#### **CELESTICA INC**

Form 20-F

March 11, 2019

#### **UNITED STATES**

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 20-F

o Registration statement pursuant to Section 12(b) or (g) of the Securities Exchange Act of 1934 or

ý Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the fiscal year ended December 31, 2018

or

o Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from

or

o Shell company report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 Date of event requiring this shell company report:

Commission file number: 1-14832

\_\_\_\_\_

#### CELESTICA INC.

(Exact name of registrant as specified in its charter)

Ontario, Canada

(Jurisdiction of incorporation or organization)

844 Don Mills Road

Toronto, Ontario, Canada M3C 1V7

(Address of principal executive offices)

Curtis Cheam

416-448-2211

clsir@celestica.com

844 Don Mills Road

Toronto, Ontario, Canada M3C 1V7

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

SECURITIES REGISTERED OR TO BE REGISTERED

PURSUANT TO SECTION 12(b) OF THE ACT:

Title of each class: Name of each exchange on which registered:

Subordinate Voting Shares The Toronto Stock Exchange New York Stock Exchange

SECURITIES REGISTERED OR TO BE REGISTERED

PURSUANT TO SECTION 12(g) OF THE ACT:

N/A

SECURITIES FOR WHICH THERE IS A REPORTING OBLIGATION

PURSUANT TO SECTION 15(d) OF THE ACT:

N/A

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

117,692,169 Subordinate Voting Shares 0 Preference Shares

18,600,193 Multiple Voting Shares

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ý No o

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes o No ý

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ý No o Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ý No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ý

Accelerated filer o

Non-accelerated filer o

Emerging growth company o

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. o

†The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the statements included in this filing:

U.S. GAAP o

International Financial Reporting Standards as issued by the International Accounting

Standards Board ý Other o

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 o Item 18 o

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No  $\circ$ 

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#### Part I.

In this Annual Report on Form 20-F for the year ended December 31, 2018 (referred to herein as "this Annual Report"), "Celestica," the "Corporation," the "Company," "we," "us" and "our" refer to Celestica Inc. and its subsidiaries.

In this Annual Report, all dollar amounts are expressed in United States dollars, except where we state otherwise. All references to "U.S.\$" or "\$" are to United States dollars and all references to "C\$" are to Canadian dollars. Unless we indicate otherwise, any reference in this Annual Report to a conversion between U.S.\$ and C\$ is a conversion at the average of the exchange rates in effect for the year ended December 31, 2018. During that period, based on the relevant noon buying rates in New York City for cable transfers in Canadian dollars, as certified for customs purposes by the Board of Governors of the U.S. Federal Reserve Bank, the average daily exchange rate was U.S.\$1.00 = C\$1.2957.

Unless we indicate otherwise, all information in this Annual Report is stated as of February 13, 2019. Forward-Looking Statements

Item 3, "Key Information — Risk Factors," Item 4, "Information on the Company," Item 5, "Operating and Financial Review and Prospects" and other sections of this Annual Report contain forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, or the U.S. Securities Act, Section 21E of the U.S. Securities Exchange Act of 1934, as amended, or the U.S. Exchange Act, and forward-looking information within the meaning of applicable Canadian securities laws (collectively, forward-looking statements), including, without limitation, statements related to: our future growth, including in our Advanced Technology Solutions (ATS) segment; the potential for increased expansion and integration costs in our ATS segment; our priorities, intended areas of focus, objectives, targets and goals (including, but not limited to, those set forth under the caption "Celestica's Strategy" in Item 4B., and the caption "Operating Goals and Principles" in Item 5); trends in the electronics manufacturing services (EMS) industry, generally and in relation to our business, including the anticipated continuation and impact of adverse market conditions, particularly in our Connectivity and Cloud Solutions (CCS) segment; adverse market conditions in, and the cyclical nature of, our capital equipment business, in particular our semiconductor business; our anticipated financial and/or operational results; the anticipated impact, range and timing of, our cost efficiency initiative; the anticipated impact of our comprehensive CCS segment portfolio review (CCS Review); our growth and diversification strategies and plans (and potential hindrances thereto); the expected continuation, and adverse impact on our business, of materials constraints; supplier lead times; the anticipated impact of completed acquisitions and program wins, transfers, losses or disengagements on our business; the timing of the valuation of certain recently-acquired assets and the finalization of the related purchase price allocations; anticipated expenses, restructuring actions and charges, capital expenditures, and other anticipated working capital requirements, including the anticipated amounts, timing, impact and funding thereof; the anticipated impact on our operations of any new significant tariffs on items imported into the U.S. and related countermeasures; the anticipated repatriation of undistributed earnings from foreign subsidiaries; the impact of tax and litigation outcomes; our anticipated ability to use certain net operating losses; intended investments in our business and associated risks; the anticipated impact of the pace of technological changes, customer outsourcing, program transfers, and the global economic environment on our business; raw materials prices; the timing, quantity and intended method of funding subordinate voting share repurchases; our intention to settle outstanding equity awards with subordinate voting shares; the impact of outstanding indebtedness under our credit facility on our business; the anticipated aggregate cost of relocating our Toronto manufacturing operations and corporate headquarters; the timing of relocating our corporate headquarters; our expectation that the costs of our Toronto manufacturing and corporate office relocations will be more than offset by the cash proceeds from the property sale; the anticipated impact of recent U.S. tax reform on our business; transition activities related to, and the anticipated impact of, newly-issued accounting standards; the impact of price reductions and longer-term contracts on our business; the potential use of cash, securities issuances and further increases in third-party indebtedness to fund our operations or acquisitions, and the anticipated and potential adverse impacts of such uses and/or increase; the potential adverse impacts of Britain's intention to leave the European Union (Brexit) and/or policies or legislation proposed or instituted by the current administration in the U.S.; our expectations with respect to future pioneer incentives for limited portions of our Malaysian business; the timing of,

and potential true-up premium on, annuities purchased for our U.K pension plans; our intentions with respect to our U.K Supplementary pension plan; the expected impact of the expiration of one of our income tax incentives in Thailand; our intention to sell a lower amount of accounts receivable under a customer's supplier financing program; our future warranty obligations; our expectations with respect to cybersecurity threats; our intentions with respect to environmental assessments for newly-leased or acquired properties; our expectations with respect to expiring leases; anticipated insignificant hedge ineffectiveness of our interest rate swap agreements; the pay-for-performance alignment of our executive compensation program; our intention to retain earnings for general corporate purposes; our pension obligations; the expectation of continued adverse impacts from costs incurred in connection with our pursuit of acquisitions and strategic transactions; and the anticipated impact of the integration of Impakt Holdings, LLC on our internal controls. Such forward-looking statements may, without limitation, be preceded by, followed by, or include words such as "believes," "expects," "anticipates," "estimates," "intends," "plans," "continues," "project," "potential," "possible," "contemplate," "seek," or

similar expressions, or may employ such future or conditional verbs as "may," "might," "will," "could," "should" or "would," or may otherwise be indicated as forward-looking statements by grammatical construction, phrasing or context. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the U.S. Private Securities Litigation Reform Act of 1995, where applicable, and applicable Canadian securities laws. Forward-looking statements are provided to assist readers in understanding management's current expectations and plans relating to the future. Readers are cautioned that such information may not be appropriate for other purposes. Forward-looking statements are not guarantees of future performance and are subject to risks that could cause actual results to differ materially from those expressed or implied in such forward-looking statements, including, among others, as is described in more detail in Item 3(D), "Key Information — Risk Factors" and elsewhere in this Annual Report, risks related to:

our customers' ability to compete and succeed with our products and services;

customer and segment concentration;

challenges of replacing revenue from completed or lost programs or customer disengagements;

changes in our mix of customers and/or the types of products or services we provide;

the impact on gross profit of higher concentration of lower margin programs;

price, margin pressures, and other competitive factors affecting, and the highly competitive nature of, the

EMS industry in general and our CCS segment in particular;

the cyclical nature of our capital equipment business, in particular our semiconductor business;

delays in the delivery and availability of components, services and materials;

the expansion or consolidation of our operations;

defects or deficiencies in our products, services or designs;

integrating acquisitions and "operate-in-place" arrangements, and achieving the anticipated benefits therefrom;

negative impacts on our business resulting from recent increases in third-party indebtedness;

our response to changes in demand, rapidly evolving and changing technologies, and changes in our customers' business and outsourcing strategies;

customer, competitor and/or supplier consolidation;

compliance with social responsibility initiatives;

•hallenges associated with new customers or programs, or the provision of new services;

the impact of our restructuring actions;

the incurrence of future restructuring charges, impairment charges or other write-downs of assets;

managing our operations, growth initiatives and our working capital performance during uncertain market and economic conditions;

disruptions to our operations, or those of our customers, component suppliers and/or logistics partners, including as a result of global or local events outside of our/their control and the impact of significant tariffs on items imported into the U.S.:

changes to our operating model;

changing commodity, materials and component costs as well as labor costs and conditions;

retaining or expanding our business due to execution and quality issues (including our ability to successfully resolve these challenges);

non-performance by counterparties (including the financial institutions party to our purchased annuities and other financial counterparties, key suppliers and/or customers);

maintaining sufficient financial resources and working capital to fund currently anticipated financial obligations and to pursue desirable business opportunities;

negative impacts on our business resulting from any significant uses of cash, securities issuances, and/or additional third-party indebtedness for acquisitions or to otherwise fund our operations;

our financial exposure to foreign currency volatility;

recruiting or retaining skilled talent;

our dependence on industries affected by rapid technological change;

increasing taxes, tax audits, and challenges of defending our tax positions;

obtaining, renewing or meeting the conditions of tax incentives and credits;

the relocation of our corporate headquarters;

computer viruses, malware, hacking attempts or outages that may disrupt our operations;

the management of our IT systems and our ability to protect confidential information;

the variability of revenue and operating

results;

compliance with applicable laws, regulations, and government grants;

our pension obligations;

interest rate fluctuations and changes to LIBOR; and

current or future litigation, governmental actions, and/or changes in legislation.

The foregoing and other material risks and uncertainties are discussed in our public filings, which can be found at www.sedar.com and www.sec.gov, including in this Annual Report, and subsequent reports on Form 6-K furnished to, the U.S. Securities and Exchange Commission, and as applicable, the Canadian Securities Administrators.

Our forward-looking statements contained in this Annual Report are based on various assumptions, many of which involve factors that are beyond our control. Our material assumptions include those related to the following:

fluctuation of production schedules from our customers in terms of volume and mix of products or services;

the timing and execution of, and investments associated with, ramping new business;

the successful pursuit, completion and integration of acquisitions;

the success of our customers' products;

our ability to retain programs and customers;

the stability of general economic and market conditions, currency exchange rates and interest rates;

supplier performance, pricing and terms;

compliance by third parties with their contractual obligations and the accuracy of their representations and warranties;

the costs and availability of components, materials, services, equipment, labor, energy and transportation;

that our customers will retain liability for recently-imposed tariffs and countermeasures;

our ability to keep pace with rapidly changing technological developments;

the impact of recent U.S. tax reform on our operations;

the timing, execution and effect of our restructuring actions, including our cost efficiency initiative;

the successful resolution of quality issues that arise from time to time;

our having sufficient financial resources and working capital to fund currently anticipated financial obligations and to pursue desirable business opportunities;

our ability to successfully diversify our customer base and develop new capabilities;

the availability of cash resources for repurchases of outstanding subordinate voting shares;

that we achieve the expected benefits from our recent acquisitions;

the impact of the CCS Review on our business; and

the magnitude of anticipated losses in our capital equipment business in the first quarter of 2019.

While management believes these assumptions to be reasonable under current circumstances, they may prove to be inaccurate, which could cause actual results to differ materially (and adversely) from those that would have been achieved had such assumptions been accurate.

Forward-looking statements speak only as of the date on which they are made, and we disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law. You should read this Annual Report, and the documents, if any, that we incorporate herein by reference, with the understanding that our actual results may be materially different from what we expect.

All forward-looking statements attributable to us are expressly qualified by the cautionary statements included in this Annual Report.

Item 1. Identity of Directors, Senior Management and Advisers

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

## Item 3. Key Information

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## A. Selected Financial Data

You should read the following selected financial data together with Item 5, "Operating and Financial Review and Prospects," the Consolidated Financial Statements in Item 18, and the other information in this Annual Report. The selected financial data presented below is derived from our Consolidated Financial Statements, which are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). See Item 18. No dividends have been declared by the Corporation.

	Year ended December 31					
	2014	2015	2016	2017	2018	
			(restated)*	(restated)*		
	(in millions, except per share amounts)					
Consolidated Statements of Operations Data <sup>(1)</sup> :						
Revenue <sup>(1)</sup>	\$5,631.3	\$5,639.2	\$6,046.6	\$6,142.7	\$6,633.2	2
Cost of sales <sup>(1)</sup>	5,225.9	5,248.1	5,617.0	5,724.2	6,202.7	
Gross profit <sup>(1)</sup>	405.4	391.1	429.6	418.5	430.5	
Selling, general and administrative expenses (SG&A), including	230.0	230.7	236.0	229.4	247.8	
research and development <sup>(2)</sup>		0.2	0.4	0.0	15.4	
Amortization of intangible assets	10.6	9.2	9.4	8.9	15.4	
Other charges <sup>(3)</sup>	37.1	35.8	25.5	37.0	61.0	
Earnings from operations <sup>(1)</sup>	127.7	115.4	158.7	143.2	106.3	
Refund interest income <sup>(4)</sup>		_	` /			
Finance costs <sup>(5)</sup>	3.1	6.3	10.0	10.1	24.4	
Earnings before income taxes <sup>(1)</sup>	124.6	109.1	163.0	133.1	81.9	
Income tax expense (recovery) <sup>(1)</sup>	16.4	42.2	24.7	27.6	(17.0	)
Net earnings <sup>(1)</sup>	\$108.2	\$66.9	\$138.3	\$ 105.5	\$98.9	
Other Financial Data <sup>(1)</sup> :						
Basic earnings per share <sup>(1)</sup>	\$0.61	\$0.43	\$0.98	\$ 0.74	\$0.71	
Diluted earnings per share <sup>(1)</sup>	\$0.60	\$0.42	\$0.96	\$ 0.73	\$0.70	
Property, plant and equipment and computer software cash expenditures	\$61.3	\$62.8	\$64.1	\$ 102.6	\$82.2	
Shares used in computing per share amounts (in millions):						
Basic	178.4	155.8	141.8	143.1	139.4	
Diluted	180.4	157.9	143.9	145.2	140.6	

	As of December 31					
	2014	2015	2016	2017	2018	
			(restated)*	(restated)*		
	(in mill	ions)				
Consolidated Balance Sheet Data <sup>(1)</sup>						
Cash and cash equivalents	\$565.0	\$545.3	\$ 557.2	\$ 515.2	\$422.0	
Working capital <sup>(1)(6)</sup>	1,049.9	990.6	1,121.5	1,210.1	1,203.2	
Property, plant and equipment	312.4	314.6	302.7	323.9	365.3	
Total assets <sup>(1)</sup>	2,583.6	2,612.0	2,841.9	2,964.2	3,737.7	
Borrowings under credit facility <sup>(7)</sup>		262.5	227.5	187.5	757.3	
Capital stock	2,609.5	2,093.9	2,048.2	2,048.3	1,954.1	
Total equity <sup>(1)</sup>	1,394.9	1,091.0	1,257.8	1,370.2	1,332.3	

<sup>\*</sup>Financial information for 2016 and 2017 has been restated to reflect our January 1, 2018 adoption of IFRS 15. See footnote (1) below.

Effective January 1, 2014, we adopted IFRIC Interpretation 21, Levies, which clarified when the liability for certain levies should be recognized and required retroactive adoption, and IAS 32, Financial Instruments — Presentation (revised), which clarified the requirements for offsetting financial assets and liabilities. The adoption of these standards did not have a material impact on our Consolidated Financial Statements.

Effective January 1, 2018, we adopted IFRS 15, Revenue from Contracts with Customers, which established a comprehensive framework for determining whether, how much, and when revenue should be recognized. In connection with the adoption of this standard, we elected to apply the retrospective method, and recognized the transitional adjustments through equity at January 1, 2016, the start of the first comparative reporting period included in our Consolidated Financial Statements in Item 18 of this Annual Report. The new standard changed the timing of our revenue recognition for a significant portion of our business, resulting in the recognition of revenue for certain customer contracts earlier than under the previous revenue recognition rules (which was generally upon delivery of final products to our end customer). The new standard has materially impacted our Consolidated Financial Statements, primarily in relation to inventory and accounts receivable balances. See note 2 to the Consolidated Financial Statements in Item 18 for the transitional impacts of adopting IFRS 15.

Effective January 1, 2018, we adopted IFRS 9, Financial Instruments, which introduced a new model for the classification and measurement of financial assets, a single expected credit loss (ECL) model for the measurement of the impairment of financial assets, and a new model for hedge accounting that is aligned with a company's risk management activities. In connection with the adoption of IFRS 9, we also complied with the transitional rules of IAS 1, Presentation of Financial Statements and IFRS 7, Financial Instruments Disclosures. In accordance with the transitional provisions of the rule, we have applied the changes of IFRS 9 retrospectively, with the exception of the hedge accounting policies, which we have applied prospectively as required by the standard. The adoption of this standard did not result in any adjustments to our Consolidated Financial Statements.

- (2) SG&A expenses include research and development costs of \$28.8 million in 2018, \$26.2 million in 2017, \$24.9 million in 2016, \$23.2 million in 2015, and \$19.7 million in 2014.
  - Other charges in 2014 totaled \$37.1 million, comprised primarily of: (a) a non-cash impairment of \$40.8 million against the goodwill of our semiconductor business resulting from our annual impairment assessment; and (b) a
- (3)non-cash settlement loss of \$6.4 million relating to the purchase of annuities for the defined benefit component of a certain pension plan, offset in part by: (i) an \$8.0 million recovery of damages resulting from the settlement of class action lawsuits in which we were a plaintiff; and (ii) a \$2.1 million net reversal of restructuring charges.

  Other charges in 2015 totaled \$35.8 million, comprised primarily of: (a) \$23.9 million in restructuring charges, and (b) an aggregate non-cash impairment of \$12.2 million against the property, plant and equipment of our CGUs (defined herein) in Japan and Spain (recorded in the fourth quarter of 2015).

