Equity Research

Drone Delivery Canada Corp.[1,7]

BUY

FLT-TSXV

March 9, 2018

Last: **C$1.69**
Target: **C$2.25**

Initiating coverage: Building critical infrastructure for drone commercial delivery

Drone Delivery Canada ("DDC") is a technology innovator developing a commercial drone delivery logistics platform. We believe DDC can be the first licensed operator for drone delivery in Canada and build a high growth, high margin business with attractive barriers to entry and IP essential to the industry. As an investment, we see a high-risk, high-reward opportunity with exposure to a new industry and potential for attractive long-term ROIC. We believe investors with a tolerance for early stage risk will be rewarded.

First mover advantage with essential infrastructure

We believe DDC can be one of the first licensed companies for commercial beyond-visual-line-of-sight (BVLOS) drone operations Canada. We expect limited licence awards until regulators get comfort with real-world operations. We believe DDC can establish a flight network and mature its operations faster than new entrants, and contribute to industry-wide standards. We also believe DDC to repeat this success internationally, including the U.S. market.

Strong feedback from customers and industry contacts

We spoke to over a dozen industry contacts over the past 18 months. The vast majority believe DDC has taken the right approach to solving key operational, commercial, and most importantly, regulatory challenges to making drone delivery a reality. Customers and partners see high value potential with drones and view DDC as a strategic enabler to developing this capability.

Early stage risk in a highly regulated industry

DDC is a start-up developing new technology in a new industry, and is dependent on regulatory approvals to begin and grow commercial operations. We think this creates a higher-than-usual risk profile for investors. Furthermore, in 2018, Transport Canada will only approve four applicants to test commercial BVLOS operations in a real-world setting. While we expect approval for DDC, outcomes for government tenders are unpredictable.

Initiating coverage with a BUY rating

Our target price of $2.25 is based on 10x 2022 EV/Sales discounted to PV at 15%. We forecast first revenue in 2019 growing to $66.5mm by 2022, and cash burn of $18.5mm to break-even in Q1/22 vs $23mm available as of Q1/18.

Rating	BUY
Target	C$2.25
Revenue 2019E (mm)	$3.3
Revenue 2020E (mm)	$16.5
EBITDA 2019E (mm)	($6.8)
EBITDA 2020E (mm)	($1.3)
FCF 2019E (mm)	($6.5)
FCF 2020E (mm)	($2.2)

Share Data

Share o/s (mm, basic/f.d.)	145.5 / 178.7
52-week high/low	C$2.26 / C$0.04
Market cap (mm)	$302.1
Enterprise value (mm)	$277.4
Dividend	n.a.
Dividend yield	n.a.
Projected return	33%

Financial Data

YE Mar. 31	2018E	2019E	2020E
Revenue (mm)	$0.0	$3.3	$16.5
EV/Revenue	n.a.	85.3x	16.8x
EBITDA (mm)	($8.4)	($6.8)	($1.3)
EV/EBITDA	n.a.	n.a.	-208.4x
EPS f.d.	($0.04)	($0.03)	($0.01)
P/E	n.a.	n.a.	-290.5x
FCF	($8.0)	($6.5)	($2.2)
P/FCF	n.a.	n.a.	-137.7x
Net debt	($18.5)	($12.0)	($9.9)
Net debt/EBITDA	n.a.	n.a.	n.a.
Book value	$20.6	$21.5	$16.5
P/BV	14.6x	14.0x	18.3x

All figures in C$ unless otherwise noted

 Current Chart  Previous Research

Deepak Kaushal, P.Eng., CFA (416) 943-6686
dkaushal@gmpsecurities.com

Ruben Sahakyan, CFA (416) 941-0895
rubens@gmpsecurities.com

Investment thesis: First mover advantage in commercial drone delivery

Drone Delivery Canada ("DDC") is a technology innovator that is focused on developing and commercializing a logistics platform for drone delivery. DDC has taken a smart approach with regulators, partners, business model, and technology development that in our view, positions the company to become the first commercial drone delivery operation in Canada. Upon full licensing, we believe DDC can build a high-growth, high-margin business with attractive barriers to entry and with valuable intellectual property that is essential to the industry. As an investment, we see a high-risk, high-reward opportunity that offers unique exposure to an emerging growth industry. We believe long-term investors with a tolerance for start-up risk will be rewarded.

We see the following key reasons to own DDC:

- **Smart approach:** DDC is solving the most important challenges in the industry by focusing on building a system to remotely pilot drone operations at scale, and proactively working with regulators to shape policy and meet strict requirements for safety and reliability. DDC is also starting with fixed flight paths in remote communities to deliver a socially responsible public service. This eases the burden on technology development, regulatory and government approvals, and public acceptance of drones.
- **Positive industry feedback:** Discussions with over a dozen industry contacts over the past year suggest DDC has taken a smart and unique approach to solving key regulatory, operational, and commercial challenges, and is best positioned to earn the first licence for drone delivery in Canada. Prospective customers and partners see significant value potential for drones in their businesses and see DDC as a key enabler to capturing this.
- **First-mover advantage:** We believe DDC is on pace to become the first licence holder for beyond-visual-line-of-sight (BVLOS) commercial drone delivery in Canada. We expect limited licence awards until regulators get comfort with real-world operations. As a first-mover, DDC will be able to establish a flight network and mature its operations faster than new entrants, and will also be in a position to help shape industry-wide standards.
- **Attractive business model:** A focus on software and systems, and a partnership approach to integrating best-of-breed technology has enabled DDC to build its platform faster and cheaper than larger competitors, without compromising safety and reliability. DDC is also focused on a managed service model that maximizes recurring revenue and margins, and off-loads capital investment in hardware and infrastructure to partners.
- **High option-value:** We think DDC can build a valuable business on its Northern Canada and depot-to-depot strategy alone. Beyond this, we see potential for DDC to accelerate growth and penetration by partnering with existing logistics or cargo delivery companies; potential to license its technology to partners in international markets; and the potential for their IP to become an essential part of an industry-wide drone traffic management system applicable to a broader range of BVLOS commercial applications.

We also highlight above-average risk investors must consider with DDC given its early stage of commercialization and that it operates in a highly regulated industry:

- **Regulatory uncertainty:** DDC's path to commercial operations is dependent on receiving approval from government regulators. In 2018, Transport Canada is expected to approve

only four applicants to conduct the first commercial pilot programs in a real-world setting. While we expect DDC to be selected, government bids are difficult to predict and may not result in the logical outcomes. This could cause a material delay in DDC's plans. Not securing a licence would have a material adverse impact on the business.

