

NEWSEFFECT

I N N O V A T I O N F R O N T I E R

August' 2026



CONTENTS

AI Advancements

Disruptive Technologies

IP Insights

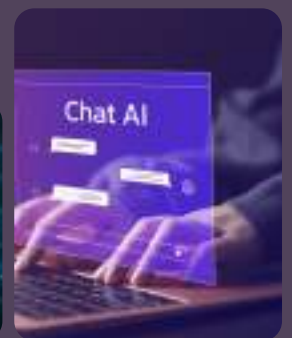
IP News

Technology Themes

Our Company's Growth &

SUCCESS IN 2026

We are incredibly proud to celebrate **Dr. Amit Goel**, Director at **Effectual Services**, on being featured in the **IAM Strategy 300** – The World's Leading IP Strategists 2026.



AI ADVANCEMENTS

China bets on AI weather forecasting as extreme weather intensifies

AI models can now accurately predict typhoon paths, with Fengwu forecasting Typhoon Dolphin's landfall within 30 minutes and 30 km, five days in advance. However, AI still struggles to predict storm intensity and major climate events. Sun emphasizes that years of research are needed to build public trust in AI-driven climate predictions, such as El Niño events and changes in fish breeding cycles.



ASTRI and Saint Francis University Sign MoU to Advance AI-Enabled Biomaterials and Digital Health Innovation

The Hong Kong Applied Science and Technology Research Institute (ASTRI) and Saint Francis University (SFU) have signed a Memorandum of Understanding (MoU) to establish a strategic partnership focused on advancing research and development in AI-enabled biomaterials and digital health technologies. The collaboration aims to accelerate innovation, facilitate technology transfer and nurture the next generation of talent in applied sciences.

Safety fears as scientists make first viruses designed by AI

AI-designed bacteriophages - viruses that target bacteria - successfully killed E. coli strains resistant to natural phages in lab tests. Researchers generated thousands of viral genomes, tested nearly 300 and identified 16 viable phages. A cocktail of these rapidly overcame resistance in two E. coli strains



AI ADVANCEMENTS

Human clinicians outperform AI stethoscope in diagnosing pet heart problems

Veterinary students and experienced clinicians outperformed an AI-enabled digital stethoscope in detecting heart murmurs and arrhythmias in cats and dogs, according to an NC State study. The findings highlight the continued importance of human expertise in AI-assisted diagnosis, especially with “universal” tools.



Sonova unveils new AI-powered hearing-aid platform to support growth targets

Sonova has launched its third hearing-aid platform powered by real-time AI, aiming to strengthen its position in a fast-evolving market. Its new Phonak EON platform is smaller and lighter, with advanced AI designed to make speech twice as understandable while reducing listening effort.

Artificial Intelligence used to design brand new viruses

AI has been used to design fully functional viruses from scratch for the first time. Researchers created 16 novel bacteriophages that can infect bacteria but pose no threat to humans. The breakthrough could transform disease treatment, though experts warn it also raises urgent safety and security concerns.

Google DeepMind scales AI-powered farming tools across Asia Pacific and Africa

AI models ALU and AMED use satellite imagery to map fields and monitor farming. Developed for India and now tested in 11 countries, they support sustainable agriculture, farmer credit access and smarter resource management.

Artificial Intelligence (AI) for Schoolwork

AI is already transforming education through grammar checkers, adaptive learning, assistive tools, tutoring systems, chatbots, educational games and test preparation. While many students benefit from these technologies, others are concerned about AI's growing influence on learning.



DISRUPTIVE TECHNOLOGIES

DRL, Emcure get approval to make breakthrough HIV drug

India's drug regulator has cleared the way for Dr. Reddy's Laboratories and Emcure Pharmaceuticals to manufacture generic lenacapavir, a breakthrough long-acting HIV-prevention drug. The medicine is administered twice a year, offering a major convenience advantage over HIV prevention options that require more frequent dosing. The regulator has waived local Phase III and bioequivalence trials for the prevention indication, but has required both companies to conduct a Phase IV efficacy study in India after marketing approval. Lenacapavir targets the HIV capsid and provides long-lasting protection through only two injections annually.



Chai Discovery, Bristol Myers Squibb Collaborate on AI-Driven Antibody Discovery

- **Objective:** Chai Discovery and Bristol Myers Squibb (BMS) aim to accelerate antibody discovery using AI.
- **Technology:** BMS will use Chai's molecular folding and design models to discover and develop new antibodies.
- **Key innovation:** AI can predict molecular interactions and design biomolecules, reducing reliance on trial-and-error.
- **Potential:** The technology could help tackle previously undruggable or unexplored targets.
- **Impact:** The collaboration aims to shorten drug discovery timelines and advance self-learning AI-driven drug discovery.



DISRUPTIVE TECHNOLOGIES

Kimberly-clark unveils proprietary alternative natural Fiber innovation program to advance its "better care for a better world" commitment

Kimberly-Clark has developed a sustainable natural-fiber alternative using hesperaloe, a fast-growing, drought-tolerant succulent, to reduce reliance on forest-sourced fibers. After evaluating more than 70 alternatives, the company developed technology that delivers the strength and softness needed for products such as diapers and tissue. A pilot plant in Yuma, Arizona, will assess the technology's commercial potential.



Innate Pharma Enters Strategic Partnership With Sobi to License Lacutamab in T-cell Lymphoma

- **Partnership:** Innate Pharma and Sobi to develop lacutamab, a first-in-class anti-KIR3DL2 antibody for CTCL and Sézary syndrome.
- **Next step:** Launch of TELLOMAK-3 Phase 3, potentially supporting accelerated approval.
- **Innovation:** Targets KIR3DL2, a protein linked to malignant T cells.
- **Deal:** \$75M upfront, up to \$505M in milestones, plus double-digit royalties.
- **Potential impact:** Could offer a new targeted treatment for patients with limited options.