<sup>(1)</sup> Changes in accounting policies:

Other charges in 2016 totaled \$25.5 million, comprised of: (a) \$31.9 million in restructuring charges, offset in part by (b) \$6.4 million, consisting primarily of net legal recoveries. See note 16 to the Consolidated Financial Statements in Item 18.

Other charges in 2017 totaled \$37.0 million, comprised of: (a) \$28.9 million in restructuring charges, (b) a \$1.9 million non-cash loss incurred on the purchase of pension annuities, (c) \$1.6 million in transition costs relating to the relocation of our Toronto manufacturing operations, and (d) \$4.6 million, primarily for acquisition-related costs and activities. See note 16 to the Consolidated Financial Statements in Item 18.

Other charges in 2018 totaled \$61.0 million, comprised of: (a) \$35.4 million in restructuring charges pertaining to our cost efficiency initiative, (b) \$13.2 million in transition costs relating to the relocation of our Toronto manufacturing operations and corporate headquarters, (c) \$1.2 million of accelerated amortization of unamortized deferred financing costs and (d) \$11.2 million, primarily for acquisition-related costs and activities. See note 16 to the Consolidated Financial Statements in Item 18.

Refund interest income represents the refund of interest on cash then-held on account with tax authorities in (4)connection with the resolution of certain previously-disputed tax matters in 2016. See notes 17 and 20 to the Consolidated Financial Statements in Item 18.

Finance costs are comprised primarily of interest expenses and fees related to our credit facility (including our term loans commencing in 2015), our interest rate swaps (commencing in 2018), our accounts receivable sales program, and a customer supplier financing program. See notes 5, 12 and 17 to the Consolidated Financial Statements in Item 18.

- (6) Calculated as current assets less current liabilities.
- (7) Borrowings under our credit facility do not include our finance lease obligations.
- B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Any of the following risk factors, or any combination of them, could have a material adverse effect on our business, financial condition, and/or operating results. Our shareholders and prospective investors should carefully consider each of the following risks and all of the other information set forth in this Annual Report.

We are dependent on our customers' ability to compete and succeed in the marketplace with the products and services we provide.

Our operating results are highly dependent upon our customers' ability to compete and succeed in the marketplace with the services we provide and the products we manufacture. Factors that may adversely affect our customers include: rapid changes in technology, evolving industry standards, and short product life cycles; seasonal demand; our customers' failure to successfully market their products; a lack of widespread commercial acceptance of their products; supply chain issues; dramatic shifts in demand which may cause our customers to lose market share or exit businesses; and/or recessionary periods in our customers' markets. In addition, certain of our customers have experienced, and may in the future experience, severe revenue erosion, pricing, margin and cash flow pressures, and excess inventories that, in turn, have adversely affected (and in the future may adversely affect) our operating results. If technologies or standards supported by our customers' products and services or their business models become obsolete, fail to gain widespread acceptance or are canceled, our business would be adversely affected. Demand patterns are volatile across our end markets, particularly in our CCS segment and our semiconductor business, Rapid shifts in technology, model obsolescence, commoditization of certain products, the emergence of new business models, shifting demand, including from traditional network infrastructures to highly virtualized and cloud-based environments, the prevalence of solid state or flash memory technology as a replacement for hard disk drives, as well as the proliferation of software-defined technologies enabling the disaggregation of software and hardware, increased competition, the oversupply of products, pricing pressures, and the volatility of the economy, all contribute to the complexity of managing our operations and fluctuations in our financial results. In our CCS segment, cloud-based service providers have increased their use of our products in recent periods. These customers and markets are cyclically different from our traditional original equipment manufacturer (OEM) customers, creating more volatility and unpredictability in our revenue patterns as we adjust to this shift, and additional challenges with respect to the management of our working capital requirements.

See "Our customers may be negatively affected by rapid technological changes, shifts in business strategy and/or the emergence of new business models, and new entrants/competition with disruptive products and/or services" below. We are dependent on a limited number of customers and end markets. A decline in revenue from, or the loss of, any significant customer, could have a material adverse effect on our financial condition and operating results. Our customers include OEMs, service providers (including cloud-based service providers) and other companies in a wide range of industries. We depend upon a small number of customers for a significant portion of our revenue. During each of 2016, 2017 and 2018, two customers individually represented more than 10% of our total revenue, and our top 10 customers in 2018 represented 70% (2017 — 71%; 2016 — 68%) of our total revenue. We also remain dependent upon revenue from our CCS segment (consisting of our Communications and Enterprise end markets), which represented 67% of our consolidated revenue in 2018 and 68% of our consolidated revenue in each of 2017 and 2016. To reduce our reliance on any one customer or end market (including the concentration of our revenues in our CCS segment), we continue to target new customers and services, including a continued focus on the expansion of our

ATS segment (which in 2018 consisted of our aerospace and defense, industrial, smart

energy, healthtech, and capital equipment businesses), including through acquisitions. However, see "We may encounter difficulties expanding or consolidating our operations or introducing new competencies or new offerings, which could adversely affect our operating results" below. Notwithstanding our expansion efforts, we remain dependent on our CCS segment for a large portion of our revenue, which is subject to the various factors described above and continues to experience slower growth rates, increased pricing pressures and a highly competitive marketplace, including from original design manufacturers (ODMs).

A decline in revenue from, or the loss of, any significant customer could have a material adverse effect on our financial condition and operating results. We cannot assure the replacement of completed, delayed, cancelled or reduced orders with new business. In addition, the ramping of new programs can range from several months to over a year before production starts, and often requires significant up-front investments and increased working capital. During this start-up period, these programs may generate losses or may not achieve the expected financial performance due to production ramp inefficiencies, lower than expected volume, or delays in ramping to volume. Our customers may significantly change these programs, or even cancel them altogether, due to decreases in their end-market demand or in the actual or anticipated success of their products in the marketplace.

There can be no assurance that our efforts to secure new customers and programs in our traditional or new markets, including through acquisitions, will succeed in reducing our customer concentration. Acquisitions are also subject to integration risk, and revenues and margins could be lower than we anticipate. Failure to secure business from existing or new customers in any of our end markets would adversely impact our operating results.

Any of the foregoing may adversely affect our margins, cash flow, and our ability to grow our revenue, and may increase the variability of our operating results from period to period. See "Our revenue and operating results may vary significantly from period to period" below.

A change in the mix of customers and/or the types of products or services we provide could have a material adverse effect on our financial condition and operating results.

The mix of our customers and the type of products or services we provide may have an impact on our financial condition and operating results from period-to-period. For example, in 2018, a higher concentration of fulfillment services (that contribute significantly lower gross profit than our historical full-service traditional EMS programs), as well as adverse market conditions (mostly significantly in our CCS segment and our semiconductor business), negatively impacted our margins and operating results for such year. As a result of the high concentration of our business in our CCS segment (67% of total revenue in 2018), we expect this demand shift, as well as competitive pressures and aggressive pricing, to continue to negatively impact this segment in future periods to the extent we cannot offset such impacts with increases in higher-margin services, cost reductions or otherwise. In addition, certain customer agreements in both of our segments require us to provide specific price reductions over the contract term, which may also negatively impact our financial condition and operating results if they cannot be offset. We also expect the weaker semiconductor demand environment that we experienced during the second half of 2018 to continue throughout 2019. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Overview — Celestica's business" for a discussion of a comprehensive review of our CCS business intended to improve operating results in this segment, as well as actions we are taking to address the current semiconductor demand environment.

We operate in an industry comprised of numerous competitors and aggressive pricing dynamics.

We operate in a highly competitive industry. Our competitors include Benchmark Electronics, Inc., Flex Ltd., Hon Hai Precision Industry Co., Ltd., Jabil Circuit, Inc., Plexus Corp., and Sanmina Corporation, as well as ODMs and smaller EMS companies that often have a regional, product, service or industry-specific focus. In recent years, we have expanded our joint design and manufacturing (JDM) offering, which encompasses advanced technology design solutions that customers can tailor to their specific platform applications. We also face increased competition from ODMs, who also specialize in providing internally designed products and manufacturing services, as well as component and sub-system suppliers, distributors and/or systems integrators. As part of our JDM offering, we also provide complete hardware platform solutions, which may compete with those of our customers. Offering products or services to customers that compete with the offerings of other customers may negatively impact our relationship with, or result in a loss of business from, such other customers. We face indirect competition from the manufacturing

operations of our current and prospective customers who may choose to manufacture products internally rather than outsource to EMS providers, or who may decide to insource previously outsourced business, particularly where internal excess capacity exists. In addition to the foregoing, we may face competition from distribution and logistics providers expanding their services across the supply chain.

The competitive environment in our industry is intense and aggressive pricing is a common business dynamic. Some of our competitors have greater scale and offer a broader range of services. While we have increased our capacity in lower-cost regions to reduce our costs, these regions may not provide the same operational benefits that they have in the past due to rising costs and a continued aggressive pricing environment. Additionally, our current or potential competitors may: increase or shift their presence

in new lower-cost regions to try to offset continuous competitive pressure and increasing labor costs or to secure new business; develop or acquire services comparable or superior to ours; consolidate to form larger competitors; or adapt more quickly than we do to new technologies, evolving industry trends and changing customer requirements. In addition, our competitors may be more effective than we are in investing in IT solutions to differentiate their offerings to capture a larger share of the market. Some of our competitors have increased their vertical capabilities by manufacturing modules or components used in the products they assemble, such as metal or plastic parts and enclosures, backplanes, circuit boards, cabling and related products. Although we have also expanded our capabilities, including through our acquisitions of Lorenz, Inc. and Suntek Manufacturing Technologies, SA de CV, collectively known as Karel Manufacturing (Karel), Atrenne Integrated Solutions, Inc. (Atrenne) and Impakt Holdings, LLC (Impakt), as well as recent "operate-in-place" arrangements, our competitors' expansion efforts may be more successful than ours. Competition may cause pricing pressures, reduced profits or a loss of market share (for example, from program losses or customer disengagements). We may not be able to compete successfully against our current and future competitors. See "Overview — Celestica's business" and "Recent developments — Segment Reorganization and Segment Environment" in Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations.

We are dependent on third parties to supply certain materials, and our results can be negatively affected by the availability and cost of such materials.

The purchase of materials and electronic components represents a significant portion of our costs. We rely on third parties to provide such items. Although our customers often dictate the materials to be used in their products, materials shortages or other issues affecting timely access to these materials (which often occur in our industry) may impact our ability to successfully complete a program. A delay or interruption in supply from a component supplier, especially for single-sourced components, could have a significant impact on our operations and on our customers if we are unable to deliver finished products in a timely manner. If the amount we are required to pay for equipment and supplies exceeds what we have estimated, especially in a fixed price contract, we may suffer losses on these contracts. If a supplier or manufacturer fails to provide supplies or equipment as required under a contract for any reason, we may be required to source these items from other third parties on a delayed basis or on less favorable terms, which could impact our profitability. Additionally, quality or reliability issues at any of our component providers, or financial difficulties that affect their production and ability to supply us with components, could halt or delay production of a customer's product, or result in claims against us for failure to meet required customer specifications, which could materially adversely impact our operating results. Shortages may also result in our carrying higher levels of inventory and extended lead-times, or result in increased component prices, which may require price increases in the products and services that we provide. Any increase in our costs that we are unable to recover would negatively impact our margins and operating results. Changes in forecasted volumes or in our customers' requirements can also negatively affect our ability to obtain components and adversely impact our operating results. We continue to experience materials constraints from certain suppliers in both of our segments, due in part to industry-wide shortages for certain electronic components. These shortages caused delays in the production of customer products in both of our segments, and required us to carry higher than expected levels of inventory, commencing in 2017 and continuing throughout 2018. The shortages, in combination with volatile market demand, negatively impacted our margins for each such year. Although we expect these materials constraints and resulting adverse impacts to continue in the near term, we have begun to see improvements in the availability of certain previously constrained items. Nonetheless, only minor improvements in supplier lead times are currently expected.

We may encounter difficulties expanding or consolidating our operations or introducing new competencies or new offerings, which could adversely affect our operating results.

As we expand our business, open new sites, enter into new markets, products and technologies, invest in research, design and development, acquire new businesses or capabilities, transfer business from one location to another location within our network, consolidate certain operations, and/or introduce new business models or programs, we may encounter difficulties that result in higher than expected costs associated with such activities. Potential difficulties related to such activities include our ability: to manage growth effectively; to maintain existing business relationships during periods of transition; to anticipate disruptions in our operations that may impact our ability to

deliver to customers on time, produce quality products and ensure overall customer satisfaction; and to respond rapidly to changes in customer demand or volumes.

We may also encounter difficulties in ramping and executing new programs. We may require significant investments to support these new programs, including increased working capital requirements, and may generate lower margins or losses during and/or following the ramp period. For example, we incurred higher costs in 2017 and 2018 with respect to ramping new programs, including aerospace and defense programs, as well as programs that required the establishment of infrastructures in multiple jurisdictions. We may incur similar additional ramping costs as we further expand our ATS segment and integrate new acquisitions. There can be no assurance that our increased investments will benefit us or result in business growth. As we pursue opportunities in new markets or technologies, we may encounter challenges due to our limited knowledge or experience in these areas. In addition, the success of new business models or programs depends on a number of factors including: understanding the new business or markets; timely and successful product development; market acceptance; the effective management of purchase

commitments and inventory levels in line with anticipated demand; the development or acquisition of appropriate intellectual property and capital investments, to the extent required; the availability of materials in adequate quantities and at appropriate costs to meet anticipated demand; and the risk that new offerings may have quality or other defects in the early stages of introduction. Any of these factors could prevent us from realizing the anticipated benefits of growth in new markets or technologies, which could materially adversely affect our business and operating results. For example, we made the decision in the fourth quarter of 2016 to exit the solar panel manufacturing business. In connection therewith, we recorded \$21.2 million in restructuring charges in the fourth quarter of 2016 to close our solar panel manufacturing operations at our two locations, including \$19.0 million in impairment charges to write down the carrying value of our solar panel manufacturing equipment to then-recoverable amounts. During 2017, we incurred operating losses related to the wind-down of our solar panel manufacturing operations, and we recorded a net aggregate of \$5.2 million in additional provisions/impairment charges to write down our inventory, accounts receivable and solar panel manufacturing equipment to recoverable amounts.

As part of our strategy to enhance our end-to-end service offerings, we intend to continue to expand our design and engineering capabilities (including our JDM capabilities). Providing these services may expose us to different or greater potential risks than those we face when providing our manufacturing services. Our design services offerings require significant investments in research and development, technology licensing, testing and tooling equipment, patent applications and talent recruitment. Our margins may be adversely impacted if we incur higher than expected investment costs, or if our customers are not satisfied with our progress, or do not approve our completed designs. In addition, our design activities often require the purchase of inventory for initial production runs before we have a firm purchase commitment from a customer. Furthermore, we may face increased competition with respect to this offering from ODMs and other companies providing similar services, including our own customers. As we anticipate continuing to grow this business, costs required to support our design and engineering capabilities may adversely affect our profitability. In addition, some of the products we design and develop must satisfy safety and regulatory standards and some must receive government certifications. If we fail to obtain these approvals or certifications on a timely basis, we would be unable to sell these products, which would harm our revenues, profitability and reputation. There can be no assurance that our expansion into new markets or new business will be successful, or that we will achieve the anticipated benefits.

There may be problems with the products we design or manufacture that could result in liability/warranty claims against us, which may reduce demand for our services, damage our reputation, and/or cause us to incur significant costs.

In most of our sales contracts, we provide warranties against defects or deficiencies in our products, services, or designs. The extent of the warranties varies by customer, and warranties generally range from one to three years. However, the warranty period for our JDM designs, and our solar panel products (which remain in force notwithstanding our exit from this business), are generally longer. We generally design and manufacture products to our customers' specifications, many of which are highly complex, and include products for industries, such as healthcare, aerospace and defense, that tend to have higher risk profiles. The customized design solutions that form a part of our JDM offering also subject us to the risk of liability claims if defects are discovered or alleged. Despite our quality control and quality assurance efforts, problems may occur, or may be alleged, in or resulting from the design and/or manufacturing of these products. Whether or not we are responsible, problems in the products we design and/or manufacture, or in products which include components we manufacture, whether real or alleged, whether caused by faulty customer specifications, the design or manufacturing processes or a component defect, may result in increased costs to us, as well as delayed shipments to our customers, and/or reduced or canceled customer orders. These potential claims may include damages for the recall of a product and/or injury to person or property, including consequential and/or punitive damages.

Even if customers or third parties, such as component suppliers, are responsible for defects, they may not, or may not be able to, assume responsibility for any such costs or required payments to us. While we seek to insure against many of these risks, insurance coverage may be inadequate, not cost effective or unavailable, either in general or for particular types of products or issues.

As we expand our service offerings (including our JDM offerings) and pursue business in new end markets, our warranty obligations are likely to increase and we may not be successful in pricing our products to appropriately cover our warranty costs. A successful claim for damages arising from defects or deficiencies for which we are not adequately insured, and for which indemnification from a third party is not timely (or otherwise) available, could have a material adverse effect on our reputation and/or our operating results and financial condition.

We may encounter integration and other significant challenges with respect to our acquisitions and strategic transactions which could adversely affect our operating results.

We intend to continue to expand our capabilities and presence in new end markets, some of which have (and may in the future) occur through acquisitions. These transactions may involve acquisitions of selected assets or entire companies. We have also completed numerous strategic transactions, including multi-year "operate-in-place" arrangements, where we manage certain

production, assembly or other services for customers directly from their locations, acquire their inventory, equipment and/or other assets, hire their employees, and lease or acquire their manufacturing sites. Potential challenges related to these acquisitions and transactions include: integrating acquired operations, systems and businesses (which may include transferring production from acquired operations to our existing network, or downsizing or closing acquired locations, in each case to obtain anticipated operational synergies); meeting customers' expectations as to volume, product quality and timeliness; supporting legacy contractual obligations; retaining customer, supplier, employee or other business relationships of acquired operations; addressing unforeseen liabilities of acquired businesses; limited experience with new technologies and markets; failure to realize anticipated benefits, such as cost savings and revenue enhancements; failure to achieve anticipated business volumes or operating margins; valuation methodologies not accurately capturing the value of the acquired business; the effects of diverting management's attention from day-to-day operations to matters involving the integration of acquired businesses; incurring potentially substantial transaction costs associated with these transactions; increased burdens on our staff and on our administrative, internal control and operating systems, which may hinder our legal and regulatory compliance activities; overpayment for an acquisition; and potential impairments resulting from post-acquisition deterioration in, or reduced benefit from, an acquired business. While we often obtain indemnification rights from the sellers of acquired businesses, such rights may be difficult to enforce, the losses may exceed any dedicated escrow funds, and the indemnitors may not have the ability to financially support the indemnity. Any of these factors may prevent us from realizing the anticipated benefits of an acquisition, including additional revenue, operational synergies and economies of scale. Any delay or failure to realize the anticipated benefits of acquisitions may adversely affect our business and operating results and may require us to write-down the carrying value of any related goodwill and intangible assets in periods subsequent to the acquisitions.

