

# Ideaforge Technology | BUY

## Taking off to grab larger opportunities

IdeaForge Technology Ltd (ideaForge) is an early entrant into the drone industry in India and the 1<sup>st</sup> company in India to locally develop vertical take-off and landing (VTOL) drones. Its core strength is in new technology & product development, which has resulted in launch of improved drone versions. It is one of the few OEMs globally to have its own proprietary autopilot sub-system and ground control software like BlueFire Touch, ground control station software, enabling safe and autonomous surveillance/ mapping operations. It is also focusing on expanding its footprint globally in the global market and initially targeted the US market, where it aim to market its products in segments such as public safety, law enforcement agencies and other use cases around enterprises. Global drone market is likely to report 20% CAGR from CY22-30E, while Indian market is expected to report 80% CAGR from FY22-27E, driven by increasing use cases. We believe the company is well placed to be a key beneficiary of positive government policy, increasing usage of drones across sectors such as Defence, Logistics, Public safety, Infrastructure etc. We expect revenue/EPS CAGR of 24%/26% between FY24-27E. Initiate with Buy rating and TP of INR 845 valuing at 40x FY27E EPS.

- Capitalised early on Indian drone market:** ideaForge is a pioneering force in India's drone industry, having introduced its first vertical take-off and landing (VTOL) UAVs in 2009. The company stands out globally as one of the few original equipment manufacturers (OEMs) with proprietary state-of-the-art UAV platforms, proprietary subsystems like autopilot and a full software stack including ground control software (BlueFire Touch) and live streaming & payload control software (BlueFire Live).
- Strategic focus on new product development:** ideaForge's vertically integrated approach spans design, development, engineering, manufacturing, delivery, and support, enabling comprehensive control over its product lifecycle. With 72 patents filed globally (43 granted, 29 pending), ideaForge's business is built around core technology creation as compared to the traditional build-to-print and transfer of technology models prevalent in the Indian industry. We expect focus on product development/upgradation will benefit ideaForge, resulting in revenue CAGR of 24% between FY24-27E.
- Strong long-term relationships with customers:** Another advantage that sets ideaForge apart is a deep understanding of customer operations and requirements. With 265 customers globally, ideaForge's UAVs have completed 5,00,000+ flights in the hands of customers in challenging environmental, terrain and operational conditions. We believe this will also open service revenue opportunity going forward and additionally help in getting future orders as well from clients.
- Expanding footprint in international markets:** ideaForge has been strategically focusing on exploring new market opportunities. Its efforts in the US are in the advanced stages of customer demonstrations. Success in the US market will also open up opportunities in other geographies like Africa.
- Outlook and valuation:** ideaForge's core strength of, technical know-how and new technology and product development capability is supplemented by increasing adoption of drone usage by defence and non-defence space. Strong long-term client relationships and focus on exports augur well for the company to capitalise on upcoming opportunities. We believe there will be slowdown in near term, mainly due to delay in order booking, however we believe order inflows will start picking up from 2HFY25 onwards, which will lead revenue pickup from FY26E. Initiate with TP of INR 845.



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### Recommendation and Price Target

Current Reco.	BUY
Previous Reco.	
Current Price Target (12M)	845
Upside/(Downside)	21.3%
Previous Price Target	
Change	NA

### Key Data – IDEAFORG IN

Current Market Price	INR697
Market cap (bn)	INR30.0/US\$0.4
Free Float	45%
Shares in issue (mn)	42.9
Diluted share (mn)	42.9
3-mon avg daily val (mn)	INR733.6/US\$8.7
52-week range	1,015/618
Sensex/Nifty	82,891/25,357
INR/US\$	83.9

### Price Performance

%	1M	6M	12M
Absolute	4.2	-2.8	-29.6
Relative*	1.2	-14.8	-42.4

\* To the BSE Sensex

### Financial Summary

Y/E March	FY23A	FY24A	FY25E	FY26E	FY27E
Net Sales	1,860	3,140	3,666	4,496	5,947
Sales Growth (%)	16.7	68.8	16.8	22.6	32.3
EBITDA	550	555	698	941	1,305
EBITDA Margin (%)	29.6	17.7	19.0	20.9	21.9
Adjusted Net Profit	399	453	536	656	908
Diluted EPS (INR)	10.5	10.6	12.5	15.3	21.2
Diluted EPS Growth (%)	-24.3	0.8	18.4	22.4	38.5
ROIC (%)	12.2	6.2	7.7	9.1	12.0
ROE (%)	16.3	9.2	7.6	8.5	10.7
P/E (x)	66.6	66.0	55.8	45.6	32.9
P/B (x)	8.2	4.5	4.0	3.7	3.3
EV/EBITDA (x)	56.2	49.3	39.1	29.3	21.0
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0

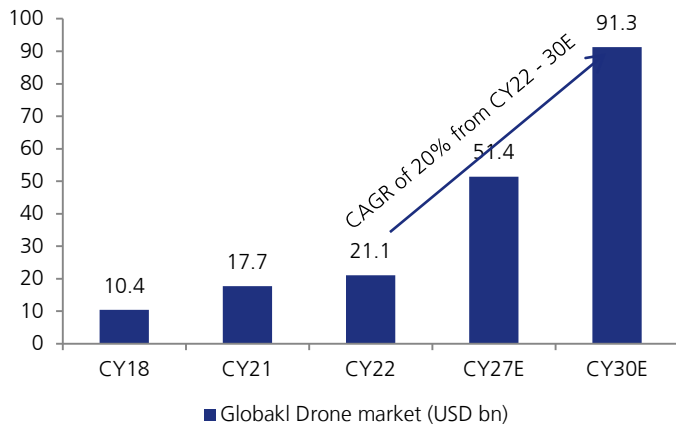
Source: Company data, JM Financial. Note: Valuations as of 13/Sep/2024

JM Financial Research is also available on:  
Bloomberg - JMFR <GO>,  
Thomson Publisher & Reuters,  
S&P Capital IQ, FactSet and Visible Alpha

Please see Appendix I at the end of this report for Important Disclosures and Disclaimers and Research Analyst Certification.

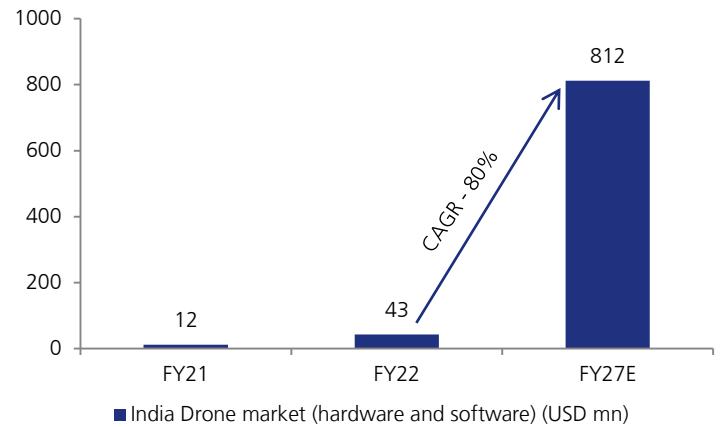
## Story in Charts

**Exhibit 1. Global drones industry is expected to report a healthy 20% CAGR over CY22-30**



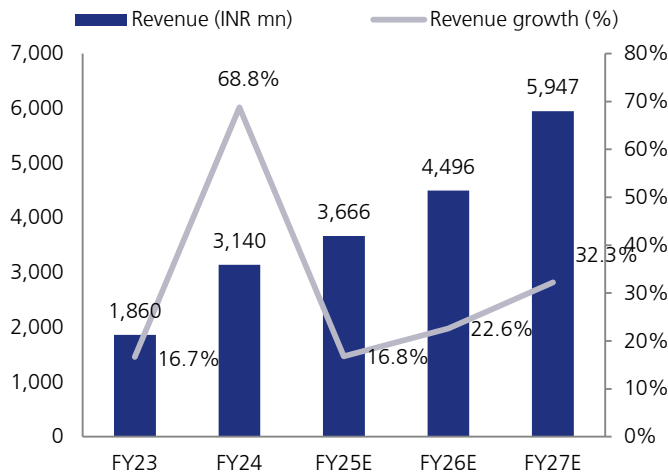
Source: JM Financial, Industry

**Exhibit 2. India Drone market to report robust 80% CAGR between FY22-27.**



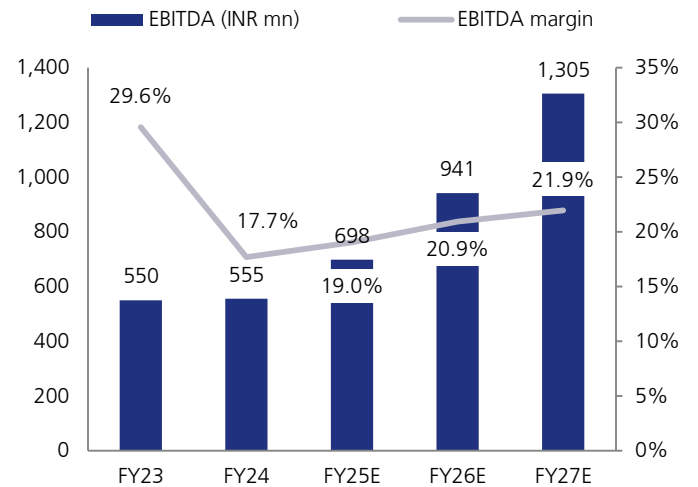
Source: JM Financial, Industry

**Exhibit 3. Revenue are expected to report 24% CAGR between FY24-27E**



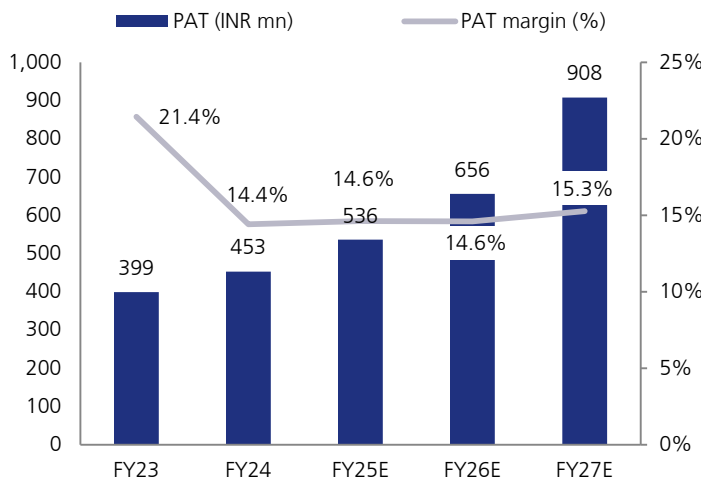
Source: Company, JM Financial

**Exhibit 4. EBITDA margins are likely to expand due to product mix and operating leverage**



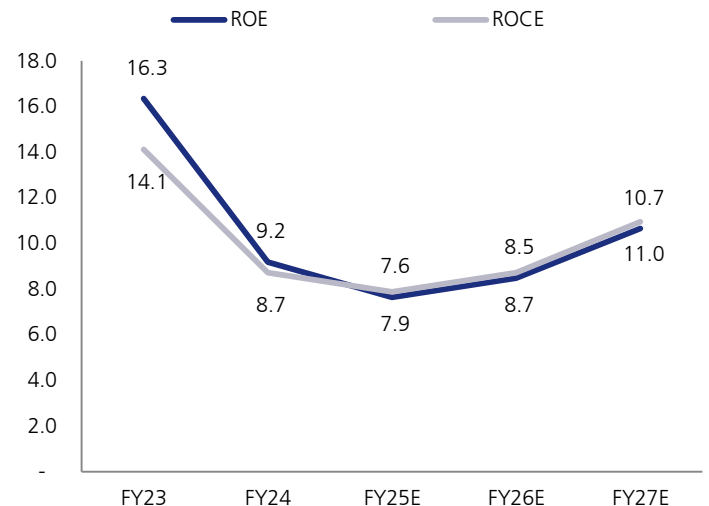
Source: Company, JM Financial

**Exhibit 5. Strong revenue growth backed with improved operational performance to drive PAT CAGR of 28% between FY24-27E**



Source: Company, JM Financial, Industry

**Exhibit 6. We expect return ratio to expand YoY going forward with improving profit margins**



Source: Company, JM Financial, Industry

## Globally, the drone industry is on the threshold of a growth surge

The global drone industry had grown to USD 21.1bn as on CY22 vs. USD 10.1bn in CY18, driven by growing drone usage across different sectors, simplification of regulations and growing benefits ranging from cost competitiveness to reduction in labour risk and time, which have contributed more to swift growth of the industry.

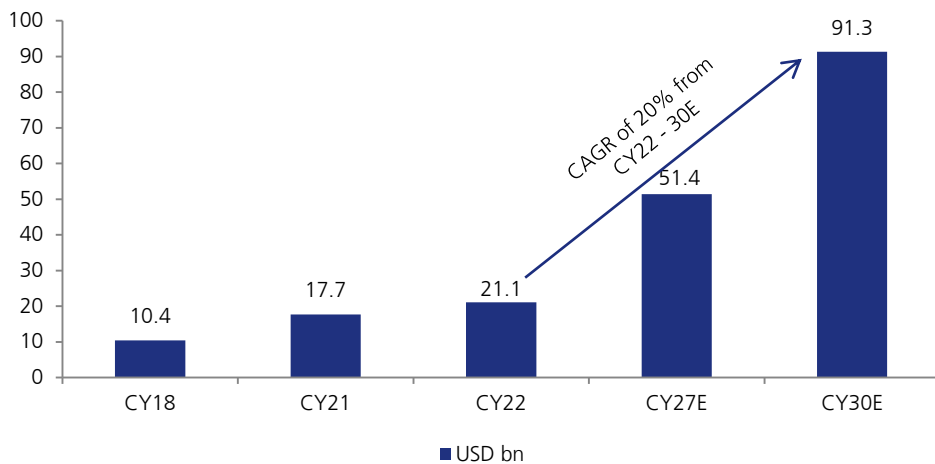
Going forward, drones are likely to revolutionise a number of spaces - notably military, and on the civil front in emergency services, aerospace, and potentially even the taxi industry. The global drone market is expected to clock 20% CAGR from CY22 to CY30 to reach USD 91.3bn.

Drones usage is witnessing an uptick in a wide range of applications across various sectors such as construction, agriculture, energy, entertainment and law enforcement.

