with business strategies. We will continue to advance our intellectual property activities in order to maximize our corporate value and contribution to the business."

Yuji Toda, Corporate Officer & General Manager, Intellectual Property Division

Canon

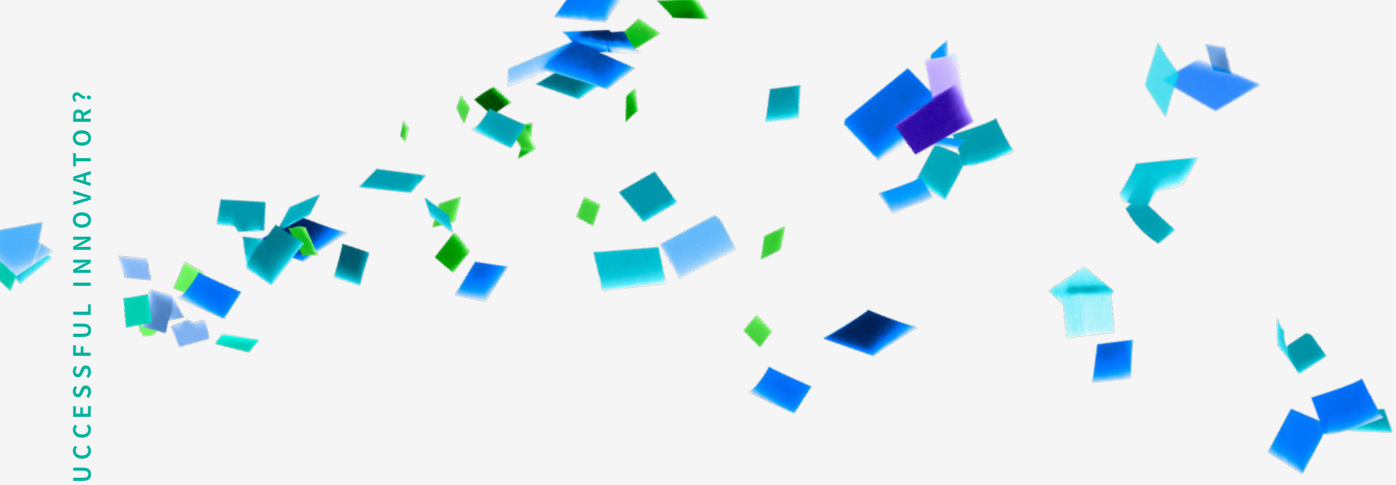
"Canon has always valued IP and has a history of investing in the research and development of both social infrastructure and innovation-generating technologies and securing the rights to these technologies to grow our business. As such, it is our intent to carry out activities that will contribute to the development of the industries we participate in, as both a holder and a user of the rights to social infrastructure technologies. We are therefore extremely pleased to have been chosen as a *Top 100 Global Innovator* for the eighth consecutive year."

Kenichi Nagasawa, Group Executive, Corporate Intellectual Property & Legal Headquarters

HONDA

"I believe the reason that Honda has been able to grow and receive such acknowledgement over the past eight years lies within its corporate culture. We are not purely focusing on business, but also carry out our work with the spirit of 'making the world more convenient.' Our own founder, Soichiro Honda, is known for saying that 'the laboratory is not a place to research engines, but somewhere to study people.' This notion, which is like modern design thinking, has enabled us to continue creating a variety of intellectual properties that are of use to society."

Hirokazu Bessho, Head of Supervisory Unit, Intellectual Property and Standardization Supervisory Unit



\Orchestrating a brighter world

NEC

"In 2014, NEC adopted 'Orchestrating a brighter world' as its Brand Statement, which reflects the company's determination to take its leadership and combine diverse technologies, knowledge and ideas, and collaborate closely with partners and customers around the world to realize bright, hope-filled societies. NEC believes that intellectual property plays a vital role in innovation for social value creation. With NEC's large number of high-quality patents, our 'co-creation' with customers and partners will accelerate value creation together."

Katsumi Emura, Executive Vice President, CTO (Chief Technology Officer) and Member of the Board

Nitto

"To create forward-looking innovation amid ongoing industry changes, Nitto believes that it is important to add new values to the foundation that has been built.

Intellectual property activities are among the most important endeavors to sustainably transfer past value to the future through technological innovation. In this regard, we are extremely proud to be honored as a *Top 100 Global Innovator* for the eighth year in a row, and we would like to express our gratitude to *Clarivate Analytics* for the recognition."

Toshiyuki Umehara, Senior Executive Vice President & CTO & CIO, Board Member

Panasonic

"As Panasonic's own business is transforming from offering lifestyle 'upgrades' to providing 'updates,' the company is also carrying out initiatives to expand its areas of activity by making significant changes to the shape of its intellectual property (IP) activities.

The key to realize this transformation of Panasonic's business is innovation, and open innovation that combines various new products and ideas is vital to this goal."

Yoshiaki Tokuda, Director of Intellectual Property Center

Qualcomm

Qualcomm invents breakthrough technologies that transform how the world connects, computes and communicates. As the R&D engine of the mobile industry, our foundational technologies have powered the smartphone revolution and connected billions of people for over 30 years. Our technology is in virtually every smartphone in the world. With the coming of 5G, the biggest technology transition that will enable everything to connect to everything, Qualcomm will not only continue to enable the mobile industry, but every industry that will be transformed by mobile."

Penny Baldwin, SVP & Chief Marketing Officer

SAFRAN

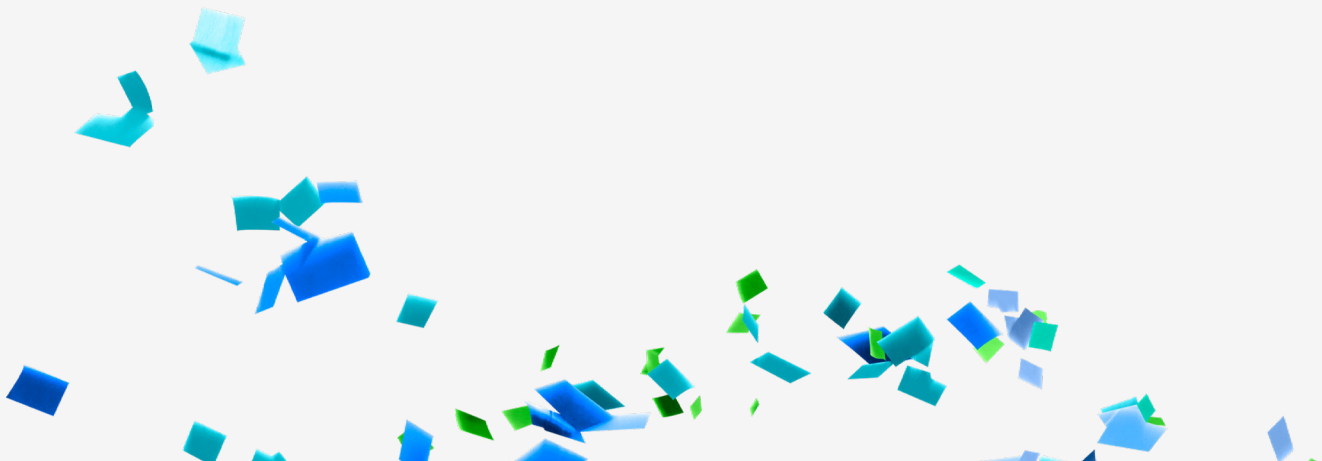
Safran fosters sustained technical excellence and technological differentiation to ensure our ability to address tomorrow's business challenges. Our permanent place in the highest IP rankings is evidence of this innovation, the ambitions and capabilities of our teams, and how professionally and with due care we manage IP and its protection through thorough IP processes to develop our IP portfolio both in quantity and quality."

Jean-Marc Brunel, Safran Group Intellectual Property Vice President

EPSON
EXCEED YOUR VISION

Epson's philosophy is to become an 'indispensable company.' 'Epson 25', our long-term vision, has set out the direction we are heading to by 2025. Based on this vision and in order to combine business strategy and intellectual property strategy tightly, Epson attaches high importance to acquiring high-quality patents which will contribute strongly to our business. We take this award as evidence proving that our high-quality patents have reached global level."

Toshiya Takahata, Executive Officer, General Administrative Manager, Corporate Planning Division, General Administrative Manager, Intellectual Property Division



TE connectivity

"The mission of TE Connectivity, a world leader in connectivity and sensors, is to create a safer, sustainable, productive and connected future. Every day around the world, our engineers are working with companies large and small in a broad swathe of industries including automotive, appliances, aerospace and more, to ensure data move as quickly and reliably as possible. At TE, innovation is simply part of what our 80,000 employees around the world do every day."

Philip Gilchrist, Chief Technology Officer and Vice President, Communications Solutions

TOSHIBA

"Toshiba has created a large number of innovations in its 143-year history, including a variety of world's-first products. In the future, we aim to integrate our knowledge and achievements with a wide range of business fields from social infrastructure to electronic devices. We aim to become the world's leading cyber-physical systems (CPS) technology company.

It is our great honor to receive the *Derwent Top 100 Global Innovators 2018–19* award for the eighth consecutive year, which we consider to be a recognition of Toshiba as a top innovator that leads worldwide technology innovation."

Shiro Saito, Corporate Executive Vice President, General Executive, Technology & Productivity Planning Div., Research & Development Div., Responsible for Materials & Devices business

SONY

"The world is in the midst of the Fourth Industrial Revolution and it is predicted that change will accelerate more dynamically. Our intellectual property is used as a tool to give new feeling to our worldwide users, create new innovations to enrich people's lives and contribute to the world.

It is a great honor for Sony to win the *Derwent Top 100 Global Innovators 2018–19* award for the eighth consecutive year, and we would like to continue our competitive advantages with the inspiration of this award."

Tomonori Okuwaki, Senior General Manager, Intellectual Property Division

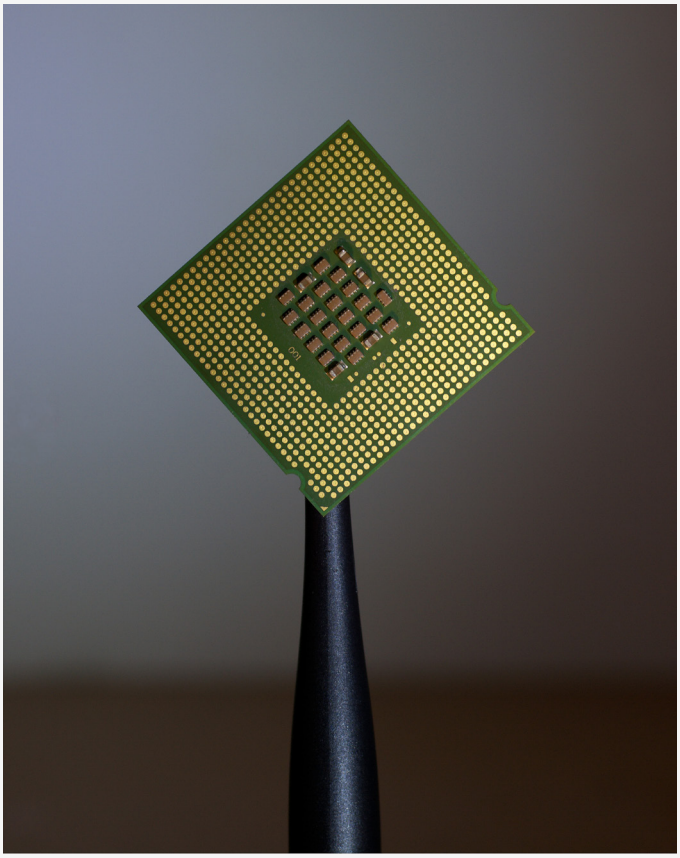
Organization	Country / Region	Industry	Area
3M Company	U.S.	Chemicals & Cosmetics	North America
Advanced Micro Devices	U.S.	Hardware & Electronics	North America
Apple	U.S.	Telecommunications	North America
Boeing	U.S.	Aerospace & Defense	North America
Canon	Japan	Hardware & Electronics	Asia
Commissariat à l'Energie Atomique	France	Institution & Government Research	Europe
DowDuPont	U.S.	Chemicals & Cosmetics	North America
Emerson	U.S.	Hardware & Electronics	North America
Ericsson	Sweden	Telecommunications	Europe
Fujitsu	Japan	Hardware & Electronics	Asia
General Electric	U.S.	Household Goods	North America
Hitachi	Japan	Hardware & Electronics	Asia
Honda Motor	Japan	Automotive	Asia
Honeywell International	U.S.	Hardware & Electronics	North America
Intel	U.S.	Hardware & Electronics	North America
LG Electronics	Korea, South	Household Goods	Asia
LSIS	Korea, South	Oil, Gas & Energy	Asia
Microsoft	U.S.	Software	North America
NEC	Japan	Hardware & Electronics	Asia
Nitto	Japan	Chemicals & Cosmetics	Asia
NTT	Japan	Telecommunications	Asia
Olympus	Japan	Manufacturing & Medical	Asia
Panasonic	Japan	Household Goods	Asia
Qualcomm	U.S.	Hardware & Electronics	North America
Roche	Switzerland	Pharmaceuticals	Europe
Safran	France	Aerospace & Defense	Europe
Saint-Gobain	France	Manufacturing & Medical	Europe
Samsung Electronics	Korea, South	Hardware & Electronics	Asia
Seiko Epson	Japan	Hardware & Electronics	Asia
Shin-Etsu Chemical	Japan	Chemicals & Cosmetics	Asia
Sony	Japan	Household Goods	Asia
Symantec	U.S.	Software	North America
TE Connectivity	Switzerland	Hardware & Electronics	Europe
Toshiba	Japan	Hardware & Electronics	Asia
Toyota Motor	Japan	Automotive	Asia

Table 1
Eight-time *Derwent Top 100 Global Innovators* (Alphabetical Order).

