ARROWHEAD
BUSINESS AND INVESTMENT DECISIONS

Due Diligence and Valuation Report

EURONEXT

DRONEVOLT

Arrowhead Code:	90-02-05
Coverage initiated:	03 June 2016
This document:	17 Nov 2017
Fair share value bracket-DCF:	€ 1.06 and € 1.29
Share price (17 Nov 17):	€ 0.71

Company:	Drone Volt SA
Ticker:	EPA: ALDRV.PA, ISIN FR0013088606
Headquarters:	Villepinte , France
Founder	Mr. Dimitri Batsis
Chairman and CEO	Mr. Olivier Gualdoni
VP Sales, U.S.	Mr. Daniel Roe
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Market Data

52-Week Range:	€ 0.67 - € 1.37[i]
Average Daily Volume:	102,228 [ii]
Market Cap. (17-Nov-17):	€ 13.53 MM

Financial Forecast (in €) (FY ending - Dec)

€	'17E	'18E	'19E	'20E	'21E	'22E
High NI '000	(630.0)	(121.1)	378.2	997.6	1,823.3	2,693.8
High EPS	(0.03)	(0.01)	0.02	0.06	0.10	0.15
Low NI '000	(658.3)	(193.0)	231.4	749.3	1,446.2	2,225.2
Low EPS	(0.04)	(0.01)	0.01	0.04	0.08	0.12

Company Overview: Drone Volt SA (herein referred to as "Drone Volt", "DRV" or "the Company") is a France-based company, which specializes in production, integration and sale of drones or UAV (Unmanned Aerial Vehicles) and software for professionals. The Company, established in 2011, is listed in AlterNext under the stock symbol "ALDRV." The Company provides customized drones and several related services (pilot training, regulatory certification, etc.), which enables it to provide turnkey solutions to its clients. Drone Volt presents itself as a one-stop shop offering complete solutions to its customers. While it targets the consumer as well as professional market, its focuses primarily on the latter. Drone Volt is the market leader in the European broadcasting and service drone industry. It has expanded its presence globally and currently covers 13 major countries in Europe and North America. The Company clientele includes CERN, FRANCE TELEVISIONS, the Police station of the Air Transport (GTA), SPIE, TF1, FREEWAY PROD, etc., and industrial players like Bouygues Energies & Services, Thales, Delta Drone, etc.

The company registered a growth of 25% in its revenue to €5,808 for period of 9M 2017 in comparison to €4,631 of 9M 2016 which is mainly due to international segment which has first time contributed 50% of sales. Also, gross margin increased to € 1.5MM for 9M 2017 in comparison to € 0.9MM of 9M 2016. This was mainly due to Drone Volt Factory, Drone Volt Academy and a positive upswing in maintenance revenues.

Arrowhead is updating coverage on Drone Volt SA with a fair value bracket of € 1.06 (Low-Bracket estimate) and € 1.29 (High-Bracket estimate).

Key Highlights: (1) We expect the Company's revenue to increase from € 3.59 MM in 2015 to € 30.48 MM (low bracket) and € 32.88 MM (high bracket) in 2020, at a CAGR of 53.4% and 55.8% respectively; **(2)** Drone Volt's revenue increased by 25% to € 5.8MM in 9M 2017 compared to € 4.6MM of 9M 2016. **(3)** International revenues for Drone Volt has increased by 47% to € 2.9MM for 9M 2017 in comparison to € 1.9MM of 9M 2016.

We expect the Company to sell 4,003 (low bracket) to 4,120 (high bracket) drones a year by 2020; **(4)** Gross Profit increased by 68% to € 1.47MM for 9M 2017 compared to € 0.87MM of same period of 9M 2016. **(5)** The company is focusing on major French accounts and Fortune 500 accounts and on sectors like construction and defense.

Drone Volt is focusing on the professional segment, which is expected to grow 15x-16x from the 2015 level by 2020; **(6)** The Company has approximately 70-80% share of the French TV market; **(7)** The company announced that it will acquire the majority control in main assets of Aerialtronics, Netherlands based company.Drone Volt has presence in 13 major territories across Europe and North America; **(8)** The company raised € 1.4 MM in June 2017, from institutional investors. The shares were subscribed by the prestigious SmallCaps fund.**(10)** The company's HERCULES 10 SPRAY was awarded silver innovation award at the BATIMAT 2017 Innovation competition **(13)** The company recently acquired DANDRONE, thus reinforcing its position in Scandinavia.

Risks: The key risks for Drone Volt are evolving regulatory policies for the sector, supplier risk, emerging competition and cheap alternatives.

Valuation and Assumptions: On the basis of due diligence and valuation estimates, Arrowhead believes that Drone Volt's fair share value lies in the € 1.06 - € 1.29 bracket using a Discounted Cash Flow (DCF) model – our primary valuation methodology.[iii] In addition, the peer group average P/E multiple and our average EPS estimate in 2020 implies fair value of €1.88 per share, which is approximately 165% above the current share price.

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1. Summary and Outlook

We update coverage on Drone Volt SA. The Company, headquartered in Villepinte, France, specializes in designing and marketing civil UAV's for professional purposes. It offers turnkey business solutions to its customers, which includes several related services and pilot training. The Company is a leader in audio visual drone solutions and also provides aerial photography to public administration and industry. The Company's clientele includes CERN, FRANCE TELEVISIONS, the Air Press Release Transport Gendarmerie (GTA), SPIE, TF1, the TOUR DE FRANCE - PROD FREEWAY, etc.

Key Highlights:

(1) The Company is focusing on the professional drone segment to drive growth. It is focusing on major French and International accounts. Construction and defense are the key priority sectors for the company.It has registered 4.6x growth in revenue in 2015 compared to the previous year.

(2) The commercial drone industry is expected to grow exponentially over the next decade as per several market research estimates. Teal group, a U.S. aerospace consulting firm, forecasts that the commercial drone market is expected to touch USD 3.92 BN by 2025 from USD 0.7 BN in 2014.[iv] This suggests significant potential for future expansion for Drone Volt and other companies.

(3) The Company has approximately 70-80% share in the French TV market, which uses drones for aerial shots, images, videos, which are otherwise either impossible to attain or costly using helicopters and cranes.

(4) The company registered a growth of 25% in its revenue to €5,808 for period of 9M 2017 in comparison to €4,631 of 9M 2016 which is mainly due to international segment which has first time contributed 50% of sales. Also, gross margin increased to € 1.5MM for 9M 2017 in comparison to € 0.87MM of 9M 2016. This was mainly due to Drone Volt Factory, Drone Volt Academy and a positive upswing in maintenance revenues.

(5) Drone Volt is magnifying its customer base by acquiring the assets of Aerialtronics which is a Netherlands based company which will help the company to enhance its customer offerings, mainly in the field of security.Drone Volt has presence in 13 major territories across Europe and North America. It has also hired experts from the drone industry as key executives to identify further growth prospects in these regions.

(6) In 2015, the Company raised € 1.8 MM through private placements. It also secured an additional funding of € 5 MM through the issue of bonds, which could be converted into shares with share subscription warrants. It allows a maximum drawdown of € 5 MM, divided into 20 tranches of €250,000 each. We believe that the well-funded balance sheet augurs well considering their rapid expansion plans.

(7) The company raised € 1.4 million, subscribed mainly by the SmallCaps fund of one of the four largest French collective management institutions. The issue price was fixed at € 0.86 for the new issue of 1,655,214 shares. With this recent private placement, the company has 18,049,467 shares at a par value of € 0.03 each.

(8) The company has reported an increase of 25% in revenues for H1 2017 in comparison to € 3.1MM of H1 2016 which was mainly due better performance of international market. Gross Profit increased to € 1MM in H1 2017 compared to € 0.4MM of H1 2016. EBIT improved by 36% from € (1.4)MM of H1 2016 to €(0.9)MM of H1 2017. Net income stood at € (0.6)MM in S1 2017 compared to € (0.9)MM of S1 2016.

(9) We expect the company to become profitable from FY 2018. The company is now focusing more towards increasing its bottom-line. The gross margin increased by almost 50% in the second half of 2016 compared to the first half of the year. However, this might slightly slow down the sales growth.

(10) The Company fully customizes the drone parts and applications as per its customers' requirements. This distinguishes Drone Volt from the competition as these features are incorporated to meet specific requirements. These value-added applications will allow the Company to generate higher margins and cash inflows going forward.

(11) Company was awarded silver innovation award for its HERCULES 10 SPRAY in BATIMAT 2017. This drone is a professional device which was intended to be used in construction industry. This drone was manufactured in Drone Volt production factory and is available in three variants.

(12) Another innovative product by the Company, Drone Spray was launched with the aim to prevent vector borne disease. The drone could be used to carry larviciding products in order to kill mosquitoes and their larvae in their breeding areas. The same operation, using helicopters, is costlier and causes pollution. If this drone is successful, it could lead to reduction in mosquito-borne diseases such as malaria, dengue fever, Japanese encephalitis, etc., in the long run.

(13) The Company has developed several new drones, such as drone spray, drone paint, drone surveillance, for multiple uses across sectors. These drones could be used for treatment and cleaning of surface, inspection of work, paint, live surveillance, mapping, etc.

(14) For its French customers, the Company provides turnkey solutions for immediate drone use, including arranging regulatory approval, registration and training programs for licenses. This leads to time and cost saving for the client.

(15) The company's Janus 360° VR is the only drone dedicated to VR in movies and games. The drone was awarded first prize in Mediakwest awards in November 2016.

(16) The company was one of the six startups selected by the organizers of Viva Technology 2016 to present its innovation to the President.

(17) The company entered Latin American "surveillance and security" drones market in March 2017 with the signing of a distribution agreement with a Columbian company. The company also announced acquisition of Denmark based DANDRONE thus reinforcing its position in Scandinavian region.

(18) Drone Volt has been focusing on its R&D efforts and expects to design and develop majority of the drone parts it uses in-house in the coming years, which would help in lowering the potential threat from price based competition.

(19) The Company has also entered into a strategic alliance with Squadrone System, the creator of Hexo+. Through this agreement, Drone Volt has exclusive rights for Hexo+ products and its future development, which would enable the Company to develop professional civilian applications. The agreement also states that Drone Volt would provide marketing and sales efforts for Hexo+ in Europe, through its subsidiary in Scandinavia.

(20) The Company split its shares in January 2016 using a ratio of 1:10 to boost the stocks' liquidity.

(21) Drone Volt was transferred to AlterNext Paris continuous listing to enhance its visibility and cater to new categories of investors.

Key Risks: Key risks for Drone Volt are tougher regulations in the area of operation, supplier risk, along with emerging competition in the foreseeable future. In addition, cheaper alternatives of Drone Volt's products by small players could also impact the Company's growth.

Industry Overview: The UAV or Drone industry has seen rapid growth over the last decade owing to technological advancements in this sector. New markets, such as civil and consumer drone segments, have emerged driven by new technologies and keenness regarding the various usage of drones across sectors. There have been varied forecasts by industry experts regarding the likely market growth. Teal Group, a U.S. aerospace consulting firm, estimates the commercial drone market is expected to increase to USD 3.92 BN in the next decade, constituting 28% of the total drone industry (USD 14 BN) in the same period. Another U.S. market & research consulting firm, Grand View Research estimates that the commercial drone industry will reach USD 2.07 BN by 2022, while other experts have different views on the same. However, all these estimates highlight the view that the commercial/civil drone industry is expected to witness significant growth over the next decade and will be a major contributor to the overall drone industry sales. In addition, use of commercial drones is likely to increase in areas such as agriculture, media, cinematography and photography, inspection and maintenance, surveillance, real estate, etc. It corroborates with our view that there is immense scope for Drone Volt to capture market share with its unique and customized products.