### Key growth driver

- 1) Technological advancement in payload and electronics
- 2) Low operational cost and time efficiency
- 3) Authentic/timely data collection
- 4) Favourable regulations
- 5) Environment friendly

**Exhibit 7. Global drones industry is expected to report a healthy 20% CAGR over CY22-30, driven by increasing use case**



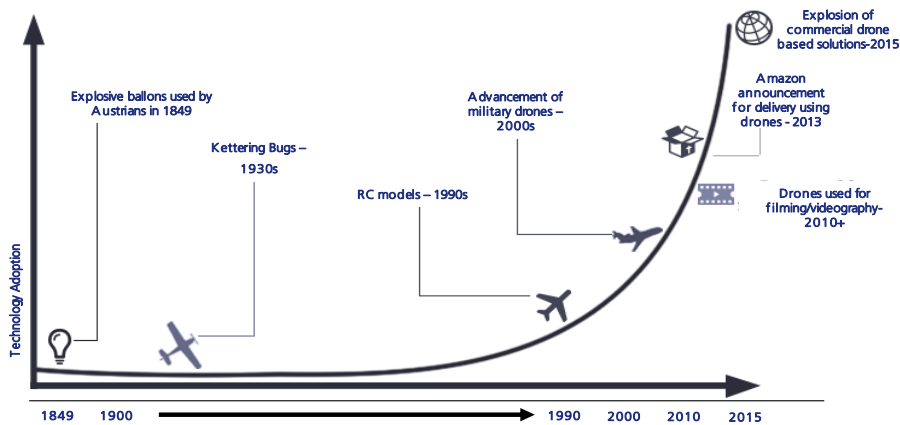
Defence accounts for a major pie of the drone market as on CY22 (48%),

However, logistics is expected to have a larger pie by CY30

Source: Industry, JM Financial

The drone market touched its inflection point in 2013, when Amazon announced that it would seek to experiment with drones to make deliveries.

**Exhibit 8. Timeline of drones and exploration of drone-based applications**



Source: JM Financial, Industry

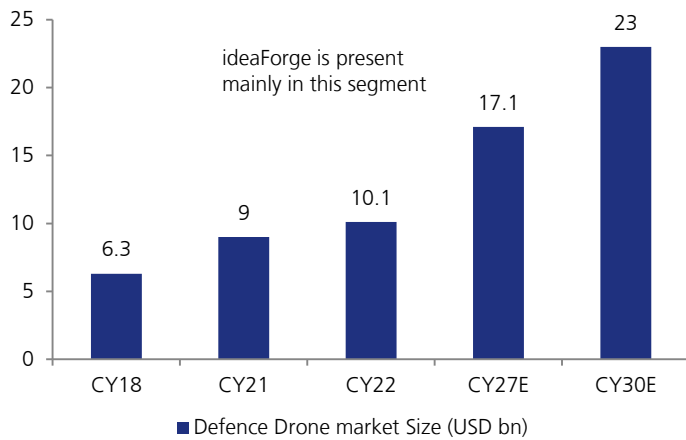
**Defence accounted for the largest share of the pie with c.48% in CY22.** Historically, drones were used for security, surveillance and monitoring. But, going forward, the use of drones is likely to expand in areas where labour costs and human risks are high; almost every industry has room for this technology, from real estate, construction, and mining to public safety, insurance, journalism, agriculture, transportation, energy, and telecommunication costs.

**Exhibit 9. Drones: Key application areas apart from defence**

<b>Industrial Sites</b>	Drones are being employed by industries to simplify processes, increase efficiency and replace hazardous jobs. Also, using AI-enabled drones helps inspectors spot faults, allowing them to swiftly address the issue while ensuring road and bridge safety.
<b>Infrastructure</b>	As drones provide an aerial view, it is simpler to produce 3D models of the site, which aids in identifying areas that require attention. Drones also help in monitoring the construction work, planning surveys and mapping of properties.
<b>Agriculture</b>	Drones assist farmers in minimising time and increasing efficiency by monitoring crops and livestock, as well as spraying fertilisers and pesticides. The use of agriculture drones is on the rise and the government of India is engaged in promoting the same.
<b>Healthcare</b>	Time sensitivity is critical to healthcare industry. As a result, drones can be a viable option for providing faster, cheaper and more reliable delivery solutions for medicine and vaccines, as well as providing sanitisation services through spraying.
<b>Energy and Utilities</b>	Drones equipped with a thermal scanner and RGB camera can collect data quickly and alert the user if an anomaly is detected. Further, the GOI has mandated the use of drones for mine inspections, which is expected to reduce thefts or audit mismatches.

