



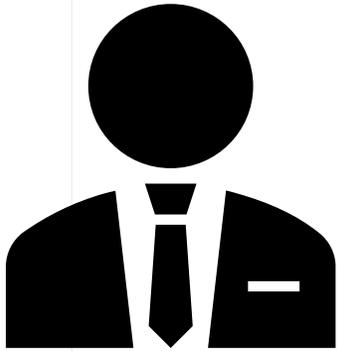
Technology Landscape For Innovation Decision Makers



Innosabi Insight

TECHNOLOGY LANDSCAPE

Need



Senior Scientist
Marketing Analyst
Innovation Manager

We track consumer needs and desires, requiring to quickly **learn** and determine which space to pursue.

Thus, why we need to **explore** new subjects several times a year.

Our objective is to **report information** by providing comprehensive overviews of technologies and industries: **forecasts**, **trends**, players and publications.

TECHNOLOGY LANDSCAPE

Everything starts with keywords related to the opportunity

The larger, the better

Big picture thinking to come up with ideas, solutions & opportunities

i | Enter concept (biomarker, autonomous vehicle,...) or organisation (Facebook, Samsung,...)

SMART ▾

GO!

artificial intelligence

Add suggestions 10

Add concept

The image shows a user interface for a search tool. At the top, there's a title "Big picture thinking to come up with ideas, solutions & opportunities". Below it is a search bar with a placeholder text: "Enter concept (biomarker, autonomous vehicle,...) or organisation (Facebook, Samsung,...)". To the right of the search bar is a "SMART" dropdown menu and a green "GO!" button. Below the search bar is a list of suggestions. The first suggestion is "artificial intelligence" in a yellow box. To its right is a blue button labeled "Add suggestions" with a white circle containing the number "10". Further right is a green button labeled "Add concept". A white line connects the "Add concept" button to the "GO!" button.

TECHNOLOGY LANDSCAPE

Refine your search query

Find synonyms and/or specific terms to improve your search.

Scientific articles are a great source to identify additional keywords.

Fuzzy logic, neural networks ...

Data Screening

Scientific Works		
Title	Type	Publication year
Artificial Intelligence from the Point of View of Law	Journal Article	2018
<small>Abstract</small> Artificial intelligence technologies are developing intensively today, including due to the development of technologies of stable neural networks and cloud computing infrastructures, fuzzy system technologies, entropy administration, swarm intelligence, evolutionary computations, and many others. etc. At the same time, the problem of almost complete absence of normative legal regulation and normative technical regulation of the foundations, conditions and features of development, functioning and activities, integration into other systems and control over the use of artifici...		
<small>Authors</small> Igor V. Ponkin , Alena I Redkina		
Open		
Artificial Intelligence as a Technological Innovation to Accelerate Economic Development	Journal Article	2019
Striving for excellence in AI implementation: AI Maturity Model framework and preliminary research results	Journal Article	2019
Artificial Intelligence : from Research to Application ; the Upper-Rhine Artificial Intelligence Symposium (UR-AI 2019)	Journal Article	2019
[Only artificial intelligence can heal us? : Artificial intelligence in medicine as deus ex machina, grands recits nouveaux ou super...	Journal Article	2019

Artificial Intelligence from the Point of View of Law

Type : Journal Article / Unknown
Publication date: 2018
Base: Doaj
Language: English
Full text link: <https://doaj.org/article/d7aaa9...>