2. Business Overview:

Drone Volt is a leading French company in civilian drones, specializing in manufacturing, assembling and distribution of professional drones. It came into existence in 2011 as a private limited company, headquartered close to Paris CDG airport, France. It was listed on Euronext marché libre Paris in April 2015, before being transferred to AlterNext Paris in December 2015. The Company's shares are traded under the symbol "ALDRV". Drone Volt started with a focus on drones for individuals, but the Company soon repositioned itself to offer solutions to professionals. The Company also provides training services for UAV at its own flight training centers; repair and maintenance services for drones; and accompanying administrative approaches to the DGAC (Direction Générale de l'aviation Civile) to start businesses. In 2015, Drone Volt started expanding globally and currently covers 13 major territories in Europe and North America: Belgium, Canada, Croatia, Denmark, Finland, France, Italy, Luxembourg, the Netherlands, Slovenia, Sweden, Switzerland and the United States. The Company's clients include a large number of media industry leaders, such as France 2, France 3, Canal+, TF1, BFM TV, Thalassa, EuropaCorp, La Cité du Cinema, iTV; government departments like the Interior Ministry of France, Air Transport Police; and industrial players such as Bouygues Energies & Services, Thales.

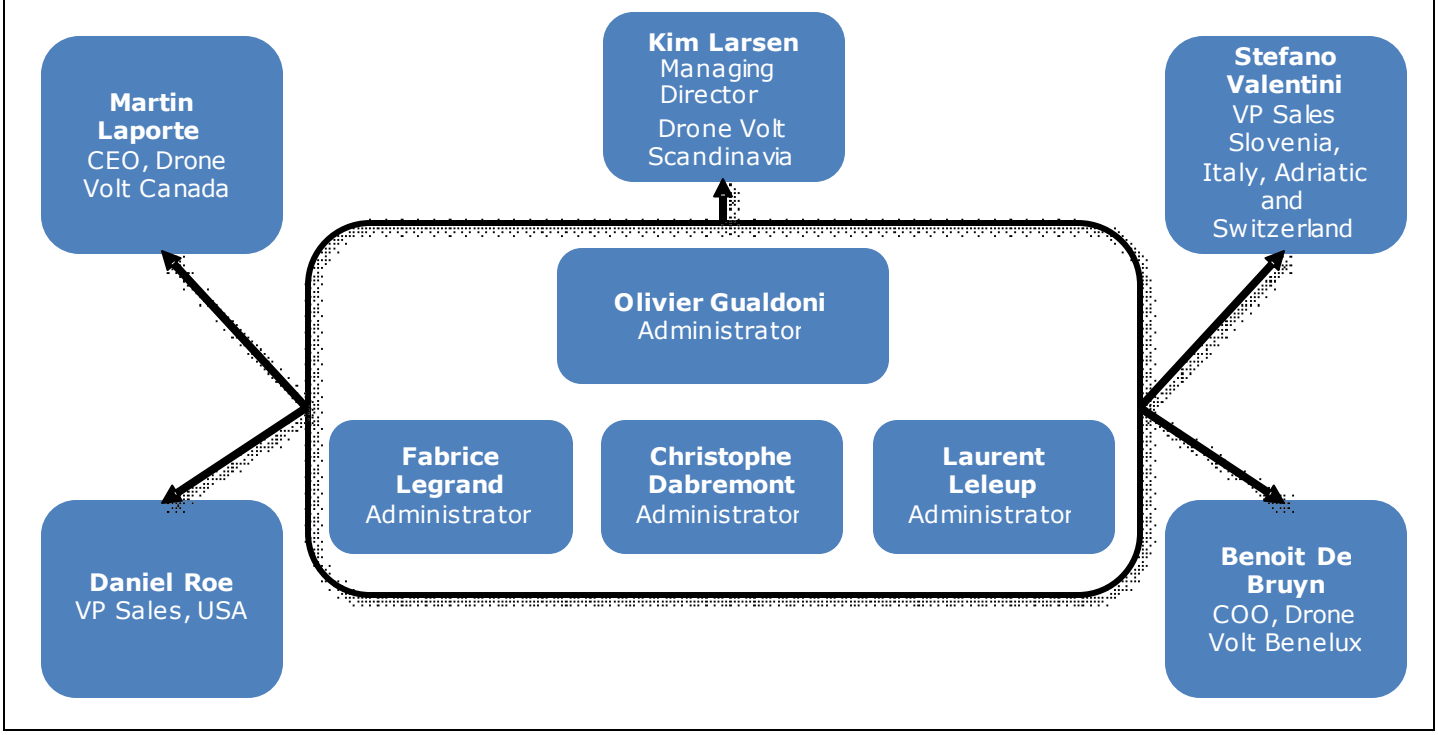
The Company has already established itself in the media market and has now ventured into other markets such as law enforcement, agriculture, surveillance, real estate and construction. For instance, Drone Volt has launched special drone designs, "Hornet Spray by Drone Volt" for the agriculture sector. It has partnered with Squadrone System for its Hexo+ product. The agreement is a multi-year deal giving Drone Volt exclusive rights to market the product in Europe. Hexo+

is an innovative and visionary autonomous drone launched in 2015, which DRV will use for the development of professional civilian applications, particularly in the field of strategic security. The company has also signed a contract with SARP, a subsidiary of Veolia, under which the company will provide solutions based on its Drone Spray. This showcases Drone Volt's ability to provide product offerings that can meet restrictive technical demands. In November 2016, the company launched "DV Wing" drone targeting agriculture and mapping space. The drone has an 18.2 MP high resolution camera and a flight time of 85 minutes. The drone uses algorithms to obtain aerial imagery and data for photogrammetry, map analysis and measurements for road construction. In March 2017, the company presented its Hercules 5 UF (Unlimited flight) drone to the president of France. The unlimited flight capacity makes the drone ideal for continuous surveillance of high security areas.

2.1 Ownership Structure

Drone Volt SA organizational chart is as follows:

Exhibit 1: Organization Structure[v]



Source: Company data as of June, 2017

2.2 Business Model

Drone Volt is involved in the business of selling drones and software to individuals and professionals through B2C and B2B channels. It started as an assembler and distributor of drones, i.e., it bought individual components from suppliers such as China's DJI, and assembled them to deliver an operational drone platform to the clients. However, it has now expanded its portfolio, offering various drone related services like pilot training, regulatory certification, etc., besides providing customized products, which allows it to offer its clients a turnkey product. The Company targets both the consumer and professional market, though it shifted its focus from the former to the latter in order to tap the high growth opportunities present in the professional market.

DRV also offers a wide range of services like drone training and repair and maintenance services for drones. It even provides administrative assistance for registering operators with DGAC (French Regulator), obtaining flight authorizations, training pilots and providing them with requisite certification from DGAC. Resultantly, Drone Volt has become a one-stop shop that provides comprehensive solutions to its customers.

Sales based model

The Company follows a sales based model. It does not offer products on rental basis. This provides DRV a competitive edge over its peers who follow a rental model, in terms of availability and customizations of drones. Their sales based model also lowers the risk of obsolescence as the Company is not required to store any inventory to rent out its products and can easily adapt to changing technology and market needs.

The Company sells its products to the retail and professional customers through its Company website (www.store.dronevolt.com), showrooms and sales team. Online sales have been the key contributor to overall sales to date. However, the Company is now employing more sales specialists to ensure greater visibility among professional users.

Professional Market Opportunities

Currently, the media market constitutes the core business for Drone Volt. The Company enjoys 70-80% share of the French TV market. Besides this, the Company is now developing products for new markets such as surveillance, agriculture and real estate/construction.

1. **Media:** The media industry, mainly the television and entertainment segments, uses drones to capture specific images/ videos for aerial filming, replacing the use of expensive helicopters and static cranes. Drones help obtain 360-degree view of subjects and provide a bird's eye view with less hassle and cost in comparison to helicopters and cranes. Drone journalism is another field where drones can be used to cover stories like natural/ man-made disasters. It can also be used to conduct search and rescue missions for missing persons. Important information such as the amount of damage post a disaster, the details of any livelihood, etc., can also be captured via a drone.

   However, the use of drones in the fields of media and entertainment faces challenges in terms of privacy and safety concerns of the citizens. The U.S. regulator, FAA (Federal Aviation Administration), is expected to launch a set of regulations in 2016 permitting the use of unmanned aerial vehicle under certain conditions. This could be a big breakthrough for the UAV market, opening up new opportunities for drone application.
2. **Surveillance:** Monitoring and surveillance activities can be conducted using drones for specific activities. In certain situations, (a large public gathering, protests, entertainment shows, etc.), it is difficult to monitor the crowd. Drones can provide a solution by capturing real time images from height as high as 60,000 ft. and enable the authorities to take timely actions. They can also carry fake cell phone towers to intercept texts and phone calls. Among other law enforcement and surveillance uses, it can help in traffic/ coastal/ border/ maritime surveillance and monitoring of natural disasters, illegal activities, etc.
3. **Agriculture:** Few of the biggest challenges in the agricultural sector are monitoring the crops across vast land areas and determining the crop health. Use of manned services involves a lot of time and hassle, while satellite monitoring could be disrupted due to cloudy weather. Drones offer a cheap, hassle-free and time efficient alternative to the farmers. It helps them boost the yields, cut costs, save time, allowing them to spend more time on crop treatment rather than crop scouting, i.e., figuring out the crops requiring pesticides/ insecticides.
4. **Real Estate/ Construction Activities:** In real estate, the agents use the drones for aerial photography of sprawling properties and make sale videos to showcase the properties to the prospective clients. This makes the sale process easier to implement in terms of logistics and planning. The construction companies also depend on drones to carry-out monitoring activities in the open construction sites to restrict pilferage. Drones can also be used for site inspections, health and safety induction, 360° panoramic view, etc., in the construction sector.

2.3 Products and Services Offered

The Company offers a plethora of products from the leading world manufacturers of drones like DJI, Parrot, Yuneec, Squadrone Systems, Freefly Systems, Sky Hero, etc. It also designs and manufactures its in-house products, particularly focusing on making customized products for sectors like agriculture, surveillance and security, construction, etc. Following are a few flagship products offered by Drone Volt:

Drone Janus VR 360

Exhibit 2: Product Image and its Specifications

- Drone Janus 360 is a professional drone for aerial photography, videography with a 12 4k camera recording at 30 fps.
- It can be used in tourism, culture architecture, real estate, etc.
- Janus 360 is equipped with two heads, each carrying five 4K GoPro cameras to cover all angles of a scene.
- With flight times of 15 minutes, it can produce 360° video capturing 150 GB of images per flight.
- The dimensions of the frame are 700x700x400mm, with propellers as long as 15.5 inches.
- This drone's total weight is 5.8kg (with parachute).

Drone Hercules 5 UF

Exhibit 3: Product Image and its Specifications

- Unlimited flight time
- Smart power station
- Secured operations
- x18 camera zoom
- Night vision camera
- The system enables unlimited access to a global aerial vision, in real time and in a secure manner 24 hours a day
- Transfer your data by secured RTMPS server

Drone Hercules 10 Spray

Exhibit 4: Product Image and its Specifications	
	• Tethered spraying • Designed for precise spraying of liquid products for surfaces, roofs and facades treatments, offering new treatment solutions aimed at a number of applications. • Foldable system • The customizable high pressure system is fully foldable and makes the HERCULES 10 ultra-compact to facilitate transport. • HERCULES 10 allows a quick and easy access to inaccessible and dangerous areas. It is operational in 10 minutes and reduces the hardware installation and human risk.

Drone Hercules 20 Spray

Exhibit 5: Product Image and its Specifications	
	• The customizable crop spraying system length is up to 3 meters wide. The fully foldable system that makes the HERCULES 20 - SPRAYER DRONE ultra-compact, was designed to facilitate transport. • The HERCULES 20 SPRAYER DRONE is designed for an accurate and constant spraying for various surface treatments: liquid pesticides, fertilizers, new treatment solutions for a wide range of applications. The flow is manually (with the RC) or automatically adjustable via the application / flight controller. • The tank with integrated pump can load up to 12 litres for crop spraying. It is fully interchangeable and easy to remove thanks to the quick release system. The HERCULES 20 can take up to 20 kg payload.

