JULY' 2025

NEWSEFFECT

INNOVATION FRONTIER

Our Company's Growth &

SUCCESS IN 2025

Our beloved leader - **Dr. Amit Goel** has been recognized & included in the renowned **WIPR - World IP Review** Leaders 2025 Directory, which is a testament to our expertise in the field of IP.

EffectUal Services
Intelligence That Matters

CONTENT

- AI ADVANCEMENTS
- DISRUPTIVE TECHNOLOGIES
- IP INSIGHTS
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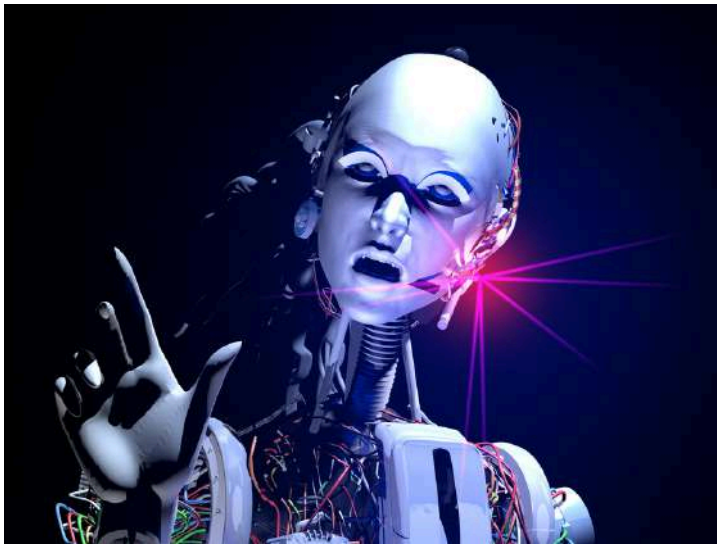
AI ADVANCEMENTS

AI tool helps doctors predict hospital death risk in cirrhosis patients.

Researchers from Virginia Commonwealth University School of Medicine & the CLEARED Consortium developed an AI model to better predict mortality risk in hospitalized liver patients. Published in Gastroenterology, the study compared four models - one traditional statistical method & three advanced machine learning approaches - to identify patients at greatest risk of dying.

Hexagon: The AI Robotics Transformation in Manufacturing

AEON combines Hexagon's sensor technology with AI-driven movement and a battery swapping system, enabling continuous, precise operation across multiple shifts. Designed to meet industrial standards, it is currently being tested in real production environments with established manufacturers.



GENOMED4ALL

The GenoMed4All project: Advancing precision medicine in blood disorders through AI

We aim to advance personalized haematology by applying AI to clinical, multi-omics, and real-world data. This integrated approach enhances diagnosis, treatment assessment, and outcome prediction through a secure platform.

AI ADVANCEMENTS

The role of space tech and AI in building climate resilience

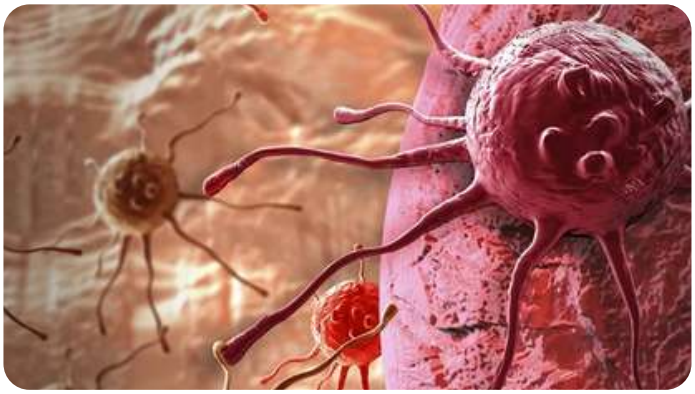
RSS-Hydro's FloodPin uses satellite imagery, hydrology, and AI to deliver fast, accurate flood insights by processing data directly in orbit. This reduces delays, enabling near real-time event mapping and impact assessments, crucial for timely disaster response.

Reimagining Architectural Education; Integration of AI at NYIT's School of Architecture and Design

AI is transforming architecture, and at NYIT's School of Architecture and Design, this shift has prompted a complete rethink of architectural education. While many schools debate AI's role, NYIT has already adopted a forward - thinking, multi - faceted approach.