Abstract

Artificial intelligence technologies are developing intensively today, including due to the development of technologies of stable neural networks and cloud computing infrastructures, fuzzy system technologies, entropy administration, swarm intelligence, evolutionary computations, and many others. etc. At the same time, the problem of almost complete absence of normative legal regulation and normative technical regulation of the foundations, conditions and features of development, functioning and activities, integration into other systems and control over the use of artificial intelligence technologies is global today. The Article is devoted to the study of the specifics of the legal regulation of the use and development of artificial intelligence. Some approaches to the definition of artificial intelligence and the features of legal regulation of this sphere, which take place in the scientific literature, are considered and the author's definition of artificial intelligence is developed and given through the disclosure of its main features. In particular, according to the proposed definition, artificial intelligence is an artificial complex cybernetic computer-software-hardware system possessing the properties of substantivity, autonomy, and also the ability to perceive and analyze data, to self-learn. The question of positioning the artificial intelligence system as a special form of person (for example, the so-called «electronic person»), that is, granting it a certain legal personality depending on various factors and the field of application of such a system, is considered in this article. The article also notes the main possible approaches to legal support for the use and development of artificial intelligence systems, in particular, such approaches include the preemptive universal-total legal regulation and legal regulation aimed at the regulation of specific artificial intelligence systems. The main risks and uncertainties associated with artificial intelligence (and which are of great importance for the adoption of legislation in this field) have been investigated. There are drawn the conclusions about how to develop legislation on the use and development of artificial intelligence: consistently, taking into account the specifics of areas of its application, as well as balancing the interests of individuals, society and the state with regard to proper security and protection of individual rights, and interests related to the development of innovation for the benefit of the whole society.

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TECHNOLOGY LANDSCAPE

Refine your search query

Develop your search query to obtain an accurate landscape of your opportunity

The image shows a three-step process of refining a search query in a web application. The interface has an orange background with a pattern of white dots.

Step 1: The search bar contains the text "artificial intelligence". A blue button labeled "Add suggestions" with a white circle containing the number "8" is highlighted with a red box. Below the search bar, a dropdown menu displays several suggestions, each with a plus sign icon: "intelligent", "expert system", "knowledge representation", "learning algorithm", "ai technology", "computational intelligence", "domain knowledge", and "artificial neural network".

Step 2: The search bar now contains "artificial intelligence", "machine learning", and "neural network". The "Add suggestions" button is still present. A new search bar on the right contains the text "deep learn". A dropdown menu below it, titled "Concepts", lists "deep learning", "deep learning model", and "deep learning network". The "deep learning" option is highlighted with a blue background and a mouse cursor is over it. This dropdown menu is also highlighted with a red box.

Step 3: The search bar now contains "artificial intelligence", "machine learning", "neural network", "deep learning", and "random forest". The "Add suggestions" button is still present. The "1 more..." dropdown is also visible.

