GMP

Equity Research

Drone Delivery Canada Corp.[1,7]

BUY

FLT-TSXV

Last:	**C$1.11**
Target:	**C$4.00**

July 19, 2019

AGM/site tour update: Commercialization underway

We attended DDC's AGM on July 17, 2019 following a site tour of the company's new 16,000 sq. ft. operating facility in Vaughan. In summary, DDC is quickly ramping its facilities and staff to support commercialization and the recent Air Canada partnership. While precision on timing and financials are difficult near-term, we believe DDC remains on track with our expectations over the next three years. We continue to believe the Air Canada partnership provides a significant boost to DDC's credibility, and the~40% drop in the stock since the announcement offers a good entry point for risk-tolerant investors.

Illustrative route with Air Canada worth $100k/yr in revenue: New CEO Michael Zahra provided an example of single route economics with Air Canada that could generate $100,000/year in revenue. Furthermore, 1,500 routes would represent $150mm/year (i.e. 1% of the 150k route agreement max). That said, management was clear that this was a simple example and that in reality economics will be determined on a route-by-route basis and evolve over time. Notably, our analysis suggests this is a reasonable example, and our financial forecasts are based on more conservative estimates by 2022.

New operations centre on track for August start: We observed good progress on the build-out of DDC's new operations centre during a recent site visit, which according to management will be ready by the end of July. DDC expects this facility to support 30 pilots operating 50 drones each, representing 1,500 drones (and sufficient to support the $150mm/yr revenue suggested above). We also had the opportunity to meet with new heads of HR, Marketing, IT and Engineering – alumni from the likes of Raytheon, Bombardier and Richter. We think this is a good start towards building a larger, fully-functional corporation.

Negative perception on Board changes remain an overhang: In our view, the recent weakness in FLT stock despite the positive Air Canada partnership is due in part to the surprising resignation from the Board of co-founder and former CEO Tony Di Benedetto. While we do not believe it is common for founders to step aside so early in a startup's evolution, we also do not believe this is an indication of a problem with the company or its future. Mr. Di Benedetto appears as active as ever, and sentiment should improve as revenue begins.

Valuation and rating: Our target price is $4.00 based on 10x 2022 EV/Sales of $99.4mm, discounted to PV at 10%. We continue to see DDC as a leading technology innovator in commercial drone delivery and believe long-term investors with a tolerance for start-up risk will be well rewarded. **BUY.**

What's Changed	**Old**	**New**
Rating	BUY	n.c.
Target	C$4.00	n.c.
Revenue 2019E (mm)	$3.0	$2.4
Revenue 2020E (mm)	$17.6	$12.9
EBITDA 2019E (mm)	($8.4)	($8.6)
EBITDA 2020E (mm)	($0.7)	($3.3)
FCF 2019E (mm)	($8.3)	($8.5)
FCF 2020E (mm)	($4.0)	($5.4)

Share Data	
Share o/s (mm, basic/f.d.)	163.9 / 185.2
52-week high/low	C$1.86 / C$0.96
Market cap (mm)	$205.6
Enterprise value (mm)	$186.1
Dividend	n.a.
Dividend yield	n.a.
Projected return	255%

Financial Data

YE Dec. 31	**2018**	**2019E**	**2020E**
Revenue (mm)	$0.0	$2.4	$12.9
EV/Revenue	n.a.	76.1x	14.5x
EBITDA (mm)	($19.3)	($8.6)	($3.3)
EV/EBITDA	n.a.	n.a.	-56.1x
EPS f.d.	($0.11)	($0.04)	($0.02)
P/E	n.a.	n.a.	-71.1x
FCF	($10.9)	($8.5)	($5.4)
P/FCF	n.a.	n.a.	-38.0x
Net debt	($14.3)	($15.8)	($10.2)
Net debt/EBITDA	n.a.	n.a.	n.a.
Book value	$14.5	$18.3	$16.2
P/BV	14.1x	11.2x	12.7x

All figures in C$ unless otherwise noted

Current Chart   Previous Research

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Key takeaways from recent site tour and annual general meeting

We attended DDC's AGM on July 17, 2019 following a site tour of the company's new 16,000 sq. ft. operating facility in Vaughan. In summary, DDC is quickly ramping its facilities and staff to support commercialization and the recent Air Canada partnership. While precision on timing and financials are difficult near-term, we believe DDC remains on track with our expectations over the next three years. We continue to believe the Air Canada partnership provides a significant boost to DDC's credibility, and the~40% drop in the stock since the announcement offers a good entry point for risk-tolerant investors.