- **Technology and operational risks:** We expect new and unpredictable technology and operational challenges as DDC begins operations in a real-time operating environment. Disruptions, accidents and failures are part-and-parcel with new aircraft operations, and can have a material adverse effect depending on cause and severity. Retiring new risks will require time, experience, and further investment for DDC and all of its stakeholders.

We also point out important forecasts and valuation considerations given this early stage. In general, we expect variability in DDC's business model and timing of revenue and growth, and think near-term financials are less important to long-term value verses achieving key strategic milestones:

- **Fluid business model:** We expect DDC's business model to evolve, not only as customer discussions proceed to commercial agreements, but also as the nature of operations mature over time. We expect this to create variability in our forecasts for revenue and margins, but not change our view on the potential for long-term value creation.

- **Timing uncertainties:** We believe the timing of first commercial revenue and near-term growth rate will be largely determined by regulatory approvals, followed by community readiness in Northern Canada, rather than DDC's platform or commercial customer readiness. Initial revenue may also be derived from government infrastructure funding, which also adds a level of uncertainty to timing and working capital requirements.

We are initiating coverage with a BUY rating and target price of C$2.25, which represents a 33% return. Our target price is based on a multiple of 10 times 2022 sales discounted to present value at 15%. This implies an enterprise value of $400mm today. This compares to a group of high growth technology companies trading at 10 times trailing sales, and a group of mature transportation and logistics companies trading at 6.5 times trailing sales. We support our view of long-term value by examining several additional factors:

- **Life-time customer value:** We examine the long-term value of key market segments and customer applications such as a Northern Canada delivery network and Depot-to-Depot retail operations. Based on a simplified business model, we estimate a life-time value for strategic Canadian customers between $60mm and 100mm per customer. We also see good potential for DDC to win multiple customers of similar value over time.

- **Licence value:** We examined the return on invested capital performance of comparable companies with long term businesses protected by government licences and regulations. We used McKinsey & Company's business valuation method. Based on a range of ROIC between 7% and 20%, invested capital for DDC of C$50mm, and WACC between 7% and 20%, we estimate a licence value of $75mm, ranging between $3.6mm and $700mm.

- **Option value:** Notably, we do not consider material value contribution at this stage from international expansion, strategic operating partnerships, or M&A activity. We think these factors can represent material valuation upside from current levels.

Company profile: Building a commercial drone delivery logistics platform

Drone Delivery Canada is a technology company that is focused on developing and commercializing a logistics platform for drone delivery. The company was established by a team of entrepreneurs with past success in the data center/telecom industry, who see an opportunity to become the first regulator-approved commercial drone delivery service in Canada. Management's vision is to leverage its pioneering IP and first-mover advantage to become an essential infrastructure provider to the industry, with a managed-service business model that delivers scalable recurring revenue growth with high margin and high return on invested capital.

DDC was founded in 2014 and listed on the Canadian Stock Exchange on June 2016 at $0.30/sh. The company has raised $28.7mm through three raises since its founding, and valuation has risen from $26mm to $305mm, while shares outstanding have risen from 59mm to 178mm. DDC has invested $18mm capital to-date and has progressed steadily towards its goals. Since its public listing, DDC has matured its technology platform to over 90% operational readiness through extensive development and testing; established key partnerships with the likes of Staples, United Auto Parts, TECSYS, Woseley, and the Moose Cree First Nation to develop practical commercial applications; and has achieved compliant operator status from Transport Canada (TC) which licenses DDC to proceed towards commercial testing.

Figure 1. Capital structure and funding to-date

Close	Raise(C$M)	Net C$M	Fee	Price	Shares (M)	Warrants(M)	Price	Wrnts. Expiry
25-May-16	2.75	2.58	0.16	0.14	19.64	1.57	0.14	2 years
6/6/2016*	n/a	n/a	n/a	n/a	83.28	n/a	n/a	n/a
28-Feb-17	10.90	10.14	0.76	0.35	31.14	0.57	0.45	2 years
25-Oct-17	15.02	14.11	0.90	0.65	23.10	n/a	n/a	n/a

** RTO amalgamation*

Source: GMP Securities, Drone Delivery Canada

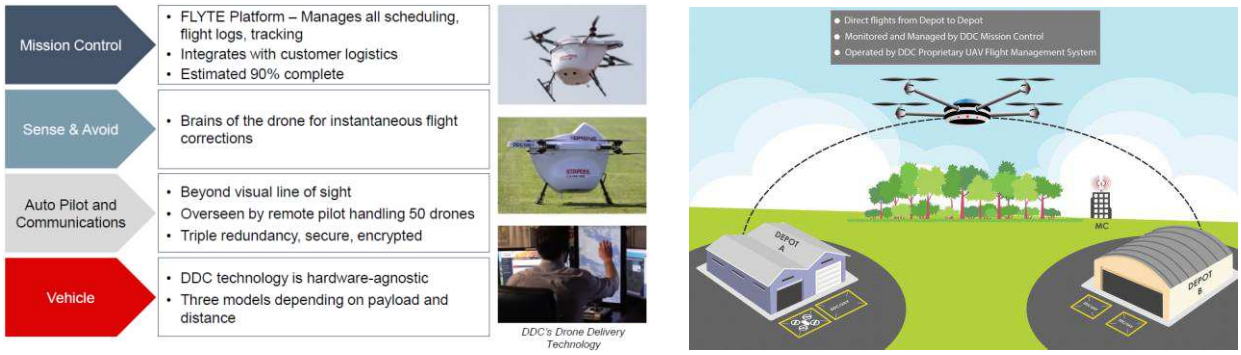
Today, DDC employs a team of 50 based in Toronto, Canada, and has a cash position of $23.5mm. In 2018, we expect DDC to complete its first commercial pilot program which is necessary to obtain comprehensive regulatory approval and the start of commercial operations. DDC has also outlined plans to begin testing in the U.S. market starting in Q1 2018. We believe these efforts will establish a strong foundation for growth in commercial revenue starting in 2019. Longer term, we believe DDC is on the path to become a key infrastructure provider to the Canadian drone industry, with the potential to export its technology platform to other regions worldwide.

Solving a critical problem for the drone industry with a smart approach

We believe DDC's core value is in the development of a regulator-approved platform that can reliably and safely control commercial drones in beyond-visual-line-of-sight operations (BVLOS). In our view, BVLOS is essential to achieving scalable profitability for drone operations, since it reduces the need for manual operators at regular intervals along a flight path. The key challenge with BVLOS however is not the technology, but rather achieving an operation that ensures public safety on both the ground and in existing airspace. Exacerbating this problem is that innovation and demand are accelerating far ahead of the ability for regulators to establish new rules and standards to meet safety requirements.