In addition, there is no assurance that we will find suitable new acquisition targets, that we will be able to consummate any such transactions on terms and conditions acceptable to us, or that we will be able to fund any such acquisitions with existing cash resources or through financing provided by external lenders. We may require additional capital to grow our business through acquisitions. We may be unable to obtain additional capital if and when required on terms acceptable to us or at all. We may pursue sources of additional capital through various financing transactions or arrangements, including debt financing, equity financing or other means. We may not be successful in consummating suitable financing transactions in the time period required or at all, and we may not be able to obtain the capital we require by other means. If the amount of capital we are able to raise from financing activities, together with the cash from our operations, is not sufficient to consummate an acquisition we have deemed desirable, we may not be able to implement our intended business plan, which could adversely affect our business, results of operations and financial condition. See "We have incurred substantial third-party debt in recent periods, which has increased our debt service requirements, reduced our ability to fund future acquisitions and/or to respond to unexpected capital requirements, and may have other adverse impacts on our business" and "We may use cash on hand, issue debt or equity securities, and/or incur additional third-party debt (or any combination thereof) to complete future acquisitions or otherwise fund our operations, which may adversely affect our liquidity, credit ratings, financial condition and/or results of operations" below.

Acquisitions may also involve businesses we are not familiar with, and expose us to additional business risks that are different than those we have traditionally experienced or anticipated at the time of acquisition. In addition, we may incur costs to support our pursuit of acquisitions and/or other strategic opportunities, which may not result in the consummation of any such transactions, and are expected to continue to adversely impact our operating results. We have incurred substantial third-party debt in recent periods, which has increased our debt service requirements, reduced our ability to fund future acquisitions and/or to respond to unexpected capital requirements, and may have other adverse impacts on our business.

We have recently incurred an aggregate of approximately \$757.3 million of debt under our credit facility to fund our acquisitions of Atrenne and Impakt, and for general working capital purposes. As a result, our debt leverage and debt service requirements have each increased. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity — Cash requirements." We do not

believe that the current aggregate amounts outstanding under our credit facility have had (or will have) a significant adverse impact on our liquidity, our results of operations or financial condition. However, our increased indebtedness, together with the mandatory prepayment provisions of our credit facility, have reduced our ability to fund future acquisitions and/or to respond to unexpected capital requirements. Such increases may also: require us to pursue additional term financing for potential investments, which may not be available on acceptable terms or at all; limit our ability to obtain additional financing for working capital, business activities, and other general corporate requirements; limit our ability to refinance our indebtedness on terms acceptable to us or at all; limit our flexibility to plan for and adjust to changing business and market conditions, increase our vulnerability to general adverse economic and industry conditions; and will require us to dedicate a portion of our cash flow to make interest and principal payments on such indebtedness, thereby limiting the availability of our cash flow for other purposes. In addition, such increased indebtedness could have a variety of other adverse effects, including: (i) default and foreclosure on our assets if we have insufficient funds to repay the debt obligations; (ii) acceleration of such indebtedness or cross-defaults if we breach financial or other covenants under

applicable debt agreements; (iii) increased vulnerability to adverse changes in competitive conditions or government regulation; and (iv) other disadvantages compared to our competitors who have less debt.

In addition, our credit ratings impact the cost and availability of future borrowings and, accordingly, our cost of capital. Our ratings reflect the opinions of the ratings agencies of our financial strength, operating performance and ability to meet our debt obligations. There can be no assurance that we will achieve a particular rating or maintain a particular rating in the future, which could place us at a competitive disadvantage compared to our competitors and prevent us from taking actions that could benefit us in the long term. See "Our credit rating may be downgraded" below. We may not be able to obtain financing arrangements on acceptable terms or in amounts sufficient to meet our needs in the future, which could harm our ability to grow our business, internally or through acquisitions. Inherent challenges in managing unanticipated changes in customer demand may impact our planning, supply chain execution and manufacturing, and may adversely affect our operating performance and results. Our customers expect rapid response times to meet changes in their volume requirements. Although we generally enter into master supply agreements with our customers, the level of business to be transacted under those agreements is not guaranteed. Instead, we bid on a program-by-program basis and typically receive customer purchase orders for specific quantities and timing of products. Most of our customers typically do not commit to production schedules for more than 30 to 90 days in advance and we often experience volatility in customer orders and inventory levels. There can be no assurance that present or future customers will not terminate their manufacturing or service arrangements with us, or that they will not significantly change, reduce or delay the volume of manufacturing or other services they order from us, any of which would adversely affect our operating results. Customers may also shift business to our competitors, in-source programs, or adjust the concentration of their supplier base. The global economic environment, political pressures, negative sentiment from our customers' customers or changes made by local governments (such as tax benefits or income tax rate reductions) may also impact our customers' business decisions. These and other factors could adversely affect the rate of outsourcing generally, or to EMS providers like Celestica. Additionally, a significant portion of our revenue can occur in the last month of the quarter, and purchase orders may be subject to change or cancellation, all of which affect our operating results when they occur. In the second half of 2018, we experienced weaker-than-expected demand in our capital equipment business, in particular from our semiconductor customers, which negatively impacted our operating results in 2018. Although we expect these adverse market conditions to continue throughout 2019, we cannot predict their exact impact. Accordingly, our forecasts of customer orders may be inaccurate, and may make it difficult to order appropriate levels of materials, schedule production, and maximize utilization of our manufacturing capacity and resources.

Our customers may change their forecasts, production quantities or product type requirements, or may accelerate, delay or cancel production quantities for various reasons. When customers change production volumes or request different products to be manufactured from those in their original forecast, the unavailability of components and materials for such changes could also adversely impact our revenue and working capital performance. See "We are dependent on third parties to supply certain materials, and our results can be negatively affected by the availability and cost of such materials" above.

Further, to guarantee continuity of supply for many of our customers, we are required to manufacture and warehouse specified quantities of finished goods. The uncertainty of demand in our customers' end markets, intense competition in our customers' industries and general order volume volatility may result in customers delaying or canceling the delivery of products we manufacture for them or placing purchase orders for lower volumes of products than previously anticipated.

Order cancellations, or changes or delays in production, may result in higher than expected levels of inventory, which could in turn have a material adverse impact on our operating results and working capital performance. Although we required additional inventory to support new program ramps during 2017 and 2018, we also experienced demand volatility and significant product mix changes in our CCS segment during each such year, including late changes from certain customers, as well as materials constraints from suppliers, all of which resulted in us carrying higher than expected levels of inventory at each of December 31, 2017 and 2018. We may not be able to return or re-sell this inventory, or we may be required to hold the inventory for a period of time, any of which may result in our having to

record additional reserves for the inventory if it becomes excess or obsolete. For example, unprecedented declines in the pricing of solar panels, a slowing of demand, and related deferred and cancelled orders from customers resulted in us recording aggregate net inventory provisions of \$12.0 million in 2016, primarily to write down our solar panel inventory to applicable market prices. In addition, increased levels of overall aged inventory in 2018 compared to 2017 resulted in approximately \$10 million in higher inventory provisions in 2018. Order cancellations and delays could also lower our asset utilization, resulting in higher levels of unproductive assets, lower inventory turns, and lower margins.

Our customers may be negatively affected by rapid technological changes, shifts in business strategy and/or the emergence of new business models, and new entrants/competition with disruptive products and/or services. Many of our customers compete in markets that are characterized by rapidly changing technology, evolving industry standards, continuous improvements in products and services, commoditization of certain products, changes in preferences by end

customers or other changes in demand, and the emergence of new entrants or competitors with disruptive products, services, or new business models that deemphasize traditional OEM distribution channels. These conditions frequently result in shorter product lifecycles and may lead to shifts in our customers' business strategies. Our success will depend on the success achieved by our customers in developing, marketing and selling their products. For example, declines in end-market demand for customer-specific proprietary systems in favor of open systems with standardized technologies has had an adverse impact on our customers, and consequently, our business. Other examples are described in "We are dependent on our customers' ability to compete and succeed in the marketplace with our products and services" above. The highly competitive nature of our customers' products and services could also drive further consolidation among OEMs, and result in product line consolidation that could adversely impact our customer relationships and our revenue.

Consolidation within the EMS industry, or among our customers or suppliers, may adversely affect our business relationships or the volume of business we conduct with our customers.

Our customers, competitors and/or suppliers may be subject to consolidation. Increasing consolidation in industries that utilize our services may occur as companies combine to achieve economies of scale and other synergies, which could result in an increase in excess manufacturing capacity as companies seek to divest manufacturing operations or eliminate product lines. Excess manufacturing capacity may increase pricing and competitive pressures in our industry as a whole and for us in particular. Consolidation could also result in an increasing number of very large companies offering products in multiple industries. The significant purchasing power and market power of these large companies could increase pricing and competitive pressures for us. If one of our customers is acquired by another company that does not rely on us to provide services, has its own production services, or relies on another provider of similar services, we may lose that customer's business. Such consolidation may reduce the number of customers from which we generate a significant percentage of our revenue, and further expose us to increased risks relating to our dependence on a small number of customers. Any of the foregoing results of industry consolidation could adversely affect our business. Consolidation among our competitors may create a competitive advantage over us, which may also result in a loss of business and revenue if customers shift their production. Such consolidation may also result in pricing pressures, which could negatively impact our profit margins. Changes in OEM strategies, including the divestiture or exit from certain of their businesses, may also result in a loss of business for us. Any failure to comply with customer-driven policies and standards, and third party certification requirements, including those related to social responsibility, could adversely affect our business and reputation. In addition to government regulations and industry standards, our customers may require us to comply with their own social responsibility, conflict minerals, quality or other business policies or standards, which may be more restrictive than current laws and regulations and our pre-existing policies, before they commence, or continue, doing business with us. Such policies or standards may be customer-driven, established by the industries in which we operate, or imposed by third party organizations. For example, we are a member of the Responsible Business Alliance (RBA), formerly known as the Electronic Industry Citizenship Coalition. The RBA is a non-profit coalition of electronics companies that, among other things, establishes standards for its members in responsible and ethical practices in the areas of labor, environmental compliance, employee health and safety, ethics and social responsibility. Our compliance with these policies, standards and third-party certification requirements could be costly, and our failure to comply could adversely affect our operations, customer relationships, reputation and profitability. Challenges associated with new customers or programs, or the provision of new services, could adversely affect our operations and financial results.

In determining whether to pursue a potential new customer, program or service, we evaluate whether it fits with our value proposition as well as its potential end-market success. Where we proceed, our goal is to ensure that our terms of engagement appropriately reflect anticipated costs, risks and rewards. The failure to make prudent engagement decisions or to establish appropriate contractual terms could adversely affect our profitability and margins.

There are also risks associated with the timing and ultimate realization of anticipated revenue from a new program or service. Certain new programs or services require us to devote significant capital and personnel to new technologies and competencies. We may not meet customer expectations, which could damage our relationships with such

customers and impact our ability to timely deliver conforming products or services. The success of new programs may also depend heavily on factors including product reliability, market acceptance, regulatory approvals and/or economic conditions. Any failure to meet expectations on these factors could adversely affect our results of operations.

We have incurred significant restructuring charges in recent periods, and expect to incur further significant restructuring charges during 2019 in connection with our cost efficiency initiative (CEI); we may not achieve some or all of the expected benefits from our CEI and other restructuring activities, these activities may adversely affect our business, and we may implement additional restructuring actions subsequent to the completion of our CEI. We perform ongoing evaluations of our business, operational efficiency and cost structure, and implement restructuring actions as we deem necessary. We are currently implementing restructuring actions (which commenced in the fourth quarter of 2017) under our CEI, including actions related to our CCS segment portfolio review and in response to the demand environment in our capital equipment business. We estimate that we will incur aggregate restructuring charges under the CEI within the previously disclosed range of between \$50.0 million and \$75.0 million (consisting primarily of cash charges), and that such actions will continue through the end of 2019. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Operating results — Other charges." Implementation of our CEI may be costly and disruptive to our business, and we may not be able to achieve the cost savings and benefits that we anticipate in connection therewith. We may not be able to retain or expand existing business due to execution issues relating to anticipated headcount reductions, plant closures or product/service transfers, and we may incur higher operating expenses during the periods of transition. Additionally, restructuring actions related to the CEI may result in a loss of continuity and accumulated knowledge in our workforce and related operational inefficiencies, as well as negative publicity. Headcount reductions can also have a negative impact on morale and our ability to attract and hire new qualified personnel in the future. Our CEI is expected to require a significant amount of management and other employees' time and focus, which may divert attention from operating and growing our business.

We recorded restructuring charges of \$35.4 million in 2018, \$28.9 million in 2017 and \$31.9 million in 2016. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Operating results — Other charges" for detail.

Any failure to achieve some or all of the expected benefits of our CEI or any other restructuring activities, including any delay in implementing planned related restructuring actions, may have a material adverse effect on our competitive position and operating results. In addition, we may implement additional future restructuring actions or divestitures as a result of changes in our business, the marketplace and/or our exit from less profitable, under-performing, non-core or non-strategic operations.

We have incurred significant impairment charges and operating losses in recent periods, and may incur such charges and losses in future periods.

We have recorded charges in recent periods relating to the impairment of property, plant and equipment, goodwill and other intangible assets, and have incurred operating losses for certain of our businesses (including operating losses in 2017 resulting from the wind-down of our solar panel manufacturing business, and an operating loss in our semiconductor capital equipment business in the fourth quarter of 2018). These amounts have varied from period to period.

We evaluate the recoverability of the carrying amount of our goodwill, intangible assets, and property, plant and equipment on an ongoing basis, and we may incur impairment charges, which could be substantial and could adversely affect our financial results. Impairment assessments inherently involve judgment as to assumptions about expected future cash flows and the impact of market conditions on those assumptions. Future events and changing market conditions may impact our assumptions as to prices, costs, or other factors that may result in changes in our estimates of future cash flows. Factors that might reduce the recoverable amount of goodwill, intangible assets, and property, plant and equipment below their respective carrying values include declines in our stock price and market capitalization, reduced future cash flow estimates, and slower growth rates in any of our businesses. During 2016, we recorded impairment charges of \$21.2 million (through restructuring charges), primarily to write down our solar panel manufacturing equipment to estimated recoverable amounts. During 2017, we recorded net impairment charges of \$3.8 million (through restructuring charges) to further write down the carrying value of such solar panel manufacturing equipment based on executed sale agreements (such equipment has all been sold). See notes 8, 9 and 16(a) to the Consolidated Financial Statements in Item 18.

Sustained market price decreases, demand softness, and/or failure to realize future revenue at an appropriate profit margin in any cash generating unit (CGU) could negatively impact our operating results, including restructuring actions and/or impairment losses for such CGU, in future periods.

We continue to operate in an uncertain global economic and political environment.

Concerns over global economic conditions and geopolitical issues, energy costs, inflation, the availability and cost of credit, and the European, Asian and the U.S. financial markets have contributed to increased global economic and political uncertainty. Brexit, the current U.S. administration, and tensions between the U.S. and North Korea, China, Russia and/or other countries have contributed to such uncertainty. See "Our operations could be adversely affected by global or local events outside our control" and "Policies or legislation proposed or instituted by the current U.S. administration could have a material adverse effect on our business, results of operations and financial condition" below. Changes in policies by the U.S. or other governments could

negatively affect our operating results due to changes in duties, tariffs or taxes, or limitations on currency or fund transfers, as well as government-imposed restrictions on producing certain products in, or shipping them to, specific countries. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Overview — Overview of the business environment." Uncertain global economies have adversely impacted, and may continue to unpredictably impact, currency exchange rates. See "We are exposed to translation and transaction risks associated with foreign currency exchange rate fluctuations; hedging instruments may not be effective in mitigating such risks" below. Financial market instability may result in lower returns on our financial investments, and lower values on some of our assets. Alternately, inflation may lead to higher costs for labor and materials and/or increase our costs of borrowing and raising capital. Uncertainty surrounding the global economic environment and geopolitical outlook may impact current and future demand for some of the products we manufacture or services we provide, the financial condition of our customers and/or suppliers, as well as the number and pace of customer consolidations. If any of the foregoing impacts the financial condition of our customers, they may delay payments to us or request extended payment terms, which could have an adverse effect on our financial condition and working capital. If any of the foregoing impacts the financial condition of our suppliers, this may have an adverse effect on our operations, financial condition and/or customer relationships. We cannot predict the precise nature, extent, or duration of these economic or political conditions or if they will have any impact on our financial results. A deterioration in the economic environment may accelerate the effect of the various risk factors described in this Annual Report and could result in other unforeseen events that may adversely impact our business and financial condition.

Our operations could be adversely affected by global or local events outside our control.

Our operations and those of our customers, component suppliers and/or our logistics partners may be disrupted by global or local events outside our control, including: natural disasters and related disruptions; political instability; terrorism; armed conflict; labor or social unrest; criminal activity; disease or illness that affects local, national or international economies; unusually adverse weather conditions; and other risks present in the jurisdictions in which we, our customers, our suppliers and/or our logistics partners operate. These types of events could disrupt operations at one or more of our sites or those of our customers, component suppliers and/or our logistics partners. Any such disruption could lead to higher costs, supplier shortages, delays in the delivery of components to us, and/or our inability to provide finished products or services to our customers, any of which could adversely affect our operating results materially. We carry insurance to cover damage to our sites and interruptions to our operations, including those that may occur as a result of natural disasters, such as flooding, earthquakes or other events. Our insurance policies, however, are subject to deductibles, coverage limitations and exclusions, and may not provide adequate (or any) coverage should such events occur.