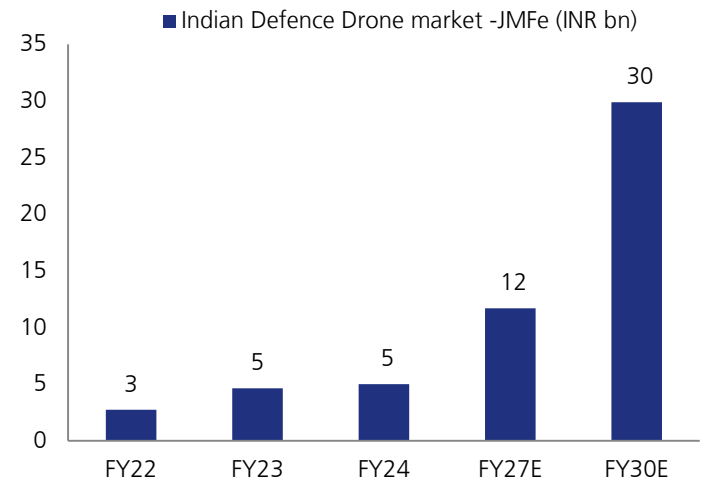
Source: JM Financial, Industry

**Exhibit 10. Defence drone market to grow at 11% CAGR between CY22-CY30**



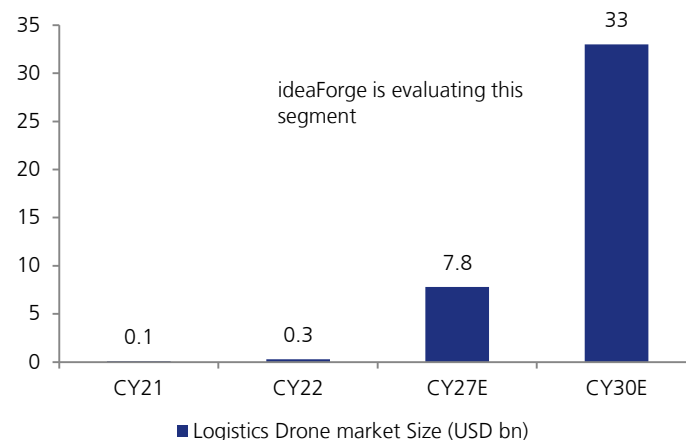
Source: JM Financial, Industry

**Exhibit 11. Indian Defence drone market likely to report 35% CAGR between FY22-FY30**



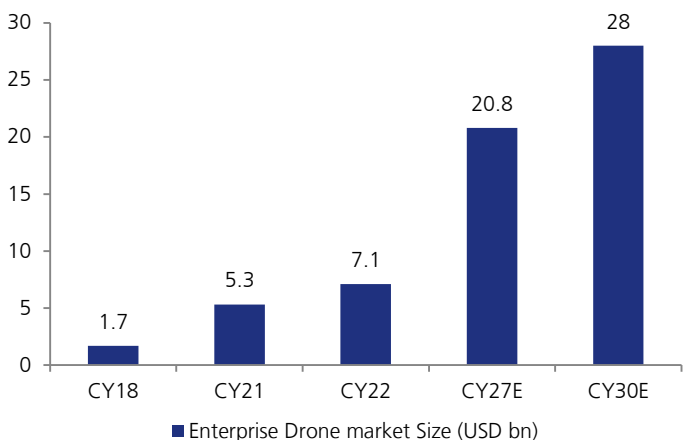
Source: JM Financial, Industry

**Exhibit 12. Logistics drone market to report 80% CAGR between CY22-CY30**



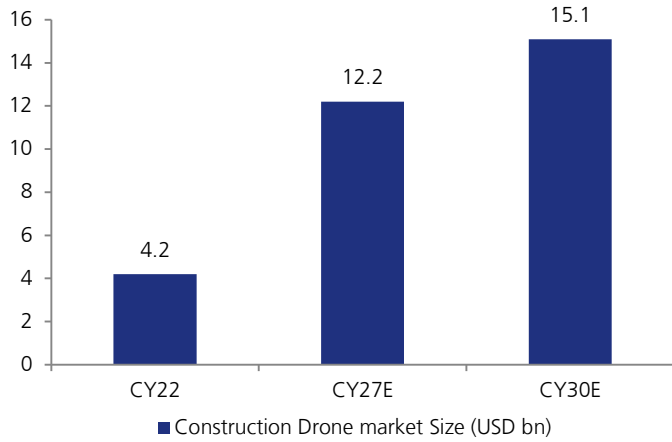
Source: JM Financial, Industry

**Exhibit 13. Enterprise drone market to grow at 19% CAGR between CY22-CY30**



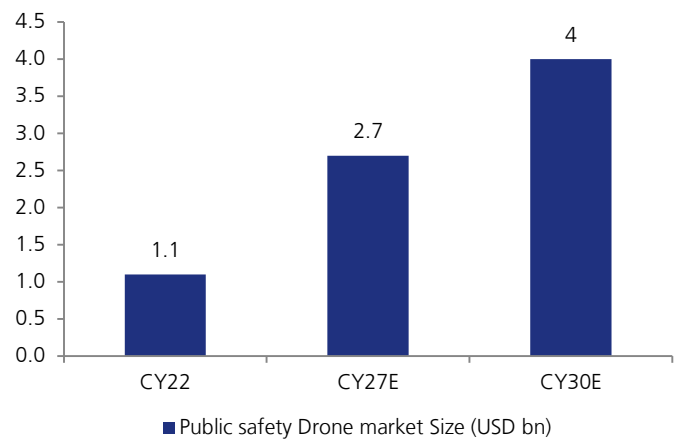
Source: JM Financial, Industry

Exhibit 14. Construction drone market to report 17% CAGR between CY22-CY30



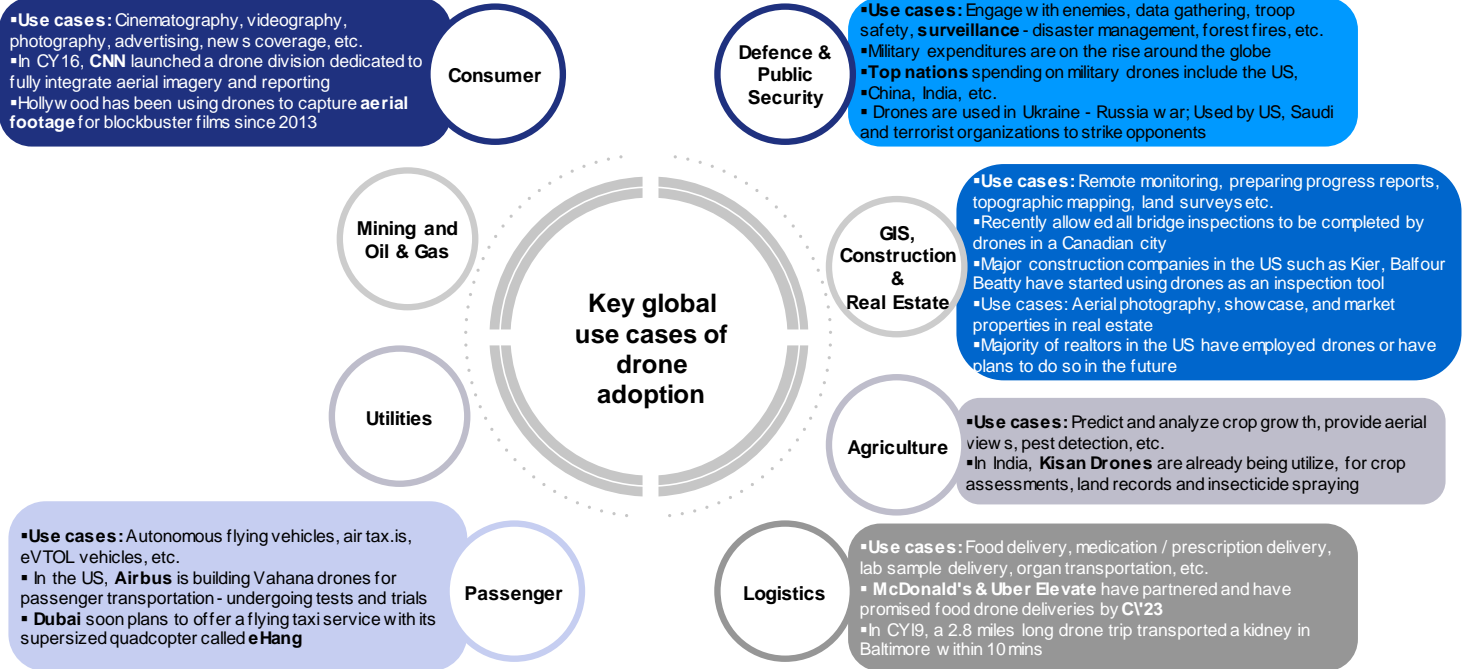
Source: JM Financial, Industry

Exhibit 15. Public safety drone market to rise at 18% CAGR between CY22-CY30



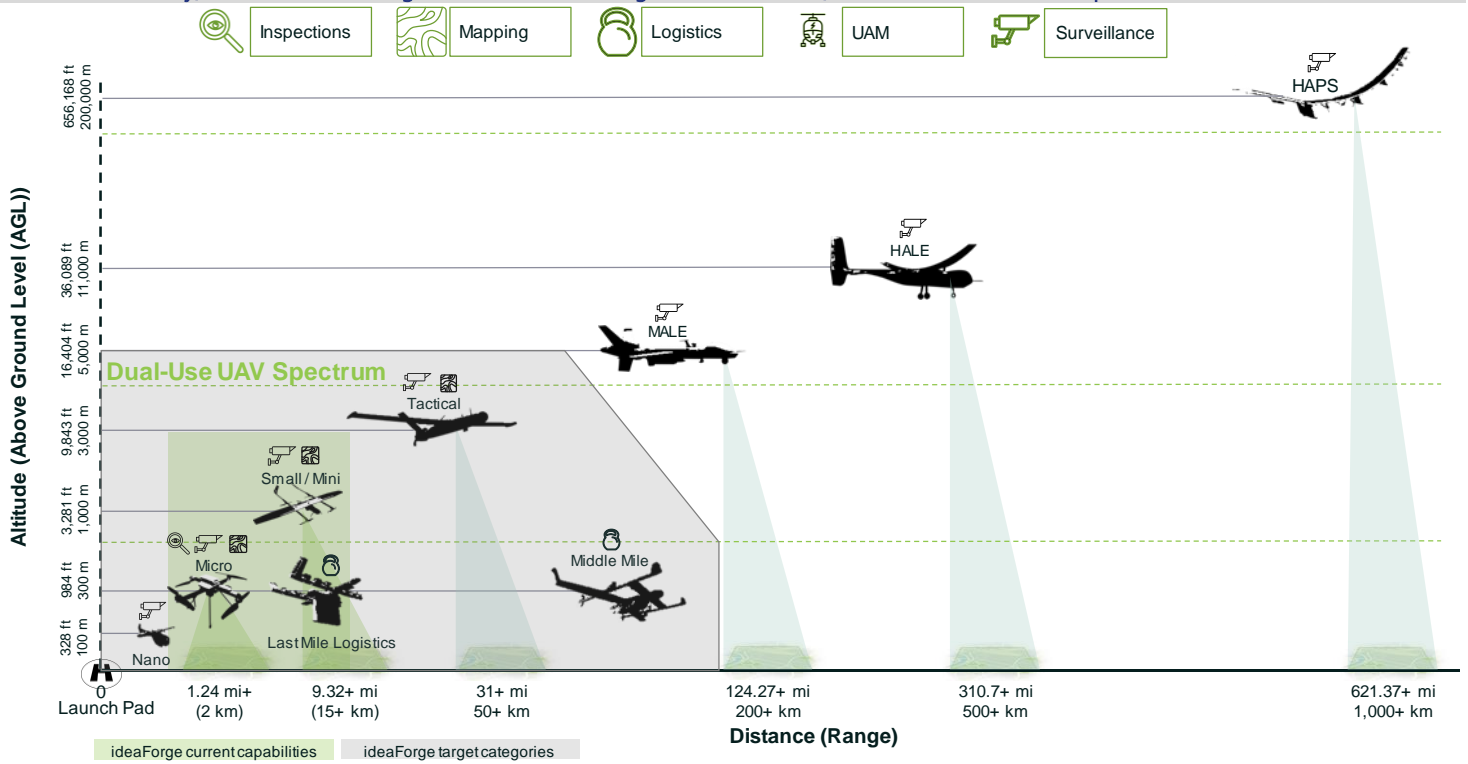
Source: JM Financial, Industry

Exhibit 16. Drones key use case application



Source: Company, JM Financial

Exhibit 17. Globally, drones can be categorised on basis of range from 2km to 1,000+km and altitude of up to 200km



Source: Company, JM Financial, Industry

Exhibit 18. ideaForge product comparison amongst its peer

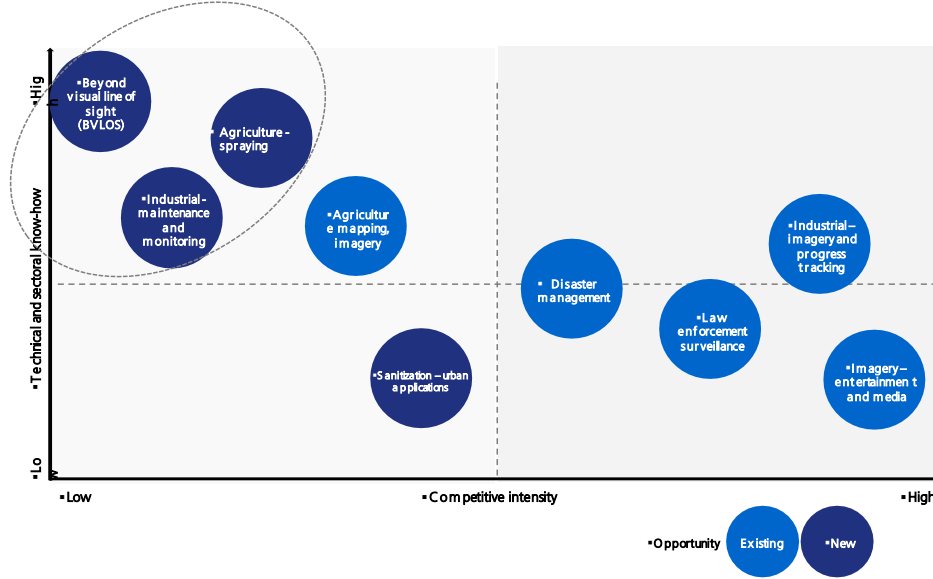
Company/Parameter	Product Name	Range (KM)	Flight time (min)	Operational Altitude (M)	Launch Altitude (M)
ideaForge	Netra V4+	10	60	1,000	6,000
	Switch	15	120	1,000	6,000
Astreia	AT-15	2	120	1,000	3,000
	A 410-XT	4	60	500	4,000
Paras Defence	Fixar 007	40	120	NA	6,000
Tunga Aerospace	Sanjay	15	120	NA	5,000
	Drishya Pro	6	60	NA	1,500
Tata Advanced System	Tata Rakshak	15-50	80	1,000	4,000
Autel Robotics (China)	Autel Dragon fish	30	120	NA	6,000
Lockheed Martin (USA)	Stalker XE	NA	120	3,650	6,000
DJI (China)	Matrice 300 RTK	15	55	NA	7,000

Source: JM Financial, Industry

ideaForge’s UAVs have completed 5,00,000+ flights in the hands of customers in challenging environmental, terrain and operational conditions.

Ease of operation, cost-effectiveness and favourable policy has resulted in a rise in the use of drones and competition in service providers. Competition intensity is low in areas requiring high sectorial expertise and technical know-how (industrial maintenance/monitoring), while it is higher in low technical requirement areas (entertainment and media), which acts as an entry barrier. As of now, not many players are able to fly/achieve a fly-time of 90 mins as proposed by them, except ideaForge who has continuously showcased its capabilities.

Exhibit 19. Competitive intensity across category



Source: Company, JM Financial

### Drone regulations evolving globally

The use of drones, its technology, range and use cases are growing at an exponential rate and this calls for the continued evolution of the regulatory framework and accompanying security measures. Many nations have developed frameworks/regulations for the usage of drones; these differ from country to country as there is no universally applicable international drone legislation yet.

Global drone regulations currently have varying levels of maturity across countries and will continue to evolve with the growth of the drone industry

Globally, most governments have restrictions on Beyond Visual Line of Sight (BVLOS) operations, which refer to flying a drone beyond the remote pilot or operators' visible range. This limits the number of applications where drones can be used. Increasingly, most countries are moving towards removing restrictions and have started allowing BVLOS operations.

Countries with extensive drone operations are Australia, China and the UK, which possess advanced regulatory frameworks that have evolved over time. Although the US leads in drone industry innovation, it still has stringent regulations although they have been getting more liberal over time.

Exhibit 20. Regulatory framework - many nations have moved towards a more liberal regulatory framework to ensure a legal climate that is business-friendly



Source: JM Financial, Industry



We believe more countries are working towards liberalising drone usage policy and Defence to be a key sector as we have seen globally during modern time warfare drone is playing an important role.

#### Exhibit 21. Key headlines of drone usage in war

**Ukraine Ramps Up Drone War With Russia**

**Ukraine Announces Military Drone Force, Underlines Key Role Played By UAVs**

**Tel Aviv drone attack represents war with West, say experts | Iran International**

**Sudan war: 'Iranian drones played decisive role in Omdurman battle'**

**Ethiopia's war turns into a testing ground for the deadliest drones**

Source: JM Financial, Industry

#### Drones playing a pivotal role in modern time warfare

In modern world warfare, drones are likely to play a pivotal role, as has been showcased in two recent wars: 1) Azerbaijan-Armenia, and 2) Russia-Ukraine.

##### 1) Azerbaijan and Armenia conflict

While Armenia mainly used tanks, artillery and air defence systems, Azerbaijan relied heavily on drones, specifically the Turkish-made Bayraktar TB2 and the Israeli-made Kamikaze drones, which can carry bombs of up to 55kg and 15kg respectively. This resulted in Armenia losing 185 tanks, 45 armoured fighting vehicles, 44 infantry fighting vehicles, 147 towed artillery guns, 19 self-propelled artillery, 72 multi-barrel rocket launchers and 12 radars; Azerbaijan's losses were only one-sixth of this.

##### 2) Russia-Ukraine war

The Russia-Ukraine War has witnessed a significant surge in the use of drones for surveillance and strikes. According to Royal United Services Institute estimates, Ukraine on average is losing 10,000 drones/ month, indicating the large number of drones actually in use. Many, possibly the majority, of the drones used by Ukrainian forces were originally designed for commercial purposes or for hobbyists.

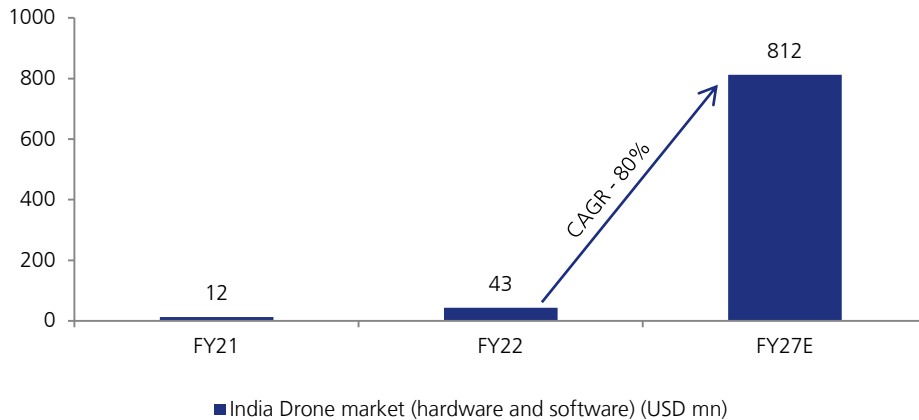
India can definitely learn from the above cases, given its neighbors both in the West and the East has access to drones. China, with its CH4 and CH5 drones, has capabilities at par with the US. The CH5 is in the same class as the US Reaper.



## Indian drone market at a nascent, evolving stage

Initially, drones in India were launched as defence equipment. However, over time, the use of drones has evolved to areas including medical supplies, gadgets, entertainment, photography, agriculture, enterprise etc. Currently, in India, market penetration is 2-3% vs. 15% in a few developed markets like USA and Europe. India's drone market is likely to reach USD 812mn by FY27 compared to USD 43mn in FY22, (80% CAGR), driven by favourable industry policy, increased demand for monitoring & surveying, cost-effective data collection and upcoming new use cases such as utilities/search/rescue operations.

**Exhibit 22. Indian drone industry (hardware & software) to report 80% CAGR during FY22-FY27**



Source: JM Financial, Industry

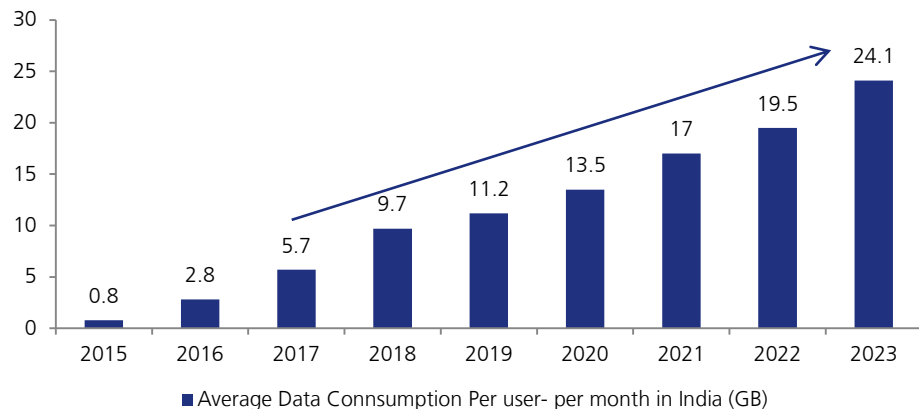
Indian drone industry was impacted during FY14 to FY21 as the government outlawed drones for personal use. This resulted in a modest market in India compared to the rest of the world; it accounted for less than 0.1% of the overall market through FY21.

### Drones can likely repeat the Mobile success story

There was a time when the mobile phone was not expected to get traction from common people due to various problems: 1) the handsets were absurdly heavy, 2) the batteries kept running out, 3) the coverage was patchy and 4) the cost per minute was exorbitant. McKinsey had concluded that the total market would be only about 9,00,000 units by 2000. However, the reality was very different: the mobile phone market reached 109mn by 2000.

In the Indian context, the first mobile phone and internet services were offered in India in 1995 but only in major cities. Once considered a luxury, the mobile phone has evolved as a necessity over a period of time. Indian telecommunication and mobile witnessed significant growth post-2000 as a result of a change in licensing rules, which resulted in lower usage rates for the average customer. This growth was backed by increasing penetration, increased usage of internet and affordability.

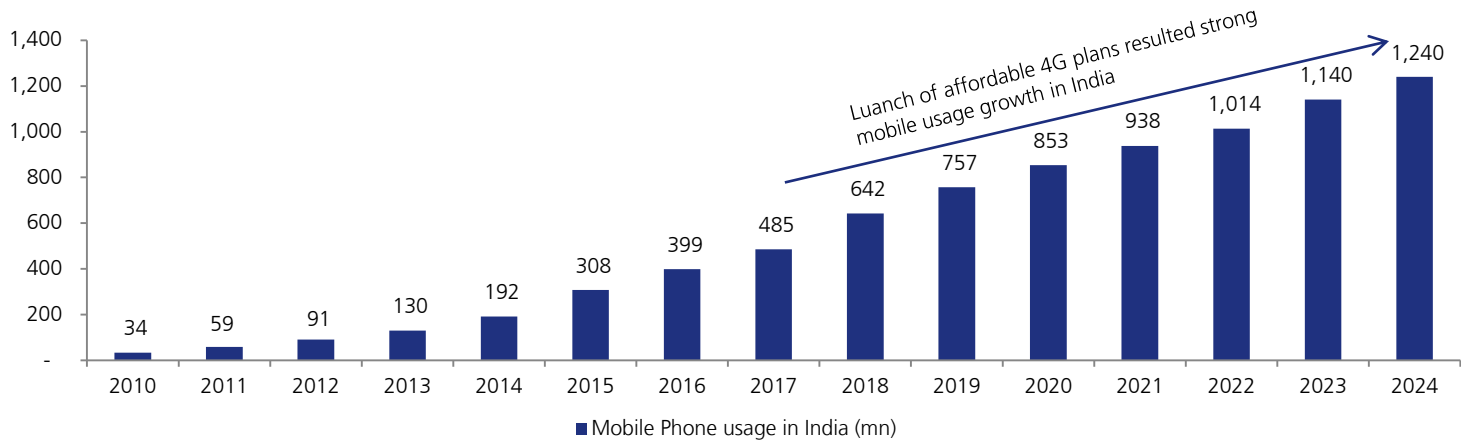
**Exhibit 23. Lower data prices and launch of 4G resulted in increased data consumption per user in India**



Jio Launching free/affordable 4G plan resulted in sharp jump in internet data consumption

Source: JM Financial, Industry

**Exhibit 24. Increased usage of internet, affordability, penetration reach, resulted in mobile phone usage growing 35x over 2010 to 2024**



Source: JM Financial, Industry

Mobile phone penetration in India currently stands at c.78%. Akin to the mobile growth story, we strongly believe the use of drones can expand for various applications such as photography, entertainment, logistics, delivery, construction, agriculture etc. over a period of time. This will be backed by government favourable policies, cost advantage to users and reliability. ideaForge being one of the prominent players in the drone industry will be key and beneficial for growing drone usage.

