

Consolidated Financial Statements
(In U.S. dollars)

**CONSTELLATION
SOFTWARE INC.**

For the years ended December 31, 2020 and 2019



INDEPENDENT AUDITORS' REPORT

To the Shareholders of Constellation Software Inc.

Opinion

We have audited the consolidated financial statements of Constellation Software Inc. ("the Entity"), which comprise:

- the consolidated statements of financial position as at December 31, 2020 and December 31, 2019
- the consolidated statements of income for the years then ended
- the consolidated statements of comprehensive income for the years then ended
- the consolidated statements of changes in equity for the years then ended
- the consolidated statements of cash flows for the years then ended
- and notes to the consolidated financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated financial position of the Entity as at December 31, 2020 and 2019, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards (IFRS).

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "Auditors' Responsibilities for the Audit of the Financial Statements" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.



Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for the year ended December 31, 2020. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We have determined the matter described below to be the key audit matter to be communicated in our auditors' report.

Determination of distinct professional services performance obligation in customer contracts containing multiple performance obligations and estimation of hours to complete for certain percentage-of-completion (POC) arrangements

Description of the matter

We draw attention to Notes 2(d) and 3(k) to the financial statements. The Entity has recognized revenue of \$3,969 million. A portion of revenue is associated with contracts that contain multiple products and services such as software licenses, maintenance and other recurring, professional services, and hardware. The Entity uses significant judgment to assess whether professional services sold in a customer contract are considered distinct and should be accounted for as separate performance obligations. Revenue from the license of software that involves complex implementation or customization that is not distinct, and/or includes sales of hardware that is not distinct, is recognized as a combined performance obligation using the percentage-of-completion method based primarily on labour hours. The Entity applies significant judgment to determine the estimated hours to completion which affects the timing of revenue recognized for professional services and non-distinct license and/or hardware.

Why the matter is the key audit matter

We identified the determination of distinct professional services performance obligation in customer contracts containing multiple performance obligations and the estimation of hours to complete for certain POC arrangements, being contracts where revenue recognition is based on estimated hours to completion, as a key audit matter. Significant auditor judgment was required to evaluate the Entity's significant judgements of whether professional services are distinct or non-distinct and the estimated hours to completion for arrangements that are completed over an extended period. There was significant auditor effort, involving more senior professionals, required to address this matter.

How the matter was addressed in the audit

The primary procedures we performed to address this key audit matter included the following:

We evaluated the design, and tested the operating effectiveness of certain controls over revenue recognition including controls related to the Entity's process to identify distinct professional services performance obligations in customer contracts and controls over the estimation of hours to complete for POC arrangements, inclusive of executed contract amendments and change orders.

For a selection of new customer contracts, we assessed the Entity's determination of distinct/non-distinct professional services performance obligations, if any, by examining the contract source documents, comparing to the Entity's past assessments for similar contracts, and practices observed in the Entity's industry.

For a selection of POC arrangements where revenue recognition is based on the estimated hours to completion, we interviewed operational personnel responsible for the contract. We obtained an understanding of the original estimated hours to completion and any increase or decrease to the estimated hours to completion as the contract progresses and inspected correspondence such as project planning documents and change requests, if any, between the Entity and its customers.

In addition, we assessed the Entity's historical ability to accurately estimate hours to complete by performing an analysis of a selection of completed contracts to compare actual hours incurred upon completion to the initial estimated hours to completion.



Other Information

Management is responsible for the other information. Other information comprises:

- Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions as at the date of this auditors' report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report.

We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.



We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
- Provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.
- Determine, from the matters communicated with those charged with governance, those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our auditors' report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Chartered Professional Accountants, Licensed Public Accountants

The engagement partner on the audit resulting in this auditors' report is Brendan Gerard Maher.

Toronto, Canada
February 12, 2021

CONSTELLATION SOFTWARE INC.

Consolidated Statements of Financial Position

(In millions of U.S. dollars, except per share amounts. Due to rounding, numbers presented may not foot.)

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash	\$ 758	\$ 316
Accounts receivable	483	422
Unbilled revenue	98	110
Inventories (note 5)	27	31
Other assets (note 6)	219	184
	1,585	1,062
Non-current assets:		
Property and equipment (note 7)	86	78
Right of use assets (note 8)	251	234
Deferred income taxes (note 17)	52	45
Other assets (note 6)	75	72
Intangible assets (note 9)	2,325	1,997
	2,790	2,425
Total assets	\$ 4,375	\$ 3,488
Liabilities and Shareholders' Equity		
Current liabilities:		
CSI facility (note 10)	\$ -	\$ 63
Debt without recourse to Constellation Software Inc. (note 11)	28	57
TSS membership liability (note 13)	113	86
Accounts payable and accrued liabilities	666	529
Dividends payable (note 18)	21	21
Deferred revenue	962	788
Provisions (note 14)	12	13
Acquisition holdback payables	85	76
Lease obligations (note 15)	74	62
Income taxes payable (note 16)	78	36
	2,040	1,732
Non-current liabilities:		
Debt without recourse to Constellation Software Inc. (note 11)	199	153
TSS membership liability (note 13)	198	136
Debentures (note 12)	223	222
Deferred income taxes (note 17)	285	246
Acquisition holdback payables	37	25
Lease obligations (note 15)	201	187
Other liabilities (note 6)	146	101
	1,288	1,069
Total liabilities	3,328	2,800
Shareholders' equity (note 18):		
Capital stock	99	99
Accumulated other comprehensive income (loss)	(31)	(40)
Retained earnings	980	628
	1,048	687
Subsequent events (notes 18 and 29)		
Total liabilities and shareholders' equity	\$ 4,375	\$ 3,488

See accompanying notes to the consolidated financial statements.

CONSTELLATION SOFTWARE INC.

Consolidated Statements of Income

(In millions of U.S. dollars, except per share amounts. Due to rounding, numbers presented may not foot.)

	Years ended December 31,	
	2020	2019
Revenue		
License	\$ 234	\$ 226
Professional services	751	673
Hardware and other	169	173
Maintenance and other recurring	2,815	2,417
	<u>3,969</u>	<u>3,490</u>
Expenses		
Staff	2,050	1,797
Hardware	97	101
Third party license, maintenance and professional services	330	300
Occupancy	35	35
Travel, telecommunications, supplies, software and equipment	152	201
Professional fees	60	49
Other, net	13	73
Depreciation (notes 7 and 8)	105	92
Amortization of intangible assets (note 9)	403	331
	<u>3,246</u>	<u>2,979</u>
Foreign exchange loss (gain)	2	11
TSS membership liability revaluation charge (note 13)	65	52
Finance and other expense (income) (note 19)	(4)	(4)
Bargain purchase gain (note 4)	(2)	(45)
Impairment of intangible and other non-financial assets (note 9)	12	-
Finance costs (note 19)	46	42
	<u>120</u>	<u>55</u>
Income before income taxes	603	456
Current income tax expense (recovery)	221	164
Deferred income tax expense (recovery)	(55)	(41)
Income tax expense (recovery)	<u>167</u>	<u>123</u>
Net income	<u>436</u>	<u>333</u>
Earnings per share		
Basic and diluted (note 20)	\$ 20.59	\$ 15.73

See accompanying notes to the consolidated financial statements.

CONSTELLATION SOFTWARE INC.

Consolidated Statements of Comprehensive Income

(In millions of U.S. dollars, except per share amounts. Due to rounding, numbers presented may not foot.)

	Years ended December 31,	
	2020	2019
Net income	\$ 436	\$ 333
Items that are or may be reclassified subsequently to net income:		
Foreign currency translation differences from foreign operations and other	9	(4)
Other comprehensive income (loss) for the period, net of income tax	9	(4)
Total comprehensive income (loss) for the period	\$ 445	\$ 330

See accompanying notes to the consolidated financial statements.

CONSTELLATION SOFTWARE INC.

Consolidated Statement of Changes in Equity

(In millions of U.S. dollars, except per share amounts. Due to rounding, numbers presented may not foot.)

Year ended December 31, 2020	Capital stock	Accumulated other comprehensive income (loss)	Retained earnings	Total
		Cumulative translation account and other		
Balance at January 1, 2020	\$ 99	\$ (40)	\$ 628	687
<i>Total comprehensive income for the period:</i>				
Net income	-	-	436	436
<i>Other comprehensive income (loss)</i>				
Foreign currency translation differences from foreign operations and other	-	9	-	9
Total other comprehensive income (loss) for the period	-	9	-	9
Total comprehensive income (loss) for the period	-	9	436	445
Transactions with owners, recorded directly in equity Dividends to shareholders of the Company (note 18)	-	-	(85)	(85)
Balance at December 31, 2020	\$ 99	\$ (31)	\$ 980	1,048

See accompanying notes to the consolidated financial statements.

CONSTELLATION SOFTWARE INC.

Consolidated Statement of Changes in Equity

(In millions of U.S. dollars, except per share amounts. Due to rounding, numbers presented may not foot.)

Year ended December 31, 2019

	Capital stock	Accumulated other comprehensive income (loss) Cumulative translation account and other	Retained earnings	Total
Balance at January 1, 2019	\$ 99	(37)	\$ 804	866
<i>Total comprehensive income for the period:</i>				
Net income	-	-	333	333
<i>Other comprehensive income (loss)</i>				
Foreign currency translation differences from foreign operations and other	-	(4)	-	(4)
Total other comprehensive income (loss) for the period	-	(4)	-	(4)
Total comprehensive income (loss) for the period	-	(4)	333	330
Transactions with owners, recorded directly in equity				
Dividends to shareholders of the Company (note 18)	-	-	(509)	(509)
Balance at December 31, 2019	\$ 99	(40)	\$ 628	687

See accompanying notes to the consolidated financial statements.

CONSTELLATION SOFTWARE INC.

Consolidated Statements of Cash Flows

(In millions of U.S. dollars, except per share amounts. Due to rounding, numbers presented may not foot.)

	Years ended December 31,	
	2020	2019
Cash flows from operating activities:		
Net income	\$ 436	\$ 333
Adjustments for:		
Depreciation	105	92
Amortization of intangible assets	403	331
TSS membership liability revaluation charge	65	52
Finance and other expense (income)	(4)	(4)
Bargain purchase (gain)	(2)	(45)
Impairment of intangible and other non-financial assets	12	-
Finance costs	46	42
Income tax expense (recovery)	167	123
Foreign exchange loss (gain)	2	11
Change in non-cash operating assets and liabilities exclusive of effects of business combinations (note 27)	117	(28)
Income taxes paid	(162)	(140)
Net cash flows from (used in) operating activities	1,186	767
Cash flows from (used in) financing activities:		
Interest paid on lease obligations	(8)	(7)
Interest paid on other facilities	(32)	(31)
Increase (decrease) in CSI facility	(65)	65
Increase (decrease) in revolving credit under debt facilities without recourse to CSI	(31)	5
Proceeds from issuance of term debt under facilities without recourse to CSI	48	49
Repayments of term debt under facilities without recourse to CSI	(6)	(2)
Credit facility transaction costs	(2)	(3)
Payments of lease obligations	(66)	(51)
Distribution to TSS minority owners (note 13)	-	(11)
Dividends paid	(85)	(509)
Net cash flows from (used in) financing activities	(247)	(496)
Cash flows from (used in) investing activities:		
Acquisition of businesses (note 4)	(477)	(549)
Cash obtained with acquired businesses (note 4)	97	118
Post-acquisition settlement payments, net of receipts	(105)	(74)
Purchases of other investments	(4)	(11)
Interest, dividends and other proceeds received	2	6
Property and equipment purchased	(25)	(34)
Net cash flows from (used in) investing activities	(512)	(544)
Effect of foreign currency on cash and cash equivalents	15	1
Increase (decrease) in cash	442	(273)
Cash, beginning of period	316	589
Cash, end of period	\$ 758	\$ 316

See accompanying notes to the consolidated financial statements.

CONSTELLATION SOFTWARE INC.

Notes to Consolidated Financial Statements

(In millions of U.S. dollars, except per share amounts and as otherwise indicated.)

(Due to rounding, numbers presented may not foot.)

Years ended December 31, 2020 and 2019

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Notes to Consolidated Financial Statements

(In millions of U.S. dollars, except per share amounts and as otherwise indicated.)

(Due to rounding, numbers presented may not foot.)