AI-designed proteins bring personalized cancer treatment within reach.

- AI platform developed by DTU and Scripps tackles a key cancer immunotherapy challenge.
- Targets tumor cells while sparing healthy tissue by leveraging T cell recognition of peptides on pMHC molecules.
- Personalizing treatments is difficult due to T-cell receptor variation.
- Tested on cancer target NY-ESO-1, common in many cancers.
- Successfully designed a minibinder protein that binds tightly to NY-ESO-1 pMHC.
- Minibinder inserted into T cells created 'IMPAC-T' cells, which effectively kill cancer cells in lab tests.



DISRUPTIVE TECHNOLOGIES

Surprising finding could pave way for universal cancer vaccine

A University of Florida study published in Nature Biomedical Engineering found that an experimental mRNA vaccine enhanced the effects of immunotherapy in mice by activating the immune system, not by targeting specific tumor proteins. The vaccine stimulated PD-L1 expression within tumors, making them more receptive to treatment and triggering a strong antitumor response when paired with checkpoint inhibitors.

FDA Greenlights Game-Changing UV Technology That Could Make Raw Milk Safer to Consume

Tamarack Biotics has received FDA approval for TruActive, a UV light technology that eliminates pathogens in raw milk while preserving its natural enzymes, proteins, & immunity-boosting compounds - offering a safe alternative to traditional pasteurization.

University of Birmingham pioneers Niobium - based carbon recycling to reduce industry emissions

Researchers are using Niobium-based perovskites to convert CO_2 from industrial processes into carbon monoxide (CO) with 100% selectivity, enabling a closed carbon loop. This tech could cut steelmaking emissions by up to 90%.

DISRUPTIVE TECHNOLOGIES

New adhesive could offer a more comfortable alternative for medical device users

- Dr. Jaime Grunlan at Texas A&M developed a new water-based PEC adhesive for wearable medical devices.
- Originally used in flame-retardant coatings, PECs showed sticky properties suitable for biomedical use.
- Unlike solvent-based adhesives (which may cause skin irritation), PECs are gentler and less likely to cause rashes or discomfort.
- The water-based adhesive becomes more effective with moisture, such as sweat, enhancing adhesion.
- This innovation offers a more skin-friendly alternative to traditional medical adhesives.

AVIDITY® BIOSCIENCES

Avidity Biosciences Receives FDA Breakthrough Therapy Designation for DelpacibartZotadirsen (del-zota) for the Treatment of DMD in People with Mutations Amenable to Exon 44 Skipping

- Avidity Biosciences received FDA Breakthrough Therapy designation for delpacibart zotadirsen (del-zota).
- Del-zota targets Duchenne muscular dystrophy (DMD) in patients with mutations amenable to exon 44 skipping (DMD44).
- The drug is currently in Phase 2 EXPLORE44 Open-Label Extension (EXPLORE44-OLE™) trial.
- It is the first in a series of Antibody Oligonucleotide Conjugates (AOCs™) being developed by the company for DMD.

IP INSIGHTS

ON In-flight Charging of Unmanned Aerial Vehicle

What is In-flight Charging of Unmanned Aerial Vehicle?

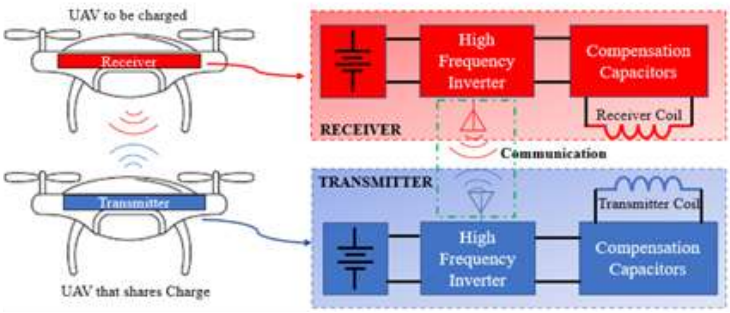
In-flight Charging of Unmanned Aerial Vehicle refers to the process of wirelessly transferring power to a drone while it is in the air which allowing it to recharge its batteries without landing. This technique aims to extend the operational time and range of drones, particularly for missions where continuous operation is required.

What are the methods of In-flight charging Unmanned Aerial Vehicle?