Increased international political volatility, including changes to previously accepted trading or other government policies or legislation in the United States and Europe, instability in parts of the Middle East, as well as the ongoing refugee crisis, anti-immigrant activities, social unrest and fears of terrorism, enhanced national security measures, armed conflicts, security issues at the U.S./Mexico border related to illegal immigration or criminal activities associated with illegal drug activities, labor or social unrest, strained international relations, including tensions between the United States and North Korea, China, Russia and/or other countries, and any related decline in consumer confidence arising from these and other factors may materially hinder our ability to conduct business, or may reduce demand for our products or services. Any escalation in these events or similar future events may disrupt our operations or those of our customers and suppliers and could adversely affect the availability of materials needed to manufacture our products or the means to transport those materials to manufacturing sites and finished products to customers.

The June 2016 Brexit referendum led to, among other things, volatility in currency exchange rates that resulted in the strengthening of the U.S. dollar against foreign currencies in which we conduct business. Given the lack of comparable precedent, it is unclear what financial, trade and legal implications the withdrawal of the United Kingdom from the European Union will have and how such withdrawal will affect us, our customers and their demand for our services. We cannot predict changes in currency exchange rates, the impact of exchange rate changes on our operating results, nor the degree to which we will be able to manage the impact of currency exchange rate changes, and any of

these effects of Brexit, among others, could materially adversely affect our business, results of operations and financial condition. Also see "Policies or legislation proposed or instituted by the current U.S. administration could have a material adverse effect on our business, results of operations and financial condition" below for a discussion of uncertainties, and potential adverse impacts on our business, that may arise out of actions of the current U.S. administration.

We rely on a variety of common carriers for the transportation of materials and products and for their ability to route these materials and products through various international ports and other transportation hubs. A work stoppage, strike or shutdown of any important supplier's site or operations, or at any major port or airport, or the inability to access any such site for any reason, could result in manufacturing and shipping delays or expediting charges, which could have a material adverse effect on our operating results.

Such events have had and may in the future have an adverse impact on the U.S. and global economy in general, and on consumer confidence and spending, which may adversely affect our revenue and financial results. Such events could increase the volatility of the market price of our securities and may limit the capital resources available to us and our customers and suppliers.

Policies or legislation proposed or instituted by the current U.S. administration could have a material adverse effect on our business, results of operations and financial condition.

The current U.S. administration has created uncertainty with respect to, among other things, existing and proposed trade agreements, free trade generally, and significant increases on tariffs on goods imported into the U.S. from specified countries. The United States, Canada and Mexico have agreed on a revised trade deal (USMCA) to replace the North American Free Trade Agreement. The USMCA was executed at the end of 2018, but is subject to ratification by the legislatures of the three countries. We cannot currently quantify the impact on our business of the USMCA, if ratified. In addition, the current U.S. administration has increased tariffs on certain items imported into the U.S. from several countries, including China, Canada, Mexico, and the European Union (many of which are not addressed by the USMCA). Each of these countries has imposed retaliatory tariffs on specified items, which have been challenged by the U.S. These actions, or other governmental actions related to tariffs or international trade agreements, could increase the cost to our U.S. customers who use our non-U.S. manufacturing sites and components, and vice versa, which may materially and adversely impact demand for our services, our results of operations or our financial condition. We currently ship a significant portion of our worldwide production to customers in the U.S. from other countries. Increased tariffs, and/or changes to international trade agreements, may cause our U.S. customers to insource programs previously outsourced to us, transfer manufacturing to locations within our global network that are not impacted by such actions (potentially increasing production costs), and/or shift their business to other EMS providers. Additionally, tariffs on imported components for use in our U.S. production could have an adverse impact on demand for such production. Retaliatory tariffs could reduce demand for our U.S.-based production or make such production less profitable. Given the uncertainty regarding the scope and duration of these trade actions by the U.S. and other governments, whether trade tensions will escalate further, and whether our customers will bear the cost of the tariffs, their impact on our operations and results cannot be currently quantified, but may be material.

The U.S. Tax Cuts and Jobs Act (U.S. Tax Reform) became effective January 1, 2018. The legislative changes are extensive, and uncertainties remain as to how such changes will be implemented. We do not currently expect the U.S. Tax Reform to have a significant impact on our future global tax rate, but we will continue to assess additional impacts, if any, throughout 2019 as they become known due to changes in our interpretations and assumptions, as well as applicable changes in our business and additional regulatory guidance that may be issued.

In general, tax reform efforts, including with respect to tax base or rate, transfer pricing, inter-company dividends, cross border transactions, controlled corporations, and limitations on tax relief allowed on the interest on inter-company debt, require us to continually assess our organizational structure against tax policy trends, and could lead to an increased risk of international tax disputes and an increase in our effective tax rate, and could adversely affect our financial results.

It is unknown at this time to what extent other new laws will be passed or pending or new regulatory proposals will be adopted, if any, or the effect that such passage or adoption may have on the economy and/or our business. However, changes in U.S. social, political, regulatory and economic conditions or in laws and policies governing foreign trade, taxes, manufacturing, clean energy, the healthcare industry, development and investment in the jurisdictions in which we and/or our customers or suppliers operate, could materially adversely affect our business, results of operations and financial condition.

Changes to our operating model may adversely affect our business.

We continuously work to improve our productivity, quality, delivery performance and flexibility. In connection therewith, we are implementing our CEI to further streamline our business and improve our margin performance. Charges related to these initiatives may adversely impact our financial condition and results of operations in the periods incurred. In addition, we commenced a comprehensive review of our CCS revenue portfolio in the second half of 2018 to address under-performing programs and to disengage from customer programs that do not meet our

strategic objectives. This review is currently expected to result in a decline in our CCS segment revenue of approximately \$500 million over the next 12 to 18 months, and a corresponding decline in overall company revenue in the single digit percentage range in 2019 (subject to change based on the growth or contraction of CCS programs not subject to the review). The review is substantially complete and the customer programs that comprise the approximate \$500 million in revenue have been identified. We expect to complete the majority of the related actions in 2019, including the intended restructuring activities (which have been built into our CEI) and changes to our global manufacturing network. See "Operating Results — Other Charges" and "Overview — Celestica's business" in Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations."

Implementation of these initiatives presents a number of risks, including: (i) actual or perceived disruption of service or reduction in service levels to customers; (ii) potential adverse effects on our internal control environment with respect to general

and administrative functions during transitions resulting from such initiatives; (iii) actual or perceived disruption to suppliers, distribution networks and other important operational relationships and the inability to resolve potential conflicts in a timely manner; (iv) diversion of management attention from ongoing business activities and strategic objectives; and (v) failure to retain key employees. Because of these and other factors, we cannot predict whether we will fully realize the purpose and anticipated benefits or cost savings of these initiatives and, if we do not, our business and results of operations may be adversely affected. Furthermore, adverse changes to our business may require additional restructuring or reorganization activities in the future. See "We have incurred significant restructuring charges in recent periods, and expect to incur further significant restructuring charges during 2019 in connection with our cost efficiency initiative (CEI); we may not achieve some or all of the expected benefits from our CEI and other restructuring activities, these activities may adversely affect our business, and we may implement additional restructuring actions subsequent to completion of our CEI" above.

Our results may be negatively affected by rising labor costs.

There is some uncertainty with respect to the pace of rising labor costs in various regions in which we operate. Any increase in labor costs that we are unable to recover in our pricing to our customers would negatively impact our margins and operating results.

Volatility in commodity prices may negatively impact our operating results.

We rely on various energy sources in our production and transportation activities. The price of commodities can be volatile. Increases in prices for energy and other commodities could result in higher raw material and component costs and transportation costs. Any increase in our costs that we are unable to recover in our pricing to our customers would negatively impact our margins and operating results.

Quality and execution issues may reduce demand for our services, damage our reputation, and/or have a material adverse effect on our business and operating results.

In any given quarter, we can experience quality and process variances related to materials, testing, or other manufacturing or supply chain activities. Although we are successful in resolving the majority of such issues (including those that arose in 2018), the existence of these variances could cause us to incur significant costs in relation to corrective actions, have a material adverse impact on the demand for our services in future periods from any affected customers, damage our reputation, and/or have a material adverse effect on our business and operating results.

We may experience increased financial and reputational risk due to non-performance by counterparties. A failure by counterparties, including customers, suppliers, financial institutions (including the issuers of our purchased annuities), or other third parties with whom we conduct business, to fulfill their contractual obligations, may result in financial loss to us and may have adverse effects on our business.

We have key suppliers that are important to our sourcing activities. If a key supplier, or any company within that supplier's supply chain, were to experience financial difficulties, it may affect their ability to supply us with materials, components or services, which could halt or delay the production of a customer's products, which could in turn have a material adverse impact on our operations, financial results, and customer relationships.

Our ability to collect outstanding accounts receivable is contingent, in part, on the financial strength of our customers. We provide flexible payment terms to most of our customers (generally ranging from 30 to 90 days), however, we extend or provide longer payment terms from time to time when deemed commercially reasonable. Longer payment terms, which have become more prevalent, could adversely impact our working capital requirements, and increase our financial exposure and credit risk. Our accounts receivable balance at December 31, 2018 was \$1,206.6 million (December 31, 2017 — \$1,023.7 million), with two customers individually representing more than 10% of total accounts receivable (December 31, 2017 — two customers). Customers having financial difficulties may result in payment delays, defaults in payments, or requests for extended payment terms, any of which could adversely impact our short-term cash flows, financial performance and/or operating results. In addition, customer financial difficulties may result in purchase order cancellations or volume reductions, resulting in increased inventory levels, which could have a material adverse impact on our operating results and working capital performance. We may not be able to return or resell this inventory, or we may be required to hold the inventory for an extended period of time, which may result in inventory obsolescence and the need to record additional inventory reserves. We may also be unable to recover all of

the amounts owed to us by a customer, including amounts to cover unused inventory or capital investments incurred to support a customer's business. Furthermore, if a customer bankruptcy occurs, our profitability may be adversely impacted if affected accounts receivable are in excess of our allowance for doubtful accounts. Additionally, our future revenues could be adversely impacted by a customer bankruptcy. Inability to collect accounts receivable and/or the loss of one or more major customers could adversely impact our operating results, financial position and cash flows. We cannot reasonably determine the extent to which a customer or supplier

may have financial difficulties, or whether we will be required to adjust customer pricing, payment terms and/or the amounts we pay to suppliers for materials and components.

To mitigate the actuarial and investment risks of our defined benefit pension plans, we purchase annuities (using existing plan assets) from time to time from third party insurance companies for certain, or all, of our obligations under specified pension plans. See note 19 to the Consolidated Financial Statements in Item 18. Although these annuities substantially hedge the financial investment risk associated with the related pension obligations, failure by the insurance companies to fulfill their contractual obligations would result in a financial loss to us, as we retain ultimate responsibility for the payment of benefits to plan participants unless and until such pension plans are wound-up.

We may use cash on hand, issue debt or equity securities, and/or incur additional third-party debt (or any combination thereof) to complete future acquisitions or otherwise fund our operations, which may adversely affect our liquidity, credit ratings, financial condition and/or results of operations.

Any significant use of cash (for future acquisitions or otherwise) would adversely impact our cash position and liquidity. In addition, we may choose to issue debt securities or otherwise incur additional debt, to fund future acquisitions or otherwise fund our operations. Any additional incurrence of debt (either through the issuance of debt securities or through a new or refinanced credit facility) would increase our debt leverage and debt service requirements, and could have a variety of additional effects, including, but not limited to, those described in "We have incurred substantial third-party debt in recent periods, which has increased our debt service requirements, reduced our ability to fund future acquisitions and/or to respond to unexpected capital requirements, and may have other adverse impacts on our business" above, as well as the potential imposition of additional restrictive covenants on our operations. To the extent we sell equity or convertible debt securities, the issuance of these securities (the pricing of which would be subject to market conditions at the time of issuance) could result in material dilution to our stockholders. Sales of our equity securities or convertible debt, or the perception that these sales could occur, could also cause the market price for our subordinate voting shares to fall, and new securities could have rights, preferences and privileges senior to the holders of our subordinate voting shares.

We are exposed to translation and transaction risks associated with foreign currency exchange rate fluctuations; hedging instruments may not be effective in mitigating such risks.

Global currency markets can be volatile. Although we conduct the majority of our business in U.S. dollars (our functional currency), our global operations subject us to translation and transaction risks associated with fluctuations in currency exchange rates that could have a material adverse impact on our operating results and/or financial condition. A significant portion of our operational costs (including payroll, pensions, site costs, costs of locally sourced supplies and inventory, and income taxes) are denominated in various currencies other than the U.S. dollar. Fluctuations in currency exchange rates may significantly increase the amount of translated U.S. dollars required for costs incurred in other currencies or significantly decrease the U.S. dollars received from non-U.S. dollar revenues. Our non-U.S. currency exposures include the Canadian dollar, Thai baht, Malaysian ringgit, Mexican peso, British pound sterling, Chinese renminbi, Euro, Romanian leu, Korean won, and Singapore dollar.

Although our functional currency is the U.S. dollar, currency risk on our income tax expense arises as we are generally required to file our tax returns in the local currency for each country in which we have operations. A weakening of the local currency against the U.S. dollar could have a negative impact on our income taxes payable (related to increased local-currency taxable profits) and on our deferred tax costs (primarily related to the revaluation of non-monetary foreign assets from historical average exchange rates to the period-end exchange rates). See note 21 to the Consolidated Financial Statements in Item 18. While our hedging programs are designed to mitigate currency risk vis-à-vis the U.S. dollar, we remain subject to taxable foreign exchange impacts in our translated local currency financial results relevant for tax reporting purposes.

As part of our risk management program, we enter into foreign exchange forward contracts to lock in the exchange rates for future foreign currency transactions, which is intended to reduce the variability of our operating costs and future cash flows denominated in local currencies. While these contracts are intended to reduce the effects of fluctuations in foreign currency exchange rates, our hedging strategy does not mitigate the longer-term impacts of changes to foreign exchange rates. We do not enter into these contracts for trading purposes or speculation, and our

management believes all such contracts are entered into as hedges of underlying transactions. Nonetheless, these instruments involve costs and risks of their own in the form of transaction costs, credit requirements and counterparty risk. If our hedging program is not successful, or if we change our hedging activities in the future, we may experience significant unexpected expenses from fluctuations in exchange rates.

Our financial results have, in prior periods, been adversely impacted by negative foreign currency translation effects, and such adverse effects, some of which may be substantial, are likely to recur in the future.

Our ability to successfully manage unexpected changes or risks inherent in our global operations and supply chain may adversely impact our financial performance.

We have sites in the following countries: Canada, the United States, China, Ireland, Japan, Laos, Malaysia, Mexico, Romania, Singapore, South Korea, Spain and Thailand. During 2018, approximately 80% of our revenue was produced at locations outside of North America. We also purchase the majority of our components and materials from international suppliers.

Global operations are subject to inherent risks which may adversely affect us, including:

- •changes in local tax rates and tax incentives and the adverse tax consequences of repatriating earnings; labor unrest and differences in regulations and statutes governing employee relations, including increased scrutiny of labor practices within our industry;
- •cultural differences and/or differences in local business customs;
- •negative impacts, or ineffectiveness, of executing restructuring activities;
- •changes in regulatory requirements;
- •inflationary trends and rising costs;
- •changes in international political relations;
- •difficulty in staffing (including skilled labor availability and cost) and managing foreign operations;
- •challenges in building and maintaining infrastructure to support operations;
- •compliance with a variety of foreign laws, including import and export tariffs and regulations;
- •adverse changes in trade policies and/or agreements between countries in which we maintain operations;
- •changes in logistics costs;
- •changes in the availability, lead time, and cost of components and materials;
- •weaker laws protecting intellectual property rights and/or greater difficulty enforcing such rights;
- •global economic, political and/or social instability;
- •potential restrictions on the transfer of funds and/or other restrictive actions by foreign governments;
- •the effects of terrorist activity, armed conflict, natural disasters and epidemics; and
- •global currency fluctuations.

Any of these risks could disrupt the supply of our components or materials, slow or stop our production, and/or increase our costs. Compliance with trade and foreign tax laws may increase our costs and actual or alleged violations of such laws could result in enforcement actions or financial penalties that could result in substantial costs. In addition, the introduction or expansion of certain social programs in foreign jurisdictions may increase our costs, and certain supplier's costs, of doing business.

We currently ship a significant portion of our worldwide production into the U.S. from other countries. Changes to, among other things, laws or policies in the U.S. regarding foreign trade, import/export duties, tariffs or taxes, manufacturing and/or investments, could materially adversely affect our U.S. and foreign operations. See "Policies or legislation proposed or instituted by the current U.S. administration could have a material adverse effect on our business, results of operations and financial condition" above.

If we are unable to recruit or retain highly skilled talent, our business could be adversely affected.

The recruitment of personnel in the EMS industry is highly competitive. We believe that our future success depends, in part, on our ability to attract and retain highly skilled executive, technical and management talent in the various geographies in which we operate. The time required to replace or redistribute responsibilities related to the loss of the services of certain executive, management and technical employees, individually or in the aggregate, could have a material adverse effect on our operations, and there can be no assurance that we will be able to retain their services. Organizational changes may impact our relationships with customers, vendors, and employees, potentially resulting in loss of business, loss of vendor relationships, and the loss of key employees or declines in employee productivity. Uncertainties associated with any senior management transitions could lead to concerns from current and potential third parties with whom we do business, any of which could hurt our business prospects.

Turnover in key leadership positions within the Company, or any failure to successfully integrate key new hires or promoted employees, may adversely impact our ability to manage the Company efficiently and effectively, could be disruptive and distracting to management and may lead to additional departures of existing personnel, any of which could have a material adverse effect on our business, operating results, financial results and internal controls over financial reporting.

We may not keep pace with rapidly evolving technology.

Many of the markets for our manufacturing and engineering services are characterized by rapidly changing technology and evolving process development. We believe our future success depends, in part, upon our ability to: continually develop and deliver electronic and complex mechanical manufacturing services that meet our customers' evolving needs; hire, retain and expand our qualified engineering and technical personnel; maintain and continually improve our technological expertise; and successfully anticipate or respond to technological changes in manufacturing processes on a cost-effective and timely basis.