IP INSIGHTS

On Perovskite–Silicon Tandem Solar Cells

What is Perovskite–Silicon Tandem Solar Cells ?

Perovskite–silicon tandem solar cells are multi-junction photovoltaic devices that stack a metal halide perovskite top cell on top of a traditional silicon bottom cell to capture a broader range of the solar spectrum and achieve higher energy conversion efficiencies than either material can reach alone.



Application of Perovskite–Silicon Tandem Solar Cells?

- **Utility-scale Solar Farms:** Perovskite-based tandem and multijunction PV systems offer the promise of generating greater power output at reduced costs, all while being lightweight. This quality makes them an exciting option for replacing traditional silicon solar panels in utility-scale solar energy production.
- **Electric Vehicles (EVs):** With the surge in popularity of electric vehicles, perovskite-based tandem and multijunction PV systems emerge as promising renewable energy solutions. Their high efficiency, cost-effectiveness and adaptability position them as viable options for powering EVs.
- **BIPV (Building Integrated Photovoltaics):** Similarly, perovskites possess appealing attributes such as high efficiency, cost-effectiveness, lightweight construction and compatibility with various substrates, making them well-suited for integration into building structures for power generation. Oxford PV stands out as a company dedicated to realizing this potential.
- **Portable Electronics:** Perovskite-based tandem and multijunction solar cells offer significant advantages for portable electronics, including enhanced efficiency, space optimization, versatile integration and sustainability. These benefits make them a promising technology for the next generation of portable electronic devices. This could lead to advancements in the battery life and sustainability of such devices.

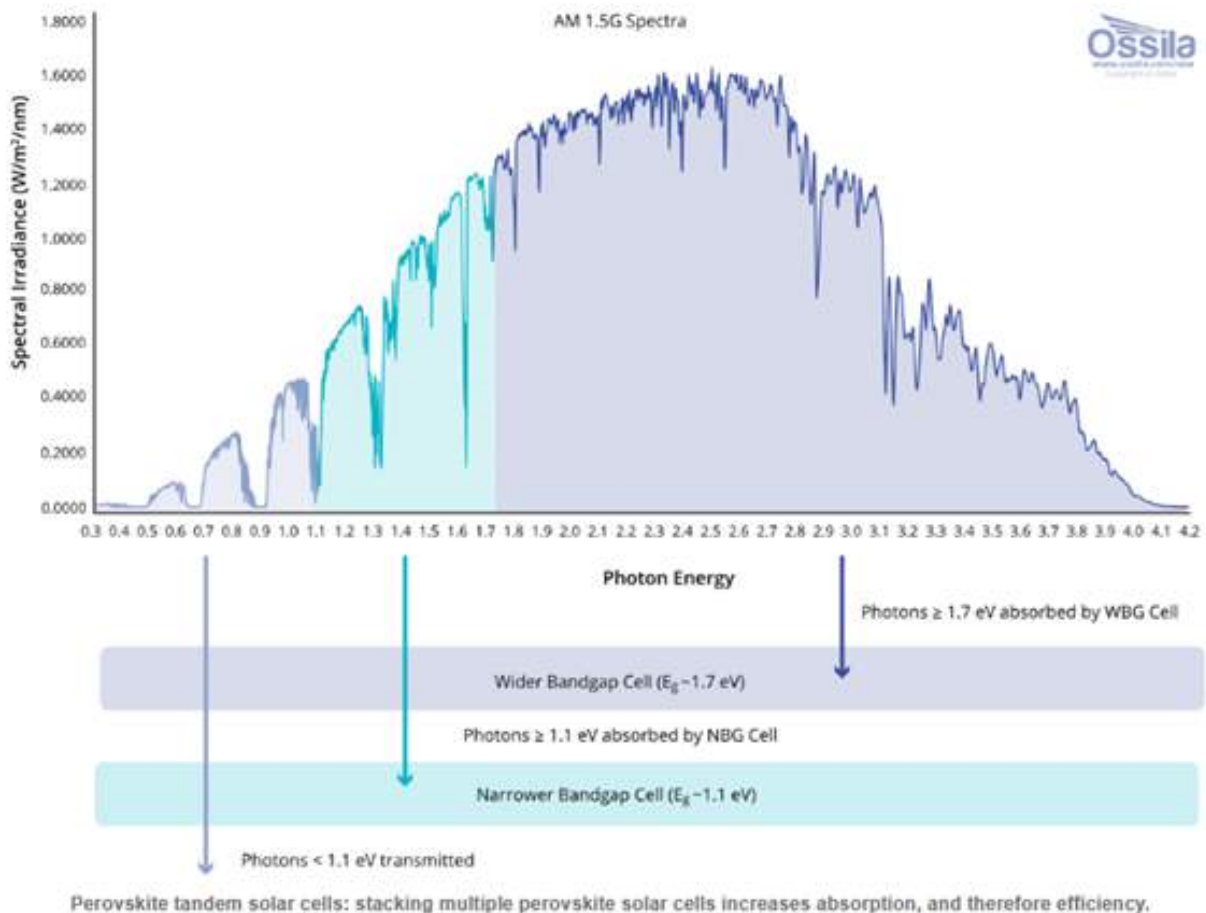


IP INSIGHTS

On Perovskite–Silicon Tandem Solar Cells

How Are Perovskite Solar Technologies Made?