- **Drone-to-drone charging:** One drone which is act as a refueler can transfer power to another drone in flight either through direct contact or wireless methods.
- **Wireless charging stations:** Ground-based wireless charging stations can transmit power to drones as they fly over or near them using resonant magnetic coupling
- **Laser charging:** Specialized drones can utilize lasers to transmit power to other drones in flight, offering a longer-range charging solution.
- **Solar charging:** Fixed-wing drones with larger wing areas can potentially utilize solar panels to capture energy during flight.

What are the key benefits of In-flight Charging of Unmanned Aerial Vehicle?

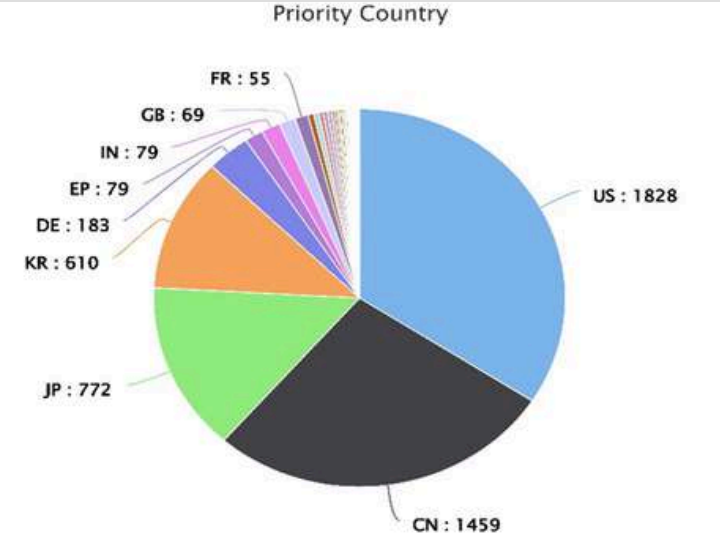
- **Extended Flight Time and Range:** In-flight charging allows drones to replenish their power supply while in the air.
- **Enhanced Operational Efficiency:** It reduces downtime by eliminating the need for frequent landings to recharge or swap batteries.
- **Reduced Reliance on Ground Infrastructure:** It reduces the need for strategically placed charging stations which lowering infrastructure costs.