Key takeaways:

Illustrative route with Air Canada worth $100k/yr in revenue: New CEO Michael Zahra provided an example of single route economics with Air Canada that could generate $100,000/year in revenue. This was based on assumptions of a wholesale cost to Air Canada of $10/package, 5 packages/drone, 8 flights/day and 250 flights per year. Management was clear that this was a simple example and that in reality economics will be determined on a route-by-route basis and evolve over time. Furthermore, management said that the maximum 150,000 routes under the Air Canada agreement was a "blue-sky" number, but suggested that 1,500 routes (i.e. 1% penetration) would represent $150mm/year. We believe these assumptions are reasonable at this stage, and line up with our data points on pricing in the market ranging between $35-45/package for northern or relatively remote or underserved locations. Notably, our forecasts are more conservative, and include over 600 routes with Air Canada generating an average of $100,000/year per route by 2022.

Figure 1. Illustrative route economics vs GMP forecasts

Illustrative route economics (C$)	
Cost per package	$10
Packages per drone	5
Revenue per drone	$50
Flights per day	8
Flying days per year	250
Revenue flights per year	2,000
Annual revenue per route	**$100,000**
Routes per year	1,500
Fleet revenue per year	**$150,000,000**

Revenue Model (C$mm)	FY2019E	FY2020E	FY2021E	FY2022E
Routes				
Remote Northern Communities	1	4	10	22
Depot-to-Depot	1	19	49	105
Air Canada Partnership	1	61	261	661
Average Revenue per route per year				
Remote Northern Communities	$2.000	$1.613	$1.350	$1.302
Depot-to-Depot	$0.420	$0.162	$0.179	$0.187
Air Canada Partnership	$0.025	$0.055	$0.067	$0.077
Revenue				
Remote Northern Communities	$2.000	$6.450	$13.500	$28.650
Depot-to-Depot	$0.420	$3.080	$8.760	$19.600
Air Canada Partnership	$0.025	$3.350	$17.600	$51.100
Total Revenue	**$2.445**	**$12.880**	**$39.860**	**$99.350**

Source: Drone Delivery Canada, GMP Securities

First revenue on track for 2019: DDC expressed confidence that it remains on track to generate first revenue in the fall of 2019. This includes revenue from the $2.5mm commercial agreement with Moose-Cree First Nation, as well as revenue from the first route in partnership with Air Canada and an early adopter enterprise. Management also said its goal is to achieve positive cash flow by the end of 2020. Notably, we also forecast first revenue in 2019, but stress that our $2.4mm estimate could vary by plus or minus $1mm depending on timing; however we do not expect positive EBITDA until 2021.

New operations centre on track for August start: We observed good progress on the build-out of DDC's new operations centre during a recent site visit, which according to management will be ready by the end of July. DDC expects this facility to support 30 pilots operating 50 drones each, representing 1,500 drones (and sufficient to support the $150mm/yr revenue suggested above). We also had the opportunity to meet with new heads of HR, Marketing, IT and Engineering – alumni from the likes of Raytheon, Bombardier and Richter. We think this is a good start towards building a larger, fully-functional corporation.

AED on the fly: DDC discussed the recent successful test program with Peel Region Paramedics and Sunnybrook Hospital. Referred to as "AED on the Fly" the tests compared response times for delivery of automated external defibrillators (AEDs) via ambulance versus drone, in simulated 911 calls. This represented the first phase of a pilot program to examine how drones can be used to improve first responder services to emergencies, with the ultimate goal of commercialization. Management said that Peel Region studies determined that 33 drones could service the entire region with a 3-minute response time. While still very early days, we see good potential for commercialization over time.