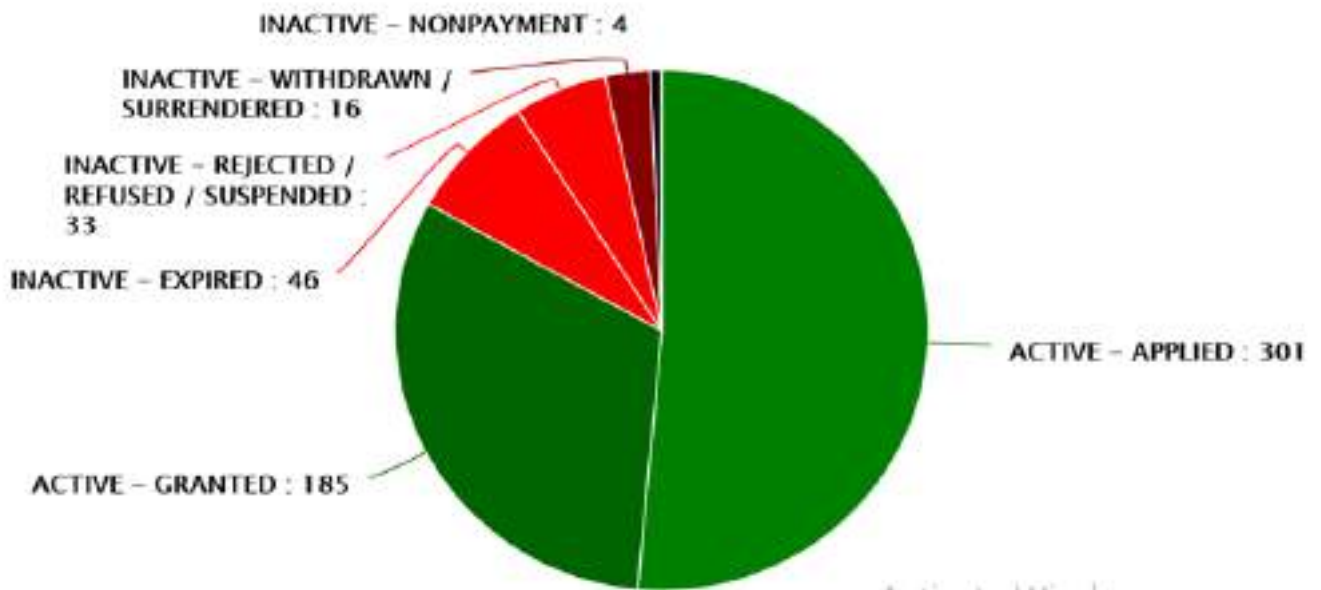
- **Material Creation:** Precursor salts are mixed to form a perovskite ink solution. If the material will be deposited as a vapor, the salts are not mixed until they are deposited together on a cell in the next step perovskite cell production schematic
- **Cell Production:** An ultra-thin layer of perovskite ink or powder is deposited onto a base. The cell is heated to set the film. Other material layers are deposited before (and below) the perovskite layer, or after (and on top of) the perovskite layer. These layers help direct the flow of electrons perovskite module completion schematic
- **Module Completion:** Channels are laser scribed to separate the film into individual cells. Electrical contact channels are scribed to wire those cells together. Edge sealant and encapsulant for weather proofing are added perovskite testing schematic
- **Testing and Development:** The cell or module is tested to gauge its efficiency and durability. Since perovskites are not yet in high-volume production, knowledge gained regarding its materials and electronic properties will be used for further research and development.