**Government initiatives to boost the Indian drone ecosystem**

With the aim of making India a global drone hub by 2030, GoI has undertaken various initiatives to boost drone manufacturing. Waiver for pilot permits, simplified procedures, creation of new drone corridors, incentives for local manufacturers, etc. are likely to transform the use of drones across various industries.

**Government push is likely to result in a requirement for 1 lakh drone pilots in India by 2030 compared to 10,600 currently**

**Exhibit 25. Government initiatives to boost drone capabilities in India**

<b>Drone Airspace Map</b>	In Sep'21, the Indian Government opened 90% of Indian airspace as a green zone for drones flying up to 400 feet.
<b>Import Policy</b>	The government announced in Feb'22 that it had restricted the import of foreign drones while allowing the import of drone components. Recently Ministry of Defence, imposed a strict ban on the use of Chinese components in military drones.
<b>PLI Scheme</b>	Under this initiative, the government will provide a total incentive over 3 fiscal years of INR 1.2bn to drone manufacturers/industry.
<b>Drone (Amendment) rules</b>	In Feb'22, the Indian government abolished the requirement for a drone pilot's licence.
<b>Drone Shakti</b>	The union government announced the Drone Shakti scheme in its 2022 budget statement, with the goal of facilitating and promoting drones as a service through companies.
<b>Agricultural drones monetary grant programme</b>	To promote the use of kisan drones, the GOI is providing financial incentives. For instance, Farmers Producers Organisations can receive up to 75% subsidy of the cost of an agricultural drone.

Source: JM Financial, Industry

The future Indian government has been focusing on providing a boost to the usage of drones and the development of drone manufacturing infrastructure in India.

**Exhibit 26. Comments from New paper articles on drone adaption in India**

India will become a hub of drone technology, Union Minister for Information & Broadcasting Shri. Anurag Singh Thakur

**Govt amends export rules to enable Made in India drones to freely fly in global skies**

**New Drone policy: PM Modi asks youth to seize the new opportunities**

Notably, the National Highways Authority of India (NHAI) has used drones for monitoring highway construction projects, resulting in a 25% reduction in project

**I want to see a drone in every farm, phone in every hand, says PM Modi**

Source: Company, JM Financial

## Drone usage across various sectors can lead to cost as well as time-saving

Drones have the potential to reduce costs compared to traditional methods, which relied on occasionally faulty and time-consuming procedures, can act as a key factor in encouraging drone usage, especially in infrastructure, Earthwork, Industrial sector.

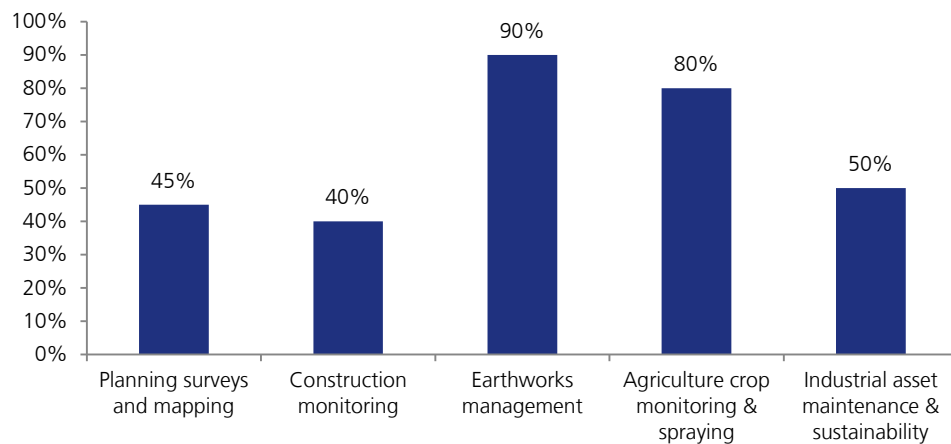
### Exhibit 27. Drones have the potential to reduce cost as well as time for various sectors

Areas	Existing Process	Potential Drone benefits	Saving Details
Planning surveys and mapping	<ul style="list-style-type: none"> <li>Ground based manual data collection</li> <li>manual analysis and single point decision making.</li> </ul>	<ul style="list-style-type: none"> <li>Automated analysis and collaborative decision making</li> <li>10x faster and 10000x more data points on a digitised base for better plans.</li> </ul>	<ul style="list-style-type: none"> <li>Existing cost: INR10-12 thousand/sq. km</li> <li>Potential cost: INR 6 thousand/sq. km</li> <li>Cost Savings: 45%</li> </ul>
Construction monitoring	<ul style="list-style-type: none"> <li>Excel based progress tracking without visual verification.</li> </ul>	<ul style="list-style-type: none"> <li>Automated object recognition, counting and progress tracking on drone maps</li> <li>80% faster and improved transparency and on site governance.</li> </ul>	<ul style="list-style-type: none"> <li>Existing cost: INR2.5 thousand/km</li> <li>Potential cost: INR 6 thousand/ km</li> <li>Cost Savings: 40%</li> </ul>
Earthworks management	<ul style="list-style-type: none"> <li>Manual data collection and reporting</li> <li>Paper based volumetric tracking without visual verification.</li> </ul>	<ul style="list-style-type: none"> <li>30x faster data collection and 350x more data points than with traditional (Global navigation satellite system) GNSS survey</li> <li>4x faster turnaround and end to end tracking.</li> </ul>	<ul style="list-style-type: none"> <li>Time consumption: 15-30 days for surveying 100 acre job site</li> <li>Time Benefits: 20 mins to survey 100 acre job site</li> <li>Savings: +90%</li> </ul>
Agriculture crop monitoring and spraying	<ul style="list-style-type: none"> <li>Manual applications unsafe, in efficient and limited access to skilled labour</li> <li>Erroneous, single point decision making.</li> </ul>	<ul style="list-style-type: none"> <li>10x faster turnaround, efficient and cost saving</li> <li>Automated analysis and collaborative decision making.</li> </ul>	<ul style="list-style-type: none"> <li>Existing cost: INR1500-1800/acre for spraying</li> <li>Potential cost: INR300-400/acre</li> <li>Cost Savings: 80%</li> </ul>
Industrial asset maintenance and sustainability	<ul style="list-style-type: none"> <li>Erroneous, unsafe, and infrequent manual inspections</li> <li>Ad hoc manual patrolling with no visual evidence.</li> </ul>	<ul style="list-style-type: none"> <li>Automated diagnostics from safe and frequent aerial inspections</li> <li>Real time, centralised view of inaccessible and remote assets.</li> </ul>	<ul style="list-style-type: none"> <li>Existing cost: INR 90-100 thousand/chimney inspection using crane</li> <li>Potential cost: INR50 thousand</li> <li>Cost Savings: 50%.</li> </ul>

Source: JM Financial, Industry

### Exhibit 28. Drone usage is able to save cost as well as time for almost all applicable usage it has from 40% to 90%

Cost/time saving by using drones vs Traditional method



Source: JM Financial, Industry

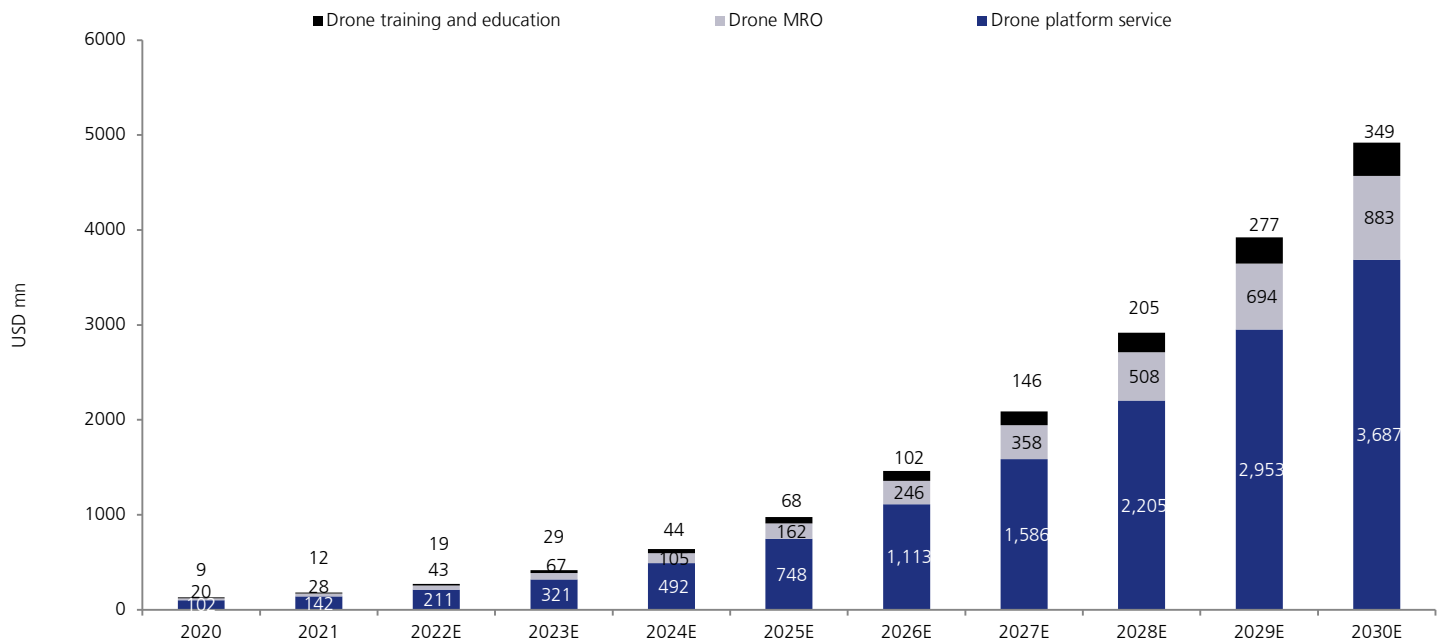
We believe that drone adoption should be limited in a few segments such as last mile delivery and agriculture (especially in India where farm land owned are smaller) which are more of labour dependent. ideaForge as a cautious step has refrained itself from entering the segment.

## Drone as a Service - New avenue to boost drone usage

DaaS is a ready-to-fly network of drones that allows users to schedule or request on-demand flights, without the hassle of owning hardware, software or trained manpower. The customers can avail DaaS service on 'pay per use', which will help reduce their initial investment and increase the adoption rate.

The drone services market is divided into three categories: 1) drone maintenance repair and overhaul (MRO), 2) drone platform services and 3) drone training and education services. The DaaS market in India is expected to reach USD 4,919mn by 2030 compared to USD 130mn in 2020 (44.4% CAGR).

### Exhibit 29. Drone as a Service is expected to report 44.4% CAGR during 2020-2030



Source: JM Financial, Industry

### Several companies and start-ups have started offering services across industries

- ideaForge is in the process of developing a Daas Model, reimagining the way drone operations are deployed. One of the pilot projects with an anchor customer has yielded encouraging results. Going forward, the company aims to evolve from Company-Owned, Company-Operated initiative to a Franchisee-Owned, Franchisee-Operated business.
- Optimus Infracom plans to invest c.INR 1.4bn in a drone-as-a-service model under its drone-making subsidiary. The company will adopt a service model for its drone business, where it will be training 6,000 pilots to manage a fleet of 5,000 drones by the end of 2025.
- A Bengaluru-based DaaS service provider (Aerologiks) offers 'pay per use' drone services for agriculture, survey/ mapping, surveillance, inspection of manufacturing units, oil and natural gas industry, solar panels, windmills, and real-estate construction projects, which helps users reduce their initial investment, making it easier for them to adopt and benefit from this new technology.
- A Chennai based DaaS startup (Garuda Aerospace) is working towards educating farmers and agriculture across the state with deployment of six lakh drones in six lakh villages by 2025.

## Investment Rationale

### Capitalised early on the Indian drone market

Being among the first few players in India to enter the UAV (unmanned aerial vehicle) market, ideaForge has the first mover advantage and the distinction of being the first company in India to indigenously develop and manufacture vertical take-off and landing UAVs in 2009. ideaForge has a diversified portfolio of UAVs built for multiple use cases, targeting defence and civil applications, typically known as dual-use products. Each of the ideaForge UAV platforms is tailored for applications across various industries with varied performance characteristics on the platforms.

Product development has been the core strength of the company and over a period of time it has enhanced its capabilities in designing and engineering. This has resulted in giving it industry-leading specifications and capabilities, comparable to those of other established global players in the UAV industry. Focus on new technology and product development has resulted in the company filing for 72 patents, of which 43 have been granted till date.