We think DDC has taken a smart and rather unique approach to solving this problem by proactively collaborating with a range of key stakeholders. This includes: regulators, to better understand and meet their requirements; government agencies and industry associations, to educate and build positive public perception; and commercial partners, to validate and co-develop practical commercial operations. Furthermore, DDC is taking a crawl-walk-run approach that starts with simple operations and adds more complex operations over time. This makes it easier to gain the acceptance of all-key stakeholders, while simultaneously allowing DDC to move forward with technology innovation, a growing commercial operations. We also think DDC has also taken a smart and rare approach by focusing on end-to-end systems design and integration rather than on drone hardware, and by partnering to leverage best-of-breed capabilities across a range of technical disciplines including software and engineering. For example, DDC has partnered with the University of Waterloo academics for its autopilot system; the University of Toronto Institute for Aerospace Studies for airframe and payload customization; and Whitecap Canada for the flight management system. We believe this approach has enabled DDC to advance quickly and cost effectively without compromising quality and reliability.

Figure 2. Platform and operating model



Source: GMP Securities, Drone Delivery Canada

DDC plans to start with depot-to-depot services connected by pre-defined flight-paths, initially targeting remote regions of Canada that are expensive or underserved by existing delivery networks, and by focusing on applications that deliver a high-value public good. For example, DDC has partnered with the Moose Cree First Nation community in Northern Ontario for its first commercial pilot program, to deliver essential goods to remote, underserved communities where the cost of retail goods are more than double that of suburban towns. DDC has also partnered with organizations like Peel Region Paramedic Services and TECSYS Inc., a technology company specializing in supply chain solutions for large hospital networks, to deliver time-sensitive and potentially life-saving goods and services that are not economically viable with existing delivery systems. By simplifying technical and safety requirements with fixed flight paths, and delivering a public good at a lower cost, DDC is targeting high-value outcomes for regulators, government, customers and the public, to help justify and smooth the path for commercial operations.

First mover advantage while competitors focus elsewhere

DDC's approach is unlike other players in the industry, who in our view are focused on narrow segments of the value chain, have tried a more prescriptive approach with government and regulators, or have taken their testing off-shore to regions with less stringent regulatory

requirements. Companies such as Amazon, Matternet, Swiss Post, Zipline and Flirtey have actively tested drone delivery applications, including BVLOS operations, largely in countries outside of North America. Companies such as SensFly have even claimed regulatory approval for BVLOS operations (i.e. in Switzerland), but they still require observers to visually monitor airspace during operations. Within Canada, companies such as Ventus Geospatial Inc., Canadian UAV, and Aerium have conducted limited BVLOS tests, but these have been in non-delivery applications; while MDA Corporation (a division of Maxar Technologies) are using commercial drones in BVLOS applications, but targeting government and military customers. While some of these operations can and have achieved government approval in Canada and elsewhere, we expect these types of operations will be limited in scope and require special approvals, until a standard set of principles, procedures and technologies emerge to support routine BVLOS operations.

To this effect, organizations such as NASA, the FAA, and ICAO (the International Civil Aviation Organization) and aerospace giants like Thales Group and Harris Corp. have been working towards the development of Unmanned Aircraft System Traffic Management (UTM). This would effectively create a standardized air traffic control system for drones, that is similar to and coordinates with the air traffic control systems and standards used by conventional aviation. While we agree with this direction, we believe these efforts will take a long time to come to fruition, particularly given the large number of stakeholders involved, the high level of complexity involved, and the large budgets required to keep things moving. For example, NASA alone said it expects to spend $300mm between 2011 and 2020 to assist the FAA in integrating drones into the National Airspace, and is expected to spend over $85mm between 2015 and 2020 on UTM. At the end of this effort (in 2019), NASA will provide the results of its research to the FAA in the form of airspace integration requirements. It remains unclear how quickly research and recommendations can lead to a set of useful regulations.

Figure 3. Competitive landscape

Source: GMP Securities

We believe DDC is a disruptive innovator in this context and believe they have the opportunity to capture a valuable first mover advantage. As a small and nimble start-up, we believe DDC can get to an operational stage and mature its platform faster and cheaper than new entrants or larger consortiums pursuing UTM. Furthermore, we believe that focusing on an essential infrastructure system for BVLOS and being the first to market creates the potential for DDC's command and

control system to become a benchmark for industry regulators. We also expect regulators to limit the number and scope of operator licences in early days, to better manage safety and oversight. We think that this creates a barrier to entry, and an opportunity for DDC to license capacity on its platform to other companies seeking regulatory approval for BVLOS operations. Over time, we do not expect others to invest the same time, capital, and risk in maturing their own systems, nor do we expect regulators to provide customized licences to every operator. We believe that regulators will ultimately want to move towards a standard system to ensure compliance and safety, and we see potential for DDC to contribute valuable intellectual property towards this standard, while creating value for its customers, stakeholders and shareholders.

What industry contacts tell us

We have spoken to more than a dozen industry contacts over the past 18 months, including partners, prospective customers, peers and government representatives. Our takeaways:

Disruptive cost savings: Partners and prospective customers see the potential for significant cost savings using drone delivery technology. One prospective customer said DDC's solution can solve unique requirements for depot-to-depot or depot-to-enterprise delivery where service level agreements require just-in-time or on-demand delivery, and represent >50% of total deliveries.

Supports competitiveness: Partners cited Amazon's efforts to develop drone delivery as a potential competitive threat in the future and a key driver for investment. They are also taking a more proactive approach to evaluating and investing in disruptive technology innovations in general, given rising new competition from technology companies such as Amazon and Google.

Buy vs build preferred: One prospective customer said it turned to DDC after significant internal investments were determined to be less optimal from a technology and operations perspective, versus partnering with an industry leader. Similarly, incumbents in the conventional aviation industry viewed drones as complementary rather than directly competitive to their core business, and as a result seemed unlikely to develop drone capabilities internally versus partnering.

Unique approach: Our contacts were unanimous in their view that DDC's focus on software and systems combined with their constructive approach with regulators and partners is unique in the industry and a key driver of their success to date. DDC was widely recognized for its professionalism and leadership in developing the commercial drone industry in Canada.

Agile robust development: Technology partners said DDC is achieving military-grade quality in engineering and development, but with an agile and cost effective approach. Partners have also brought access to best-of-breed technologies and processes without compromising development and control of DDC's own intellectual property.