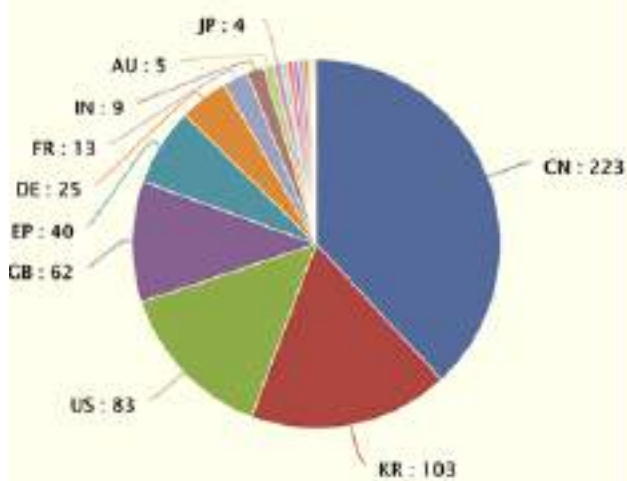
IP INSIGHTS

On Perovskite-Silicon Tandem Solar Cells

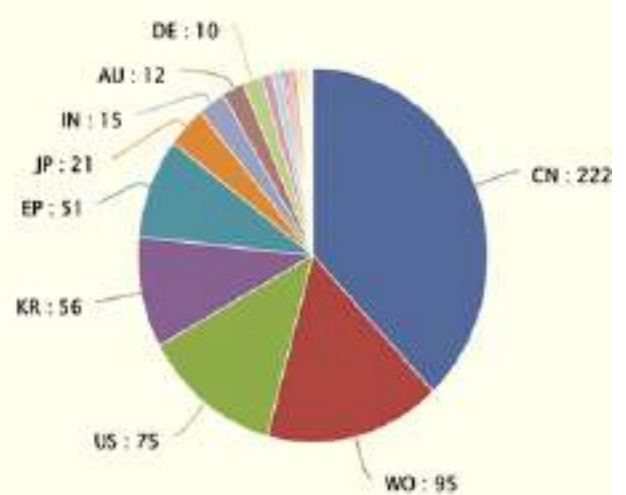
Current Legal Status



Priority Country

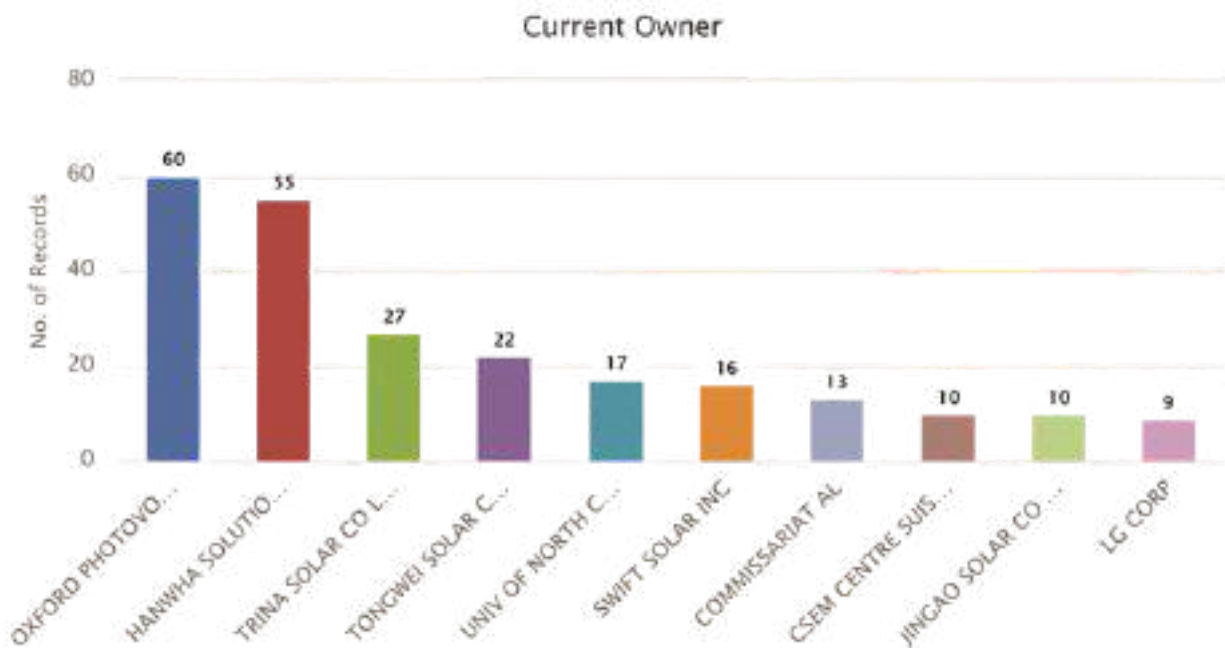
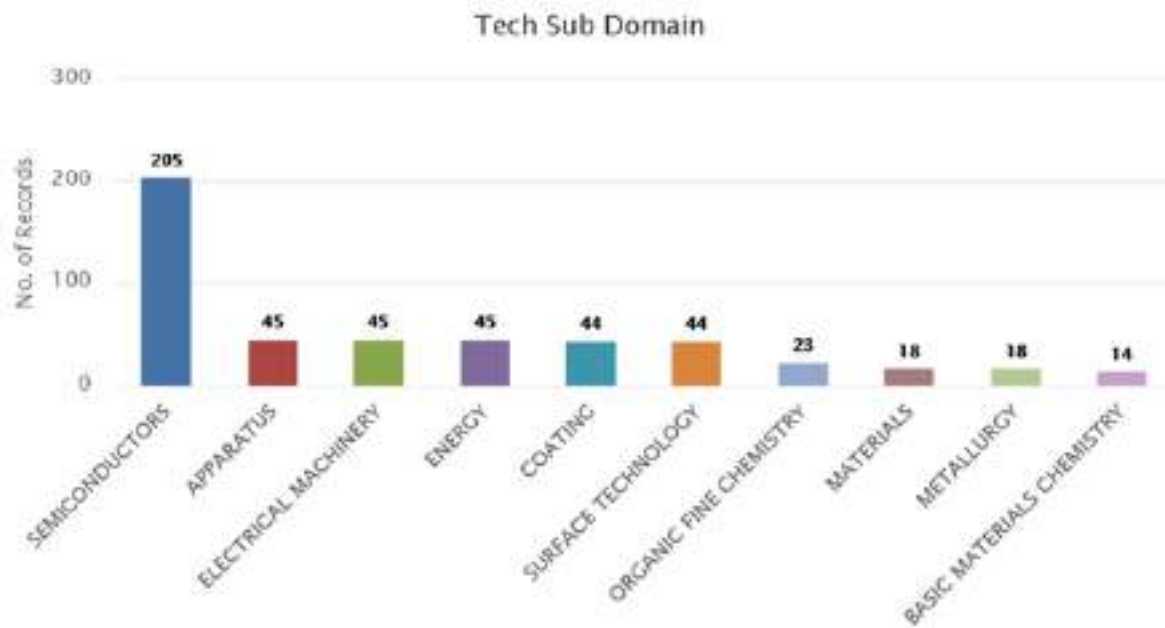


Publication Country



IP INSIGHTS

On Perovskite-Silicon Tandem Solar Cells



IP NEWS

IP-intensive industries provide better paying jobs, employ one-third of total workforce and account for 44% of U.S. gross domestic product: new USPTO study