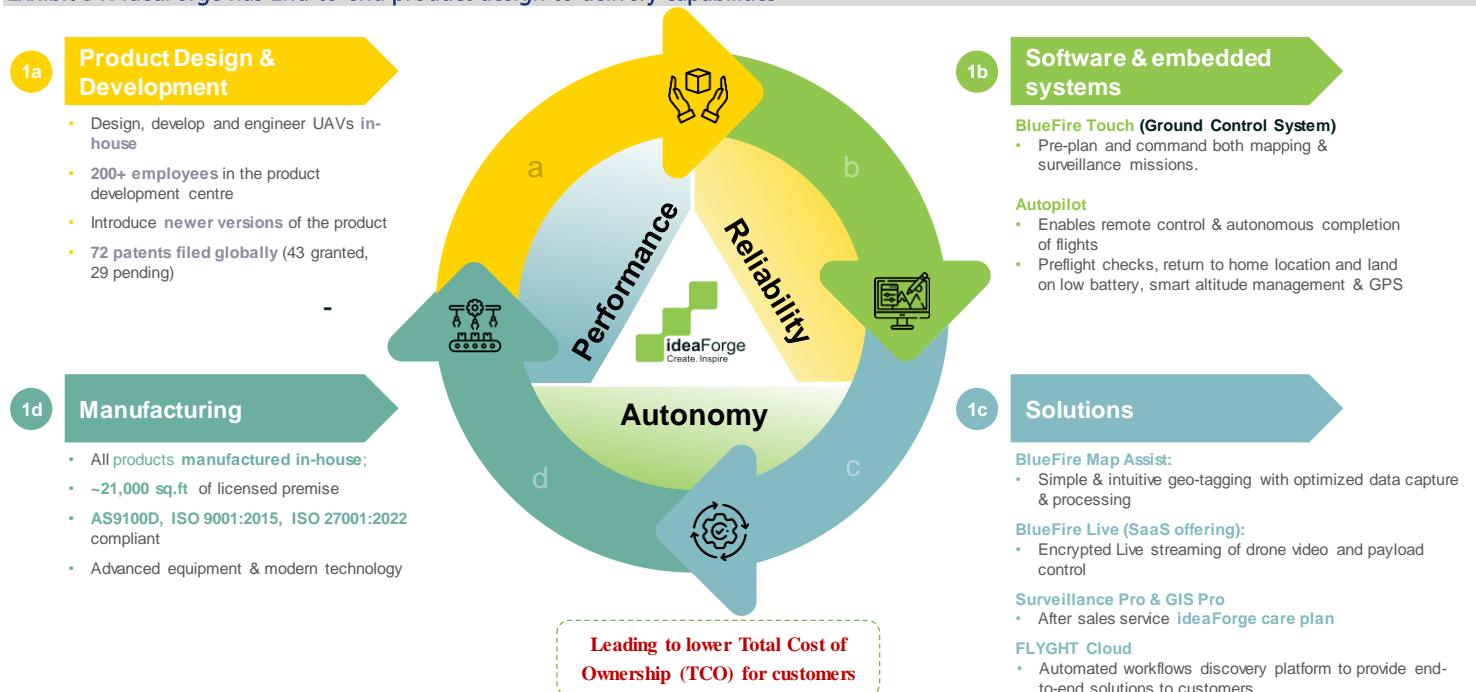
#### Exhibit 30. Systems developed by the company since inception

Sr.No	Comments
1	1 <sup>st</sup> company in India to develop and manufacture VTOL UAVs in India in 2009.
2	One of the few OEMs globally to have its own proprietary autopilot sub-system and ground control software.
3	Developed the BlueFire Touch, ground control station software, which enables safe and autonomous surveillance/ mapping operations
4	Developed BlueFire Live! platform, which enables encrypted live streaming of the UAV video feed and allows for payload control over internet.

Source: Company, JM Financial







The company's in-house capability to design, develop, engineer and manufacture has enabled it to develop better products as per customer demand. It has the ability to build a fully integrated system and have control over the full stack, which differentiates it from other players in the market. It offers a broad range of products with feature-based differentiation such as weight class (approximately 2-7 kg), endurance class (25-120 minutes flying time), take-off altitude range (up to 6,000 meters), communication range (approximately 2-15 km), payload types, etc.

#### Exhibit 31. ideaForge has End-to-end product design to delivery capabilities



Source: Company, JM Financial

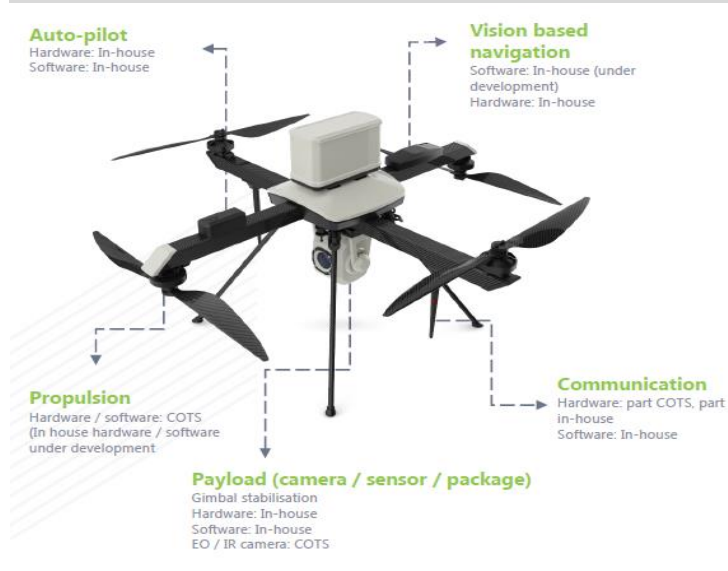
Exhibit 32. Robust product portfolio

	Civil		Dual Use		Defence	
	NINJA	RYNO	Q4i	Q6	NETRA V4+	SWITCH
<b>Product</b>						
<b>Features</b>	Lightest UAV - Operable during day & night	Micro category survey-grade UAV	Small category VTOL & most economical with military grade standards	Small category UAV. Quadcopter design enables large scale mapping	Intelligent & portable VTOL UAV. Suitable for mission-critical application	Fixed wing & VTOL hybrid, switch UAV. Advanced flight time, higher safety
<b>End Use</b>	Security and surveillance	Mapping, land survey, mining area planning, construction & real estate	Security & Surveillance, traffic & crowd management and disaster relief	Large scale mapping projects	Coastal patrol, anti smuggling, search & rescue	Long range, high altitude, high endurance last mile surveillance & security
<b>Range</b>	Up to 2 kms	Up to 4 kms	Up to 4 kms	Up to 10 kms	Up to 10 kms	Up to 15 kms
<b>Flight Time</b>	20-25 minutes at MSL	>40 mins at MSL	>= 40mins at MSL	>= 60 mins at MSL	> 60 mins at MSL	>= 120 mins at MSL >= 90 mins at 4,500m altitude above MSL
<b>Payload</b>	HD daylight payload with 5x optical zoom/ thermal/ mapping payload	Mapping payload	HD daylight payload with 10x optical zoom/ thermal/mapping payload	HD daylight payload with 10x optical zoom/ thermal/Photogrammetry payload	HD daylight payload with 10x optical zoom/ thermal/mapping payload	Daylight surveillance payload with 25x optical zoom/ thermal payload

Source: Company, JM Financial

Apart from hardware, ideaForge has also been focusing on developing a few software and other solutions in-house, giving it the advantage to tailor its offerings according to customer requirements.

Exhibit 33. Drone hardware and software developed in-house and outsourced



Source: JM Financial, Industry

Exhibit 34. Hardware and software developed in-house and outsourced for related accessories



Source: JM Financial, Industry

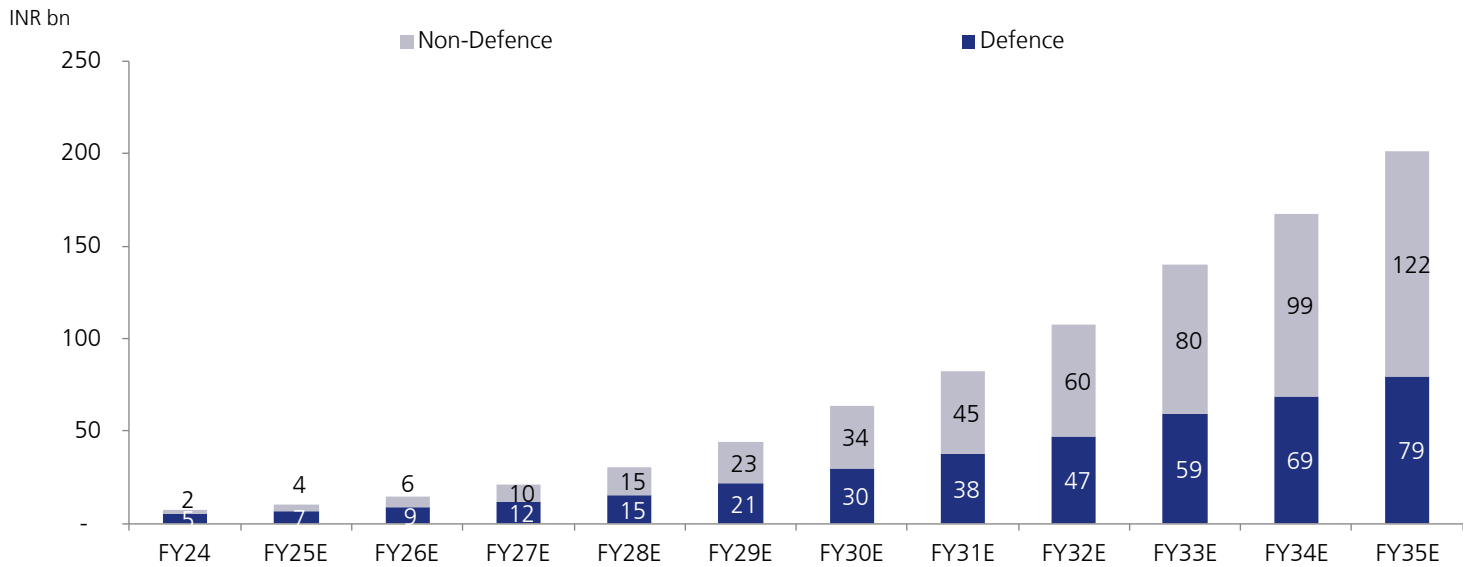
ideaForge stands out globally as one of the few original equipment manufacturers (OEMs) with proprietary state-of-the-art UAV platforms, proprietary subsystems like autopilot and a full software stack including ground control software (BlueFire Touch) and live streaming & payload control software (BlueFire Live).

**Exhibit 35. Software and solution provided by ideaForge**

BlueFire Touch	Autopilot	BlueFire MapAssist	BlueFire Live!	Surveillance Pro	Geographic Information System ("GIS") Pro
BlueFire Touch is GCS software, built to plan and commands both mapping and surveillance missions with the ability to pre-plan missions based on operational area and target locations via waypoint based navigation.	Enables remote control and autonomous completion of flights with pre-flight checks, intelligent failsafe features, such as return to home on low battery, high wind, communication loss and battery imbalance. It also has smart altitude management and global positioning system ("GPS") error handling features.	Software solution for simple and intuitive geo-tagging with flexibility for both PPK mapping as well as non-PPK mapping with optimised data capture and processing.	Encrypted live streaming of the drone video feed and payload control for border management, emergency response, mapping, surveillance, disaster management and ISR operations. Integrates easily with CCTVs and command and control centres, operates in low bandwidth and offers easy remote payload control.	Enables anti-terrorism applications, border security and crime control measures, ISR operations, amongst others, through advanced image intelligence features such as target tracking and moving target indicator.	Survey grade mapping via high resolution mapping with PPK

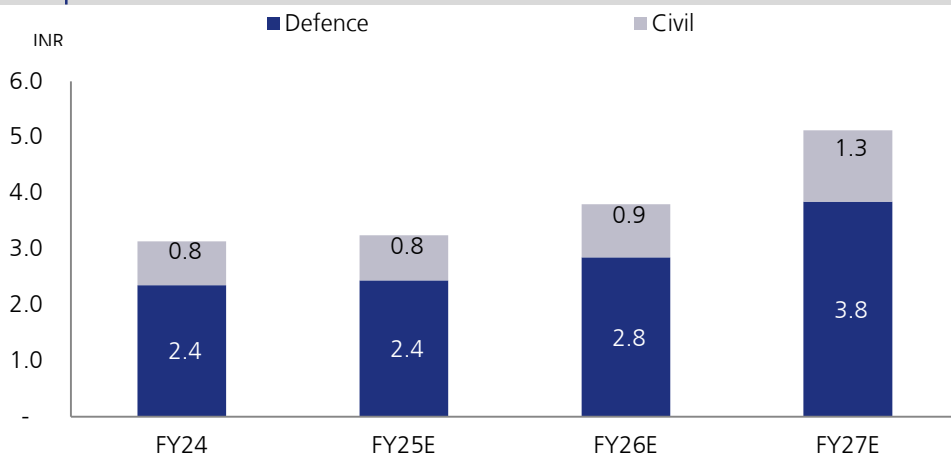
Source: Company, JM Financial

**Exhibit 36. Indian Drone industry as per industry reports is expected to reach USD 65bn in FY27, however, we have factored in the base case scenario and expect the drone market to reach c.USD 64bn market by FY30.**



Source: JM Financial, Industry

**Exhibit 37. We expect ideaForge revenue (hardware & software) to be dominated by defence, though it might start coming down going forward with expected pickup in new products developed for the non-defence sector**



Source: JM Financial, Industry



**State-of-the-art manufacturing facility:** Located in Navi Mumbai, Maharashtra, ideaForge operates a state-of-the-art manufacturing facility spanning c.21,000sqft with advanced equipment, cutting-edge technology, and automated systems, enabling the production of a diverse range of products. Adhering to stringent requirements and maintaining high standards, it is accredited with global certifications like AS9100D, ISO 9001:2015, ISO 27001:2022. The manufacturing facility upholds high quality standards throughout the production process.

**Exhibit 38. ideaForge Capacity utilisation level remained at high level and we believe company will continue to invest in capacity building**

ideaForge capacity	Installed Capacity/shift-FY23	Utilisation level		
		FY23	FY22	FY21
Quadcopter UAV	5	95%	93%	88%
SWITCH UAV	4	82%	75%	NA
Payload	15	95%	96%	79%
Battery	20	87%	84%	83%
Communication Box	15	90%	90%	88%

Source: Company, JM Financial, Industry

### Venturing into Drone as a Service likely to boost UAV adoption

With the introduction of Drone as a Service (DaaS), ideaForge is reimagining the way drone operations are deployed. The pay-per-flight model will not only reduce the upfront costs to the customers but will also eliminate the need for the customers to maintain drone infrastructure and deploy workforce to operate UAVs. DaaS has the potential to accelerate the adoption of UAVs and truly democratise the technology. We believe this segment to play out for ideaForge in couple of years and will be one of the key growth drivers going forward.

