Altus Group

Q2 2019

MANAGEMENT'S DISCUSSION & ANALYSIS

FOR THE SIX MONTHS ENDED

JUNE 30, 2019

Altus Group Limited

Management's Discussion & Analysis
June 30, 2019

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Management's Discussion & Analysis

June 30, 2019

The following management's discussion and analysis ("MD&A") is intended to assist readers in understanding Altus Group Limited's consolidated business, its business environment, strategies, performance, and outlook and the applicable risks. References to the "Company" or "Altus Group" are to the consolidated group of entities, and this should be read in conjunction with our unaudited interim condensed consolidated financial statements and accompanying notes (the "financial statements") as at and for the three and six months ended June 30, 2019, which have been prepared on the basis of International Financial Reporting Standards ("IFRS") and reported in Canadian dollars. Unless otherwise indicated herein, references to "$" are to Canadian dollars.

Unless the context indicates otherwise, all references to "we", "us", "our" or similar terms refer to Altus Group, and, as appropriate, our consolidated operations.

This MD&A is dated as of August 8, 2019.

Forward-Looking Information

Certain information in this MD&A may constitute "forward-looking information" within the meaning of applicable securities legislation. All information contained in this MD&A, other than statements of current and historical fact, is forward-looking information. Forward-looking information includes, but is not limited to, the discussion of our business and operating initiatives, focuses and strategies, our expectations of future performance for our various business units and our consolidated financial results, including the guidance on financial expectations, and our expectations with respect to cash flows and liquidity. Generally, forward-looking information can be identified by use of words such as "may", "will", "expect", "believe", "plan", "would", "could", "remain" and other similar terminology. All of the forward-looking information in this MD&A is qualified by this cautionary statement.

Forward-looking information is not, and cannot be, a guarantee of future results or events. Forward-looking information is based on, among other things, opinions, assumptions, estimates and analyses that, while considered reasonable by us at the date the forward-looking information is provided, inherently are subject to significant risks, uncertainties, contingencies and other factors that may cause actual results, performance or achievements, industry results or events to be materially different from those expressed or implied by the forward-looking information. The material factors or assumptions that we identified and applied in drawing conclusions or making forecasts or projections set out in the forward-looking information include, but are not limited to: engagement and product pipeline opportunities in Altus Analytics will result in associated definitive agreements; settlement volumes in Property Tax will occur on a timely basis and that assessment authorities will process appeals in a manner consistent with expectations; the successful execution of our business strategies; consistent and stable economic conditions or conditions in the financial markets; consistent and stable legislation in the various countries in which we operate; no disruptive changes in the technology environment; the opportunity to acquire accretive businesses; the successful integration of acquired businesses; and the continued availability of qualified professionals.

Inherent in the forward-looking information are known and unknown risks, uncertainties and other factors that could cause our actual results, performance or achievements, or industry results, to differ materially from any results, performance or achievements expressed or implied by such forward-looking information. Those risks, uncertainties and other factors that could cause actual results to differ materially from the forward-looking information include, but are not limited to: general state of the economy; currency risk; ability to maintain profitability and manage growth; commercial real estate market; competition in the

industry; acquisitions; subscription contracts and transition to the cloud; oil and gas sector; ability to attract and retain professionals; information from multiple sources; reliance on larger enterprise transactions with longer and less predictable sales cycles; success of new product introductions; ability to respond to technological change and develop products on a timely basis; protection of intellectual property or defending against claims of intellectual property rights of others; ability to implement technology strategy and ensure workforce adoption; information technology governance and security, including cyber security; engagement and product pipeline opportunities do not result in sufficient definitive agreements; property tax assessment regulators do not process appeals in a manner consistent with expectations; fixed-price and contingency engagements; appraisal and appraisal management mandates; Canadian multi-residential market; weather; legislative and regulatory changes; customer concentration and loss of material clients; interest rate risk; credit risk; income tax matters; revenue and cash flow volatility; health and safety hazards; performance of contractual obligations and client satisfaction; risk of legal proceedings; insurance limits; ability to meet solvency requirements to pay dividends; leverage and financial covenants; unpredictability and volatility of common share price; capital investment; issuance of additional common shares diluting existing shareholders' interests; and financial targets, as well as those described in our annual publicly filed documents, including the Annual Information Form for the year ended December 31, 2018 (which are available on SEDAR at www.sedar.com) and as described in this document under "Key Factors Affecting the Business".

Given these risks, uncertainties and other factors, investors should not place undue reliance on forward-looking information as a prediction of actual results. The forward-looking information reflects management's current expectations and beliefs regarding future events and operating performance and is based on information currently available to management. Although we have attempted to identify important factors that could cause actual results to differ materially from the forward-looking information contained herein, there are other factors that could cause results not to be as anticipated, estimated or intended. The forward-looking information contained herein is current as of the date of this MD&A and, except as required under applicable law, we do not undertake to update or revise it to reflect new events or circumstances. Additionally, we undertake no obligation to comment on analyses, expectations or statements made by third parties in respect of Altus Group, our financial or operating results, or our securities.

Certain information in this MD&A may be considered as "financial outlook" within the meaning of applicable securities legislation including revenue guidance and expected Adjusted EBITDA margin and other targets and goals for Altus Analytics. The purpose of this financial outlook is to provide readers with disclosure regarding Altus Group's reasonable expectations as to the anticipated results of its proposed business activities for the periods indicated. Readers are cautioned that the financial outlook may not be appropriate for other purposes.

Changes in Significant Accounting Policies and Estimates

Adoption of Recent Accounting Pronouncements

IFRS 16, *Leases*, supersedes IAS 17, *Leases*, IFRIC 4, *Determining whether an Arrangement contains a Lease*, SIC-15, *Operating Leases-Incentives* and SIC-27, *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for most leases under a single on-balance sheet model.

We adopted IFRS 16 using the modified retrospective method of adoption with the date of initial application of January 1, 2019. Under this method, the standard is applied retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial application. We elected to use the transition practical expedient allowing the standard to be applied only to contracts that were previously identified as leases applying IAS 17 and IFRIC 4 at the date of initial application. We also elected to use the recognition exemptions for lease contracts that, at the commencement date, have a remaining lease term of 12 months or less and do not contain a purchase option ("short-term leases"), and lease contracts for which the underlying asset is of low value ("low-value assets"). As such, amounts related to short-term leases, low-value assets, and variable lease payments continue to be recognized within occupancy expense.

For further discussion of the adoption of IFRS 16 and its impact on the financial statements, refer to Note 4 - Changes in Significant Accounting Policies and Estimates in the notes to financial statements and pages 15 and 16 of this MD&A.

Non-IFRS Measures

We use certain non-IFRS measures as indicators of financial performance. Readers are cautioned that they are not defined performance measures, and do not have any standardized meaning under IFRS and may differ from similar computations as reported by other similar entities and, accordingly, may not be comparable to financial measures as reported by those entities. We believe that these measures are useful supplemental measures that may assist investors in assessing an investment in our shares and provide more insight into our performance.

Adjusted Earnings before Interest, Taxes, Depreciation and Amortization, ("Adjusted EBITDA"), represents profit (loss) before income taxes adjusted for the effects of occupancy costs calculated on a consistent basis to 2018, finance costs (income), amortization of intangibles, depreciation of property, plant and equipment, depreciation of right-of-use assets, acquisition and related transition costs (income), restructuring costs, unrealized foreign exchange gains (losses), gains (losses) on disposal of property, plant and equipment, gains (losses) on investments, impairment charges, non-cash Executive Compensation Plan costs, gains (losses) on derivative transactions, gains (losses) on equity derivatives net of mark-to-market adjustments on related restricted share units ("RSUs") and deferred share units ("DSUs") being hedged and other costs or income of a non-operating and/or non-recurring nature. Subsequent to the adoption of IFRS 16, on January 1, 2019, the measurement of Adjusted EBITDA has been modified to reflect occupancy costs on a consistent basis as 2018. Adjusted EBITDA margin represents the percentage factor of Adjusted EBITDA to revenues. Refer to page 25 for a reconciliation of Adjusted EBITDA to our financial statements.

Adjusted Earnings (Loss) per Share, ("Adjusted EPS"), represents basic earnings (loss) per share adjusted for the effects of occupancy costs calculated on a consistent basis to 2018, depreciation of right-of-use assets, finance costs (income), net - leases, amortization of intangibles acquired as part of business acquisitions, net of changes in fair value of related equity derivatives, acquisition and related transition costs (income), restructuring costs, unrealized foreign exchange gains (losses), gains (losses) on disposal of property, plant and equipment, gains (losses) on investments, interest accretion on contingent consideration payables, impairment charges, non-cash Executive Compensation Plan costs, gains (losses) on derivative transactions, gains (losses) on equity derivatives net of mark-to-market adjustments on related RSUs and DSUs being hedged and other costs or income of a non-operating and/or non-recurring nature. The basic weighted average number of shares is adjusted for the effects of weighted average number of restricted

shares. All of the adjustments are made net of tax. Refer to page 26 for a reconciliation of Adjusted EPS to our financial statements.

Overview of the Business

Altus Group Limited is a leading provider of software, data solutions and independent advisory services to the global commercial real estate ("CRE") industry. Our businesses, Altus Analytics and Altus Expert Services, reflect decades of experience, a range of expertise, and technology-enabled capabilities. Our solutions empower clients to analyze, gain insight and recognize value on their real estate investments. Headquartered in Canada, we have approximately 2,500 employees around the world, with operations in North America, Europe and Asia Pacific. Our clients include some of the world's largest CRE industry participants.

We have three reporting business segments - Altus Analytics, Commercial Real Estate Consulting ("CRE Consulting") and Geomatics.

Altus Analytics
Our Altus Analytics segment consists of revenues from software sold under the ARGUS brand (which includes license sales, maintenance, subscriptions, and related technology services) and from data solutions (that are made available to clients through our Appraisal Management offering, as well as through data subscription products). Altus Analytics clients predominately consist of large owners, managers and investors of CRE assets and CRE funds, as well as other CRE industry participants including service providers, brokers, and developers.

Our ARGUS software solutions are among the most recognized in the CRE industry and are sold globally. Our flagship ARGUS Enterprise ("AE") software is the leading global solution for CRE valuation and portfolio management and is widely recognized as the industry property valuation standard in key CRE markets. AE's suite of functionality enables property valuation and cash flow analysis, property budgeting and strategic planning, investment and fund structure forecasting, dynamic reporting capabilities, and scenario sensitivity and risk analysis. We now also offer ARGUS Cloud, which leverages the AE calculation engine and provides clients with cloud-based infrastructure for AE, new analytics capabilities, integrations with other ARGUS products, storage, access and back-up of AE files, and access to new ARGUS applications, such as ARGUS Acquire, a deal management solution for CRE acquisitions. Other ARGUS products include ARGUS Developer and ARGUS EstateMaster (software for development feasibility analysis), ARGUS on Demand ("AOD") (a hosted version of AE and ARGUS Developer), ARGUS Voyanta (a cloud-based data management solution), and ARGUS Taliance (cloud-based solutions for alternative investment firms). ARGUS Enterprise, ARGUS Developer and ARGUS EstateMaster are currently sold either as perpetual licenses with ongoing maintenance for existing customers only, or on a subscription basis, and all of our other software products are sold on a subscription basis only. In the future, we plan to sell all of our software products on a subscription basis only.

In addition to our global software solutions, in the U.S., we offer Appraisal Management solutions with data and analytics functionality that allow institutional real estate investors to perform quarterly performance reviews, benchmarking and attribution analysis of their portfolios with the use of our proprietary data analytics platform. Through our Appraisal Management offering, we manage the entire valuation process on behalf of our institutional clients, providing independent oversight and expertise while leveraging our data analytics platform. This offering is also increasingly expanding into Europe and

Asia. Our Appraisal Management clients primarily consist of open and closed real estate funds, including large pension funds. The contractual terms of our Appraisal Management agreements are generally for three to five year terms and pricing is primarily based on the number of real estate assets on our platform, adjusted for frequency of valuations and complexity. We enjoy very high contract renewal rates. Our Appraisal Management teams are also engaged from time to time to perform due diligence assignments in connection with CRE transactions.