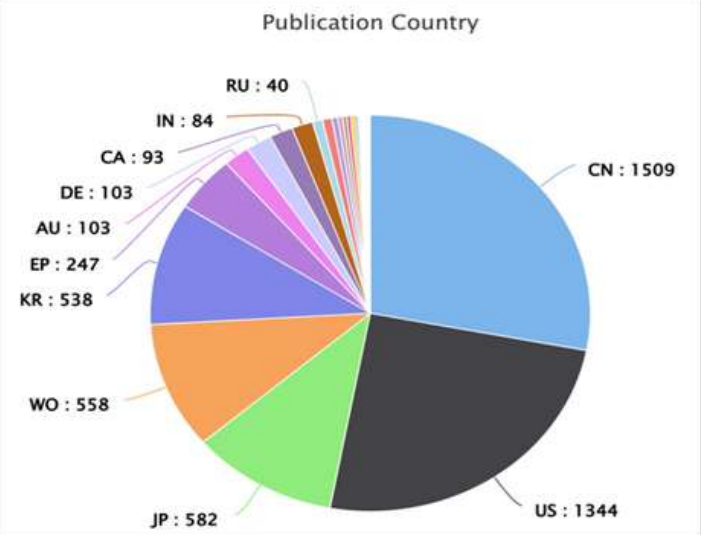


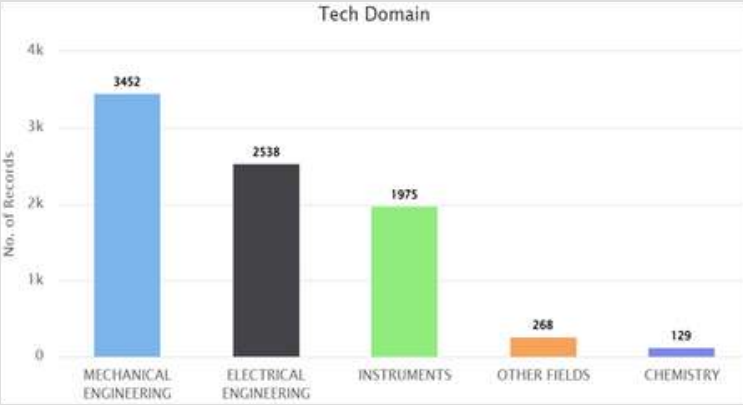
IP INSIGHTS

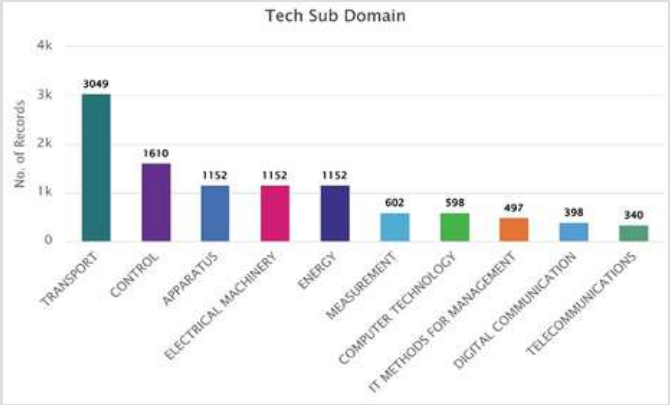
ON In-flight Charging of Unmanned Aerial Vehicle

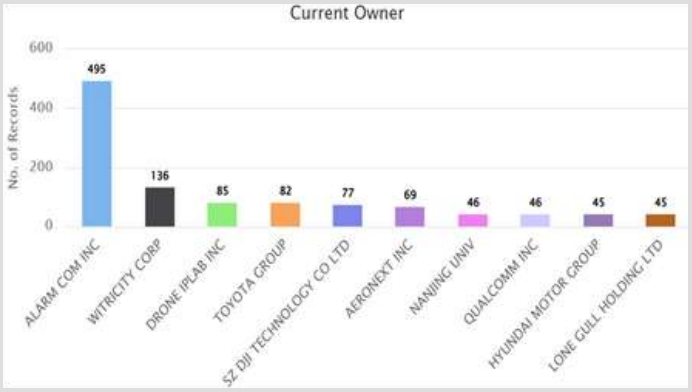
Patent Trends on In-flight Charging of Unmanned Aerial Vehicle

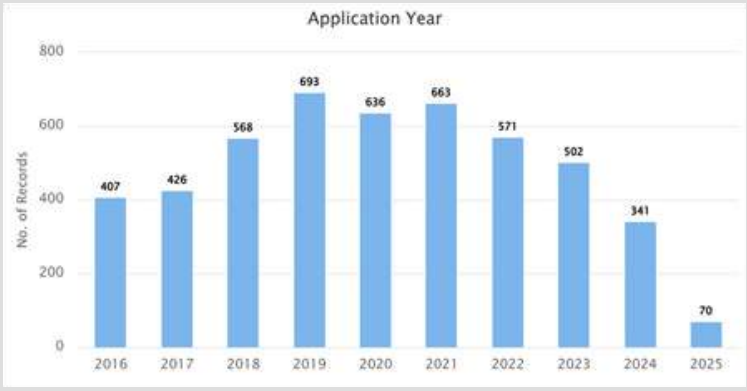












IP NEWS

US appeals court overturns Bored Ape maker's $8.8 mln win in NFT trademark case

- A U.S. appeals court overturned Yuga Labs' $8.8M win against artist Ryder Ripps and Jeremy Cahen.
- The court ruled Yuga hasn't proven that the alleged satirical NFTs caused buyer confusion.
- The case returns to California federal court for trial on trademark and cybersquatting claims.
- The court confirmed NFTs are eligible for U.S. trademark protection — a key precedent.
- Yuga called it a win for the NFT industry; Ripps said it upholds artists' right to appropriation as critique.

Verizon owes $175 million in patent infringement case, Texas jury says

- A Texas federal court ordered Verizon to pay $175 million for infringing Headwater Research's wireless tech patents.
- The verdict follows Headwater's earlier $278 million win against Samsung in a similar case.
- Headwater claims its tech reduces data usage, network congestion, and battery consumption.
- Verizon allegedly used the patented tech after a non-disclosure agreement (2009–2011) with Headwater.
- Verizon disputes the verdict and plans to appeal.