METHODOLOGY

Patents are a key measure of innovation. Governments, academia and industry use them to inform policy decisions, track trends, and gather technological and commercial intelligence. However, while straight counting of granted patents is useful, it only provides part of a much bigger and more important innovation picture. For a patented invention to be valuable, it must be good quality, have wide market potential and lay foundations for further developments and refinements. Accordingly, we not only counted the volume of inventions, but measured patent quality, globalization, and impact.

Our methodology was analyzing patent and citation data across four criteria: volume, success, globalization and influence using *Derwent* solutions. This includes the *Derwent World Patents Index* (*DWPI*), *Derwent Innovation* and the *Derwent Patent Citations Index* (*DPCI*). This methodology examines patent portfolio strength and quality by organization, assessing not just volume of filed patents, but success in obtaining granted patents, breadth of filing of inventions and external citations. These criteria create a combined indicator score used to identify the top 100 most innovative organizations globally.



THE *DERWENT TOP 100 GLOBAL INNOVATORS* METHODOLOGY UTILIZES EDITORIALLY ENHANCED, AUTHORITATIVE AND ACCURATE PATENT DATA FROM *DERWENT WORLD PATENTS INDEX* (*DWPI*), *DERWENT INNOVATION* AND *DERWENT PATENT CITATIONS INDEX* (*DPCI*) TO TRACK INNOVATION BASED ON FOUR KEY AREAS.

01
VOLUME

All organizations with 100 or more patented new inventions covered by a granted patent in the last five years were analyzed. A new invention was defined as the first publication of a patent document claiming a technology, drug, business process, etc., not previously described in prior art. In *DWPI*, these are called "basics." *DWPI* provides a record of patents published by 50 patent issuing authorities worldwide to enable a comprehensive picture of the innovation landscape. Subsequent filings for the same invention are recorded as "equivalents" in *DWPI* and collated in "patent families." The analysis counts these patent families rather than individual patent documents, thereby only counting unique inventions. This prevents duplicate counting of patents describing the same inventions.

Once an organization passes the selection by Volume stage, it is measured across three further criteria: Success, Globalization and Influence.

02
SUCCESS

Not all patent applications that pass through the examination process become granted patents. As a result, our Success metric assesses the quality of innovation by measuring the ratio over the most recent five years of inventions described in published applications (those patents which are filed and publicly published by patent offices, but not yet granted) to inventions protected with granted patents.

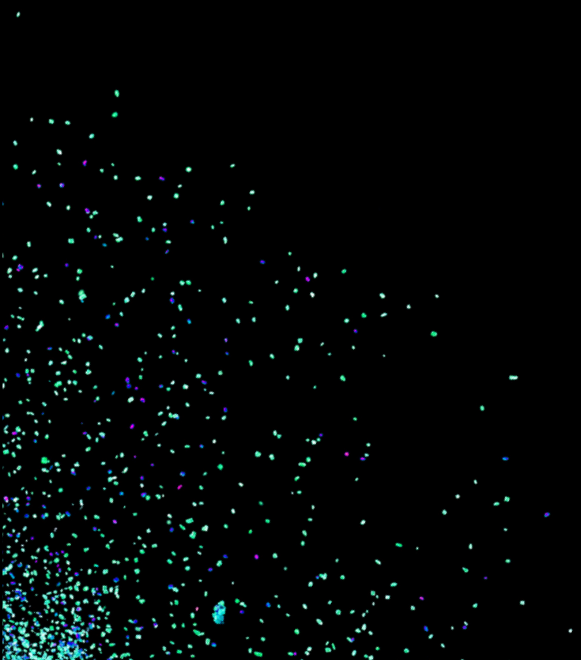
03
GLOBALIZATION

Protecting inventions in major world markets indicates the significant value organizations place on their innovations and intellectual property. The number of basic inventions that have quadrilateral patents in their patent families, according to the *DWPI,* is calculated to create a ratio that shows which companies place a high value on their portfolios in major world markets. The quadrilateral patent authorities are the Chinese Patent Office, the European Patent Office, the Japanese Patent Office, and the United States Patent & Trademark Office.

04
INFLUENCE

In our analysis, the impact of an invention "downstream" is determined by looking at how often it is subsequently cited by other companies in the patenting of their inventions. Through the *Derwent Patents Citation Index*, citations to an organization's patents were counted over the last five years, excluding self-citations.

Scores for each of these four areas were tallied and combined to produce the *Derwent Top 100 Global Innovators* list.



KEY FINDINGS

This year's *Derwent Top 100 Global Innovators* report is the eighth in an annual series that began in 2011. It identifies and celebrates the world's most innovative organizations using patent data to measure innovation.

Tracking patent activity gives a detailed picture of an organization's commitment to innovation through analyzing its inventions with potential for commercialization. A granted patent contains a trade-off. Inventors get ownership and exclusive rights to their inventions. In return, they must fully disclose details of their creations to contribute to human knowledge and society's advancement.

This year's findings show that leading organizations continue to differentiate themselves through a laser-focus on high-value and high-impact innovation and a full embrace of emerging technologies.

CONTINUED FOCUS ON **HIGH IMPACT INNOVATION**

Over the last three years, we have observed a shift in the nature of innovation by those organizations who made our *Derwent Top 100 Global Innovators* list. This movement stems from a growing focus on higher quality inventions with wider potential markets and greater potential to be leveraged for future development. There are numerous examples of inventions to *Top 100* companies of this type with large patent families containing multiple granted patents which have been highly cited by later published inventions. These include:

- in the medical devices sector, EP2777531 to Johnson & Johnson (Ethicon) for a surgical stapler cartridge, which is filed in 11 countries/regions, has six granted patents and is cited by 577 later published inventions;
- in hardware & electronics, US20140049422 to Qualcomm for a wireless charger for electronic devices, which is filed in all major markets, has 5 granted patents and is cited by 149 later inventions; and
- in the automotive sector, WO2014091582 to Toyota for a hybrid vehicle drive device, which is filed in eleven countries/regions, has eight granted patents and is cited by 50 later inventions.

	Change in aggregate normalized score 2017–2018	
Metric	**Top 100**	**Non-Top 100**
Success	1.9%	0.6%
Globalization	2.0%	-5.1%
Impact	4.4%	-2.1%
Overall	2.7%	-2.0%

Table 2
Relative performance in innovation metrics for *Top 100* compared to Non-*Top 100* innovators.

This trend continued in 2018 and appears to be intensifying with increasingly visible disparity between the best and the rest.

Collectively, as seen in Table 2, this year's members produced positive year-over-year growth in the metrics of Success, Globalization, and Influence. (See page 11 for details on these metrics.) In contrast, organizations that didn't make the list showed little growth or, in some cases, negative growth. Clearly this group is demonstrating increased success in obtaining patent rights and wider protection, and are having greater technical impact with their innovation than their competitors.

MAINLAND CHINA DRIVES **INNOVATION EASTWARDS**

Following the trend of last year, the epicenter of innovation continues shifting from west to east, as noted in Table 3 below. The figures here show the number of companies on our list by region — with Asian organizations gaining three spots this year and North American ones declining by three.

Notably, Mainland China companies BYD and Xiaomi appear on the list for the first time and Huawei makes the list again for the fourth time. This data tracks with our long-standing prediction that Mainland China's drive to transform its economy from a manufacturing to a knowledge base would increase the number of Chinese companies appearing on the *Derwent Top 100 Global Innovators 2018–19* list.

Region	2018	2017	Change
Asia	48	45	6.70%
North America	33	36	-8.30%
Europe	19	19	0.00%

Table 3
Regional representation of the *Derwent Top 100 Global Innovators*.

HOT TECHNOLOGY

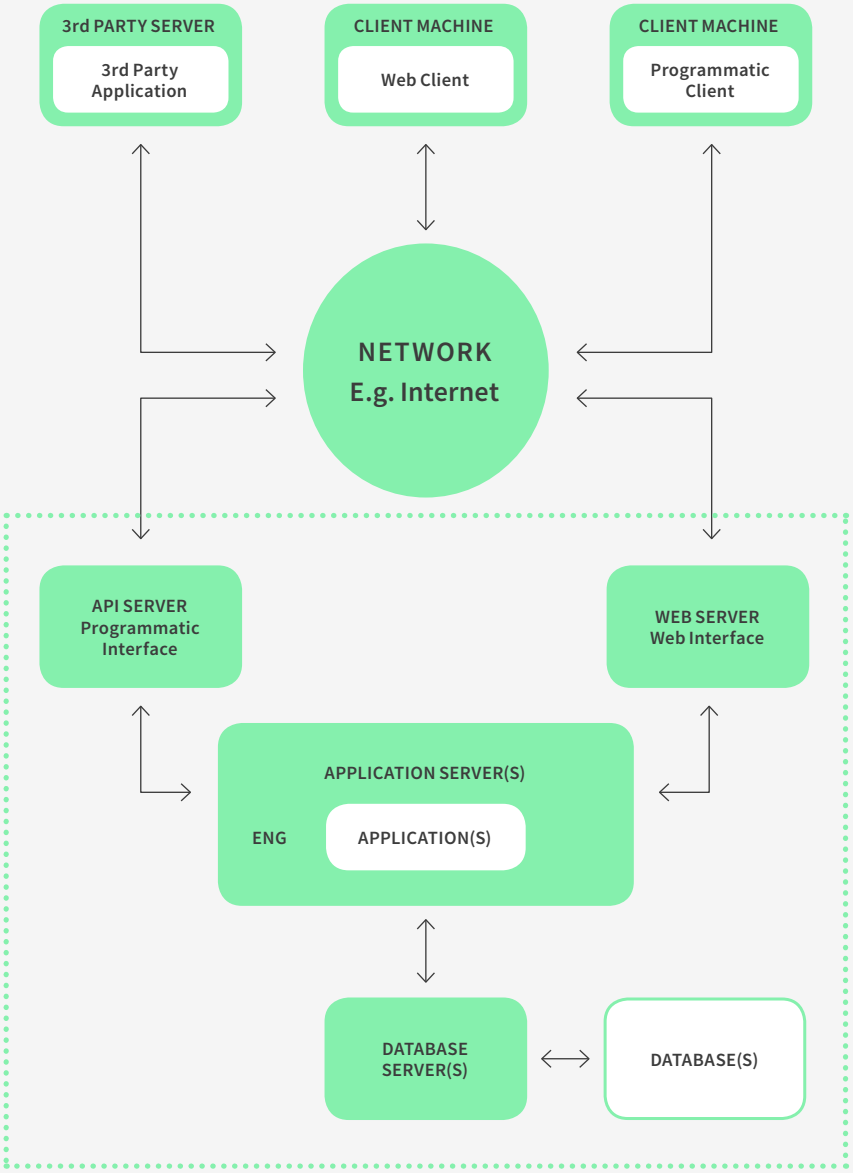
WHILE SEVERAL TECHNOLOGY SECTORS APPEAR ON THIS YEAR'S LIST, TWO ARE FAST-GROWING AND STRONGLY REPRESENTED: **ARTIFICIAL INTELLIGENCE (AI)** AND **5G MOBILE TELECOMMUNICATIONS**.