DV WING

Exhibit 6: Product Image and its Specifications	
	• The DV WING can fly up to 85 minutes with wingspan less than 1 meter and total weight less than 1kg for more efficient operations. • The DV WING is a fully autonomous fixed wing UAV. Ready to fly in 5 minutes. Easy Throw and Fly take off against the wind and Circle Down or Belly Landing. The DV WING will fly and get images on its own and safely. User friendly features with automatic missions. • Aircraft body is made in a single injection of EPO material that's extremely reliable even with frequent use. • **Camera:** 18.2MP high resolution camera with additional stabilization system, producing very high picture quality photos and videos. **Precision:** 1:500, 1:1000 and 1:2000 orthophotos with high accuracy.

Other drones that DRV offers include DJI Phantom 3 Professional, DJI Phantom 4, Drone Yuneec Q500 Typhoon, FreeFly Alta, FreeFly Movi M15, DV Wing etc. DRV also sells drone accessories of various manufacturers on its website.

2.4 Company Premiums[vi]

1. **Focus on Professional segment:** According to the latest results, Drone Volt's revenues increased 90% in 2016 to € 6.82 MM, from € 3.59 MM in 2015. The professional segment witnessed a growth of 4.6x times in 2015, while consumer segment reported stable growth of 10% in the corresponding period. The Company has shifted its focus to the professional segment from earlier consumer segment. DRV develops customized drones based on client request, which sets these apart from the basic models available in the market. Thus, the Company also commands a premium position over its peers. With civilian drones expected to see tremendous growth in the next decade, the Company has successfully positioned itself in the French drone market. Next, the Company is looking at the US as its next focus area for expansion. In the professional segment, the Company focuses on distinguishing its drones by developing customized parts and applications, which are easily adaptable to its drones. These features are available for specific activities and uses. These value added applications aid in generating higher margins and cash inflows. We expect the segment to contribute 87-89% of the Company's total revenue by 2020.
2. **Media market, major revenue source:** The French media market has been the main source of the Company's revenue to date, with Drone Volt estimated to cover 70-80% of the French TV market. This sector uses drones for aerial shots, capturing images and filming videos at costs much lower than previously spent when using helicopters or cranes. With the French TV market maturing, opportunities for growth are expected as drones get adopted at a larger scale going forward.
3. **Strong geographical presence and expertise:** The Company is present in 13 countries across Europe and North America: Belgium, Canada, Croatia, Denmark, Finland, France, Italy, Luxembourg, the Netherlands, Slovenia, Sweden, Switzerland and the United States. Its employee base includes several experts from the professional drone segment. For instance, in the US, the Company hired Daniel Roe as EVP, who was with Freefly systems as worldwide director of sales and an expert in the professional drone field. In North Europe, the Company hired Stefano Valentini, former CEO with Cybergun Italia Srl, to manage sales operation in Switzerland, Italy, Adriatic and Slovenia. Their expertise should help the Company grow at a rapid pace in these regions. Drone Volt is currently eyeing the US market as its next big growth avenue. In March 2017, the company entered a distribution agreement with a Columbian company for its drones. This marks the entry of the company into Latin American drone market.
4. **Customized products:** Drone Volt has launched several new products with multiple applications, like Drone Volt Janus 360, drone spray, drone paint and drone surveillance. These drones can be used for multiple purposes such as treatment and cleaning of surface, inspection of work, paint, live surveillance, etc. Drone Volt focuses on providing customized products to its clients. It is developing drones, which would carry extra payloads and would give it a competitive edge over its peers. It has also launched Drone Software Drone Volt Pilot, the application that offers an easy access to autopilot for DJI drones.
5. **Increase in profitability going forward:** Looking at the expected growth in commercial drone market in the next decade, we estimate the Company's top line to reach € 28.74 MM (low bracket) and € 31.01 MM (high bracket) in 2020, a growth of 8.0x (low bracket) and 8.7x (high bracket) times from € 3.59 MM in 2015. We expect the Company's operating margin to improve going forward, ranging between 9.9%-10.7% in the same period. According to our estimates, the Company's net margin will be in the range of 6.0% – 6.6% by 2020.
6. **Easy access to additional funding:** Drone Volt raised € 1.75 MM through OCABSA convertible bond issue in 1H 2016. The company has access to additional € 3.25 MM bond financing facility which could be tapped into to fuel the expansion of the company.
7. **Turnkey product:** Drone Volt provides a range of services, including administrative support to comply with French regulations; training to operate the drone; and help to acquire license for flying the drone for operational purposes. The customers receive turnkey product for immediate use. This business model saves time and cost involved in getting proper training, acquiring license and dealing with regulations.
8. **Partnership with leading suppliers:** Drone Volt has partnered with leading suppliers worldwide including DJI, Yuneec, Freefly and other major manufacturers. These ties up could benefit the Company over supplier's commercial policies.

2.5 Company Risks[vii]

1. **Regulations:** The varied regulations for use of drones in different countries is expected to pose the main challenge to Drone Volt's expansion plans. With the Company looking at expanding its presence worldwide, it needs to follow a different set of rules and regulations for each country. Also, the drones can be categorized differently in each,

typically by weight, size, altitude, speed, etc. With many countries still in the process of legislating regulation into law, the expansion plans in some regions may be impacted.

2. **Suppliers' risk:** Currently Drone Volt relies heavily on products sourced from Chinese maker, DJI. It faces the risk of dependency on the supplier's commercial policies as the Company's margins could plunge if the supplier increases the prices. The risk is partially mitigated by the fact that the Company has already tied up with several leading drone suppliers worldwide. Also, the Company is focusing on its R&D and expects to design and develop majority of the drone parts in-house going forward. This would help in abetting this potential threat from suppliers.
3. **Competition:** While the commercial drone market is still nascent, it is rapidly evolving and the competition within the industry is expected to increase with many small and large players entering the market, eyeing the prospective growth opportunities. The industry may also witness price based competition, which will impact small players significantly in the market. Another challenge could be the launch of cheap alternative drones in the market, created using copied technology.
4. **Innovation in technology:** The commercial drone industry is still in its early age and is expected to grow significantly over the next decade, driven by strong innovation in technology. In order to compete, players within the industry need to come out with new innovative products regularly, which would distinguish them from the others. The lack of innovation, leading to the obsolescence of its products, could hinder performance and in time even threaten the existence of the Company.
5. **Legal Risks:** There are no legal risk associated with the Company, to the best of the author's knowledge.

2.6 Drone Volt's Shareholding Pattern

As on 17 Nov 2017, the number of shares outstanding was **19,022,806**.

Exhibit 7: Shareholding pattern[viii]

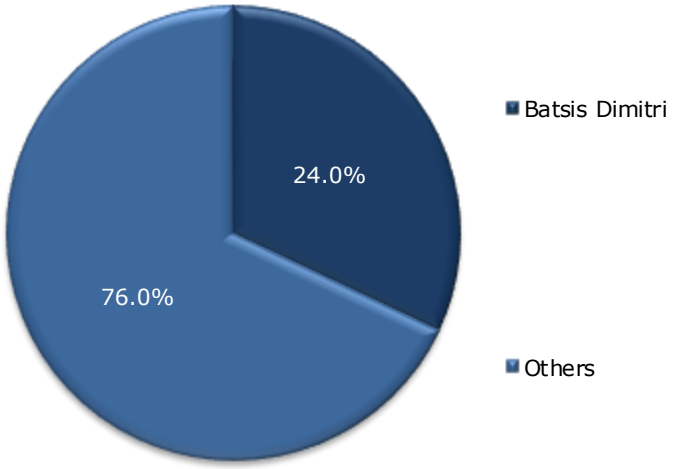


Exhibit 8: Shareholding Pattern[ix]

Shareholders	No. of Shares	% of total
Batsis Dimitri	4,565,473	24%
Others	14,457,333	76%
Total	**19,022,806**	**100%**

2.7 Listing and Contact Details

The ordinary shares of Drone Volt are listed on AlterNext Paris (Ticker: ALDRV, Date of Listing – April 28, 2015) and warrant also listed as DRONE VOLT BS FR0012860542 (Ticker: DRVBS).

Contacts: 14, Rue de la Perdrix, FR-93420, Villepinte, France

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Phone: +33 (0)1 80 89 44 44

Fax: NA

3. Key Variable Analysis[x]

3.1 Variable 1 – Revenue from Consumer segment

The consumer segment has been the conventional segment for Drone Volt. This segment has traditionally seen lower growth. Under this segment, the Company purchases drones and its parts from the other manufacturers and then assembles and distributes, renting the final product through the Company's website. The consumer segment has been historically contributing more than half of the Company's total revenue. However, the Company has now shifted its focus on growth in the professional segment. Therefore, the consumer segment may witness lower growth and its contribution to the total revenue is expected to come down significantly going forward.

Following are our estimates for revenues from the consumer segment for the forecasted period under two scenarios - Low bracket and High bracket:

Exhibit 9: Consumer segment revenue

In € 000	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Low Bracket	1,838	1,989	2,151	2,304	2,468	2,618	2,778	2,947	3,126	3,317
High Bracket	1,892	2,106	2,344	2,584	2,849	3,022	3,206	3,401	3,609	3,828

3.2 Variable 2 – Revenue from Professional segment

The professional segment generates higher margins for the Company as it focuses on providing customized products based on client requirements. The segment contributed about 60.4% in 2015 to total revenue, compared to 20.3% in 2014. Given that the Company is primarily focusing on growth in the professional segment going forward, we estimate the number of drones sold in professional segment to increase considerably and thereby, the contribution of professional revenue to Company's total revenue to be between 88-90% by 2020.

Following is the estimated revenue from professional segment for the forecasted period under two scenarios - low bracket and high bracket:

Exhibit 10: Professional segment revenue

In € 000	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Low Bracket	5,987	9,115	13,272	18,813	25,435	32,748	40,083	48,244	56,591	64,649.1
High Bracket	6,096	9,434	13,968	19,988	27,283	35,127	42,996	51,749	60,702	69,346.0