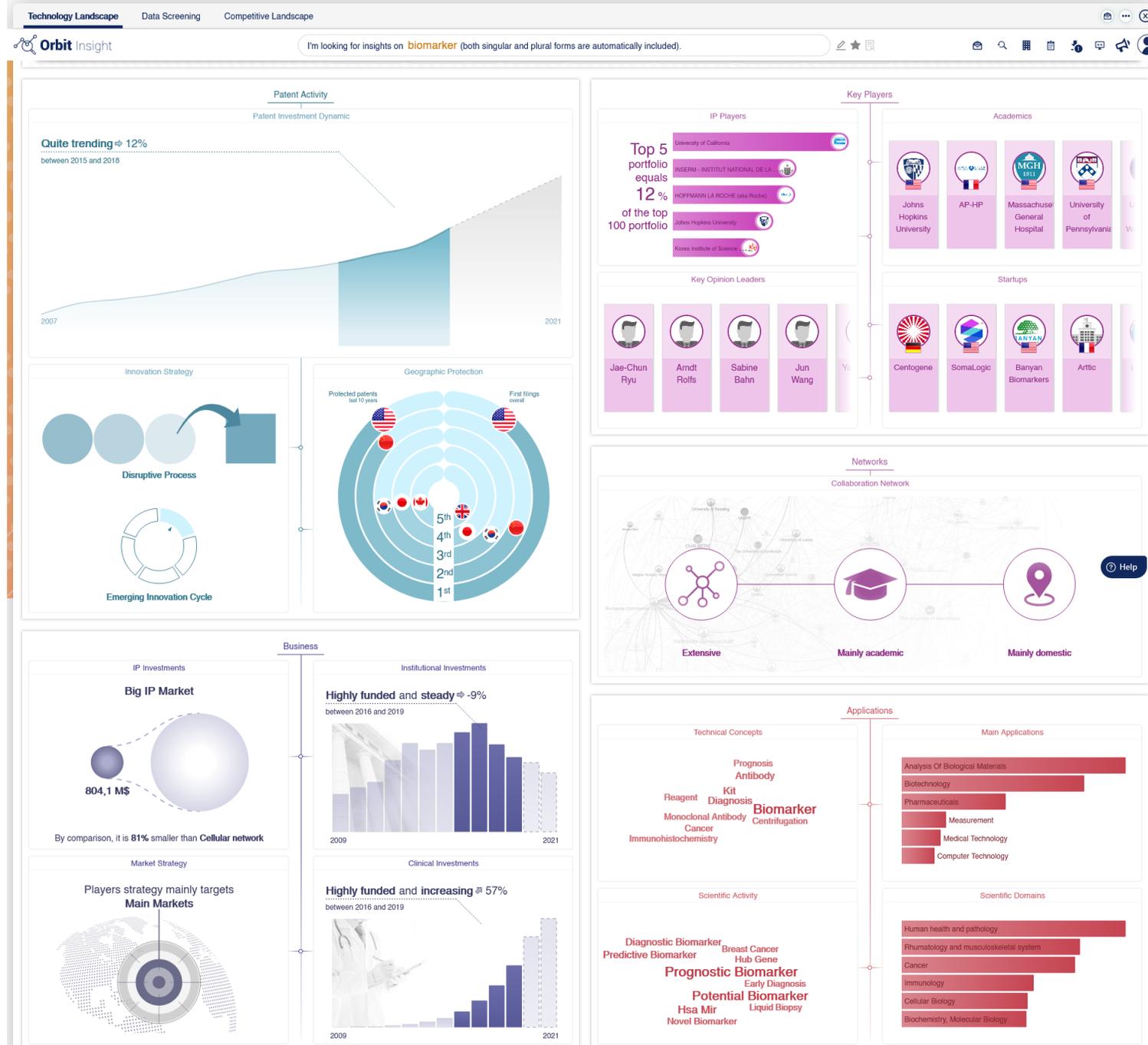
At the top of the interface, there is a header "Big picture thinking to come up with ideas, solutions & opportunities" and a search bar with the placeholder text "Enter concept (biomarker, autonomous vehicle,...) or organisation (Facebook, Samsung,...)". To the right of the search bar is a "SMART" dropdown and a "GO!" button.

TECHNOLOGY LANDSCAPE

Explore

Global trends are outlined using the **Technology Landscape**:

- Volume:** With 189k patent families and 635k articles, we are dealing with a huge domain
- Dynamics:** Activity is booming for patent protection and R&D. The amount of investment is important.
- Technologies:** Neural network & Machine Learning are the mainstream technics.
- Players:** Chinese entities & US big techs are leading the domain.