In Canada, Altus Analytics also includes data subscription products, such as RealNet and Altus InSite, which provide comprehensive real estate information on the Canadian residential, office, industrial and investment markets. Our Canadian data covers new homes, investment transactions and commercial market inventory in key markets, and also provides intelligence on the national housing market and consumer home buying and borrowing patterns.

A significant portion of Altus Analytics' revenues are comprised of recurring revenues. Recurring revenues represent revenues related to software and data subscriptions (where the contract value for software subscriptions is recognized ratably over the contract term), maintenance for perpetual licenses, and Appraisal Management contracts. Consistent with recurring revenues disclosed in prior years, this depicts the economic value of our renewable contracts.

Commercial Real Estate Consulting

Our CRE Consulting services consist of the Property Tax and Valuation and Cost Advisory business units. Through our various practice areas, we are well equipped to serve clients with an end-to-end solution that spans the life cycle of CRE assets - from feasibility, development, acquisition, management and disposition. Our professionals possess extensive industry, market and asset-specific knowledge that contribute to our proprietary internal data systems. We have long-standing relationships with leading CRE market participants - including owner operators, developers, financial institutions, and various CRE asset holders and investors.

Our largest revenue contributor to CRE Consulting is our Property Tax business which operates in Canada, the U.S. and the U.K. Our team of Property Tax professionals help clients minimize the tax burden and reduce the cost of compliance. Our core real estate property tax services include assessment reviews, management and appeals, as well as in the U.S., personal property and state and local tax advisory services. Valuation services, which are predominantly provided in Canada, consist of appraisals of real estate portfolios, valuation of properties for transactional purposes, due diligence and litigation and economic consulting. Our Cost practice, offered in both the private and public sectors in North America and Asia Pacific, provides expert services in the areas of construction feasibility studies, budgeting, cost and loan monitoring and project management. Given the strength of our brand, our independence and quality of our work, we enjoy a high rate of client renewals across all of our CRE Consulting businesses. Pricing for our services is based on a fixed fee or time and materials fee basis, and for a significant number of projects in Property Tax, on a contingency basis.

Geomatics

Our Geomatics business operates primarily in Western Canada, with a significant number of clients in the oil and gas exploration and development sector. Geomatics is the practice of recording and managing spatially referenced information, including land surveying, geographic information systems, global positioning systems and light detection and ranging. Our Geomatics services, performed by highly

qualified certified professionals, include land surveys and mapping for setting of property boundaries, route and corridor selection, land settlement, construction developments, and oil field and well-sites. Our competitive advantages include the depth of our team's experience and specialized training, our strong track record of safety, the timeliness and quality of our work, and our geographic strength in Western Canada. Our Geomatics services are primarily charged on a time and materials fee basis.

Strategy

Real estate investment allocation continues to steadily rise while CRE asset ownership is becoming more institutionalized, complex and globalized. After years of limited investment in technology, there is growing evidence that the CRE market is increasingly embracing technology and starting to better utilize data to optimize assets and mitigate risks. With the increased complexity of the CRE market, there is also a growing need for specialized expert services. Altus Group is at the forefront of this opportunity, with analytics solutions and expert services that help clients navigate the complexities of the CRE market to make better informed decisions and maximize the value of their real estate assets and investments.

We remain competitively positioned to capitalize on the growing demand for CRE technology, data and advisory solutions. Our key competitive strengths in the marketplace are comprised of our industry expertise, our data and software solutions, and the depth and diversity of our offerings that position us to address a wide range of client needs in the CRE market and our customer base. Our global scale, existing client relationships with some of the world's largest CRE companies, and independence from brokers and asset owners/investors are also key differentiators that enhance our reputation.

Our established industry position and favourable market trends support our long-term growth objectives and our determination to sustain our global leadership in information and data analytics to the CRE market. Our strategy consists of various initiatives that contribute to our broader objective of scaling Altus Group globally with multi-product end-to-end solutions for the CRE market.

Strategic Initiatives

Across the business, we continually identify opportunities and capitalize on growth prospects to enhance all of our client offerings and internal capabilities. We have a disciplined approach to pursuing investments and prioritize opportunities that support our longer-term growth objectives and help us sustain our market leadership. While we continue to focus on enhancing every business (specifically through data and technology), we are especially focused on the following strategic initiatives for 2019:

Altus Analytics

Our long-term objective is to transition Altus Analytics from a collection of high value point solutions to an enterprise-grade software and data analytics market leader that unifies valuation and asset management capabilities into a single, cloud-based platform for the CRE industry. To achieve this, we will continue to expand the global adoption of AE while developing a product roadmap aimed at integrating our solutions onto a cloud-based platform that will further enhance recurring revenues.

Our "ARGUS Everywhere" strategy encompasses:

a) Increasing customer wallet share by broadening the use of AE across the organization and through additional AE modules and ARGUS branded solutions (add-on sales were a significant contributor to total license sales in 2018);
b) Leveraging our large customer base to drive global adoption of AE, specifically focusing on our largest customers (especially on our Top 200 global clients, the majority of which have not yet deployed AE globally across their organizations); and
c) Expanding into new markets (with a specific focus on strengthening our presence in Germany, France and Asia, where our market penetration remains modest).

This strategy complements our focus on pursuing large global enterprise transactions consisting of our multi-product stack for asset and investment management clients who require end-to-end solutions. These transactions are usually subscription-based which help meet our target of recurring revenues representing 90% of total revenues by 2021. Our global large client transactions will increasingly include Appraisal Management solutions. Our product roadmap will continue to focus on integration across all of our capabilities and reflect the addition of functionality, data and applications that will allow clients to increasingly move to a cloud environment. The early phases of our cloud strategy consist of migrating our on-premise software customers to the cloud by offering them additional functionality and developing new cloud-based applications that address key business areas. As customers convert their existing contracts to cloud subscriptions, the pricing will reflect the additional value and the new web applications will be sold separately on a subscription basis.

In addition to our growth strategy for our Altus Analytics business, we remain focused on growing our Appraisal Management solutions in the U.S. where favourable market trends support our organic growth initiatives, while expanding our market presence in Europe and Asia Pacific by leveraging our global U.S. relationships. Consistent with past years, we expect growth will be driven by both current customers increasing the number of assets on our platform and new client additions.

Property Tax

Our Property Tax practice continues to represent an attractive growth area. Our objective is to grow and scale our Property Tax business to a leading, independent global property tax advisory practice that leverages technology and data. Our data and expert knowledge combine to make us a leader in the industry.

Our strategic initiatives comprise of the following:

a) Organic growth by leveraging Altus Analytics relationships, and by increasing business development and marketing efforts aimed at increasing market share;
b) Pursuit of financially accretive acquisitions when opportunities arise - specifically in the U.S. where the market remains fragmented; and
c) Enhancement of our service offering with technology and data through our Tax Analytics Platform ("TAP") to enhance client value while improving internal efficiencies by automating workflows. In 2019 we plan to leverage TAP in Canada to drive improved performance, while continuing to tailor functionality for the U.S. and U.K. markets for broader adoption in 2020.

Data Opportunity

Our leading Expert Services and Altus Analytics offerings collect valuable and detailed CRE industry data on various asset classes and for many major CRE markets. As ARGUS users increasingly move into a cloud environment, the depth of our data strengthens. This provides us with a unique long-term opportunity to re-purpose and eventually monetize this data to drive differentiation, launch new products and strengthen our recurring revenue streams. We have been laying the groundwork for this opportunity by developing technology that captures and organizes the data that we collect across each of our businesses and through strategic partnerships. In the long term, this infrastructure will enable us to better integrate our current products, to pursue more data-sharing partnerships, and to leverage the data to develop new applications and data-driven products in cloud-based environments.

Financial and Operating Highlights

Selected Financial Information	Three months ended June 30,		Six months ended June 30,	
In thousands of dollars, except for per share amounts	**2019**	2018	**2019**	2018
Revenues	$ 153,654	$ 134,218	$ 281,652	$ 258,908
Canada	36%	39%	38%	42%
U.S.	35%	34%	36%	34%
Europe	24%	21%	20%	18%
Asia Pacific	5%	6%	6%	6%
Adjusted EBITDA	$ 30,970	$ 23,771	$ 44,854	$ 39,279
Adjusted EBITDA margin	20.2%	17.7%	15.9%	15.2%
Profit (loss)	$ 13,321	$ 330	$ 12,886	$ (1,997)
Earnings (loss) per share:				
Basic	$0.34	$0.01	$0.33	$(0.05)
Diluted	$0.33	$0.01	$0.33	$(0.05)
Adjusted	$0.52	$0.40	$0.74	$0.63
Dividends declared per share	$0.15	$0.15	$0.30	$0.30

Financial Highlights

- **Revenues** were $153.7 million for the three months ended June 30, 2019, up 14.5% or $19.5 million from $134.2 million in the same period in 2018. Acquisitions represented 1.2% of the 14.5% revenue growth for the quarter. For the six months ended June 30, 2019, revenues were $281.7 million, up 8.8% or $22.8 million from $258.9 million in the same period in 2018. Acquisitions represented 1.4% of the 8.8% revenue growth for the six months ended June 30, 2019. Exchange rate movements against the Canadian dollar benefitted revenues by 0.6% and 0.9% for the quarter and year-to-date, respectively. The revenue growth was led by Property Tax and healthy performance from Altus Analytics. Property Tax revenues increased by 30.4%, primarily due to the $9.9 million of cyclical, seasonal annuity billings in our U.K. business, as compared to $4.7 million in the same period in 2018, as well as double-digit organic growth in Canada and the U.S. Altus Analytics grew by 6.8% driven by double-digit growth from our Appraisal Management solutions, higher software maintenance revenues and strong software consulting and education services revenues. Our Valuation and Cost Advisory businesses showed modest growth, led by a strong performance from our Canadian Cost practice. Our Geomatics business exhibited consistent revenue performance with prior year.

- **Adjusted EBITDA** was $31.0 million for the three months ended June 30, 2019, up 30.3% or $7.2 million from $23.8 million in the same period in 2018. For the six months ended June 30, 2019, Adjusted EBITDA was $44.9 million, up 14.2% or $5.6 million from $39.3 million in the same period in 2018. Exchange rate movements against the Canadian dollar benefitted Adjusted EBITDA by 1.1% and 2.1% for the quarter and year-to-date, respectively. Earnings increased in the quarter as a result of the strong revenue increase in our Property Tax business, partly offset by lower earnings in Altus Analytics.

- **Profit (loss)** for the three months ended June 30, 2019 was $13.3 million, up 3,936.7% or $13.0 million from $0.3 million in the same period in 2018. For the six months ended June 30, 2019, profit (loss) was $12.9 million, up 745.3% or $14.9 million from $(2.0) million in the same period in 2018. In addition to

the impacts on Adjusted EBITDA as discussed above, for the three and six months ended June 30, 2019, profit (loss) was helped by a decrease in amortization of intangibles and restructuring costs, partly offset by incremental depreciation and finance costs on the implementation of IFRS 16, as well as higher income tax expense on higher earnings.

- For the three months ended June 30, 2019, earnings (loss) per share was $0.34, basic and $0.33, diluted, as compared to $0.01, basic and diluted, in the same period in 2018. For the six months ended June 30, 2019, earnings (loss) per share was $0.33, basic and diluted, as compared to $(0.05) per share, basic and diluted, in the same period in 2018.

- For the three months ended June 30, 2019, Adjusted EPS was $0.52, up 30.0% from $0.40 in the same period in 2018. For the six months ended June 30, 2019, Adjusted EPS was $0.74, up 17.5% from $0.63 in the same period in 2018.

- We returned $5.9 million to shareholders in the quarter through quarterly dividends of $0.15 per common share.

- As at June 30, 2019, our bank debt was $150.0 million, representing a funded debt to EBITDA leverage ratio of 1.90 times (compared to 1.79 times as at December 31, 2018). As at June 30, 2019, cash and cash equivalents was $51.6 million (compared to $48.7 million as at December 31, 2018). Our bank credit facilities mature on April 28, 2020 and hence, have been presented as current liabilities. We are in the process of reviewing and renewing our bank credit facilities. We expect to complete this prior to maturity.