Although we believe that our operations use the assembly and testing technologies, equipment and processes that are currently required by our customers, we cannot be certain that we will maintain or develop the capabilities required by our customers in the future. The emergence of new technologies, industry standards or customer requirements may render our equipment, designs, inventory or processes obsolete or noncompetitive. In addition, we may have to invest in new processes, capabilities or equipment to support new technologies used in our customers' current or future products, and to support their supply chain processes. Additionally, as we expand our service offerings or pursue business in new markets where our experience may be limited, we may be less effective in adapting to technological change. Our manufacturing, engineering, supply chain processes, and test development efforts and design capabilities may not be successful due to rapid technological shifts in any of these areas. The acquisition and implementation of new technologies and equipment and the offering of new or additional services to our customers may require significant expense or capital investment, which could reduce our operating margins and our operating results. Our failure to anticipate and adapt to our customers' changing technological needs and requirements or to hire and retain a sufficient number of engineers and maintain our engineering, technological and manufacturing expertise could have a material adverse effect on our operations.

Various industry-specific standards, qualifications and certifications are required to produce certain types of products for our customers. Failure to obtain or maintain those certifications may adversely affect our ability to maintain existing levels of business or win new business.

We may not adequately protect our intellectual property or the intellectual property of others.

We believe that certain of our proprietary intellectual property rights and information provide us with a competitive advantage. Accordingly, we take steps to protect this proprietary information, including entering into non-disclosure agreements with customers, suppliers, employees and other parties, and by implementing security measures. However, our protection measures may not be sufficient to prevent or detect the misappropriation or unauthorized use or disclosure of our property or information.

There is also a risk that claims of intellectual property infringement could be brought against us, our customers and/or our suppliers. If such claims are successful, we may be required to spend significant time and financial resources to develop processes that do not infringe upon the rights of another person or to obtain licenses for the technology, process or information from the owner. We may not be successful in such development, or any such licenses may not be available on commercially acceptable terms, if at all. In addition, any litigation could be lengthy and costly and could adversely affect us even if we are successful. As we expand our JDM and other service offerings and pursue business in new end markets, we may be less effective in anticipating or mitigating the intellectual property risks related to new manufacturing, design and other services, which could be significant.

We are subject to the risk of increasing income and other taxes, tax audits, and the challenges of successfully defending our tax positions, and obtaining, renewing or meeting the conditions of tax incentives and credits, any of which may adversely affect our financial performance.

We conduct business operations in a number of countries, including countries where tax incentives have been extended to encourage foreign investment or where income tax rates are low. Our income tax expense could increase significantly if certain tax incentives from which we benefit are retracted. A retraction could occur if we fail to satisfy

the conditions on which these tax incentives are based, or if they are not renewed or replaced upon expiration. Our income tax expense could also increase if tax rates applicable to us in such jurisdictions are otherwise increased, or due to changes in legislation or administrative practices. Changes in our outlook in any particular country could impact our ability to meet the required conditions. See Item 5 "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Income taxes" and note 20 to the Consolidated Financial Statements in Item 18 for a discussion of recently expired tax incentives, the status of existing tax incentives, and a challenge to our Brazilian sales tax levy rates.

We develop our tax filing positions based upon the anticipated nature and structure of our business and the tax laws, administrative practices and judicial decisions currently in effect in the jurisdictions in which we have assets or conduct business, all of which are subject to change or differing interpretations, possibly with retroactive effect. Certain of our subsidiaries provide financing or products and services to, and may from time-to-time undertake certain significant transactions with, other subsidiaries in different jurisdictions. Moreover, several jurisdictions in which we operate have tax laws with detailed transfer pricing rules which require that all transactions with non-resident related parties be priced using arm's-length pricing principles, and that contemporaneous documentation must exist to support such pricing.

We are subject to tax audits globally by various tax authorities, which could result in additional tax expense in future periods relating to prior results. Any such increase in our income tax expense and related interest and/or penalties could have a significant adverse impact on our future earnings and future cash flows. The successful pursuit of assertions made by any taxing authority could result in our owing significant amounts of tax, interest, and possibly penalties. We believe we adequately accrue for any probable potential adverse tax ruling. However, there can be no assurance as to the final resolution of any claims and any resulting proceedings. If any claims and any ensuing proceedings are determined adversely to us, the amounts we may be required to pay could be material, and could be in excess of amounts accrued.

As at December 31, 2018, a significant portion of our cash and cash equivalents was held by foreign subsidiaries outside of Canada, a large part of which may be subject to withholding taxes upon repatriation under current tax laws. We currently expect to repatriate approximately \$30 million from various foreign subsidiaries in the near term, and have recognized any applicable deferred tax liabilities with respect thereto. At December 31, 2018, we had approximately \$355 million (December 31, 2017 — \$351.0 million) of cash and cash equivalents held by foreign subsidiaries outside of Canada that we do not intend to repatriate in the foreseeable future.

Our operations and our customer relationships may be adversely affected by disruptions to our information technology (IT) systems, including disruptions from cybersecurity breaches of our IT infrastructure.

We rely on information technology networks and systems, including those of third-party service providers, to process, transmit and store electronic information. In particular, we depend on our IT infrastructure for a variety of functions, including worldwide financial reporting, inventory and other data management, procurement, invoicing and email communications. Any of these systems may be susceptible to outages due to fire, floods, power loss, telecommunications failures, terrorist attacks, sabotage and similar events. Global cybersecurity threats and incidents can range from uncoordinated individual attempts to gain unauthorized access to our IT systems to sophisticated and targeted measures known as 'advanced persistent threats'. The ever-increasing use and evolution of technology, including cloud-based computing and the rise of the 'Internet of Things,' creates opportunities for the unintentional dissemination or intentional destruction of confidential information stored in our systems or in non-encrypted portable media or storage devices. We could also experience a business interruption, information theft of confidential data, or reputational damage from industrial espionage attacks, malware or other cyber-attacks, which may compromise our system infrastructure or lead to data leakage, either internally or at our third-party providers. Despite the implementation of advanced threat protection, information and network security measures and disaster recovery plans, our systems and those of third parties on which we rely may also be vulnerable to computer viruses, break-ins and similar disruptions. If we or our vendors are unable (or are perceived as unable) to prevent or promptly identify and remedy such outages and breaches, our operations may be disrupted, our business reputation could be adversely affected, and there could be a negative impact on our financial condition and results of operations.

We expect that risks and exposures related to cybersecurity attacks will remain high for the foreseeable future due to the rapidly evolving nature and sophistication of these threats.

We may not be able to prevent or detect all errors or fraud.

Due to the inherent limitations of internal control systems, misstatements due to error or fraud may occur and may not be detected in a timely manner or at all. Accordingly, we cannot provide absolute assurance that all control issues, errors or instances of fraud, if any, within (or otherwise impacting) the Corporation have been or will be prevented or detected. In addition, over time, certain aspects of a control system may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate, which we may not be able to

address quickly enough to prevent all instances of error or fraud.

Our revenue and operating results may vary significantly from period to period.

Our quarterly and annual results may vary significantly depending on various factors, certain of which are described below, and many of which are beyond our control.

the volume and timing of customer demand relative to our capacity;

the typical short life cycle of our customers' products and success in the marketplace of our customers' products;

•he cyclical nature of customer demand in several of our businesses;

eustomers' financial condition;

changes to our mix of customers, programs and/or end market demand;

how well we execute on our operational strategies, and the impact of changes to our business model;

varying revenues and gross margins among geographies and programs for the products or services we provide;

pricing pressures, the competitive environment and contract terms and conditions;

upfront investments and challenges associated with the ramping of programs for new or existing customers; provisions or charges resulting from unexpected changes in market conditions impacting our industry or the end

markets we serve;

customer disengagements or terminations of customer programs;

the timing of expenditures in anticipation of future orders;

our effectiveness in planning production and managing inventory, fixed assets and manufacturing processes;

operational inefficiencies and disruptions in production at individual sites;

changes in cost and availability of commodities, materials, components, services and labor;

current or future litigation;

seasonality in quarterly revenue patterns across some of our businesses;

governmental actions or changes in legislation;

currency fluctuations; and

changes in U.S. and global economic and political conditions and world events.

Our mix of revenue by end market is also impacted by, among other factors, overall end market demand, the timing and extent of new program wins, program completions or losses, customer disengagements, or follow-on business from customers and from acquisitions. Changes to our mix of revenue by end market, and the conditions that are specific to each end market, could lead to volatility in our revenue and margins from period to period and adversely impact our financial position and cash flows.

Materials constraints from certain suppliers throughout 2017 and 2018 led to volatility in our revenue and margins, and resulted in us carrying higher than expected levels of inventory at each of December 31, 2017 and 2018. Although we expect these materials constraints and resulting adverse impacts to continue in the near term, we have begun to see improvements in the availability of certain previously constrained items. Nonetheless, only minor improvements in supplier lead times are currently expected.

Compliance with governmental laws and obligations could be costly and may negatively impact our financial performance.

We are subject to various federal/national, state/provincial, local, foreign and supra-national environmental laws and regulations. Our environmental management systems and practices have been designed to provide for compliance with these laws and regulations. Maintaining compliance with and responding to increasingly stringent regulations requires a significant investment of time and resources and may restrict our ability to modify or expand our manufacturing sites or to continue production. Any failure to comply with these laws and regulations may potentially result in significant fines and penalties, our operations may be suspended or subjected to increased oversight, and our cost of related investigations could be material in any period.

More complex and stringent environmental legislation continues to be imposed, including laws that place increased responsibility and requirements on the "producers" of electronic equipment and, in turn, their providers and suppliers. Such laws may relate to product inputs (such as hazardous substances and energy consumption), product use (such as energy efficiency and waste management/recycling), and/or operational outputs/by-products from our manufacturing processes that can result in environmental contamination (such as waste water, air emissions and hazardous waste). Noncompliance with these requirements could result in substantial costs, including fines and penalties, and we may incur liability to our customers and consumers.

Where compliance responsibility rests primarily with our customers rather than with EMS companies, they may turn to EMS companies like Celestica for assistance in meeting their obligations. Our customers remain focused on issues such as waste management (including recycling), climate change (including the reduction of carbon emissions) and product stewardship, and expect their EMS providers to be environmental leaders. We strive to meet such customer expectations, although these demands may extend beyond our regulatory obligations and require significant investments of time and resources to attract and retain customers.

We generally conduct environmental assessments, or review assessment reports undertaken by others, for our manufacturing sites at the time of acquisition or leasing. However, such assessments may not reveal all environmental liabilities, and assessments have not been obtained for all sites. In addition, some of our operations involve the use of hazardous substances that could cause environmental impacts. While we have operational systems to provide environmental management, we cannot rule out all risk of non-compliance and could incur substantial costs to comply. Although if deemed necessary, we may investigate, remediate or monitor emissions and site conditions at some of our owned or leased sites (such as air, soil and/or groundwater conditions), we may not be aware of, or adequately address, all such emissions and conditions, and we may incur significant costs should such work be required. In many jurisdictions in which we operate, environmental laws impose liability for the costs of removal, remediation or risk assessment of hazardous or toxic substances on an owner, occupier or operator of real estate, even if such person or company was unaware of or not responsible for the discharge or migration of such substances. In some instances where soil or groundwater contamination existed prior to our ownership or occupation, landlords or former owners may have retained some contractual responsibility or regulatory liability, but this may not provide sufficient protection to reduce or eliminate our liability. Third-party claims for damages or personal injury are also possible and could result in significant costs to us. If more stringent compliance or cleanup standards under environmental laws or regulations are imposed, or the results of future testing and analyses at our current or former operating sites indicate that we are responsible for the release of hazardous substances into the air, ground and/or water, we may be subject to additional liability. Additional environmental matters may arise in the future at sites where no problem is currently known or at sites that we may acquire in the future.

Our healthtech business is subject to regulation by the U.S. Food and Drug Administration (FDA), Health Canada, the European Medicines Agency, the Brazilian Health Surveillance Agency, and similar regulatory bodies in other jurisdictions, relating to the medical devices and hardware we manufacture for our customers. Our sites that deliver products to the healthcare business are certified or registered in quality management standards applicable to the healthcare industry. We are required to comply with various statutes and regulations related to the design, development, testing, manufacturing and labeling of our medical devices in addition to reporting of certain information with respect to the safety of such products. Any failure to comply with these regulations could result in fines, injunctions, product recalls, import detentions, additional regulatory controls, suspension of production, and/or the shutting down of one or more of our sites, among other adverse outcomes. Failure to comply with these regulations may also materially affect our reputation and/or relationships with customers and regulators. We provide design, engineering and manufacturing related services to our customers in the aerospace and defense end market. As part of these services, we are subject to substantial regulation from government agencies including the U.S. Department of Defense (DOD) and the U.S. Federal Aviation Administration. Our aerospace and defense sites are certified in quality management standards applicable to the aerospace and defense industry. Failure to comply with these regulations or the loss of any of our quality management certifications may result in fines, penalties and injunctions, and could prevent us from executing on current or winning future contracts, any of which may materially adversely affect our financial condition and operating results. In addition to quality management standards, there are several other U.S. regulations with which we are required to comply, including the Federal Acquisition Regulations (FAR), which provides uniform policies and procedures for acquisition; the Defense Federal Acquisition Regulation Supplement, a DOD agency supplement to the FAR that provides DOD-specific acquisition regulations that DOD government acquisition officials, and those contractors doing business with DOD, must comply with in the procurement process for goods and services; and the Truth in Negotiations Act, which requires full and fair disclosure by contractors in the conduct of negotiations with the government and its prime contractors. These rules are complex, our performance under them is subject to audit by the U.S. Defense Contract Audit Agency, the U.S. Office of Federal

Contract Compliance Programs and other government regulators, and in most cases must be complied with by our suppliers. If an audit or investigation reveals a failure to comply with regulations, we could become subject to civil or criminal penalties and administrative sanctions by either the government or the prime customer, including government pre-approval of our government contracting activities, termination of the contract, payment of fines and suspension or debarment from doing further business with the U.S. government. Any of these actions could increase our expenses, reduce our revenue and damage our reputation as a reliable U.S. government supplier. We are also subject to the export control laws and regulations of the countries in which we operate, including, but not limited to, the U.S. International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR). Our international operations require us to comply with various anti-bribery laws, including the U.S. Foreign Corrupt Practices Act (FCPA) and the Corruption of Foreign Public Officials Act (Canada) (CFPOA). In some countries in which we operate, it may be customary for businesses to engage in business practices that are prohibited by the FCPA, CFPOA or other laws and regulations. Although we have implemented policies and procedures designed to ensure compliance with the FCPA, CFPOA and similar laws

in other jurisdictions, there can be no assurance that all of our employees and agents, as well as those companies to which we outsource certain business operations, will not be in violation of these laws and our policies or procedures. In addition to the difficulty of monitoring compliance, any suspected or alleged activity would require a costly investigation by us and may result in the diversion of management's time, resources and attention. Failure to comply with these laws may subject us to, among other things, adverse publicity, penalties and legal expenses that may harm our reputation and have a material adverse effect on our business, financial condition and operating results. As a public company, we are subject to stringent laws, regulations and other requirements, including the U.S. Sarbanes-Oxley Act and the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), affecting, among other areas, our accounting, internal controls, corporate governance practices, securities disclosures and reporting. For example, Dodd-Frank contains provisions concerning specified minerals originating from the Democratic Republic of Congo or adjoining countries (referred to as "conflict minerals"). As required by Dodd-Frank, the U.S. Securities and Exchange Commission (SEC) has adopted due diligence, disclosure and reporting requirements for companies that manufacture, or contract to manufacture, products that include conflict minerals, We manufacture such products for our customers. Due to our complex supply chain, compliance with these rules is time-consuming and costly. If we are unable to ascertain the origins of all such minerals used in the manufacturing of our products through the due diligence procedures we implement, we may be unable to satisfy our customers' certification requirements. This may harm our reputation, damage our customer relationships and result in a loss of revenue. If the SEC rules or other new social or environmental standards limit our pool of suppliers in order to produce "conflict free" or "socially responsible" products, or otherwise adversely affect the sourcing, supply and pricing of materials used in our products, we could also experience cost increases and a material adverse impact on our operating results.

In addition, whenever we pursue business in new end markets, or our customers pursue new technologies or businesses, we are required to navigate the potentially heavy regulatory and legislative burdens of such end markets or technologies, as well as applicable quality standards with respect thereto.

The regulatory climate can itself affect the demand for our services. For example, government reimbursement rates and other regulations, as well as the financial health of healthcare providers, changes in how healthcare in the U.S. is structured, including as a result of the U.S. Affordable Care Act (or any successor legislation), and how medical devices are taxed, could affect the willingness and ability of end customers to purchase the products of our customers in this market as well as impact our margins.

Our customers are also required to comply with various government regulations, legal requirements and industry standards, including many of the industry-specific regulations discussed above. Our customers' failure to comply could affect their businesses, which in turn would affect our sales to them. In addition, if our customers are required by regulation or other requirements to make changes in their product lines, these changes could significantly disrupt particular programs for these customers and create inefficiencies in our business.

In addition, a failure by a supplier or manufacturer to comply with applicable laws, regulations or customer requirements could negatively impact our business, and for governmental customers, could result in fines, penalties, suspension or even debarment being imposed on us, which could have a material adverse impact on our business, financial condition and results of operations.

Also see "Policies or legislation proposed or instituted by the current U.S. administration could have a material adverse effect on our business, results of operations and financial condition" above for a discussion of potential adverse impacts on our business that may result from changes to U.S. laws, regulations and/or policies proposed or implemented by the current U.S. administration.

Compliance or the failure to comply with employment laws and regulations may negatively impact our financial performance.

We are subject to a variety of domestic and foreign employment laws, including those related to: workplace safety, discrimination, harassment, whistle-blowing, wages and overtime, personal taxation, classification of employees, work authorizations and severance. Compliance with such laws may increase our costs. In addition, such laws are subject to change, and enforcement activity relating to these laws, particularly outside of the United States, may increase as a result of greater media attention due to alleged violations by other companies, changes in law, political

and other factors. There can be no assurance that, in the future, we will not be found to have violated elements of such laws. Any such violations could lead to the assessment of fines or damages against us by regulatory authorities or claims by employees, any of which could adversely affect our operating results and/or our reputation.