Years ended December 31, 2020 and 2019

1. Reporting entity

Constellation Software Inc. ("Constellation") is a company domiciled in Canada. The address of Constellation's registered office is 20 Adelaide Street East, Suite 1200, Toronto, Ontario, Canada. The consolidated financial statements of Constellation as at and for the fiscal years ended December 31, 2020 and December 31, 2019 comprise Constellation and its subsidiaries (together referred to as the "Company") and the Company's interest in associates. The Company is engaged principally in the development, installation and customization of software as well as in the provisioning of related professional services and support for customers globally across over 100 diverse markets.

2. Basis of presentation

(a) Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"), issued and outstanding as of February 12, 2021, the date the Board of Directors approved such financial statements.

(b) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis except for certain assets and liabilities initially recognized in connection with business combinations, and certain financial instruments and derivative financial instruments, which are measured at fair value.

(c) Functional and presentation currency

The consolidated financial statements are presented in U.S. dollars, which is Constellation's functional currency.

(d) Use of estimates and judgements

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Estimates are based on historical experience and other assumptions that are considered reasonable in the circumstances. The actual amount or values may vary in certain instances from the assumptions and estimates made. Changes will be recorded, with corresponding effect in profit or loss, when, and if, better information is obtained.

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are included in the following notes:

Note 3(k) - Revenue recognition

Note 3(a)(i) - Business combinations

Note 3(m) - Income taxes

Note 3(i) - Impairment

Note 3(d) - Intangible assets

Note 13 - TSS membership liability

CONSTELLATION SOFTWARE INC.

Notes to Consolidated Financial Statements

(In millions of U.S. dollars, except per share amounts and as otherwise indicated.)

(Due to rounding, numbers presented may not foot.)

Years ended December 31, 2020 and 2019

Note 25 - Contingencies

Critical judgements that the Company has made in the process of applying accounting policies disclosed herein and that have a significant effect on the amounts recognized in the consolidated financial statements relate to the (i) determination of functional currencies for Constellation's subsidiaries and, most notably, in respect of businesses acquired during the period; (ii) assessment as to whether professional services in multiple-performance obligation arrangements are distinct of other performance obligations and determination of the estimated hours to complete customer contracts accounted for using the percentage of completion method; (iii) recognition of deferred tax assets; and (iv) recognition of provisions and contingent consideration liabilities.

- Functional currency – the Company applies judgement in situations where primary and secondary indicators are mixed. Primary indicators such as the currency that mainly influence sales prices are given priority before considering secondary indicators.
- The Company uses significant judgment to assess whether professional services sold in a customer contract are considered distinct and should be accounted for as separate performance obligations. Non-distinct professional services are combined with other goods or services until they are distinct and form a single performance obligation. The Company also applies significant judgment to determine the estimated hours to completion which affects the timing of revenue recognized for professional services and non-distinct license and hardware. Estimated hours to completion are continually and routinely revised based on changes in the progress of customer contracts.
- Deferred tax assets - the recognition of deferred tax assets is based on forecasts of future taxable profit. The measurement of future taxable profit for the purposes of determining whether or not to recognize deferred tax assets depends on many factors, including the Company's ability to generate such profits and the implementation of effective tax planning strategies. The occurrence or non-occurrence of such events in the future may lead to significant changes in the measurement of deferred tax assets.
- Provisions and contingent consideration liabilities - in recognizing provisions, the Company evaluates the extent to which it is probable that it has incurred a legal or constructive obligation in respect of past events and the probability that there will be an outflow of benefits as a result. The judgements used to recognize provisions are based on currently known factors which may vary over time, resulting in changes in the measurement of recorded amounts as compared to initial estimates. Contingent consideration liabilities are initially recorded on the date of a business combination and is payable on the achievement of certain financial targets in the post-acquisition periods. The obligation for contingent consideration is recorded at its estimated fair value at the various acquisition dates and is recorded at fair value at the end of each reporting period. The estimated fair value of the applicable contingent consideration is calculated using the estimated financial outcome and resulting expected contingent consideration to be paid and inclusion of a discount rate as appropriate

The Company is closely monitoring the impact of COVID-19 on all aspects of its business. COVID-19 was declared a global pandemic by the World Health Organization on March 11, 2020. The COVID-19 pandemic has had disruptive effects in countries in which the Company operates and has adversely impacted many of its business units' operations to date, including through the cancellation by certain customers of their ongoing software maintenance contracts and the suspension or cancellation of new software purchases. The pandemic may also have an adverse impact on many of the Company's customers, including their ability to satisfy ongoing payment obligations to the Company, which could increase the Company's bad debt exposure. The future impacts of the pandemic and any resulting economic impact are largely unknown and rapidly evolving. It is possible that the COVID-19 pandemic, the measures taken by the governments of countries affected and the resulting economic impact may continue to adversely affect the Company's results of operations, cash flows and financial position as well as its customers in future periods, and this impact could be material. During the year ended December 31,

CONSTELLATION SOFTWARE INC.

Notes to Consolidated Financial Statements

(In millions of U.S. dollars, except per share amounts and as otherwise indicated.)

(Due to rounding, numbers presented may not foot.)

Years ended December 31, 2020 and 2019

2020, the Company recorded income of \$41 relating to government grants from various government authorities relating to the pandemic. The Company has recorded the income for the year ended December 31, 2020 of \$41 within "Other, net" expenses in the consolidated statements of income.

3. Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements unless otherwise indicated.

The significant accounting policies have been applied consistently by the Company's subsidiaries.

(a) Basis of consolidation

(i) Business combinations

Acquisitions have been accounted for using the acquisition method required by IFRS 3 Business Combinations. Goodwill arising on acquisitions is measured as the fair value of the consideration transferred including the recognized amount of any non-controlling interest in the acquiree, if any, less the net recognized amount of the estimated fair value of identifiable assets acquired and liabilities assumed (subject to certain exemptions to fair value measurement principles such as deferred tax assets or liabilities), all measured as of the acquisition date. When the consideration transferred is less than the estimated fair value of assets acquired and liabilities assumed, a bargain purchase gain is recognized immediately in the consolidated statements of income. Transaction costs that the Company incurs in connection with a business combination are expensed as incurred.

The Company uses its best estimates and assumptions to reasonably value assets and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, and these estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed with a corresponding offset to goodwill. Upon conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to profit or loss. For a given acquisition, the Company may identify certain pre-acquisition contingencies as of the acquisition date and may extend its review and evaluation of these pre-acquisition contingencies throughout the measurement period in order to obtain sufficient information to assess these contingencies as part of acquisition accounting, as applicable.

(ii) Consolidation methods

Entities over which the Company has control are consolidated from the date that control commences until the date that control ceases. Entities over which the Company has significant influence (investments in "associates") are accounted for under the equity method. Significant influence is assumed when the Company's interests are 20% or more, unless qualitative factors overcome this assumption.

Associates are those entities in which the Company has significant influence, but not control, over the financial and operating policies. Investments in associates are recognized initially at cost, inclusive of transaction costs. The Company's investment includes goodwill identified on acquisition, net of any accumulated impairment losses. The consolidated financial statements include the Company's share of the income and expenses and equity changes of equity accounted investees, from the date that significant influence commences until the date that significant influence ceases.

CONSTELLATION SOFTWARE INC.

Notes to Consolidated Financial Statements

(In millions of U.S. dollars, except per share amounts and as otherwise indicated.)

(Due to rounding, numbers presented may not foot.)

Years ended December 31, 2020 and 2019

(iii) Transactions eliminated on consolidation

Intra-company balances and transactions, and any unrealized income and expenses arising from intra-company transactions, are eliminated in preparing the consolidated financial statements.

(b) Foreign currency translation

(i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of subsidiaries of the Company at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are re-measured to the functional currency at the exchange rate at that date. Foreign currency differences arising on re-measurement are recognized through profit or loss, except for differences arising on the retranslation of available-for-sale equity instruments, which are recognized in other comprehensive income. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Foreign currency gains and losses are reported in profit and loss on a net basis. The effect of currency translation adjustments on cash and cash equivalents is presented separately in the statements of cash flows and separated from investing and financing activities when deemed significant.

(ii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to U.S. dollars at exchange rates at the reporting date. The income and expenses of foreign operations are translated to U.S. dollars using average exchange rates for the month during which the transactions occurred. Foreign currency differences are recognized in other comprehensive income in the cumulative translation account; however, if the operation is a non-wholly owned subsidiary, then the relevant proportionate share of the translation difference is allocated to the non-controlling interest when applicable.

Foreign exchange gains or losses arising from a monetary item receivable from or payable to a foreign operation, the settlement of which is neither planned nor likely to occur in the foreseeable future and which its substance is considered to form part of the net investment in the foreign operation, are recognized in other comprehensive income in the cumulative amount of foreign currency translation differences. If, and when, settlement plans change or deemed likely to occur, then the accounting process in (b)(i) above is applied. When a foreign operation payable or receivable classified as a net investment is partially or fully disposed, the proportionate share of the cumulative amount in the translation reserve related to that foreign operation is transferred to profit or loss as part of the profit or loss on disposal. The Company has elected not to treat repayments of monetary items receivable or payable to a foreign operation as a disposition.

(c) Financial Instruments

The Company's financial instruments comprise cash, accounts receivable, CSI facility, Debt without recourse to CSI, debentures, Total Specific Solutions B.V. ("TSS") membership liability, accounts payable and accrued liabilities, dividends payable, income taxes payable and holdback assets or liabilities on acquisitions.

CONSTELLATION SOFTWARE INC.

Notes to Consolidated Financial Statements

(In millions of U.S. dollars, except per share amounts and as otherwise indicated.)

(Due to rounding, numbers presented may not foot.)

Years ended December 31, 2020 and 2019

Financial assets are recognized in the consolidated statement of financial position if we have a contractual right to receive cash or other financial assets from another entity. Financial assets, including accounts receivable, are derecognized when the rights to receive cash flows from the investments have expired or were transferred to another party and the Company has transferred substantially all risks and rewards of ownership.

Financial liabilities include the CSI facility, Debt without recourse to CSI, TSS membership liability, debentures, accounts payable and accrued liabilities, dividends payable, income taxes payable and holdbacks on acquisitions. Financial liabilities are generally recognized initially at fair value, typically being transaction price, plus any directly attributable transaction costs and subsequently measured at amortized cost using the effective interest method. The Company derecognizes a financial liability when its contractual obligations are discharged, cancelled, or expired.

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Company has a legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

Common shares are classified as equity. Incremental costs directly attributable to the issue of common shares are recognized as a deduction from equity, net of tax.

The Company's derivatives are carried at fair value and are reported as assets when they have a positive fair value and as liabilities when they have a negative fair value.

Changes in the fair values of derivative financial instruments are reported in the consolidated statements of income, except for cash flow hedges that meet the conditions for hedge accounting. The portion of the gain or loss on the hedging instruments that are determined to be an effective hedge are recognized directly in other comprehensive income, and the ineffective portion in the consolidated statements of income. The gains or losses deferred in other comprehensive income in this way are subsequently recognized in the consolidated statements of income in the same period in which the hedged underlying transaction or firm commitment is recognized in the statement of income. In order to qualify for hedge accounting, the Company is required to document in advance the relationship between the item being hedged and the hedging instrument. The Company is also required to document and demonstrate an assessment of the relationship between the hedged item and the hedging instrument, which shows that the hedge will be highly effective on an ongoing basis. This effectiveness testing is re-performed at the end of each reporting period to ensure that the hedge remains highly effective.

(d) Intangible assets

(i) Goodwill

Goodwill that arises upon the acquisition of subsidiaries is included in intangible assets. After initial recognition, goodwill is measured at cost less any accumulated impairment losses, with the carrying value being reviewed for impairment at least annually and whenever events or changes in circumstances indicate that the carrying value may be impaired. In respect of equity accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment.