Operating Highlights

Altus Analytics Transition to Subscription Model
On June 26, 2019, we provided a market update on our Altus Analytics cloud and subscription strategy and our plans to accelerate our transition to a higher recurring revenue model. We are targeting over 90% of our total Altus Analytics revenues to be recurring by the end of 2021. Over the next two quarters in 2019 we will continue to operate on a hybrid selling model, offering clients both perpetual and subscription contracts, however as of July all AE sales to new customers will be cloud subscriptions; in 2020, we expect a high majority of our new sales will be subscription contracts. Over the next three years, we expect to migrate our current on-premise customers to a cloud environment. Our current 70%+ Altus Analytics recurring revenue base is expected to sustain year-over-year growth during the key transition years in 2019 and 2020. By leveraging past investments and the combination of normalizing development activity onto one cloud platform, prudent expense management and revenue growth, we expect this will support an Adjusted EBITDA margin to over 30% by 2023. In connection with this event, we set an aspirational five-year target to achieve Altus Analytics revenues of $400 million by 2023.

Operating Highlights - Subsequent Events

Product Enhancements
In July 2019, we launched AE 12, a new version of AE powered by ARGUS Cloud. AE 12 builds on the strength of our industry leading CRE valuation capabilities and now includes cloud-only deployment and multi-instance support of AE, new benchmarking and dashboard functionality, enhanced workflows

through integration with ARGUS Taliance and ARGUS Voyanta, and support for German and French market valuations.

Acquisition of One 11 Advisors, LLC.
On July 1, 2019, we acquired all the issued and outstanding shares of One 11 Advisors, LLC. ("One 11") and its subsidiaries for USD11.0 million (CAD14.4 million) in cash and common shares, subject to closing adjustments. As part of the transaction, we entered into non-compete agreements with key members of management of One 11. On closing, we paid cash of USD7.7 million (CAD10.1 million). Common shares valued at USD3.3 million (CAD4.3 million) were issued from treasury. The common shares will be held in escrow and released on the fourth anniversary of the closing date, subject to compliance with certain terms and conditions. One 11 is a U.S.-based real estate software consulting firm that provides integrated advisory and managed services for real estate organizations' front to back office strategies, processes and technology. The addition of One 11, and its 20 employees, strengthens our Altus Analytics business.

Acquisition of Caruthers & Associates, Inc.
On July 1, 2019, we acquired certain operating assets of Caruthers & Associates, Inc. ("Caruthers") for USD4.0 million (CAD5.2 million) in cash, common shares and contingent consideration, subject to working capital adjustments. As part of the transaction, we entered into a non-compete agreement with a key member of management of Caruthers. As consideration for these assets, we paid cash of USD2.0 million (CAD2.6 million), issued common shares valued at USD1.0 million (CAD1.3 million) from treasury, and contingent consideration. The common shares will be held in escrow and released on the third anniversary of the closing date, subject to compliance with certain terms and conditions. The purchase agreement provides for contingent consideration of USD1.0 million (CAD1.3 million), subject to certain performance targets being achieved over a 30-month period from the closing date. If mutually agreed upon, the contingent consideration may be settled in cash or by the issuance of common shares. Caruthers is a U.S.-based property tax consulting firm. Its team of seven employees based out of Memphis will be integrated with our U.S. Property Tax business, expanding our geographic footprint in tax services in the U.S.

Discussion of Operations

Three and Six Months Ended June 30, 2019

	Three months ended June 30,		Six months ended June 30,	
In thousands of dollars	**2019**	2018	**2019**	2018
Revenues	$ 153,654	$ 134,218	$ 281,652	$ 258,908
Expenses				
Employee compensation	90,007	83,412	176,600	165,521
Occupancy	2,110	5,244	3,923	10,651
Office and other operating	28,403	24,827	53,020	47,450
Depreciation of right-of-use assets	3,299	-	6,949	-
Depreciation and amortization	9,026	12,681	19,369	25,225
Acquisition and related transition costs (income)	171	1,339	153	2,073
Restructuring costs (recovery)	(453)	3,789	(453)	6,642
(Gain) loss on investments	12	46	(95)	(39)
Finance costs (income), net - leases	713	-	1,445	-
Finance costs (income), net - other	1,718	1,690	3,368	3,118
Profit (loss) before income taxes	18,648	1,190	17,373	(1,733)
Income tax expense (recovery)	5,327	860	4,487	264
Profit (loss) for the period	$ 13,321	$ 330	$ 12,886	$ (1,997)

Revenues

Revenues were $153.7 million for the three months ended June 30, 2019, up 14.5% or $19.5 million from $134.2 million in the same period in 2018. Acquisitions represented 1.2% of the 14.5% revenue growth for the three months ended June 30, 2019. For the six months ended June 30, 2019, revenues were $281.7 million, up 8.8% or $22.8 million from $258.9 million in the same period in 2018. Acquisitions represented 1.4% of the 8.8% revenue growth for the six months ended June 30, 2019. For the three and six months ended June 30, 2019, exchange rate movements against the Canadian dollar benefitted revenues by 0.6% and 0.9%, respectively. The increase in revenues in the quarter was driven by record revenues in our Property Tax business and healthy growth in Altus Analytics. Property Tax performance was boosted primarily due to $9.9 million annuity billing revenues in U.K. Property Tax, as compared to $4.7 million in the same period in 2018, and double-digit organic growth in Canada and the U.S. Altus Analytics revenue growth was driven by double-digit growth from our Appraisal Management solutions, higher software maintenance revenues and strong software consulting and education services revenues. As the second quarter of 2018 included a sizable global subscription license contract (of which a high portion of revenues was recognized upfront), the software business faced a tough comparison on AE license sales. Our Valuation and Cost Advisory businesses showed modest growth. Our Geomatics business held steady.

Employee Compensation

Employee compensation was $90.0 million for the three months ended June 30, 2019, up 7.9% or $6.6 million from $83.4 million in the same period in 2018. For the six months ended June 30, 2019, employee compensation was $176.6 million, up 6.7% or $11.1 million from $165.5 million in the same period in 2018. For the three and six months ended June 30, 2019, the increase in compensation was mainly due to headcount additions within Altus Analytics, increased accruals for variable compensation and the

acquisition of Taliance Group SAS and its subsidiaries ("Taliance"). For the three and six months ended June 30, 2019, employee compensation as a percentage of revenues was 58.6% and 62.7%, as compared to 62.1% and 63.9% in the corresponding periods in 2018, respectively.

Occupancy

Occupancy was $2.1 million for the three months ended June 30, 2019, down 59.8% or $3.1 million from $5.2 million in the same period in 2018. For the six months ended June 30, 2019, occupancy was $3.9 million, down 63.2% or $6.8 million from $10.7 million in the same period in 2018. For the three and six months ended June 30, 2019, IFRS 16 adjustments decreased occupancy costs by $3.4 million and $6.7 million, respectively, and the remaining amounts recognized in occupancy costs pertain to short-term leases, low-value assets, and variable lease payments. Without the impact of IFRS 16, occupancy costs for the three months ended June 30, 2019 increased slightly due to acquisitions, partly offset by office rationalization in our U.K. operations subsequent to the acquisition of Commercial Valuers & Surveyors Limited ("CVS") and for the six months ended June 30, 2019, occupancy decreased as the savings from office rationalization in the U.K. offset the incremental occupancy costs from acquisitions. For the three and six months ended June 30, 2019, occupancy as a percentage of revenues was 1.4% and 1.4%, as compared to 3.9% and 4.1% in the corresponding periods in 2018, respectively. Without the impact of IFRS 16, occupancy as a percentage of revenues would have been 3.6% and 3.8% for three and six months ended June 30, 2019, as compared to 3.9% and 4.1% in the corresponding periods in 2018, respectively.

Office and Other Operating Costs

Office and other operating costs were $28.4 million for the three months ended June 30, 2019, up 14.4% or $3.6 million from $24.8 million in the same period in 2018. For the six months ended June 30, 2019, office and other operating costs were $53.0 million, up 11.7% or $5.5 million from $47.5 million in the same period in 2018. For the three months ended June 30, 2019, the increase in expenses is primarily from additional expenditures for software subscriptions and one-time professional advisory fees. For the six months ended June 30, 2019, the increase in expenses is primarily from additional expenditures for software subscriptions, professional advisory fees and unrealized foreign exchange translation amounts. For the three and six months ended June 30, 2019, office and other operating costs as a percentage of revenues was 18.5% and 18.8%, as compared to 18.5% and 18.3% in the corresponding periods in 2018, respectively.

Depreciation of Right-of-Use Assets

Depreciation of right-of-use assets was $3.3 million and $6.9 million for the three and six months ended June 30, 2019, respectively. This reflects the impact of the adoption of IFRS 16, *Leases*, effective beginning January 1, 2019. Other impacts of IFRS 16 are explained in the "Changes in Significant Accounting Policies and Estimates" section on page 2 of this MD&A or Note 4 in the financial statements.

Depreciation and Amortization - Other

Depreciation and amortization was $9.0 million and $19.4 million for the three and six months ended June 30, 2019, as compared to $12.7 million and $25.2 million in the corresponding periods in 2018, respectively. The decrease is mainly due to the completion of the amortization period for some acquisition-related intangibles.

Acquisition and Related Transition Costs (Income)
Acquisition and related transition costs (income) were $0.2 million and $0.2 million for the three and six months ended June 30, 2019, as compared to $1.3 million and $2.1 million in the corresponding periods in 2018, respectively.

Restructuring Costs (Recovery)
Restructuring costs were $(0.5) million and $(0.5) million for the three and six months ended June 30, 2019, as compared to $3.8 million and $6.6 million in the corresponding periods in 2018, respectively. In Q2 2019, certain restructuring provisions related to employee severance costs and onerous leases were reversed. In Q1 2018, we undertook and completed restructuring activities primarily consisting of employee severance costs and onerous leases in Geomatics.

(Gain) Loss on Investments
(Gain) loss on investments was $nil and $(0.1) million for the three and six months ended June 30, 2019, as compared to $0.05 million and $(0.04) million in the corresponding periods in 2018, respectively. The amount represents changes in fair value of our investments in partnerships.

Finance Costs (Income), Net

	Three months ended June 30,			Six months ended June 30,		
In thousands of dollars	**2019**	2018	% Change	**2019**	2018	% Change
Interest on borrowings	$ 1,433	$ 1,527	(6.2%)	$ 2,713	$ 2,882	(5.9%)
Interest on lease liabilities	713	-	100.0%	1,445	-	100.0%
Interest on finance leases	-	9	(100.0%)	-	22	(100.0%)
Unwinding of discounts	209	178	17.4%	384	338	13.6%
Change in fair value of interest rate swaps	100	31	222.6%	410	(14)	3,028.6%
Finance income	(24)	(55)	56.4%	(139)	(110)	26.4%
Finance costs (income), net	$ 2,431	$ 1,690	43.8%	$ 4,813	$ 3,118	54.4%

Finance costs (income), net for the three months ended June 30, 2019 was $2.4 million, up 43.8% or $0.7 million from $1.7 million in the same period in 2018. For the six months ended June 30, 2019, finance costs (income), net was $4.8 million, up 54.4% or $1.7 million from $3.1 million in the same period in 2018. Our finance costs increased mainly due to the interest expense recorded in 2019 related to the adoption of IFRS 16 beginning January 1, 2019, in addition to the ongoing mark-to-market change in fair value recognized in relation to our $65.0 million interest rate swap.

Income Tax Expense (Recovery)
Income tax expense (recovery) for the three and six months ended June 30, 2019 was $5.3 million and $4.5 million, as compared to $0.9 million and $0.3 million in the corresponding periods in 2018, respectively. The increase was mainly due to generating higher taxable earnings in 2019.

Profit (Loss)
Profit (loss) for the three months ended June 30, 2019 was $13.3 million and $0.34 per share, basic and $0.33 per share, diluted, as compared to $0.3 million and $0.01 per share, basic and diluted, in the same period in 2018. For the six months ended June 30, 2019, profit (loss) was $12.9 million and $0.33 per share, basic

and diluted, as compared to $(2.0) million and $(0.05) per share, basic and diluted, in the same period in 2018.