Certification of new drones a work in progress: Management said that the testing and certification process remains underway for new drones such as the Falcon (23kg payload electric quad-copter) and the Condor (180kg payload gas helicopter). This includes new capabilities such as tethered deployment (e.g. so AEDs can be delivered without landing) and anti-icing features (to enable operations up to -40 degrees Celsius) Furthermore, DDC said it will undertake a technical audit by a third-party Transport Canada-certified agency in 2020, to offer further validation of the safety and reliability of the company's hardware and software systems.

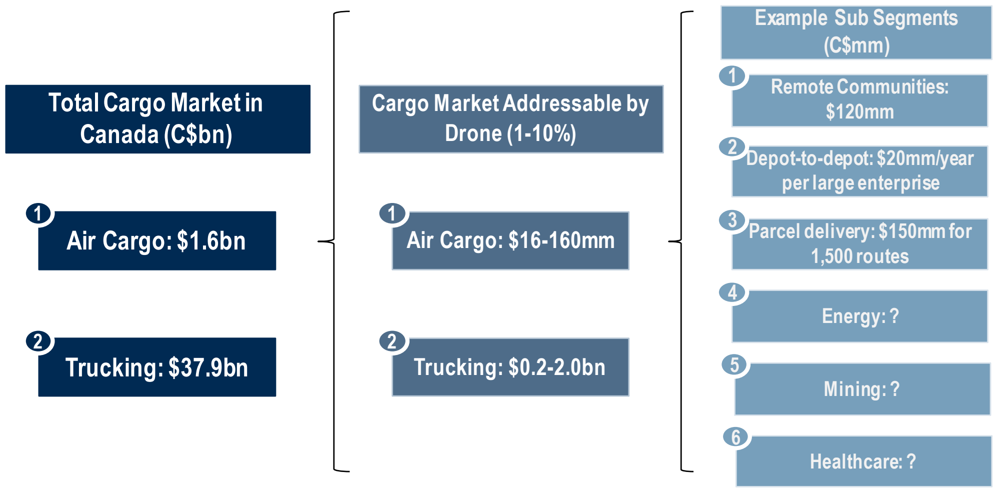
Board changes: DDC continues to have six directors. Changes this year included the addition of CEO Michael Zahra and veteran director Vijay Kanwar, who also currently serves on the boards of Business Development Bank of Canada and York University; and also the resignation of co-founder and former CEO Tony Di Benedetto. Mr. Di Benedetto remains an advisor to the company and the Board, and remains focused on business development and strategic partnerships. While we do not believe it is common for founders to step aside so early in a startup's evolution, we also do not believe this is an indication of a problem with the company or its future. Mr. Di Benedetto appears as active as ever in our view, and indicated that DDC will continue to evolve towards a more independent and diverse board of experienced directors, with management representation via the CEO only, as DDC works towards best practices for corporate governance.

Market opportunity

We have examined volumes and revenue in the Canadian cargo industry and various sub-segments of the market, to start the process of market opportunity validation, and as a reality check to support our revenue growth forecasts for DDC. In general, we see an opportunity for DDC to capture a share of not only the existing air cargo market, but also the much larger trucking market. We also continue to see opportunity in niche markets such as remote northern Canada, specialized point-to-point services, and specialized industries such as healthcare, emergency response and industrial applications.

That said, while the total potential market opportunity is large, we expect revenue in the initial years to be small and timing unpredictable, followed by rapid expansion as customers gain comfort and as DDC scales its operations. As such, we are less concerned with near-term variability, and believe strategic and directional progress are more important at this stage.

Figure 2. Market opportunity for drone delivery in Canada



Source: Statistics Canada, GMP Securities

Addressable market: According to Stats Canada, Canadian air cargo revenue totaled $1.6bn in 2016, growing at a 1.4% 5-year CAGR. Trucking on the other hand is significantly larger, with revenue totaling $37.9bn in 2016 growing at a 4.3% CAGR. A 1-10% penetration of air cargo revenues would imply a potential market opportunity of $16-$160mm annually. For trucking, we estimate roughly 55-60% of goods shipped by trucks (i.e. food, agriculture, manufactured and miscellaneous goods) could possibly benefit from drone delivery. A 1-10% penetration of this market would represent another ~$0.2-$2b annually. Clearly these are high-level imprecise estimates of opportunity that represent a long-term potential addressable market.