AI

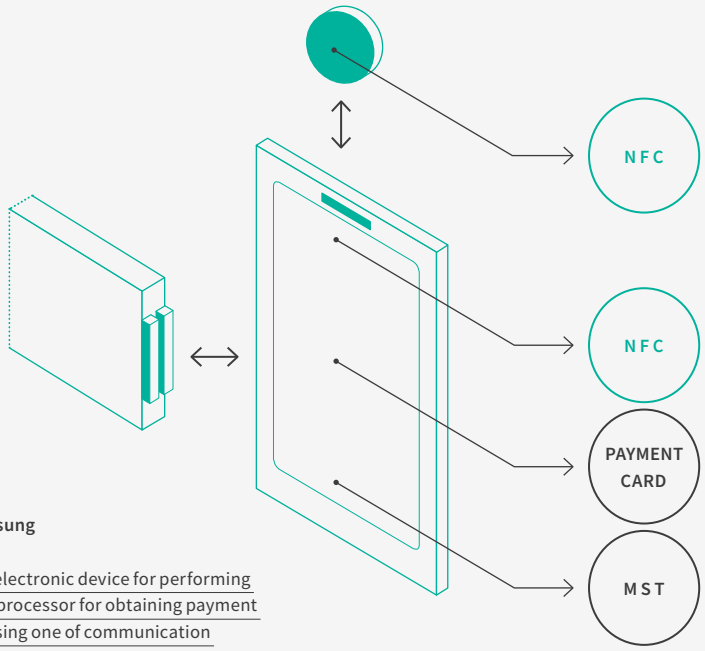
Thirty-one of the companies identified in this year's *Derwent Top 100 Global Innovators* list have significant numbers of AI inventions in their total portfolios — an average of 28 inventions for each of these companies. Those organizations outside the list had an average of 19 AI inventions each.

Despite what some view as hype surrounding AI, tangible developments are beginning to occur.

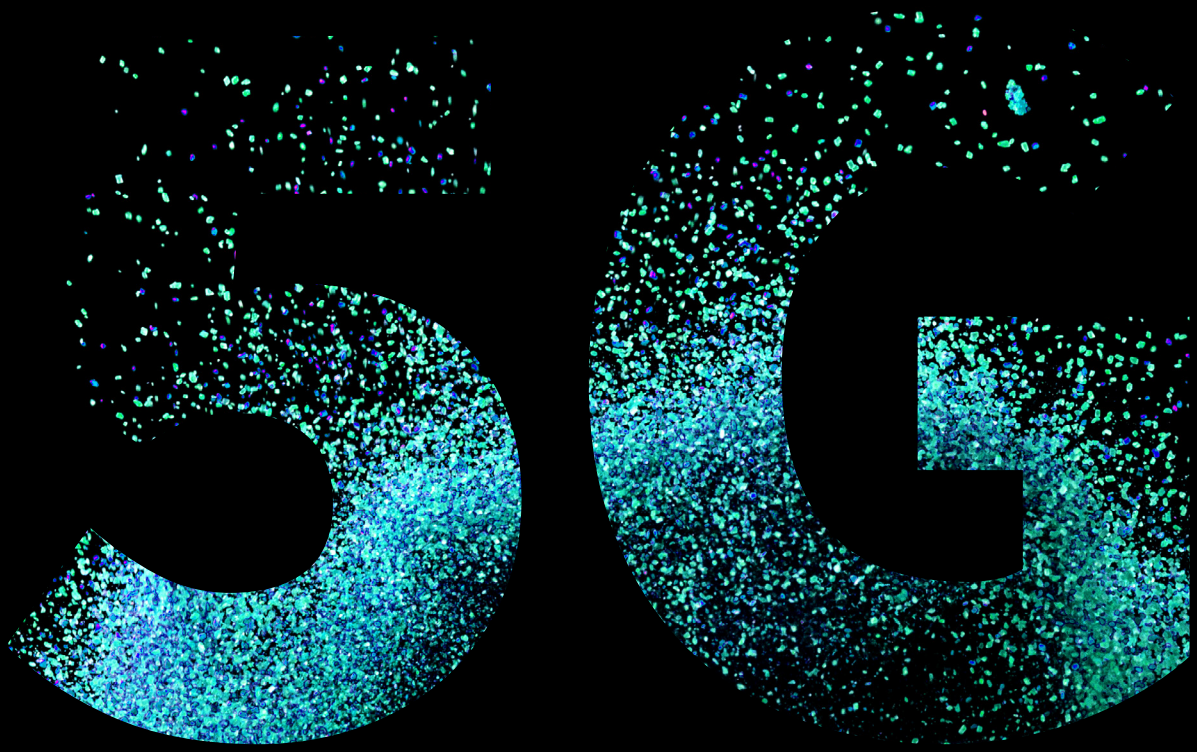
> "OUR INTELLECTUAL PROPERTY PORTFOLIO HAS BEEN BUILT AS A RESULT OF CUTTING-EDGE TECHNOLOGY DEVELOPMENTS, INCLUDING AI, IOT, AND QUANTUM COMPUTING. BY DISPLAYING OUR INTELLECTUAL PROPERTY PORTFOLIO TO SOCIETY AS A SHOWCASE OF TECHNOLOGY, WE STRIVE TO BE SELECTED BY CUSTOMERS AS A PARTNER FOR CO-CREATING VALUE."
>
> **Maki Ohmizu,** Attorney at Law (New York), Deputy Chief Legal Officer, Intellectual Property, Legal, Compliance & IP Unit, Fujitsu



US20180253658A1 to Microsoft
***Derwent* title:**
"Computer system for understanding business insights and deep-dive using artificial intelligence, has processor for identifying key feature of instances of types of machine learning data models based on value of regression coefficient."



EP3118797A1 to Samsung
***Derwent* title:**
"Artificial intelligence electronic device for performing e.g. call function, has processor for obtaining payment related information using one of communication circuitries and outputting user interface based on payment related information."



5G

Fifth generation (5G) mobile networks have the potential to transform digital communications beyond personal entertainment to society-building. For example, many expect 5G will become the foundational architecture for such developments as smart cities and smart agriculture. The ability to exchange huge amounts of data between connected devices in near-real time has the potential to transform aspects of city life such as public safety, transportation and utilities, and in farming to increase food production by up to 70 percent.[1]

Indeed, 5G innovation among our *Derwent Top 100 Global Innovators* from high-tech sectors[2] has been rapidly ramping up. Figure 1 shows the explosive growth in 5G patent families over the last 10 years.

1 "Towards Smart Farming", Beecham Research report, https://www.beechamresearch.com/files/BRL%20Smart%20Farming%20Executive%20Summary.pdf
2 Telecommunications, Hardware & Electronics, Software and Household Goods

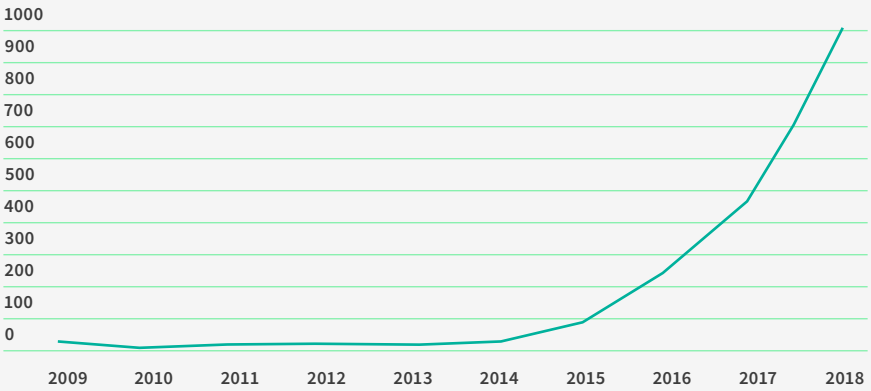
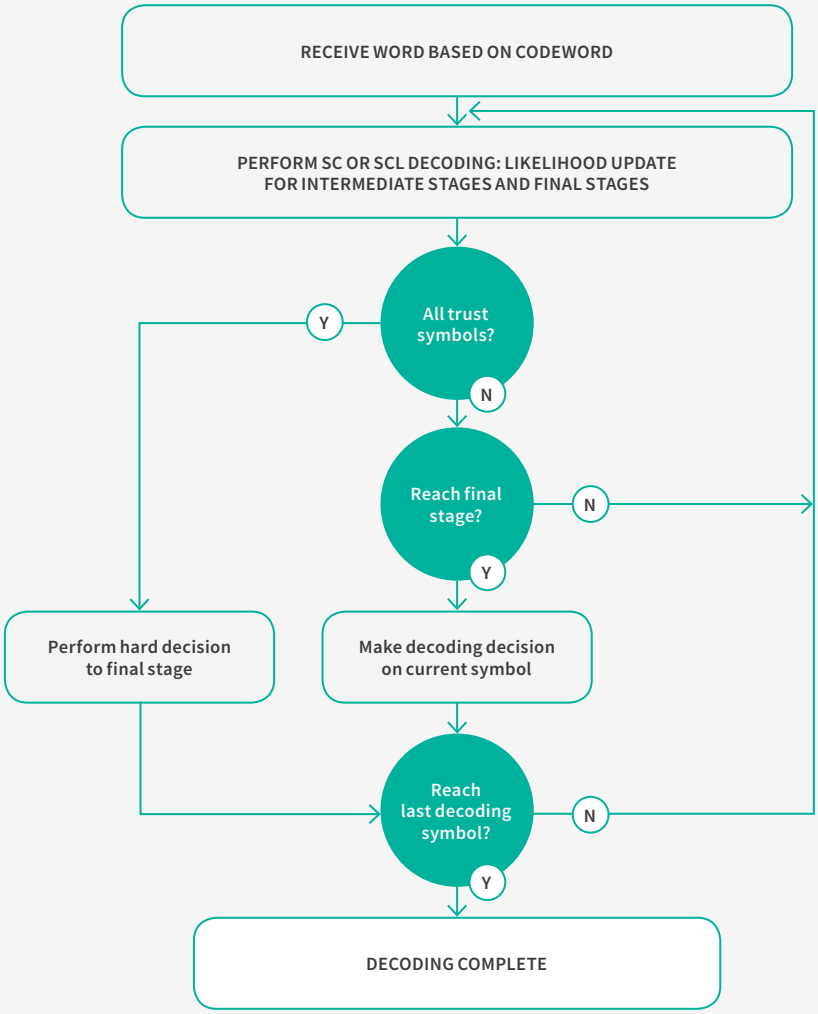


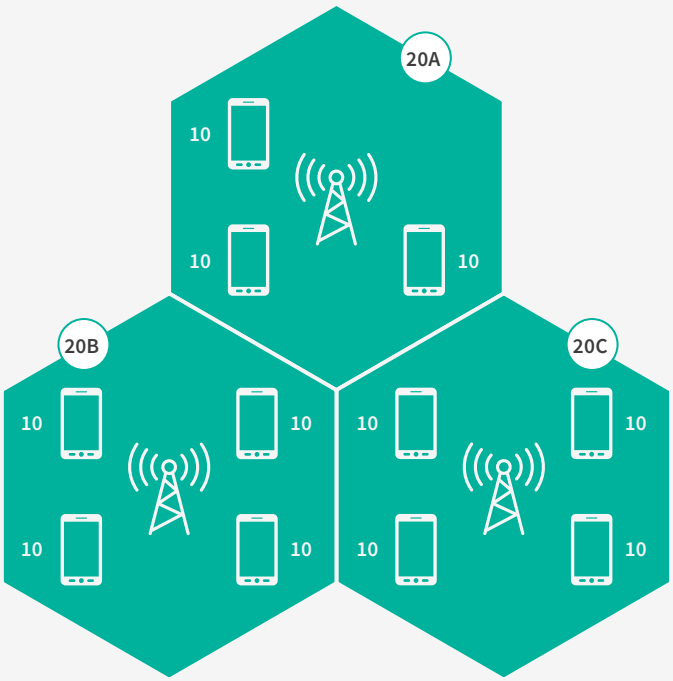
Figure 1
Number of 5G patent families from the *Derwent Top 100 Global Innovators* high-tech sector organizations 2009 – 2018 (year to date).