Impact of IFRS 16

Income Statement

Reconciliation of profit (loss) calculated under IFRS 16 and on a basis consistent with 2018 for the three and six months ended June 30, 2019:

	Three months ended June 30, 2019			Six months ended June 30, 2019		
In thousands of dollars	IFRS 16	Basis Consistent with 2018	Impact of IFRS 16	IFRS 16	Basis Consistent with 2018	Impact of IFRS 16
Revenues	$ 153,654	$ 153,654	$ -	$ 281,652	$ 281,652	$ -
Expenses						
Employee compensation	90,007	90,007	-	176,600	176,600	-
Occupancy	2,110	5,520	(3,410)	3,923	10,587	(6,664)
Office and other operating	28,403	28,403	-	53,020	53,020	-
Depreciation of right-of-use assets	3,299	-	3,299	6,949	-	6,949
Depreciation and amortization	9,026	9,274	(248)	19,369	20,218	(849)
Acquisition and related transition costs (income)	171	171	-	153	153	-
Restructuring costs	(453)	(453)	-	(453)	(453)	-
(Gain) loss on investments	12	12	-	(95)	(95)	-
Finance costs (income), net - leases	713	-	713	1,445	-	1,445
Finance costs (income), net - other	1,718	1,718	-	3,368	3,368	-
Profit (loss) before income taxes	18,648	19,002	(354)	17,373	18,254	(881)
Income tax expense (recovery)	5,327	5,421	94	4,487	4,720	233
Profit (loss) for the period	$ 13,321	$ 13,581	$ (260)	$ 12,886	$ 13,534	$ (648)

Balance Sheet Impact

The effect of adopting IFRS 16 on our consolidated balance sheet (increase/(decrease)) as at January 1, 2019 is as follows:

	As Previously Reported December 31, 2018	IFRS 16 Adjustments	After Adoption of IFRS 16 January 1, 2019
Assets			
Trade receivables and other - current	$ 154,298	$ (361)	$ 153,937
Property, plant and equipment	33,197	(1,263)	31,934
Right-of-use assets	-	72,514	72,514
Liabilities			
Trade payables and other - current	117,520	(907)	116,613
Trade payables and other - non-current	29,825	(10,265)	19,560
Borrowings - current	858	(192)	666
Borrowings - non-current	128,509	(74)	128,435
Lease liabilities	-	82,328	82,328

Impact on Bank Covenants

We have agreed with our bank syndicate that our covenants will be calculated under the method prior to the adoption of IFRS 16.

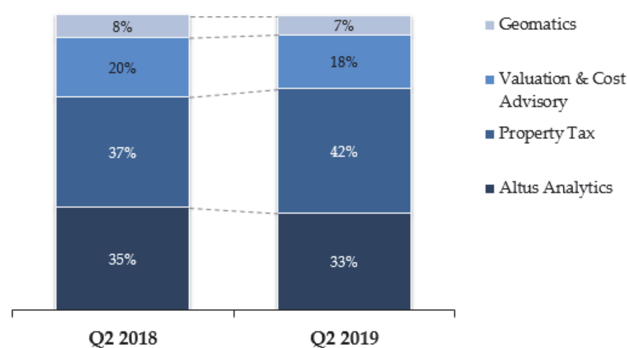
Refer to Note 4 in the financial statements for full details of the adoption and impacts.

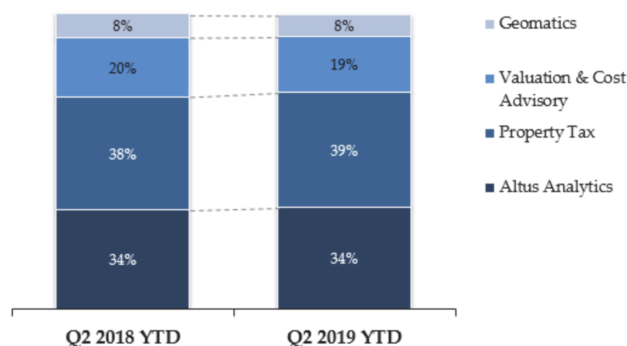
Revenues and Adjusted EBITDA by Business Unit

Revenues	**Three months ended June 30,**			**Six months ended June 30,**		
In thousands of dollars	**2019**	2018	% Change	**2019**	2018	% Change
Altus Analytics	$ 50,163	$ 46,972	6.8%	$ 96,944	$ 87,508	10.8%
Expert Services:						
Commercial Real Estate Consulting	93,066	77,062	20.8%	163,739	150,930	8.5%
Geomatics	10,523	10,367	1.5%	21,173	20,813	1.7%
Intercompany eliminations	(98)	(183)	46.4%	(204)	(343)	40.5%
Total	$ 153,654	$ 134,218	14.5%	$ 281,652	$ 258,908	8.8%

Adjusted EBITDA	**Three months ended June 30,**			**Six months ended June 30,**		
In thousands of dollars	**2019**	2018	% Change	**2019**	2018	% Change
Altus Analytics	$ 11,206	$ 12,870	(12.9%)	$ 21,027	$ 21,100	(0.3%)
Expert Services:						
Commercial Real Estate Consulting	32,001	19,128	67.3%	44,099	34,796	26.7%
Geomatics	990	859	15.3%	1,451	909	59.6%
Corporate	(13,227)	(9,086)	45.6%	(21,723)	(17,526)	23.9%
Total	$ 30,970	$ 23,771	30.3%	$ 44,854	$ 39,279	14.2%

Revenue Contribution for the Quarter and Year-to-Date:





Altus Analytics

	Three months ended June 30,			Six months ended June 30,		
In thousands of dollars	**2019**	2018	% Change	**2019**	2018	% Change
Revenues	$ 50,163	$ 46,972	6.8%	$ 96,944	$ 87,508	10.8%
Adjusted EBITDA	$ 11,206	$ 12,870	(12.9%)	$ 21,027	$ 21,100	(0.3%)
Adjusted EBITDA Margin	22.3%	27.4%		21.7%	24.1%	

Quarterly Discussion

Revenues were $50.2 million for the three months ended June 30, 2019, up 6.8% or $3.2 million from $47.0 million in the same period in 2018. The acquisition of Taliance represented 3.4% of the revenue growth. The increase in revenues was driven by double-digit growth from our Appraisal Management solutions, robust AOD sales, higher maintenance revenues (supported by 97% maintenance renewal rates for our flagship AE product) and strong software consulting and education services revenues. As the second quarter of 2018 included a sizable global subscription license contract (of which a high portion of revenues was recognized upfront), the software business faced a tough comparison on AE license sales. The double-digit growth from our Appraisal Management solutions was driven by existing customer growth, new customer wins and growing revenues from international markets. In addition, we had higher revenues from due diligence assignments in the quarter. Movements in the exchange rate against the Canadian dollar benefitted revenues by 2.0%.

Recurring revenues, as described above in the Overview of the Business, were $38.1 million for the three months ended June 30, 2019, up 16.9% or $5.5 million from $32.6 million in the same period in 2018.

Adjusted EBITDA was $11.2 million for the three months ended June 30, 2019, down 12.9% or $1.7 million from $12.9 million in the same period in 2018. Although Adjusted EBITDA benefitted from higher software and Appraisal Management solutions revenues, the ongoing product, sales and delivery investments impacted Altus Analytics earnings. While our product investments have now started to level off, expenses were still higher in the second quarter of 2019 compared to the second quarter of 2018, contributing to the decrease in Adjusted EBITDA. Changes in foreign exchange benefitted Adjusted EBITDA by 2.9%.

Year-to-Date Discussion

Revenues were $96.9 million for the six months ended June 30, 2019, up 10.8% or $9.4 million from $87.5 million in the same period in 2018. The acquisition of Taliance represented 3.2% of the revenue growth. Revenues improved on growth from our Appraisal Management solutions, higher subscription revenues and higher maintenance revenues. The growth was driven by existing customer growth, new customer wins and growing revenues from international markets. Movements in the exchange rate against the Canadian dollar benefitted revenues by 2.7%.

Recurring revenues, as described above in the Overview of the Business, were $74.5 million for the six months ended June 30, 2019, up 19.8% or $12.3 million from $62.2 million in the same period in 2018.

Adjusted EBITDA was $21.0 million for the six months ended June 30, 2019, down 0.3% or $0.1 million from $21.1 million in the same period in 2018. Adjusted EBITDA was consistent with prior year, despite higher revenues, as ongoing investments continued to impact Altus Analytics earnings. Changes in foreign exchange benefitted Adjusted EBITDA by 4.2%.

Outlook
Our Altus Analytics business continues to represent an attractive growth area, supported by favourable market trends of growing global demand for CRE-related technology and data solutions.

For the remainder of 2019, we expect growth from our software revenues to be driven by sustained add-on sales (targeting more users and upselling with new applications, as well as converting existing customers to cloud subscriptions), new customer additions (with a specific focus on strengthening our presence in Germany, France and Asia), increasing the global deployment of AE across our clients' organizations by focusing on our top 200 largest clients, and increasing sales from other ARGUS branded products. We will continue to pursue multi-product enterprise deals to serve the end-to-end needs of large global clients, although these types of contracts have longer sales cycles. Our product roadmap will continue to prioritize integration across all of our capabilities, cloud functionality, and standard software upgrades to our existing solutions. While we continue to invest in product development, we expect our development costs will now start to flatten and we plan to reduce expense growth in the second half of the year.

We expect that growth from our Appraisal Management solutions will continue to be driven by current customers adding more assets on our platform and from new clients, in the U.S. and in international markets. We continue to have opportunities for organic growth in the U.S. by expanding our penetration with closed end funds and pension funds, and by expanding our work with our global clients abroad, namely in Europe and Asia Pacific.

To help better understand the financial impact of our transition to a subscription model, we have provided revenue guidance for Altus Analytics in 2019. We expect 7% to 12% revenue growth resulting in full year revenue performance between $197 million to $205 million. Recurring revenues are expected to grow 16% to 19%. We also expect Adjusted EBITDA margins for the full year to be between 17% and 20%, reflecting the run-rate of the 2018 investments and the shift to subscriptions in the second half of the year.

Commercial Real Estate Consulting

	Three months ended June 30,			Six months ended June 30,		
In thousands of dollars	**2019**	2018	% Change	**2019**	2018	% Change
Revenues						
Property Tax	$ 65,288	$ 50,059	30.4%	$ 109,986	$ 98,678	11.5%
Valuation and Cost Advisory	27,778	27,003	2.9%	53,753	52,252	2.9%
Revenues	$ 93,066	$ 77,062	20.8%	$ 163,739	$ 150,930	8.5%
Adjusted EBITDA						
Property Tax	$ 28,516	$ 15,418	85.0%	$ 38,114	$ 28,491	33.8%
Valuation and Cost Advisory	3,485	3,710	(6.1%)	5,985	6,305	(5.1%)
Adjusted EBITDA	$ 32,001	$ 19,128	67.3%	$ 44,099	$ 34,796	26.7%
Adjusted EBITDA Margin	34.4%	24.8%		26.9%	23.1%	

Quarterly Discussion
Revenues were $93.1 million for the three months ended June 30, 2019, up 20.8% or $16.0 million from $77.1 million in the same period in 2018. The growth in revenues was driven by record performance from our

Property Tax business. Property Tax revenues increased by 30.4%, primarily due to the cyclical/seasonal annuity billings in our U.K. business, as well as double-digit organic growth in Canada and the U.S. In the U.K., the annuity billings in the quarter represented $9.9 million, as compared to $4.7 million in the same period in 2018, reflecting the increased cumulative number of 2017 cycle cases settled. In Canada, the growth in revenues was driven by robust performance in British Columbia and Alberta, which operate on annual tax cycles. Both these jurisdictions tend to have a concentration of revenues in the first half of the year. In British Columbia, we experienced another year of assessment value increases that allowed for higher appeal settlements, and in Alberta we benefitted from a significant one-time settlement on a case that benefitted a number of our clients. In Ontario, revenues were on par with the prior year, and we are starting to see a positive trend in current cycle case settlements, which have doubled sequentially from the first quarter. In the U.S., we benefitted from the seasonality of the annual cycle in Texas, as well as the healthy increases in assessment values in that jurisdiction. Our Valuation and Cost Advisory revenues increased by 2.9%, primarily due to better performance from our Global Cost practice. Changes in exchange rates impacted CRE Consulting revenues by (0.2%).