The impairment test methodology is based on a comparison between the higher of fair value less costs to sell and value-in-use of each of the Company's cash generating units ("CGU") and the net asset carrying values (including goodwill). Within the Company's reporting structure, business units generally reflect the CGU and are one level below the six operating segments (Volaris, Harris, Total Specific Solutions, Jonas, Perseus, and Vela Operating Groups). In determining the recoverable amount, the Company applies an estimated market valuation multiple to

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the business unit's most recent annual recurring revenues, which are generally derived from post-contract customer support revenues, transactional revenues, and hosted products revenues. Valuation multiples applied by the Company for this purpose reflect current market conditions specific to the business unit and are assessed for reasonability by comparison to the Company's current and past acquisition experience involving ranges of revenue-based multiples required to acquire representative software companies and the Company's overall revenue based-trading multiple. In addition, in certain instances, the recoverable amount is determined using a value-in-use approach which follows the same valuation process that is undertaken for the Company's business acquisitions. An impairment is recognized if the carrying amount of a CGU exceeds its estimated recoverable amount. The recoverable amount of goodwill is estimated annually on December 31 of each year or whenever events or changes in circumstances indicate that the carrying value may be impaired.

(ii) Acquired intangible assets

The Company uses the income approach to value acquired technology and customer relationship intangible assets. The income approach is a valuation technique that calculates the estimated fair value of an intangible asset based on the estimated future cash flows that the asset can be expected to generate over its remaining useful life.

The Company utilizes the discounted cash flow ("DCF") methodology which is a form of the income approach that begins with a forecast of the annual cash flows that a market participant would expect the subject intangible asset to generate over a discrete projection period. The forecasted cash flows for each of the years in the discrete projection period are then converted to their present value equivalent using a rate of return appropriate for the risk of achieving the intangible assets' projected cash flows, again, from a market participant perspective. The present value of the forecasted cash flows are then added to the present value of the residual value of the intangible asset (if any) at the end of the discrete projection period to arrive at a conclusion with respect to the estimated fair value of the subject intangible assets.

Specifically, the Company relies on the relief-from-royalty method to value the acquired technology and the multiple-period excess earnings ("MEEM") method to value customer relationship assets.

The underlying premise of the relief-from-royalty method is that the fair value of the technology is equal to the cost savings (or the "royalty avoided") resulting from the ownership of the asset by the avoidance of paying royalties to license the use of the technology from another owner. Accordingly the income forecast reflects an estimate of a fair royalty that a licensee would pay, on a percentage of revenue basis, to obtain a license to utilize the technology.

The MEEM method isolates the cash flows attributable to the subject asset by utilizing a forecast of expected cash flows less the returns attributable to other enabling assets, both tangible and intangible.

Other intangible assets that are acquired by the Company and have finite useful lives are measured at cost, being reflective of fair value, less accumulated amortization and impairment losses. Subsequent expenditures are capitalized only when it increases the future economic benefits that form part of the specific asset to which it relates and other criteria have been met. Otherwise all other expenditures are recognized in profit or loss as incurred.

Amortization is recognized in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are acquired and available for use, since this most closely reflects the expected usage and pattern of consumption of the future economic benefits embodied in the asset. To determine the useful life of the technology assets, the Company considers the length of time over which it expects to earn or recover the majority of the present value of the forecasted cash flows of the related intangible assets. The estimated useful lives for the current and comparative periods are as follows:

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Technology assets	2 to 12 years
Customer assets	5 to 20 years
Trademarks	20 years
Backlog	Up to 1 year
Non-compete agreements	Term of agreement

Amortization methods, useful lives and the residual values are reviewed at least annually (or when there has been an indication of impairment) and are adjusted as appropriate.

(iii) Research and development

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognized in profit or loss as an expense as incurred.

Expenditure on development activities, whereby research findings are applied to a plan or design for the production of new or substantially improved products and processes, is capitalized only if the product or process is technically and commercially feasible, if development costs can be measured reliably, if future economic benefits are probable, if the Company intends to use or sell the asset and the Company intends and has sufficient resources to complete development. To date, no material development expenditures have been capitalized.

For the year ended December 31, 2020, \$575 (2019 – \$505) of research and development costs have been expensed in profit or loss. These costs are net of estimated investment tax credits, recognized as part of other, net expenses through profit or loss of \$28 for the year ended December 31, 2020 (2019 – \$24).

(e) Property and equipment

(i) Recognition and measurement

Property and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. Cost includes initial and subsequent expenditures that are directly attributable to the acquisition of the related asset. When component parts of an item of property and equipment have different useful lives, they are accounted for as separate items (major components) of property and equipment, where applicable.

(ii) Depreciation

Depreciation is recognized in profit or loss on a straight-line basis over the estimated useful lives of each part of an item of property and equipment.

The estimated useful lives for the current and comparative periods are as follows:

Asset	Rate
Computer hardware	3-5 years
Computer software	1 year
Furniture and equipment	5 years
Leasehold improvements	Shorter of the estimated useful life and the term of the lease
Building	50 years

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Depreciation methods, useful lives and residual values are reviewed at each financial year end or more frequently as deemed relevant, and adjusted where appropriate.

(f) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on the first-in first-out principle, and includes expenditures incurred in acquiring the inventories, production and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

(g) Unbilled revenue

Unbilled revenue represents the gross unbilled amount expected to be collected from customers for contract work performed to date. It is measured at cost plus profit recognized to date less progress billings and recognized losses, if any.

Unbilled revenue is presented in the statement of financial position for all contracts in which costs incurred plus recognized profits exceed progress billings. If progress billings exceed costs incurred plus recognized profits, then the excess is presented as deferred revenue in the statement of financial position.

(h) Other non-current liabilities

Other non-current liabilities consists principally of certain acquired contract liabilities, deferred revenue, provisions and contingent consideration recognized in connection with business acquisitions to be settled in cash, which are discounted for measurement purposes.

(i) Impairment

(i) Financial assets (including receivables)

A financial asset not carried at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably.

Objective evidence that financial assets are impaired can include default or delinquency by a debtor, restructuring of an amount due to the Company on terms that the Company would not consider otherwise, or indications that a debtor or issuer will enter bankruptcy.

The Company considers evidence of impairment for receivables at both a specific and collective level. All individually significant receivables are assessed for specific impairment. All individually significant receivables found not to be specifically impaired, together with receivables that are not individually significant are collectively assessed for impairment by grouping together receivables with similar risk characteristics.

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's

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original effective interest rate. Losses are recognized in profit or loss and reflected in an allowance account against receivables. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through profit or loss.

(ii) Non-financial assets

The carrying amounts of the Company's non-financial assets, other than inventories (which is addressed in note 3(f)) and deferred tax assets (which is addressed in note 3(m)), are reviewed at each reporting date (or more frequently if required) to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For goodwill, the recoverable amount is estimated annually on December 31 of each fiscal year or whenever required.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. In assessing the value in use, the Company uses discounted cash flows which are determined using a pre-tax discount rate specific to the asset or CGU. The discount rate used reflects current market conditions including risks specific to the assets. Significant estimates within the cash flows include recurring revenue growth rates and operating expenses. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets, which for the Company's purposes is typically representative of the business unit level within the corporate and management structure. For the purposes of goodwill impairment testing, goodwill acquired in a business combination is allocated to the CGU, or the group of CGUs, that is expected to benefit from the synergies of the combination.

An impairment loss is recognized if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss. Impairment losses recognized in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGU, and then to reduce the carrying amounts of the other assets (such as intangible assets and property and equipment) in the CGU (group of units) on a pro rata basis.

Goodwill that forms part of the carrying amount of an investment in an associate is not recognized separately and, therefore, is not tested for impairment separately. Instead, the entire amount of the investment in an associate is tested for impairment as a single asset when there is objective evidence that the investment in an associate may be impaired.

An impairment loss in respect of goodwill is not reversed. In respect of other non-financial assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been previously recognized.

(j) Provisions

A provision is recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are measured at the estimated future cash flows required to settle the present obligation, based on the most reliable evidence available at the reporting date. The estimated cash flows are discounted at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The amortization of the discount is recognized as part of finance costs.

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(k) Revenue recognition

Revenue represents the amount the Company expects to receive for products and services in its contracts with customers, net of discounts and sales taxes. The Company reports revenue under four revenue categories being, License, Hardware and other, Professional services, and Maintenance and other recurring revenue. Software license revenue is comprised of non-recurring license fees charged for the use of software products licensed under multiple-year or perpetual arrangements. Professional service revenue consists of fees charged for implementation services, custom programming, product training and consulting. Hardware and other revenue includes the resale of third party hardware as part of customized solutions, as well as sales of hardware assembled internally and the reimbursement of travel costs. Maintenance and other recurring revenue primarily consists of fees charged for customer support on software products post-delivery and also includes recurring fees derived from combined software/support contracts, transaction revenues, managed services, and hosted products.

Contracts with multiple products or services

Typically, the Company enters into contracts that contain multiple products and services such as software licenses, hosted software-as-a-service, maintenance, professional services, and hardware. The Company evaluates these arrangements to determine the appropriate unit of accounting (performance obligation) for revenue recognition purposes based on whether the product or service is distinct from some or all of the other products or services in the arrangement. A product or service is distinct if the customer can benefit from it on its own or together with other readily available resources and Constellation's promise to transfer the good or service is separately identifiable from other promises in the contractual arrangement with the customer. Non-distinct products and services are combined with other goods or services until they are distinct as a bundle and therefore form a single performance obligation.

Where a contract consists of more than one performance obligation, revenue is allocated to each based on their estimated standalone selling price.

Nature of products and services

The Company sells on-premise software licenses on both a perpetual and specified-term basis. Revenue from the license of distinct software is recognized at the time that both the right-to-use the software has commenced and the software has been made available to the customer. Certain of the Company's contracts with customers contain provisions that require the customer to renew optional support and maintenance in order to maintain the active right to use a perpetual or term license. The renewal payments after the initial bundled support and maintenance term in these cases apply to both the continued right-to-use the license and the support and maintenance renewal. Where the fees payable for the initial term are incremental to the fees for the renewal terms, the excess is treated as a prepayment for expected renewals and allocated (amortized) evenly over the expected customer renewals, up to the estimated life of the software that is typically 4-6 years.

Revenue from the license of software that involves complex implementation or customization that is not distinct, and/or includes sales of hardware that is not distinct, is recognized as a combined performance obligation using the percentage-of-completion method based primarily on labour hours. The percentage-of-completion method based on labour hours requires the Company to make significant judgments to determine the estimated hours to completion which affects the timing of revenue recognized.

A portion of the Company's sales, categorized as hardware and other revenue, are accounted for as product revenue. Product revenue is recognized when control of the product has transferred under the terms of an enforceable contract.

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Revenue related to the customer reimbursement of travel related expenses incurred during a project implementation where the Company is the principal in the arrangement is included in the hardware and other revenue category. Revenue is recognized as costs are incurred which is consistent with the period in which the costs are invoiced. Reimbursable travel expenses incurred for which an invoice has not been issued, are recorded as part of unbilled revenue on the statement of financial position.

Maintenance and other recurring revenue primarily consists of fees charged for customer support on software products post-delivery and also includes, to a lesser extent, recurring fees derived from software licenses that are not distinct from maintenance, transaction revenues, managed services, and hosted products.

Revenue from software-as-a-service (SaaS) arrangements, which allows customers to use hosted software over a term without taking possession of the software, are provided on a subscription basis. Revenue from the SaaS subscription, which includes the hosted software and maintenance is recognized rateably over the term of the subscription. Significant incremental payments for SaaS in an initial term are recognized rateably over the expected renewal periods, up to the estimated life of the software.

Professional services revenue including installation, implementation, training and customization of software is recognized by the stage of completion of the performance obligation determined using the percentage of completion method noted above or as such services are performed as appropriate in the circumstances. The revenue and profit of fixed price contracts is recognized on a percentage of completion basis when the outcome of a contract can be estimated reliably. When the outcome of the contract cannot be estimated reliably but the Company expects to recover its costs, the amount of expected costs is treated as variable consideration and the transaction price is updated as more information becomes known.

The timing of revenue recognition often differs from contract payment schedules, resulting in revenue that has been earned but not billed. These amounts are included in unbilled revenue. Amounts billed in accordance with customer contracts, but not yet earned, are recorded and presented as part of deferred revenue.

Costs to Obtain a Contract

The Company allocates incremental costs to obtain a contract (which principally consists of commissions) to the various performance obligations to which they relate using the expected-based allocation (relative expected margins) for bundled costs. For those performance obligations that are expected to be renewed at the end of the initial period without a further commission (such as post-contract customer support), the Company has considered expected renewals over the life of the intellectual property when determining the expected margins from the arrangement. For performance obligations not delivered upfront, the allocated commissions are deferred and amortized over the pattern of transfer of the related performance obligation. For commissions allocated to term-based license arrangements and post-contract customer support, the amortization period is expected to be approximately 4-6 years. Capitalized costs to obtain a contract are included in other non-current assets on the consolidated balance sheet.