IP NEWS

AbbVie unit wins $56 mln in US patent trial against Botox rival

- Delaware federal jury orders Revance Therapeutics to pay Allergan $56 million for patent infringement.
- Revance's Daxxify found to mimic Allergan's Botox manufacturing process.
- Allergan sued Revance in 2021 over botulinum toxin patents for anti-wrinkle drugs.
- Revance denies allegations, claiming patents are invalid.
- Allergan earned $4.4 billion from Botox sales in 2023.
- Revance earned $79 million from Daxxify sales in first nine months of 2024.
- Crown Laboratories agreed to acquire Revance in August 2024.

Apple sues YouTuber over leaked details of unreleased iPhone update

- Apple sued YouTuber Jon Prosser and Michael Ramacciotti for stealing and leaking iOS 26 trade secrets.
- Ramacciotti allegedly accessed an Apple employee's phone and sent confidential info to Prosser.
- Prosser leaked details of iOS 26 in a January YouTube video on Front Page Tech.
- Prosser denies plotting the theft or knowing how info was obtained.
- Apple filed the lawsuit in California federal court, accusing Ramacciotti of breaking into the phone for money.
- Apple & Ramacciotti's representatives have not commented beyond the complaint.

IP NEWS

Medtronic escapes $106.5M payment in Colibri TAVR patent suit after court overturns jury verdict

- A federal appeals court overturned a 2023 verdict ordering Medtronic to pay $106.5 million to Colibri Heart Valve.
- Colibri had claimed Medtronic infringed patents for its CoreValve replacement heart valves.
- The original jury found Medtronic's devices violated Colibri's U.S. Patent No. 8,900,294.
- The appeals court ruled Medtronic was entitled to judgment of noninfringement as a matter of law.
- The court found the previous judge failed to determine if Medtronic actually infringed the patent.

USPTO returning to in-person PTAB hearings

- Effective September 1, 2025, all Patent Trial and Appeal Board (PTAB) hearings will be in-person by default.
- Virtual attendance will require good cause, limited to situations like financial hardship or medical emergencies.
- One party's virtual approval does not justify virtual attendance for other parties.
- Hearings will be held at USPTO offices; parties can request a preferred location.
- Public access remains available virtually or in person.
- Submit access requests to PTABHearings@uspto.gov at least three business days before the hearing.

IP NEWS

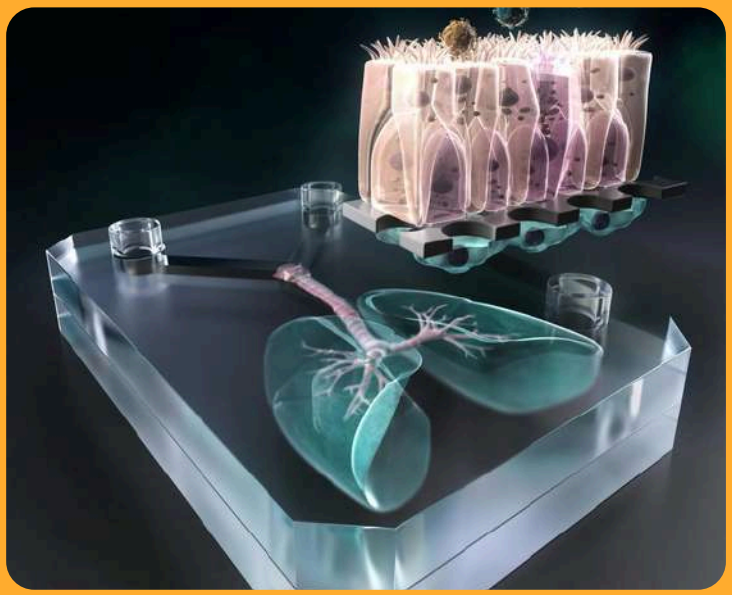
USPTO issues Order for Sanctions against foreign filing firm

