

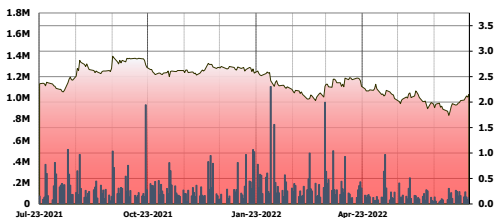
July 25, 2022

QUARTERHILL INC. (QTRH-TSX, \$2.16)

Rating: BUY
Target Price: \$4.50

IRD AWARDED \$13.8M CONTRACT WITH NY STATE

Quarterhill Inc.		QTRH	
<i>(Currency is C\$ unless noted otherwise)</i>			
Last Price (\$)			\$2.16
Target Price (\$)			\$4.50
Return to Target			108%
52-Week Trading Range (\$)		\$1.72 /	\$2.98
Average Daily Volume (90-Day)			117.0K
MARKET INFO			
Shares Outstanding (M)			114.0
Market Capitalization (\$M)			\$246
Enterprise Value (\$M)			\$302
Dividend Yield			2.3%
FYE: DEC 31	F2021A	F2022E	F2023E
Revenue (\$M)	\$126	\$365	\$273
Gross Margin	30%	44%	39%
Net Income (\$M)	(\$22)	\$69	\$3
Diluted EPS (\$)	(\$0.19)	\$0.61	\$0.03
Adj. EBITDA (\$M)	\$5	\$99	\$38
VALUATION	F2021A	F2022E	F2023E
EV/Revenue	2.4x	0.8x	1.1x
EV/EBITDA	60.0x	3.0x	8.0x
RELATIVE VALUATION (EV/EBITDA)	F2021A	F2022E	F2023E
Patent Licensing/Assertion	9.3x	8.3x	8.1x
Global ITS	10.8x	9.6x	7.2x
DISCLOSURE CODE:	6		
<i>(Please refer to applicable disclosures on the back page)</i>			
Website: http://www.quarterhill.com/			
Source: M Partners, Capital IQ, Bloomberg, Company Documents			



Quarterhill operates in the intelligent transportation system (ITS) and intellectual property licensing industries worldwide. Its Licensing segment includes patents relating to memory interface technologies, semiconductor manufacturing and other technologies. The company's ITS segment provides integrated systems and solutions, such as automated truck weigh stations, toll road systems, traffic management and safety systems.

This morning, Quarterhill Inc. announced that IRD was awarded a two-year \$13.8M contract with New York State. The contract includes the installation and maintenance of permanent traffic data collection systems across NY state. IRD will be responsible for all parts, equipment, materials, labour and technical expertise to install and maintain the data collection sites. As such, we are increasing our estimates for the ITS business in 2023.

The contract also includes maintenance services for the State's existing sites and weigh-in-motion sites and installation of new sites to grow New York State Department of Transportation's (NYSDOT) data collection program. NYSDOT will utilize IRD's iTHEIA non-intrusive data collection solution that eliminates the need for road closures during installation and maintenance. IRD's iTHEIA product provides superior longevity in comparison to the previous intrusive technology used by NYSDOT.

The data collected will be used to summarize and interpret traffic information in order to assess transportation needs, determine highway infrastructure performance, and develop highway planning recommendations.

Our Thoughts: QTRH's ITS business has now signed over \$230M in new contracts in the last twelve months (Figure 1); a key element in the QTRH story that we think has gone unnoticed by the market given the magnitude of the potential WiLAN sale. We remind readers that we expect ITS to post accelerating revenue growth and provide steady recurring revenue (unlike WiLAN).