(I) Finance income and finance costs

Finance income comprises interest income, gains on the disposal of available-for-sale financial assets, and changes in the fair value of financial assets at fair value through profit or loss. Interest income is recognized as it accrues through profit or loss, using the effective interest method.

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Finance costs comprise interest expense on borrowings, amortization of the discount on provisions, and impairment losses recognized on financial assets other than trade receivables. Transaction costs attributable to the Company's bank indebtedness are recognized in finance costs using the effective interest method.

(m) Income taxes

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

Current tax is the expected taxes payable or receivable on the taxable income or loss for the period, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to taxes payable in respect of previous years.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized for temporary differences relating to investments in subsidiaries to the extent that it is probable that they will not reverse in the foreseeable future. In addition, deferred tax is not recognized for taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax is measured at tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but we intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized for unused tax losses, tax credits, difference in tax bases in the purchaser's tax jurisdiction and its cost as reported in the consolidated financial statements as a result of an intra-group transfer of assets and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

(n) Investment tax credits

The Company is entitled to both non-refundable and refundable investment tax credits for qualifying research and development activities. Investment tax credits are included within "Other, net" for items of a period expense nature or as a reduction of property and equipment for items of a capital nature when the amount is reliably estimable and the Company has reasonable assurance regarding compliance with the relevant objective conditions and that the credit will be realized.

(o) Segment reporting

An operating segment is a component of the Company that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Company's other components. The operating results of all operating segments are reviewed regularly by the Company's President and Chairman of the Board of Directors to make decisions about resources to be allocated to the segment and assessing their performance.

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For fiscal 2019 and earlier periods, the Company aggregated CSI into two distinct segments for financial reporting purposes: (i) the public sector reportable segment, which included business units focused primarily on government and government-related customers, and (ii) the private sector reportable segment, which included business units focused primarily on commercial customers. Following the guidance set out by IFRS 8, Operating Segments ("IFRS 8"), the public sector reportable segment was derived by combining the Company's Volaris, Harris and TSS operating segments, and the private sector reportable segment was derived by combining the Company's Vela, Jonas and Perseus operating segments. While the operating segments in the public sector were comprised of businesses that primarily serve government and government-related customers, they also included businesses that serve commercial customers, and similarly the operating groups in the private sector were comprised of businesses that primarily serve commercial customers but also include businesses that serve government and government-related customers. For the fiscal years ended December 31, 2019 and 2018 approximately 35% and 30% respectively of the revenue in the public sector reportable segment was generated from commercial customers, and 15% and 16% respectively of revenue in the private sector reportable segment was generated from government and government-related customers.

Each of the Company's operating segments operate essentially as mini Constellations, conglomerates of small vertical market software companies with similar economic characteristics. Each operating segment CEO is focused on investing capital that generates returns at or above the investment hurdle rates set by CSI's head office (primarily the President) and the Board of Directors, irrespective of whether the acquired business operates primarily in the public or private sector. Accordingly presenting information on a public and private sector basis is no longer meaningful and the Company now aggregates the six operating segments into one reportable segment, consistent with the objective and basic principles of IFRS 8.

(p) Earnings per share

The Company presents basic and diluted earnings per share data for its ordinary shares, being common shares. Basic earnings per share is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the period, adjusted for treasury shares held. Diluted earnings per share is determined by dividing the profit or loss attributable to shareholders of ordinary shares by the weighted average number of shares outstanding, adjusted for the effects of all dilutive potential ordinary shares.

(q) Short-term employee benefits

Short-term employee benefit obligations, including wages, benefits, incentive compensation, and compensated absences are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognized for the amount expected to be paid and settled under the Company's employee incentive compensation plan if the Company has legal or constructive obligation to pay this amount at the time bonuses are paid as a result of past service provided by the employee, and the obligation can be estimated reliably.

(r) Leases

At inception of a contract, the Company assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Company recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received. The assets are depreciated to the earlier of the end of the useful life of the right-of-

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use asset or the lease term using the straight-line method as this most closely reflects the expected pattern of consumption of the future economic benefits. The lease term includes periods covered by an option to extend if the Company is reasonably certain to exercise that option. In addition, the right-of-use asset can be periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero. The Company has elected to apply the practical expedient not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low value assets. The lease payments associated with these leases is recognized as an expense on a straight-line basis over the lease term.

4. Business acquisitions

(a) During the year ended December 31, 2020, the Company completed a number of acquisitions for aggregate cash consideration of \$477 plus cash holdbacks of \$112 and contingent consideration with an estimated fair value of \$39 resulting in total consideration of \$628. The contingent consideration is payable on the achievement of certain financial targets in the post-acquisition periods. The obligation for contingent consideration for acquisitions during the year ended December 31, 2020 has been recorded at its estimated fair value at the various acquisition dates. The estimated fair value of the applicable contingent consideration is calculated using the estimated financial outcome and resulting expected contingent consideration to be paid and inclusion of a discount rate as appropriate. For these arrangements, which include both maximum, or capped, and unlimited contingent consideration amounts, the estimated increase to the unpaid initial consideration is not expected to exceed a maximum of \$104. Aggregate contingent consideration of \$88 (December 31, 2019 - \$59) has been reported in the consolidated statement of financial position at its estimated fair value relating to applicable acquisitions completed in the current and prior periods. Changes made to the estimated fair value of contingent consideration are included in other, net in the consolidated statements of income. An expense of \$5 was recorded for the year ended December 31, 2020, as a result of such changes (expense of \$9 for the year ended December 31, 2019).

There were no acquisitions during the year that were deemed to be individually significant. The majority of the businesses acquired during the year were acquisitions of shares and the remainder were asset acquisitions. The cash holdbacks are generally payable within a two-year period and are adjusted, as necessary, for such items as working capital or net tangible asset assessments, as defined in the agreements, and claims under the respective representations and warranties of the purchase and sale agreements.

The acquisitions during the year ended December 31, 2020 include software companies catering to the following markets: advertising and marketing, asset management, automotive, aviation, communications, compliance, construction, education, healthcare, hospitality, legal, logistics, industrial distribution, mining, moving and storage, oil and gas, private clubs and daily fee golf courses, public libraries, real estate brokers and agents, retail management and distribution, third party logistics warehouse management systems, creative agencies, textiles and apparel, fleet and facility management, marine asset management, trade unions, school administration, distillery, not-for-profit organizations, aerospace, rental, small and medium sized businesses, public safety, agriculture equipment dealers, manufacturing plant performance, homebuilders, financial services, computerized maintenance management systems, retail management and distribution, food and beverage, research management, transit,

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notaries, defence, customer loyalty, manufacturing design, local government, accounting, human capital, mining, manufacturing plant performance, agribusiness and utilities all of which are software businesses similar to existing businesses operated by the Company. The acquisitions have been accounted for using the acquisition method with the results of operations included in these consolidated financial statements from the date of each acquisition.

The goodwill recognized in connection with these acquisitions is primarily attributable to the application of Constellation's best practices to improve the operations of the companies acquired, synergies with existing businesses of Constellation, and other intangibles that do not qualify for separate recognition including assembled workforce. Goodwill in the amount of \$3 is expected to be deductible for income tax purposes.

The gross contractual amounts of acquired receivables was \$83; however, the Company has recorded an allowance of \$4 as part of the acquisition accounting to reflect contractual cash flows that are not expected to be collected.

Due to the complexity and timing of certain acquisitions made, the Company is in the process of determining and finalizing the estimated fair value of the net assets acquired as part of the acquisitions closed during 2020. The amounts determined on a provisional basis generally relate to net asset assessments and measurement of the assumed liabilities, including acquired contract liabilities. The cash consideration associated with these provisional estimates totals \$477.

The aggregate impact of acquisition accounting applied in connection with business acquisitions in the year ended December 31, 2020 is as follows:

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Assets acquired:		
Cash	\$	97
Accounts receivable		79
Other current assets		29
Property and equipment		16
Other non-current assets		47
Deferred income taxes		8
Technology assets		346
Customer assets		290
		<hr/>
		912
Liabilities assumed:		
Current liabilities		88
Deferred revenue		109
Deferred income taxes		95
Other non-current liabilities		44
		<hr/>
		335
Goodwill		52
Bargain purchase gain		(1)
		<hr/>
Total consideration	\$	628

(b) The 2020 business acquisitions did not have a material impact to either the consolidated revenue or the consolidated net income for the year ended December 31, 2020. The materiality threshold is reviewed on a regular basis taking into account the quantitative (contribution to revenue and net income) and qualitative (size and comparability with other Constellation businesses) factors of current period acquisitions on both an individual and aggregate basis.

5. Inventories

	December 31,		December 31,	
	2020		2019	
Raw materials	\$	11	\$	13
Work in progress		3		3
Finished goods		13		14
		<hr/>		<hr/>
Total	\$	27	\$	31

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(Due to rounding, numbers presented may not foot.)

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No inventories were carried at fair value less cost to sell, and the carrying amount of inventories subject to retention of title clauses was \$nil as at December 31, 2020 and 2019.

Raw materials (which consists primarily of hardware components) and changes in finished goods and work in progress recognized as hardware expenses in the consolidated statements of income amounted to \$89 (2019: \$92). The write-downs of inventories to net realizable value amounted to \$5 (2019: \$4). The reversals of write-downs amounted to \$3 (2019: \$1). Write-downs and reversals of write-downs are based on the Company's projected sales. The write-downs and reversals are included in hardware expenses.

6. Other assets and liabilities

(a) Other assets

	December 31, 2020	December 31, 2019
Prepaid and other current assets	\$ 115	\$ 96
Investment tax credits recoverable	24	26
Sales tax receivable	18	18
Equity securities held for trading	9	10
Other receivables	52	34
Total other current assets	\$ 219	\$ 184
Investment tax credits recoverable	\$ 12	\$ 13
Costs to obtain a contract	40	37
Non-current trade and other receivables and other assets	21	20
Equity accounted investees	2	2
Total other non-current assets	\$ 75	\$ 72

(b) Other liabilities

	December 31, 2020	December 31, 2019
Contingent consideration	\$ 67	\$ 42
Deferred revenue	44	41
Other non-current liabilities	35	18
Total other non-current liabilities	\$ 146	\$ 101

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Years ended December 31, 2020 and 2019

7. Property and equipment

	Computer hardware	Computer software	Furniture and equipment	Leasehold improvements	Building and land	Total
Cost						
Balance at January 1, 2019	\$ 59	\$ 29	\$ 34	\$ 26	\$ 7	155
Additions	14	4	5	12	0	34
Acquisitions through business combinations	11	(2)	2	2	2	15
Disposals / retirements	(7)	(2)	(3)	(4)	(3)	(19)
Effect of movements in foreign exchange and other	0	(0)	(0)	0	(0)	1
Balance at December 31, 2019	\$ 77	\$ 30	\$ 37	\$ 35	\$ 6	186
Balance at January 1, 2020	\$ 77	\$ 30	\$ 37	\$ 35	\$ 6	186
Additions	12	3	6	4	0	25
Acquisitions through business combinations	5	1	4	4	1	15
Disposals / retirements	(8)	(3)	(3)	(2)	(0)	(16)
Effect of movements in foreign exchange and other	9	6	2	1	1	18
Balance at December 31, 2020	\$ 96	\$ 36	\$ 46	\$ 43	\$ 8	229
Depreciation and impairment losses						
Balance at January 1, 2019	\$ 34	\$ 22	\$ 18	\$ 13	\$ 1	88
Depreciation charge for the year	18	5	6	5	0	34
Disposals / retirements	(6)	(2)	(3)	(3)	(0)	(14)
Effect of movements in foreign exchange and other	(0)	(0)	(1)	1	0	0
Balance at December 31, 2019	\$ 46	\$ 25	\$ 21	\$ 15	\$ 1	108
Balance at January 1, 2020	\$ 46	\$ 25	\$ 21	\$ 15	\$ 1	108
Depreciation charge for the year	18	4	6	6	0	34
Disposals / retirements	(7)	(3)	(3)	(1)	(0)	(15)
Effect of movements in foreign exchange and other	7	6	3	(0)	0	16
Balance at December 31, 2020	\$ 63	\$ 33	\$ 27	\$ 20	\$ 1	143
Carrying amounts:						
At January 1, 2019	\$ 25	\$ 7	\$ 16	\$ 13	\$ 7	67
At December 31, 2019	\$ 32	\$ 5	\$ 16	\$ 20	\$ 5	78
At January 1, 2020	\$ 32	\$ 5	\$ 16	\$ 20	\$ 5	78
At December 31, 2020	\$ 33	\$ 4	\$ 19	\$ 23	\$ 7	86