Near-term addressable market: We supplement our top down analysis with further refinement in key sub-segments addressable by DDC, again with the view that these are large potential markets that DDC can penetrate over time. We estimate DDC's immediate market opportunity in Canada at over $600mm annually, including the following sub-segments:

- **Northern communities:** $120mm/year for 200 communities, assuming 20% penetration of 1,000 remote communities could benefit from drone delivery at $600,000/year each.
- **Enterprise depot-to-depot:** ~$20mm/year per large customer based on 200 depots per customer at $120,000/year per depot.
- **Parcel delivery market with Air Canada:** $150mm per year based on 1,500 routes at $100,000/year per route.

Valuation

Drone Delivery Canada has a market capitalization of $205.6mm. The stock is currently trading at C$1.11 per share, well above its initial listing price of C$0.14 and but below its most recent financing at C$1.20, its 52-week high of C$1.86 per share, and all-time high of C$2.25.

We value Drone Delivery Canada based on a future EV/Sales multiple, discounted to present value. Our target price of $4.00 is based on 10 times 2022 EV/Sales of $99.4mm and discounted to present value at a 10% discount rate. This implies a target EV of $728.9mm.

To further examine valuation, we looked at two comparable companies:

- **Zipline International (private)**: Zipline is a drone delivery startup based out of Half Moon Bay, California. The company specializes in medical product deliveries (blood samples, health kits, medical supplies, etc.) and has made over 14k drone flights so far, with operations in Rwanda and Ghana, Africa. Zipline recently raised a US$190mm Series D round at a US$1.34bn (C$1.7bn) valuation and is backed by prominent investors including Sequoia, Andreesen Horowitz, Alphabet, and Goldman Sachs. Based on trade press estimates of US$4.3mm (C$6.7mm) in annual revenue, Zipline is trading at over 300x LTM sales, which is not atypical for early stage startups.
- **Cargojet Inc (CJT-TSX, not covered)**: Cargojet is one of Canada's leading providers of overnight air cargo services. CJT currently has a market cap of $1.3bn and trades at 3.8x C2019 EV/Sales and 12.8x C2019 EV/EBITDA.

Out of the two comparables, we believe that Zipline is the more appropriate peer at present, while Cargojet may offer an indication of what valuation could look like as DDC achieves meaningful revenue, and sustained above industry growth levels. That said, we see broader application for DDC's technology (air cargo, commercial depot-to-depot, first-nation communities) vs Zipline's medical products niche, and greater opportunity to expand globally, vs Cargojet's Canada-only operations.

We also note that Zipline is a private company, and venture-backed unicorns are becoming more commonplace. Given DDC offers a similar opportunity, but is a public stock accessible to a broader group of investors, a scarcity premium could result in our view.

We believe Drone Delivery Canada has clearly entered the commercialization phase of its development. In the past year, the company achieved key milestones such as successfully completing the Transport Canada commercial pilot program in Moosonee/Moose Factory, receiving pilot approval from Transport Canada and NAV Canada, signing the company's first commercial agreement, and announcing a commercial partnership with a major airline, which we believe is a first in the drone industry. We continue to see DDC as a leading technology innovator in commercial drone delivery and believe long-term investors with a tolerance for start-up risk will be well rewarded.