Adjusted EBITDA was $32.0 million for the three months ended June 30, 2019, up 67.3% or $12.9 million from $19.1 million in the same period in 2018. Earnings improved on the significant revenue increase from our Property Tax business, in particular by the annuity billings revenue in the U.K. Changes in exchange rates impacted CRE Consulting Adjusted EBITDA by (0.6%).

Year-to-Date Discussion

Revenues were $163.7 million for the six months ended June 30, 2019, up 8.5% or $12.8 million from $150.9 million in the same period in 2018. The growth in revenues was driven by our Property Tax business. Property Tax revenues increased 11.5%, as the U.K. benefitted from annuity billing in the second quarter and increased case settlements. In addition, our revenues in Canada have been fairly steady, as strong performance in Western Canada has helped offset the deferral of case settlements in Ontario. In the U.S., we have experienced strong double-digit organic growth, especially in our largest revenue jurisdiction of Texas. Our Valuation and Cost Advisory business has experienced modest growth. There was no impact from exchange rate changes.

Adjusted EBITDA was $44.1 million for the six months ended June 30, 2019, up 26.7% or $9.3 million from $34.8 million in the same period in 2018. The healthy increase in earnings has resulted from our strong revenue increases in the Property Tax business. Changes in exchange rates impacted CRE Consulting Adjusted EBITDA by (0.2%).

Outlook

Our Property Tax business continues to represent an attractive growth area for our company driven by a steady demand for our specialized services. We expect 2019 to be a record revenue year for our Property Tax practice driven by an anticipated rebound of case settlement activity from the Ontario and U.K. markets. Both markets are now in year three of their respective four-year cycles that began in 2017, and both have been impacted by government-driven process changes that caused a deferral of appeal settlements, where a high portion of revenues are derived on a contingency basis. In Ontario, we expect the ramp up in revenues to continue into the second half of the year. In the U.K., the second half of the year is predicated on the continued acceleration of case settlement rates, however without the benefit of the annuity billings that took place in the second quarter. In the U.S., the second half of the year will benefit from the seasonal cycle in Texas, which tends to peak in the second and third quarters of the year. Given

the nature of the Property Tax business as discussed in more detail in the seasonal and cyclical variations, we expect to experience typical quarterly variability in our financial performance.

Our Valuation and Cost Advisory practices enjoy significant market share and, as a result, are expected to continue growing modestly. Growth is expected to be driven by operating leverage, enhanced efficiency and productivity from technology, and improved cross-selling across the organization.

Geomatics

	Three months ended June 30,			Six months ended June 30,		
In thousands of dollars	**2019**	2018	% Change	**2019**	2018	% Change
Revenues	$ 10,523	$ 10,367	1.5%	$ 21,173	$ 20,813	1.7%
Adjusted EBITDA	$ 990	$ 859	15.3%	$ 1,451	$ 909	59.6%
Adjusted EBITDA Margin	9.4%	8.3%		6.9%	4.4%	

Quarterly Discussion
Despite challenging market conditions, revenues improved slightly to $10.5 million for the three months ended June 30, 2019, up 1.5% or $0.1 million from $10.4 million in the same period in 2018.

Adjusted EBITDA was $1.0 million for the three months ended June 30, 2019, up 15.3% or $0.1 million from $0.9 million in the same period in 2018. Earnings were comparable to the prior year.

Year-to-Date Discussion
Revenues were $21.2 million for the six months ended June 30, 2019, up 1.7% or $0.4 million from $20.8 million in the same period in 2018. Revenues improved moderately over the prior year.

Adjusted EBITDA was $1.5 million for the six months ended June 30, 2019, up 59.6% or $0.6 million from $0.9 million in the same period in 2018. Earnings improved on comparable revenues and improved operational cost efficiencies.

Outlook
Our Geomatics business continues to be impacted by the market downturn in the oil and gas industry. Given our strong revenue exposure to the oil and gas industry in Western Canada, we continue to be impacted by reduced capital spending in this sector and ongoing pricing pressures. Following various cost cutting and optimization initiatives undertaken in 2018, we expect Geomatics to remain profitable for the remainder of 2019.

Corporate Costs

Quarterly Discussion
Corporate costs (recovery) were $13.2 million for the three months ended June 30, 2019, as compared to $9.1 million in the same period in 2018. Corporate costs increased on higher accrual of variable compensation costs, various corporate initiatives to scale the business for growth and one-time professional advisory fees. Bonuses are accrued in the Corporate segment for the first three quarters of the year and are allocated to the individual business segments in the fourth quarter upon overall results finalization. For

the three months ended June 30, 2019, corporate costs as a percentage of revenues was 8.6%, as compared to 6.8% in the same period in 2018.

Year-to-Date Discussion
Corporate costs (recovery) were $21.7 million for the six months ended June 30, 2019, as compared to $17.5 million in the same period in 2018. Corporate costs increased on higher accrual of variable compensation costs and various corporate initiatives to scale the business for growth. Bonuses are accrued in the Corporate segment for the first three quarters of the year and are allocated to the individual business segments in the fourth quarter upon overall results finalization. For the six months ended June 30, 2019, corporate costs as a percentage of revenues was 7.7%, as compared to 6.8% in the same period in 2018.

Liquidity and Capital Resources

Cash Flow	Three months ended June 30,				Six months ended June 30,			
In thousands of dollars		**2019**		2018		**2019**		2018
Net cash related to operating activities	$	13,250	$	11,573	$	5,132	$	6,796
Net cash related to financing activities		1,337		20,713		3,532		25,484
Net cash related to investing activities		(1,339)		(3,248)		(3,009)		(11,612)
Effect of foreign currency translation		792		(1,644)		(2,834)		(728)
Change in cash position during the period	$	14,040	$	27,394	$	2,821	$	19,940
Dividends paid	$	4,200	$	5,169	$	8,384	$	10,355

We expect to fund operations with cash derived from operating activities. Deficiencies arising from short-term working capital requirements and capital expenditures may be financed on a short-term basis with bank indebtedness or on a permanent basis with offerings of securities. Significant erosion in the general state of the economy could affect our liquidity by reducing cash generated from operating activities or by limiting access to short-term financing as a result of tightening credit markets.

Cash from Operating Activities

Working Capital				
In thousands of dollars		**June 30, 2019**		December 31, 2018
Current assets	$	235,666	$	209,535
Current liabilities		275,037		125,180
Working capital	$	(39,371)	$	84,355

Current assets are composed primarily of cash and cash equivalents, trade receivables and other and income taxes recoverable. Current liabilities are composed primarily of trade payables and other, income taxes payable, lease liabilities and borrowings. Bank credit facilities of $150.0 million are included in current liabilities as at June 30, 2019, as they mature on April 28, 2020. We are in the process of reviewing and renewing our bank credit facilities. We expect to complete this prior to maturity.

As at June 30, 2019, trade receivables, net and unbilled revenue on customer contracts net of deferred revenue was $131.1 million, up 23.4% or $25.2 million from $105.9 million as at December 31, 2018. As a

percentage of the trailing 12-month revenues, trade receivables and unbilled revenue on customer contracts net of deferred revenue, was 24.6% as at June 30, 2019, as compared to 20.6% as at December 31, 2018.

Our Days Sales Outstanding ("DSO") was 76 days as at June 30, 2019, as compared to 74 days as at December 31, 2018. We calculate DSO by taking the five-quarter average balance of trade receivables, net and unbilled revenue on customer contracts net of deferred revenue and the result is then divided by the trailing 12-month revenues plus any pre-acquisition revenues, as applicable, and multiplied by 365 days. Our method of calculating DSO may differ from the methods used by other issuers and, accordingly, may not be comparable to similar measures used by other issuers. We believe this measure is useful to investors as it demonstrates our ability to convert revenue into cash.

Current and long-term liabilities include amounts owing to the vendors of acquired businesses on account of excess working capital, deferred purchase price payments and other closing adjustments. As at June 30, 2019, the amounts owing to the vendors of acquired businesses were $12.9 million, as compared to $14.2 million as at December 31, 2018. We intend to satisfy the payments with the revolving term facility (as described below) or cash on hand.

Except for our bank credit facilities, which we expect to renew, we expect to satisfy the balance of our current liabilities through the realization of our current assets.

Cash from Financing Activities

Our revolving term facility is a senior secured revolving term facility used for general corporate purposes that will mature on April 28, 2020. In June 2018, we increased our borrowing capacity under the revolving term facility from $200.0 million to $220.0 million in accordance with certain provisions of the agreement. The borrowing capacity can be further increased to $250.0 million. All other terms of the bank credit facilities remain the same.

As at June 30, 2019, our total borrowings on our revolving term facility amounted to $150.0 million, an increase of $20.8 million from December 31, 2018. Our bank credit facilities mature on April 28, 2020 and hence, have been presented as current liabilities. We are in the process of reviewing and renewing our bank credit facilities. We expect to complete this prior to maturity.

We also have outstanding letters of credit under our bank credit facilities in the total amount of $0.9 million (December 31, 2018 - $0.8 million).

The cost of our bank credit facilities is tied to the Canadian Prime rates, Canadian Bankers' Acceptance rates, U.S. Base rates or LIBOR rates. As at June 30, 2019, $65.0 million was subject to interest rate swap agreements to fix the interest rate. We are obligated to pay the counterparty to the swap agreements an amount based upon a fixed interest rate of 1.48% per annum and the counterparty is obligated to pay us an amount equal to the Canadian Bankers' Acceptance rate. These agreements expire on May 15, 2020. These interest rate swaps are not designated as cash flow hedges. The effective annual rate of interest for the three and six months ended June 30, 2019 on our bank credit facilities was 3.68% and 3.63%, as compared to 3.42% and 3.36% in the corresponding periods in 2018, respectively.

We have agreed with our bank syndicate that our covenants will be calculated under the method used prior to the adoption of IFRS 16.

As at June 30, 2019, we were in compliance with the financial covenants of our bank credit facilities, which are summarized below:

	June 30, 2019
Funded debt to EBITDA (maximum of 3.00:1)	**1.90:1**
Fixed charge coverage (minimum of 1.20:1)	**7.86:1**
Funded debt to capitalization (maximum of 55%)	**27%**

Other than long-term debt and letters of credit, we are subject to other contractual obligations, such as leases and amounts owing to the vendors of acquired businesses as discussed above.

Contractual Obligations [1]	**Payments Due by Period (undiscounted)**				
In thousands of dollars	**Total**	Less than 1 year	1 to 3 years	4 to 5 years	Over 5 years
Bank credit facilities	**$ 150,000**	$ 150,000	$ -	$ -	$ -
Leasehold improvement loans	**456**	74	148	148	86
Lease obligations	**94,004**	19,248	28,839	23,005	22,912
Contingent consideration payables	**13,189**	13,189	-	-	-
Other liabilities	**75,247**	64,815	4,238	497	5,697
Total contractual obligations	**$ 332,896**	$ 247,326	$ 33,225	$ 23,650	$ 28,695

[1] Contractual obligations exclude aggregate unfunded capital contributions of $0.9 million to certain partnerships as the amount and timing of such payments are uncertain.

Cash from Investing Activities

We invest in property, plant and equipment and intangible assets to support the activities of the business. Capital expenditures for accounting purposes include property, plant and equipment in substance and in form, and intangible assets.