An inability to successfully manage the procurement, development, implementation or execution of IT systems, or to adequately maintain these systems and their security, as well as to protect data and other confidential information, may adversely affect our business and reputation.

As a complex, global company, we are heavily dependent on our IT systems to support our customers' requirements and to successfully manage our business. Any inability to successfully manage the procurement, development, implementation, execution or maintenance of such systems, including matters related to system and data security, cybersecurity, privacy, reliability, compliance, performance and access, as well as any inability of these systems to fulfill their intended purpose, could have an adverse effect on our business. See "Our operations and our customer relationships may be adversely affected by disruptions to our information technology (IT) systems, including disruptions from cybersecurity breaches of our IT infrastructure" above.

In addition, we must comply with increasingly complex and rigorous regulatory standards enacted to protect business and personal data in various jurisdictions. For example, the European Union recently adopted the General Data Protection Regulation (GDPR). The GDPR imposes additional obligations on companies regarding the handling of personal data and provides certain individual privacy rights to persons whose data is stored. Compliance with existing, proposed and recently enacted laws and regulations can be costly; any failure to comply with these regulatory standards could subject us to legal and reputational risks. Misuse of or failure to secure personal information could also result in violation of data privacy laws and regulations, proceedings against the Company by governmental entities or others, fines and penalties, damage to our reputation and credibility and could have a negative impact on our business and results of operations.

We may be required to make larger contributions to our defined benefit pension and other pension plans in the future. We maintain defined benefit and defined contribution pension plans, as well as other pension plans globally. Our pension funding policy for our defined benefit and defined contribution pension plans is to contribute amounts sufficient, at minimum, to meet local statutory funding requirements that are based on actuarial calculations. Our obligations are based on certain assumptions relating to plan asset performance, salary changes, employee turnover, retirement ages, life expectancy, expected healthcare costs, the performance of the financial markets, future interest rates, and plan and legislative changes. If actual results or future expectations differ from these assumptions or if statutory funding requirements change, the amounts we are obligated to contribute to the pension plans may increase and such increase could be significant. We are also required to contribute amounts to our other pension plans to meet local statutory or such pension plans' funding requirements. The amounts we are obligated to contribute may increase due to legislative and other changes.

Failure to comply with the conditions of government grants may lead to grant repayments and adversely impact our financial performance.

We have received grants from government organizations or other third parties as incentives related to capital investments or other expenditures. These grants often have future conditions with which we must comply. If we do not meet these future conditions, we could be obligated to repay all or a portion of the grant, which could adversely affect our financial position and operating results.

There are inherent uncertainties involved in the estimates, judgments and assumptions used in the preparation of our financial statements. Any changes in estimates, judgments and assumptions could have a material adverse effect on our financial position and results of operations.

Our Consolidated Financial Statements are prepared in accordance with IFRS. The preparation of our financial statements in conformity with IFRS requires management to make estimates, judgments and assumptions that affect the reported amounts of our assets, liabilities and related reserves, revenues and expenses. Estimates, judgments and assumptions are inherently subject to change in future periods, which could have a material adverse effect on our financial position and results of operations.

Our credit agreement contains restrictive covenants that may impair our ability to conduct business, and the failure to comply with such covenants could cause our outstanding debt to become immediately payable.

Our credit agreement contains restrictive covenants that limit our management's discretion with respect to certain business matters. Among other factors, these covenants limit our ability and our subsidiaries' ability to incur additional debt, create liens or other encumbrances, change the nature of our business, sell or otherwise dispose of assets, merge or consolidate with other entities, or effect specified changes in control. This agreement also contains certain financial covenants related to indebtedness and interest coverage. If we are not able to comply with these covenants, our outstanding debt could become immediately due and payable, and the incurrence of additional debt under our

revolving credit facility would not be allowed, either of which could have a material adverse effect on our liquidity and ability to conduct our business. Acquisitions are part of our diversification strategy and we have, and may in the future, incur additional debt to finance these transactions, at least in part. See "We have incurred substantial third-party debt in recent periods, which has increased our debt service requirements, reduced our ability to fund future acquisitions and/or to respond to unexpected capital requirements, and may have other adverse impacts on our business" and "We may use cash on hand, issue debt or equity securities, and/or incur additional third-party debt (or any combination thereof) to complete future acquisitions or otherwise fund our operations, which may adversely affect our liquidity, credit ratings, financial condition and/or results of operations" above for a discussion of potential negative impacts resulting from the incurrence of additional debt.

We are subject to interest rate fluctuations.

In June 2018, we entered into an \$800.0 million credit facility (New Credit Facility), which consists of a \$350.0 million term loan (June Term Loan) that matures in June 2025, and a \$450.0 million revolving credit facility (New Revolver) that matures in June 2023. In November 2018, we added an incremental \$250.0 million term loan (November Term Loan) under the New Credit Facility, maturing in June 2025. Borrowings under the New Revolver bear interest at LIBOR, Canadian Prime, or Base Rate (each as defined in the New Credit Facility), plus a specified margin, or in the case of any bankers' acceptance, at the B/A Discount Rate (as defined in the New Credit Facility). The margin for borrowings under the New Revolver ranges from 0.75% to 2.5%, depending on the rate we select and our consolidated leverage ratio. The June Term Loan currently bears interest at LIBOR plus 2.125%. The November Term Loan currently bears interest at LIBOR plus 2.5%. Borrowings under the New Credit Facility expose us to interest rate risks due to fluctuations in these rates and margins. Because the amounts we have borrowed under our credit facility has increased in recent periods, an increase in interest rates would have a more pronounced impact on our interest expense than in prior periods. At December 31, 2018, we had an aggregate of \$598.3 million outstanding under the June Term Loan and the November Term Loan, and other than ordinary course letters of credit, \$159.0 million outstanding under the New Revolver. To partially hedge against our exposures to interest rate variability on our term loans, we entered into 5-year agreements with a syndicate of third-party banks in August and December 2018 to swap the variable interest rates with fixed rates of interest on \$350.0 million of the total borrowings thereunder. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity — Cash requirements and Capital Resources." Significant interest rate fluctuations may adversely affect our business, operating results and financial condition. Changes to LIBOR may negatively impact us.

LIBOR, the London interbank offered rate, is the basic rate of interest used in lending between banks on the London interbank market and is widely used as a reference for setting the interest rate on loans globally. Our term loans currently bear interest based on LIBOR, and the New Revolver bears interest at specified rates (at our option) which include LIBOR. The U.K. Financial Conduct Authority, which regulates LIBOR, has announced that it intends to stop encouraging or requiring banks to submit LIBOR rates after 2021, and it is unclear if LIBOR will cease to exist or if new methods of calculating LIBOR will evolve. If LIBOR ceases to exist or if the methods of calculating LIBOR change from their current form, interest rates on our current or future indebtedness may increase, and we may need to renegotiate our New Credit Facility to replace LIBOR with a new standard. In addition, the issues that may lead to the discontinuation or unavailability of LIBOR may make one or more of the alternative methods impossible or impracticable to determine. Further, there can be no guarantee that a transition from LIBOR to an alternative will not result in financial market disruptions, significant increases in benchmark rates, or borrowing costs to borrowers, any of which could have an adverse effect on our liquidity, results of operations or financial condition. Deterioration in financial markets or in the macro-economic environment may adversely affect our ability to raise

funds or increase the cost of raising funds.

We currently have access to the New Revolver, which matures in June 2023. We may also issue or wish to incur additional debt or issue equity securities to fund our operations or make additional acquisitions. Our ability to borrow or raise capital, or renew or increase the New Credit Facility, may be impacted if financial markets are unstable. Disruptions in the capital and credit markets could adversely affect our ability to draw on our New Revolver (or any successor or additional facility). Our access to funds under the New Credit Facility (or any successor or additional facility) will be dependent on the ability of our senior lenders to meet their funding commitments. They may not be able to meet their funding commitments to us if they experience shortages of capital and liquidity or if they experience excessive volumes of borrowing requests from us and other borrowers within a short period of time. Longer term disruptions in the capital and credit markets as a result of uncertainty, changing or increased regulation, reduced alternatives, or failures of significant financial institutions could adversely affect our access to liquidity needed for our business. Any disruption could require us to take measures to conserve cash until the markets stabilize or until alternative credit arrangements or other funding sources can be arranged. Such measures could include deferring capital expenditures, and reducing or eliminating discretionary uses of cash.

Our credit rating may be downgraded.

Any negative change in our credit rating or outlook may make it more expensive for us to raise additional capital in the future on terms that are acceptable to us, if at all. See "We have incurred substantial third-party debt in recent periods, which has increased our debt service requirements, reduced our ability to fund future acquisitions and/or to respond to unexpected capital requirements, and may have other adverse impacts on our business."

The interest of our controlling shareholder, Onex Corporation, with an approximate 80% voting interest, may conflict with the interests of other shareholders.

Onex Corporation (Onex) beneficially owns all of our outstanding multiple voting shares and less than 1% of our outstanding subordinate voting shares. The number of subordinate voting shares and multiple voting shares beneficially owned by Onex represents approximately 80% of the voting interest in Celestica. Accordingly, Onex has the ability to exercise significant influence over our business and affairs and generally has the power to determine all matters submitted to a vote of our shareholders where our shares vote together as a single class. Onex may make decisions regarding Celestica and our business that are opposed to other shareholders' interests or with which other shareholders may disagree. Onex's voting power could have the effect of deterring or preventing a change in control of our Corporation that might otherwise be beneficial to our other shareholders.

Through its shareholdings, Onex has the power to elect our directors and its approval is required for significant corporate transactions such as certain amendments to our Restated Articles of Incorporation (Articles), the sale of all or substantially all of our assets and plans of arrangement. The directors so elected have the authority, subject to applicable laws, to appoint or replace senior management, cause us to issue additional subordinate voting shares or multiple voting shares or repurchase subordinate voting shares or multiple voting shares, declare dividends or take other actions.

Gerald W. Schwartz, the Chairman of the Board, President and Chief Executive Officer of Onex, indirectly owns shares representing the majority of the voting rights of the shares of Onex. The interests of Onex and Mr. Schwartz may differ from the interests of the remaining holders of subordinate voting shares. For additional information about shareholder rights and restrictions relative to our subordinate voting shares and multiple voting shares, see Item 10(B), "Memorandum and Articles of Incorporation." For additional information about our principal shareholders, see Item 7(A), "Major Shareholders." Also see Item 7(B), "Related Party Transactions" for a description of Mr. Schwartz's ownership interest in the Property Purchaser, and the post-assignment option to obtain a non-voting interest in the assignee of the Property Sale Agreement granted by such assignee to the Property Purchaser.

Onex has, from time-to-time, issued debentures exchangeable and redeemable under certain circumstances for our subordinate voting shares, entered into forward equity agreements with respect to our subordinate voting shares, sold our subordinate voting shares (after exchanging multiple voting shares for subordinate voting shares), or redeemed these debentures through the delivery of our subordinate voting shares, and could take similar actions in the future. These sales may impact our share price or have consequences on our debt and ownership structure.

We are subject to litigation, which may result in substantial litigation expenses, settlement costs or judgments, require the time and attention of key management resources, and result in adverse publicity, any of which may negatively impact our financial performance.

We are from time to time party to various copyright, patent and trademark infringement, unfair competition, breach of contract, customs, employment and other legal actions incidental to our business, as plaintiff or defendant, as well as various other claims, suits, investigations and legal proceedings (including securities class action and shareholder derivative lawsuits which have been settled or dismissed). Additional legal claims or regulatory matters may arise in the future and could involve matters relating to commercial disputes, government regulation and compliance, intellectual property, antitrust, tax, employment or shareholder issues, product liability claims and other issues on a global basis. Regardless of the merits of the claims, litigation may be both time-consuming and disruptive to our business. The defense and ultimate outcome of any lawsuits or other legal proceedings may result in higher operating expenses and a decrease in our margins, which could have a material adverse effect on our business, financial condition, or results of operations. We cannot predict the final outcome of such lawsuits or the likelihood that other proceedings will be instituted against us. Accordingly, the cost of defending against such lawsuits or any future lawsuits or proceedings may be high and, in any event, these legal proceedings may result in the diversion of our management's time and attention away from our business. In the event that there is an adverse ruling in any legal proceeding, we may be required to make payments to third parties that could have a material adverse effect on our reputation, financial condition and results of operations.

Changes in accounting standards enacted by the relevant standard-setting bodies may adversely affect our reported operating results, profitability and financial performance.

Accounting standards are revised periodically and/or expanded upon by applicable standard-setting bodies. We are required to adopt new or revised accounting standards and to comply with revised interpretations issued from time-to-time by these authoritative bodies, including the Canadian Accounting Standards Board (CASB), the IASB, and the SEC. While these accounting changes do not typically affect the economics of our business, such standards could have a significant effect on our accounting methods and reported results. For example, the IASB issued a new revenue recognition standard and amended the standard relating to the classification, measurement and impairment of financial assets and hedge accounting; both of these standards became effective as of January 1, 2018. The new revenue recognition standard changed the timing of revenue recognition for a significant portion of our business, and the adoption of such standard had a material impact on our Consolidated Financial Statements, primarily

in relation to inventory and accounts receivable. See note 2(y) to the Consolidated Financial Statements in Item 18. Additionally, the standard relating to leases was also amended to bring most leases onto the balance sheet for lessees, eliminating the distinction between operating and finance leases. This standard became effective January 1, 2019. Although we are completing our analysis of the impact of adopting this standard, we anticipate that its initial application will have a material impact on our Consolidated Financial Statements. See note 2(x) to the Consolidated Financial Statements in Item 18. Changes in accounting standards could materially affect (either positively or negatively) our reported operating results or financial condition. Our Consolidated Financial Statements are prepared in accordance with IFRS. Our reported financial information may not be comparable to the information reported by our competitors or other public companies that use different accounting standards.

Shares eligible for public sale may adversely affect our share price.

Future sales of our subordinate voting shares in the public market, or the issuance of subordinate voting shares in connection with our equity-based compensation plans or otherwise, could adversely affect the market price of the subordinate voting shares.

At February 13, 2019, we had approximately 118.1 million subordinate voting shares and approximately 18.6 million multiple voting shares outstanding. In addition, as of such date, there were approximately 10.5 million subordinate voting shares reserved for issuance from treasury for outstanding awards under our employee and director equity-based compensation plans, including approximately 0.3 million subordinate voting shares underlying stock options (vested and unvested), approximately 0.4 million subordinate voting shares underlying unvested restricted share units, approximately 0.7 million subordinate voting shares underlying unvested performance share units (assuming vesting of 100% of the target amount granted), and approximately 0.04 million subordinate voting shares underlying deferred share units (granted prior to January 1, 2017) that have not been settled. Moreover, pursuant to our Articles, we may issue an unlimited number of additional subordinate voting shares without further shareholder approval (subject to any required stock exchange approvals). Sales of a substantial number of our subordinate voting shares in the public market by holders of exercised vested options or vested share units settled in or exercised for subordinate voting shares may lower the prevailing market price for such shares and could impair our ability to raise capital through the future sale of our equity securities. Additionally, if we issue additional subordinate voting shares, or if holders of outstanding vested options exercise those options or if vested shares units are settled in newly-issued subordinate voting shares, our shareholders will incur dilution. See "We may use cash on hand, issue debt or equity securities, and/or incur additional third-party debt (or any combination thereof) to complete future acquisitions or otherwise fund our operations, which may adversely affect our liquidity, credit ratings, financial condition and/or results of operations" above. The exercise price of all options is subject to adjustment upon stock dividends, splits and combinations, if any, as well as anti-dilution adjustments as set forth in the relevant award agreement. The market price of our stock may be volatile.

Volatility in our business can result in significant price and volume fluctuations in the market price of our stock. Factors such as changes in our operating results, announcements by our customers, competitors or other events affecting companies in the electronics industry, currency fluctuations, general market fluctuations, and macro-economic conditions may cause the market price of our subordinate voting shares to decline. In addition, if our operating results do not meet the expectations of securities analysts or investors, the price of our stock could decline. Furthermore, the existence of our normal course issuer bid (NCIB) could cause our subordinate voting share price to be higher than it would be in the absence of such a program, and repurchases under the NCIB expose us to risks resulting from a reduction in the size of our "public float," which may reduce our trading volume as well as our stock price.

There can be no assurance that we will continue to repurchase subordinate voting shares for cancellation. Although we currently have an NCIB in effect, whether we repurchase shares under such NCIB for cancellation and the amount and timing of any such share repurchases, is subject to capital availability and periodic determinations by our Board that share repurchases are in the best interest of our shareholders and are in compliance with all applicable laws and agreements. Future share repurchases, including their timing and amount, may be affected by, among other factors: our views on potential future capital requirements for strategic transactions, including acquisitions; debt service requirements; our credit rating; changes to applicable tax laws or corporate laws; and changes to our business

model. In addition, the amount we spend and the number of shares we are able to repurchase under our NCIB and any future substantial issuer bid may further be affected by a number of other factors, including the shares we repurchase to satisfy stock-based compensation awards, the price of our subordinate voting shares and blackout periods in which we are restricted from repurchasing shares. Our share repurchases may change from time to time, and we cannot provide assurance that we will continue to repurchase subordinate voting shares for cancellation in any particular amounts or at all. A reduction in or elimination of our share repurchases could have a negative effect on our stock price.

Potential unenforceability of judgments.

We are incorporated under the laws of the Province of Ontario, Canada. Our controlling persons, a majority of our directors, and several of our officers are residents of (or are organized in) Canada. Also, a substantial portion of our assets and the assets of

these person are located outside of the United States. As a result, it may be difficult to effect service of process within the United States upon those directors, officers, or controlling persons who are not residents of the United States, or to enforce judgments in the United States obtained in courts of the United States. It may also be difficult for shareholders to enforce a U.S. judgment in Canada predicated upon the civil liability provisions of U.S. federal or state securities laws or to succeed in a lawsuit in Canada based only on U.S. federal or state securities laws.