U.S. opportunity: One partner described progress with the U.S. Federal Aviation Administration (FAA) as difficult for routine commercial drone operations and not viable at present for drone delivery, despite significant industry interest and opportunity. More recently however, uncertainty regarding regulatory change at the federal level has been met with state efforts to bring new BVLOS test sites online, including the one in Rome, New York that DDC is targeting.

No barriers for approval: Although limited, our discussions with government officials with knowledge of the regulatory environment and current process for creating new drone legislation told us that they see no barriers for DDC or others to achieve regulatory approval if requirements

are met. Furthermore, our recent attendance of a regulatory update suggested an eagerness on the part of Canadian regulators to recapture global leadership in both drone regulations and commercial operations, and the need for standards to support routine BVLOS operations.

Many challenges remain: Despite widespread optimism, our contacts stressed many significant challenges ahead, which are part-and-parcel with the application of a new disruptive technology to a highly complex industry. These included technology challenges (i.e. integrating with existing air traffic control), logistical challenges for end customers (i.e. point-to-multipoint, urban delivery), economics (i.e. unit cost economics for high vs low density operations), and a long multi-year road towards comprehensive regulations for routine commercial BVLOS operations.

What's ahead

For the year ahead, we are focused on the following key milestones for DDC and the industry:

Commercial pilot: On February 5, 2018 Transport Canada issued an invitation for Concepts of Operation (ConOps) from industry participants to qualify for one of four BVLOS proof-of-concept trials in 2018. In April/May 2018 successful applicants will be granted approval to begin BVLOS trials in a real-world commercial setting, and be required to report results and share data with the industry in Fall 2018. The purpose is for TC to gain operating experience and data, validate technologies that enable routine BVLOS operations, and inform the development of BVLOS regulations in Canada. We believe DDC is well positioned to win approval in the process to trial drone delivery with its commercial and First Nations partners. In particular, TC has suggested delivery to northern/remote communities as an example, and puts high importance on applicants with a historical track record, strong systems and protocols, a model that benefits Canada and the public interest, and one that involves a diverse group of stakeholders including academia. That said, we caution investors that government selection processes can be unpredictable in timing and outcome, and in some cases do not always result in the most logical outcome.

U.S. market expansion: On January 15, 2018 DDC announced that it is expanding testing into the U.S. market, at the New York Griffiss International Airport UAS Test Site in Rome, New York. This is one of six approved U.S. test sites approved by the FAA and is expected to enable BVLOS testing. Management said that it expects to conduct BVLOS tests in the U.S. throughout the year, and that it would seek U.S. partners to participate. Based on our discussions with industry contacts, our sense is that regulatory efforts in the U.S. are better funded, but offset by more complexity given differing local, state and federal legislative jurisdictions, and the sheer number and diversity of operators in that market. We also expect that DDC may seek to license its technology to U.S. partners given the preference for domestic aviation licences, despite cross border regulatory discussions and common interest under ICAO.

Exploring new operating partnerships: As DDC progresses towards a commercial pilot and building a commercial operating network in northern Canada, management faces an important decision between building and operating the infrastructure with its community partners, or finding an operating partner such as a cargo or courier company with existing logistics infrastructure, upon which to build the network. Partnering would speed the build-out of DDC's drone delivery network by leveraging the existing partner infrastructure, it would reduce operating risks given operating a logistics network would be the partner's core competency, and it would also free DDC to focus on further technology, regulatory and customer development.

From an economic perspective, this could take the form of a licensing fee or revenue share, and shared capex investment, and still remain a high margin recurring revenue business for DDC. Conceptually, this would be analogous to DDC defining and controlling the "railways in the sky", with the operating partner managing and operating the railway stations and trains using DDC technology, and together provide a network for a broader range of third party customers to put their containers of goods onto the trains. This model makes excellent sense in our view and with the right partner, could potential accelerate regulatory approvals and growth rates, while reducing risks. We also believe that this model would enable a broader ecosystem to benefit from DDC's network, including existing third party delivery companies.

Financials and forecasts

DDC is a startup developing a new technology, in an industry where regulations are nascent but critical to success, and business models are uncertain and evolving. This contributes to higher than usual uncertainty in our forecasts for revenue, growth, margins and capex requirements. As such, we present only annual forecasts, and are less concerned with near-term results or changes in business model versus key progress towards strategic objectives. Furthermore, we take a conservative approach to forecasting revenue and growth, particularly given this will depend on timing and nature of government approvals.

Target business model

Managed service: DDC's goal is to establish a managed service business model with a take-or-pay structure. DDC envisions customers paying a monthly recurring revenue for a certain level of operating capacity, with pricing based on factors such a distance, frequency, payload levels of maintenance and services. The take-or-pay model ensures sufficient funds for DDC to mature technology and operations, and enable customers to drive unit costs down with higher utilization. We think this is appropriate to mitigate early stage risks. Management has said monthly recurring fees could range between $10,000-$60,000/month/site depending on size and complexity.

Capex efficiency: Regulations currently require DDC to own and operate its drones directly. However, DDC envisions customers paying initial set-up fees to cover DDC's cost to procure hardware and integrate into the existing software systems and operations at each customer site. Initial fees will also cover requirements such as training and documentation. We think this is a win-win model that allows DDC to manage operations, regulatory compliance and technology development, while customers manage airframe customization and on-site infrastructure and logistics, without undue capital constraints on DDC while it is at early stages of development. Management estimates set-up costs between $50,000-$500,000 for software integration, plus $10,000-$25,000 per drone spot landing pad, depending on size and complexity.

Operating leverage: DDC has structured its business to be lean and agile and has designed its systems with a focus on scalability and a high degree of automation. For example, from a development perspective DDC has leveraged key partners and expertise from universities and subcontractors for cutting edge engineering and software. From an operations perspective DDC has developed a flight control system that supports 50 drones per pilot and drone-ports with standardized systems and procedures, regardless of their size. Management said it is building its business to achieve EBITDA margins targeting 45% to 65% at scale.

Forecasts

2017 a year of financing and investment: In 2017, DDC raised $26mm in capital and invested $4.8mm into its business. The company did not generate any material revenue, and YTD cash burn as of Q3/17 cash burn was $4.8mm vs $1.4mm in the prior year. DDC improved system maturity to over 90% through extensive test and development, and expanded partnerships to include additional customers and new segments, and received first regulatory approval for their latest aircraft. DDC ended Q3/17 with $6.4mm cash in the bank and subsequently raised $15mm in equity financing in Q4/17. Subsequent to year-end DDC accelerated the exercise warrants for an additional capital injection of $7mm, increasing cash balance to $23.5mm on a pro forma basis. We think this leaves DDC well-funded entering 2018.