We believe, the growing shift to scale Enterprise and its operations the DaaS model would be of advantage to bring the adoption in UAV technology, bring in annuity business aiding growth for company and deepen penetration in UAV ecosystem.

### Strategic focus on new product development

Technology and product development have been the key to the growth of the business, backed by improving the ability to customized solutions as well as reduce costs. The drone industry, being at a nascent stage, demands continuous evolution and product innovation by way of product and market research. ideaForge too keeps product innovation, engineering and design at its core. This has resulted in the company coming up with upgraded versions of Netra and the development of other UAVs like RYNO and Q6 to provide mapping and surveying solutions, and Q4i, NETRA V4+, NETRA V4 PRO and SWITCH, to provide surveillance and disaster relief solutions to customers for different operating environments and applications.

**Exhibit 39. Upgrades to NETRA**

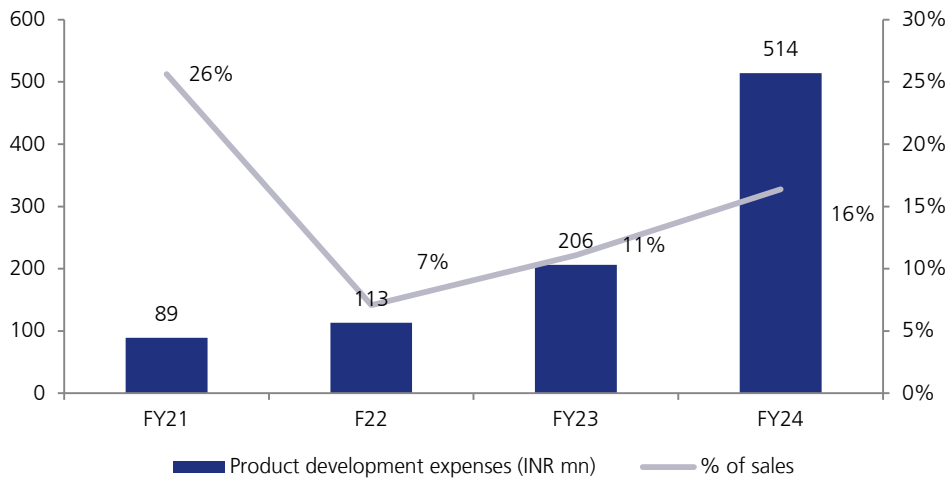
Features	NETRA	NETRA V2	NETRA V3	NETRA V4	NETRA V4+	NETRA V4 Pro
	2011	2013	2015	2020	2022	2023
Vehicle Size	90 x 90 cm	1m x 1m	90 x 90 cm	<1.5m x 1.5m	<1.5m x 1.5m	<1.5m x 1.5m
All up Weight	1.8kg	3kg	<3 kg	<6 kg	<6 kg	<6 kg
Range	1.5 km	4 km	5 km	5 km	10 km	15 km
Endurance	25-30 min	40 min	60 min	60 min	60+ min	90+ min
Speed	8 m/s	8 m/s	8 m/s	7 m/s	14 m/s	14 m/s
AMSL	2000m	3000m	2000m	3000m	6000m	4000m

Source: JM Financial, Industry

Apart from product development, the company has been focusing on the most viable capability to transport/carry products. Hence, it has also designed a portable packaging for products so that all the components can be carried as a backpack.

Product development expenses have increased from INR 89mn in FY21 to c. INR 514mn in FY24.

**Exhibit 40. Product development cost as % of sales has been increasing since FY22**



Source: Company, JM Financial

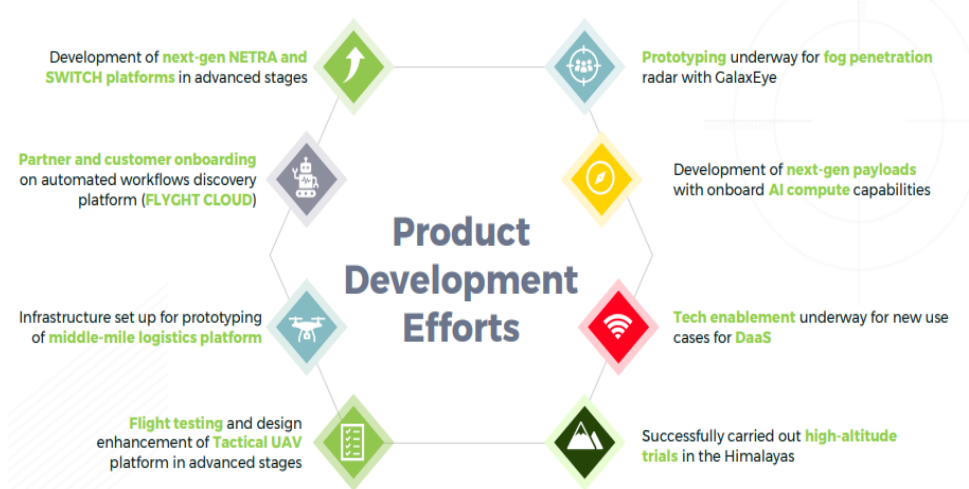
Additionally, it has been investing in, and increasing the strength of its product development team; it added 84 people in the Product Development team in FY24, taking the total tally to c.200. It is also adding people at the leadership and other levels through difference institute and lateral hiring combined.

Also, the company is continuously trying to identify new end-use cases that have significant growth potential and economic viability. It plans to enter into new application areas for drones such as inspection and delivery applications.

**Expected upcoming drones in new verticals**

- Develop UAVs with a focus to cater to asset inspection missions, such as inspection of towers and other vertical assets.
- Develop UAVs with sufficient payload capacity to cater to middle-mile logistics.
- Expand and offer tactical UAV and middle-mile logistics drones with vertical take-off and landing capabilities.

**Exhibit 41. ideaForge continued focus on its product development strategy**



C  
Source: Company, JM Financial

## Strong long-term relationships with customers

Another advantage that sets ideaForge apart is a deep understanding of customer operations and requirements. With 265 customers globally and c.35% repeat clients, ideaForge UAVs have completed 5,00,000+ missions in the hands of customers in challenging environmental, terrain and operational conditions.

The company's customers include Indian defence forces and civil customers comprising certain of the central armed police forces, state police departments, disaster management forces, forest departments, etc. Though the company doesn't enter into long-term contracts with customers, its focus on product quality, reliability, and continuous and new development has resulted in building strong long-term relationships with customers. C. 35% of customers are repeat customers (placed at least two orders with the company); some customers have also steadily increased the volume of business over a period of time.

### Exhibit 42. Repeat customers accounted for more than 90% of revenue over last couple of years

Particulars	From FY20-FY23	From FY18-FY23
Number of repeat customers	71	92
% of total revenue	94.3%	97.7%

Source: Company, JM Financial

## Expanding footprints in international markets

ideaForge has been strategically focusing on entering in the US market and exploring other new market opportunities. Currently it is into beta testing phase in the US market and has deployed UAVs with enforcement agencies to carry out real-life missions on the ground, which have received good responses from authorities compared to their existing drones. The company will continue to participate in major exhibitions and events as an exercise to understand more about the American market. Going forward, it plans to participate in the US procurement programmes (local and federal agencies) for anchor use cases. We expect that successful trials will open up the US market for initial sales. Initially, the company's focus will be on segments like public safety, law enforcement agencies and other use cases around enterprises. Factoring in the encouraging initial response from flight trials, we believe that success in the US market could likely open up opportunities for the company in other geographies.

### India's vast land border offers opportunity for drone players like ideaForge

India's long land border spanning over a length of 15,107Km, along with an extremely harsh environment, is a tough job to monitor. Conventional patrol methods and the use of surveillance cameras, ground sensors, land vehicles, manpower and manned aircraft are inadequate and may have some limitations, especially in small areas. To tackle internal and external threats, defense forces and law enforcement agencies are increasingly relying on the use of intelligent drone technologies for security and surveillance, and also to support their soldiers in harsh weather conditions. The Indian Armed Forces, which have been looking at drone technology for a long time now, are inducting drones in numbers.

We believe, ideaForge's drones can provide a wider and clearer view of the field without using manpower and can also access inaccessible areas, which will give the ground staff more detailed real-time information about the situation without risking lives. With thermal camera sensors and exceptional cameras, ideaForge drones can perform flawlessly and monitor the border even during critical weather conditions.

## Outlook and Valuation

We believe ideaForge's core strength of, technical know-how and new technology and product development capability is supplemented by increasing adoption of drone usage by defence and non-defence space, strong long-term client relationships and focus on exports augur well for the company to capitalise on upcoming opportunities. Indian Drone industry as per industry reports is expected to reach USD 65bn in FY27, however, we have factored in the base case scenario and expect the drone market to reach c.USD 64bn market by FY30. We expect revenue and EPS CAGR of 24% and 26% between FY24-27E. We Initiate coverage on the stock with 'BUY' rating and TP of INR 845, valuing the company at 40x FY27E EPS.

**Exhibit 43. Indian Drone industry as per industry reports is expected to reach USD 65bn in FY27, however, we have factored in the base case scenario and expect the drone market to reach c.USD 64bn market by FY30.**

Particulars (USD mn)	FY22	FY23	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E	FY32E	FY33E	FY34E	FY35E
India Drone Industry (as per-RHP)	3,440	6,191	11,143	20,054	36,093	64,960								
Yoy	258.3%	80.0%	80.0%	80.0%	80.0%	80.0%								
JMFe for Indian Drone market	3,440	4,954	7,133	10,272	14,791	21,300	30,671	44,167	63,600	82,680	107,484	139,730	167,676	201,211
Yoy	258.3%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	30.0%	30.0%	30.0%	20.0%	20.0%
Defence	2,752	3,715	4,993	6,677	8,875	11,715	15,336	21,421	29,892	37,620	47,293	59,385	68,747	79,478
Yoy	NA	35.0%	34.4%	33.7%	32.9%	32.0%	30.9%	39.7%	39.5%	25.9%	25.7%	25.6%	15.8%	15.6%
% of total Market – JMFe	80%	75%	70%	65%	60%	55%	50%	49%	47%	46%	44%	43%	41%	40%
Non-Defence	688	1,238	2,140	3,595	5,917	9,585	15,336	22,746	33,708	45,061	60,191	80,345	98,929	121,732
Yoy	NA	80.0%	72.8%	68.0%	64.6%	62.0%	60.0%	48.3%	48.2%	33.7%	33.6%	33.5%	23.1%	23.1%
% of total Market – JMFe	20%	25%	30%	35%	40%	45%	50%	52%	53%	55%	56%	58%	59%	61%

Source: Company, JM Financial, Industry

**Exhibit 44. We expect ideaForge revenue (hardware & software) to be dominated by defence, though might start coming down from FY29 onwards with expected pickup in new products developed for the non-defence sector**

Particulars (INR mn)	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E	FY32E	FY33E	FY34E	FY35E
ideaForge Revenue	3,140	3,249	3,800	5,128	5,880	7,531	9,507	11,908	14,890	19,460	23,323	27,777
YoY growth (%)	85.8%	3.5%	17.0%	35.0%	14.7%	28.1%	26.2%	25.2%	25.0%	30.7%	19.8%	19.1%
ideaForge Market share - Total Ind.(Calculated)	44%	32%	26%	24%	19%	17%	15%	14%	14%	14%	14%	14%
Defence	2,355	2,436	2,850	3,846	4,410	5,648	6,655	7,145	8,934	9,730	11,662	13,888
YoY growth (%)	NA	3.5%	17.0%	35.0%	14.7%	28.1%	17.8%	7.4%	25.0%	8.9%	19.8%	19.1%
as % of total - JM est.	75%	75%	75%	75%	75%	75%	70%	60%	60%	50%	50%	50%
Civil	785	812	950	1,282	1,470	1,883	2,852	4,763	5,956	9,730	11,662	13,888
YoY growth (%)	NA	3.5%	17.0%	35.0%	14.7%	28.1%	51.5%	67.0%	25.0%	63.4%	19.8%	19.1%
as % of total Market - JM est.	25%	25%	25%	25%	25%	25%	30%	40%	40%	50%	50%	50%
ideaForge Market share - Defence Est.	47%	36%	32%	33%	29%	26%	22%	19%	19%	16%	17%	17%

Source: Company, JM Financial

**Exhibit 45. Using DCF we arrive at fair value of INR 845, implying PE multiple of 40x for FY27**

Particulars	FY22	FY23	FY24	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E	FY31E	FY32E	FY33E	FY34E	FY35E
Indian Drone market	3,440	4,954	7,133	10,272	14,791	21,300	30,671	44,167	63,600	82,680	107,484	139,730	167,676	201,211
YoY	258.3%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	44.0%	30.0%	30.0%	30.0%	20.0%	20.0%
ideaForge revenue (hardware and Software)	1,594	1,690	3,140	3,249	3,800	5,128	5,880	7,531	9,507	11,908	14,890	19,460	23,323	27,777
YoY	359.2%	6.0%	85.8%	3.5%	17.0%	35.0%	14.7%	28.1%	26.2%	25.2%	25.0%	30.7%	19.8%	19.1%
ideaForge Market share - Total Ind.(Calculated)	46%	34%	44%	32%	26%	24%	19%	17%	15%	14%	14%	14%	14%	14%
Other operating revenues	0	171	0	418	696	818	919	1,087	1,290	1,536	1,834	2,197	2,680	3,427
YoY	NA	NA	NA	NA	66.7%	17.5%	12.3%	18.3%	18.7%	19.1%	19.4%	19.8%	22.0%	27.9%
Total Sales	1,594	1,860	3,140	3,666	4,496	5,947	6,799	8,618	10,797	13,443	16,725	21,658	26,003	31,204
YoY	359.2%	16.7%	68.8%	16.8%	22.6%	32.3%	14.3%	26.7%	25.3%	24.5%	24.4%	29.5%	20.1%	20.0%
EBIT Before Financial Other Income	658	431	343	452	634	978	1,187	1,505	1,854	2,079	2,717	3,648	4,462	5,773
NOPLAT	577	338	254	338	474	732	888	1,126	1,387	1,555	2,033	2,729	3,337	4,318
Capex	135	331	670	984	1,275	792	1,192	900	1,000	1,000	1,000	900	1,200	1,080
Free Cash Flow	443	-1,263	118	-592	-704	-192	-313	-119	-2	153	222	943	1,090	4,752
PV of forecast	443	-1,263	118	-592	-635	-156	-229	-79	-1	82	107	412	429	1,687
WACC	10.9%													
Terminal Growth rate	5.5%													
PV of FCF for explicit period	1,027													
Terminal Value - discounted	32,658													
Enterprise Value	33,685													
Net Debt - Mar24	-2,525													
Adj for minority interest etc	0													
Equity Value	36,209													
No of shares (mn)	43													
<b>Per share value</b>	<b>845</b>													