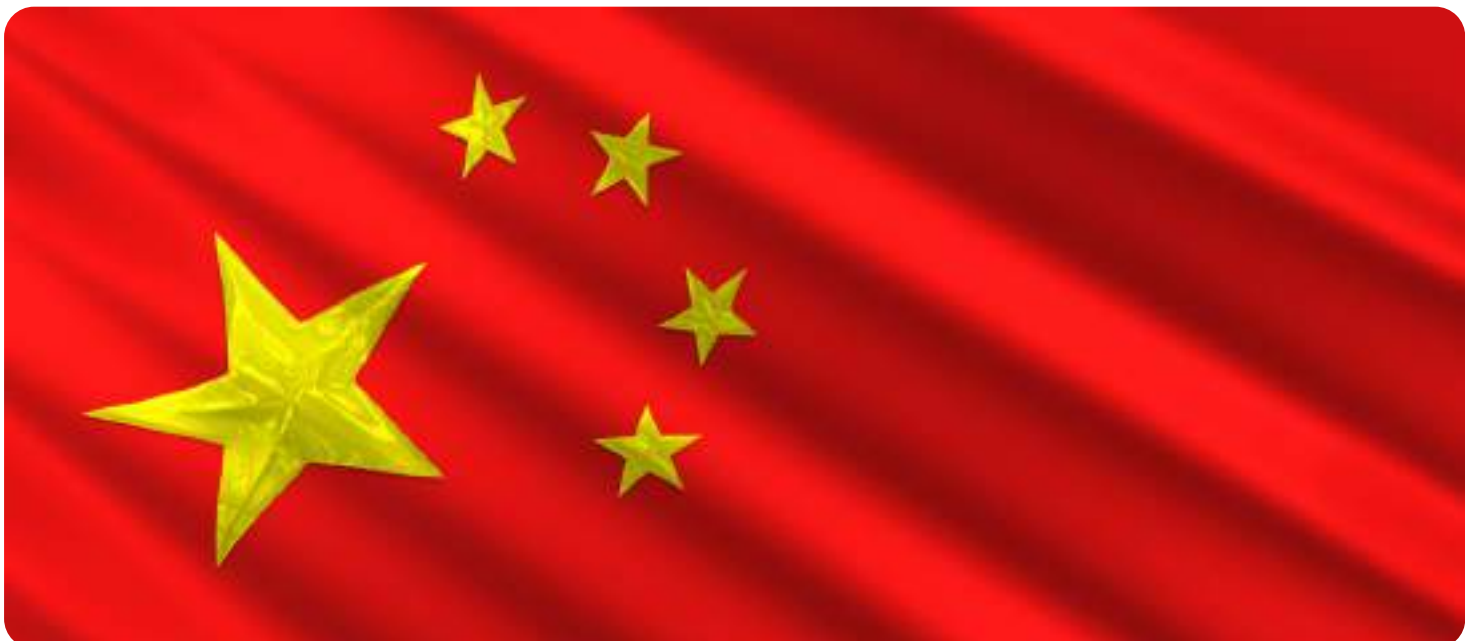
- USPTO report: IP-intensive industries made a major contribution to the U.S. economy in 2024.
- GDP: Generated \$11.4 trillion, or 44% of U.S. GDP.
- Employment: Directly supported 49.6 million jobs (33%), with indirect jobs adding another 11%.
- Exports: 76 of 104 commodity-exporting industries were IP-intensive, accounting for 81.5% of U.S. commodity exports.
- Key sectors: Manufacturing, pharmaceuticals, aerospace, petroleum, retail and professional services.
- Bottom line: IP-intensive industries are a major driver of U.S. economic growth, jobs and exports.