Negative publicity could adversely affect our reputation as well as our business, financial results and share price. Unfavorable media related to our industry, company, brand, marketing, personnel, operations, business performance, or prospects may affect our share price and the performance of our business, regardless of its accuracy or inaccuracy. The speed at which negative publicity can be disseminated has increased dramatically with the capabilities of electronic communication, including social media outlets, websites, blogs, and newsletters. Our success in maintaining, extending, and expanding our brand image depends on our ability to adapt to this rapidly changing media environment. Adverse publicity or negative commentary from any media outlet could damage our reputation and reduce the demand for our products, which would adversely affect our business.

Our business could be negatively impacted as a result of actions by activist shareholders or others.

Although Onex controls a substantial majority of the voting power of our securities, we may be subject to challenges in the operation of our business due to actions instituted by activist shareholders or others. Responding to such actions could be costly and time-consuming, may not align with our business strategies and could divert the attention of our Board and senior management from the pursuit of our business strategies. Perceived uncertainties as to our future direction as a result of shareholder activism may lead to the perception of a change in the direction of the business or other instability and may make it more difficult to attract and retain qualified personnel and business partners and may adversely affect our relationships with vendors, customers and other third parties.

Our business and operations could be adversely impacted by climate change initiatives.

Concern over climate change has led to international legislative and regulatory initiatives directed at limiting carbon dioxide and other greenhouse gas emissions. Proposed and existing efforts to address climate change by reducing greenhouse gas emissions could directly or indirectly affect our costs of energy, materials, manufacturing, distribution, packaging and other operating costs, which could adversely impact our business and financial results.

#### Item 4. Information on the Company

A. History and Development of the Company

We were incorporated in Ontario, Canada on September 27, 1996. Our legal and commercial name is Celestica Inc. We are a corporation domiciled in the Province of Ontario, Canada and operate under the Business Corporations Act (Ontario) ("OBCA"). Our principal executive offices are currently located at 844 Don Mills Road, Toronto, Ontario, Canada M3C 1V7, and as of April 1, 2019, will be located at 5140 Yonge Street, Suite 1900, Toronto, Ontario, Canada M2N 6L7. Our telephone number is (416) 448-5800, and our internet address is www.celestica.com. Information on our website is not incorporated by reference into this Annual Report.

Prior to our incorporation, we were an IBM manufacturing unit that provided manufacturing services to IBM for more than 75 years. In 1993, we began providing electronics manufacturing services to non-IBM customers. In October 1996, we were purchased from IBM by an investor group led by Onex, and in 1998, we completed our initial public offering.

A description of our acquisition activities (including our 2018 acquisitions of Atrenne and Impakt), our principal capital expenditures (including property, plant and equipment), and financing activities, over the last three fiscal years is set forth in notes 3, 4, 5, 12, 13, 22, and 24 to the Consolidated Financial Statements in Item 18, and Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations." A description of our divestiture activities (including our restructuring activities) over the last three fiscal years is set forth in notes 4, 7, 8, and 16 to the Consolidated Financial Statements in Item 18, and Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and

Results of Operations," including a discussion of the consummation of the sale of our real property located in Toronto, Ontario, and related transition matters.

See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity — Additional Commitments" for a description of our significant commitments for capital expenditures as at December 31, 2018 and those planned for 2019.

See "Business Overview" below for a description of the reorganization of our reporting structure, including our sales, operations and management systems, into two operating and reporting segments, commencing in the first quarter of 2018.

See "Overview — Celestica's business" and "Recent Developments" of Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations" for a discussion of our comprehensive review of our CCS segment revenue portfolio, commenced in the second half of 2018, recent adverse trends impacting our semiconductor capital equipment customers, and the status of our CEI.

There were no public takeover offers by third parties in respect of the Corporation's subordinate voting shares or multiple voting shares or by the Corporation in respect of other companies' shares which occurred during the last or current financial year.

The U.S. Securities and Exchange Commission (SEC) maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is http://www.sec.gov.

### B. Business Overview

#### General

As previously disclosed, during the first quarter of 2018, we completed a reorganization of our reporting structure, including our sales, operations and management systems, into two operating and reporting segments: ATS and CCS. Prior to this reorganization, we operated in one reportable segment (Electronic Manufacturing Services), which was comprised of multiple end markets (ATS, Communications and Enterprise during 2017). See note 25 to our Consolidated Financial Statements in Item 18.

Our ATS segment consists of our ATS end market, and is comprised of our aerospace and defense, industrial, smart energy, healthtech, and capital equipment businesses. Our capital equipment business is comprised of our semiconductor, display, and power & signal distribution equipment businesses. Our CCS segment consists of our Communications and Enterprise end markets, and is comprised of our enterprise communications, telecommunications, servers and storage businesses. All period percentages and financial information in this Annual Report reflect the current presentation.

We believe our services and solutions create value for our customers by accelerating their time-to-market, and by providing higher quality, lower cost, and reduced cycle times in our customers' supply chains as compared to their insourcing of these activities. We believe this results in lower total cost of ownership, greater flexibility, higher return on invested capital and improved competitive advantage for our customers in their respective markets.

Our global headquarters is located in Toronto, Canada. We operate a network of sites and centers of excellence

(discussed below) strategically located in North America, Europe and Asia, with specialized end-to-end supply chain capabilities tailored to meet specific market and customer product lifecycle requirements.

We offer a comprehensive range of product manufacturing and related supply chain services to our customers in both of our segments, including design and development, new product introduction, engineering services, component sourcing, electronics manufacturing and assembly, testing, complex mechanical assembly, systems integration, precision machining, order fulfillment, logistics, asset management, product licensing, and after-market repair and return services. Within design and development, our JDM offering includes the creation of hardware platforms and design solutions in collaboration with customers, as well as the management of aspects of the supply chain and manufacturing.

Although we supply products and services to over 100 customers, we depend upon a small number of customers for a substantial portion of our revenue. In the aggregate, our top 10 customers represented 70% of our total 2018 revenue. In 2018, we had two customers that individually represented more than 10% of total revenue (Cisco Systems, Inc. and Dell Technologies accounted for 14% and 10%, respectively, of our total revenue for 2018). Significant reductions in, or the loss of, revenue from these or any of our major customers may have a material adverse effect on us. See Item 3(D) — Key Information — Risk Factors — "We are dependent on a limited number of customers and end markets. A decline in revenue from, or the loss of, any significant customer, could have a material adverse effect on our financial condition and operating results."

Revenue from our ATS segment currently represents approximately one-third of our aggregate revenue but generated just under one-half of our total segment income in 2018. Products and services in this segment are extensive and are often more regulated than in our CCS segment, and can include the following: government-certified and highly-specialized manufacturing, electronic and enclosure-related services for aerospace and defense-related customers; high-precision equipment and integrated subsystems used in the manufacture of semiconductors and displays; a wide range of industrial automation, controls, test and measurement

devices; advanced solutions for surgical instruments, diagnostic imaging and patient monitoring; and efficiency products to help manage and monitor the energy and power industries. Our ATS segment businesses typically have a higher margin profile and longer product life cycles than the businesses in our CCS segment. Revenue from our CCS segment currently represents approximately two-thirds of our aggregate revenue and generated just over one-half of our total segment income in 2018. Products and services in this segment consist predominantly of enterprise-level data communications and information processing infrastructure products, and can include routers, switches, servers and storage-related products used by a wide range of businesses and cloud-based service providers to manage digital connectivity, commerce and social media applications. Our CCS segment businesses typically have a lower margin profile and higher volumes than the businesses in our ATS segment, and have been impacted in recent periods (and continue to be impacted) by aggressive pricing, rapid shifts in technology, model obsolescence and the commoditization of certain products.

To increase the value we deliver to our customers, we continue to make investments in people, value-added service offerings, new capabilities, capacity, technology, IT systems, software and tools. We continuously work to improve our productivity, quality, delivery performance and flexibility in our efforts to be recognized as a leading company in the EMS industry. We have invested in automation and the "Digital Factory" to streamline our processes and reduce costs. Our current CEI, and related restructuring actions, are also intended to further streamline our business, increase operational efficiencies and improve our productivity.

Our current priorities are focused on evolving our revenue portfolio; expanding our non-IFRS operating margin and segment margins; and maintaining a balanced approach to capital allocation. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Operating Goals and Principals" for further detail. Operating margin is a non-IFRS measure without a standardized meaning, and may not be comparable to similar measures presented by other companies. See "Non-IFRS measures" in Item 5 — Operating and Financial Review and Prospects, for a discussion of this and other non-IFRS measures included in this Annual Report, and a reconciliation of our non-IFRS measures to the most directly comparable IFRS measures. We believe that continued investments in these areas support our long-term growth strategy, and will strengthen our competitive position, enhance customer satisfaction, and increase long-term shareholder value. We intend to continue to focus on expanding our revenue base in our higher-value-added services, such as design and development, engineering, and after-market services. However, as we are experiencing slower growth rates and increased pricing pressures in our traditional markets, which account for a substantial portion of our revenue, we will also focus on expanding our business beyond our traditional end markets, including by pursuing new customers and acquisition opportunities in our ATS segment to expand our end market penetration, to diversify our end market mix, and to enhance and add new technologies and capabilities to our offerings.

**Electronics Manufacturing Services Industry** 

## Overview

Leading EMS companies manage global networks that are capable of delivering customized supply chain solutions. They offer end-to-end services for the entire product lifecycle, including design and engineering services, manufacturing, assembly and test, systems integration, fulfillment and after-market services. Our customers, which include OEMs, service providers (including cloud-based service providers) and other companies in a wide range of industries, use these services to enhance their competitive positions. Outsourcing manufacturing and related services can help our customers to address their business challenges related to cost, asset utilization, quality, time-to-market, demand volatility, customer support, and rapidly changing technologies.

We believe outsourcing by these companies will continue across a number of industries as a means to: Reduce Operating Costs and Invested Capital. Companies that use our services are under continuous pressure to reduce total product lifecycle costs, and property, plant and equipment expenditures. The manufacturing process for electronics products has become increasingly automated, requiring greater levels of investment in property, plant and equipment. EMS companies help enable such companies to gain access to a global network of manufacturing sites with supply chain management expertise, advanced engineering capabilities, flexible capacity and economies of scale. By working with EMS companies, they can reduce their overall product lifecycle and operating costs, working capital and property, plant and equipment investment requirements, and thereby improve their financial performance.

Focus Resources on Core Competencies. Our customers operate in highly competitive environments, characterized by rapid technological change and short product lifecycles. As a result, many customers prioritize their resources on their core competencies of product development, sales, marketing and customer service, by outsourcing design, engineering, manufacturing, supply chain, product lifecycle management, and other product support requirements to their EMS partners.

Improve Time-to-Market. Electronic products generally experience short lifecycles, requiring companies that use our services to continually reduce the time and cost of bringing products to market. We believe that such companies can significantly improve their product development cycles and enhance time-to-market by benefiting from the expertise and infrastructure of EMS providers, including their capabilities relating to design and engineering services, prototyping and the rapid ramp-up of new products to high-volume production, all with the critical support of global supply chain management and manufacturing networks.

Utilize EMS Companies' Procurement, Inventory Management and Logistics Expertise. We believe that the successful manufacturing of electronic products requires significant resources to manage the complexities in planning, procurement and inventory management, frequent design changes, short product lifecycles and product demand fluctuations. Companies can help manage these complexities by outsourcing to those EMS providers that (i) possess sophisticated IT systems and global supply chain management capabilities and (ii) can leverage significant component procurement advantages to lower product costs.

Access Leading Engineering Capabilities and Technologies. Electronic products and the electronics manufacturing technology needed to support them are complex and require significant investment. As a result, some companies rely on EMS providers for design and engineering services, supply chain management, and manufacturing and technological expertise. Through their design and engineering services, and through the knowledge gained from manufacturing and repairing products, EMS providers can assist such companies in the development of new product concepts, or the re-design of existing products, as well as assist with improvements in the performance, cost and time required to bring products to market. In addition, companies can gain access to high-quality manufacturing expertise and capabilities in the areas of advanced process, interconnect and test technologies.

Improve Access to Global Markets. Some of our customers provide products or services to a global customer base. EMS companies with global infrastructure and support capabilities help to provide customers with efficient world-wide manufacturing solutions, distribution capabilities and after-market services.

Access Value-Added Service Offerings. EMS providers strive to expand their offerings to include services such as design, fulfillment and after-market services, including repair and recycling, to encourage companies to outsource more of their cost of goods sold.

# Celestica's Strategy

We are focused on building solid partnerships and delivering informed, flexible solutions intended to contribute to our customers' success. To achieve this, we collaborate with our customers in an effort to identify and meet their current and future requirements. We offer a range of services designed to deliver lower costs, increased flexibility and predictability, improved quality and responsive service. We constantly seek to advance our quality, engineering, manufacturing and supply chain capabilities to help our customers achieve a competitive advantage. We will continue to focus on our pursuit of the following, intended to strengthen our competitive position and enhance customer satisfaction and shareholder value:

Increase Penetration in our End Markets. We strive to establish a diverse customer base across several industries. We believe our expertise in technology, quality and supply chain management, in addition to our service offerings and centers of excellence, have positioned us as an attractive partner to companies across various markets. Our goal is to grow across our end markets, with particular emphasis on expanding our ATS segment, both organically and through acquisitions. Revenue dollars from our ATS segment increased by 13% from 2016 to 2018, while representing 33% of our total revenue over the same period.

Our revenue by end market as a percentage of total revenue is as follows:

2016 2017 2018

ATS 32% 32% 33% Communications 42% 43% 41% Enterprise 26% 25% 26%

Selectively Pursue Acquisitions and Strategic Transactions. We will continue to selectively seek acquisition opportunities and strategic transactions in order to (i) profitably grow our revenue, (ii) further develop strategic relationships with customers in our end markets and (iii) enhance the scope of our capabilities and service offerings. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial

Condition and Results of Operations — Recent developments" for a discussion of our recent acquisitions of Atrenne and Impakt in our ATS segment.

Continuously Improve Operational Performance. We will continue to focus on (i) managing our mix and volume of business and service offerings to improve our overall margins, (ii) leveraging our supply chain practices globally to lower materials costs,

minimize lead times and improve our planning cycle to better meet volatility in customer demand and improve asset utilization and inventory levels, and (iii) improving operating efficiencies to reduce costs and improve margins, including through our CEI and our CCS portfolio review. In order to help us streamline our processes, we have been increasing our investments in the "Digital Factory", and automating and connecting our equipment, people and systems throughout our global network, including our customers and suppliers. Nonetheless, the mix of our business can impact our revenue and overall margins. Although our revenues increased in 2018 compared to 2017, our mix of programs negatively impacted our gross margins, as certain new programs contributed lower gross profit than past programs (including a higher concentration of fulfillment services in 2018 that contributed significantly lower gross profit than our historical full-service traditional EMS programs). We also intend to continue to invest in higher margin services (including our JDM offering), continue our focus on driving better inventory performance in the constrained materials environment, and completing our CEI. Although revenue from our ATS segment in 2018 increased by 13% compared to 2017, ATS segment income increased 6% for the same period, impacted in part by sharp demand decreases in the cyclical semiconductor market we experienced in the second half of 2018. Our CEI includes actions to align this business to the current demand environment to improve its profitability. See Item 5, "Operating and Financial Review and Prospects."

Develop and Grow Trusted Relationships with Leading Customers. We continue to seek to build profitable, strategic relationships with industry leaders that we believe can benefit from our services and solutions. We strive to respond to our customers' needs with speed, flexibility and predictability in delivering results. We have established and maintain strong relationships with a diverse mix of leading OEMs, service providers (including cloud-based service providers) and other companies across our end markets. We believe that our customer base is a strong potential source of growth for us as we seek to strengthen these relationships through the delivery of additional services.

Expand Range of Service Offerings and Continue to Invest in Developing New Technology, Quality Products and Supply Chain Solutions and Services. We continually seek to expand the services we offer to our customers, and we are committed to meeting our customers' needs in the areas of technology, quality and supply chain management. We believe our expertise in these areas enables us to meet the rigorous demands of our customers, allows us to produce a variety of electronic products ranging from high-volume electronics to highly complex technology infrastructure products used in a broad array of end markets, and allows us to deliver consistently reliable products to our customers. We also believe the systems and collaborative processes associated with our expertise in supply chain management help us to adjust our operations to meet the lead time requirements of our customers, and quickly and effectively deliver products directly to end customers. We collaborate with our suppliers to influence component design for the benefit of our customers. As a result of the successes that we have had in these areas, we have been recognized with numerous customer and industry achievement awards.

See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Operating Goals and Principals" for a discussion of our current priorities and areas of focus pertaining to evolving our revenue portfolio, expanding our non-IFRS operating margin and segment margins, and maintaining a balanced approach to capital allocation.

### Celestica's Business

Innovative Supply Chain Solutions and Services

We are a global provider of innovative supply chain solutions. We offer a range of services including design and development, engineering services, supply chain management, new product introduction, component sourcing, electronics manufacturing, assembly and test, complex mechanical assembly, systems integration, precision machining, order fulfillment, logistics, asset management, product licensing, and after-market repair and return services. Our design and development services include our JDM offering, which consists of developing hardware platforms and design solutions in collaboration primarily with CCS segment customers, as well as managing aspects of the supply chain and manufacturing. We believe that our JDM offering differentiates us from other EMS providers, by encompassing advanced technology design solutions that customers can tailor to their specific platform applications. We execute our business in our global network of sites, including our designated centers of excellence, strategically located in North America, Europe and Asia. We leverage these sites and centers of excellence, information technology, and our supply chain expertise using collaborative processes and a team of highly skilled,

customer-focused employees. We believe that our ability to deliver a range of supply chain solutions, including hardware platforms, to our customers provides them with a competitive lead time, and advantages in quality, flexibility and total cost of ownership.

The objective of our centers of excellence program is to help ensure that our operations reflect a solid understanding of the markets we serve, have current capabilities and standardized practices, and are positioned to provide efficiency, consistency, and value to our customers around the globe. To obtain "center of excellence" status, our sites must meet our defined criteria pertaining

to quality, supply chain capabilities, Lean and Six Sigma, market specific certifications (to the extent applicable), and other matters regarding their operations.

Quality, Lean and Six Sigma Culture

We believe one of our strengths is our ability to consistently deliver high-quality services and products. We have an extensive quality management system that focuses on continual process improvement and achieving high levels of customer satisfaction. We employ a variety of advanced statistical engineering techniques and other tools to assist in improving product and service quality. Most of our principal sites are ISO 9001 and ISO 14001 certified (international quality management standards), and have other required industry-specific certifications.