4. News[xi]

- **Drone Volt Gross Profit jumps**: Drone Volt announced 9 months result for 2017 which shows a growth of 68% in gross profit in comparison to € 0.8MM of first 9 months of 2016.
- **Drone Volt announced the takeover of assets of Aerialtronics**: The company announced that it will acquire the major control of the main assets of Aerialtronics which is a Netherlands based company and has an expertise in designing and manufacturing professional drones.
- **Drone Volt awarded in BATIMAT 2017 Innovation Competition:** In September 2017, Drone Volt was awarded silver innovation award for its drone HERCULES 10 SPRAY. This drone was purposefully invented to be used in construction industry.
- **Drone Volt announced H1 2017 results:** The company announced its H1 2017 results which shows its revenue has increased by 25% to € 3.9MM compared to € 3.1MM of H1 2016. The gross margin increased to € 0.9MM compared to € 0.4MM of H1 2016.
- **Drone Volt raises € 1.4 MM from institutional investors:** On June 07, 2017, Drone Volt announced that the company has raised € 1.4 MM through private placement of shares to institutional investors. A major portion of the issue was subscribed to by SmallCaps fund, one of the four largest French collective management institutions.
- **Drone Volt Academy opens Drone Training School in Reims:** On June 01, 2017, Drone Volt announced that it has deployed its drone training school under the license of DRONE VOLT ACADEMY in Reims.
- **Drone Volt acquires Denmark based DANDRONE:** On May 22, 2017, Drone Volt announced that the company has acquired Denmark based e-commerce website DANDRONE. DANDRONE has several prestigious clients including strategic security department. This acquisition reinforces Drone Volt's position as a formidable player in the Scandinavian region.
- **Drone Volt appoints Olivier Gualdoni as the Chairman and General Director:** On May 11, 2017, Drone Volt announced that Mr. Dimitri Batsis has resigned from his position as Chairman for the Board of Directors. Mr. Gualdoni took his place as the Chairman and General Director of Drone Volt.
- **Drone Volt registered strong top-line growth in Q1 2017:** On April 18, 2017, Drone Volt announced that the company's top-line increased 36% YoY in Q1 2017 to € 1.9 MM led by higher contribution from the company's foreign subsidiaries. The company also reported 8pps YoY increase in its gross margin for the period to 25% from 17%.
- **Drone Volt appoints stampede as distribution partner for selling drones in North America:** On April 3, 2017, Drone Volt announced that it has partnered with Stampede, world leader in distribution, sales and marketing of drones, to sell its service drones to B2B segment and retailers in North America.
- **Drone Volt signs distribution agreement at the Exposecuridad:** On March 17, 2017, Drone Volt announced that it has signed a distribution agreement with a Columbian company at the Exposecuridad (Mexico) Trade fair. This marks the entry of the company into Latin American "surveillance and security" drone market.
- **Drone Volt announces 90% YoY growth in revenue:** On March 15, 2017, Drone Volt the company's revenue increased 90% YoY to € 6.8 million in FY 2016 from € 3.6 million in FY 2015. The company also announced that the operating loss reduced by 50% in the second half of the year. Overall, the company recorded a net loss of € 1.7 million after accounting for € 0.7 million tax credit.
- **Drone Volt presents its drones to the President:** On February 21, 2017, Drone Volt was invited to present its innovation to the President, Francois Hollande, and Secretary of State for the Digital Domain and Innovation, Axelle Lemaire, at the launch of the 2nd edition of Viva Technology. The company was a part of the delegation of six representative startups selected by the organizers of Viva Technology.
- **Drone Volt signs MoU with Axiscades for co-operation in drone field:** On February 15, 2017, Drone Volt announced signing of a MoU with Axiscades for drones in Indian Defence and Aerospace sector. Under the MoU, both the companies will evaluate opportunities to address aerial surveillance in the Indian Defence and Aerospace sector.
- **Drone Volt estimates 90% YoY increase in revenue for FY 2016:** On January 05, 2017, Drone Volt estimated 90% YoY increase in its revenue for FY 2016. The annual release of 2016 results is scheduled to be released on March 14, 2017.
- **Drone Volt launches "DV Wing":** On November 28, 2016, Drone Volt launched "DV Wing", a light weight drone, targeting agriculture and mapping. The drone is fitted with an 18.2 MP camera and has an autonomous flight capacity of 85 minutes.

- **Drone Volt increases product offering:** On November 14, 2016, Drone Volt announced addition of new Hercules 5K and 10K drone models to its product line. The drone has the first modular rigid frame with a payload capacity of 5 to 10 kilos and resistance to withstand outlet pressure upto 80 bars.
- **Drone Volt awarded first prize in the Deloitte Technology Fast50:** On November 09, 2016, Drone Volt announced that the company was awarded first prize in the Deloitte Technology Fast50 in the Aerospace and Defence category on November 07, 2016.
- **Drone Volt announces revenue for Q3 2016:** On October 05, 2016, Drone Volt announced that the company turnover increased over 80% YoY in Q3 2016 to € 1.8 million from € 0.97 million in Q3 2016. With this the company's revenue stands at € 4.96 million for the first nine months of 2016, representing an increase of almost 100% YoY from € 2.46 million recorded in the first nine months of 2015.
- **Drone Volt announces results for first half of 2016:** On September 09, 2016, Drone Volt presented the results for S1 2016. The company registered over 110% YoY increase in revenue to € 3.1 MM in S1 2016 from € 1.5 MM last year. However, the operating loss increased to € 1.4 MM in S1 2016 from € 0.2 MM in S1 2015 on account of aggressive investment towards transformation of company. The company raised € 0.8 MM through issue of shares and € 1.75 MM through issue of OCABSA bonds to cover the company's transformation.
- **DRV introduces surveillance drone:** On March 03, 2016, Drone Volt unveiled its professional drone, Z18 UF (Unlimited Flight), a technologically advanced product capable of providing continuous surveillance of areas and events, in situations where security is a priority. It is a wired drone capable of 24-hour stationary flight, with adjustable height of up to 40 meters. It offers multiple options for close range shooting at 360°, transmitted at high-speed and in real time thanks to its own radio connection. It is equipped with a powerful 18x zoom camera and connected to the supply station ELISTAIR on the ground specifically designed for this drone. The Z18 UF can be used for inspection and surveillance of sites, civil defense operations, road safety, etc.
- **Drone Volt expands internationally:** On February 29, 2016, DRV announced opening of two trade offices, one in Switzerland and the other in United States. Daniel Roe and Stefano Valentini will head the US and Switzerland offices respectively. Daniel Roe was earlier worldwide Director of Sales at Freefly Systems, a company specializing in camera stabilizers and drones for the world of cinema and broadcasting. Prior to Freefly Systems, Dan worked as VP, Sales and Business Development for Music Group and as Sales VP for Strategic Accounts at Sony Electronics, Inc. Stefano worked for several years as an account executive for high net worth individuals at Merrill Lynch Monte Carlo. He later moved to Switzerland to continue work in the private banking sector. Stefano became CEO of Cybergun Italia Srl in 2010, and will now manage Drone Volt's sales efforts in Switzerland, Italy and the Adriatic region.
- **Drone Volt launches DRONE VOLT PILOT®:** On February 09, 2016, the Company announced the launch of its new and innovative drone piloting application, Drone Volt Pilot. This simple and intuitive application provides many new features for novice drone pilots that will enrich their user experience. One of the major benefits of Drone Volt Pilot is that it is able to automatically create and save flight plans. It makes automation easy and allows a large number of pilots, with all levels of expertise, to use it.
- **Strategic agreement with Squadrone System:** On February 04, 2016, Drone Volt announced the formation of a strategic alliance with Squadrone System, the creator of original Hexo+. Launched in 2015 and already acclaimed worldwide, Hexo + is the first autonomous drone "follower". With its 6 rotors and 4k camera, Hexo+ can follow and film the user from 100 meters, at speeds up to 70 km/h (44 mph) for more than 10 minutes. Extremely fast and adaptive to extreme weather conditions, Hexo+ withstands temperatures from -10°C to +50°C, and can be used at 4,800 meters with wind up to 40 km/h. Flight plans and other features can be set directly from the Hexo + application available on iOS and Android. This multi-year agreement gives Hexo+ product and its future development rights exclusively to DRV, which will provide the marketing and sales efforts in Europe through its subsidiary Drone Volt Scandinavia. Specifically, Drone Volt will use Hexo+ for the development of professional civilian applications, particularly in the field of strategic security (surveillance and law enforcement).
- **Drone Volt splits the shares:** In January 2016, the shareholders in the General Assembly approved the decision to convert each share into 10 shares. The decision was taken to increase the number of shares in circulation and reduce the face value of the shares to enhance liquidity. After the division, Drone Volt had 12,314,380 shares at a nominal value of € 0.03 each. The characteristics of the share subscription warrants (BSA in French) were adjusted automatically: 10 warrants for 10 new shares, exercise price at € 2.70 and minimum subscription of 1,000 shares.
- **Transfer to AlterNext Paris:** On December 31, 2015, Drone Volt, the French leader in civil UAVs, was transferred to AlterNext Paris' continuous listing by direct admission. This was done to enhance the Company's visibility and to allow new categories of investors to become shareholders. Atout Capital was appointed as the listing sponsor for the Company. Earlier, the Company was listed on Euronext Paris.

- **Innovative Drone Spray Health© by Drone Volt:** In December 2015, DRV launched a new and innovative product, Drone Spray Health, aimed at combating vector borne diseases. The drone can carry products with larvicide used to kill mosquitoes and their larvae at their breeding areas. The product comes as an alternative to helicopters, which are costly and cause pollution. This environment friendly solution can be used for fighting mosquito borne diseases, such as malaria, dengue fever, Japanese encephalitis, etc.

5. Management and Governance[xii]

The Company has a team of experienced professionals, with expertise in the field of technology, operations, sales and marketing and finance. These highly qualified professionals have been with the firm for a long time, signifying the stability of the firm's management. The management's focus is on improving profitability and creating shareholder value.

Exhibit 11: Management Team

Name	Designation	Background
Dimitri Batsis	Founder	• Dimitri Batsis is the founder of Drone Volt. • During 2008-2010, he worked with various companies in the internet domain. • He founded ZENI Corporation, listed company in Paris and headed it as the President from 1987-2007. ZENI Corporation offered global solutions ranging from consulting in marketing and communication strategy to designing and achieving multi-channel interactive sites on all new media.
Olivier Gualdoni	Administrator	• Olivier Gualdoni was appointed as the worldwide CEO of Drone Volt on December 21, 2015. On May 11, 2017, the board of directors elected Mr. Gualdoni as the Chairman and General Director • He formerly served as Chief Executive Officer of Cybergun SA. • He has earlier served as European Export Director of Cybergun SA. • Oliver holds BA in Physical Sciences and Masters in Marketing.
Jean-Louis Bernard	Worldwide CFO	• Jean-Louis Bernard was appointed as the worldwide CFO of Drone Volt in June 2017 • Jean-Louis Bernard formerly served in subsidiaries of inter-national groups in France and Europe such as Sara Lee DE, United Biscuit and Thomson. • He holds Master's degree in Business Administration and Management from ESSEC business school
Martin Laporte	CEO, Drone Volt, Canada	• Martin Laporte has earlier served as General Manager of KoptR image.
Kim Larsen	Managing Director, Drone Volt Scandinavia	• Kim Larsen is in charge of managing Drone Volt's Scandinavian operations.
Daniel Roe	VP Sales, U.S.	• Daniel Roe was appointed as Executive Vice President of sales and marketing, U.S. on January 2016. • He has earlier served as Director of global sales Freefly System.
Benoit De Bruyn	Managing Director, Drone Volt Belgium	• Benoit De Bruyn is in charge of managing Drone Volt's Belgium branch. • He has formerly served as senior manager in Delaware Consulting.