Our blue-sky scenario for Quarterhill would result in over \$300M in cash on the balance sheet, which can be deployed at <10x EBITDA, adding \$30M+ in ITS EBITDA. We remain very encouraged by the development QTRH has made to transition to a pure play ITS company – new management team, board changes, WiLAN strategic review, signing additional ITS contracts. **We are maintaining our BUY recommendation and \$4.50/share target price based on a sum-of-the-parts valuation.**

Date	IRD/ETC	Region/Authority	Total Value (C\$M)	Initial Term	Annual Sales (\$CM)
24-Aug-21	IRD	Illinois	\$4.1	4 years	\$1.0
21-Sep-21	IRD	Idaho	\$2.2	N/A	N/A
26-Oct-21	IRD	Hawaii	\$2.0	N/A	N/A
17-Dec-21	ETC	Central Texas	\$93.6	6 years	\$15.6
31-Jan-22	ETC	Orange County	\$63.4	9 years	\$7.0
18-Feb-22	ETC	Alameda County	\$5.1	2 years	\$2.6
07-Mar-22	IRD	Indiana	\$5.5	4 years	\$1.4
18-Apr-22	ETC	TBTA	\$27.6	10 years	\$2.8
19-Apr-22	IRD	Indiana	\$10.8	4 years	\$2.7
11-May-22	IRD	Illinois	\$1.2	N/A	N/A
20-Jun-22	IRD	Idaho	\$2.2	N/A	N/A
25-Jul-22	IRD	New York State	\$13.8	2 years	\$6.9
Total/Average			\$231.6	5.1 years	\$40.0

Figure 1: ITS Contracts (LTM)

July 25, 2022

(C\$ Millions)											
Income Statement:	1Q21A	2Q21A	3Q21A	4Q21A	FY21	1Q22A	2Q22E	3Q22E	4Q22E	FY22	FY23
Licensing Revenue	7.8	1.8	11.4	4.7	25.7	130.7	11.6	11.6	11.6	165.6	46.5
ITS Revenue	11.5	17.1	24.9	46.5	100.0	37.8	45.7	56.8	59.6	199.9	226.7
Total Revenue	19.3	18.9	36.3	51.2	125.7	168.5	57.3	68.4	71.3	365.5	273.2
Licensing Gross Profit	2.0	(3.1)	6.1	(1.1)	3.9	82.0	6.7	6.7	6.7	102.3	27.0
ITS Gross Profit	4.6	6.4	9.3	13.2	33.5	10.6	13.7	17.0	17.9	59.2	79.4
Total Gross Profit	6.6	3.3	15.4	12.1	37.4	92.7	20.4	23.8	24.6	161.5	106.3
<i>Margin</i>	<i>34%</i>	<i>18%</i>	<i>42%</i>	<i>24%</i>	<i>30%</i>	<i>55%</i>	<i>36%</i>	<i>35%</i>	<i>35%</i>	<i>44%</i>	<i>39%</i>
Licensing EBITDA	1.2	(3.9)	5.4	(1.5)	1.2	81.0	5.8	5.8	5.8	98.4	23.3
ITS EBITDA	1.4	2.7	4.5	4.1	12.7	1.0	3.2	4.5	4.8	13.6	30.0
Corporate EBITDA	(3.0)	(1.9)	(2.3)	(1.7)	(8.8)	(2.9)	(2.8)	(3.4)	(3.5)	(12.7)	(15.7)
Total EBITDA	(0.4)	(3.0)	7.6	0.9	5.0	79.1	6.2	7.0	7.1	99.3	37.6
<i>Margin</i>	<i>(2%)</i>	<i>(16%)</i>	<i>21%</i>	<i>2%</i>	<i>4%</i>	<i>47%</i>	<i>11%</i>	<i>10%</i>	<i>10%</i>	<i>27%</i>	<i>14%</i>

Figure 2: Financial Projections

Disclosure Code: 6

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QTRH	1	2	3	4	5	6	7
	NO	NO	NO	NO	NO	YES	NO

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Buy:	Price expected to rise
Speculative Buy:	Buy rating with increased risk
Hold:	Properly priced
Sell:	Price is inflated and expected to decrease
Under Review (U/R):	Under review
Not Rated (N/R):	Not currently rated

Summary of Recommendations	
Buy	17
Speculative Buy	1
Hold	0
Sell	0
U/R	1
Total	19