2018E commercial pilot program: We expect the primary focus in 2018 to be on the BVLOS commercial pilot program for Transport Canada. We also see an opportunity for DDC to begin limited flight testing in the U.S., assuming DDC can establish a U.S. partner and U.S. test sites can achieve operational readiness for BVLOS. While possible, we do not forecast commercial revenue for DDC in 2018 beyond limited government funding or partner co-investments in DDC's test programs. As a result, we forecast cash burn of $8mm for the year, and year end cash balance to fall to $18.5mm. The rise in burn rate reflects the costs for implementing the commercial pilot program, as well as additional costs to build partnerships and test flights in the U.S. market.

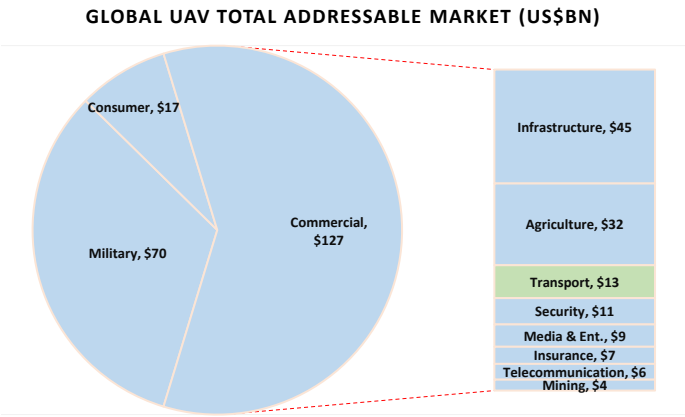
2019E first commercial operations: We expect the Moosonee-Moose Factory commercial pilot program to convert into a commercial operation and begin generating revenue in 2019. We only consider commercial operations originating from Moosonee in northern Canada for the first year, and believe further expansion will require additional data to the government, regulators and new prospective communities. Notably, we expect initial revenue to be funded by government infrastructure programs through Indigenous Services Canada, which could require working capital investment from DDC to support timing differences in revenue vs cost. We forecast one-time set up costs of $2mm, plus an annual operating cost at 20-30% of initial capex costs, or approximately $35-50k per month. We also expect DDC to commence operations with its first retail depot-to-depot customer in 2019, but with limited expansion. We expect DDC to continue to invest heavily in new depot-to-depot pilot programs and U.S. market development. As a result, we forecast cash burn to continue in 2019 and year-end cash of $12mm.

2020E depot-to-depot operations: In 2020, we believe DDC can expand its northern Canada network to 12 additional communities. We expect one-time setup costs per community hub to range between $1.5mm-2mm, and annual operating costs between 20-30% of initial setup costs. We also believe DDC can convert its depot-to-depot pilot programs to commercial operations, and believe these could expand more quickly than the northern Canada network. In general, we see good potential for DDC to double its footprint with major commercial partners every year for the first two years. As such, we forecast this segment to grow from $4mm in 2020 to $8mm in 2022. We estimate initial setup revenue of $250,000 per customer and $25,000 per drone spot, and $10,000 per month per drone spot in recurring revenue. We expect gross margins of 50% for commercial operations, but expect EBITDA margins to remain negative as DDC reinvests for growth. In total, we expect 2020 revenue of $16.5mm and FCF burn of $2mm. We also expect capital and working capital investments to become more balanced, resulting in the start of more stable and growing FCF generation, with margins starting in the 10% range.

Long term opportunity

PwC Research has sized the global commercial drone industry at US$127b, with the transportation sector, including parcel delivery and medical logistics, at US$13b. Industry association, Unmanned Systems Canada, estimates the Canadian market at 5% of the global market, or US$6.3b. This would imply a domestic transportation segment at $630mm, on a pro-rata basis. We think global market size estimates can be imprecise and offer only a limited insight into a realistic market opportunity for DDC. We take a closer look at the opportunity in several key market segments, to provide further context for our forecasts and valuation.

Figure 4. Large UAV market across multiple verticals…



Source: PwC Research, GMP Securities estimates

Northern Canada opportunity: DDC estimates there are 1,000 remote communities in Canada where logistics challenges result in less efficient and higher cost delivery, and that 20% of these (i.e. 200) can benefit from drone delivery. From Moosonee, DDC and its First Nations partners have identified 43 satellite communities with 33 of these accessible by only ice road, boat or aircraft. We think this market offers a good example of a potential pre-defined hub and spoke flight network where drones can materially reduce delivery barriers and costs. Furthermore, we believe 200 such hub communities in the north represents a reasonable target for DDC. As a size benchmark, we observe that the Canadian government has subsidized food costs to over 120 remote communities under the Nutrition North Canada program. From a cost perspective, annual subsidies ranged between $50-60mm/year since 2011, but have only reduced costs by an average of 5%, from a premium of over 100% of the cost of a standardized food basket in non-remote communities, and a wider range of 20% to 300% premiums depending on the individual goods. For example according to Food Secure Canada, a week's worth of groceries for a family of four in Moose Factory costs $1,640, or 87% more than the same basket at $875 in Thunder Bay, with well over half of the premium representing transportation costs. We think these data points support DDC's market estimates and suggest a large valuable market opportunity. By our analysis, if DDC can penetrate 120 remote communities over the next five years, this market could support annual recurring revenue of $70mm representing a life-time value of $165mm.

Canada Post: Despite only "paper" studies of the potential for drone delivery to improve their operations, we see good potential for Canada Post to benefit (either as a prospective customer or competitor). In 2016, Canada Post covered a network of 16mm addresses and delivered 195mm

parcels representing revenue of $1.7b (22% of total revenue) at an average revenue of $9.00 per package. It is estimated that between 1-3% of volume was delivered on behalf of third parties and covered 15-30% of the population, representing mostly remote rural areas. This would imply a potential market for drone delivery of 2-5mm addresses or 2-6mm packages per year. We estimate a value capture potential of $35 per package, which we estimate is the premium paid for general package delivery to remote communities. This is also equivalent to the price of the Northern Canada flat rate box, introduced by Canada Post as a pilot project in recent years. If DDC can capture half of this value, this would represent an annual revenue potential of $35-100mm. We can also estimate the opportunity from a cost perspective. Canada Post spends roughly $400mm per year to run over 2,860 rural post offices, and by our estimates, 2/3 of these could benefit from drone delivery. If DDC charged $5,000/mo per post office, this would represent a market opportunity of $110mm annually, or a lifetime value of $60mm.