6. Industry Characteristics

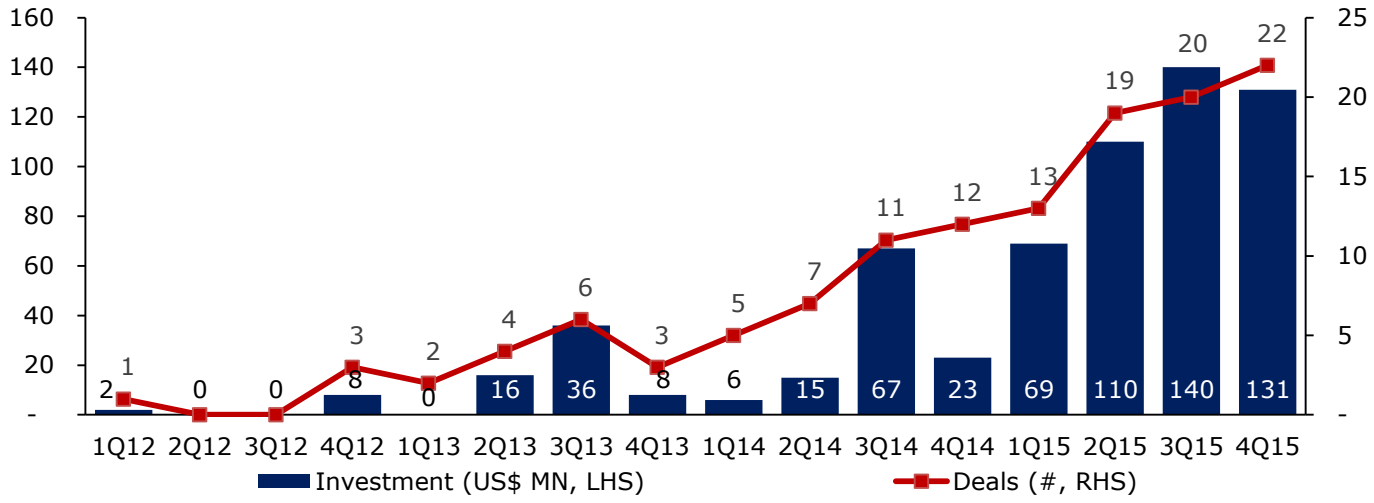
6.1 Industry Overview[xiii]

UAVs, popularly known as 'Drones', are unmanned aircrafts or a 'flying robot'. The UAVs evolved during World War I when these were used for military operations. These have improved significantly over time, with use of advanced technology such as miniaturization. The UAV market has grown rapidly in the last decade and has created a lot of eagerness in various parties and companies engaged in UAV technology development. Currently, the UAV market is driven by new technologies such as next generation unmanned combat systems, and the development of new markets like civil and consumer drones. The Teal Group expects the UAV industry to triple in size over the next decade, owing to innovations in unmanned combat aerial vehicle programs and strong commercial and consumer spending. The Teal Group estimates global UAV production to increase to USD 14 BN per annum, from USD 4 BN per annum currently, totaling USD 93 BN in the next ten years.[xiv] The group expects the UAV sector could emerge as one of the fastest growing sectors globally. As per the study, military, consumer and civil segments account for 72%, 23% and 5% market respectively.[xv] Going forward, it predicts the commercial and civil drone market will grow at a CGAR of 19% over the next 5 years.

Grand View Research, a U.S. market & research consulting firm, expects the commercial drone market to reach USD 2.07 BN by 2022, with agriculture and law enforcement segments driving the growth.[xvi] A U.S. based technology market intelligence company, ABI Research, has projected the small unmanned aerial vehicle market segment will reach USD 8.4 BN by 2018. The report also predicts the commercial UAV sector will reach USD 5.1 BN, growing at CAGR of 51% from 2014-2019. The commercial segment is expected to grow 5x times compared to the growth of hobbyist UAV market and 2.3x times than the military UAV market.[xvii]

UAV start-up companies have been able to attract venture capitalist for fund raising and have raised USD 450 MM in 2015, registering a growth of 300% compared to 2014. The funding was through 74 deals representing growth of 111% compared to 2014, which should further drive innovation in the industry.[xviii]

Exhibit 12: Investment activity (in $ MM)[xix]



6.2 Future Outlook

The commercial UAV industry has immense growth potential. However, it is difficult to make a proper market size estimate considering the potential uses of drones across sectors, such as agriculture, construction, surveillance, aerial photography, media and entertainment, etc. We have compiled market forecasts from different sources. Although the market size estimates vary significantly, all are positive about the industry and expect exponential growth.

Exhibit 13: Outlook on the Commercial UAV industry size			
Sources	**Market Size**	**Estimated Period**	**Published**
Teal Group	USD 3.92 BN[xx]	2025	August 2015
Grand View Research	USD 2.07 BN[xxi]	2022	August 2015
ABI Research	USD 5.1 BN[xxii]	2019	January 2015
Lux Research	USD 1.7 BN[xxiii]	2025	October 2014
MarketsandMarkets	USD 1.9 BN[xxiv]	2020	September 2014
RnRMarketResearch.com	USD 1.27 BN[xxv]	2020	June 2015

Note: We have clubbed 23% and 5% market for consumer and civil reported by Teal Group for the projection.

6.3 UAV Components

Unmanned Aircraft Systems (UAS) can range from small drones that fly on a single charge for 10 minutes and cost under USD 200 to commercial-level aircrafts that can fly much longer and cost as much as USD 10,000 or more.[xxvi] Military grade UAVs can cost several million dollars. Some drones are operated by controllers, while others can be operated by operator's smartphone or tablet. A drone's basic elements are frame, propellers, small motor and battery, electronic sensors, global positioning system (GPS) and a camera.

Presently, there are several types of UAVs, depending on the project it's used for, ranging from toy UAV, almost ready to fly (ARF) UAV to ready to fly (RTF) UAVs. The essential kit for UAV includes RC transmitter, multi rotor frame, motors/speed controllers, flight controller and battery charger. Apart from these, optional accessories, such as battery alarm, flight controller add-ons, camera gimbal, telemetry and wireless video, could be added in the drone as per the purpose of the project.

Multi-Rotor Frame –The frame is the basic requirement of the UAV. The configuration depends on the purpose it is to be used for and the loads to be carried. The most popular designs are quadcoper (4 motors), hexacopter (6 motors) and Octacopter (8 motors).

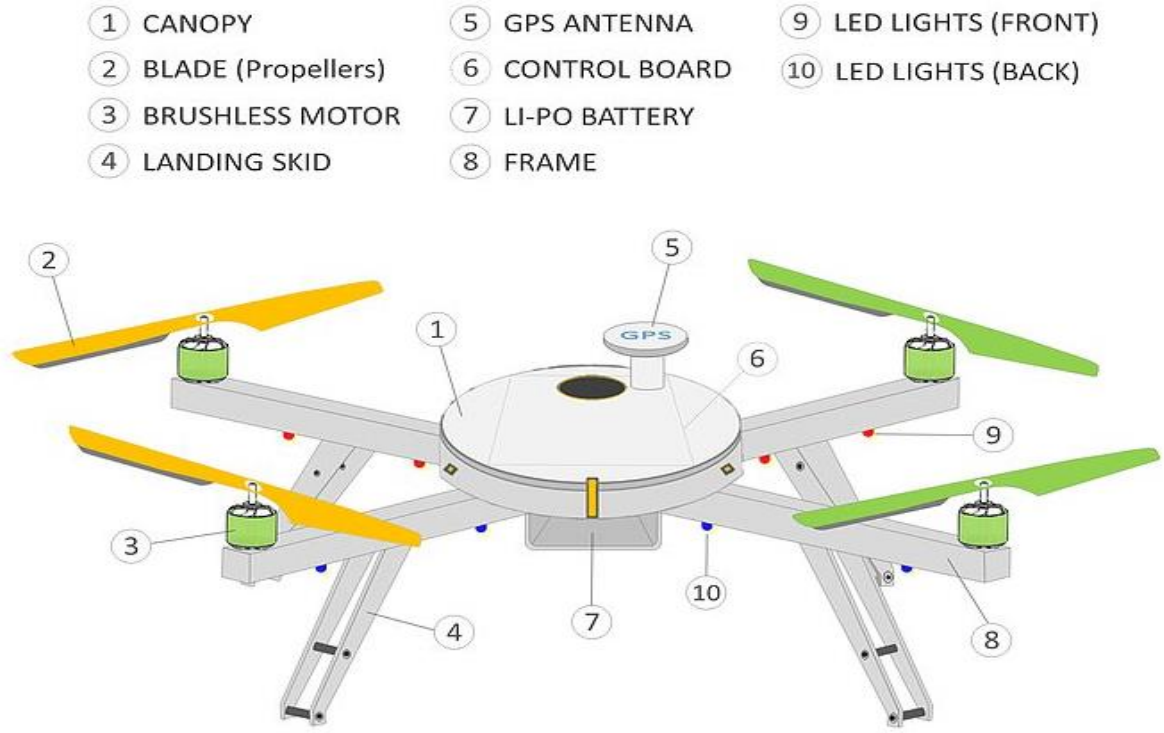
Motors/Speed Controllers and Propellers – The motor is an essential requirement as it impacts the flight time and how much load a drone can carry. It also provides the lift for the UAV. A motor ideally should have less weight with high efficiency. A propeller is an airfoil and consists 2-3 number of blades; it provides the thrust to the drone and acts as rotating wings creating a lift force.

Flight Controller – It acts as the brain of the UAV, connecting all the pieces together. It is used to stabilize the multi-rotor and synchronize it. The more advanced flight controllers can take off, fly and land the UAV autonomously with a preprogramed waypoint.

Battery and Charger – Battery provides the power to the UAV to fly, and would control both motor and flight controller. It is also the heaviest item on a UAV. While choosing the ideal battery, the capacity and voltage factor needs to be taken in to account. The Lithium polymer battery is the most ideal and most used battery as this has high power to weight ratio and is readily available.

RC Transmitter – It is possible to fly and control the UAV autonomously without a transmitter, but it is a good idea to have manual backup for the drone in case something goes wrong. Hand-held transmitter is adequate for most cases.

Exhibit 14: Basic Components of a UAV



6.4 Pricing[xxvii]

Depending on the requirement, the costs of drones can vary considerably. The drones can be divided into different classes depending on the level of expertise and range it can fly.

Exhibit 15: Basic Components of a UAV

Segment	Entry Level users	Professional users	Commercial users
Specifications	Kit with drone, four rotors, batteries, charger, GPS and spare propellers	Kit with drone, four rotors, batteries, charger, GPS, spare propellers, advanced cameras and separate controller	Kit with drone, six rotors, larger propeller blades, batteries, charger, GPS, advanced cameras and separate controller
Duration of flight	10 minutes	25 minutes	1 hour
Range	150-200 feet	Half a mile	> a mile
Controll	Smartphone or tablet	Smartphone or tablet	Smartphone or tablet
Cost	USD 500	USD 750-2,000	USD 10,000

6.5 History

Early History - The concept of UAVs is old. In August 1849, Austria used unmanned balloons loaded with explosives to attack Venice.

World Wars - Going back to World War 1 (WWI), necessity, the 'mother of invention' led to use of flying bombs with the development of first unmanned aircraft. The U.S. army and navy both used aerial torpedoes and flying bombs in WWI but faced difficulties in launching and recovering its UAVs. During World War II (WWII), drones were used as gunnery practice targets by the U.S. forces and for aerial attack missions. Meanwhile, Germany produced its own drones, which used jet propulsion built aircrafts.

1950s – A U.S. company, Northrop, developed 'Falconer' and 'Shelduck' UAVs for battlefield reconnaissance. It had an auto pilot system with radio-control backup and video cameras; it also carried flares for night reconnaissance. These were built in great numbers and were used by several military forces internationally. In 1950s, UAVs were also used as decoys and were released to confuse the radar system of the enemies.

1960s - This era saw the faster and longer range aircraft, 'Ryan Firebee', being developed to air bomb targets. UAVs were developed to fly at high altitudes controlled by radio lines and to fly at lower altitudes controlled by standoff manned aircraft. These drones carried cameras for reconnaissance over enemy targets.

1970s – During the Vietnam War, drones were used extensively by the U.S. The drones were used as 'Lightning Bug.' It was used for intelligence gathering and for taking images from low and high altitudes. These drones were modified with bigger engines during the Vietnam War and these could carry heavier payloads. In the 1970s, Israel modified the drones it purchased from the U.S. and developed the first UAV with real time surveillance. It used these in its war against Syria as reconnaissance drones, electronic jammers and as decoys; and had minimal losses.

1980s – In 1982, Lebanon War, Israel used its self-made UAVs for images and radar decoying to neutralize Syria's air defense. By late 1980s, Israel tested a variety of drones on Lebanon. With rapid advancement in technology, Israel not only outpaced U.S. in the development of drones, by producing a number of surveillance drones in 1980s, it also sold them to the U.S.

1990s – U.S. marine, army and navy units, along with coalition forces, used 'the Pioneer' UAV substantially for imagery support during its operations against Iraq. The UAVs were used for bombing target enemy areas. Post bombing raids, it was used to inspect the target area and transmit live coverage of the damage.