Some notable 5G examples are below and on the following page.



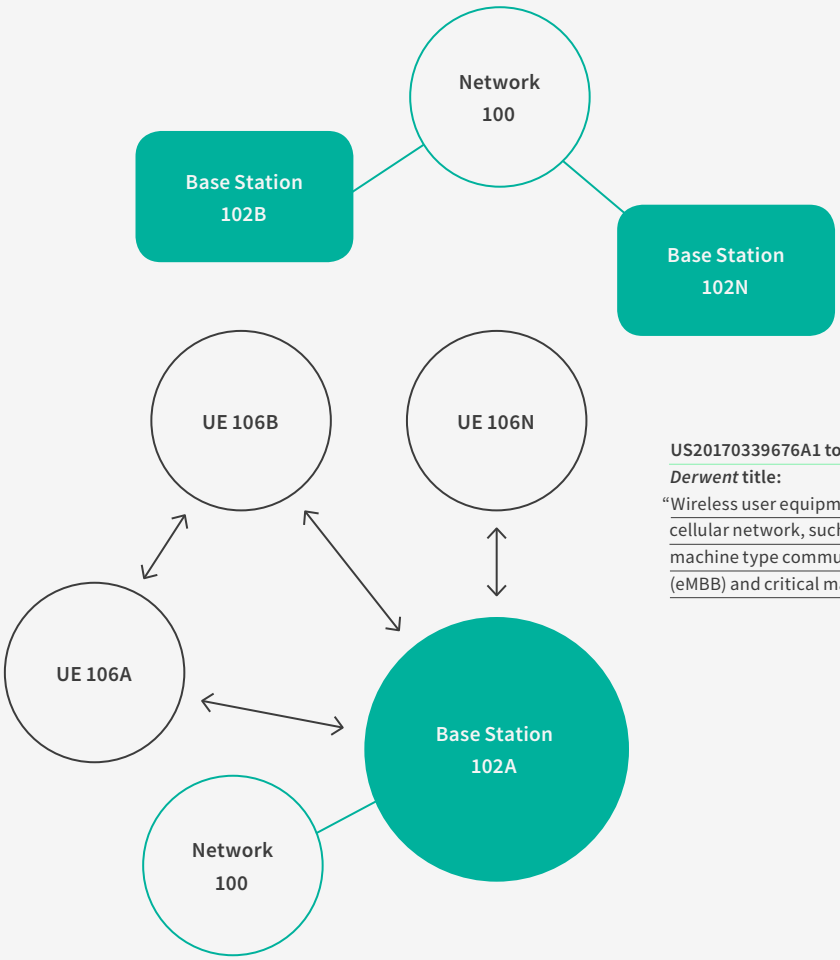
WO2017215489A1 to Huawei
***Derwent* title:**
"Method for performing symbol decoding for general polar codes for 5th Generation New-Radio, involves performing hard decision in response to determining that all of nodes at intermediate stage are associated with trust symbols."

WO2017213433A1 to LG
***Derwent* title:**
"Wireless communication method using new radio for fifth generation (5G) mobile networks, involves defining numerologies by subcarrier spacing and cyclic prefix length."



"GAME-CHANGING INNOVATIONS AREN'T CREATED IN A VACUUM. THEY REQUIRE VISION, IMAGINATION AND INSPIRATION. THEY ALSO REQUIRE COLLABORATION.

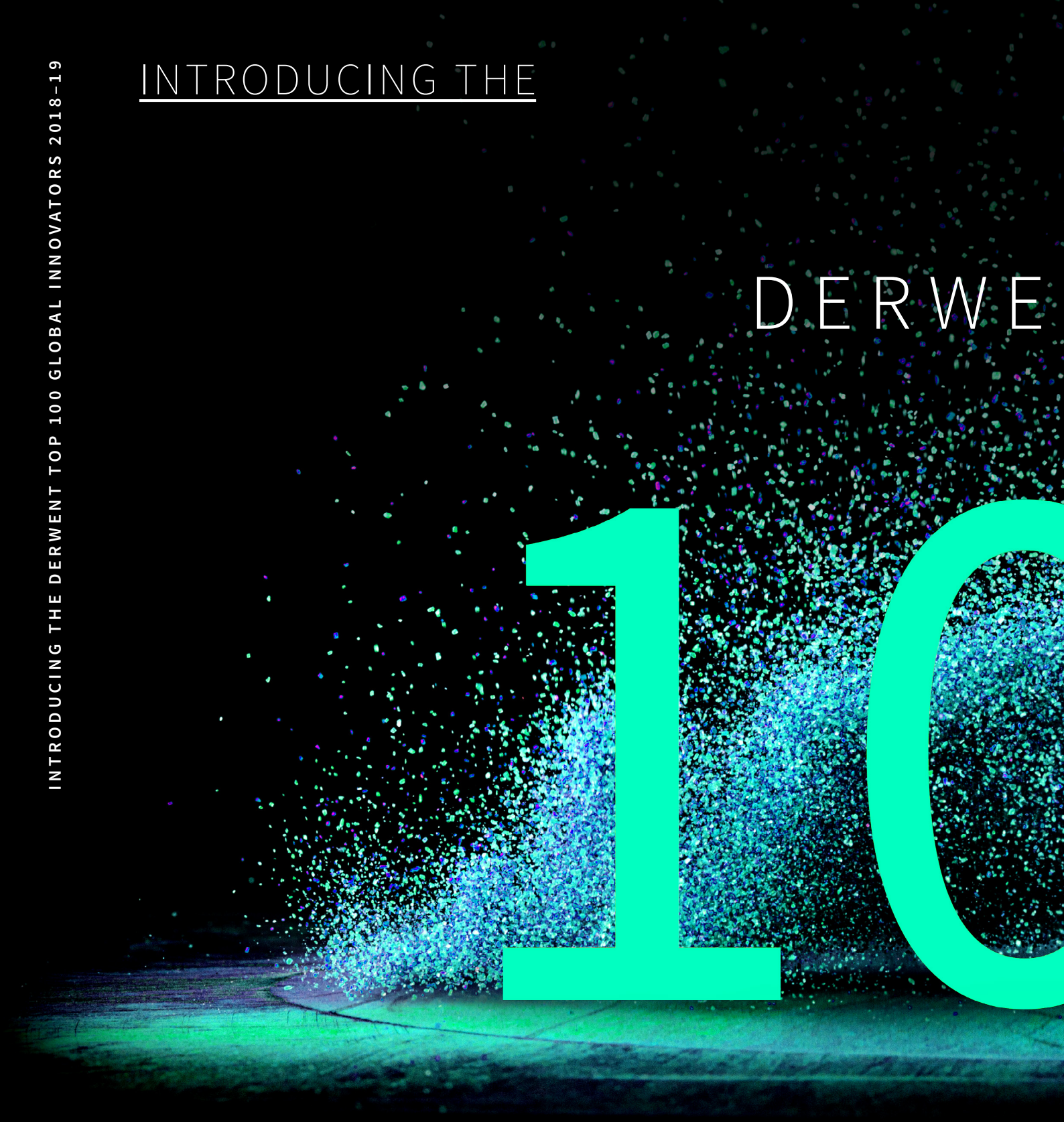
John Banovetz, Chief Technology Officer and Senior Vice President, Research & Development, 3M



US20170339676A1 to Apple
***Derwent* title:**
"Wireless user equipment (UE) for transmission of data in enhanced cellular network, such as 5G network, has type of service with one of machine type communication (MTC), enhanced mobile broadband (eMBB) and critical machine applications."

INTRODUCING THE

DERWE



GLOBAL INNOV


NT TOP
00
ATORS 2018–19

LISTED ALPHABETICALLY

#

3M COMPANY — U.S.
Chemicals & Cosmetics
2011 2012 2013 2014 2015 2016 2017

A

ADVANCED MICRO DEVICES — U.S.
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

AIRBUS — FRANCE
Aerospace & Defense
2011 2012 2013

AISIN SEIKI — JAPAN
Automotive
2014 2015 2016 2017

ALSTOM — FRANCE
Manufacturing & Medical
2015 2016 2017

AMAZON — U.S.
Software
2015 2016 2017

ANALOG DEVICES — U.S.
Hardware & Electronics
2011 2012 2013 2015 2016 2017

APPLE — U.S.
Telecommunications
2011 2012 2013 2014 2015 2016 2017

AGC — JAPAN
Chemicals & Cosmetics
2013 2014 2017

B

BASF — GERMANY
Chemicals & Cosmetics
2011 2014 2015 2016 2017

BAYER — GERMANY
Pharmaceuticals
2011 2015 2016 2017

BECTON DICKINSON — U.S.
Manufacturing & Medical
2015 2016 2017

BOEING — U.S.
Aerospace & Defense
2011 2012 2013 2014 2015 2016 2017

BOSTON SCIENTIFIC — U.S.
Manufacturing & Medical
2016 2017

BRIDGESTONE — JAPAN
Automotive
2015 2016 2017

BYD — CHINA, MAINLAND
Automotive
New

C

CANON — JAPAN
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

CISCO — U.S.
Hardware & Electronics
New

COMMISSARIAT À L'ENERGIE ATOMIQUE — FRANCE
Institution & Government Research
2011 2012 2013 2014 2015 2016 2017

CORNING — U.S.
Hardware & Electronics
2011 2012 2013 2014 2016

D

DAIKIN INDUSTRIES — JAPAN
Manufacturing & Medical
2011 2014 2015 2016 2017

DOLBY LABORATORIES — U.S.
Hardware & Electronics
2016 2017

DOWDUPONT[3] — U.S.
Chemicals & Cosmetics
2011 2012 2013 2014 2015 2016 2017

3 Dow and DuPont previously both appeared separately in the *Derwent Top 100 Global Innovators* lists for 2011-2017, but appear as DowDuPont this year following completion of their merger in August 2017.

E

EMERSON U.S.
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

ERICSSON SWEDEN
Telecommunications
2011 2012 2013 2014 2015 2016 2017

EXXONMOBIL U.S.
Oil, Gas & Energy
2011 2012 2013 2015 2016 2017

F

FRAUNHOFER GERMANY
Institution & Government Research
2013 2014 2015 2016 2017

FUJIFILM JAPAN
Hardware & Electronics
2012 2013 2014 2015 2016 2017

FUJITSU JAPAN
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

FURUKAWA ELECTRIC JAPAN
Hardware & Electronics
2014 2015 2017

G

GENERAL ELECTRIC U.S.
Household Goods
2011 2012 2013 2014 2015 2016 2017

GOOGLE U.S.
Software
2012 2013 2014 2015 2016 2017

H

HITACHI JAPAN
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

HON HAI TAIWAN
Hardware & Electronics
2017

HONDA MOTOR JAPAN
Automotive
2011 2012 2013 2014 2015 2016 2017

HONEYWELL INTERNATIONAL U.S.
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