Capital expenditures are reconciled as follows:

Capital Expenditures	**Three months ended June 30,**		**Six months ended June 30,**	
In thousands of dollars	**2019**	2018	**2019**	2018
Property, plant and equipment additions	$ 1,085	$ 2,987	$ 2,405	$ 6,788
Intangibles additions	87	327	149	354
Proceeds from disposal of property, plant and equipment and intangibles	(55)	(90)	(70)	(90)
Capital expenditures	$ 1,117	$ 3,224	$ 2,484	$ 7,052

Reconciliation of Adjusted EBITDA to Profit (Loss)

The following table provides a reconciliation between Adjusted EBITDA and profit (loss):

	Three months ended June 30,		Six months ended June 30,	
In thousands of dollars	**2019**	2018	**2019**	2018
Adjusted EBITDA	$ 30,970	$ 23,771	$ 44,854	$ 39,279
Additional occupancy expense calculated on a similar basis prior to the adoption of IFRS 16 [(1)]	3,410	-	6,664	-
Depreciation - right-of-use assets	(3,299)	-	(6,949)	-
Depreciation and amortization - other	(9,026)	(12,681)	(19,369)	(25,225)
Acquisition and related transition (costs) income	(171)	(1,339)	(153)	(2,073)
Unrealized foreign exchange gain (loss) [(2)]	(633)	(242)	(1,127)	807
Gain (loss) on disposal of property, plant and equipment [(2)]	(16)	(713)	(292)	(1,092)
Non-cash Executive Compensation Plan costs [(3)]	(1,577)	(1,588)	(2,891)	(2,811)
Gain (loss) on equity derivatives net of mark-to-market adjustments on related RSUs and DSUs being hedged [(3)]	1,014	(667)	935	(1,050)
Gain (loss) on derivatives [(2)]	-	224	-	272
Restructuring costs	453	(3,789)	453	(6,642)
Gain (loss) on investments [(4)]	(12)	(46)	95	39
Other non-operating and/or non-recurring income (costs) [(5)]	-	(50)	-	(119)
Impairment charge - leases	(34)	-	(34)	-
Earnings (loss) before Finance Costs and Income Taxes	21,079	2,880	22,186	1,385
Finance costs (income), net - leases	713	-	1,445	-
Finance costs (income), net - other	1,718	1,690	3,368	3,118
Profit (loss) before income taxes	18,648	1,190	17,373	(1,733)
Income tax expense (recovery)	5,327	860	4,487	264
Profit (loss) for the period	$ 13,321	$ 330	$ 12,886	$ (1,997)

(1) Management's use of the non-GAAP lease expense calculated on a similar basis prior to the adoption of IFRS 16 is used when analyzing operating performance. Management believes that the non-GAAP measure provides useful information to both management and investors in measuring our financial performance. Refer to pages 15 and 16 for a schedule showing the impacts and adjustments of our consolidated financial statements for the adoption of IFRS 16.

(2) Included in office and other operating expenses in the unaudited interim condensed consolidated statements of comprehensive income (loss).

(3) Included in employee compensation expenses in the unaudited interim condensed consolidated statements of comprehensive income (loss).

(4) Gain (loss) on investments for the three and six months ended June 30, 2019 and for the three and six months ended June 30, 2018 relates to changes in fair value of investments in partnerships.

(5) Other non-operating and/or non-recurring income (costs) for the three and six months ended June 30, 2018 relate to (i) non-recurring legal matters and related costs and (ii) transactional costs for tax planning and restructuring of legal entities within the group. These are included in office and other operating expenses in the unaudited interim condensed consolidated statements of comprehensive income (loss).

Adjusted Earnings (Loss) Per Share

	Three months ended June 30,		Six months ended June 30,	
In thousands of dollars, except for per share amounts	**2019**	2018	**2019**	2018
Profit (loss) for the period	$ 13,321	$ 330	$ 12,886	$ (1,997)
Additional occupancy expense calculated on a similar basis prior to the adoption of IFRS 16	(3,410)	-	(6,664)	-
Depreciation - right-of-use assets	3,299	-	6,949	-
Finance costs (income), net - leases	713	-	1,445	-
Amortization of intangibles of acquired businesses	7,192	10,304	15,052	20,294
Unrealized foreign exchange loss (gain)	633	242	1,127	(807)
Loss (gain) on disposal of property, plant and equipment	16	713	292	1,092
Non-cash Executive Compensation Plan costs	1,577	1,588	2,891	2,811
Loss (gain) on equity derivatives net of mark-to-market adjustments on related RSUs and DSUs being hedged	(1,014)	667	(935)	1,050
Interest accretion on contingent consideration payables	157	175	315	333
Restructuring costs	(453)	3,789	(453)	6,642
Loss (gain) on hedging transactions, including currency forward contracts and interest expense (income) on swaps	100	(193)	410	(286)
Acquisition and related transition costs (income)	171	1,339	153	2,073
Impairment charge - leases	34	-	34	-
Loss (gain) on investments	12	46	(95)	(39)
Other non-operating and/or non-recurring costs (income)	-	50	-	119
Tax impact on above	(1,826)	(3,574)	(3,936)	(6,907)
Adjusted earnings (loss) for the period	$ 20,522	$ 15,476	$ 29,471	$ 24,378
Weighted average number of shares - basic	39,318,470	38,700,049	39,201,990	38,600,800
Weighted average number of restricted shares	356,417	312,488	357,002	315,217
Weighted average number of shares - adjusted	39,674,887	39,012,537	39,558,992	38,916,017
Adjusted earnings (loss) per share	$0.52	$0.40	$0.74	$0.63

Summary of Quarterly Results

	2019		2018					2017		
In thousands of dollars, except for per share amounts	**Jun 30**	Mar 31	Fiscal 2018	Dec 31	Sep 30	Jun 30	Mar 31	Fiscal 2017	Dec 31	Sep 30
Results of Operations										
Revenues	$ 153,654	$ 127,998	$ 510,429	$ 130,885	$ 120,636	$ 134,218	$ 124,690	$ 476,562	$ 122,317	$ 117,072
Adjusted EBITDA	$ 30,970	$ 13,884	$ 70,904	$ 15,121	$ 16,504	$ 23,771	$ 15,508	$ 80,645	$ 19,949	$ 23,310
Adjusted EBITDA margin	20.2%	10.8%	13.9%	11.6%	13.7%	17.7%	12.4%	16.9%	16.3%	19.9%
Profit (loss) for the period	$ 13,321	$ (435)	$ (18,439)	$ (14,719)	$ (1,723)	$ 330	$ (2,327)	$ 109,417	$ (3,388)	$ 7,327
Earnings (loss) per share:										
Basic	$0.34	$(0.01)	$(0.48)	$(0.38)	$(0.04)	$0.01	$(0.06)	$2.88	$(0.09)	$0.19
Diluted	$0.33	$(0.01)	$(0.48)	$(0.38)	$(0.04)	$0.01	$(0.06)	$2.83	$(0.09)	$0.19
Adjusted	$0.52	$0.23	$1.05	$0.20	$0.22	$0.40	$0.23	$1.11	$0.15	$0.34
Weighted average number shares ('000s):										
Basic	39,318	39,084	38,764	38,968	38,879	38,700	38,500	38,028	38,389	38,324
Diluted	39,770	39,084	38,764	38,968	38,879	39,085	38,500	38,374	38,728	38,872

Certain segments of our operations are subject to seasonal and cyclical variations which may impact overall quarterly results. For instance:

- Our Altus Analytics business (which makes up approximately 33% of total consolidated revenues in Q2 2019) experiences some seasonality. ARGUS software products sold as perpetual licenses tend to have a stronger fourth quarter in revenues, a trend that is common in many other software companies. Also, our Appraisal Management solutions could experience some seasonal patterns around the second and fourth quarters, associated with some clients' practices of bi-annual and annual appraisals. It should also be noted that our Altus Analytics revenues may exhibit revenue variability as a result of our revenue recognition under IFRS 15. Under IFRS 15 accounting, for on-premise ARGUS software solutions that are sold on a subscription basis in a right to use license arrangement, a portion of the revenues will be recognized at the time of delivery of the distinct license rather than ratably over the term of the subscription. This is expected to result in more variability in revenues based on the timing of contracts. Certain arrangements are for a right to access and revenues will continue to be recognized ratably over the term of the subscription. Revenue recognition may vary based on contract specific terms.

- Our global Property Tax practice (which makes up approximately 42% of total consolidated revenues in Q2 2019) can experience significant fluctuations on a quarterly basis as a result of the timing of contingency settlements and other factors, such as the wide-ranging variety of tax cycles across our various jurisdictions (which range from annual to seven year cycles). We also experience some seasonal peaks in the U.K. and U.S. markets. In the U.K., the second quarter benefits from annuity billing starting the second year of a new cycle, and in the U.S. we tend to experience higher volumes of settlements in the second and third quarters. In 2018, following the integration of CVS, we implemented annuity billing in the U.K. for a significant number of our contracts that occur each April of the second, third and fourth year of the cycle. The revenues from the annuity billings are expected to grow cumulatively over the cycle as more cases are settled and as the volume of billable clients increases concurrent with case settlements. It should also be noted that since a higher portion of our revenues come from

contingency contracts, the front-end of a cycle typically requires a ramp-up period in preparation for the appeals and therefore tends to have lower earnings than later in the cycles when more settlements are made and those revenues flow directly to the bottom line.

- Our Cost Advisory practice (which makes up approximately 11% of total consolidated revenues in Q2 2019) experiences some cyclicality associated with its significant exposure to the CRE construction and development activities in the key markets that we serve. For instance, revenues will generally be higher in periods of economic prosperity and expansion in our key markets in Canada and Asia Pacific.

- Our Geomatics business (which makes up less than 7% of total consolidated revenues in Q2 2019) engages in projects that tend to be on remote undeveloped land in Western Canada, which is most accessible in the winter and summer months and least accessible in the spring months when ground conditions are soft and wet. Revenues for Geomatics tend to peak in the third and fourth quarters of the year in line with higher activity levels during these periods. Also, given Geomatics' significant client exposure to the oil and gas sector, revenues will be impacted by cyclical trends related to that sector, specifically driven by capital spending.

Share Data

As at July 31, 2019, 39,607,032 common shares were outstanding and are net of 355,766 treasury shares. These treasury shares are shares held by Altus Group, which are subject to restrictive covenants and may or may not vest for employees. Accordingly, these shares are not included in the total number of common shares outstanding for financial reporting purposes and are not included in basic earnings per share calculations.

As at June 30, 2019, there were 1,814,863 share options outstanding (December 31, 2018 - 1,518,670 share options outstanding) at a weighted average exercise price of $28.13 per share (December 31, 2018 - $27.96 per share) and 722,081 share options were exercisable (December 31, 2018 - 495,894). All share options are exercisable into common shares on a one-for-one basis.

Shareholders who are resident in Canada may elect to automatically reinvest quarterly dividends in additional Altus Group common shares under our Dividend Reinvestment Plan ("DRIP").

Pursuant to the DRIP, and in the case where common shares are issued from treasury, cash dividends will be reinvested in additional Altus Group common shares at the weighted average market price of our common shares for the five trading days immediately preceding the relevant dividend payment date, less a discount, currently set at 4%. In the case where common shares will be purchased on the open market, cash dividends will be reinvested in additional Altus Group common shares at the relevant average market price paid in respect of satisfying this reinvestment plan.

For the three and six months ended June 30, 2019, 68,641 and 144,503 common shares (2018 - 22,226 and 40,141 common shares) were issued under the DRIP.

Financial Instruments and Other Instruments

Financial instruments held in the normal course of business included in our unaudited interim condensed consolidated balance sheet as at June 30, 2019 consist of cash and cash equivalents, trade receivables and

other (excluding deferred costs to obtain customer contracts and prepayments), trade payables and other (excluding contract liabilities), income taxes recoverable and payable, investments, borrowings and derivative financial instruments. We do not enter into financial instrument arrangements for speculative purposes.

The fair values of the short-term financial instruments approximate their carrying values. The fair values of borrowings are not significantly different than their carrying values, as these instruments bear interest at rates comparable to current market rates. The fair values of other long-term assets and liabilities, promissory notes receivable and contingent consideration payables are measured using a discounted cash flow analysis of expected cash flows in future periods. The investments in equity instruments are measured based on valuations of the respective entities. Investments in partnerships are measured in relation to the fair value of assets in the respective partnerships.

The fair value of the liabilities for the DSU and RSU plans as at June 30, 2019 was approximately $10.7 million, based on the published trading price on the TSX for our common shares.

We are exposed to interest rate risk in the event of fluctuations in the Canadian Prime rates, Canadian Bankers' Acceptance rates, U.S. Base rates or LIBOR rates, as the interest rates on the bank credit facilities fluctuate with changes in these rates.