Depot-to-depot: Beyond remote communities and essential mail services, we see the next tier of opportunity for drone delivery in commercial depot-to-depot delivery. DDC's partners such as Wolesley, Staples and United Auto Parts/NAPA have 200, 300 and 600 retail locations in Canada respectively. For many of these partners, we believe over half of daily deliveries are depot-to-depot, and over a quarter are of a size and weight that is drone capable. Furthermore, we believe that in many cases, these deliveries are part of service-level agreements that guarantee delivery times, and represent high cost risk for these partners. Based on DDC's estimate of $10,000 per month per drone spot, we estimate a cost per trip of $12.50 based on 200 flight hours per month per drone, and four drones per depot. In reality, we expect the costs and utilization to vary greatly based on specific depot mission requirements, however we believe this cost per trip compares favourably with the average yield for express parcel/overnight delivery of $25, and same day delivery which ranges widely between $15 for the marginal cost of an additional package to the same address, to well north of $500. Based on a ramp approaching 200 depots over five years, we estimate an annual recurring revenue opportunity for a typical customer of $20mm per year, and a life time value of $75mm per customer.

U.S. package delivery market: We think it will be 10-20 years before we see drone delivery play a major role in urban last-mile delivery of consumer parcels. Nonetheless, we see a large market potential that can be chipped away at over time, by drones and autonomous vehicles in general. eCommerce sales alone were over US$450b out of US$5b in total retail sales in 2017, representing over 110mm orders per day with over 90% weighing less than 5lbs, with fulfillment costs estimated at roughly US$75b, including both delivery and distribution centre segments. According to a recent report from Embry Riddle Aeronautical University, drone deliveries could represent 8-86mm deliveries per day in 20 years, at an average delivery cost of US$1.00 per delivery. This compares to the average yield on overnight packages for Fedex of US$20 per box, and approximate last-mile delivery of packages of US$2.00-3.00 per package. This suggests a market opportunity of US$8-86mm per day in 20 years, or US$3-30b per year, potentially much larger than PWC's global estimate of $13b today.

Valuation

Drone Delivery Canada currently has a market capitalization of $305mm. The stock is currently trading at C$1.69 per share, well above its initial listing price of C$0.14 but below its 52-week high of C$2.26 per share.

We value Drone Delivery Canada based on a future EV/Sales multiple, discounted to present value. Our target price of $2.25 is based on 10 times 2022 EV/Sales of $66.5mm and discounted to present value at a 15% discount rate. This implies a target EV of $400mm. Our multiple compares to a group of high growth technology companies trading at 10x trailing EV/Sales and a group of transportation and logistics companies trading at 6.5x trailing sales.

We note that most high growth early stage companies in new nascent industries are not revenue generating and do not generate cash. We would also note that those companies trade on future potential of securing a market position in a large potential market. As an example, a group of early stage junior marijuana stocks that have already received their licence trade in the range of 2-16x C2019 sales. We believe Drone Delivery Canada will receive the required licences and therefore commands a premium forward valuation relative to those that have already received a licence to operate, produce or manufacture in their respective industries.

Figure 5. Comparables valuation

			3/8/2018	Market	Enterprise	EV/SALES			EV/EBITDA			PRICE/FCF		
Companies			Price	Cap (M)	Value (M)	LTM	C2018	C2019	LTM	C2018	C2019	LTM	C2018	C2019
Drone Delivery Canada Corp	**FLT-CA**	**CAD**	**1.69**	**302.1**	**277.4**	**NA**	**NA**	**85.3x**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Early Stage Tech														
AppFolio Inc Class A	APPF-US	USD	41.05	1,449.5	1,403.6	9.8x	7.7x	6.3x	63.7x	41.4x	31.1x	53.4x	81.5x	49.4x
Ambarella, Inc.	AMBA-US	USD	53.21	1,828.2	1,414.2	4.8x	4.8x	4.1x	30.2x	24.6x	24.8x	20.4x	32.8x	30.6x
Deveron UAS Corp.	DVR-CA	CAD	0.30	7.1	5.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coupa Software, Inc.	COUP-US	USD	47.44	2,551.3	2,332.0	13.6x	10.5x	8.4x	NA	NA	624.6x	390.9x	274.3x	116.6x
Apptio, Inc. Class A	APTI-US	USD	29.62	1,222.6	1,073.7	5.7x	4.8x	4.1x	NA	184.9x	68.1x	212.5x	139.6x	75.3x
Alteryx, Inc. Class A	AYX-US	USD	37.93	2,251.6	2,077.9	15.8x	11.6x	8.8x	NA	NA	NA	147.4x	411.3x	104.2x
Average						**9.9x**	**7.9x**	**6.3x**	**NA**	**NA**	**90.7x**	**164.9x**	**187.9x**	**75.2x**
Logistics and Transportation														
Descartes Systems Group Inc.	DSG-CA	CAD	36.64	2,825.4	2,827.8	9.2x	8.1x	7.5x	29.7x	25.2x	22.4x	32.5x	30.3x	26.2x
Canadian Pacific Railway Limited	CP-CA	CAD	228.99	33,295.1	41,116.1	6.3x	6.0x	5.7x	11.9x	11.5x	10.8x	62.6x	26.6x	24.2x
Union Pacific Corporation	UNP-US	USD	130.25	102,506.8	118,085.8	5.6x	5.3x	5.1x	11.6x	11.1x	10.5x	51.0x	20.2x	18.8x
Canadian National Railway Company	CNR-CA	CAD	94.55	70,912.5	81,187.5	6.2x	6.0x	5.6x	11.9x	11.7x	10.8x	44.2x	28.2x	24.7x
Kansas City Southern	KSU-US	USD	103.04	10,657.5	13,465.4	5.1x	4.9x	4.6x	10.8x	10.0x	9.2x	41.3x	23.2x	19.8x
Average						**6.5x**	**6.0x**	**5.7x**	**NA**	**NA**	**12.7x**	**46.3x**	**25.7x**	**22.7x**
FAANG Stocks														
Facebook, Inc. Class A	FB-US	USD	182.40	538,809.6	497,098.6	12.2x	9.0x	7.1x	21.4x	14.5x	11.7x	30.8x	34.1x	26.5x
Apple Inc.	AAPL-US	USD	176.77	911,716.2	956,963.2	4.0x	3.6x	3.5x	13.1x	11.7x	11.1x	22.8x	15.3x	14.0x
Amazon.com, Inc.	AMZN-US	USD	1,550.10	768,849.6	782,010.6	4.4x	3.4x	2.8x	51.3x	29.2x	22.5x	118.7x	48.5x	36.0x
Alphabet Inc. Class C	GOOG-US	USD	1,125.99	782,117.2	684,215.2	6.2x	6.4x	5.5x	19.0x	13.3x	11.4x	32.7x	24.3x	20.1x
Netflix, Inc.	NFLX-US	USD	317.10	142,105.8	145,812.0	12.5x	9.2x	7.5x	20.3x	75.6x	49.4x	NA	NA	NA
Alibaba Group Holding Ltd. Sponsored ADR	BABA-US	USD	187.63	490,639.4	487,845.6	14.5x	9.7x	7.4x	37.8x	23.2x	17.8x	40.8x	29.9x	22.1x
Microsoft Corporation	MSFT-US	USD	94.23	726,513.3	676,895.3	7.1x	6.1x	5.6x	18.7x	14.9x	13.5x	34.6x	20.6x	18.2x
Average						**8.7x**	**6.7x**	**5.6x**	**NA**	**26.1x**	**19.6x**	**NA**	**NA**	**70.0x**
Group Average						**8.4x**	**6.9x**	**5.9x**	**NA**	**26.1x**	**41.0x**	**105.6x**	**106.8x**	**56.0x**