2000s - In early 2000, after 9/11, U.S. military used drones for attacks in Afghanistan, Pakistan, Yemen and Somalia. It was also used for the operation to hunt Osama Bin Laden. In 2006, America used drones within the U.S. civilian airspace for search and rescue operations following Hurricane Katrina.

2010s - In 2013, Israel used drones in Gaza during its military operations. In 2013, Amazon, the largest online retailer, announced it is developing drone technology for delivery services.

6.6 Industry Segments

Military Drone Market

Its utility in armed conflicts led to the invention of unmanned aerial vehicles during World War I and World War II. Drones are normally used in circumstances where it's considered too risky for manned flights to be performed. Drones can provide real time imagery, intelligence and surveillance information by scanning an area and transmitting the information back to the commanders, in order to destroy the enemy. Military drones are generally used for air strikes and surveillance on enemy targets. As per the Teal Group's projection, worldwide spending on UAVs is expected to triple over the next decade to USD 93 BN. Out of which, the military segment is expected to contribute 72% of total UAV market spending at USD 67 BN over the next decade, while research spending on military UAV is likely to add another USD 30 BN.[xxviii] The Teal Group's projections also indicate that the U.S. will account for 64% of the total military worldwide research spending on UAVs. Therefore, the U.S. will be the biggest UAV market over the next decade.[xxix]

IHS Jane's Intelligence, a specialist in defense publications, reported that global defense and security market for UAVs is expected to grow at 5.5% per annum from the current level of USD 6.4 BN and increase to USD 10 BN by 2024.[xxx] According to the report, Israel was the biggest exporter of UAVs last year, but the U.S. is expected to overtake its position in coming years.

Commercial/ Civil Drone Market

As per Teal Group's market estimates, consumer and civil drone markets will constitute 23% and 5% of the drone industry (estimated total market is USD 93 BN) over the next decade.[xxxi] The civil UAV market is expected to register the highest growth in the industry, with the opening of worldwide airspace market due to a low base effect. The commercial drones carrying payloads like cameras, sensor, packages, etc., can cater to a versatile market within commercial segments. With the cost of drone technology coming down in recent years, the commercial drone's growth is expected to accelerate in areas such as agriculture, media, cinematography and photography, inspection and maintenance, surveillance, real estate, etc.

As per Grand View Research, the commercial UAV market size is estimated to be USD 2.07 BN by 2022.[xxxii]. Tractica, a market intelligence firm, estimates worldwide shipments of commercial drones to reach 2.7 MM units by 2025 from 80,000 units in 2015. Also, annual revenue from commercial drone hardware is estimated to reach around USD 4 BN from the current level of USD 283 MM during the same period, whereas, annual revenue from commercial drone enabled-services would generate USD 8.7 BN compared to USD 170 MM currently.[xxxiii] The commercial drone sector will be driven by aerial imaging and data analysis applications. Film, media, agriculture and oil & gas will drive the growth in adoption of commercial drones. Whereas, filming and entertainment, mapping, aerial assessment, disaster relief and prospecting will lead to the strong growth in drone enabled service market.

There is immense scope going forward. The usage of drones is still in early or mid-stages in many sectors and could play a critical role in reviving the growth in various sectors because of its cost effectiveness and ability to perform tasks, which would have been impossible earlier. The table below shows 22 sectors expected to benefit from the use of drone technology; most are in either early or middle stages of adoption and usage growth, and just a handful of sectors have seen the benefits of higher levels of usage of drone technology over a long time. The agriculture sector is expected to account for approximately 80% of commercial drone usage. By using high resolution imaging and aerial mapping, identification of crop conditions, checking for diseases, spraying pesticides and fertilizers, prevention of any disease outburst is possible at a much lower cost.

Commercial drones are also increasingly used for ensuring public safety. For example, drones with high definition and infrared cameras can assist police and fire departments in intelligence gathering, rescue missions, road patrolling, aerial surveillance, etc.

Exhibit 16: Development Stage of Commercial drones used in different sectors[xxxiv]

	Early Stage	Middle Stage	Late Stage
Application			
Aerial photography			L
Border patrol			L
Construction and real estate images and monitoring		M	
Emergency management		M	
Infrastructure monitoring		M	
Mail and small package delivery	E		
Filmmaking and other media uses		M	
Oil and gas exploration		M	
Precision agriculture			L
Public safety			L
Weather forecasting and meteorological research		M	
Wildlife and environmental monitoring		M	
Technology			
Advanced manufacturing techniques		M	
Batteries and other power	E		
Communication systems			L
Detect, sense, avoid capabilities		M	
GPS			L
Lightweight structures		M	
Microprocessors			L
Motors			L
Engines		M	
Sensors			L

6.7 Uses of drones across sectors

1. Agriculture

Agriculture is poised to benefit significantly from the use of drone applications. Monitoring fields from the sky would drive the new farming revolution. The U.S. based Association for Unmanned Vehicle Systems International predicts that agricultural uses will eventually account for 80% of the commercial market for drones. With the help of drones, it is possible to capture images of fields at a much cheaper cost compared to when using helicopters or satellite imagery. Drone technology with cameras could enable farmers to monitor their crops, check for diseases or spray pesticides and fertilizers and prevent any disease outburst.

It is difficult for the farmers to collect data of farmland spread across large areas. With the help of drones, valuable information can be collected with high accuracy in a short span of time, which in turn can be used to avoid damage caused by various means.

Drones can provide infrared pictures, which help farmers identify exact locations of weed emergence or insect infestations, and enable them to quickly focus on the targeted areas. Drones have potential applications in precision agriculture, which involves the use of detailed data on soils, crops, nutrients, pests, moisture, and yield to increase farm productivity.

2. Real Estate

Aerial videography and photography are the new perquisite provided by high-end real estate marketers. Drones effortlessly cover areas, which would be difficult to access otherwise and provide perfect images and videos. For real estate clients, it could provide a virtual tour with interactive and realistic presentations. UAVs can be used as maintenance tools to inspect large commercial places such as malls, undeveloped lands and office parks. It can also be useful for inspecting places after incidences of storm or vandalism.

3. Media and Entertainment

The use of UAVs in Media sector has grown substantially and it is said that 'the age of drone journalism' has started. Drones are used by the Media industry in numbers. It has become a significant instrument for news gathering by leading media players. News agencies can use drones for capturing images and videos of events from different height and angles. Drones can act as a powerful tool in the hands of journalists with proper training, who know the capabilities of the vehicle. Due to their small size, flexibility and ability to perform in the harshest weather, they can be used to take aerial surveys of places and events such as volcanos, demonstrations or warzones, which were not possible to get up close to by manned aircrafts before. Also, as they do not require the direct presence of reporters, news stories which were earlier missed due to risk of personal injuries to reporters on the ground, can now be covered.

Also, using drones is changing the way films are made as these are better than traditional methods for capturing perfect aerial shots. These are also cheaper, safer and faster solutions. As drone costs a fraction of helicopter or crane shoots, it opens new avenues for filmmakers looking to capture aerial shots that were impossible in the past. Drones will continue to change the way movies are filmed. Its use in the film industry will increase with continual improvement in the quality of drones and decrease in the cost of drones.

4. Surveillance

The trend of using UAVs for commercial aerial surveillance is rapidly increasing, with the development of automated and low cost drones and technology for object detection. Drones with high definition and infrared cameras can access areas, providing a firsthand look of areas not accessible otherwise, due to the advantage of its small size. Drones are used for gathering intelligence against enemy targets by government agencies and competitors in business. Drones can help in search and rescue missions, scientific research, wildfire mapping, road patrols, anti-piracy and aerial surveillance of large areas at a low cost. However, the widespread use of drones for domestic surveillance raises serious privacy concerns. These present a threat to privacy as drones are capable of monitoring personal conversations, peeking into many places.

Beside the mentioned sectors, drones can also be used for a wide range of activities, including archaeological survey, firefighting, healthcare (including medical supplies/delivery), delivery in commercial use, wildlife conservation, monitoring marine life, etc.

6.8 UAV Market in France

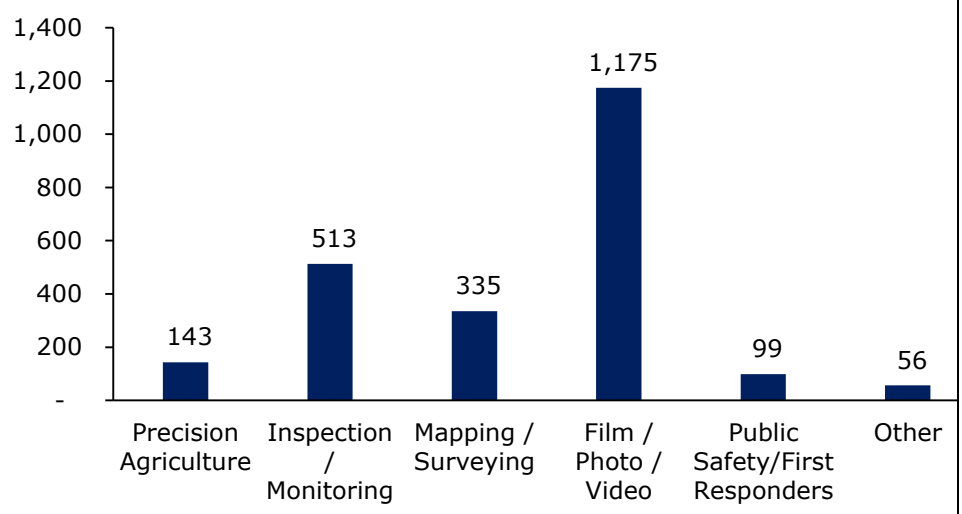
Globally, France has been the pioneer in the commercial drone market. It was one of the first countries to regulate the use of commercial drones. In 2012, the Ministry of Transport's Civil Aviation Authority, Directorate General for Civil Aviation (DGAC) made law relating to design and use of drones in French airspace. Also the manner in which drones can be used depends on their types and design. However, the legislation does not apply to military or state-operated drones. France has registered 1,250 commercial drone operators as of January 2015.[xxxv]

The global UAV industry is forecasted to reach USD 93 BN over the next decade, with consumer and civil drone markets to contribute 23% and 5% share respectively. Teal Group expects that French companies are well positioned to benefit from this growth. France has established drone regulations. Operators must pass a theory exam and show an aptitude for flying a drone. For flying drones beyond the line of sight a pilot license is needed for the operators, which requires 20hours of drone training and 100 hours of flying experience.

6.9 UAV Market in the U.S.

In the U.S., drones were primarily used in war zones to deliver weapons and for U.S. military reconnaissance. But, now some new technologies and pending federal regulations are enabling the manufacture and use of UAVs for domestic commercial purposes, giving rise to a growing commercial UAV industry. The commercial drone market in the U.S. is still less advanced due to the Federal Aviation Administration (FAA) regulations, which has closed American airspace for UAV trial flights. The FAA, in May 2014, has granted exemption permitting specific use of commercial drones for agriculture, real estate, film and broadcasting, oil and gas and construction activities. The Teal Group's study revealed that 64% of worldwide military spending on drone technology (Research Development Test and Evaluation) over the next decade is expected to be contributed by the United States, and 38% of military procurement spending.[xxxvi]

Exhibit 17: FAA Exemptions Operation / Mission[xxxvii]



There is significant investment potential in this sector in the U.S. According to the study conducted by the Federal Aviation Administration (AUVSI), by 2025 about 100,000 jobs could be created in the American economy by the use of drones and would generate about USD 80 BN between 2015 and 2025.

6.10 Regulatory Framework

Despite the significant interest in drones expressed by various sectors, the UAV industry faces major obstacles, which could cut short this sector's growth story. Regulatory policies, safety and privacy concerns, and public awareness regarding drones are key concerns. Currently, there is no uniform global approach to the legal use of drones by either hobbyists or businesses. Many countries differentiate drones by weight category, wherein drones weighing more than 55 pounds are considered in a heavier category. Drones weighing less than 4.4 pounds are dealt with differently than the heavier ones as these have lower safety risks. There are other risks related to regulations like sharing of frequencies and radio link; quality of drones (especially the heavier drones); and safety from mid-air collision.