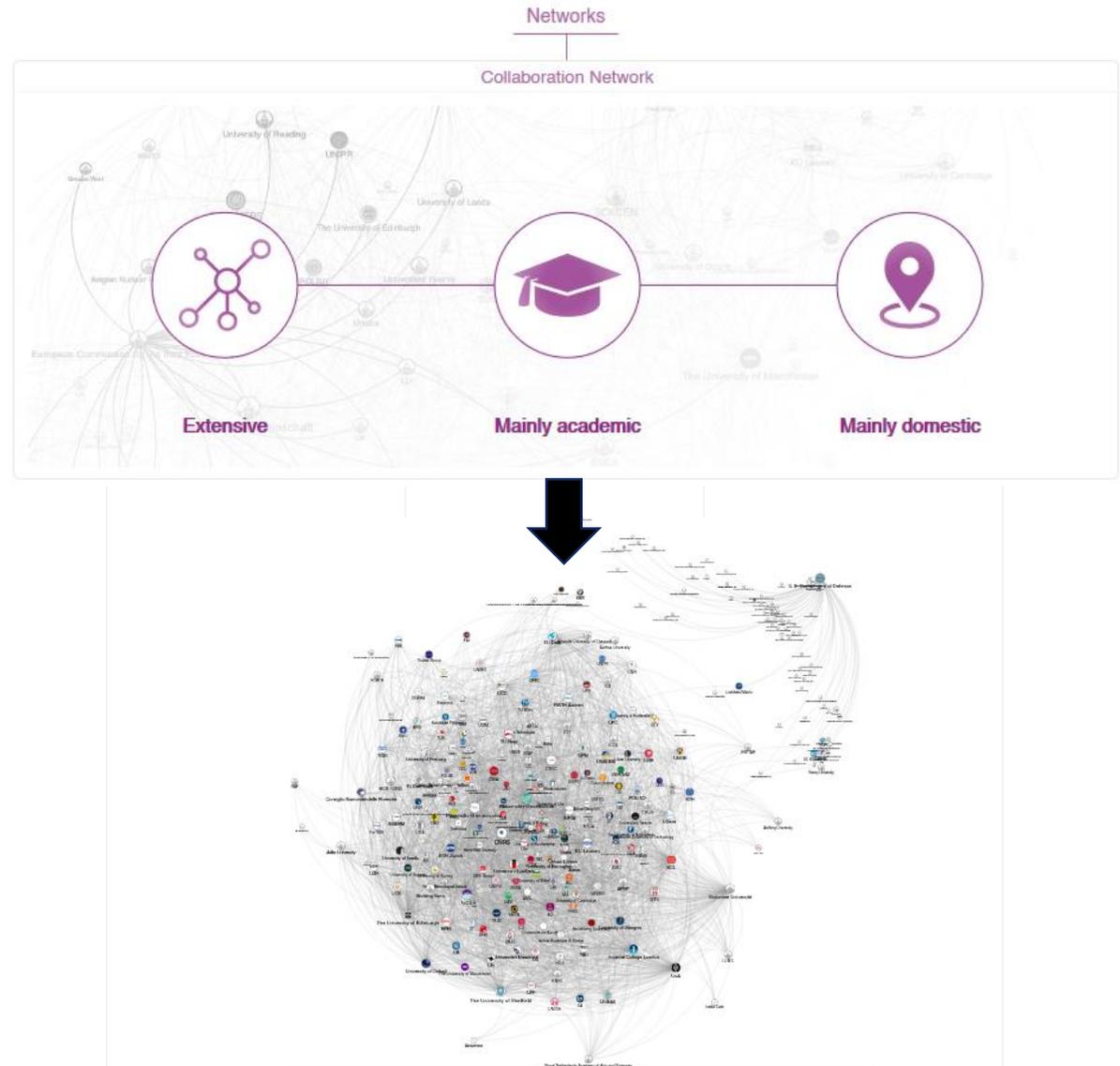


TECHNOLOGY LANDSCAPE

Explore

The collaboration intensity and the type of network (academic, geographic...) help to assess if the domain is willing to pursue open innovation projects and if collaboration is an avenue to access skills and knowledge.

In AI, collaboration is mandatory between people owning the technology and companies ownership of the use cases. No borders exist and entities everywhere are collaborating together.



TECHNOLOGY LANDSCAPE

Forecast

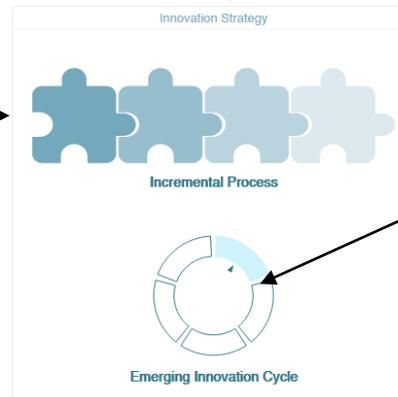
The difference between the volume of patents and the volume of articles – just like the number of institutional R&D projects - informs about the maturity of the topic.



Innovation metrics visually represent the way innovation is developed on a technology.

The greater the dispersion of IPC/CPC subclasses of the cited patents, the higher the disruption