Figure 3. Comparables valuation

			7/18/2019	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**	**1.11**	**205.6**	**186.1**	**n.a**	**n.a**	**76.1x**	**n.a**	**n.a**	**NA**	**NA**	**NA**	**NA**
Early Stage Tech														
AppFolio Inc Class A	APPF-US	USD	107.61	3,803.2	3,841.2	18.8x	20.2x	15.1x	115.7x	101.7x	93.2x	125.3x	NA	NA
Ambarella, Inc.	AMBA-US	USD	47.53	1,544.3	1,186.2	5.4x	5.1x	5.7x	NA	71.4x	NA	57.3x	47.4x	46.9x
Coupa Software, Inc.	COUP-US	USD	145.77	8,860.6	8,720.3	30.6x	34.3x	25.8x	NA	446.8x	469.7x	256.6x	307.8x	217.7x
Alteryx, Inc. Class A	AYX-US	USD	116.00	7,827.4	7,663.7	27.4x	30.2x	21.2x	162.6x	482.3x	193.7x	337.6x	406.6x	333.0x
ParaZero Ltd.	PRZ-ASX	AUD	0.07	6.2	5.5	6.2x	NA	NA	NA	NA	NA	NA	NA	NA
Average						**17.7x**	**22.5x**	**16.9x**	**4.1x**	**275.5x**	**163.6x**	**155.1x**	**253.9x**	**199.2x**
Logistics and Transportation														
Descartes Systems Group Inc.	DSG-CA	CAD	48.06	3,742.1	3,765.4	10.8x	10.5x	8.8x	34.7x	33.3x	25.7x	40.0x	38.2x	26.9x
Cargojet Inc.	CJT-CA	CAD	92.55	1,258.7	1,897.4	4.1x	4.2x	3.8x	14.6x	14.8x	12.8x	NA	41.6x	49.2x
Canadian Pacific Railway Limited	CP-CA	CAD	314.63	44,111.1	52,980.1	6.9x	7.2x	6.7x	14.4x	15.2x	13.6x	55.8x	39.4x	34.7x
Union Pacific Corporation	UNP-US	USD	174.25	125,372.9	151,445.9	6.7x	6.6x	6.6x	14.1x	14.1x	13.4x	45.6x	25.7x	21.5x
Canadian National Railway Company	CNR-CA	CAD	120.83	87,928.0	101,109.0	6.9x	7.1x	6.5x	14.5x	14.8x	13.2x	91.1x	36.1x	36.8x
Kansas City Southern	KSU-US	USD	117.99	11,907.0	14,934.8	5.4x	5.5x	5.2x	11.2x	11.3x	10.7x	47.0x	32.1x	30.3x
Average						**6.8x**	**6.9x**	**6.3x**	**17.3x**	**17.3x**	**14.9x**	**44.1x**	**35.5x**	**33.2x**
FAANG Stocks														
Facebook, Inc. Class A	FB-US	USD	200.78	576,037.8	538,334.8	9.1x	9.6x	7.7x	19.6x	16.1x	15.3x	36.5x	38.5x	37.6x
Apple Inc.	AAPL-US	USD	205.66	966,734.9	998,931.9	3.9x	3.8x	3.9x	13.3x	12.5x	13.3x	21.2x	15.2x	15.1x
Amazon.com, Inc.	AMZN-US	USD	1,977.90	992,905.8	1,024,531.8	4.2x	4.4x	3.7x	35.3x	30.9x	24.1x	47.9x	51.7x	32.7x
Alphabet Inc. Class C	GOOG-US	USD	1,146.33	803,438.6	702,222.6	5.0x	5.1x	4.4x	16.7x	14.0x	12.1x	31.1x	34.1x	26.1x
Netflix, Inc.	NFLX-US	USD	325.21	146,969.6	154,813.5	8.8x	9.8x	7.7x	16.0x	77.1x	51.5x	NA	NA	NA
Alibaba Group Holding Ltd. Sponsored ADR	BABA-US	USD	172.80	453,600.0	461,677.1	8.2x	9.0x	6.7x	32.0x	26.5x	22.2x	30.0x	25.7x	27.6x
Microsoft Corporation	MSFT-US	USD	136.42	1,056,436.5	1,011,161.5	8.3x	8.6x	7.7x	19.6x	20.4x	17.7x	52.5x	31.0x	27.7x
Average						**6.8x**	**7.2x**	**6.0x**	**21.8x**	**28.2x**	**22.3x**	**70.0x**	**70.0x**	**70.0x**
Group Average						**10.4x**	**12.2x**	**9.7x**	**14.4x**	**107.0x**	**66.9x**	**89.7x**	**119.8x**	**100.8x**

Notes: Averages exclude outliers. Estimates from FactSet and Bloomberg

Source: GMP Securities, FactSet

Risks

Capital requirements: DDC is not currently generating commercial revenue. The company has raised ~$40mm of capital and has $19mm in cash available as of Mar. 31 2019, versus a burn rate of ~$2.5mm/q. We expect partners to contribute to initial infrastructure investment and commercial revenue to begin in H2 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 receive a licence for commercial BVLOS operations, or approvals for key routes, 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.