Source: Company, JM Financial

**Exhibit 46. Peer Comparison**

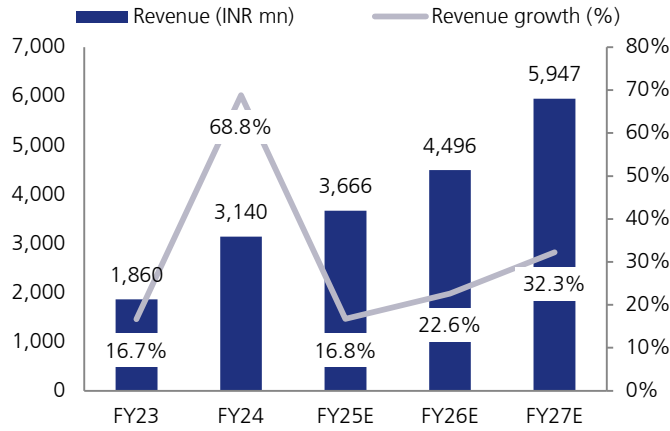
Particulars	EPS CAGR	P/E				EV/EBITDA				ROE			
		FY24	FY25	FY26	FY27	FY24	FY25	FY26	FY27	FY24	FY25	FY26	FY27
ideaForge	26%	66.0	55.7	45.5	32.9	49.2	39.0	29.2	21.0	9.2	7.6	8.5	10.7
<b>Global Peers</b>													
Ehang Holdings Ltd-Sps Adr	-185%	NA	NA	NA	56.2	NA	NA	NA	44.6	-178.5	-209.7	20.1	-14.6
Aerovironment Inc	-190%	228.2	54.4	44.2	37.4	NA	34.8	28.9	25.1	-30.4	NA	NA	NA
Boeing Co/The	-229%	NA	NA	38.1	19.9	134.1	62.4	17.8	13.0	NA	6.9	-17.3	-58.8
Northrop Grumman Corp	29%	29.8	20.6	18.8	17.7	19.6	15.5	14.4	14.0	13.7	24.9	26.1	26.0
Kratos Defense & Security	-310%	NA	46.9	37.2	34.6	37.0	30.2	25.9	22.4	-0.9	4.0	4.8	8.7
<b>Indian Defence Companies</b>													
BEL	17%	37.0	45.3	37.8	32.9	27.0	33.9	28.4	1.3	26.4	26.4	27.1	26.2
Datta Patterns	7%	74.6	66.3	52.5	67.9	58.2	52.2	40.3	NA	14.6	15.7	16.9	17.8
Paras Defence	NA	74.4	107.5	69.1	NA	47.8	68.4	44.1	NA	7.5	9.1	12.7	NA
HAL	10%	29.2	40.9	34.9	30.8	21.7	28.0	23.9	1.1	28.9	25.6	25.4	24.5
BDL	NA	52.4	NA	NA	NA	52.0	NA	NA	0.9	17.9	24.3	25.6	NA
Astra Microwave Products Ltd	32%	46.4	55.0	43.0	31.1	30.1	36.2	28.5	0.9	15.1	15.5	16.7	17.1
MTAR Technologies Ltd	59%	92.3	62.0	36.6	24.1	47.2	34.8	21.0	NA	8.7	12.3	17.6	25.0
BEML Ltd	30%	47.1	47.7	31.7	26.2	30.1	29.8	21.4	0.7	11.1	12.3	16.1	17.6
<b>EMS</b>													
Kaynes Technologies	46%	93.8	112.7	80.6	56.5	67.5	76.3	52.1	37.1	10.6	11.4	13.9	17.5
Cyient DLM	44%	85.6	48.9	33.1	27.9	31.2	31.7	22.2	18.5	11.1	11.3	15.0	15.5
Syrma	42%	76.8	56.7	36.4	27.0	41.0	30.8	21.6	16.5	6.8	8.8	12.3	14.6
Avalon	59%	115.2	81.6	42.7	31.3	52.4	43.0	25.8	19.4	5.2	7.7	12.8	15.4

Source: JM Financial, Industry

## Financials in Charts

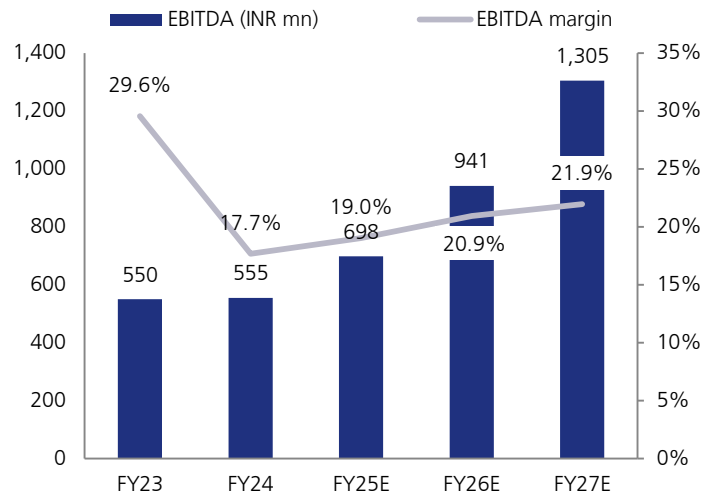
ideaForge being more tilted towards the defence side of drones, where execution of contracts/orders are bulky in nature. Evaluating such a company on a yearly basis portrays a much better picture, instead of looking on a QoQ basis.

**Exhibit 47. Revenue is expected to report healthy 24% CAGR over FY24-27E, driven by new product development, expanding geographical reach and government focus on increasing drone usage in defence sector**



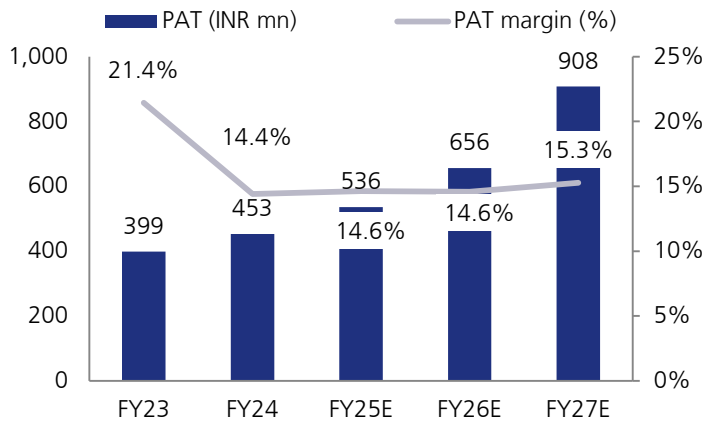
Source: Company, JM Financial

**Exhibit 48. EBITDA margin likely to expand to 21.9% by FY27, factoring in operating leverage, focus on cost efficiencies**



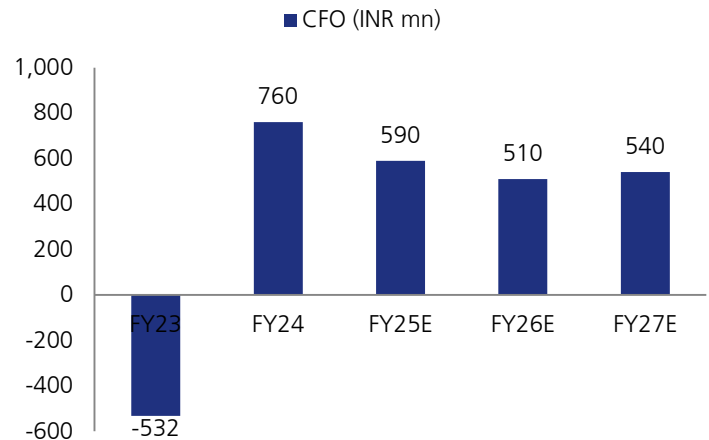
Source: Company, JM Financial

**Exhibit 49. Strong revenue growth and operational performance, backed by lower interest rate to drive profitability**



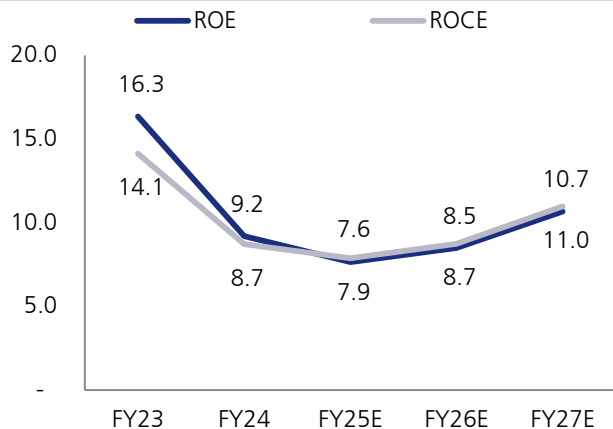
Source: Company, JM Financial

**Exhibit 50. Improving working capital and strong profitability is likely to result in better CFO going forward**



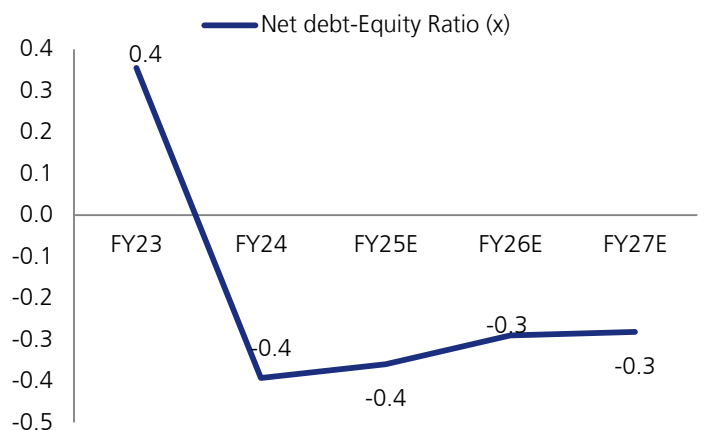
Source: Company, JM Financial

**Exhibit 51. We expect return ratio to expand YoY going forward with improving profit margins**



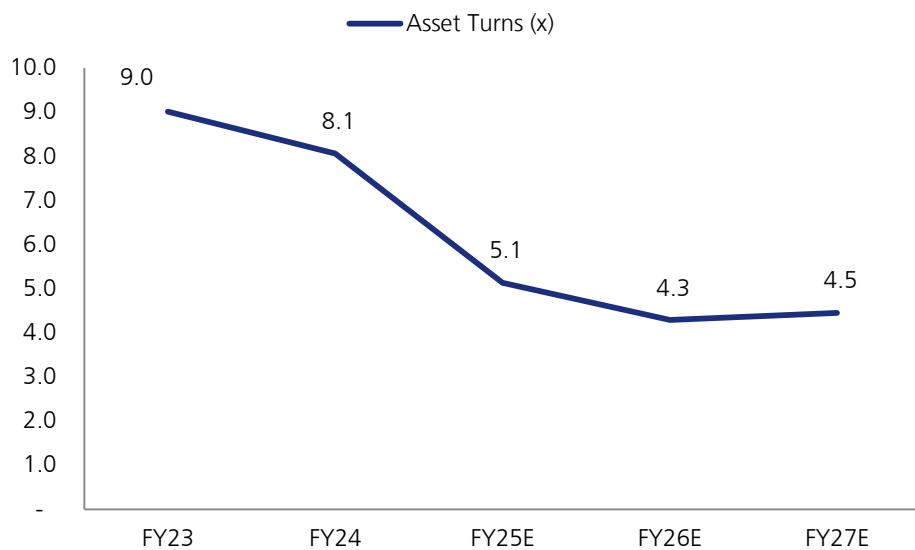
Source: Company, JM Financial

**Exhibit 52. Company has reduced its over borrowing level over last couple of years resulting in improving debt to Equity ratio**



Source: Company, JM Financial

Exhibit 53. Continuous investment in capacity expansion due to new product development resulted in fluctuation in Asset Turn for ideaForge, however, this has resulted in strong revenue growth for the company and we expect going forward too company will be benefiting with strong revenue growth.