1. Regulations in the U.S.

The U.S. has clearly lagged in creating a framework to support the UAV industry and therefore, U.S. drone companies are at a serious disadvantage as they are unable to test commercial drone applications in the U.S. The FAA has set its regulations for use of drones and prohibits their usage for commercial purposes with some exemptions for some specific activities, such as for companies conducting agriculture, real estate, film and construction activities. AUVSI has estimated that each year of delay in regulatory constraints has a USD 10 BN economic impact for the U.S.[xxxviii]

Under the FAA regulation, drones weighing less than 55 pounds are allowed to fly for commercial operations during day time within limited locations, and within the line of sight of the operator. The final set of rules is still being worked on and is likely not to be issued until late 2016-17.[xl]

Exhibit 18: Types of UAVs in Commercial Operation[xxxix]

UAV Platforms Approved Through FAA Exemptions

Industry	Average Weight (in pounds)	Average Endurance (in minutes)
Agriculture	9.14	37.59
Real estate	5.37	23.10
Film and TV	12.39	19.05
Oil and gas	9.83	97.40
Construction	7.22	26.85

FAA has been moving in the right direction. Since May 2014, it has permitted a range of commercial enterprises to use drones. The FAA granted 500 exemptions in its first year in over 20 different industries.[xli] As of September 2015, FAA had issued 1407 exemptions to U.S. companies under Section 333 to operate drones for commercial purposes.[xlii]

2. Regulations in Europe

The European Aviation Safety Agency (EASA) has been assigned by the European Commission to set up a common regulation for drones across Europe. The set of standards should cover security, safety, privacy, data protection, insurance and liability. Europe aims to become a global leader in emerging drone technology industry, with the right set of regulations to safeguard the countries' interest. Currently, within the European Union, different states have regulated, or are planning to regulate, different characteristics of civil drones less than 150 kg in weight.

The EASA has recently released a roadmap for UAV airspace integration to operate and fly in the EU, specifying three categories based on operational parameters:

Open Category: Under this category, it's not necessary to require permission, approvals or a license from the Aviation Authority for drones weighing 25 kg or less. However, UAVs need to meet the defined limitations, such as flying within the line of sight of the operator and within a defined altitude and distance; flying over a crowd is also not permitted.

Specific Category: This category covers characteristics that have not been covered under 'open' category. Under this category, the drone operator has to undergo a safety risk assessment and identify a mitigation structure that needs to be reviewed and approved by National Aviation Authority.

Certified Category: This category includes large unmanned aircraft and their operations. These would be treated as manned aircrafts in terms of rules. The operators engaged in this category would require licenses.

3. Regulations in France

France was one of the first countries to implement legislation on civil drones. The Directorate General of Civil Aviation (DGCA) has classified UAVs under seven categories segmented by weight, the model design and the accessories that these must contain. Along with this, DGCA has identified four scenarios in which UAVs can be used.

Exhibit 19: Possible Scenarios for using UAVs in France[xliii]

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Line of Sight	In Direct View	Beyond the remote pilot's sight	In Direct View	Beyond the remote pilot's sight
Area	Clear of populated area	Clear of populated area	Within populated area or close to a gathering of persons/animals	Clear of populated area
Distance (Horizontal)	100m	1Km	100m	Specific activities and flight that do not meet scenario S2 criteria
Height	150m	50m	150m	150m

6.11 Major Drone Manufacturers

Dajiang Innovation Technology (DJI) – DJI, a Chinese company headquartered in Shenzhen, Guangdong, manufactures commercial UAV for aerial photography and videography. The company has been quite aggressive in bringing out new technology in recent years and has emerged as world's most popular consumer drone maker. DJI reported revenue of around USD 500 MM in 2014, nearly four times its 2013 number, and targets to achieve USD 1 BN in 2015 to become the first billion-dollar commercial drone company. The company brought small yet powerful drones in the market with its popular Phantom line products, which are easy to fly and can shoot high definition footage. Accel Partners, the venture capital firm, invested USD 75 MM in DJI in May 2015 as it believes DJI would be a leader in this category. The investment has boosted DJI value at roughly USD 8BN.

Parrot – It is the second largest consumer drone company by revenue, after China's DJI. Parrot specializes in technologies involving voice recognition and signal processing for embedded products and drone manufacturing. It has been developing a range of commercial drones since 2012. It has also tried to differentiate itself by offering cheaper toy-like drones at half the price of its competitors. The revenues from drones constituted almost 74% of the company's total revenue in 4Q2015, and reflected a 121% growth in drone business compared to the previous year.

3D Robotics – 3D Robotics, an American company founded in 2009, manufactures consumer drones and offers a range of drones for everyday exploration and business applications. Its popular drone 'Solo' released in May 2015 is argued to be the smartest drone ever. It captures breath-taking aerial imagery and data analysis, enabling mapping, surveying, 3D modelling and more. The company has raised USD 50 MM in its latest round of capital infusion (led by Qualcomm) to support product development.

Competition in UAV industry

Exhibit 20: Peer Comparison

	Country	Segments
DJI	China	Consumer drone maker; the leader in this category; makes drones for hobbyists and professionals; 'Phantom' series is said to be the most popular drone worldwide; widely used by videographers globally
Parrot	France	Second largest civil & consumer drone manufacturing company
3D Robotics	U.S.	Consumer drone manufacturer; offers drones for exploration and business applications
Dassault Aviation	France	Designs, manufactures and sells combat aircrafts for the military sector; also sells products ranging from business jets to military drones
Delta Drone	France	Designs and manufactures civilian and commercial drones and provides range of payloads. It also offers consulting, technical assistance and maintenance services
Fly-n-sense	France	Designs and sells end-to-end commercial UAVs for security, agriculture, environment and industrial activities
RedBird	France	The company analyzes and processes the data acquired by drones and offers data processing solutions to optimize resources, improve performance and secure operations with drone based information
Surveycopter	France	Designs and manufactures remote controlled drones and robots; considered to be a pioneer in mini UAVs; offers products for civilian and military uses
AeroVironment, Inc.	U.S.	The company makes small UAVs for the U.S. army for real time reconnaissance, intelligence gathering and surveillance

7. Valuation

The Fair Market Value of all the Company shares stand between € 19.10 MM and € 23.21 MM as of November 17, 2017. The Fair Market Value for the company publicly traded share stands between € 1.06 and € 1.29 as of November 17, 2017. The valuation approach followed is the Discounted Cash Flow method.

7.1 Discounted Cash Flow Method

Valuation	
WACC	
Risk-free rate	2.40%[xliv]
Beta	1.05[xlv]
Market Return	7.30%[xlvi]
Additional Premium	0.00%
Cost of Equity	8.53%
Cost of Debt	2.33%
Terminal Growth Rate	2.00%
WACC (Discount Rate)	8.48%

Figures are '000 €, unless indicated otherwise

KEY VARIABLES

No. of drones sold	Average Selling price per drone
Refer to *Key Variables Analysis* section	

Year Ending- Dec	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
FCFF (High)										
Net cash from operating activities	61	(971)	1,655	631	3,062	2,354	5,303	4,653	7,875	7,326
Capital Expenditure	(1,155)	(1,450)	(1,369)	(1,660)	(2,219)	(2,812)	(3,407)	(4,069)	(4,746)	(4,630)
Free Cash Flow to Firm	(1,094)	(2,420)	286	(1,030)	843	(458)	1,896	584	3,129	2,696
Discount factor	0.96	0.88	0.81	0.75	0.69	0.64	0.59	0.54	0.50	0.46
Present Value of FCF	(1,049)	(2,140)	233	(773)	584	(292)	1,115	317	1,564	1,242
FCFF (Low)										
Net cash from operating activities	103	(1,032)	1,576	360	2,759	1,809	4,754	3,866	7,063	6,269
Capital Expenditure	(1,116)	(1,379)	(1,279)	(1,534)	(2,029)	(2,573)	(3,120)	(3,727)	(4,349)	(4,243)
Free Cash Flow to Firm	(1,013)	(2,411)	297	(1,174)	730	(764)	1,635	139	2,714	2,026
Discount factor	0.96	0.88	0.82	0.75	0.69	0.64	0.59	0.54	0.50	0.46
Present Value of FCF	(972)	(2,131)	242	(882)	506	(488)	962	75	1,357	934

Arrowhead Fair Value Bracket	High	Low
Terminal Value (TV)	39,112	34,477
Present Value of TV	11,988	10,576
Present Value of FCF	11,223	8,524
Present Value of TV+FCF	23,211	19,101
Equity Value Bracket		
Shares O/s (000's)	18,049	18,049
Fair Share Value Bracket (€)	**1.29**	**1.06**
Current Market Price (€)	0.71	0.71
Upside/(Downside)	81%	49%
Current Market Cap. (€ '000)	12,815	12,815
Target Market Cap. Bracket (€ '000)	23,211	19,101

Sensitivity Analysis

Sensitivity Table- High		WACC (%)				
		4%	6%	8%	10%	12%
Growth Rate (%)	1.5%	5.33	2.29	1.24	0.76	0.50
	1.8%	5.74	2.37	1.26	0.77	0.50
	2.0%	6.22	2.46	1.29	0.78	0.50
	2.3%	6.81	2.56	1.32	0.79	0.51
	2.5%	7.56	2.68	1.35	0.80	0.51

Sensitivity Table- Low		WACC (%)				
		4%	6%	8%	10%	12%
Growth Rate (%)	1.5%	4.59	1.93	1.01	0.60	0.38
	1.8%	4.95	2.00	1.04	0.61	0.38
	2.0%	5.38	2.08	1.06	0.62	0.38
	2.3%	5.90	2.17	1.08	0.62	0.39
	2.5%	6.55	2.27	1.11	0.63	0.39

Peer comparison on valuation multiples

Using an industry average P/S for 2018 of 1.9x, our 2020 average estimate of revenue implies fair value of € 2.40 in 2020. Discounting the 2020 fair value to 2017 using WACC, we arrive at fair value of € 1.88, which is c. 165% higher than the current share price of € 0.71.

Exhibit 21: Valuation Multiples[xlvii]

	Market Cap (USD MM)	EV/EBITDA		Price to Book Value		Price to Sales	
	2017	2017	2018	2017	2018	2017	2018
Nordex SE	846	3.2	4.2	0.7	0.7	0.2	0.3
Ingenico	6,172	11.5	9.5	2.7	2.4	2.1	1.9
Schindler Holdings	23,645	16.0	14.4	7.4	6.3	2.3	2.2
Workhorse Group Inc	117	NM	NM	NM	NM	12.2	3.4
Kuka AG	7,508	22.2	19.4	7.2	6.5	1.9	1.8
Total/ Average	**38,288**	**13.2**	**11.9**	**4.5**	**4.0**	**3.7**	**1.9**

Note: Peer group comprises of companies related in new technologies.

Approach for DCF Valuation

Time Horizon: The Arrowhead fair valuation for Drone Volt is based on a DCF method. The time period chosen for the valuation is 217 months (2017E-2035E).

Terminal Value: Terminal value is estimated using a terminal growth rate of 2.0%.

Prudential Nature of Valuation: It should be noted that this Arrowhead Fair Value Bracket estimate is a relatively prudential estimate, as it discounts the eventuality of any new products being launched in the market or any significant change in the strategy.