Figure 4. Financial model summary

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

	F2017	F2018	FY2019E	FY2020E	FY2021E	FY2022E
Total Northern Canada Revenue	0.00	0.00	2.000	6.450	13.500	28.650
Total Depot-to-Depot Revenue	0.00	0.00	0.420	3.080	8.760	19.600
Total Air Canada Revenue	0.00	0.00	0.025	3.350	17.600	51.100
Total Revenue	**0.00**	**0.00**	**2.445**	**12.880**	**39.860**	**99.350**
Cost of Sales						
Operating and maintainance costs	0.00	0.00	1.223	5.796	14.748	36.760
Total Cost of Sales	**0.00**	**0.00**	**1.223**	**5.796**	**14.748**	**36.760**
Gross Profit	0.00	0.00	1.223	7.084	25.112	62.591
Gross Margin %	**NA**	**NA**	**50.0%**	**55.0%**	**63.0%**	**63.0%**
Total Expenses	**8.014**	**19.351**	**9.959**	**10.636**	**10.778**	**10.893**
Income from Ops.	**(8.014)**	**(19.351)**	**(8.736)**	**(3.552)**	**14.334**	**51.697**
Earnings before Tax	**(8.364)**	**(19.612)**	**(8.932)**	**(3.552)**	**14.334**	**51.697**
Net Income/(loss)	**(8.364)**	**(19.612)**	**(7.886)**	**(2.892)**	**11.935**	**42.669**
EBITDA	0.00	(19.327)	(8.623)	(3.316)	14.712	52.191
EBITDA %	*0%*	*NA*	*-353%*	*-26%*	*37%*	*53%*
EPS	(0.07)	(0.12)	(0.05)	(0.02)	0.07	0.26
EPS F.D.	(0.07)	(0.11)	(0.04)	(0.02)	0.06	0.23
Weighted Avg. Basic Shares	116.70	159.82	163.86	163.86	163.86	163.86
Weighted Avg. Diluted Shares	116.70	179.13	185.19	185.19	185.19	185.19
Margins %						
Gross margin			*50%*	*55%*	*63%*	*63%*
Operating margin			*-357%*	*-28%*	*36%*	*52%*
Net margin			*-323%*	*-22%*	*30%*	*43%*
SG&A			*80%*	*9%*	*3%*	*1%*
Growth YoY %						
Total Revenue			*NA*	*427%*	*209%*	*149%*
Expenses, excl dep + amortization		*241%*	*52%*	*108%*	*103%*	*102%*
Operating Income		*141%*	*-55%*	*-59%*	*-504%*	*261%*
EBITDA			*-55%*	*-62%*	*-544%*	*255%*
Cash used in operating activities	**(7.15)**	**(10.63)**	**(6.80)**	**(3.40)**	**10.98**	**38.70**
Cash from Investing	**(0.20)**	**(0.25)**	**(1.70)**	**(2.00)**	**(2.00)**	**(2.00)**
Cash from Financing	**25.04**	**6.29**	**9.95**	**(0.17)**	**(0.17)**	**(0.17)**
Cash at the end of period	**18.897**	**14.309**	**15.762**	**10.187**	**18.999**	**55.529**
Free Cash Flow						
Cash from Ops.	(7.154)	(10.630)	(6.802)	(3.403)	10.984	38.702
Capital Expenditure (Acquisition of PPE)	(0.203)	(0.247)	(1.697)	(2.000)	(2.000)	(2.000)
Free Cash Flow	**(7.357)**	**(10.877)**	**(8.499)**	**(5.403)**	**8.984**	**36.702**
YoY % change	0.00%	47.85%	-21.86%	-36.43%	-266.28%	308.52%
FCF as a % of revenue	0%	NA	-348%	-42%	23%	37%
FCF as a % of EBITDA	0%	56%	99%	163%	61%	70%

Source: GMP Securities

Disclosures

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