Source: Company, JM Financial

Exhibit 54. RoE is expected to increase due to constant improvement in net profit margins and asset turns

DuPont Analysis	FY21	FY22	FY23	FY24	FY25E	FY26E	FY27E
Net Margin	-42.1%	27.6%	21.4%	14.4%	14.6%	14.6%	15.3%
Asset turnover	0.4	1.1	0.6	0.6	0.5	0.6	0.7
Leverage factor	1.4	1.3	1.2	1.1	1.0	1.0	1.0
<b>ROE</b>	<b>-22.8%</b>	<b>39.4%</b>	<b>16.3%</b>	<b>9.2%</b>	<b>7.6%</b>	<b>8.5%</b>	<b>10.7%</b>

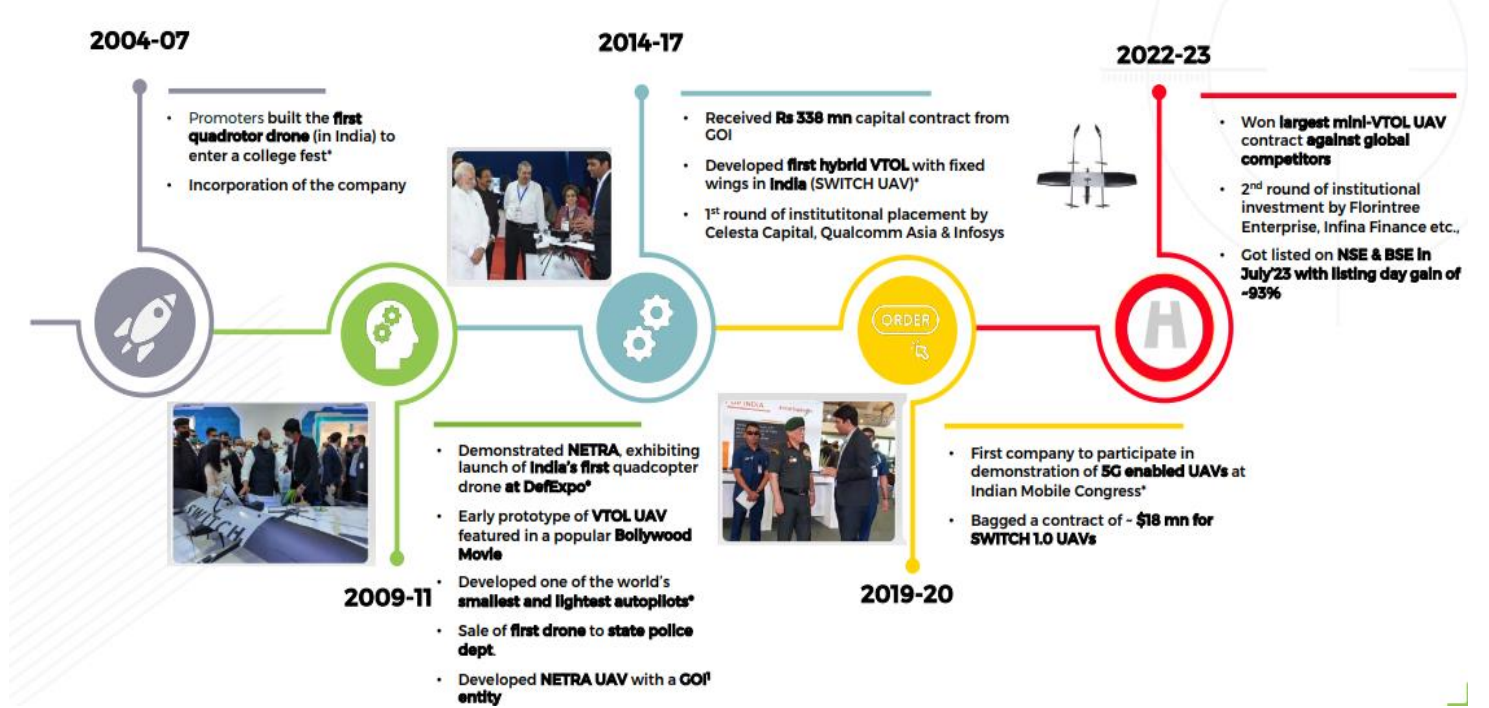
Source: Company, JM Financial



## About the company

Incorporated in 2007, ideaForge is a pioneer and the market leader in the Indian UAS industry. It is the first company in India to have started developing VTOL drones (in 2009). The company achieved a significant milestone in 2010 with an inaugural commercial order from a Special Task Force of a state. In 2012, ideaForge collaborated with DRDO to develop the renowned NETRA drones. This collaboration led to the signing of a MoU with DRDO, facilitating the transfer of technology and enabling ideaForge to effectively introduce its 'Netra' drones to the armed forces.

### Exhibit 55. Key milestones



Source: Company, JM Financial

### Exhibit 56. ideaForge at a glance



Source: JM Financial, Industry

#### Notable milestone

As of FY24, ideaForge drones have completed 5,00,000+ flights, including 1,00,000 flights launched in FY24. It is pertinent to note that an ideaForge drone takes off every five minutes

**State-of-the-art manufacturing facility:** Located in Navi Mumbai, Maharashtra, ideaForge operates a state-of-the-art manufacturing facility spanning c.21,000sqft with advanced equipment, cutting-edge technology, and automated systems, enabling the production of a diverse range of products. Adhering to stringent requirements and maintaining high standards, it is accredited with global certifications like AS9100D, ISO 9001:2015, and ISO 27001:2022. The manufacturing facility upholds high-quality standards throughout the production process.

Additionally, the facility is equipped with a dedicated testing centre that includes an environmental stress screening (ESS) chamber and a vibration table. The manufacturing facility is equipped with a range of testing and manufacturing machines along with a facility to screen products, ensuring conformity and reducing field failures, thus enhancing reliability. Vibration tables, functional jigs, and various custom jigs are also employed to comprehensively test the products. The manufacturing facility also incorporates vision inspection systems, printed circuit board assembly (PCBA) testers, auto screwing guns, a semi-automatic crimping machine, and three computerised numerical control (CNC) machines, contributing to the meticulous production of critical-to-quality (CTQ) components.

#### Exhibit 57. Key managerial personnel

Name	Designation	Commentary
Mr. Ankit Mehta	CEO	- Promoter of the Company - Associated with Company since incorporation - Bachelor of Technology (M.E.), Masters of Technology (IIT, Bombay)
Mr. Rahul Singh	VP-Engineering	- Promoter of the Company - Associated with Company since incorporation - Bachelor of Technology (M.E.) (IIT, Bombay)
Mr. Ashish Bhat	VP- R&D	- Promoter of the Company - Associated with the Company since incorporation - Bachelor of Technology (E.E.) (IIT, Bombay)
Mr. Vipul Joshi	CFO	- Handling the finance & operations - B.Com (Honours) and MBA (University of Business and Finance, Switzerland)

Source: Company, JM Financial

## Key Risks

- **Heavily reliant on sales to the Indian government:** The company derives a significant portion of the total sales from contracts with Gol entities; any slowdown in government spending can impact the performance of the company.
- **Majority of the sales of products are dependent on winning bids:** The business and growth depend on the company's ability to qualify for and win bids undertaken by the Gol entities for awarding contracts. The Gol awards contracts on a competitive basis, which has the potential to create pricing pressure, which, in turn, exerts pressure on margins. The company obtains a majority of the business through a competitive bidding process in which it competes for contracts/awards based on, among other things, pricing, product trials, reputation for quality, financing capabilities and track record.
- **Highly regulated industry:** The company operates in an industry that is highly regulated, and operations, including manufacturing and sales, are subject to stringent laws and regulations. Under the current regulatory regime, in order to operate an Unmanned Aerial Vehicle (UAV), a type certification is required to be obtained from the Directorate General of Civil Aviation (DGCA).
- **Products are complex and technologically advanced and could have unknown defects or errors:** The UAVs have a fully integrated system relying on complex avionics and electromechanical designs and advance programming. The software architecture of such advanced programming is based on complex and interdependent applications including unencrypted signal mechanisms.

## Financial Tables (Consolidated)

Income Statement		(INR mn)				
Y/E March	FY23A	FY24A	FY25E	FY26E	FY27E	
Net Sales	1,860	3,140	3,666	4,496	5,947	
Sales Growth	16.7%	68.8%	16.8%	22.6%	32.3%	
Other Operating Income	0	0	0	0	0	
<b>Total Revenue</b>	<b>1,860</b>	<b>3,140</b>	<b>3,666</b>	<b>4,496</b>	<b>5,947</b>	
Cost of Goods Sold/Op. Exp	510	1,573	1,826	2,233	2,911	
Personnel Cost	509	525	563	603	749	
Other Expenses	291	487	579	719	981	
<b>EBITDA</b>	<b>550</b>	<b>555</b>	<b>698</b>	<b>941</b>	<b>1,305</b>	
EBITDA Margin	29.6%	17.7%	19.0%	20.9%	21.9%	
EBITDA Growth	-24.8%	0.9%	25.8%	34.9%	38.6%	
Depn. & Amort.	119	212	246	308	326	
EBIT	431	343	452	634	978	
Other Income	104	304	301	280	276	
Finance Cost	48	37	37	37	40	
PBT before Excep. & Forex	487	611	716	877	1,214	
Excep. & Forex Inc./Loss(-)	-80	0	0	0	0	
PBT	407	611	716	877	1,214	
Taxes	88	158	181	221	306	
Extraordinary Inc./Loss(-)	80	0	0	0	0	
Assoc. Profit/Min. Int.(-)	0	0	0	0	0	
Reported Net Profit	399	453	536	656	908	
<b>Adjusted Net Profit</b>	<b>399</b>	<b>453</b>	<b>536</b>	<b>656</b>	<b>908</b>	
Net Margin	21.4%	14.4%	14.6%	14.6%	15.3%	
Diluted Share Cap. (mn)	38.1	42.9	42.9	42.9	42.9	
<b>Diluted EPS (INR)</b>	<b>10.5</b>	<b>10.6</b>	<b>12.5</b>	<b>15.3</b>	<b>21.2</b>	
Diluted EPS Growth	-24.3%	0.8%	18.4%	22.4%	38.5%	
Total Dividend + Tax	0	0	0	0	0	
Dividend Per Share (INR)	0.0	0.0	0.0	0.0	0.0	

Source: Company, JM Financial

Cash Flow Statement		(INR mn)				
Y/E March	FY23A	FY24A	FY25E	FY26E	FY27E	
Profit before Tax	408	611	716	877	1,214	
Depn. & Amort.	119	212	246	308	326	
Net Interest Exp. / Inc. (-)	49	-90	-265	-243	-236	
Inc (-) / Dec in WCap.	-1,248	246	72	-211	-458	
Others	205	-14	0	0	0	
Taxes Paid	-64	-204	-181	-221	-306	
<b>Operating Cash Flow</b>	<b>-532</b>	<b>760</b>	<b>590</b>	<b>510</b>	<b>540</b>	
Capex	-331	-670	-984	-1,275	-792	
Free Cash Flow	-862	90	-394	-766	-251	
Inc (-) / Dec in Investments	-1,158	-346	200	200	200	
Others	0	0	0	0	0	
<b>Investing Cash Flow</b>	<b>-1,489</b>	<b>-1,017</b>	<b>-784</b>	<b>-1,075</b>	<b>-592</b>	
Inc / Dec (-) in Capital	1,025	2,833	0	0	0	
Dividend + Tax thereon	0	0	0	0	0	
Inc / Dec (-) in Loans	808	-865	0	-100	0	
Others	-99	981	265	243	236	
<b>Financing Cash Flow</b>	<b>1,735</b>	<b>2,949</b>	<b>265</b>	<b>143</b>	<b>236</b>	
<b>Inc / Dec (-) in Cash</b>	<b>-286</b>	<b>2,692</b>	<b>70</b>	<b>-422</b>	<b>184</b>	
Opening Cash Balance	351	45	2,738	2,808	2,386	
Closing Cash Balance	65	2,738	2,808	2,386	2,570	

Source: Company, JM Financial

Balance Sheet		(INR mn)				
Y/E March	FY23A	FY24A	FY25E	FY26E	FY27E	
Shareholders' Fund	3,246	6,606	7,406	8,062	8,970	
Share Capital	213	429	429	429	429	
Reserves & Surplus	3,033	6,177	6,977	7,633	8,541	
Preference Share Capital	0	0	0	0	0	
Minority Interest	0	0	0	0	0	
Total Loans	1,006	145	145	45	45	
Def. Tax Liab. / Assets (-)	-51	-94	-94	-94	-94	
<b>Total - Equity &amp; Liab.</b>	<b>4,201</b>	<b>6,657</b>	<b>7,456</b>	<b>8,012</b>	<b>8,921</b>	
Net Fixed Assets	736	1,213	1,951	2,918	3,384	
Gross Fixed Assets	261	517	911	1,184	1,484	
Intangible Assets	465	863	1,453	2,455	2,947	
Less: Depn. & Amort.	24	236	481	789	1,116	
Capital WIP	34	69	69	69	69	
Investments	1,251	879	679	479	279	
Current Assets	2,841	5,239	5,671	5,712	6,643	
Inventories	1,047	983	1,205	1,355	1,629	
Sundry Debtors	578	444	502	616	815	
Cash & Bank Balances	65	2,738	2,808	2,386	2,570	
Loans & Advances	0	0	0	0	0	
Other Current Assets	1,151	1,075	1,155	1,355	1,629	
Current Liab. & Prov.	627	674	844	1,096	1,385	
Current Liabilities	140	160	191	234	326	
Provisions & Others	487	515	653	862	1,059	
Net Current Assets	2,214	4,565	4,827	4,615	5,258	
<b>Total - Assets</b>	<b>4,201</b>	<b>6,657</b>	<b>7,456</b>	<b>8,012</b>	<b>8,921</b>	

Source: Company, JM Financial

Dupont Analysis						
Y/E March	FY23A	FY24A	FY25E	FY26E	FY27E	
Net Margin	21.4%	14.4%	14.6%	14.6%	15.3%	
Asset Turnover (x)	0.6	0.6	0.5	0.6	0.7	
Leverage Factor (x)	1.2	1.1	1.0	1.0	1.0	
RoE	16.3%	9.2%	7.6%	8.5%	10.7%	

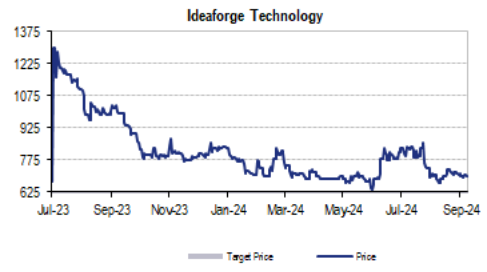
Key Ratios						
Y/E March	FY23A	FY24A	FY25E	FY26E	FY27E	
BV/Share (INR)	85.2	154.0	172.7	188.0	209.2	
ROIC	12.2%	6.2%	7.7%	9.1%	12.0%	
ROE	16.3%	9.2%	7.6%	8.5%	10.7%	
Net Debt/Equity (x)	0.3	-0.4	-0.4	-0.3	-0.3	
P/E (x)	66.6	66.0	55.8	45.6	32.9	
P/B (x)	8.2	4.5	4.0	3.7	3.3	
EV/EBITDA (x)	56.2	49.3	39.1	29.3	21.0	
EV/Sales (x)	16.6	8.7	7.4	6.1	4.6	
Debtor days	113	52	50	50	50	
Inventory days	205	114	120	110	100	
Creditor days	39	23	23	24	26	

Source: Company, JM Financial

### History of Recommendation and Target Price

Date	Recommendation	Target Price	% Chg.
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### Recommendation History



## APPENDIX I

## JM Financial Institutional Securities Limited

Corporate Identity Number: U67100MH2017PLC296081

Member of BSE Ltd. and National Stock Exchange of India Ltd.

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Grievance officer: Mr. Sahil Salastekar | Tel: +91 22 6224 1073 | Email: instcompliance@jmfl.com

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Rating	Meaning
Buy	Total expected returns of more than 10% for stocks with market capitalisation in excess of INR 200 billion and REITs* and more than 15% for all other stocks, over the next twelve months. Total expected return includes dividend yields.
Hold	Price expected to move in the range of 10% downside to 10% upside from the current market price for stocks with market capitalisation in excess of INR 200 billion and REITs* and in the range of 10% downside to 15% upside from the current market price for all other stocks, over the next twelve months.
Sell	Price expected to move downwards by more than 10% from the current market price over the next twelve months.

\* REITs refers to Real Estate Investment Trusts.

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