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8. Right of use assets

The following table presents the right-of-use assets for the Company:

	Computer hardware	Vehicles	Furniture and equipment	Building	Other	Total
Cost						
Balance at January 1, 2019	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Adoption of IFRS 16	9	11	2	185	1	208
Additions	3	6	0	46	2	56
Acquisitions through business combinations	0	1	1	37	0	40
Disposals / retirements	(0)	(0)	(0)	(9)	(0)	(10)
Effect of movements in foreign exchange and other	(0)	(0)	0	(0)	(0)	(0)
Balance at December 31, 2019	\$ 12	\$ 17	\$ 3	\$ 258	\$ 3	\$ 294
Balance at January 1, 2020	\$ 12	\$ 17	\$ 3	\$ 258	\$ 3	\$ 294
Additions	4	7	1	42	1	55
Acquisitions through business combinations	1	3	0	37	0	41
Disposals / retirements	(1)	(3)	(0)	(29)	(0)	(33)
Effect of movements in foreign exchange and other	3	2	0	7	0	12
Balance at December 31, 2020	\$ 19	\$ 27	\$ 4	\$ 315	\$ 4	\$ 369
Depreciation and impairment losses						
Balance at January 1, 2019	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation charge for the year	4	5	1	48	0	58
Disposals / retirements	(0)	0	0	1	(0)	2
Effect of movements in foreign exchange and other	(0)	0	0	0	(0)	0
Balance at December 31, 2019	4	5	1	49	0	60
Balance at January 1, 2020	4	5	1	49	0	60
Depreciation charge for the year	6	7	1	56	1	72
Disposals / retirements	(1)	(2)	(0)	(11)	(0)	(14)
Effect of movements in foreign exchange and other	0	0	(0)	(1)	0	(0)
Balance at December 31, 2020	9	11	2	94	1	117
Carrying amounts:						
At January 1, 2019	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
At December 31, 2019	\$ 8	\$ 12	\$ 3	\$ 209	\$ 2	\$ 234
At January 1, 2020	\$ 8	\$ 12	\$ 3	\$ 209	\$ 2	\$ 234
At December 31, 2020	\$ 10	\$ 16	\$ 3	\$ 221	\$ 2	\$ 251

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9. Intangible assets and goodwill

	Technology Assets	Customer Assets	Backlog	Non-competes agreements	Trademarks	Goodwill	Total
Cost							
Balance at January 1, 2019	\$ 1,793	\$ 964	\$ 16	\$ 3	\$ 7	\$ 302	\$ 3,085
Acquisitions through business combinations	368	344	0	-	-	59	770
Effect of movements in foreign exchange	8	1	0	0	(0)	0	10
Balance at December 31, 2019	\$ 2,169	\$ 1,309	\$ 16	\$ 3	\$ 7	\$ 361	\$ 3,865
Balance at January 1, 2020	\$ 2,169	\$ 1,309	\$ 16	\$ 3	\$ 7	\$ 361	\$ 3,865
Acquisitions through business combinations	343	285	-	-	-	60	688
Effect of movements in foreign exchange	57	47	0	0	0	15	119
Balance at December 31, 2020	\$ 2,568	\$ 1,640	\$ 17	\$ 3	\$ 8	\$ 435	\$ 4,671
Accumulated amortization and impairment losses							
Balance at January 1, 2019	\$ 1,124	\$ 391	\$ 16	\$ 3	\$ 2	\$ -	\$ 1,536
Amortization for the period	226	104	0	(0)	0	-	331
Impairment charge	-	-	-	-	-	-	-
Effect of movements in foreign exchange	1	0	(0)	0	-	-	2
Balance at December 31, 2019	\$ 1,351	\$ 495	\$ 16	\$ 3	\$ 2	\$ -	\$ 1,868
Balance at January 1, 2020	\$ 1,351	\$ 495	\$ 16	\$ 3	\$ 2	\$ -	\$ 1,868
Amortization for the period	261	142	0	0	0	-	403
Impairment charge	6	2	-	-	-	4	12
Effect of movements in foreign exchange	43	19	0	0	0	-	63
Balance at December 31, 2020	\$ 1,662	\$ 659	\$ 17	\$ 3	\$ 3	\$ 4	\$ 2,346
Carrying amounts							
At January 1, 2019	\$ 669	\$ 573	\$ -	\$ -	\$ 6	\$ 302	\$ 1,549
At December 31, 2019	\$ 817	\$ 813	\$ (0)	\$ 0	\$ 5	\$ 361	\$ 1,997
At January 1, 2020	\$ 817	\$ 813	\$ (0)	\$ 0	\$ 5	\$ 361	\$ 1,997
At December 31, 2020	\$ 907	\$ 981	\$ (0)	\$ 0	\$ 5	\$ 432	\$ 2,325

Impairment testing for cash-generating units containing goodwill

The annual impairment test of goodwill was performed as of December 31, 2020 and 2019. During the year ended December 31, 2020, goodwill in the amount of \$4 was impaired and expensed in the consolidated statement of income (2019 - \$nil). For the purpose of impairment testing, goodwill is allocated to the Company's business units included in each operating segment, which represent the lowest level within the Company at which goodwill is monitored for internal purposes. There was no goodwill reallocated to the Company's CGUs that was deemed to be significant in comparison to the carrying amount of goodwill as at December 31, 2020.

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In determining the recoverable amount, the Company applied an estimated market valuation multiple to the business unit's most recent annual recurring revenues, which are derived from combined software/support contracts, transaction revenues, and hosted products. Valuation multiples, which are Level 3 inputs, applied by the Company for this purpose reflect current market conditions specific to the business unit and are assessed for reasonability by comparison to the Company's current and past acquisition experience involving ranges of revenue-based multiples required to acquire representative software companies. The Company has four CGUs whereby the total goodwill allocated is significant in comparison to the Company's total carrying amount of goodwill. The total goodwill allocated to each of these CGUs as at December 31, 2020 is \$28, \$27, \$27, and \$27.

10. CSI Facility

On December 13, 2019, Constellation completed an amendment and restatement of its revolving credit facility agreement (the "CSI Facility"), with a syndicate of Canadian chartered banks, U.S. banks, and a Japanese bank in the amount of \$700, extending its maturity date to December 2024. The CSI Facility bears a variable interest rate with no fixed repayments required over the term to maturity. Interest rates are calculated at standard U.S. and Canadian reference rates plus interest rate spreads based on a leverage table. The CSI Facility is currently collateralized by the majority of the Company's assets including the assets of certain material subsidiaries. The CSI Facility contains standard events of default which if not remedied within a cure period would trigger the repayment of any outstanding balance. As at December 31, 2020 \$nil (December 31, 2019 – \$65) had been drawn from this credit facility, and letters of credit totaling \$19 (December 31, 2019 - \$21) were issued, which limits the borrowing capacity on a dollar-for-dollar basis. Transaction costs associated with the CSI Facility are being amortized through profit or loss using the effective interest rate method. As at December 31, 2020 the carrying amount of such costs is \$1 (December 31, 2019 - \$2).

11. Debt without recourse to CSI

Certain of CSI's subsidiaries have entered into term debt facilities and revolving credit facilities with various financial institutions. CSI does not guarantee the debt of its subsidiaries, nor are there any cross-guarantees between subsidiaries. The credit facilities are collateralized by substantially all of the assets of the borrowing entity and its subsidiaries. The credit facilities typically bear interest at a rate calculated using an interest rate index plus a margin. The financing arrangements for each subsidiary typically contain certain restrictive covenants, which may include limitations or prohibitions on additional indebtedness, payment of cash dividends, redemption of capital, capital spending, making of acquisitions and sales of assets. In addition, certain financial covenants must be met by those subsidiaries that have outstanding debt.

Debt without recourse to CSI comprises the following:

	Revolving Credit Facilities	Term Debt Facilities	Total
Principal outstanding at December 31, 2020 (and equal to fair value)	\$ 25	\$ 209	\$ 233
Deduct: Carrying value of transaction costs included in debt balance	(1)	(5)	(6)
Carrying value at December 31, 2020	24	203	227
Current portion	24	4	28
Non-current portion	-	199	199

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The annual minimum repayment requirements for the term facilities without recourse to CSI is as follows:

<u>Year</u>	<u>Term Debt Facilities</u>
2021	5
2022	4
2023	14
2024	2
2025	176
2026	7
	<hr/>
	209

12. Debentures

On October 1, 2014 and November 19, 2014, the Company issued debentures with a total principal value of C\$96 for total proceeds of C\$91. On September 30, 2015, the Company issued another tranche of debentures (collectively with the 2014 issuances called the “Debentures”) with a total principal value of C\$186 for total proceeds of C\$214.

The Debentures have a maturity date of March 31, 2040 (the “Maturity Date”).

The interest rate from and including:

- March 31, 2018 but excluding March 31, 2019 was 8.1%
- March 31, 2019 but excluding March 31, 2020 was 8.8%
- March 31, 2020 but excluding March 31, 2021 is 8.4%
- March 31, 2021 but excluding March 31, 2022 will be 7.2%

Subsequent from and including March 31, 2022 to but excluding the Maturity Date, the interest rate applicable to the Debentures will be reset on an annual basis on March 31 of each year, at a rate equal to the annual average percentage change in the All-items Consumer Price Index during the 12-month period ending on December 31 in the prior year (which amount may be positive or negative) plus 6.5%. Notwithstanding the foregoing, the interest rate applicable to the debentures will not be less than 0%. The Company may, subject to certain approvals, elect the Payment in Kind election (“PIK Election”), in lieu of paying interest in cash, to satisfy all or any portion of its interest obligation payable on an interest payment date by issuing to each Debenture holder PIK Debentures equal to the amount of the interest obligation to be satisfied. The PIK Debentures will have the same terms and conditions as the Debentures and will form part of the principal amount of the Debentures. If, on any interest payment date, the Company fails to pay the amount of interest owing on the Debentures in full in cash, the Company will not (A) declare or pay dividends of any kind on the Common Shares, nor (B) participate in any share buyback or redemption involving the Common Shares, until the date on which the Company pays such interest (or the unpaid portion thereof) in cash to holders of the Debentures; however, where the Company has issued PIK Debentures in respect of all or a portion of the amount of interest owing on the Debentures on an interest payment date, the Company may resume declaring or paying dividends of any kind on the Common Shares and participating in any share buyback or redemption involving the Common Shares beginning on the next earlier of (i) the interest payment date of which the Company pays the amount of interest owing on the Debentures in full in cash and (ii) the date on which

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the Company repays all amounts owing under the PIK Debenture. All payments in respect of the Debentures will be subordinated in right of payment to the prior payment in full of all senior indebtedness of the Company.

The Debentures will be redeemable in certain circumstances at the option of the Company or the holder. During the period beginning on March 16 and ending on March 31 of each year, the Company will have the right, at its option, to give notice to holders of Debentures of its intention to redeem the Debentures, in whole or in part, on March 31 in the year that is five years following the year in which notice is given, at a price equal to the principal amount thereof plus accrued and unpaid interest up to but excluding the date fixed for redemption. During the period beginning on March 1 and ending on March 15 of each year, holders of Debentures will also have the right, at their option, to give notice to the Company of their intention to require the Company to repurchase (or to “put”) the Debentures, in whole or in part, on March 31 in the year that is five years following the year in which notice is given, at a price equal to the principal amount thereof plus accrued and unpaid interest up to but excluding the date fixed for repurchase.

During the periods ended December 31, 2020 and December 31, 2019, no notices for redemption of the Debentures were received or given by the Company.

The fair value of the debentures as at December 31, 2020 was \$284 (December 31, 2019 - \$286).