HUAWEI CHINA, MAINLAND
Telecommunications
2014 2016 2017

I

INTEL U.S.
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

ITRI TAIWAN
Institution & Government Research
2014 2017

J

JAPAN AVIATION ELECTRONICS JAPAN
Aerospace & Defense
2011

JFE STEEL JAPAN
Manufacturing & Medical
New

JOHNSON & JOHNSON U.S.
Pharmaceuticals
2013 2014 2015 2016 2017

JOHNSON CONTROLS U.S.
Manufacturing & Medical
2015 2016 2017

JTEKT JAPAN
Automotive
2015 2016 2017

K

KASPERSKY LAB RUSSIA
Software
New

KAWASAKI HEAVY INDUSTRIES JAPAN
Manufacturing & Medical
2015 2016 2017

KOBE STEEL JAPAN
Manufacturing & Medical
2014 2015 2016 2017

KOMATSU JAPAN
Manufacturing & Medical
2014 2015 2016 2017

KYOCERA JAPAN
Hardware & Electronics
2014 2015 2016 2017

L

LG ELECTRONICS — KOREA, SOUTH
Household Goods

2011 2012 2013 2014 2015 2016 2017

LSIS — KOREA, SOUTH
Oil, Gas & Energy

2011 2012 2013 2014 2015 2016 2017

M

MARVELL — U.S.
Hardware & Electronics

2012 2013 2014 2015 2016 2017

MEDTRONIC — U.S.
Manufacturing & Medical

2014 2015 2016 2017

MICRON — U.S.
Hardware & Electronics

2012 2013 2014 2015 2016 2017

MICROSOFT — U.S.
Software

2011 2012 2013 2014 2015 2016 2017

MITSUBISHI CHEMICAL CORPORATION — JAPAN
Chemicals & Cosmetics

New

MITSUBISHI ELECTRIC — JAPAN
Household Goods

2011 2012 2013 2014 2015 2017

MITSUBISHI HEAVY INDUSTRIES — JAPAN
Manufacturing & Medical

2012 2013 2014 2015 2016 2017

MITSUI CHEMICAL — JAPAN
Chemicals & Cosmetics

2015 2017

MOLEX — U.S.
Hardware & Electronics

2017

N

NEC — JAPAN
Hardware & Electronics

2011 2012 2013 2014 2015 2016 2017

NICHIA — JAPAN
Chemicals & Cosmetics

2017

NIKE — U.S.
Household Goods

2012 2013 2014 2015 2016 2017

NIPPON STEEL & SUMITOMO METAL — JAPAN
Manufacturing & Medical

2012 2013 2014 2015 2016 2017

NISSAN MOTOR — JAPAN
Automotive

2013 2014 2015 2016 2017

NITTO — JAPAN
Chemicals & Cosmetics

2011 2012 2013 2014 2015 2016 2017

NOKIA — FINLAND
Telecommunications

2016 2017

NOVARTIS — SWITZERLAND
Pharmaceuticals

2014 2015 2016 2017

NTT — JAPAN
Telecommunications

2011 2012 2013 2014 2015 2016 2017

NXP SEMICONDUCTORS — NETHERLANDS
Hardware & Electronics

2016 2017

O

OLYMPUS — JAPAN
Manufacturing & Medical

2011 2012 2013 2014 2015 2016 2017

OMRON — JAPAN
Hardware & Electronics

2013 2016 2017

ORACLE — U.S.
Software

2013 2014 2015 2016 2017

P

PANASONIC JAPAN
Household Goods
2011 2012 2013 2014 2015 2016 2017

PHILIPS NETHERLANDS
Hardware & Electronics
2011 2013 2014 2015 2016 2017

Q

QUALCOMM U.S.
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

QUANTA COMPUTER TAIWAN
Hardware & Electronics
New

R

RAYTHEON COMPANY U.S.
Aerospace & Defense
2011 2012

RENESAS JAPAN
Hardware & Electronics
2016 2017

ROCHE SWITZERLAND
Pharmaceuticals
2011 2012 2013 2014 2015 2016 2017

S

SAFRAN FRANCE
Aerospace & Defense
2011 2012 2013 2014 2015 2016 2017

SAINT-GOBAIN FRANCE
Manufacturing & Medical
2011 2012 2013 2014 2015 2016 2017

SAMSUNG ELECTRONICS KOREA, SOUTH
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

SEIKO EPSON JAPAN
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

SHIN-ETSU CHEMICAL JAPAN
Chemicals & Cosmetics
2011 2012 2013 2014 2015 2016 2017

SIEMENS GERMANY
Hardware & Electronics
2011 2012 2013 2014

SONY JAPAN
Household Goods
2011 2012 2013 2014 2015 2016 2017

SYMANTEC U.S.
Software
2011 2012 2013 2014 2015 2016 2017

T

TDK JAPAN
Hardware & Electronics
2012 2013 2014 2017

TE CONNECTIVITY SWITZERLAND
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

TEXAS INSTRUMENTS U.S.
Hardware & Electronics
2012 2013 2014 2017

THALES FRANCE
Aerospace & Defense
2012 2013 2015 2016 2017

TORAY JAPAN
Chemicals & Cosmetics
2015 2017

TOSHIBA JAPAN
Hardware & Electronics
2011 2012 2013 2014 2015 2016 2017

TOTAL S.A. FRANCE
Oil, Gas & Energy
2016 2017

TOYOTA MOTOR JAPAN
Automotive
2011 2012 2013 2014 2015 2016 2017

X

XEROX U.S.
Hardware & Electronics
2011 2012 2013 2014 2016 2017

XIAOMI CHINA, MAINLAND
Hardware & Electronics
New

XILINX U.S.
Hardware & Electronics
2012 2013 2014 2015 2016 2017

Y

YASKAWA ELECTRIC JAPAN
Manufacturing & Medical
2015 2016 2017

“BY FOCUSING ON HIGH-QUALITY INNOVATION AND INCORPORATING CUTTING-EDGE TECHNOLOGIES, THE *DERWENT TOP 100 GLOBAL INNOVATORS* ARE LEADING THE WAY IN DEVELOPING COMPELLING SOLUTIONS TO BOTH CURRENT AND FUTURE CHALLENGES. THEY UNDERSTAND THAT INTELLECTUAL PROPERTY IS THE BRIDGE CONNECTING INNOVATION TO ECONOMIC GROWTH AND WE ARE PROUD TO ACKNOWLEDGE THEIR CONTRIBUTIONS TO ENRICHING OUR FUTURE.”

Dan Videtto, President , Derwent, *Clarivate Analytics*

LISTED BY SECTOR

AEROSPACE & DEFENSE

AIRBUS — FRANCE
2011 2012 2013

BOEING — U.S.
2011 2012 2013 2014 2015 2016 2017

JAPAN AVIATION ELECTRONICS — JAPAN
2011

RAYTHEON COMPANY — U.S.
2011 2012

SAFRAN — FRANCE
2011 2012 2013 2014 2015 2016 2017

THALES — FRANCE
2012 2013 2015 2016 2017

AUTOMOTIVE

AISIN SEIKI — JAPAN
2014 2015 2016 2017

BRIDGESTONE — JAPAN
2015 2016 2017

BYD — CHINA, MAINLAND
New

HONDA MOTOR — JAPAN
2011 2012 2013 2014 2015 2016 2017

JTEKT — JAPAN
2015 2016 2017

NISSAN MOTOR — JAPAN
2013 2014 2015 2016 2017

TOYOTA MOTOR — JAPAN
2011 2012 2013 2014 2015 2016 2017

CHEMICALS & COSMETICS

3M COMPANY — U.S.
2011 2012 2013 2014 2015 2016 2017

AGC — JAPAN
2013 2014 2017

BASF — GERMANY
2011 2014 2015 2016 2017

DOWDUPONT[4] — U.S.
2011 2012 2013 2014 2015 2016 2017

MITSUBISHI CHEMICAL CORPORATION — JAPAN
New

MITSUI CHEMICAL — JAPAN
2015 2017

NICHIA — JAPAN
2017

NITTO — JAPAN
2011 2012 2013 2014 2015 2016 2017

SHIN-ETSU CHEMICAL — JAPAN
2011 2012 2013 2014 2015 2016 2017

TORAY — JAPAN
2015 2017

HARDWARE & ELECTRONICS

ADVANCED MICRO DEVICES — U.S.
2011 2012 2013 2014 2015 2016 2017

ANALOG DEVICES — U.S.
2011 2012 2013 2015 2016 2017

CANON — JAPAN
2011 2012 2013 2014 2015 2016 2017

CISCO — U.S.
New

CORNING — U.S.
2011 2012 2013 2014 2016

DOLBY LABORATORIES — U.S.
2016 2017

EMERSON — U.S.
2011 2012 2013 2014 2015 2016 2017

FUJIFILM — JAPAN
2012 2013 2014 2015 2016 2017

FUJITSU — JAPAN
2011 2012 2013 2014 2015 2016 2017

FURUKAWA ELECTRIC — JAPAN
2014 2015 2017

HITACHI — JAPAN
2011 2012 2013 2014 2015 2016 2017

4 Dow and DuPont previously both appeared separately in the *Derwent Top 100 Global Innovators* lists for 2011-2017, but appear as DowDuPont this year following completion of their merger in August 2017.