IP NEWS

Why High-Quality U.S. Patent Specifications Face Fatal Failures in China

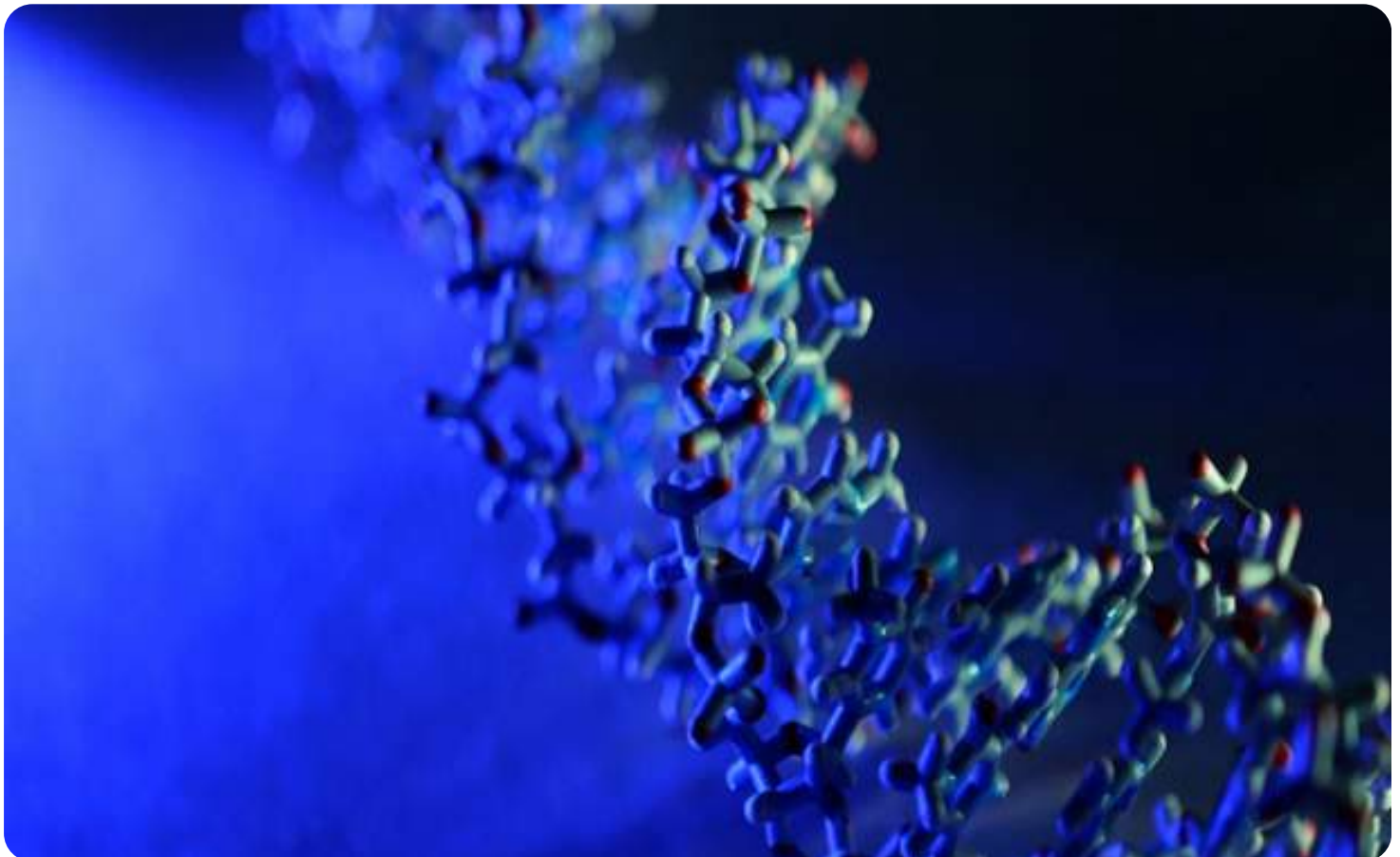
- In 2025, a patent dispute between Chinese companies in the camera-module space drew close attention across the industry — SUNNY v. AAC [Patent Reexamination and Invalidation Department Decision No. 566288, et al.]. The case ended with 11 patents invalidated, four of them in their entirety.
- Three cases, three very different fact patterns — if you are a U.S. patent attorney, these three outcomes probably do not feel like they belong to the same doctrinal category. At least one of them — the secondary-battery materials case, where the court reasoned from “undue experimentation” by a person skilled in the art — looks, from a U.S. perspective, more like an enablement issue. Yet in China, all three sit under a single doctrine: Article 26(4) of the Chinese Patent Law, the requirement that “the claims shall be supported by the specification”.
- No single cause fully explains this gap, but one contributing cause is not seriously disputed: specifications drafted for the U.S. Patent and Trademark Office (USPTO) repeatedly lose scope — or lose the patent altogether — once they reach Chinese examination and litigation.
- For a long time, the conventional explanation for cases like these was a convenient one-liner: “China just applies Written Description more strictly.” China is not applying U.S. doctrine more rigorously. China starts from a different premise about what an “invention” is in the first place. That premise has almost nothing to do with whether the inventor already possessed what is claimed at the time of filing and everything to do with whether the scope of the claim matches what the invention actually contributed to the art. Chinese patent law calls this premise the “Technical Solution.” Understanding it is the single most important thing for not losing rights in China.



IP NEWS

U.S. court orders Guardant to pay \$245 million in DNA sequencing patent dispute

- A U.S. court has ordered Guardant Health to pay more than \$245.2 million to TwinStrand Biosciences and the University of Washington after finding that the company infringed patents covering DNA sequencing technology.
- The U.S. District Court for the District of Delaware entered final judgment on August 21, upholding a 2023 jury verdict that found Guardant had willfully infringed two patents related to TwinStrand's DNA sequencing technology.
- The court ordered Guardant to pay a 6% royalty on U.S. sales of 11 products and services found to infringe the patents until they expire in March 2033.
- The judgment also upheld the validity of the patent claims at issue. TwinStrand's Duplex Sequencing technology is designed to detect rare genetic mutations with greater accuracy than conventional DNA sequencing methods.
- TwinStrand said its technology, developed at the University of Washington, is used in cancer research, diagnostics and drug development.