13. TSS Membership Liability

On December 23, 2014, in accordance with the terms of the purchase and sale agreement for the Total Specific Solutions (“TSS”) acquisition, and on the basis of the term sheets attached thereto, Constellation and the sellers of TSS along with members of TSS’ executive management team (collectively, the “minority owners”) entered into a Members Agreement pursuant to which the minority owners acquired 33.29% of the voting interests in Constellation Software Netherlands Holding Cooperatief U.A. (“CNH”), a subsidiary of Constellation and the indirect owner of 100% of TSS. Total proceeds from this transaction was €39 (\$49).

Commencing any time after December 31, 2014, each of the minority owners may exercise a put option to sell all or a portion of their interests in CNH back to Constellation for an amount calculated in accordance with a valuation methodology described within the Members Agreement. Accordingly, the Company classified the proceeds from the Members Agreement as a liability. The main valuation driver in such calculation is the maintenance and other recurring revenue of CNH. Upon the exercise of a put option, Constellation would be obligated to redeem up to 33.33% of the minority owners’ interests put, no later than 30 business days from the date notice is received, and up to 33.33% on each of the first and second anniversary of the date the first redemption payment is made. In determining the valuation of the liability at each reporting period, the Company assumes the minority owners exercised their put option on the last day of the current reporting period, and redeemed 33.33% of their interests on exercise (which is classified as a current liability), and will redeem 33.33% on each of the first and second anniversary dates. Maintenance and recurring revenue of CNH for the trailing twelve months determined at the end of the current reporting period was used as the basis for valuing the interests at each redemption date. Any increase or decrease in the value of the membership liability is recorded as an expense or income in the consolidated statements of income for the period.

The seller of TSS also has an option available to it to sell approximately 68% of its interests in CNH, for an amount calculated in accordance with a valuation methodology described within the Members Agreement, in the event that Robin Van Poelje, TSS’ CEO, is no longer employed by TSS. The remaining interest of approximately 32% can be sold via the put option described above.

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In the event of a change of control in Constellation, the minority owners would have the option to sell 100% of their interests in CNH for an amount calculated in accordance with a valuation methodology described within the Members Agreement. Constellation would be obligated to remit payment in respect thereof no later than 30 business days from the date notice is given.

Commencing at any time after December 31, 2023, Constellation may exercise a call option to purchase all of the minority owners' interests in CNH, for an amount calculated in accordance with a valuation methodology described within the Members Agreement. Upon exercise of the call option, the full purchase price will be paid within 30 business days of the notice date, following which the minority owners' membership in CNH will be terminated.

If any of TSS' executive management team that participate in the Members Agreement are terminated for urgent cause as defined in Section 7:678 of the Dutch Civil Code, Constellation shall have the right to purchase all of the interests beneficially owned by the terminated executive for an amount calculated in accordance with a valuation methodology described within the Members Agreement. The full purchase price will be paid within 30 business days from the date notice is given, following which the terminated executive's membership in CNH will be terminated. An option does exist for the terminated executive to elect to be paid in annual installments of 33.33% of his interests in CNH over a 3-year period. The valuation of the interests being purchased will be calculated at each reporting period. During the periods ended December 31, 2020 and December 31, 2019, no options were exercised.

14. Provisions

At January 1, 2020	\$	16
Reversal		(3)
Provisions recorded during the period		21
Provisions used during the period		(14)
Effect of movements in foreign exchange and other		1
At December 31, 2020	\$	20
Provisions classified as current liabilities		12
Provisions classified as other non-current liabilities		8

The provisions balance is comprised of various individual provisions for severance costs and other estimated liabilities of the Company of uncertain timing or amount.

15. Lease obligations

The following table presents the expected maturity of the undiscounted cash flows for lease obligations as at December 31, 2020:

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	December 31, 2020
Less than 1 year	\$ 77
Between 1 and 5 years	172
More than 5 years	50
Total	\$ 298
Less: Impact of discounting	(23)
Leases obligation recorded on balance sheet	\$ 275

The expense relating to variable lease payments not included in the measurement of lease obligations was \$7 (2019 - \$6). This consists primarily of variable lease payments for property taxes. Expenses relating to short-term leases were \$9 (2019 - \$14), expenses relating to leases of low value assets were \$1 (2019 - \$1) and sublease income was \$1 (2019 - \$1). Total cash outflow for leases was \$91 (2019 - \$78).

16. Income taxes

(a) Tax recognized in profit or loss

	2020	2019
Tax recognized in profit or loss		
Current tax expense (recovery)		
Current year	225	165
Adjustment for prior years	(4)	(1)
	221	164
Deferred tax expense (recovery)		
Origination and reversal of temporary differences	(70)	(45)
Effect of change in future tax rates	8	3
Change in recognized temporary differences and unrecognized tax losses	22	7
Adjustment for prior years	(15)	(6)
	(55)	(41)
Total tax expense (recovery)	167	123

(b) Reconciliation of effective tax rate

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Years ended December 31, 2020 and 2019

	2020	2019
Net income for the year	436	333
Total tax expense	167	123
Net income before tax	603	456
Income tax expense using the Company's statutory tax rate of 26.5% (2019 - 26.5%)	160	121
Impact on taxes from:		
Foreign tax rate differential	(14)	(6)
Other, including non deductible expenses and non taxable income	10	5
Change in recognized temporary differences and unrecognized tax losses	22	7
Effect of change in future tax rates	8	3
Under (over) provisions in prior years	(19)	(7)
	167	123

Constellation is subject to tax audits in the countries in which the Company does business globally. These tax audits could result in additional tax expense in future periods relating to historical filings. Reviews by tax authorities generally focus on, but are not limited to, the validity of the Company's inter-company transactions, including financing and transfer pricing policies which generally involve subjective areas of taxation and a significant degree of judgment. If any of these tax authorities are successful with their challenges, the Company's income tax expense may be adversely affected and Constellation could also be subject to interest and penalty charges.

17. Deferred tax assets and liabilities

(a) Unrecognized deferred tax liabilities

The aggregate amount of temporary differences associated with investments in subsidiaries for which we have not recognized deferred tax liabilities is \$756 (2019: \$763) as the Company ultimately controls whether the liability will be incurred and it is satisfied that it will not be incurred in the foreseeable future. The temporary differences relate to undistributed earnings of the Company's subsidiaries. Dividends declared would be subject to withholding tax in the range of 0-15% depending on the jurisdiction of the subsidiary.

(b) Unrecognized deferred tax assets

	2020	2019
Deductible temporary differences, including capital losses	\$ 53	\$ 56
Non capital tax losses	\$ 374	\$ 325

Non-capital tax losses of \$203 expire between 2021 and 2040 and \$170 can be carried forward indefinitely. Included in the non-capital tax losses expiring between 2021 and 2040 is \$141 of losses that are not expected to be used to offset future taxable profit as a result of legislative restrictions in the jurisdiction where those losses exist. The deductible temporary differences and capital losses do not expire under current tax legislation. Deferred tax assets have not been recognized in respect of those items because it is not probable that future taxable profit will be available in those jurisdictions against which the Company can utilize these benefits.

(c) Recognized deferred tax assets and liabilities

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	Assets		Liabilities		Net	
	2020	2019	2020	2019	2020	2019
Property, plant and equipment	6	6	(3)	(3)	2	3
Intangible assets	104	89	(364)	(327)	(260)	(238)
Reserves	20	18	(4)	(1)	17	17
Non capital loss carryforwards	32	26	-	-	32	26
SR&ED expenditure pool	0	-	(8)	-	(8)	-
Deferred revenue	20	26	(4)	(4)	16	22
Foreign and other tax credits	0	-	(5)	(6)	(5)	(6)
Other, including capital losses, withholding tax and foreign exchange	4	(1)	(30)	(24)	(27)	(25)
Tax assets (liabilities)	186	164	(418)	(365)	(233)	(201)
Reclassification	(134)	(119)	134	119	-	-
Net tax assets (liabilities)	52	45	(285)	(246)	(233)	(201)

This reclassification relates to the offsetting of deferred tax assets and deferred tax liabilities to the extent that they relate to the same taxing authorities and there is a legally enforceable right to do so.

(d) Movement in deferred tax balances during the year

	Balance January 1, 2020	Recognized in profit or loss	Recognized in other comprehensive income	Acquired in business combinations	Other	Balance December 31, 2020
Property, plant and equipment	3	(1)	-	-	-	2
Intangible assets	(238)	77	-	(100)	-	(261)
Reserves	17	1	-	-	-	18
Non-capital loss carryforwards	26	(6)	-	12	-	32
SR&ED expenditure pool	-	(9)	-	1	-	(8)
Deferred revenue	22	(6)	-	-	-	16
Tax credits	(6)	1	-	-	-	(5)
Other, including capital losses and withholding tax	(25)	(2)	-	-	-	(27)
	(201)	55	-	(87)	-	(233)

	Balance January 1, 2019	Recognized in profit or loss	Recognized in other comprehensive income	Acquired in business combinations	Other	Balance December 31, 2019
Property, plant and equipment	2	-	-	1	-	3
Intangible assets	(185)	55	-	(108)	1	(238)
Reserves	12	4	-	-	-	17
Non-capital loss carryforwards	26	(8)	-	7	1	26
SR&ED expenditure pool	1	(1)	-	-	-	-
Deferred revenue	22	-	-	-	-	22
Tax credits	(6)	-	-	-	-	(6)
Other, including capital losses, withholding tax and foreign exchange	(17)	(9)	(0)	-	1	(25)
	(145)	41	(0)	(100)	3	(201)

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18. Capital and other components of equity

Capital Stock

At December 31, 2020 and December 31, 2019, the authorized share capital of Constellation consisted of an unlimited number of voting common shares and a limited number of non-voting preferred shares (there are no preferred shares outstanding).

	Common Shares	
	Number	Amount
December 31, 2020	21,191,530	\$ 99
December 31, 2019	21,191,530	\$ 99

Accumulated other comprehensive income (loss)

Accumulated other comprehensive income (loss) is comprised of the following separate components of equity:

Cumulative translation account

The cumulative translation account comprises all foreign currency differences arising from the translation of the financial statements of foreign operations, as well as foreign exchange gains and losses arising from monetary items that form part of the net investment in the foreign operation.

Amounts related to derivatives designated as hedges

The portion of the gain or loss on derivatives designated as hedges that are determined to be an effective hedge are recognized directly in other comprehensive income, and the ineffective portion in the statement of income. The gains or losses deferred in other comprehensive income in this way are subsequently recognized in the statement of income in the same period in which the hedged underlying transaction or firm commitment is recognized in the statement of income.

Dividends

During the three months ended March 31, 2020, the Company declared a \$1.00 per share dividend to all common shareholders of record at close of business on March 16, 2020. The dividend declared in the quarter ended March 31, 2020 representing \$21 was paid and settled on April 7, 2020. During the three months ended June 30, 2020, the Company declared a \$1.00 per share dividend to all common shareholders of record at close of business on June 19, 2020. The dividend declared in the quarter ended June 30, 2020 representing \$21 was paid and settled on July 10, 2020. During the three months ended September 30, 2020, the Company declared a \$1.00 per share dividend to all common shareholders of record at close of business on September 18, 2020. The dividend declared in the quarter ended September 30, 2020 representing \$21 was paid and settled on October 9, 2020. During the three months ended December 31, 2020, the Company declared a \$1.00 per share dividend to

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all common shareholders of record at close of business on December 18, 2020. The dividends declared in the quarter ended December 31, 2020 representing \$21 were paid and settled on January 11, 2021.

A dividend of \$1.00 per share representing \$21 were accrued as at December 31, 2019 and subsequently paid and settled on January 8, 2020.

19. Finance and other income and finance costs

	Years ended December 31,	
	2020	2019
Interest income on cash	\$ (1)	\$ (3)
(Increase) decrease in the fair value of equity securities held for trading	0	(0)
Share in net (income) loss of equity investee	0	1
Finance and other income	(3)	(2)
Finance and other expense (income)	\$ (4)	\$ (4)
Interest expense on debt and debentures	\$ 32	\$ 31
Interest expense on lease obligations	9	7
Amortization of debt related transaction costs	2	1
Amortization of debenture discount (premium) and associated rights offering, net	(4)	(4)
Other finance costs	8	6
Finance costs	\$ 46	\$ 42

20. Earnings per share

Basic and diluted earnings per share

	Years ended December 31,	
	2020	2019
Numerator:		
Net income	\$ 436	\$ 333
Denominator:		
Basic and diluted shares outstanding	21,191,530	21,191,530
Earnings per share		
Basic and diluted	\$ 20.59	\$ 15.73

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21. Capital risk management

The Company's objectives in managing capital are to ensure sufficient liquidity to pursue its strategy of organic growth combined with strategic acquisitions and to provide returns to its shareholders. The Company manages its capital with the objective of ensuring that there are adequate capital resources while maximizing the return to shareholders through the optimization of the debt and equity balance. The capital structure of the Company consists of cash, CSI facility, Debt without recourse to CSI, Debentures, TSS membership liability and components of shareholders' equity including retained earnings and capital stock.