THE 2018–2019 DERWENT TOP 100 / BY SECTOR

HON HAI — TAIWAN
2017

HONEYWELL INTERNATIONAL — JAPAN
2011 2012 2013 2014 2015 2016 2017

INTEL — U.S.
2011 2012 2013 2014 2015 2016 2017

KYOCERA — JAPAN
2014 2015 2016 2017

MARVELL — U.S.
2012 2013 2014 2015 2016 2017

MICRON — U.S.
2012 2013 2014 2015 2016 2017

MOLEX — U.S.
2017

NEC — JAPAN
2011 2012 2013 2014 2015 2016 2017

NXP SEMICONDUCTORS — NETHERLANDS
2016 2017

OMRON — JAPAN
2013 2016 2017

PHILIPS — NETHERLANDS
2011 2013 2014 2015 2016 2017

QUALCOMM — U.S.
2011 2012 2013 2014 2015 2016 2017

QUANTA COMPUTER — TAIWAN
New

RENESAS — JAPAN
2016 2017

SAMSUNG ELECTRONICS — KOREA, SOUTH
2011 2012 2013 2014 2015 2016 2017

SEIKO EPSON — JAPAN
2011 2012 2013 2014 2015 2016 2017

SIEMENS — GERMANY
2011 2012 2013 2014

TDK — JAPAN
2012 2013 2014 2017

TE CONNECTIVITY — SWITZERLAND
2011 2012 2013 2014 2015 2016 2017

TEXAS INSTRUMENTS — U.S.
2012 2013 2014 2017

TOSHIBA — JAPAN
2011 2012 2013 2014 2015 2016 2017

XEROX — U.S.
2011 2012 2013 2014 2016 2017

XIAOMI — CHINA, MAINLAND
New

XILINX — U.S.
2012 2013 2014 2015 2016 2017

HOUSEHOLD GOODS

GENERAL ELECTRIC — U.S.
2011 2012 2013 2014 2015 2016 2017

LG ELECTRONICS — KOREA, SOUTH
2011 2012 2013 2014 2015 2016 2017

MITSUBISHI ELECTRIC — JAPAN
2011 2012 2013 2014 2015 2017

NIKE — U.S.
2012 2013 2014 2015 2016 2017

PANASONIC — JAPAN
2011 2012 2013 2014 2015 2016 2017

SONY — JAPAN
2011 2012 2013 2014 2015 2016 2017

INSTITUTION & GOVERNMENT RESEARCH

COMMISSARIAT À L'ENERGIE ATOMIQUE — FRANCE
2011 2012 2013 2014 2015 2016 2017

FRAUNHOFER — GERMANY
2013 2014 2015 2016 2017

ITRI — TAIWAN
2014 2017

MANUFACTURING & MEDICAL

ALSTOM — FRANCE
2015 2016 2017

BECTON DICKINSON — U.S.
2015 2016 2017

BOSTON SCIENTIFIC — U.S.
2016 2017

DAIKIN INDUSTRIES — JAPAN
2011 2014 2015 2016 2017

JFE STEEL — JAPAN
New

JOHNSON CONTROLS U.S.
2015 2016 2017

KAWASAKI HEAVY INDUSTRIES JAPAN
2015 2016 2017

KOBE STEEL JAPAN
2014 2015 2016 2017

KOMATSU JAPAN
2014 2015 2016 2017

MEDTRONIC U.S.
2014 2015 2016 2017

MITSUBISHI HEAVY INDUSTRIES JAPAN
2012 2013 2014 2015 2016 2017

NIPPON STEEL & SUMITOMO METAL JAPAN
2012 2013 2014 2015 2016 2017

OLYMPUS JAPAN
2011 2012 2013 2014 2015 2016 2017

SAINT-GOBAIN FRANCE
2011 2012 2013 2014 2015 2016 2017

YASKAWA ELECTRIC JAPAN
2015 2016 2017

OIL, GAS & ENERGY

EXXONMOBIL U.S.
2011 2012 2013 2015 2016 2017

LSIS KOREA, SOUTH
2011 2012 2013 2014 2015 2016 2017

TOTAL S.A. FRANCE
2016 2017

PHARMACEUTICALS

BAYER GERMANY
2011 2015 2016 2017

JOHNSON & JOHNSON U.S.
2013 2014 2015 2016 2017

NOVARTIS SWITZERLAND
2014 2015 2016 2017

ROCHE SWITZERLAND
2011 2012 2013 2014 2015 2016 2017

SOFTWARE

AMAZON U.S.
2015 2016 2017

GOOGLE U.S.
2012 2013 2014 2015 2016 2017

KASPERSKY LAB RUSSIA
New

MICROSOFT U.S.
2011 2012 2013 2014 2015 2016 2017

ORACLE U.S.
2013 2014 2015 2016 2017

SYMANTEC U.S.
2011 2012 2013 2014 2015 2016 2017

TELECOMMUNICATIONS

APPLE U.S.
2011 2012 2013 2014 2015 2016 2017

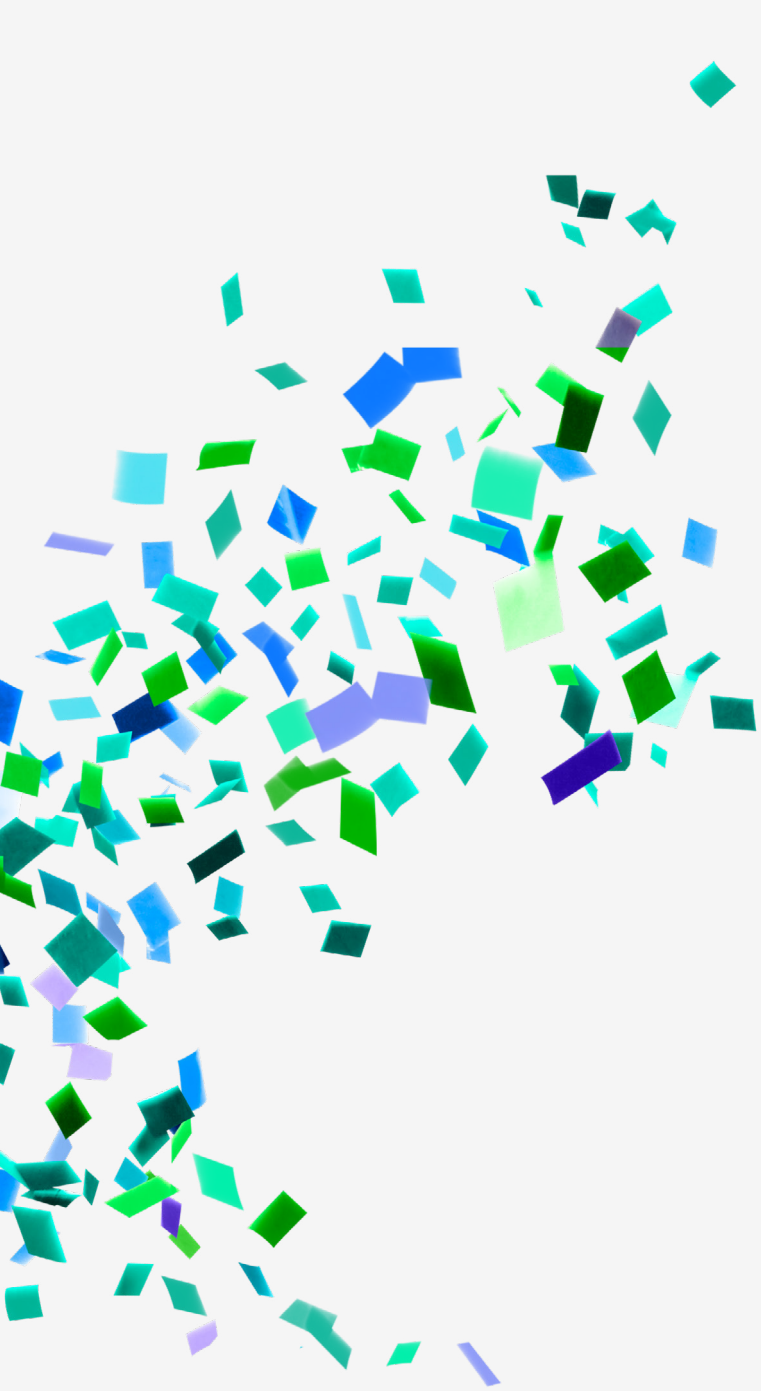
ERICSSON SWEDEN
2011 2012 2013 2014 2015 2016 2017

HUAWEI CHINA, MAINLAND
2014 2016 2017

NOKIA FINLAND
2016 2017

NTT JAPAN
2011 2012 2013 2014 2015 2016 2017

MOVE AND SHAKERS



SEVEN NEW COMPANIES JOIN THE 2018–19 LIST FOR THE FIRST TIME.

A majority of organizations named in the 2017 *Top 100 Global Innovators* list are included again this year. Eighty-seven continued successful innovation at sufficiently consistent levels of performance in the data metrics to warrant inclusion again. They are joined by thirteen "new" members. Here, "new" includes companies on the list for the first time and companies who did not appear on last year's list, but did appear in a previous year(s).

5 Both Dow and DuPont were on the *Derwent Top 100 Global Innovators* 2017 list. They merged that year to form DowDuPont, which is now on the 2018–19 list.

R S

The seven organizations appearing for the first time are: BYD, Cisco, JFE Steel, Kaspersky Lab, Mitsubishi Chemical Corporation, Quanta Computer, and Xiaomi. As shown in Table 5 (below right), collectively, these list newcomers have significantly improved their standing in each of the measures of innovation examined — particularly in obtaining granted patent rights to their innovations (Success).

New 2018	Country / Region 2018	Industry 2018
Airbus	France	Aerospace & Defense
BYD*	China, Mainland	Automotive
Cisco*	U.S.	Hardware & Electronics
Corning	U.S.	Hardware & Electronics
DowDuPont[5]	U.S.	Chemicals & Cosmetics
Japan Aviation Electronics Industry	Japan	Aerospace & Defense
JFE Steel*	Japan	Manufacturing & Medical
Kaspersky Lab*	Russia	Software
Mitsubishi Chemical Corporation*	Japan	Chemicals & Cosmetics
Quanta Computer*	Taiwan	Hardware & Electronics
Raytheon Company	U.S.	Aerospace & Defense
Siemens	Germany	Hardware & Electronics
Xiaomi*	China, Mainland	Hardware & Electronics

***First-time organizations in 2018**

Table 4
New organizations on the *Derwent Top 100 Global Innovators 2018-19* list.

Metric	Change 2012–2018
Success	121%
Globalization	28%
Influence	81%
Overall	41%

Table 5
Overall average change in metrics for seven newcomers 2012–2018.

As shown in Table 6 below, there are regional variations in this with Mainland China showing the highest combined growth in performance for the period 2012–2018. This is driven by significant increase in the impact of Chinese mainland companies' innovation (Influence), and growth in Success in line with the overall trend for the seven newcomers. Japanese newcomers also show a notable increase in Success.

Average change in metric 2012–2018	China, Mainland	Japan	Russia	Taiwan	U.S.
Success	132%	277%	14%	17%	-3%
Globalization	42%	-11%	8%	48%	77%
Influence	249%	3%	5%	1%	56%
Overall	156%	31%	9%	23%	23%

Table 6
Change in metric by country/region for seven newcomers 2012–2018.

GEOGRAPHIC

BREAK

OUT

GLOBAL

The *Derwent Top 100 Global Innovators 2018–19* are from three continents and 12 countries/regions. Just two — Japan and the U.S. — account for 72 percent of the organizations on the list. This one data point indicates how they are by far the world's strongest innovation hubs.

Six other countries/regions have been represented on the list since it was first published in 2011: France, Germany, the Netherlands, South Korea, Sweden, and Switzerland. They are joined by Taiwan for the sixth consecutive year, Mainland China for the fourth time and Finland for the third year. New to the list this year is Russia with a first time representative from the software industry, Kaspersky.

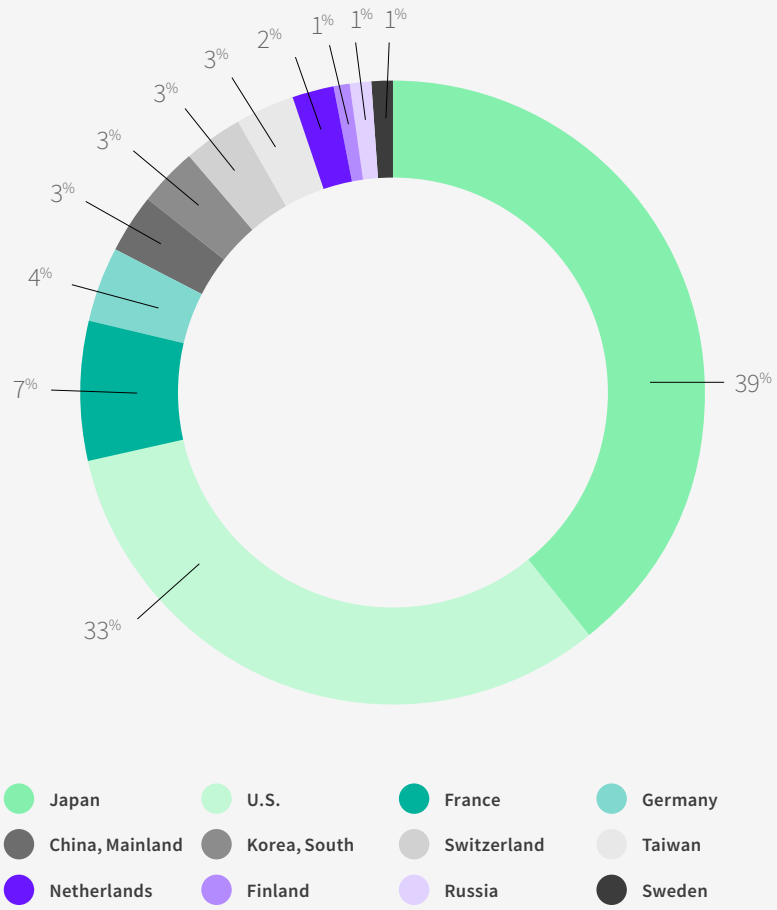


Figure 2
Country/Region composition of the *Derwent Top 100 Global Innovators* 2018–19 list.
Source: *Derwent World Patents Index.*

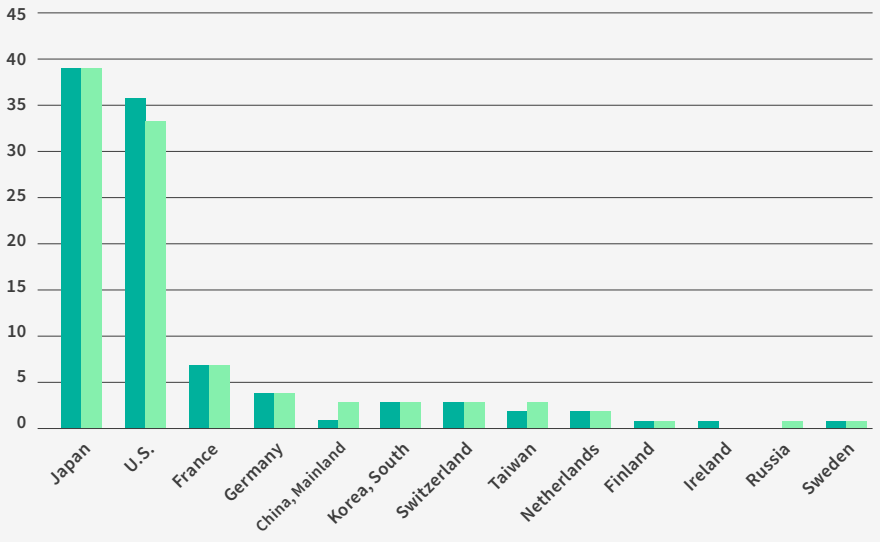


Figure 3
2017 vs 2018 *Derwent Top 100 Global Innovators* by country/region.
Source: *Derwent World Patents Index.*

THE *DERWENT TOP 100 GLOBAL INNOVATORS 2018–19* ARE FROM THREE CONTINENTS AND 12 COUNTRIES/ REGIONS. JAPAN AND THE U.S. ACCOUNT FOR 72 PERCENT OF THE ORGANIZATIONS ON THE LIST.