IP NEWS

AT&T, Verizon, T-Mobile fend off Asus patent lawsuit

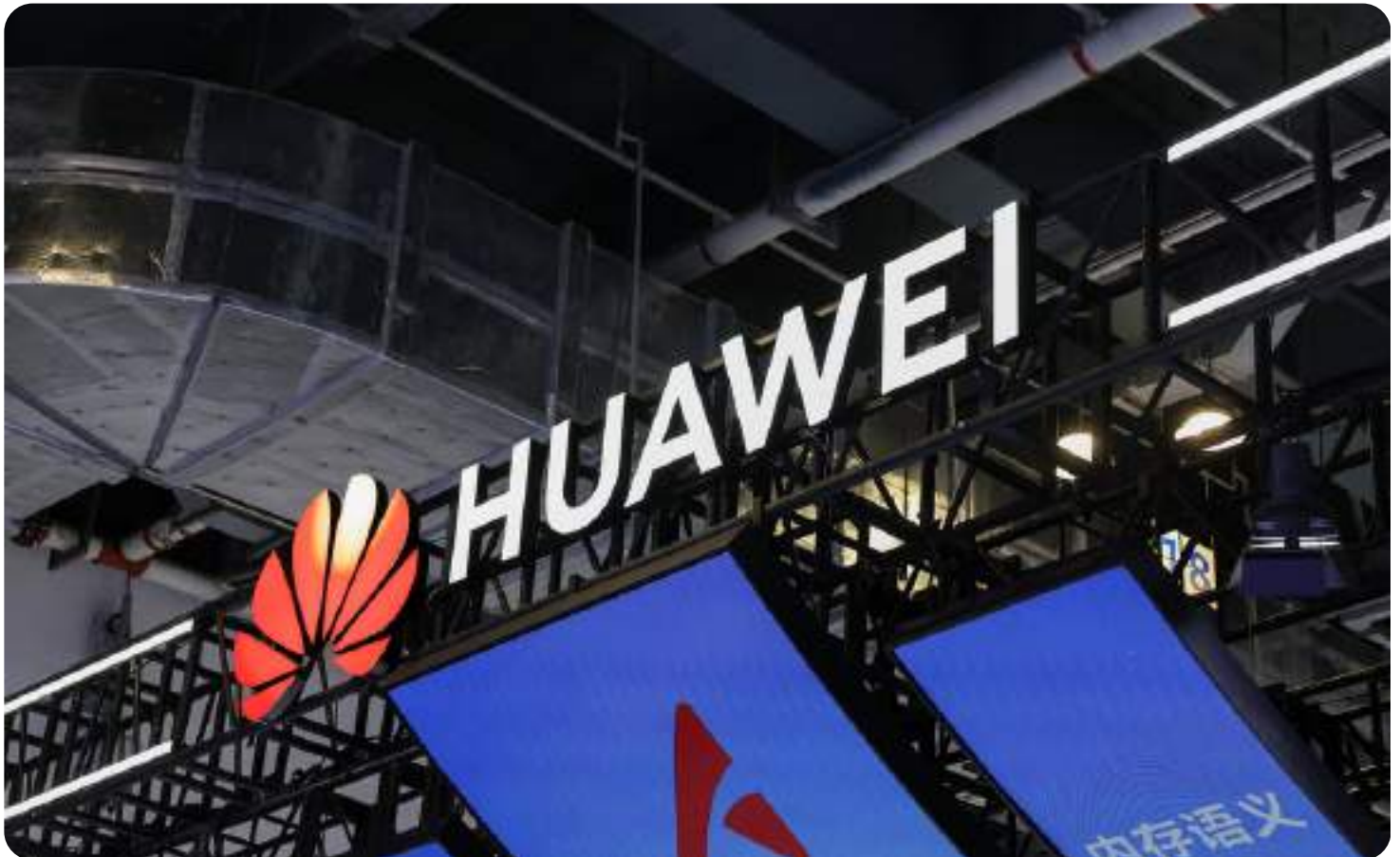
- Texas jury verdict: AT&T, Verizon and T-Mobile did not infringe Asus patents covering 4G/5G technology.
- Patents: The jury ruled that the three patents were invalid.
- Ericsson & Nokia: Cleared of claims related to unfair licensing of standard-essential patents.
- Licensing: The jury also found Asus breached its own fair-licensing obligations to all five companies.
- Damages sought: Asus had sought \$436 million.
- Background: Asus filed the lawsuit in 2023; Nokia welcomed the verdict and said it would continue defending its products against unfounded claims.



IP NEWS

China's Huawei, US PC maker HP sign multi-year Wi-Fi patent deal

- Huawei and HP have signed a multi-year cross-licensing agreement covering Wi-Fi patents, including Wi-Fi 7.
- Both companies gain access to each other's relevant patents; financial terms were not disclosed.
- HP said the deal is a routine standard-essential patent (SEP) licence, not a broader strategic or commercial partnership.
- SEPs are essential for products to comply with industry standards such as Wi-Fi and are commonly licensed across the tech industry.



IP NEWS

WikiHow sues OpenAI for copyright infringement over AI training

- WikiHow has sued OpenAI, alleging it scraped more than 11,000 articles without permission to train its AI models.
- The lawsuit claims OpenAI infringed at least 1,200 registered copyrights and that ChatGPT generates competing how-to content using WikiHow's material.
- WikiHow argues this could reduce traffic and revenue and undermine incentives to produce original content.
- OpenAI says its models are trained on publicly available data and protected by fair use.
- WikiHow is seeking damages and an injunction against further copyright infringement.



IP NEWS

Cytek owes Beckman Coulter \$56 mln in cell-analysis patent case, US jury says

- A Delaware federal jury determined on Friday that Cytek Biosciences' products for analyzing single-cell blood and tissue samples infringe a patent owned by rival Beckman Coulter.
- The jury agreed with Danaher-owned Beckman that Cytek's Aurora flow cytometers and other products violate Beckman's patent rights in technology used in its competing CytoFLEX platform.
- The jury said that Cytek owed Beckman \$36 million in royalties and \$20 million in lost profits.
- The jury had found on Thursday that Cytek did not infringe two of the three patents at issue in the trial and that those two patents were invalid.
- "We are pleased that the jury found in our favor on the substantial majority of claims in this case," Cytek CEO Wenbin Jiang said in a statement. "We fundamentally disagree with the single remaining finding and damages award and intend to pursue all available post-trial remedies, including potentially an appeal."
- Spokespeople for Beckman Coulter did not immediately respond to a request for comment on the verdict.
- California-based Cytek earned \$201.5 million from overall sales of its products last year, according to a company report.



IP NEWS

Novartis defeats UK court bid to invalidate blockbuster drug Entresto patent

- Swiss drugmaker Novartis on Thursday defeated a bid to invalidate its patent for blockbuster heart drug Entresto, with London's High Court rejecting a claim by Intas Pharmaceuticals' Accord Healthcare which was planning a generic rival.
- The ruling is a boost for Novartis as it navigates a busy period of patent expiries including for Entresto, which makes up about 10% of Novartis' sales.
- Novartis' European patent for Entresto, which treats heart failure and can also treat hypertension, expired in 2023 though it still has a so-called supplementary protection certificate which does not expire until 2028.
- Accord applied to the High Court for a ruling that Novartis' patent had always been invalid, while Novartis counterclaimed over the threatened infringement of its patent, with Accord intending to launch a competing product later this year.
- Judge Richard Meade said that "all the attacks on the patent fail". He ruled that Novartis' patent was valid while in force, its supplementary protection certificate was also valid and that Accord's intended product would infringe it.