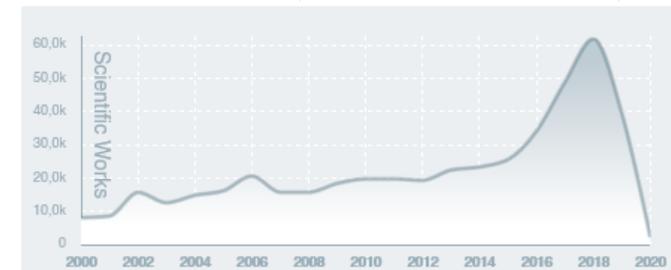
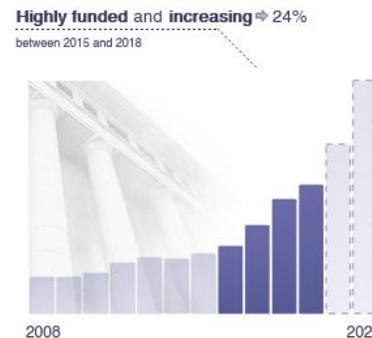
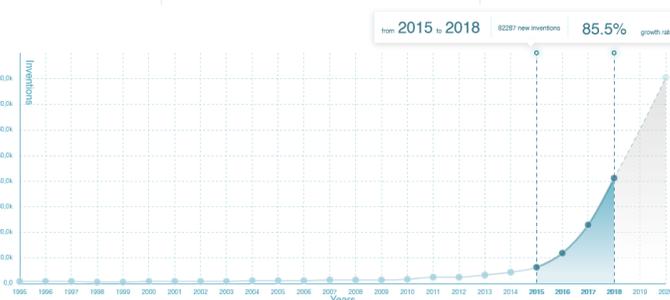
AI is in incremental innovation process



The higher the weight of the main patent holders, the more mature the market

AI is still an emerging technology with a high dispersion of the rights

Dynamics analyses forecast the future trends



TECHNOLOGY LANDSCAPE

Learn

New products and startups are flourishing everyday and reviewing the unstructured data of the web allows to identify description or specification of products and services.

Aurora-AI is a young startup without patents or scientific work. Specialized in Deep learning for aeronautics, it is still an important player to be considered.

2531403 web contents

- Archive
- Excel Document
- HTML Page
- Office Document
- OpenDocument Sheet
- OpenDocument Text
- PDF Document
- PowerPoint Document
- RSS Feed
- Rich Text Format
- Text
- Word Document
- XML Document

Web content type

http://www.indicalab.com/wp-content/uploads/2018/07/AI-white-paperv2Oct28.p	pdf	http://www.indicalab.com/wp-content/uploads/2018/07/AI-white-paperv2...	Indica Labs
Enabling Embedded Vision Neural Network DSPs	pdf	https://ip.cadence.com/uploads/1208/TIP_WP_8611_Vision_C5_FINAL...	Cosmic Circuits
Enabling Embedded Vision Neural Network DSPs	pdf	https://ip.cadence.com/uploads/1208/TIP_WP_8611_Vision_C5_FINAL...	Cadence Design Systems
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c64ab48d-45fd-4544-95b8-65a91b84a58c.pdf	pdf	https://www.anylogic.com/upload/Integrating_Artificial_Intelligence_Wil...	AnyLogic North America
PowerPoint Presentation	pdf	http://aurora-ai.com/wp-content/uploads/2018/03/Vacancy-AI-Research...	Aurora-AI
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Deep Learning for Cybersecurity Use Cases - White Paper	pdf	http://technicacorp.com/wp-content/uploads/2016/11/WP_Deep-Learnin...	Technica Corporation
Data Analysis and Machine Learning Lecture 13: From Artificial Intelligence to Machine L...	pdf	http://www.thalesians.com/finance/images/Lecture13.pdf	Thalesians

AURORA-AI
POWERED BY DEEP LEARNING

VACANCY: AI RESEARCH ENGINEER

Company Background
Aurora creates Artificial Intelligence solutions for the Air, Industry and other sectors. We are a UK leader in the provision of Deep Learning technology and face recognition solutions. Our state-of-the-art applications have been delivered to over 1000 sites in the UK and globally.

At the heart of Aurora's portfolio is our Artificial Intelligence platform. Recent advancements in AI techniques (particularly Deep Learning) have accelerated improvements in performance and this now forms the main focus of our research and development efforts. We pride ourselves in the ability to take theory and innovation and apply it to challenging problems in the real world.

The Role
We have a vacancy for an AI Research Engineer to assist in the development of AI Deep Learning systems within our existing team of talented data scientists, research engineers and AI developers.