The Company is subject to certain covenants on its CSI facility. The covenants include a leverage ratio and an interest coverage ratio. The Debt without recourse to CSI is also subject to certain covenants. The Company monitors the ratios on a quarterly basis. As at December 31, 2020 and 2019, the Company is in compliance with its debt covenants. Other than the covenants required for the CSI facility and the Debt without recourse to CSI, the Company is not subject to any externally imposed capital requirements.

The Board of Directors determine if and when dividends should be declared and paid based on all relevant circumstances, including the desirability of financing further growth of the Company and its financial position at the relevant time. The Board of Directors has adopted a policy to pay quarterly dividends, which commenced in 2012. Constellation intends to declare a regular quarterly dividend to allow shareholders to participate in its free cash flow, while retaining sufficient capital to invest in acquisitions and organic growth. There is no guarantee that dividends will continue to be declared and paid in the future.

The Company makes adjustments to its capital structure in light of general economic conditions, the risk characteristics of the underlying assets and the Company's working capital requirements. In order to maintain or adjust its capital structure, the Company, upon approval from its Board of Directors, may increase or decrease dividends, increase or decrease the line of credit or undertake other activities as deemed appropriate under the specific circumstances. The Board of Directors reviews and approves any material transactions not in the ordinary course of business, as well as significant acquisitions and other major investments above pre-determined quantitative thresholds.

22. Financial risk management and financial instruments

Overview

The Company is exposed to risks of varying degrees of significance which could affect its ability to achieve its strategic objectives for growth. The main objectives of the Company's risk management process are to ensure that risks are properly identified and that the capital base is adequate in relation to those risks. The principal financial risks to which the Company is exposed are described below.

Market risk

Market risk is the risk that changes in market prices, such as fluctuations in foreign exchange rates and interest rates, will affect the Company's income or the value of its financial instruments.

The Company is exposed to interest rate risk on the utilized portion of its CSI facility and its Debentures and does not currently hold any financial instruments that mitigate this risk. If there was a 1% increase in the interest rate on the Debentures, there would be a corresponding decrease in income before tax of \$2. There would be an equal and opposite impact if there was a 1% decrease in the interest rate.

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The Company is also exposed to interest rate risk on the utilized portion of the Debt without recourse to CSI. If there was a 1% increase in the interest rate on the Debt without recourse to CSI, there would be a corresponding decrease in income before tax of \$2. There would be an equal and opposite impact if there was a 1% decrease in the interest rate.

The Company operates internationally, giving rise to exposure to market risks from changes in foreign exchange rates which impact sales and purchases that are denominated in a currency other than the respective functional currencies of certain of its subsidiaries. The Company currently does not typically use derivative instruments to hedge its exposure to those risks. Most of the Company's businesses are organized geographically so that many of its expenses are incurred in the same currency as its revenues thus mitigating some of its exposure to currency fluctuations.

Foreign currency sensitivity analysis:

Foreign currency risk arises on financial instruments that are denominated in a currency other than the functional currency in which they are measured. The Company's primary exposure with respect to foreign currencies is through the Canadian dollar denominated Debentures (note 12). The carrying value of the Debentures at December 31, 2020 is \$223 (C\$284) (December 31, 2019 - \$222 (C\$288)). If there was a 1% strengthening of the Canadian dollar against the U.S. dollar, there would be a corresponding decrease in income before tax of \$2. There would be an equal and opposite impact if there was a 1% weakening of the Canadian dollar against the U.S. dollar.

Liquidity risk

Liquidity risk is the risk that the Company is not able to meet its financial obligations as they fall due or can do so only at excessive cost. The Company manages liquidity risk through the management of its capital structure and financial leverage, as outlined in note 21 to the consolidated financial statements. The Company's growth is financed through a combination of cash flows from operations and borrowing under the CSI facility, Debt without recourse to CSI, TSS Membership Liability and Debentures. One of the Company's primary goals is to maintain an optimal level of liquidity through the active management of the assets and liabilities as well as the cash flows from operations. The details of the Company's CSI facility, Debt without recourse to CSI, Debentures, and TSS membership liability are disclosed in note 10, note 11, note 12 and note 13 to the consolidated financial statements. As at December 31, 2020, available credit in respect of the Company's CSI facility was \$681.

The majority of the Company's financial liabilities recorded in accounts payable and accrued liabilities are due within 60 days. The Company also has payment processing liabilities which are settled within a few days of year-end. Included in cash is an equivalent cash balance of \$12 (December 31, 2019 - \$11) that is held to settle these payment processing liabilities as they become due. Holdbacks payable related to business acquisitions are generally payable within six months to two years.

Given the Company's available liquid resources and credit capacity as compared to the timing of the payments of liabilities, the Company assesses its liquidity risk to be low.

Credit risk

Credit risk represents the financial loss that the Company would experience if a counterparty to a financial instrument, in which the Company has an amount owing from the counterparty failed to meet its obligations in accordance with the terms and conditions of its contracts with the Company. The carrying amount of the Company's financial assets, including receivables from customers, represents the Company's maximum credit exposure.

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The majority of the accounts receivable balance relates to maintenance invoices to customers that have a history of payment. In addition, a large proportion of the Company's accounts receivable are with public sector government agencies where the credit risk has historically been assessed to be low.

The maximum exposure to credit risk for accounts receivable at the reporting date by geographic region was:

	December 31, 2020	December 31, 2019
United States	\$ 178	\$ 176
Canada	50	43
United Kingdom	63	44
Europe	155	126
Other	37	34
	<u>\$ 483</u>	<u>\$ 422</u>

The aging of accounts receivables at the reporting date was:

	December 31, 2020	December 31, 2019
Current		
Gross	\$ 414	\$ 337
Impairment	(1)	(1)
Net	413	337
90-180 days		
Gross	51	60
Impairment	(2)	(2)
Net	48	58
More than 180 days		
Gross	53	55
Impairment	(31)	(28)
Net	22	27
Total accounts receivable		
Gross	\$ 518	\$ 452
Impairment	(34)	(31)
Net	<u>483</u>	<u>422</u>

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An allowance account for accounts receivable is used to record impairment losses unless the Company is satisfied that no recovery of the amount owing is possible; at which point the amounts are considered to be uncollectible and are written off against the specific accounts receivable amount attributable to a customer. The number of days outstanding of an individual receivable balance is the key indicator for determining whether an account is at risk of being impaired.

The movement in the allowance for impairment in respect of accounts receivable during the year ended:

	2020	2019
Aggregate balance at January 1	\$ 31	\$ 27
Increase from business acquisitions	5	4
Impairment loss recognized	30	18
Impairment loss reversed	(19)	(9)
Amounts written off	(11)	(10)
Other movements	(1)	(0)
Aggregate balance at December 31	\$ 34	\$ 31
Allowance for doubtful accounts arising from business combinations	\$ 8	\$ 9

There is no concentration of credit risk because of the Company's diverse and disparate number of customers with individual receivables that are not significant to the Company on a consolidated basis. In addition, the Company typically requires up front deposits from customers to protect against credit risk.

The Company manages credit risk related to cash by maintaining the majority of the Company's bank accounts with Schedule 1 banks.

In the ordinary course of business, the Company and its subsidiaries have provided performance bonds and other guarantees for the completion of certain customer contracts. The Company has not experienced a loss to date and future losses are not anticipated; therefore, no liability has been recorded in the consolidated statements of financial position related to these types of indemnifications or guarantees at December 31, 2020.

Fair values versus carrying amounts

The carrying values of cash, accounts receivable, accounts payable, accrued liabilities, dividends payable, income taxes payable, the majority of acquisition holdbacks, debt without recourse to CSI and the CSI Facility, approximate their fair values due to the short-term nature of these instruments. Bank debt and debt without recourse to CSI is subject to market interest rates.

Reconciliation of cash flows from financing activities

The following table reconciles the changes in cash flows from financing activities for the CSI facility, Debt without recourse to CSI, TSS Membership Liability, and Debentures that is outstanding as at December 31:

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	CSI facility	Debt without recourse to CSI	TSS Membership Liability	Debentures	Lease liability	Dividends
Balance at January 1, 2020	\$ 63	\$ 210	\$ 221	\$ 222	\$ 250	\$ 21
Reclassification of deferred financing fees from other assets	2	-	-	-	-	-
Increase (decrease) in revolving credit under debt facilities without recourse to CSI	-	(31)	-	-	-	-
Proceeds from issuance of term debt under facilities without recourse to CSI	-	48	-	-	-	-
Repayments of term debt under facilities without recourse to CSI	-	(6)	-	-	-	-
Increase (decrease) in the CSI facility	(65)	-	-	-	-	-
Payments of lease obligations	-	-	-	-	(66)	-
Dividends paid	-	-	-	-	-	(85)
Credit facility transaction costs	-	(2)	-	-	-	-
Total financing cash flow activities	(65)	9	-	-	(66)	(85)
Amortization of debt discounts and premiums	-	-	-	(4)	-	-
Amortization of debt related transaction costs	-	1	-	-	-	-
TSS membership liability revaluation charge	-	-	65	-	-	-
New leases, net of terminations and modifications	-	-	-	-	81	-
Dividends declared	-	-	-	-	-	85
Foreign exchange loss (gain)	-	-	-	5	1	(0)
Foreign currency translation differences from foreign operations	-	7	25	-	9	-
Total financing non-cash activities	-	8	90	1	92	85
Balance at December 31, 2020	\$ -	\$ 227	\$ 311	\$ 223	\$ 275	\$ 21
	CSI facility	Debt without recourse to CSI	TSS Membership Liability	Debentures	Lease liability	Dividends
Balance at January 1, 2019	\$ -	\$ 154	\$ 184	\$ 215	\$ -	\$ 21
IFRS 16 adjustment	-	-	-	-	216	-
Reclassification of deferred financing fees from other assets	(2)	-	-	-	-	-
Increase (decrease) in revolving credit under debt facilities without recourse to CSI	-	5	-	-	-	-
Proceeds from issuance of term debt under facilities without recourse to CSI	-	49	-	-	-	-
Repayments of term debt under facilities without recourse to CSI	-	(1)	-	-	-	-
Increase (decrease) in the CSI facility	65	-	-	-	-	-
Distribution to TSS minority owners	-	-	(11)	-	-	-
Payments of lease obligations	-	-	-	-	(56)	-
Dividends paid	-	-	-	-	-	(509)
Credit facility transaction costs	(0)	(2)	-	-	-	-
Total financing cash flow activities	65	50	(11)	-	(56)	(509)
Amortization of debt discounts and premiums	-	-	-	(3)	-	-
Amortization of debt related transaction costs	0	1	-	-	-	-
TSS membership liability revaluation charge	-	-	52	-	-	-
New leases, net of terminations and modifications	-	-	-	-	89	-
Dividends declared	-	-	-	-	-	509
Foreign exchange loss (gain)	-	-	-	10	-	0
Foreign currency translation differences from foreign operations	-	5	(3)	-	0	-
Total financing non-cash activities	0	6	48	7	89	509
Balance at December 31, 2019	\$ 63	\$ 210	\$ 221	\$ 222	\$ 250	\$ 21

Fair value hierarchy

The table below analyzes financial instruments carried at fair value, by valuation method.

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- level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;
- level 2 inputs are inputs other than quoted prices included in level 1 that are observable for the asset or liability either directly (i.e. prices) or indirectly (i.e. derived from prices); and
- level 3 inputs are inputs for the asset or liability that are not based on observable market data (i.e. unobservable inputs).

In the table below, the Company has segregated all financial assets and liabilities that are measured at fair value into the most appropriate level within the fair value hierarchy based on the inputs used to determine the fair value at the measurement date.

Financial assets and financial liabilities measured at fair value as at December 31, 2020 and December 31, 2019 in the financial statements are summarized below. The Company has no additional financial liabilities measured at fair value initially other than those recognized in connection with business combinations.