Key Variables: The upper and lower bounds in the estimation correspond to the extreme positions taken by the following key variables:

Variable 1 – Number of Drones

Exhibit 22: Number of drones at the end of year

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Low estimate	Consumer	543	565	588	605	624	642	662	681	702	723
	Professional	861	1,249	1,748	2,360	3,068	3,834	4,601	5,430	6,244	6,993
High estimate	Consumer	554	587	622	653	686	707	728	750	772	795
	Professional	869	1,268	1,788	2,414	3,138	3,922	4,707	5,554	6,387	7,154

Variable 2 – Average Selling price (ASP) per Drone

Exhibit 23: Average selling price per drone

In €		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Low estimate	Consumer	3,383	3,519	3,659	3,806	3,958	4,077	4,199	4,325	4,455	4,588
	Professional	6,953	7,301	7,593	7,973	8,292	8,540	8,711	8,885	9,063	9,244
High estimate	Consumer	3,416	3,587	3,766	3,954	4,152	4,277	4,405	4,537	4,673	4,813
	Professional	7,019	7,440	7,812	8,281	8,695	8,956	9,135	9,317	9,504	9,694

Important information on Arrowhead methodology

The principles of the valuation methodology employed by Arrowhead BID are variable to a certain extent depending on the subsectors in which the research is conducted, but all Arrowhead valuation research possesses an underlying set of common principles and a generally common quantitative process.

With Arrowhead Commercial and Technical Due Diligence, Arrowhead extensively researches the fundamentals, assets and liabilities of a Company, and builds solid estimates for revenue and expenditure over a coherently determined forecast period.

Elements of past performance, such as price/earnings ratios, indicated as applicable, are present mainly for reference purposes. Still, elements of real-world past performance enter the valuation through their impact on the commercial and technical due diligence.

Elements of comparison, such as multiple analyses may be to some limited extent integrated in the valuation on a project-by-project or asset-by-asset basis. In the case of this Drone Volt report, there are no multiple analyses integrated in the valuation.

Arrowhead BID Fair Market Value Bracket

The Arrowhead Fair Market Value is given as a bracket. This is based on quantitative key variable analysis, such as key price analysis for revenue and cost drivers or analysis and discounts on revenue estimates for projects, especially relevant to those projects estimated to provide revenue near the end of the chosen forecast period. Low and high estimates for key variables are produced as a tool for valuation. The high-bracket DCF valuation is derived from the high-bracket key variables, while the low-bracket DCF valuation is based on the low-bracket key variables.

In principle, an investor who is comfortable with the high-brackets of our key variable analysis will align with the high-bracket in the Arrowhead Fair Value Bracket, and likewise in terms of low estimates. The investor will also take into account the Company intangibles – as presented in the first few pages of this document in the analysis on strengths and weaknesses and other essential Company information. These intangibles serve as supplementary decision factors for adding or subtracting a premium in the investor's own analysis.

The bracket should be understood as a tool provided by Arrowhead BID for the reader of this report and the reader should not solely rely on this information to make his decision on any particular security. The reader must also understand that on one hand, global capital markets contain inefficiencies, especially in terms of information, and that on the other hand, corporations and their commercial and technical positions evolve rapidly: this present edition of the Arrowhead valuation is for a short to medium-term alignment analysis (one to twelve months). The reader should refer to important disclosures on page 31 of this report.

8. Appendix

8.1 Drone Volt's Financial Summary

Exhibit 24: Financial Summary

Low Bracket Estimates

Year Ending Dec	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Revenue (€'000)	8,080	11,491	15,987	21,917	28,984	36,758	44,565	53,242	62,122	70,714
Operating Profit (€'000)	(909)	(194)	530	1,339	2,398	3,544	4,646	5,905	7,171	8,341
Net Income (€'000)	(658)	(193)	231	749	1,446	2,225	2,983	3,879	4,755	5,560
EPS	(0.04)	(0.01)	0.01	0.04	0.08	0.12	0.17	0.21	0.26	0.31
Growth rates (%)										
Revenue	18.5%	42.2%	39.1%	37.1%	32.2%	26.8%	21.2%	19.5%	16.7%	13.8%
Operating Profit	NM	NM	NM	NM	79.0%	47.8%	31.1%	27.1%	21.4%	16.3%
Net Income	NM	NM	NM	NM	93.0%	53.9%	34.1%	30.0%	22.6%	16.9%
EPS	NM	NM	NM	NM	93.0%	53.9%	34.1%	30.0%	22.6%	16.9%
Margins (%)										
EBITDA Margins	(9.3%)	1.3%	6.4%	8.7%	10.5%	11.8%	12.6%	13.3%	13.9%	14.2%
Operating Profit Margin	(11.3%)	(1.7%)	3.3%	6.1%	8.3%	9.6%	10.4%	11.1%	11.5%	11.8%
Net Profit Margin	(8.1%)	(1.7%)	1.4%	3.4%	5.0%	6.1%	6.7%	7.3%	7.7%	7.9%
Ratios										
Price / Earning ratio	NM	NM	55.4x	17.1x	8.9x	5.8x	4.3x	3.3x	2.7x	2.3x
EV/Revenue	1.6x	1.2x	0.8x	0.6x	0.5x	0.4x	0.3x	0.3x	0.2x	0.2x
EV/EBITDA	(17.7x)	88.1x	13.0x	7.0x	4.4x	3.1x	2.4x	1.9x	1.5x	1.3x
EV/EBIT	(14.6x)	NM	25.1x	9.9x	5.6x	3.8x	2.9x	2.3x	1.9x	1.6x

Exhibit 25: Financial Summary

High Bracket Estimates

Year Ending Dec	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Revenue (€'000)	8,339	12,083	17,114	23,721	31,701	40,169	48,674	58,127	67,801	77,162
Operating Profit (€'000)	(881)	(85)	751	1,713	2,963	4,245	5,482	6,890	8,308	9,623
Net Income (€'000)	(630)	(121)	378	998	1,823	2,694	3,544	4,541	5,521	6,426
EPS	(0.03)	(0.01)	0.02	0.06	0.10	0.15	0.20	0.25	0.31	0.36
Growth rates (%)										
Revenue	22.3%	44.9%	41.6%	38.6%	33.6%	26.7%	21.2%	19.4%	16.6%	13.8%
Operating Profit	NM	NM	NM	NM	73.0%	43.2%	29.1%	25.7%	20.6%	15.8%
Net Income	NM	NM	NM	NM	82.8%	47.7%	31.6%	28.2%	21.6%	16.4%
EPS	NM	NM	NM	NM	82.8%	47.7%	31.6%	28.2%	21.6%	16.4%
Margins (%)										
EBITDA Margins	(8.7%)	2.2%	7.4%	9.7%	11.5%	12.6%	13.4%	14.1%	14.6%	14.9%
Operating Profit Margin	(10.6%)	(0.7%)	4.4%	7.2%	9.3%	10.6%	11.3%	11.9%	12.3%	12.5%
Net Profit Margin	(7.6%)	(1.0%)	2.2%	4.2%	5.8%	6.7%	7.3%	7.8%	8.1%	8.3%
Ratios										
Price / Earning ratio	NM	NM	33.9x	12.8x	7.0x	4.8x	3.6x	2.8x	2.3x	2.0x
EV/Revenue	1.6x	1.1x	0.8x	0.6x	0.4x	0.3x	0.3x	0.2x	0.2x	0.2x
EV/EBITDA	(18.4x)	49.8x	10.5x	5.8x	3.7x	2.6x	2.0x	1.6x	1.3x	1.2x
EV/EBIT	(15.1x)	NM	17.7x	7.8x	4.5x	3.1x	2.4x	1.9x	1.6x	1.4x

8.2 Drone Volt's Balance Sheet Forecast

Exhibit 26: Consolidated Balance Sheet All figures in € '000, unless stated differently *Low Bracket estimates*

Year Ending-Dec	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Total current assets	4,661	5,196	5,828	6,319	6,681	6,973	6,672	6,555	8,750	12,357
Total non-current assets	3,269	4,303	5,085	6,056	7,448	9,242	11,397	13,937	16,845	19,365
TOTAL ASSETS	**7,930**	**9,499**	**10,913**	**12,375**	**14,128**	**16,215**	**18,068**	**20,492**	**25,595**	**31,722**
Total current liabilities	1,720	1,732	2,314	2,527	3,334	3,696	4,565	5,110	6,075	6,642
Total non-current liabilities	2,777	4,527	5,127	5,627	5,127	4,627	2,627	627	10	10
TOTAL LIABILITIES	**4,497**	**6,259**	**7,441**	**8,154**	**8,461**	**8,322**	**7,192**	**5,737**	**6,085**	**6,652**
Total shareholder's equity	3,433	3,240	3,472	4,221	5,667	7,892	10,876	14,755	19,510	25,070
TOTAL LIABILITIES & EQUITY	**7,930**	**9,499**	**10,913**	**12,375**	**14,128**	**16,215**	**18,068**	**20,492**	**25,595**	**31,722**

Exhibit 27: Consolidated Balance Sheet All figures in € '000, unless stated differently *High Bracket estimates*

Year Ending-Dec	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Total current assets	4,683	5,236	6,004	6,673	7,361	7,947	8,103	8,431	11,235	15,499
Total non-current assets	3,308	4,405	5,258	6,328	7,870	9,845	12,207	14,988	18,165	20,918
TOTAL ASSETS	**7,991**	**9,641**	**11,262**	**13,001**	**15,231**	**17,792**	**20,310**	**23,418**	**29,400**	**36,417**
Total current liabilities	1,753	1,773	2,416	2,658	3,564	3,931	4,906	5,473	6,550	7,142
Total non-current liabilities	2,777	4,527	5,127	5,627	5,127	4,627	2,627	627	10	10
TOTAL LIABILITIES	**4,530**	**6,300**	**7,543**	**8,284**	**8,691**	**8,558**	**7,533**	**6,100**	**6,560**	**7,152**
Total shareholder's equity	3,462	3,341	3,719	4,716	6,540	9,234	12,777	17,319	22,840	29,265
TOTAL LIABILITIES & EQUITY	**7,991**	**9,641**	**11,262**	**13,001**	**15,230**	**17,792**	**20,310**	**23,418**	**29,400**	**36,417**

9. Analyst Certifications

I, Parvati Rai, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public Company disclosures.

I, Sumit Wadhwa, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public Company disclosures.

Important disclosures

Arrowhead Business and Investment Decisions, LLC received fees in 2016 and will receive fees in 2016 from Drone Volt for researching and drafting this report and for a series of other services to Drone Volt, including distribution of this report and investor relations services. Neither Arrowhead BID nor any of its principals or employees owns any long or short positions in Drone Volt. Arrowhead BID's principals intend to seek a mandate for investment banking services from Drone Volt and expect to receive compensation for investment banking activities for Drone Volt in 2016.

Aside from certain reports published on a periodic basis, the large majority of reports are published by Arrowhead BID at irregular intervals as appropriate in the analyst's judgment.

Any opinions expressed in this report are statements of Arrowhead BID's judgment to this date and are subject to change without notice.

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Investors are advised to gather and consult multiple sources of information while preparing their investment decisions. Recipients of this report are strongly advised to read the Information on Arrowhead Methodology section of this report to understand if and how the Arrowhead Due Diligence and Arrowhead Fair Value Bracket integrate alongside the rest of their stream of information and within their decision making process.

Past performance of securities described directly or indirectly in this report should not be taken as an indication or guarantee of future results. The price, value of, and income from any of the financial securities described in this report may rise as well as fall and may be affected by simple and complex changes in economic, financial and political factors.

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See important disclosures on page 31 of this report

10. Notes and References

[i] 52 weeks to Nov 16, 2017. Source: Bloomberg, Nov 17, 2017

[ii] 3 months to Nov 16, 2017. Source: Bloomberg, Nov 17, 2017

[iii] Arrowhead Business and Investment Decisions Fair Value Bracket – AFVBTM. See information on valuation on pages 25-27 of this report and important disclosures on page 31 of this report.

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[viii] Source: Company filings

[ix] Source: Company filings

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[xxx] Source: IHS Jane's Intelligence report

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