You will have the opportunity to work with state-of-the-art Deep Learning technology to solve challenging problems in the delivery of AI solutions. You will work as part of the AI core team.

This involves analysis and processing of large quantities of data in preparation for training a Deep Neural Network to solve the given task. This is followed by the monitoring of Deep Learning training cycles, before ultimately deploying a trained Neural Network into a complete software pipeline, either as part of an SDK or end-user application for use in customer systems.

This role will require working as part of a team in a collaborative effort to solve the given challenges. The current AI group is a multi-national, multi-disciplinary team of nine PhDs, MScs and experienced software engineers that work in a fast-paced environment focused on real world systems delivery.

You will be given the opportunity to acquire new skills, through training and research of the latest techniques, with rapid transfer to challenging problems for our broad range of customers.

LOCATION: HIGHAM FERRERS, NORTHAMPTONSHIRE
SALARY: NEGOTIABLE DEPENDING ON SKILLS AND LEVEL OF EXPERIENCE
ADDITIONAL BENEFITS: HEALTH CARE, PENSION CONTRIBUTION, HOME AND OFFICE WORKING

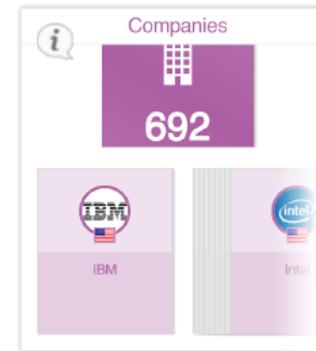
TECHNOLOGY LANDSCAPE

Learn

The best companies are the most impactful ones on the ecosystem and are ranked according to our algorithms. This ranking helps to get an objective third-party opinion and focus on some players for rational reasons.

For patents, the volume of production for the Chinese universities position them as dominant. However, when other innovation components are considered, we see a large domination of the US bigtechs, especially IBM and Google. Chipmakers are not far behind, like Intel and Samsung.

Data Screening



Name	Country
IBM	United ..
Intel	United ..
Alphabet	United ..
Samsung Electronics	South ..
Siemens	Germany
State Grid Corporation of China	China
Adobe Systems	United ..
Microsoft	United ..
Thales Group	France
Koninklijke Philips	Netherl..
DFKI	Germany
Baidu	China

Technology Landscape



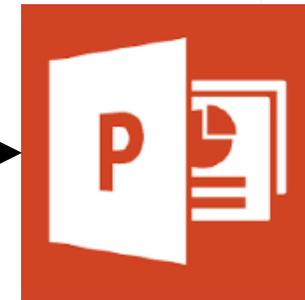
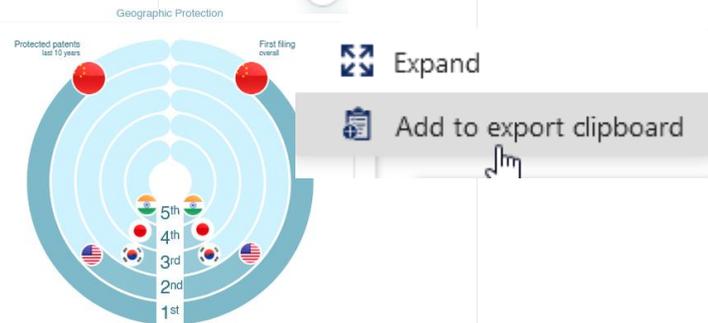
Name	Country
IBM	United ..
Microsoft Technology Licensing Lic	United ..
State Grid Corporation of China	China
Zhejiang University	China
Samsung Electronics	South ..
PINGAN TECHNOLOGY	
Beijing University of Technology	China
Tsinghua University	China
University of Electronic Science and Technology of China	China
South China University of Technology	China
Chongqing University	China

TECHNOLOGY LANDSCAPE

Report

All charts and data can be exported as a picture or an Excel spreadsheet : It means data can be manipulated and reports can be shared with management or team mates in the company.