	December 31, 2020				December 31, 2019			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Equity securities held for trading	\$ 9	\$ -	\$ -	\$ 9	\$ 10	\$ -	\$ -	\$ 10
	9	-	-	9	10	-	-	10
Liabilities:								
Contingent consideration	\$ -	\$ -	\$ 88	\$ 88	\$ -	\$ -	\$ 59	\$ 59
	-	-	88	88	-	-	59	59

There were no transfers of fair value measurements between level 1, 2 and level 3 of the fair value hierarchy in the years ended December 31, 2020 and 2019.

The following table shows a reconciliation from the beginning balances to the ending balances for fair value measurements in Level 3 of the fair value hierarchy.

Balance at January 1, 2020	\$ 59
Increase from business acquisitions	39
Cash recoveries (payments)	(16)
Charges through profit or loss	8
Foreign exchange and other movements	(2)
Balance at December 31, 2020	88
Contingent consideration classified as current liabilities	22
Contingent consideration classified as other non-current liabilities	67

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Estimates of the fair value of contingent consideration is performed by the Company on a quarterly basis. Key unobservable inputs include revenue growth rates and the discount rates applied (7% to 11%). The estimated fair value increases as the annual growth rate increases and as the discount rate decreases and vice versa.

23. Revenue

The following tables provides information about unbilled revenue (contract asset) and deferred revenue (contract liability).

Unbilled Revenue:

	2020	2019
At January 1	\$ 112	\$ 83
Increase from business acquisitions	9	11
Decrease from transfers to accounts receivable	(327)	(262)
Increase from changes as a result of the measure of progress	303	280
Foreign exchange and other movements	4	1
At December 31	\$ 102	\$ 112
Unbilled revenue classified as a current asset	\$ 98	\$ 110
Unbilled revenue classified as a other non-current asset	4	3

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Deferred Revenue:

	2020	2019
At January 1	\$ 828	\$ 700
Increase from business acquisitions	111	114
Decrease from revenue recognized that was included in the deferred revenue balance at the beginning of the period	(728)	(638)
Decrease from revenue recognized that arose from acquired deferred revenue balances in the current year	(69)	(66)
Increase due to cash received, excluding amounts recognized as revenue during the period	839	716
Foreign exchange and other movements	24	4
At December 31	\$ 1,005	\$ 828
Deferred revenue classified as a current liability	962	788
Deferred revenue classified as a other non-current liability	44	41

The amount of revenue recognized in the year ended December 31, 2020 from performance obligations satisfied in previous periods was \$2 (December 31, 2019 - \$0).

Revenue allocated to remaining performance obligations represents contracted revenue that has not yet been recognized (“contracted not yet recognized”) and includes unearned revenue and amounts that will be invoiced and recognized as revenue in future periods. Contracted not yet recognized revenue was approximately \$2,300 as of December 31, 2020, of which we expect to recognize an estimated 67% of the revenue over the next 12 months and the remainder thereafter.

Costs to obtain a contract with a customer:

The Company has capitalized and amortized incremental commission costs on a systematic basis, consistent with the pattern of transfer of the good(s) or service(s) to which the commission relates as the Company believes these costs are recoverable. The total capitalized commission costs as of December 31, 2020 is \$88 (December 31, 2019 - \$67). The amount of amortization expense for the year ended December 31, 2020 was \$16 (December 31, 2019 - \$14) and there was no impairment loss in relation to the costs capitalized.

24. Operating segments

For fiscal 2019 and earlier periods, the Company aggregated CSI into two distinct segments for financial reporting purposes: (i) the public sector reportable segment, which included business units focused primarily on government and government-related customers, and (ii) the private sector reportable segment, which included business units focused primarily on commercial customers. Following the guidance set out by IFRS 8, Operating Segments (“IFRS 8”), the public sector reportable segment was derived by combining the Company’s Volaris, Harris and TSS

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operating segments, and the private sector reportable segment was derived by combining the Company's Vela, Jonas and Perseus operating segments. While the operating segments in the public sector were comprised of businesses that primarily serve government and government-related customers, they also included businesses that serve commercial customers, and similarly the operating groups in the private sector were comprised of businesses that primarily serve commercial customers but also include businesses that serve government and government-related customers. For the fiscal years ended December 31, 2019 and 2018 approximately 35% and 30% respectively of the revenue in the public sector reportable segment was generated from commercial customers, and 15% and 16% respectively of revenue in the private sector reportable segment was generated from government and government-related customers.

Each of the Company's operating segments operate essentially as mini-Constellations, conglomerates of small vertical market software companies with similar economic characteristics. Each operating segment CEO is focused on investing capital that generates returns at or above the investment hurdle rates set by CSI's head office (primarily the President) and the Board of Directors, irrespective of whether the acquired business operates primarily in the public or private sector. Accordingly presenting information on a public and private sector basis is no longer meaningful and the Company now aggregates the six operating segments into one reportable segment, consistent with the objective and basic principles of IFRS 8.

Geographical information

The Company is managed on a worldwide basis, but operates in three principal geographical areas, Canada, USA, and UK/Europe.

In presenting the geographical information, revenue is based on the region in which the revenue is transacted, and intellectual property is located. Assets are based on the geographic locations of the assets.

Year ended December 31, 2020	Canada	USA	UK/Europe	Other	Total
Revenue	\$ 493	\$ 1,730	\$ 1,363	\$ 384	\$ 3,969
Non-current assets	478	755	1,218	339	2,790

Year ended December 31, 2019	Canada	USA	UK/Europe	Other	Total
Revenue	\$ 481	\$ 1,532	\$ 1,185	\$ 292	\$ 3,490
Non-current assets	472	710	968	275	2,425

Major customers

No customer represents revenue in excess of 5% of total revenue in both years ended December 31, 2020 and 2019.

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25. Contingencies

In the normal course of operations, the Company is subject to litigation and claims from time to time. The Company may also be subject to lawsuits, investigations and other claims, including environmental, labour, income and sales tax, product, customer disputes and other matters. The Company believes that adequate provisions have been recorded in the accounts where required. Although it is not always possible to estimate the extent of potential costs, if any, the Company believes that the ultimate resolution of such contingencies will not have a material adverse impact on the results of operations, financial position or liquidity of the Company.

26. Guarantees

- (a) In the ordinary course of business the Company and its subsidiaries have provided performance bonds, letters of credit issued that do not limit the borrowing capacity of the CSI Facility, and other guarantees for the completion of certain customer contracts and other contracts in the normal course of operations. The total obligations of the Company pursuant to such bonds and related contingencies total \$95 (2019 - \$72). No liability has been recorded in the consolidated financial statements.
- (b) As at December 31, 2020, in the normal course of business, the Company has outstanding letters of credit with the CSI Facility totalling \$19 (2019 - \$21) which limits the borrowing capacity of the CSI Facility on a dollar-for-dollar basis.
- (c) In the normal course of business, some of the Company's subsidiaries entered into lease agreements for facilities. As the joint lessees, the subsidiaries agree to indemnify the lessor for liabilities that may arise from the use of the leased facility. The maximum amount potentially payable under the foregoing indemnity cannot be reasonably estimated. The subsidiaries have liability insurance that relates to the indemnifications.
- (d) The Company and its subsidiaries have provided routine indemnifications to some of its customers against liability if the Company's product infringes on a third party's intellectual property rights. The maximum exposure from the indemnifications cannot be reasonably estimated.

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27. Changes in non-cash operating working capital

	Year ended	
	December 31,	
	2020	2019
Decrease (increase) in current accounts receivable	\$ 21	\$ 10
Decrease (increase) in current unbilled revenue	24	(19)
Decrease (increase) in other current assets	(20)	(36)
Decrease (increase) in inventories	8	5
Decrease (increase) in other non-current assets	7	(6)
Increase (decrease) in other non-current liabilities	6	1
Increase (decrease) in current accounts payable and accrued liabilities, excluding holdbacks from acquisitions	38	(1)
Increase (decrease) in current deferred revenue	36	15
Increase (decrease) in current provisions	(2)	4
Change in non-cash operating working capital	\$ 117	\$ (28)

28. Related parties

Key management personnel compensation

The key management personnel of the Company, inclusive of the operating segments, are the members of the Company's executive management team at the Company operating segments and head office and Board of Directors.

	Years ended December 31,	
	2020	2019
Salaries, bonus and employee benefits	\$ 9	\$ 11
Total	\$ 9	\$ 11

There were no significant post-employment benefits, other long-term benefits, or share-based payments attributed to the key management personnel in 2020 and 2019.

29. Subsequent events

On February 12, 2021, the Company declared a \$1.00 per share dividend payable on April 9, 2021 to all common shareholders of record at close of business on March 16, 2021.

On December 18, 2020, the Company declared a special dividend pursuant to which all common shareholders of record on December 28, 2020 of the Company were entitled to receive, by way of a dividend-in-kind, 1.859817814

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subordinate voting shares of Topicus.com Inc. (a newly created company) for each Constellation Software Inc. share held. The dividend was distributed on January 4, 2021.

On January 4, 2021 (in anticipation of the acquisition of Topicus.com B.V. described further below), the Company's subsidiary, Constellation Software Netherlands Holding Coöperatief U.A., which principally holds the TSS Operating Group, completed a corporate reorganization. In conjunction with the reorganization, the following steps were completed on January 4, 2021:

- CNH changed its name to Topicus.com Coöperatief U.A. ("Topicus Coop").
- The Company exchanged its existing equity interest in Topicus Coop for an equity interest in Topicus.com Inc. and Topicus.com Inc. became the new parent company of Topicus Coop. Constellation received 39,412,385 preferred shares and 39,412,385 subordinate voting shares of Topicus.com Inc. The preferred shares are convertible into subordinate voting shares of Topicus.com Inc. at a rate of 1:1.
- Topicus.com Inc. had 39,412,385 subordinate voting shares outstanding on January 4, 2021. The Company distributed 39,412,364 of the subordinate voting shares to its common shareholders pursuant to the dividend-in-kind and continues to hold 21 subordinate voting shares.
- Constellation holds 1 super voting share of Topicus.com Inc. The super voting share entitles that number of votes that equals 50.1% of the aggregate number of votes attached to all the outstanding super voting shares and subordinate voting shares of Topicus.com Inc. As a result, Constellation Software Inc. controls Topicus.com Inc. and will consolidate its financial position and results of operations and will reflect a non-controlling interest held by other parties.

On May 20, 2020, the Company entered into a binding agreement, subject to certain closing conditions, with IJssel B.V. (the "Seller") to purchase 100% of the shares of Topicus.com B.V. ("Topicus B.V."), a Netherlands-based diversified vertical market software provider. On January 5, 2021, the Company completed this transaction. Annual gross revenues of Topicus B.V. for 2019 were approximately €101 million and total tangible assets at December 31, 2019 were approximately €7 million. In connection with the acquisition the Company paid cash of €133.6 million. Furthermore, Topicus Coop issued 5,842,882 preferred units of Topicus Coop to the Seller for an initial subscription price of €83.8 million plus an additional subscription amount of €27.589 million which will be owed by the Seller to the Company and will be repayable to the Company under certain conditions. Topicus Coop also issued 5,842,882 ordinary units of Topicus Coop to the Seller. The aggregate estimated total consideration is €217.400 million. The preferred units are retractable at the option of the holder for a retraction price of €19.06 per unit and will be classified as a liability on the balance sheet of Topicus.com Inc. and the Company. The preferred units are also convertible into ordinary units of Topicus Coop at a conversion ratio of 1:1 and the ordinary units are exchangeable for Topicus.com Inc. subordinate voting shares at a conversion ratio of 1:1. The preferred unit holders will also be entitled to a fixed annual cumulative dividend of 5% per annum.

On January 5, 2021, the Company cancelled the existing Members Agreement, and it was replaced by the Investor Rights and Governance Agreement ("IRGA"). Under the IRGA, commencing any time after January 5, 2021, each of the Minority Owners may exercise a put option to sell all or a portion of their interests in Topicus Coop back to Constellation for an amount calculated in accordance with a valuation methodology described within the IRGA. At any time after December 31, 2043, CSI has the right, at its option, to buy most of the Coop Units. Similar to the Member's Agreement, the main valuation driver in such calculation is the maintenance and other recurring revenue of Topicus Coop.