Notes: Averages exclude outliers. Estimates from FactSet and Bloomberg

Source: GMP Securities, FactSet

We support our view of long-term value by examining several additional factors:

Lifetime customer value: We examine the long-term value of key market segments and customer applications such as a northern Canada delivery network and depot-to-depot retail operations. Based on a simplified business model, we estimate a life-time value for strategic Canadian customers between $60mm and $160mm. We also see good potential for DDC to win multiple customers of similar value over time.

Figure 6. Lifetime customer value

Northern Canada - Lifetime Value		
Set-up cost	2	
Recurring revenue	0.6	30%
Sustaining capex	20%	
Discount rate	15%	
Terminal growth	3%	

C$M	2018	2019	2020	2021	2022	2023	Terminal
New communities	1	6	12	24	48		
Total communities	1	7	19	43	91		
Set-up cost	2	12	24	48	96		
Recurring Revenue	0	0.6	4.2	11.4	25.8	54.6	
Total Revenue	**2**	**12.6**	**28.2**	**59.4**	**121.8**	**54.6**	
EBITDA Margin	10%	20%	30%	40%	50%	60%	
EBITDA	0.2	2.5	8.5	23.8	60.9	32.8	
Sustaining Capex		0.4	2.4	4.8	9.6	19.2	
FCF	**0.2**	**2.1**	**6.1**	**19.0**	**51.3**	**13.6**	**113**
Discount factor		0.9	0.8	0.7	0.6	0.5	
PVFCF	0.2	1.8	4.6	12.5	29.3	56.2	
Lifetime value	**104.6**						

Depot-to-Depot - Lifetime Value	
Set-up cost	0.5
Drone-spot	0.025
Recurring revenue	0.12
Sustaining capex	20%
Discount rate	15%
Terminal growth	5%

	2019	2020	2021	2022	2023	2023	Terminal
New spots	12	24	48	48	48		
Total spots	12	36	84	132	180		
Set-up cost	0.8	0.6	1.2	1.2	1.2		
Recurring Revenue	0	1.44	4.32	10.08	15.84	21.6	
Total Revenue	0.8	2.04	5.52	11.28	17.04	21.6	
EBITDA Margin	20%	30%	40%	50%	60%	60%	
EBITDA	0.2	0.6	2.2	5.6	10.2	13.0	
Sustaining Capex		0.1	0.1	0.2	0.2	0.2	
FCF	0.2	0.6	2.1	5.4	10.0	12.7	127.2
Discount factor		0.9	0.8	0.7	0.6	0.6	
PVFCF	0.2	0.5	1.6	3.6	5.7	72.7	
Lifetime value	84.2						

Source: GMP Securities

Licence value: We examined the return on invested capital performance of comparable companies with long term businesses protected by government licences and regulations. We used McKinsey & Company's business valuation method. Based on a range of ROIC between 7% and 20%, invested capital for DDC of C$50mm, and WACC between 7% and 20%, we estimate a licence value potential of $75mm, ranging between $3.6mm and $700mm.

Figure 7. Licence value comparables

		Invested Capital (C$M)	50				
		Growth	6%				
			ROIC				
		WACC	7%	10%	15%	18%	20%
ROIC Comparables. Averages of sectors	**ROIC**	7%	$ 50.0	$ 200.0	$ 450.0	$ 600.0	$ 700.0
Airport Operators	4%	8%	$ 25.0	$ 100.0	$ 225.0	$ 300.0	$ 350.0
Rail Road Operators	14%	12%	$ 8.3	$ 33.3	$ 75.0	$ 100.0	$ 116.7
Road Operators	8%	18%	$ 4.2	$ 16.7	$ 37.5	$ 50.0	$ 58.3
NAV Canada	11%	20%	$ 3.6	$ 14.3	$ 32.1	$ 42.9	$ 50.0

Source: GMP Securities

Option value: Notably, we do not consider material value contribution at this stage from international expansion, strategic operating partnerships, or M&A activity. We think these factors can represent material valuation upside from current levels.

Risks

Capital requirements: DDC is not currently generating commercial revenue. The company has raised almost $30mm of capital and has $23.5mm cash available, versus a burn rate of $7mm. We expect partners to contribute to initial infrastructure investment and commercial revenue to begin in 2019. However, timing of revenue and operating leverage are uncertain and material delays would likely require additional capital raises and potential dilution for existing shareholders.

Regulatory uncertainty: Requirements for the approval and licensing of commercial drone operations in Canada are evolving concurrent with the technology and applications. Changing regulations and government approval processes could delay licensing or increase requirements for DDC. This could impact timing of commercial operations and capital requirements near-term. Should DDC ultimately not received a licence for commercial BVLOS operations, this would have a material adverse effect on the business in our view.

Operational risk: As DDC moves beyond the testing and pilot phase, new operational risks will rise in importance. This includes factors such as safety, reliability, on-time efficiency and customer service. Testing and simulation help, but cannot fully mitigate these risks. We believe this will require the accumulation of real-world operating experience for DDC and its customers.

Technology risk: The pace of innovation for both drone hardware and software systems has accelerated in recent years. While this has largely benefited DDC, new advancements must be adopted and integrated quickly if DDC is to keep costs low, expand its capabilities, and maintain its leadership.