Name	A.K.A.	Class...	Acron...	Type	Cour...	
<input checked="" type="checkbox"/> IBM	international business machin...		IBM	Company		Add to export clipboard
<input type="checkbox"/> Fanuc Corporation				Company		4 organisations selected
<input type="checkbox"/> Siemens	Siemens AG			Company		First 100 organisations
<input checked="" type="checkbox"/> Intel	n m electronics; Intel Corporation			Company		First 500 organisations
<input checked="" type="checkbox"/> Samsung Electronics	Samsuna; Samsung Electronic...			Company		First 1000 organisations



TECHNOLOGY LANDSCAPE

Report

Generate attractive and comprehensive reports

Orbit Insight

I'm looking for insights on **artificial intelligence** (or machine learning, neural network, deep learning) (both singular and plural for...)

Technology Landscape Data Screening

One click report

Artificial Intelligence

17 slides selected on 17

Geographic Protection

Protected patents last 10 years

First filings overall

hide insight

The IP activity is mainly located in China and it also shows an observable acceleration last year. Furthermore, analysing first filings, R&D activities mainly take place in China, United States, South Korea, Japan & India

Which country's have activity around the technology I am evaluating?

By analyzing the protected countries of patent families, you can visualize the main markets where there is activity around the technology. Moreover, you will identify areas where the technology is exploding and where it is not present or declining. Areas free from exploitation will appear. Furthermore, most companies file their first patent filings where their R&D is carried out. The analysis of these first filings makes it very easy to identify the key countries in terms of research and thus where it will be important to protect well through patent filings.

hide chart

5th

4th

3rd

2nd

1st

Cancel Save Generate

Display charts only

Display charts and lists

Monitor search

Generate one click report

Add to export clipboard

Help

TECHNOLOGY LANDSCAPE

Watch your Ecosystem

What is the latest news? The latest funding or M&A? The last patents filed or collaborations that are taking place?... Get **competitive insights** automatically and receive weekly or monthly directly in your mailbox

The image shows a screenshot of the Orbit Insight dashboard and an open Insight Feed window. The dashboard has an orange header with the text "Big picture thinking to come up with ideas, solutions & opportunities" and a search bar containing "Enter concept (biomarker, autonomous vehicle,...) or organisation (Facebook, Samsung,...)". Below the search bar are two columns: "Last searches" and "Last news". The "Last searches" column lists searches for "lidar", "MRNA vaccine", "artificial intelligence", and "biomarker". The "Last news" column lists several news items, including "DefinedCrowd CEO Daniela Braga on the future of AI", "Interview with Buck Jordan, Miso Robotics CEO", "Deloitte to launch AI Institute initiative in Canada", "Peak AI nabs \$21M for a platform to help non-tech startups", "Miso Robotics Equity Crowdfunds \$17M, Extends to 2021", "ServiceNow closes US\$230-million acquisition", and "What Most People Don't Understand About AI".

The "Insight Feed" window is open, showing a list of news items. The first item is "BioNTech co-founder says gender equality made vaccine possible" from theguardian.com, dated Monday, March 08, 2021. The second item is "BioNTech (or one of its subsidiaries) published a new patent : Neoantigenos y usos de los mismos". Below this are tabs for "CORPORATE ACTIVITY", "NETWORK & INFLUENCE", and "SCIENTIFIC ACTIVITY". The third item is "Total forms joint venture for C&I solar deployment in Saudi Arabia" from zpr.io, dated Thursday, March 04, 2021. The fourth item is "Clean Energy, Total sign JV for renewable natural gas production" from heurix.com, dated Thursday, March 04, 2021. The fifth item is "'It's like LNG 40 years ago.' Total and Iberdrola CEOs weigh the future of hydrogen" from fortune.com, dated Thursday, March 04, 2021. Below this are tabs for "CORPORATE ACTIVITY", "NETWORK & INFLUENCE", and "SCIENTIFIC ACTIVITY".

At the bottom of the dashboard, there is a section titled "Orbit Insight - Insight Feed" with the text "YOUR WEEKLY OR MONTHLY INSIGHT FEED DELIVERED IN YOUR MAILBOX". Below this is a call to action: "Get FRESH NEWS and LATEST UPDATES about SEARCHES & COMPANIES that MATTER FOR YOU".



We provide the tools. You create the future.

So what are you waiting for?

Get in touch and ask for a personal demo or talk with one of our experts.

contact help@questel.com

Do you need more information?

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