There is a continuing innovation shift toward Asia with 48 organizations from this region on this year's list compared to 45 last year — a 6.7 percent year-over-year increase. France maintains leadership in Europe with seven representatives this year and last year. Mainland China has increased its presence from one to three and now equals South Korea, Switzerland and Taiwan.

Country / Region	2018	2017	% Change
Japan	39	39	→ 0%
U.S.	33	36	↓ -8%
France	7	7	→ 0%
Germany	4	4	→ 0%
China, Mainland	3	1	↑ 200%
Korea, South	3	3	→ 0%
Switzerland	3	3	→ 0%
Taiwan	3	2	↑ 50%
Netherlands	2	2	→ 0%
Finland	1	1	→ 0%
Ireland	0	1	↓ -100%
Russia	1	0	↑ 100%
Sweden	1	1	→ 0%

Table 7
2018 vs 2017 *Derwent Top 100 Global Innovators* — Change in representation by country/region.

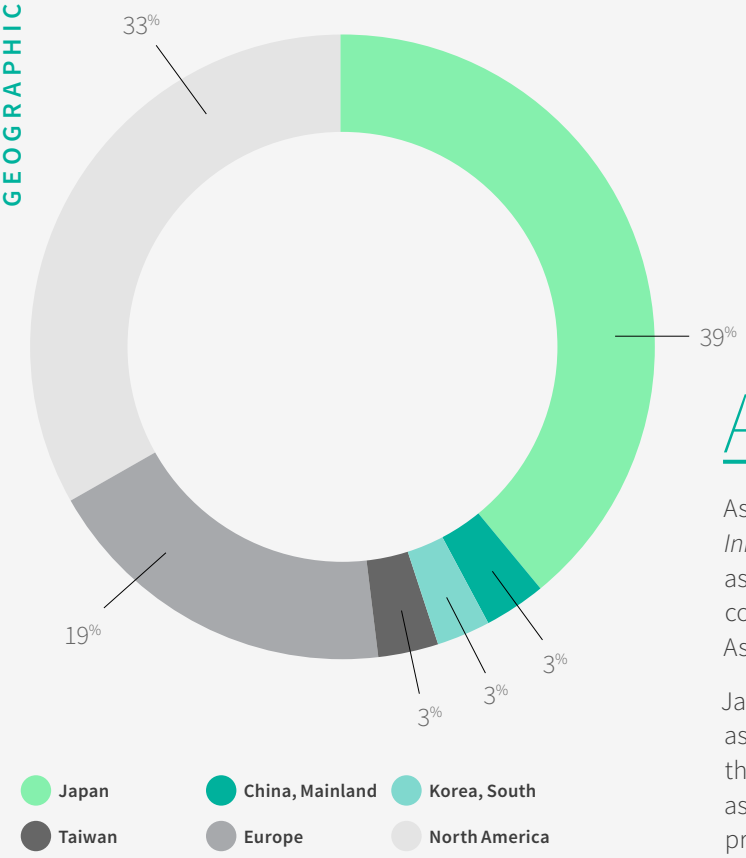


Figure 4
Asian representation compared to rest of world.
Source: *Derwent World Patents Index.*

ASIA

Asia has taken the leading place on the *Derwent Top 100 Global Innovators* list in four of the last five years confirming its status as the global innovation powerhouse. This year sees the continuing shift of innovation east with 48 of the *Top 100* from Asia compared to 33 from North America and 19 from Europe.

Japan, although static with the same number of organizations as last year, is still well represented with 39 companies on the 2018–19 list. South Korea kept the same three companies as last year: LG, LSIS, and Samsung. Taiwan increased its presence this year with the addition of *Top 100* newcomer Quanta Computer, which joined last year's representatives, ITRI and Hon Hai (Foxconn).

Our long predicted breakthrough of Chinese mainland companies onto the *Derwent Top 100 Global Innovators* list happened this year with newcomers BYD and Xiaomi joining regular representative Huawei. All three have increasingly globalized — driving innovation and building influence in multiple markets and sectors. BYD, Huawei and Xiaomi are each identified as Tier I Innovators in our recently published *2018 Top 100 Chinese Innovators* report.

NORTH AMERICA

North America has 33 organizations on this year's list — down three from 36 in 2017. Twenty nine of the 33 companies from the U.S. remain the same including last year's list debutante Molex. Note DowDuPont appears on the list for the first time this year as a merged entity. (Each company prior to their August 2017 merger appeared separately on the list since it began.) The other three "new" entrants include Corning (recognized five times previously), Raytheon (returning for the first time since 2012), and Cisco appearing for the first time. Cisco has always performed well in obtaining granted rights to their innovations, but has expanded geographical coverage of its portfolio – driving its inclusion this year.

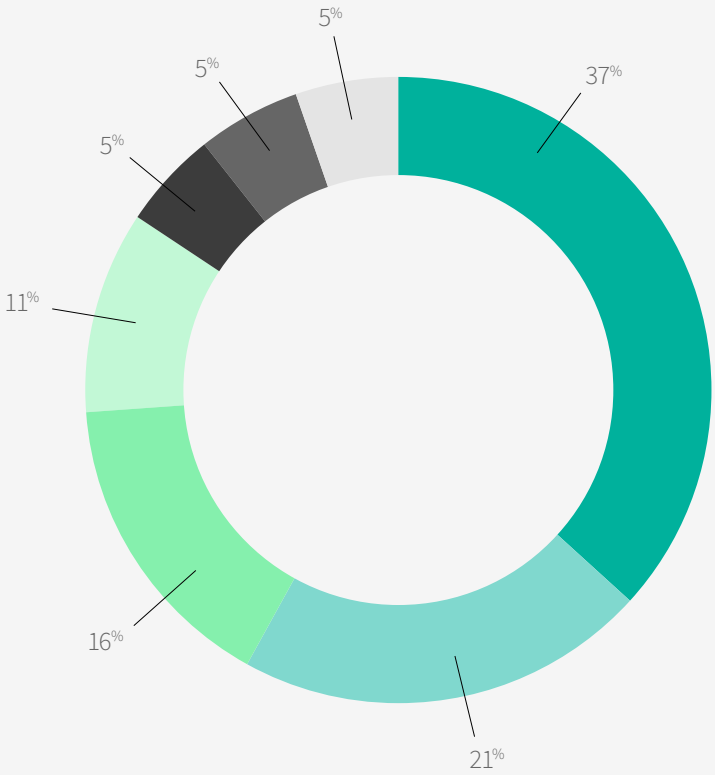
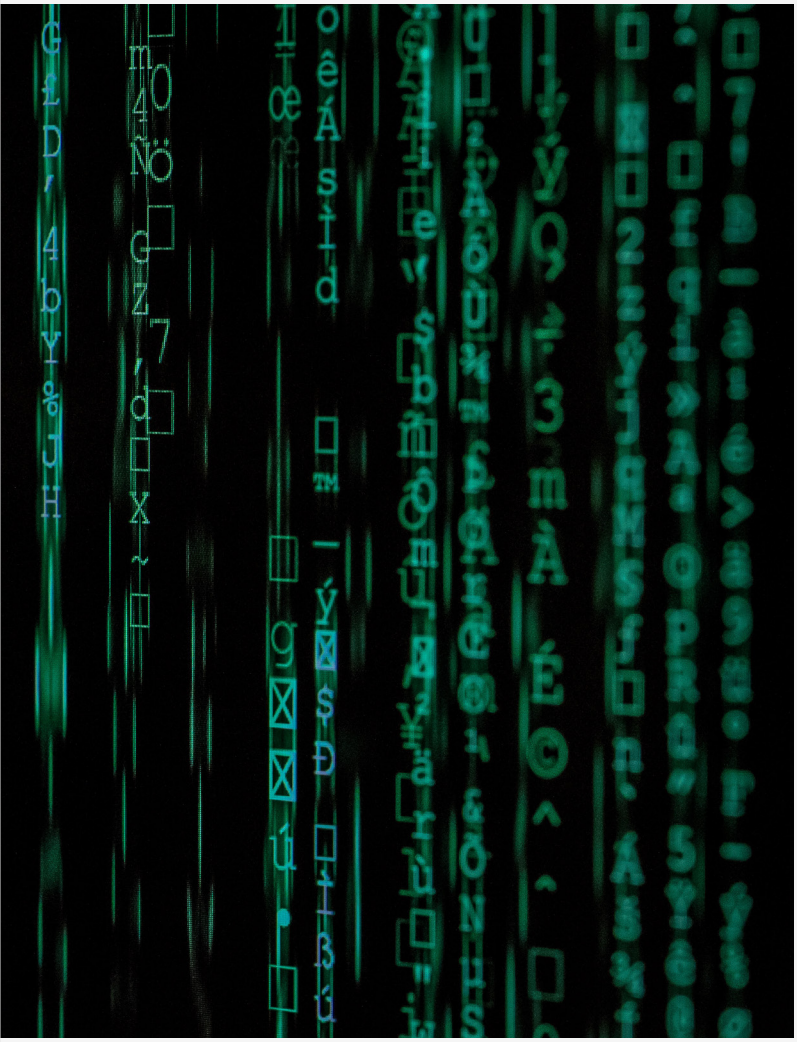


Figure 5
European representation in the *Derwent Top 100 Global Innovators 2018–19.*
Source: *Derwent World Patents Index.*

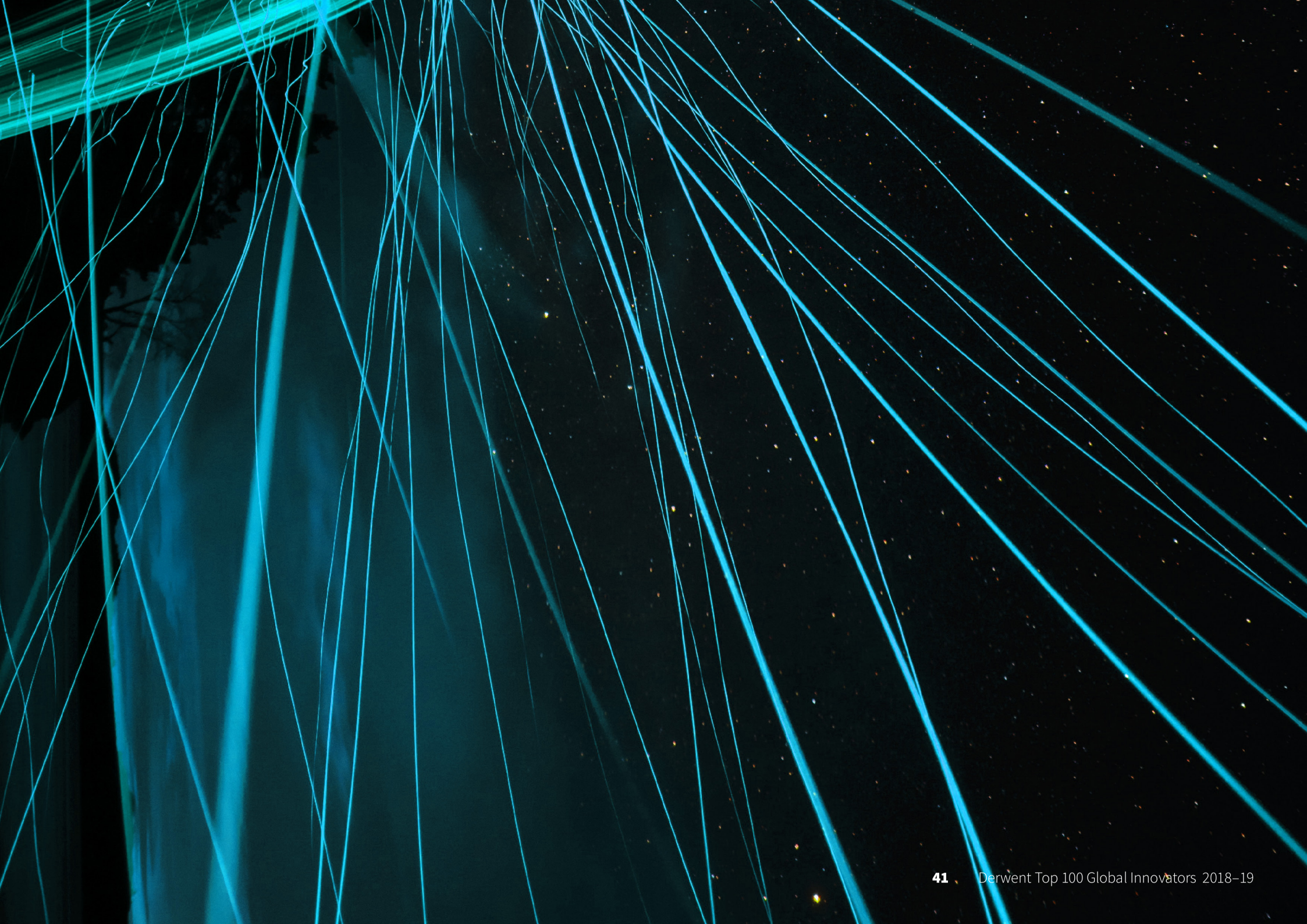


EUROPE

Europe's share of the *Top 100* remained the same this year with 19 representatives. Distribution of countries also remained stable with one notable exception: as previously mentioned, Russia appears for the first time with the inclusion of newcomer Kaspersky, a provider of internet security software. Founded 20 years ago, Kaspersky has steadily built a solid portfolio of protection for its innovations. With increasing success in obtaining granted patent rights across multiple regions, it met this year's threshold for inclusion.