To mitigate our exposure to interest rate fluctuations, we have entered into interest rate swap agreements in connection with our bank credit facilities.

In 2015, we entered into interest rate swap agreements for a total notional amount of $65.0 million and a fixed interest rate of 1.48% per annum. This agreement expires on May 15, 2020. As at June 30, 2019, we have a total notional amount of $65.0 million outstanding and the fair value of these swaps were $0.2 million in our favor.

We are exposed to price risk as the liabilities for cash-settled plans are classified as fair value through profit or loss, and linked to the price of our common shares.

Since 2014, we entered into equity derivatives to manage our exposure to changes in the fair value of RSUs and DSUs, issued under their respective plans, due to changes in the fair value of our common shares. Changes in the fair value of these derivatives are recorded as employee compensation expense and offset the impact of mark-to-market adjustments on the RSUs and DSUs that have been accrued.

As at June 30, 2019, we have equity derivatives relating to RSUs and DSUs outstanding with a notional amount of $11.3 million. The fair value of these derivatives is $4.4 million in our favor.

We are exposed to credit risk with respect to our cash and cash equivalents, trade receivables and other and derivative financial instruments. Credit risk is not concentrated with any particular customer. In certain parts of Asia, it is often common business practice to pay invoices over an extended period of time and/or at the completion of the project. The risk of non-collection of trade receivables is greater in Asia Pacific compared to North American or European countries.

Liquidity risk is the risk that we will not be able to meet our financial obligations as they become due. We manage liquidity risk through the management of our capital structure and financial leverage. We also manage liquidity risk by continuously monitoring actual and projected cash flows, taking into account the seasonality of our revenues and receipts and maturity profile of financial assets and liabilities. Our Board of Directors reviews and approves our operating and capital budgets, as well as any material transactions outside the ordinary course of business, including proposals on mergers, acquisitions or other major investments.

Contingencies

From time to time, we or our subsidiaries are involved in legal proceedings, claims and litigation in the ordinary course of business with customers, former employees and other parties. Although it is not possible to determine the final outcome of such matters, based on all currently available information, management believes that liabilities, if any, arising from such matters will not have a material adverse effect on our financial position or results of operations and have been adequately provided for in the financial statements.

In the ordinary course of business, we are subject to tax audits from various government agencies relating to income and commodity taxes. As a result, from time to time, the tax authorities may disagree with the positions and conclusions we made in our tax filings, which could lead to assessments and reassessments. These assessments and reassessments may have a material adverse effect on our financial position or results of operations.

Disclosure Controls and Procedures and Internal Controls over Financial Reporting

Management is responsible for establishing and maintaining disclosure controls and procedures ("DC&P") and internal controls over financial reporting ("ICFR"), as those terms are defined in National Instrument 52-109 - Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109").

Management has caused such DC&P to be designed under its supervision to provide reasonable assurance that our material information, including material information of our consolidated subsidiaries, is made known to our Chief Executive Officer and our Chief Financial Officer for the period in which the annual and interim filings are prepared. Further, such DC&P are designed to provide reasonable assurance that information we are required to disclose in our annual filings, interim filings or other reports we have filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in applicable securities legislation.

Management has caused such ICFR to be designed under its supervision using the framework established in Internal Control - Integrated Framework (2013) published by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with IFRS.

Section 3.3(1)(b) of NI 52-109 allows an issuer to limit its design of DC&P and ICFR to exclude controls, policies and procedures of a business that the issuer acquired not exceeding 365 days from the date of acquisition.

Management has limited the scope of the design of DC&P and ICFR, consistent with previous practice, to exclude controls, policies and procedures of Taliance acquired on July 1, 2018.

Financial information of the business acquired is summarized below.

Balance sheet data for Taliance:

In thousands of dollars		June 30, 2019
Assets	$	31,371
Liabilities		5,852
Equity		25,519

Income statement data for Taliance:

In thousands of dollars		Three months ended June 30, 2019		Six months ended June 30, 2019
Revenues	$	1,614	$	2,802
Expenses		1,828		4,013
Profit (loss)		(214)		(1,211)

There have been no significant changes in our internal controls over financial reporting that occurred for the quarter ended June 30, 2019, the most recently completed interim period, that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

We implemented internal controls to ensure we adequately evaluated our contracts and properly assessed the impact of the new accounting standards related to IFRS 16, *Leases*, on our financial statements to facilitate its adoption on January 1, 2019. There were no other significant changes to our internal control over financial reporting.

The audit committee and our Board of Directors have reviewed and approved this MD&A and the financial statements as at and for the three and six months ended June 30, 2019.

Key Factors Affecting the Business

The risks and uncertainties that could significantly affect our financial condition and future results of operations are summarized below.

General state of the economy

The businesses operated by us are affected by general economic conditions, including international, national, regional and local economic conditions, all of which are outside of our control. Economic slowdowns or downturns, adverse economic conditions, cyclical trends, increases in interest rates, variations in currency exchange rates, reduced client spending and other factors could have a material adverse effect on our business, financial condition and results of operations. Although our operations are functionally and geographically diversified, significant erosion in levels of activity in any segment in which we operate could have a negative impact on our business, financial condition and results of operations.

Currency risk
Our reporting currency is the Canadian dollar.

We have operations in Canada, the U.S., the U.K., Australia and various countries throughout Asia. Our exposure to foreign currency risk is primarily in the following areas:

- Profit (loss) generated by operations in foreign countries, which are translated into Canadian dollars using the average exchange rate;
- Net assets of foreign subsidiaries, which are translated into Canadian dollars using the period end exchange rate with any gains or losses recorded under accumulated other comprehensive income (loss) within shareholders' equity; and
- Non-Canadian dollar denominated monetary assets and liabilities, which are translated into Canadian dollars using the period end exchange rate with any gains or losses recorded through profit (loss).

The exchange rate between the Canadian dollar and the U.S. dollar ranged from $1.3630 at December 31, 2018 to $1.3086 at June 30, 2019. The exchange rate between the Canadian dollar and the British pound ranged from $1.7357 at December 31, 2018 to $1.6607 at June 30, 2019. The exchange rate between the Canadian dollar and the Australian dollar ranged from $0.9613 at December 31, 2018 to $0.9180 at June 30, 2019.

Ability to maintain profitability and manage growth
Our ability to achieve revenue growth and sustain profitability in future periods depends on our ability to execute our strategic plan and effectively manage our growth. A failure to do so could have a material adverse effect on our business, financial condition and results of operations.

Commercial real estate market
The businesses we operate are affected by the state of commercial real estate as an investment asset class. Economic slowdowns triggered by credit liquidity, interest rates, regulatory policy, tax policy, etc., could negatively impact the market and result in fewer appraisals, cost assignments and license and subscription sales. This could have a material adverse effect on our business, financial condition, liquidity and results of operations.

Competition in the industry
We face competition from other service, software and data analytics providers. Competition for our professional services includes a broad mix of competitors, ranging from smaller, locally-based professional service firms to national, multi-regional professional service providers and to large engineering, accounting and law firms. Software providers also compete with us in respect of real estate asset management, valuation, budgeting, forecasting, reporting and lease management solutions. There are also new companies entering the market with competitive data analytics solutions. These competitive forces could result in a material adverse effect on our business, financial condition and results of operations by reducing our relative share in the markets we serve.

Acquisitions
We intend to make acquisitions as part of our strategy to grow our business. Acquisitions may increase the size of our operations, as well as increase the amount of indebtedness that we may have to service. The successful integration and management of acquired businesses involve numerous risks and there is no

assurance that we will be able to successfully integrate our acquisitions. Such failure could adversely affect our business, financial condition and results of operations.

Subscription contracts and transition to the cloud
We are transitioning our Altus Analytics business to a higher mix of recurring revenues by moving our on-premise customers to the cloud and offering all of our software solutions on over time subscription contracts, compared to our historic reliance on perpetual term contracts for on-premise software. As of July 2019, the majority of our subscription contracts to new customers will be recognized ratably over the term of the subscription while under an on-premise perpetual license, revenue is generally recognized upon purchase, and for customers who still deploy the software on-premise but on a subscription contract, we will continue to recognize a high portion of the transaction upfront. This has adversely affected, and may continue to adversely affect, our revenue and earnings in the transition period and contribute to quarterly variability, while making predicting our revenue and earnings more difficult during the transition.

Although our subscription solutions are designed to increase the number of customers that purchase our solutions as subscriptions and create a recurring revenue stream that increases and is more predictable over time, our customers are not required to renew their subscriptions for our solutions and they may elect not to renew when or as we expect. Customer renewal rates may decline or fluctuate due to a number of factors, including offering pricing, competitive offerings, customer satisfaction, and reductions in customer spending levels or customer activity due to economic downturns, the adverse impact of import tariffs, or other market uncertainty. If our customers do not renew their subscriptions when or as we expect, or if they renew on less favorable terms, our revenues and earnings may be adversely impacted. Additionally, our ability to move our customers to a cloud environment may take longer than we anticipate, or if customers do not adopt cloud licenses in the timeframe that we expect, our revenues and earnings may not achieve expected levels.

Oil and gas sector
The land survey practice of Geomatics has significant client exposure in the oil and gas industry in Western Canada and is impacted by the associated capital spending from that sector. The risks to the outlook for the land survey practice in Western Canada arise from world markets for oil and gas and the associated impact on capital spending. Historically, the prices for oil and gas have been volatile and subject to wide fluctuations in response to changes in the supply of and demand for oil and gas, market uncertainty and a variety of additional factors beyond our control. We cannot predict future oil and gas price movements. If oil and gas prices experience a prolonged decline, there could be a material adverse effect on our business, financial condition, liquidity and operating results.

Ability to attract and retain professionals
Our success and ability to grow are dependent on the expertise, experience and efforts of our professionals. Competition for employees with the qualifications we desire, particularly with commercial real estate technology experience, is intense and puts upward pressure on compensation costs. We expect that competition for qualified professionals will continue to increase, thereby causing compensation costs to escalate. Should we be unable to attract and retain professionals that meet the desired level of skills and ability, our business may be jeopardized.

Information from multiple sources
The quality of our databases supporting certain of our products depends substantially on information provided by a number of sources, including commercial real estate brokers, agents and property owners, trade associations, tax assessors, deed recorders, municipal planners, corporate web sites, the business and trade press, and selected third party vendors of business information. If we are unable to collect information from a significant number of these sources this could negatively affect certain of our products and may potentially result in subscriber cancellations and failure to acquire new subscribers.

Reliance on larger enterprise transactions with longer and less predictable sales cycles
The ability to meet revenue targets is becoming more dependent on larger transactions which have longer sales cycles. The presence or absence of one or more of these transactions may have a material positive or negative effect on anticipated revenue in any given period.

Success of new product introductions
As new products are developed and introduced to the marketplace, client adoption may not achieve anticipated levels. As a result, revenue expectations may not be achieved. If cash flows from new products do not reach sufficient levels, asset impairments may need to be taken on any capitalized costs related to the development of the products.

Ability to respond to technological change and develop products on a timely basis
Our ability to generate future revenues from software is dependent upon meeting the changing needs of the market and evolving industry standards through new product introductions and product enhancements. In order to maintain or enhance product market share over the long-term, it is imperative to anticipate and develop products that meet client and industry needs. In the short to medium term, the ability to complete product developments on a timely basis is important to achieving revenue and cost targets.

Protection of intellectual property or defending against claims of intellectual property rights of others
We rely on protecting our intellectual property rights including copyrights, trademarks, trade secrets, databases and methodologies, which have been important factors in maintaining our competitive position. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to obtain and use information that we regard as proprietary. There can be no assurance that we will be successful in protecting our proprietary rights and, if we are not, our business, financial condition, liquidity and results of operations could be materially adversely affected. Additionally, we may be subject to claims by third parties regarding technology infringement. Responding to such claims could result in substantial expense and may result in damages or injunctive relief. We may also be required to indemnify customers pursuant to our indemnification obligations, enter into licensing agreements on unfavourable terms or redesign or stop selling affected products, which could materially disrupt the conduct of our business.