Competition: Several large technology and logistics companies have invested in drone development, including the likes of Amazon, Google, UPS and DHL, while large incumbents dominate other segments of the supply chain. While we see few direct competitors to DDC today, new entrants with access to material capital have the potential to change competitive dynamics.

Valuation risk: At this early stage, the nature of DDC's commercial agreements and revenue model remains fluid and could change. The timing of the start and ramp of commercial revenue also remains uncertain. These factors make valuation particularly challenging and uncertain for investors, irrespective of the high risks associated with early-stage technology companies.

Target price and rating

We are initiating coverage with a BUY rating and target price of C$2.25, which represents a 33% return. Our target price is based on 10 times 2022 EV/Sales discounted to present value at 15%.

Figure 8. Financial model summary

Drone Delivery Canada
Year ended December 31
Income Statement (C$M)

	F2017E	F2018E	FY2019E	FY2020E	FY2021E
Remote Northern Communities	0.00	0.00	2.000	12.060	24.285
Depot-to-Depot	0.00	0.00	1.250	4.429	8.556
Total Revenue	**0.00**	**0.00**	**3.250**	**16.489**	**32.841**
Cost of Sales					
Operating and maintainance costs	0.00	0.00	1.625	7.420	12.151
Total Cost of Sales	**0.00**	**0.00**	**1.625**	**7.420**	**12.151**
Gross Profit	0.00	0.00	1.625	9.069	20.690
Gross Margin %	**NA**	**NA**	**50.0%**	**55.0%**	**63.0%**
Total Expenses	**6.166**	**8.502**	**8.669**	**10.805**	**10.915**
Income from Ops.	**(6.166)**	**(8.502)**	**(7.044)**	**(1.736)**	**9.775**
Earnings before Tax	**(6.306)**	**(8.502)**	**(7.044)**	**(1.736)**	**9.775**
Net Income/(loss)	**(6.306)**	**(6.907)**	**(5.807)**	**(1.040)**	**8.906**
EBITDA	0.00	(8.400)	(6.775)	(1.331)	10.290
EBITDA %	*0%*	*NA*	*-208%*	*-8%*	*31%*
EPS	(0.06)	(0.05)	(0.04)	(0.01)	0.06
EPS F.D.	(0.06)	(0.04)	(0.03)	(0.01)	0.05
Weighted Avg. Basic Shares	109.74	145.51	145.51	145.51	145.51
Weighted Avg. Diluted Shares	109.74	178.73	178.73	178.73	178.73
Margins %					
Gross margin			*50%*	*55%*	*63%*
Operating margin			*-217%*	*-11%*	*30%*
Net margin			*-179%*	*-6%*	*27%*
SG&A			*37%*	*7%*	*4%*
Growth YoY %					
Total Revenue			*NA*	*407%*	*99%*
Expenses, excl dep + amortization		*139%*	*104%*	*125%*	*102%*
Operating Income		*38%*	*-17%*	*-75%*	*-663%*
EBITDA			*-19%*	*-80%*	*-873%*
Cash used in operating activities	**(6.28)**	**(6.00)**	**(4.50)**	**(0.19)**	**9.47**
Cash from Investing	**(0.36)**	**(2.00)**	**(2.00)**	**(2.00)**	**(2.00)**
Cash from Financing	**24.98**	**7.00**	**-**	**-**	**-**
Cash at the end of period	**19.553**	**18.548**	**12.044**	**9.850**	**17.322**
Free Cash Flow					
Cash from Ops.	(6.276)	(6.004)	(4.504)	(0.194)	9.472
Capital Expenditure (Acquisition of PPE)	(0.364)	(2.000)	(2.000)	(2.000)	(2.000)
Free Cash Flow	**(6.640)**	**(8.004)**	**(6.504)**	**(2.194)**	**7.472**
YoY % change	0.00%	20.56%	-18.74%	-66.27%	-440.56%
FCF as a % of revenue	0%	NA	-200%	-13%	23%
FCF as a % of EBITDA	0%	95%	96%	165%	73%

Source: GMP Securities

Appendix: Management

Name	Title	Description
Tony Di Benedetto	**Director and CEO**	Mr. Di Benedetto is a serial entrepreneur based in Vaughan Ontario, Canada. He previously founded and ran Millennium Data Systems (1993-2009), a communications service provider. He was also Managing Partner at Data Centers Canada (2009-2013), which was acquired by Terago Networks for ~$10mm in 2013.
Richard Buzbuzian	**Director and President**	Mr. Buzbuzian has over 20 years of capital market experience in natural resources, commercial real-estate, and technology. He is a co-founder of real-estate firm The Griffin Corporation, and Director of capital pool companies Oriana Resources and Asher Resources, the latter of which served as the shell for DDC's reverse takeover.
Paul Di Benedetto	**CTO**	Brother to Tony, Paul Di Benedetto is a seasoned technology executive and entrepreneur, and served as CTO of Millennium Data Systems from 1999-2003, and MDS Wireless, a wireless internet service provider in Southern Ontario, from 1994-2009.
Greg Colacitti	**VP Business Development**	Mr. Colacitti is an entrepreneur and sales executive. He was founder and CEO of Tripak Canada, a marketer of plastic food containers, from 2002-2010. More recently he was National Sales Manager for Canusa Packaging Corporation (2010-2017).
Robert Suttie	**CFO**	Mr. Suttie is acting CFO for DDC and several publicly listed junior mining companies. He is also currently Vice President at the Marrelli Group of Companies, a provider of corporate financial services.
Michael Urlocker	**VP Strategic Partnerships**	Mr. Urlocker has over 20 years of capital markets experience and consulting services with a focus on disruptive innovation. He was previously a top ranked investment analyst at UBS, Credit Suisse and GMP Securities, among others.
Mark Wuenneberg	**VP of Regulatory Affairs**	Mr. Wuennenberg was previously a Civil Aviation Inspector at Transport Canada where he was responsible for general flight standards and the regulation of commercial drones. He has also served on numerous international committees and working groups on unmanned aircraft systems within ICAO, NATO and the U.S. Department of Defense.
Board of Directors		Non-executive Directors include Chris Irwin, Partner of Irwin Lowy LLP which provides advisory services to public companies; Michael Della Fortuna, CEO of Nexeya Canada, a subsidiary of a France-based global supplier of aerospace and defense products and services; and Rob Montemarano, Partner at residential and commercial real-estate developer Lakeview Group. Mr. Montemarano is also a Director of Armada Data Corp (ARD-TSXV), a provider of data and information services in the automotive and insurance industry.

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