“TRACKING PATENT ACTIVITY GIVES A DETAILED PICTURE OF AN ORGANIZATION’S COMMITMENT TO INNOVATION THROUGH ANALYZING ITS INVENTIONS WITH POTENTIAL FOR COMMERCIALIZATION. THIS YEAR’S FINDINGS SHOW THAT LEADING ORGANIZATIONS CONTINUE TO DIFFERENTIATE THEMSELVES THROUGH A LASER-FOCUS ON HIGH-VALUE AND HIGH-IMPACT INNOVATION AND A FULL EMBRACE OF EMERGING TECHNOLOGIES.”

Bob Stembridge, Patent Analyst, *Clarivate Analytics*



INDUSTRY BREAKOUT

Representation among the different industry sectors is remarkably stable this year. Hardware & Electronics leads the way with 35 organizations — just one more than last year, as shown in Table 8. The companies listed in this sector include three of this year's new entrants: Cisco, Quanta Computer and Xiaomi. These top innovators are joined by the 30 companies from last year who are again recognized in 2018 and two previously recognized *Derwent Top 100 Global Innovators* (Corning [2011–2014, 2016] and Siemens [2011–2014]). Four organizations from 2017 dropped off the list (Broadcom, Casio, Seagate, and Western Digital) because of globalization performance declines. Other notable changes in industry representation include double the number of Aerospace & Defense organizations from 3 to 6 and small drop-offs in the number of Chemicals & Cosmetics, Pharmaceuticals and Oil, Gas & Energy representatives. Last year's Aerospace & Defense *Derwent Top 100 Global Innovators* Boeing, Safran, and Thales are joined this year by three previously recognized honorees Airbus (2011, 2012, 2013), Japan Aviation Electronics (2011), and Raytheon (2011, 2012).

Industry	2018	2017	% Change
Hardware & Electronics	35	34	↑ 3%
Manufacturing & Medical	15	14	↑ 7%
Chemicals & Cosmetics	10	12	↓ -17%
Automotive	7	7	→ 0%
Aerospace & Defense	6	3	↑ 100%
Household Goods	6	6	→ 0%
Software	6	6	→ 0%
Telecommunications	5	5	→ 0%
Pharmaceuticals	4	6	↓ -33%
Oil, Gas & Energy	3	4	↓ -25%
Institution & Government Research	3	3	→ 0%

Table 8
2018 vs 2017 industry comparison of *Derwent Top 100 Global Innovators*.
Source: *Derwent World Patents Index*.

"OUR VISION AT BOEING IS TO CONNECT, PROTECT, EXPLORE AND INSPIRE THE WORLD THROUGH AEROSPACE INNOVATION. WE DEMONSTRATE THIS COMMITMENT BY INVESTING IN OUR EMPLOYEES AND THEIR BOLD, INNOVATIVE IDEAS THAT LEAD TO A BETTER FUTURE FOR THE PLANET AND ITS PEOPLE."

Greg Hyslop, Chief Technology Officer, Boeing

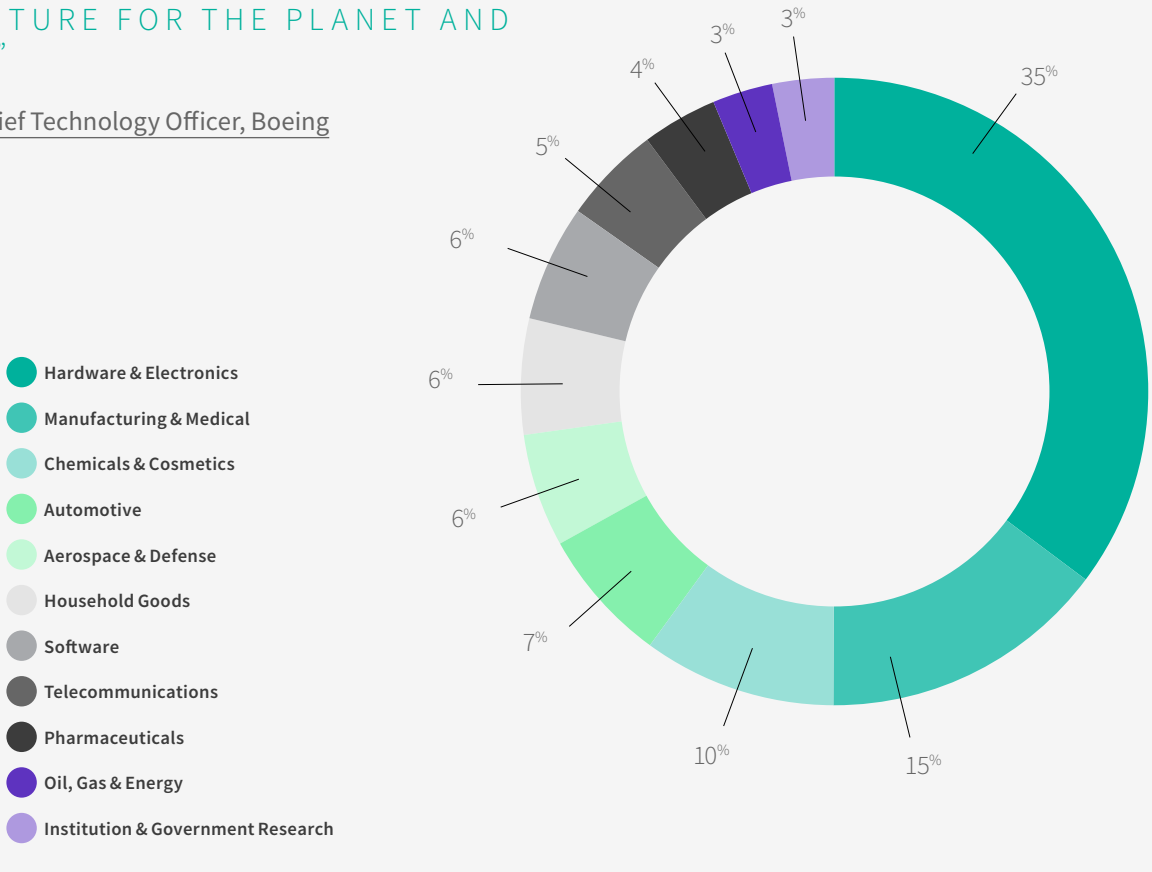


Figure 6
Industry Representation of *Derwent Top 100 Global Innovators 2018–19*.
Source: *Derwent World Patents Index*.

CONTINUING INNOVATION SHIFT TO ASIA

Creating value from unique ideas is at the core of the innovation process. This process in turn relies on protecting inventions with obtaining granted patent rights. Intellectual property is the bridge connecting innovation to economic growth and prosperity. Without it there may be creativity, but not sustainable marketability.

By tracking patent activity, we have built a detailed picture of each organization's innovation commitment. This included analyzing inventions with strong commercialization potential based on originality, market reach, and opportunities for spin-off inventions.

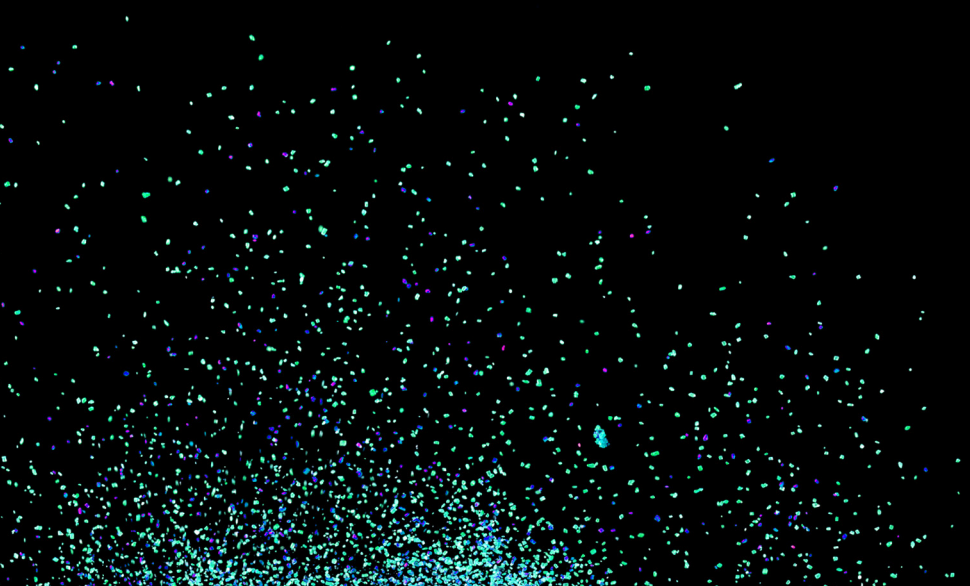
We have shown that the *Derwent Top 100 Global Innovators* continue to differentiate themselves through superior performance in obtaining granted patents rights across wider territories with more impactful innovation than those organizations not on the list. The shift in the global innovation hub continues eastwards with nearly 50 percent of organizations on this year's list originating from Asia, driven this year by the addition of three newcomers from Mainland China and Taiwan. Fast moving technologies are also at the heart of this year's list with many of the *Top 100* organizations embracing AI and 5G developments to build diversity into their ongoing innovation.

Through focusing on high-quality innovation and incorporating cutting-edge technologies, the *Derwent Top 100 Global Innovators* are leading the way in developing more effective solutions to current and future challenges. *Clarivate Analytics* is proud to acknowledge their contributions to enriching the world's future.

WHO WE ARE

Clarivate Analytics is the global leader in providing trusted insights and analytics to accelerate the pace of innovation. Building on a heritage going back more than a century and a half, we have built some of the most trusted brands across the innovation lifecycle, including Web of Science Group, *Cortellis, Derwent, CompuMark, MarkMonitor* and *Techstreet*. Today, *Clarivate Analytics* is a new and independent company on a bold entrepreneurial mission to help our clients radically reduce the time from new ideas to life-changing innovations.

For more information, please visit clarivate.com



ABOUT DERWENT

Derwent powers the innovation lifecycle from idea to commercialization — with trusted patent data, applications and services including:

- *Derwent Innovation*: Locate, analyze and simplify the most relevant patent matter for your business on our world leading patent research platform
- *Derwent World Patents Index* (DWPI): Identify the novelty value of a patent with our comprehensive, global database of patent abstracts
- *Derwent Patents Citation Index* (DPCI): Find out which patents are exerting the most influence in your industry
- *Derwent Data Analyzer*: Transform patent data into commercial insight with our advanced data mining solution

Coupled with our expert IP Services, *Derwent* offers the complete solution suite to monitor technology trends and competitive landscapes, inform FTO opinions, prosecute patents, monetize and license assets and support litigation activities. Our clients include inventors, patent attorneys and licensing specialists at start-ups and the largest global innovators, legal professionals at the leading intellectual property practices and patent examiners at more than 40 patent offices.

To find out more about *Derwent*, please visit us at: clarivate.com/products/derwent

Derwent™