TECHNOLOGY THEMES

Ericsson runs AI-native link adaptation scheduler trial with SoftBank

Ericsson and SoftBank have conducted Japan's first validation of an AI-native Scheduler for Link Adaptation on SoftBank's commercial 5G network. The AI-based scheduler operates directly within the RAN and makes real-time decisions based on changing radio conditions. Compared with conventional technology, the trial achieved up to 25% improvement in spectral efficiency and up to 50% higher downlink user throughput, with average improvements of around 10% across the evaluated areas. The technology particularly helps optimize performance for users at cell edges, in congested areas and under high interference, demonstrating the potential of AI-native RAN for future 5G-Advanced and 6G networks.



AI-RAN: The Hard Questions Behind the Hype

AI-RAN is emerging as a potential path to AI-native 6G, with Nokia and Ericsson developing approaches to integrate AI into radio networks. While Nokia targets higher spectral efficiency and a 5G-to-6G transition, operators remain cautious about added compute, power, cooling and hardware costs. Standardization efforts by the AI-RAN Alliance aim to enable multi-vendor deployments. For now, operators are prioritizing trials and measurable gains, with the key challenge being to prove real-world performance improvements at a sustainable cost.

TECHNOLOGY THEMES

Q-FE:UAE's vision for AI-native 6G: The shift to autonomous, predictive telecom infrastructure

The UAE is developing a vision for AI-native 6G networks that goes beyond faster connectivity to create intelligent, autonomous and predictive telecom infrastructure. The approach focuses on enabling networks to sense their environment, predict changing conditions and automatically optimize network operations. Intent-based networking could allow operators to specify desired outcomes instead of manually configuring networks, while Network Digital Twins could support virtual testing, optimization and predictive management. The UAE aims to establish intelligent telecom platforms capable of supporting advanced AI applications, autonomous systems and future 6G services.



Digital Twin Networks for 6G Wireless Systems: Architecture, Enabling Technologies, Intelligent Control and Open Challenges

Digital Twin Networks (DTNs) are emerging as a key 6G technology, creating real-time virtual replicas of wireless networks for monitoring, prediction and control. Passive twins enable monitoring, while active twins support closed-loop network optimization. AI, ray tracing, RIS and MEC are key enablers, with applications spanning smart cities, Industry 5.0, healthcare and smart grids. Key challenges include high computing demands, actuation latency, scalability and zero-trust security.

TECHNOLOGY THEMES

NetSense™ system combines 5G, commercial technology and AI to detect Unmanned Aerial Systems

Lockheed Martin's NetSense™ prototype demonstrates how existing commercial 5G networks can be used as an additional layer for real-time detection of unmanned aerial systems. The system identifies changes in radio-frequency signals caused by drones entering the network environment and uses AI to analyze these patterns. By leveraging existing cellular infrastructure rather than dedicated sensing hardware, NetSense could provide scalable aerial awareness in crowded or complex environments.



Why the first AI-native 6G cores will run on 5G foundations

The first AI-native 6G core networks are likely to evolve from existing 5G infrastructure rather than being built entirely from scratch. The proposed architecture could combine an evolved 5G core with new 6G control functions and an AI domain/AI plane that embeds intelligent agents across network functions. This approach would allow operators to reduce deployment costs and operational disruption while gradually introducing AI-native capabilities. Service intent could enable AI orchestration to translate application requirements into optimized network resources. The article highlights that a fully new AI-native core may be technically attractive, but practical and financial constraints make an evolutionary path more realistic for early 6G deployments around 2030.

GLANCE @EFFECTUAL



A Proud Moment for Effectual Services

We are incredibly proud to celebrate Dr. Amit Goel, Director at Effectual Services, on being featured in the IAM Strategy 300 – The World's Leading IP Strategists 2026.

We are delighted to share that our esteemed leader, **Dr. Amit Goel**, has been featured by The Enterprise World in its prestigious issue **"Top Pioneering IP Management Experts to Watch in 2026."**



GLANCE @EFFECTUAL



P R E S E N T S

GLA MENA

The Middle East Arbitration, Litigation & Disputes Summit

Where Global Disputes, Arbitration & Commerce Converge



16th - 17th November' 2026



Dubai, UAE

ABOUT GLA MENA

GLA MENA is the Middle East edition of the Global Legal Association's flagship disputes platform. Unlike conventional conferences, GLA MENA is curated as a closed-door executive summit designed to convene the senior leaders shaping the future of arbitration, litigation, mediation, enforcement and cross-border commerce.

The summit brings together leading arbitrators, judges, general counsel, law firm partners, arbitral institutions, policymakers, sovereign stakeholders and multinational legal leaders to exchange ideas, build strategic relationships and influence the future of global dispute resolution.

BY INVITATION & SELECTION ONLY

GLA MENA is intentionally limited to approximately **100 senior participants** to maximise:

- Meaningful conversations
- Relationship building
- Business development
- Executive networking

SCAN & BE A PART OF
GLA MENA



GET IN TOUCH

The sum of
human
ingenuity and
expertise that
powers us.

Human interactions
that drive
innovation.



**Effectual
Services**
Intelligence That Matters

For more information connect with us



✉ info@effectualservices.com



OUR OFFICES



USA

📍 Suite-427,425
Broadhollow Road,
Melville | NY-11747

☎ +1-972-256-8133



INDIA

📍 SDF A-05, NSEZ, Noida-
Dadri Road, Noida
Phase II -201305

☎ +91-120-452-2210



SINGAPORE

📍 531A, Upper Cross
Street, Singapore-
051531

☎ +91-120-452-2211