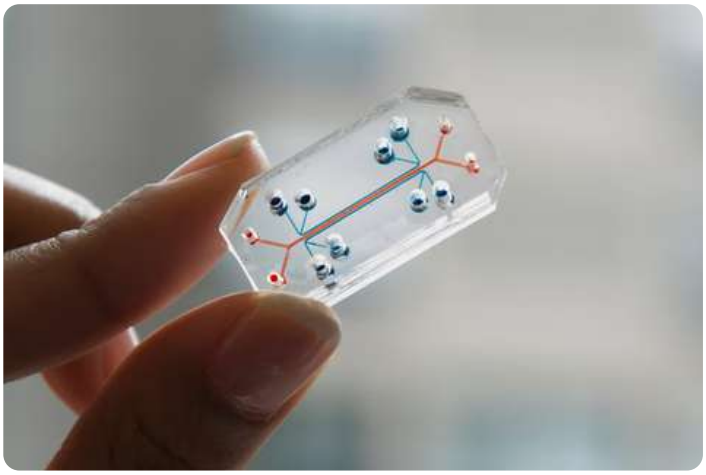
- USPTO sanctioned Stelcore Management Services, LLC for improperly entering signatures in trademark filings.
- Final Order for Sanctions issued on June 13 terminates affected trademark applications.
- Violations included:
  - False applicant and attorney signatures
  - False signatory and attorney information
- Improper signatures intended to bypass USPTO rules are not correctable and may invalidate applications or registrations.
- USPTO emphasized that false signature info harms the trademark system by undermining the integrity of the registration process.

TECHNOLOGY THEMES

Scientists Develop "Lung-on-a-Chip" That Could Help Stop the Next Pandemic

- Kyoto University created a lung-like microphysiological system (MPS) using iPSC-derived cells.
- It mimics both upper airway and alveolar regions of the human lung.
- Designed to model respiratory virus infections like SARS-CoV-2 with high accuracy.
- Enables study of site-specific immune responses and drug effects.
- Supports personalized therapy development using patient-specific cells.
- Offers a scalable platform for rapid testing of antivirals and studying lung diseases.





A next-generation system for smoke inhalation integrated with a breathing lung-on-chip to model human lung to cigarette eresponsesxposure

- CFAX12 is a new lung-on-chip system that mimics real human lung conditions.
- Uses human lung, blood vessel, and immune cells.
- Simulates breathing motion and exposes cells to whole cigarette smoke.
- Tracks lung barrier damage, inflammation (e.g., IL-8), and oxidative stress.
- Adding pulmonary surfactant reduced inflammation in tests.
- System includes: AX12 unit, AXBreather (for stretch), AXExchanger, and AXDock platform.

GLANCE @EFFECTUAL

GLOBAL
LEGAL ASSOCIATION

GLOBAL LEGAL ASSOCIATION

7TH GLA CONCORDIUM DUBAI 2025

22nd - 23rd Sep' 2025 **Knight Castle Hotel**

We are delighted to announce our upcoming **Flagship international forum - the 7th Edition** of Global Legal Association Concordium, set in the thriving innovation hub of **Dubai.**

ABOUT THE EVENT

GLA Concordium Dubai 2025 will bring together:
Legal pioneers & practitioners ,AI and LegalTech innovators ,IP experts , Policymakers & academics ,Global industry leaders

This year's theme explores the I**ntersection of AI, LegalTech & Intellectual Property,** focusing on:

- Ethical AI in legal practice
- Disruption and opportunity in LegalTech
- IP protection in a rapidly digitizing world
- Regulatory frameworks for emerging technologies

EVENT HIGHLIGHTS

Featuring 250+ attendees, 50+ speakers, 10+ exhibitors, 20+ media partners, and 10+ curated sessions.

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A Proud Moment for Effectual Services

Our beloved leader - Dr. Amit Goel has been recognized & included in the renowned WIPR - World IP Review Leaders 2025 Directory, which is a testament to our expertise in the field of IP. Congratulations to you for getting listed and thank you for the brilliant work you do, very well deserved.

Every year, World IP Review painstakingly compiles the opinions of over 12,000 IP professionals. Following a thorough examination procedure, outstanding people who have become leaders in their fields are shortlisted. The WIPR research team carefully assesses the shortlisted candidate's background, industry expertise, work accomplished, and other contributions. Their selection demonstrates their capacity to sculpt and sway IP's destiny.

This acknowledgment strengthens our commitment to offering our clients the greatest research and consulting services possible because it gives us further assurance that our best practices are the standard in the sectors and industries in which we operate. We dedicate this recognition to our wonderful employees without whom this wouldn't have been possible and to our beloved global clients, who help us in constantly challenging ourselves, while setting new benchmarks. Once again, our heartfelt appreciation to our clients and colleagues for their continued support & trust.

GET IN TOUCH

The sum of human ingenuity and expertise that powers us.

Human interactions that drive innovation.

EffectUal Services

Intelligence That Matters

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