Ability to implement technology strategy and ensure workforce adoption
Our business relies on the use of information technology systems to deliver expert services, data and software solutions to our clients. If we are unable to effectively implement our information technology strategies or adopt new technologies and technology-enabled processes relevant to our offerings in a timely or cost-effective manner, or if our employees fail to adopt in an effective and timely manner new technologies or technology-enabled processes, then our ability to deliver services and solutions that meet client needs or our ability to remain competitive in the market may be materially impaired.

Information technology governance and security, including cyber security
In the ordinary course of our business, we collect, store, process and/or transmit sensitive data belonging to clients, partners, vendors, employees and contractors as well as our own proprietary business information and intellectual property. The secure processing, maintenance and transmission of this information is critical to our workflow operations and delivery of products and services to our clients. We have implemented a secure operating framework which includes policies and governance, prevention and detection technologies, back-up and recovery processes and other procedures and technology in the protection of our data, software and infrastructure assets from loss, theft, unauthorized access, vandalism, cyber attacks, or events such as power outages or surges, floods, fires or other natural disasters. We have also implemented a major incidence process whereby breaches or unauthorized access to our systems are assessed and reported based on established communication protocols. Despite our security measures, our data, systems and infrastructure may be vulnerable to cyber attacks or breached due to employee error, malfeasance or other disruptions. These security breaches could materially compromise our information, disrupt our business operations or cause us to breach our client obligations thereby exposing us to liability, reputational harm and/or significant remediation costs. A theft, loss, corruption, exposure, fraudulent use or misuse of client information whether by third parties or as a result of employee malfeasance could result in significant remediation and other costs, fines, litigation or regulatory actions against us, as well as cause reputational harm, negatively impact our competitive position and affect our financial results. We are increasingly relying on third-party data storage providers, including cloud storage solution providers, resulting in less direct control over our data and system processing. Such third parties may also be vulnerable to security breaches for which we may not be indemnified and which could cause materially adverse harm to our reputation and competitive position and affect our financial results.

Engagement and product pipeline opportunities do not result in sufficient definitive agreements
Our forecast is built on a pipeline of client opportunities at varying stages within the sales process. Our ability to achieve the forecast is dependent on completion of the sales cycle and client acceptance of mutually agreeable terms. Certain factors are beyond our control, including our clients' evaluation of our offerings, budgetary constraints, timing of their approval processes, etc. Our pipeline of opportunities may not close on terms and timing in line with our forecast. This may have a material positive or negative effect on anticipated revenue in any given period.

Property tax assessment regulators do not process appeals in a manner consistent with expectations
Our Property Tax practice is significantly influenced by property tax assessment regulators and their appeal settlement processes. The timing and volume of appeals processed and whether the outcomes are favourable may cause fluctuations on a quarterly and annual basis, in addition to spillover effects outside any particular valuation cycle. This may have a material positive or negative effect on anticipated revenue in any given period.

Fixed-price and contingency engagements
A portion of our revenues comes from fixed-price engagements. A fixed-price engagement requires us to either perform all or a specified part of work under the engagement for a specified lump sum payment. Fixed-price engagements expose us to a number of risks not inherent in cost-plus engagements, including underestimation of costs, ambiguities in specifications, unforeseen or changed costs or difficulties, problems with new technologies, delays beyond our control, failures of subcontractors to perform and economic or other changes that may occur during the term of engagement. Increasing reliance on fixed-

price engagements and/or increases in the size of such engagements would increase the exposure to this risk. Economic loss under fixed-price engagements could have a material adverse effect on our business.

We are also engaged to provide services on a contingency basis, meaning that we receive our fees only if certain results are achieved. We may experience adverse financial effects from having devoted professional and other resources to a project, which, due to a failure to meet the contingency goals, are not recouped through fees.

Appraisal and appraisal management mandates
Some clients rotate their appraisal mandates to different service providers. As a result, we may be rotated out of an appraisal engagement.

Canadian multi-residential market
A significant part of the Canadian Cost practice area's annual revenues are derived from the rental apartment and condominium sectors of the multi-residential development market. Any significant decline in the multi-unit residential development market could have a material adverse effect on our Cost practice's operating results.

Weather
The level of activity in the oilfield services industry and natural resources industry are influenced by seasonal weather patterns and natural or other disasters, such as floods and forest fires. Spring break-up often experienced during the second quarter leaves many secondary roads temporarily incapable of supporting the weight of field equipment, which results in severe restrictions in the provision of field work for Geomatics' survey services and land-use consulting. The timing and duration of spring break-up are dependent on regional weather patterns but generally occur in April and May.

The demand for survey services and forestry and land-use services may also be affected by the severity of Canadian winters, and excessively rainy periods or forest fires, thereby adversely affecting operations. The uncertainty of weather and temperature can therefore create unpredictability in activity and utilization rates.

Legislative and regulatory changes
Changes to any of the laws, rules, regulations or policies affecting our business would have an impact on our business. Certain elements of our business are influenced by the regulatory environment of our clients, such as the requirement for pension fund managers to obtain property valuations on an annual basis. In addition, elements of our business, such as our Property Tax practice area, are significantly influenced by the regulatory regime and any changes thereto. Any change to laws, rules, regulations or policies may significantly and adversely affect our operations and financial performance.

Customer concentration and loss of material clients
Although we are not dependent on one or a small number of clients, certain of our business segments have significant clients. Loss of any significant client that contributes a substantial portion to that business segments' revenues could have a negative impact on our revenues and could impact our ability to attract and retain other clients.

Interest rate risk
We are exposed to fluctuations in interest rates under our borrowings. Increases in interest rates may have an adverse effect on our earnings.

Credit risk
We may be materially and adversely affected if the collectability of our trade receivables is impaired for any reason. In certain parts of Asia, it is often common business practice to pay invoices over an extended period of time and/or at the completion of the project. This practice increases the risk and likelihood of future bad debts. In addition, the risk of non-collection of trade receivables is greater in Asia Pacific compared to North American or European countries.

Income tax matters
In the ordinary course of business, we may be subject to audits by tax authorities. While management anticipates that our tax filing positions will be appropriate and supportable, it is possible that tax matters, including the calculation and determination of revenue, expenditures, deductions, credits and other tax attributes, taxable income and taxes payable, may be reviewed and challenged by the authorities. If such challenge were to succeed, it could have a material adverse effect on our tax position. Further, the interpretation of and changes in tax laws, whether by legislative or judicial action or decision, and the administrative policies and assessing practices of tax authorities, could materially adversely affect our tax position.

Revenue and cash flow volatility
Our revenue, cash flow, operating results and profitability may experience fluctuations from quarter to quarter, based on project terms and conditions for billing and rendering of services.

Health and safety hazards
Our employees are sometimes required to attend client worksites, including construction worksites in the case of both Cost and Geomatics and remote, wilderness areas in the case of Geomatics. The activities at these worksites may involve certain operating hazards that can result in personal injury and loss of life. We have implemented health and safety policies and procedures as well as provide required employee health and safety training programs. Despite these programs, there can be no assurance that our insurance will be sufficient or effective under all circumstances or against all claims or hazards to which we may be subject or that we will be able to continue to obtain adequate insurance protection. A successful claim for damage resulting from a hazard for which it is not fully insured could adversely affect our results of operations.

Performance of contractual obligations and client satisfaction
Our success depends largely on our ability to fulfill our contractual obligations and ensure client satisfaction. If we fail to properly define the scope of our work, communicate the boundaries or use of the advice and reports we provide, define the limits of our liability, satisfactorily perform our obligations, or make professional errors in the advice or services that we provide, clients could terminate projects, refuse payment for our services or take legal action for the loss or harm they suffer, thereby exposing us to legal liability, loss of professional reputation, enhanced risk of loss and/or reduced profits.

Risk of legal proceedings
We are threatened from time to time with, or are named as a defendant in, or may become subject to various legal proceedings in the ordinary course of conducting our business, including lawsuits based upon

professional errors and omissions. A significant judgment against us, or the imposition of a significant fine or penalty as a result of a finding that we have failed to comply with laws, regulations, contractual obligations or other arrangements or professional standards, could have a significant adverse impact on our financial performance. Should any indemnities made in our favor in respect of certain assignments fail to be respected or enforced, we may suffer material adverse financial effects.

Insurance limits

Management believes that our professional errors and omissions insurance coverage and directors' and officers' liability insurance coverage address all material insurable risks, provide coverage that is similar to that which would be maintained by a prudent operator of a similar business and are subject to deductibles, limits and exclusions, which are customary or reasonable given the cost of procuring insurance and current operating conditions. However, there can be no assurance that such insurance will continue to be offered on an economically affordable basis, that all events that could give rise to a loss or liability are insurable or that the amounts of insurance will at all times be sufficient to cover each and every loss or claim that may occur involving our assets or operations.

Ability to meet solvency requirements to pay dividends

Our ability to pay dividends is dependent on our operations and assets, and is subject to various factors including our financial performance, our obligations under applicable bank credit facilities, fluctuations in our working capital, the sustainability of our margins and our capital expenditure requirements.

Leverage and financial covenants

Our ability to pay dividends or make other payments or advances is subject to applicable laws and contractual restrictions contained in the instruments governing any indebtedness owed by us or our subsidiaries (including the bank credit facilities). The degree to which we are leveraged could have important consequences to our shareholders. For example, our ability to obtain additional financing for working capital, capital expenditures or acquisitions in the future may be limited; a significant portion of our cash flow from operations may be dedicated to the payment of principal and interest on our indebtedness, thereby reducing funds available for future operations; certain of our borrowings will be subject to variable rates of interests, which exposes us to the risk of increased interest rates; and we may be more vulnerable to economic downturns and be limited in our ability to withstand competitor pressures.

The bank credit facilities contain numerous financial covenants that limit the discretion of our management with respect to certain business matters. These covenants place significant restrictions on, among other things, our ability to create liens or other encumbrances, to pay dividends or make certain other payments, investments, loans and guarantees and to sell or otherwise dispose of assets and merge or consolidate with another entity. In addition, the bank credit facilities contain a number of financial covenants that require us to meet certain financial ratios and financial condition tests. Failure to comply with the obligations provided in the bank credit facilities could result in a default which, if not cured or waived, could result in the termination of dividends paid by us and accelerate the repayment of the relevant indebtedness. If repayments of indebtedness under the bank credit facilities were to be accelerated, there can be no assurance that our assets would be sufficient to repay the relevant indebtedness in full. There can be no assurance that future borrowings or equity financing will be available to us or available on acceptable terms, in an amount sufficient to fund our needs. If we are unable to obtain financing on the expiration of the bank credit facilities or are unable to obtain financing on favourable terms, our ability to pay dividends may be adversely affected.

Unpredictability and volatility of common share price
Our common shares do not necessarily trade at prices determined by reference to the underlying value of our business and cannot be predicted. The market price of the common shares may be subject to significant fluctuations in response to variations in quarterly operating results and other factors. In addition, securities markets have experienced significant price and volume fluctuations from time to time in recent years that are often unrelated or disproportionately related to the operating performance of particular issuers. These broad fluctuations may adversely affect the market price of our common shares.

Capital investment
The timing and amount of capital expenditures made by us or any of our subsidiaries indirectly affects the amount of cash available for investments, debt payments or dividend payments. Dividends may be reduced, or even eliminated, at times when we deem it necessary to make significant capital or other expenditures.

Issuance of additional common shares diluting existing shareholders' interests
We are authorized to issue an unlimited number of common shares for such consideration and on such terms and conditions as may be determined by the Board of Directors without shareholder approval, except as required by the TSX. An issuance such as this may dilute the interests of current shareholders.

Financial targets
Our financial targets are predicated on certain assumptions, including revenue growth and operating margin improvement expectations, that we may fail to achieve, which could reduce our expected earnings and cause us to fail to meet the expectations of analysts and investors and cause the price of our securities to decline.

Additional Information

Additional information relating to Altus Group Limited, including our Annual Information Form, is available on SEDAR at www.sedar.com and on our corporate website at www.altusgroup.com under the Investors tab.

Our common shares trade on the Toronto Stock Exchange under the symbol "AIF".

Altus Group

LISTINGS
Toronto Stock Exchange
Stock trading symbol: AIF

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