In addition to these standards, we deploy Lean and Six Sigma initiatives throughout our operations network to deliver customer value and eliminate defects and waste. Implementing Lean initiatives across our manufacturing processes helps drive efficiencies, cycle times velocities and improve product quality. We use Six Sigma extensively in an effort to reduce process variation and to drive root cause problem-solving. Lean and Six Sigma methods are also used in non-production areas to streamline our processes and eliminate waste. For example, our completed Global Business Services (GBS) initiative focused on integrating, standardizing and optimizing our end-to-end business processes throughout our organization. We apply the knowledge we gain in our after-market services to help improve the quality and reliability of next-generation products. Success in these areas helps our customers to lower their costs, positioning them more competitively in their respective markets.

Design and Engineering Services

Our global design teams are focused on delivering flexible solutions and expertise, intended to help customers reduce overall product costs, improve time-to-market, and introduce competitively differentiated products. For customer-owned designs, we partner with our customers to augment their design teams, and utilize our proprietary design analysis tools to minimize design revisions and to achieve improved manufacturing yields. Our JDM service involves developing hardware platforms and design solutions in collaboration with customers, managing aspects of the supply chain, and manufacturing their products. We continue to invest in leading-edge product roadmaps and design capabilities aligned with both market standards and emerging technologies in support of our JDM offering. We are currently delivering both partially customized JDM products, and complete hardware platform solutions to customers in the storage, servers, communications, and industrial markets. These products are intended to help our customers reach their markets faster, while reducing product costs and building valuable IP for their product portfolios. Through our collective experience with common technologies across multiple industries and product groups, we believe we provide quality and cost-focused solutions for a wide range of our customers' design needs. Revenue attributable to our JDM business grew approximately 30% in 2018 as compared to the prior year. We collaborate with some of our core customers' product designers in the early stages of product development, using advanced tools to enable new product ideas to progress from electrical and application-specific integrated circuit design, to simulation, physical layout and design review, all intended to ensure readiness for manufacturing. We leverage our design expertise to create innovative technologies and hardware product solutions, and leverage key ecosystem partners to drive both innovation and supply chain leverage. Our JDM offerings encompass advanced technology hardware design solutions that customers can tailor to their specific platform applications. We believe that collaboration between our customers' teams, key ecosystem partners, and our design and manufacturing groups helps to ensure that new designs are released rapidly, smoothly and cohesively into production.

Our engineering services team works with our customers throughout the product life-cycle. We believe our engineering expertise and experience in design review, product test solutions, assembly technology, automation, quality and reliability, position us to deliver the services required to address the challenges facing our customers. We maintain ties with key industry associations and engineering firms to help us stay apprised of advances in technical knowledge.

Prototyping and New Product Introduction

Prototyping is a critical early-stage process in the development of new products. Our engineers collaborate with our customers' engineers to provide quick responses in the early stages of the product development lifecycle. Supply Chain Management and Services

We use advanced planning, analytics, enterprise resource planning, and supply chain management systems to optimize materials management from suppliers to our customers' customers. We believe that the effective management of the supply chain is critical to our customers' success, as it directly impacts the time and cost required to deliver products to market and the capital requirements associated with carrying inventory.

We strive to reduce our customers' total cost of ownership by providing lower costs and reduced cycle times in their supply chain, and by delivering higher quality products. We also strive to align our preferred suppliers in close proximity to our centers of excellence to increase the speed and flexibility of our supply chain, to deliver higher quality products and to reduce time-to-market. We believe we deliver a differentiated supply chain offering. Through our global supply chain management processes and integrated IT tools, we endeavor to provide our customers with enhanced visibility to balance their global demand and supply requirements, including inventory and order management.

Manufacturing Services

Printed Circuit Board Assembly

Printed circuit board assembly includes the attachment of electronic components, such as capacitors, microprocessors, resistors and memory modules, to printed circuit boards. Our global network of engineers helps us to provide our customers with full printed circuit board ("PCB") assembly technology capabilities. These capabilities include design for manufacturing, PCB layout, packaging, assembly (circuit card assembly or CCA), lead-free soldering, test development, and data analytics for complex flexible and rigid-flex circuits and hybrid PCBs.

Complex Mechanical Assembly

We provide systems integration and precision machined components to our capital equipment customers. Complex mechanical systems integration consists of multiple interconnected subsystems that interact with various materials, e.g., fluids, solids, particles and rigid bodies. Such systems are often used in advanced manufacturing applications such as semiconductor manufacturing, display manufacturing (including LCD, OLED, QLED and other displays), medical applications using robotics, and other applications such as cash handling machines where precise standards are required.

As a result of our acquisition of the assets of Karel, we now also provide complex mechanical assembly primarily to our aerospace customers, including wire harness assembly, systems integration, sheet metal fabrication, welding and machining.

**Precision Machining** 

We utilize specialized computer-controlled machines to manufacture high quality components to tight tolerance requirements. Such components are often used in applications similar to those noted above for complex mechanical assembly.

**Smart Energy Services** 

We provide integrated smart energy solutions and services to our renewable energy customers in the areas of power generation, conversion and monitoring. We deliver complete product lifecycle solutions, including design, manufacturing and reliability services for power inverters, metering and controls electronics, and energy storage subsystems. Although we have exited the solar panel manufacturing business, we remain committed to growing the other areas within our smart energy market portfolio, which include power inverters, energy storage products, smart meters and other electronic componentry.

Systems Assembly and Test

We use sophisticated technologies in the assembly and testing of our products. We continue to make investments in the development of automated solutions, as well as new assembly and test process techniques intended to enhance product quality, reduce cost and improve delivery time to customers. We work independently and also collaborate with customers and suppliers to develop assembly and test technologies. Systems assembly and testing require sophisticated logistics capabilities to rapidly procure components, assemble products, perform complex testing and distribute products to customers around the world. Our full systems assembly services involve combining and testing a wide range of sub-assemblies and components before shipping them to their final destination. Increasingly, customers require custom build-to-order system solutions with very short lead times and we are focused on using our advanced supply chain management capabilities to respond to our customers' needs.

Quality and Product Assurance

We provide complete product reliability testing, inspection and qualification capabilities to support our customers' full product lifecycle requirements. Our quality and product assurance teams perform product testing to ensure that designs meet or exceed required specifications. We are capable of testing to various industry standards, and we work

closely with our customers to execute unique test protocols. We believe that this service allows our customers to assess certification risks early in the product development lifecycle, reducing cost and time-to-market.

#### Failure Analysis and After-Market Services

Our extensive failure analysis capabilities concentrate on identifying the root cause of product failures and determining corrective actions. The root causes of failures typically relate to inherent component defects and/or deficiencies in design specifications. Products are subjected to various environmental extremes, including temperature, humidity, vibration, voltage and contamination. Field conditions are simulated in failure analysis laboratories which employ electron microscopes, spectrometers and other advanced equipment. Our engineers work proactively in partnership with suppliers and customers in an effort to discover product failures before products are shipped, and to develop and implement resolutions if required.

We also seek to provide value to our customers through our after-market services offerings which include repair, fulfillment, reverse logistics, asset management, reclamation and returns processing and prevention. Our fulfillment offering includes the design and management of integrated supply chain and materials management for light manufacturing and final assembly and reclamation. Our reverse logistics offering includes the design and management of transportation networks, warehousing and distribution of products, asset recovery services, and transportation and supply chain event monitoring. Our returns processing and prevention offering provides our customers with product screening and testing and product design and process analysis. Our reclamation offering includes product disassembly, reassembly and re-use, as well as certified scrap disposition processing. We offer these services individually or integrated through a 'Control Tower' model which coordinates our people, systems and processes with those of our customers to improve service levels by providing an increased level of visibility and analytics throughout the entire after-market value chain.

#### Geographies

For each of 2016, 2017 and 2018, approximately 70% of our revenue was produced in Asia and approximately 20% of our revenue was produced in North America. Revenue produced in Canada represented 9% of revenue in 2018 (2017 — 8%; 2016 — 8%). Our property, plant and equipment in Canada represented 9% of our property, plant and equipment at December 31, 2018 (December 31, 2017 — 6%; December 31, 2016 — 7%). A listing of our principal locations is included in Item 4(D), "Information on the Company — Property, Plants and Equipment." Certain geographic information for countries exceeding 10% of our external revenue, property, plant and equipment, and intangible assets and goodwill is set forth in note 25 to the Consolidated Financial Statements in Item 18.

#### Marketing and Customer Experience

We structure our business development teams by end market, with a focus on offering market insight and expertise, and complete manufacturing and supply chain solutions to our customers. We have customer-focused teams, each headed by a group general manager who oversees the global relationship with our key customers. These teams work with our Solutions Architects to meet the requirements of each customer's product or supply chain. Our global network is comprised of customer-focused teams, operational and project managers, and supply chain management teams, as well as senior executives.

Our goal is to effectively collaborate with our customers, and towards that end, we provide comprehensive support before, during and after the delivery of our products and services. We seek to deepen and grow our customer relationships by providing consistent, high-quality implementation and customer support services, which we believe drives higher customer retention and additional opportunities within our existing customer base.

## Customer Concentration and Relationship Management

As stated above, we supply products and services to over 100 customers. We target industry-leading customers in each of our segments. Our CCS segment customers include Cisco Systems, Inc., Dell Technologies, Hewlett-Packard Enterprise, Hewlett-Packard Inc., IBM Corporation, Juniper Networks, Inc., NEC Corporation, Oracle Corporation, Polycom, Inc., and Western Digital Corporation. Our ATS segment customers include Applied Materials, Inc. and Honeywell Inc. We are focused on strengthening our relationships with these and other strategic customers through the delivery of new and expanding end-to-end solutions.

During 2018, two customers (Cisco Systems, Inc., which accounted for 14% of total 2018 revenue, and Dell Technologies, which accounted for 10% of total 2018 revenue) individually represented more than 10% of total revenue (2017 — two customers: Cisco Systems, Inc., (18%) and Juniper Networks, Inc. (13%); 2016 — two customers: Cisco Systems, Inc. (19%) and Juniper Networks, Inc. (11%)). Each of these customers are in our CCS segment. Our

top 10 customers represented 70%, 71% and 68% of total revenue for 2018, 2017 and 2016, respectively. We generally enter into master supply agreements with our customers that provide the framework for our overall relationship, although the level of business under those agreements is not guaranteed. Instead, we bid on a program-by-program basis and typically receive customer purchase orders for specific quantities and timing of products. A majority of these agreements also

require the customer to purchase unused inventory that we have purchased to fulfill that customer's forecasted manufacturing demand. Some of these agreements require us to provide specific price reductions to our customers over the term of the contracts. We expect such price reductions to become more prevalent as customers increasingly seek longer-term contracts to lock in their supply, terms and pricing. This has, and could continue to, adversely impact our operating results in future periods.

Research and Technology Development

We use advanced technology to design, assemble and test the products we manufacture. We continue to increase investment in our global design services and capabilities to conceive differentiated JDM product solutions for our customers.

We believe that our customer-focused factories are flexible and can be reconfigured as needed to meet customer-specific product requirements and fluctuations in volumes (although we do incur increased production costs from time to time in connection with unexpected demand changes). We have extensive capabilities across a broad range of specialized assembly, configuration and test processes. We work with a variety of substrates based on the products we build for our customers, from thin, flexible printed circuit boards to highly complex, dense multi-layer printed circuit boards, as well as a broad array of advanced component and attachment technologies employed in our customers' products and our own product designs. We believe that increasing demand for full-system assembly solutions continues to drive technical advancement in complex mechanical assembly and configuration. We also develop and manufacture sub-components, such as optical modules and complex machined parts, intended to drive targeted technical advancements to support these opportunities.

Our automated electronics assembly lines are continuously refreshed with the latest generation technology, with a focus on flexible lines with quick changeover, large board capability, and small component capability. Our assembly capabilities are complemented by advanced test capabilities. The technologies we use include high-speed functional testing, optical, burn-in, vibration, radio frequency, and in-circuit and in-situ dynamic thermal cycling stress testing. Our inspection technology includes X-ray computed tomography, advanced automated optical inspection, three-dimensional paste volumetric inspection and scanning electron microscopy. We work directly with leaders in the equipment industry to optimize their products and solutions or to jointly design solutions to meet the needs of our customers. We apply automation solutions for higher volume products, where possible, to help improve product quality, lower product costs, and increase manufacturing efficiencies.

Our ongoing research and development activities include the development of processes and test technologies, as well as focused product development and technology building blocks that can be used by customers in the development of their products, or to accelerate their products' time-to-market. Our JDM offering is focused on developing these design solutions and subsequently managing the other aspects of the supply chain, including manufacturing of the products. We focus our solutions on developing current and next generation storage, server and communications products (in particular, elements of data centers, which include the development of complete hardware platform solutions to reduce product costs and accelerate time to market, and which we believe will continue to grow). We work directly with our customers to understand their product roadmaps and to develop technology solutions intended to meet their particular needs. We are proactive in developing manufacturing techniques that take advantage of the latest component, product and packaging designs. We have worked with, and have taken leadership roles in, industry and academic groups that strive to advance the state of technology in the industry. As we continue to pursue deeper relationships with our customers, and participate in additional services and revenue opportunities with them, we anticipate an increase in our spending in these development areas.

## Supply Chain Management

We share data electronically with our key suppliers, and help ensure speed of supply through strong relationships with our component suppliers and logistics partners. We view the size and scale of our procurement activities, including our IT systems, as an important competitive advantage, as they enhance our ability to obtain better pricing, influence component packaging and designs, and obtain a supply of components in constrained markets. We procure substantially all of our materials and components on behalf of our customers pursuant to individual purchase orders that are generally short-term in nature.

Components and raw materials are sourced globally, with a majority of electronic components originating from Asian countries. We continue to experience materials constraints from certain suppliers in both our segments, due in part to industry-wide shortages for certain electronic components. These shortages caused delays in the production of customer products, and required us to carry higher than expected levels of inventory, commencing in 2017 and continuing throughout 2018. Although we expect these materials constraints and resulting adverse impacts to continue in the near term, we have begun to see improvements in the availability of certain previously constrained items. Nonetheless, only minor improvements in supplier lead times are currently expected. See Item 3(D) — "Key Information — Risk Factors" for a discussion of various risks related to our foreign operations. All of the products we manufacture or assemble require one or more components. In many cases, there may be only one supplier of a particular component. Some of these components could be rationed in response to supply shortages. We work with our suppliers

and customers to attempt to ensure continuity in the supply of these components. In cases where unanticipated customer demand or supply shortages occur, we attempt to arrange for alternative sources of supply, where available, or defer planned production in response to the availability of the critical components. Notwithstanding these efforts, however, materials constraints from certain suppliers caused delays in the production of customer products during 2018. See Item 3(D) Key Information — Risk Factors, "We are dependent on third parties to supply certain materials, and our results can be negatively affected by the availability and cost of such materials."

We utilize our enterprise systems, as well as specific supply chain IT tools, to provide comprehensive information on our logistics, financial and engineering support functions. These systems provide management with the data and analytics required to manage the logistical complexities of our business and are augmented by and integrated with other applications, such as shop floor controls, component and product database management, and design tools. To minimize the risk associated with inventory, we primarily order materials and components only to the extent necessary to satisfy existing customer orders and forecasts covered by the applicable customer contract terms and conditions. We have implemented specific inventory management strategies with certain suppliers, such as "supplier managed inventory" (pulling inventory at the production line on an as-needed basis) and on-site stocking programs. Our initiatives in Lean and Six Sigma also focus on eliminating excess inventory throughout the supply chain. Notwithstanding the foregoing, however, as a result of demand volatility from our customers and the materials constraints from certain suppliers discussed above, we carried higher than expected levels of inventory at December 31, 2018. We expect these adverse market conditions to continue in the near term.

Intellectual Property

We hold licenses to various technologies which we have acquired in connection with acquisitions. In addition, we believe that we have secured access to all required technology that is material to the current conduct of our business. We regard our manufacturing processes and certain designs as proprietary trade secrets and confidential information. We rely largely upon a combination of trade secret laws, non-disclosure agreements with our customers, suppliers, employees and other parties, and upon our internal security systems, confidentiality procedures and employee confidentiality agreements to maintain the trade secrecy of our designs and manufacturing processes, Although we take steps to protect our trade secrets, there can be no assurance that misappropriation will not occur. See Item 3(D) Key Information — Risk Factors, "We may not adequately protect our intellectual property or the intellectual property of others."

We currently have a limited number of patents and patent applications pending to protect our intellectual property. However, we believe that the rapid pace of technological change makes patent protection less significant than such factors as the knowledge and experience of management and personnel, and our ability to develop, enhance and market electronics manufacturing services.

Each of our customers typically provides us with a license to its technology for use in providing electronics manufacturing services to such customer. Generally, the agreements governing such technology grant to us non-exclusive, worldwide licenses with respect to the subject technologies, are typically provided without charge, and terminate upon a material breach by us of the terms of such agreements, or termination of the program to which such licenses relate.

We also license some technology from third parties that we use in providing electronics manufacturing services to our customers. We believe that such licenses are generally available on commercial terms from a number of licensors. Generally, the agreements governing such technology grant to us non-exclusive, worldwide licenses with respect to the subject technologies and terminate upon expiration, or a material breach by us of the terms, of such agreements. Competition

The EMS industry is highly competitive with multiple global EMS providers competing for customers and programs. Our competitors include Benchmark Electronics, Inc., Flex Ltd., Hon Hai Precision Industry Co., Ltd., Jabil Circuit, Inc., Plexus Corp., and Sanmina Corporation, as well as smaller EMS companies that often have a regional, product, service or industry-specific focus, and ODMs that provide internally designed products and manufacturing services. As part of our JDM offering, we also provide complete hardware platform solutions, which may compete with those of our customers. Offering products or services to customers that compete with the offerings of other customers may negatively impact our relationship with, or result in a loss of business from, such other customers.

We also face indirect competition from current and prospective customers who evaluate our capabilities and commercial models against the merits of manufacturing products internally, and from distribution and logistics providers expanding their services across the supply chain, including assembly, fulfillment, logistics and in some cases, engineering services. We compete with different companies depending on the type of service or geographic area. Some of our competitors have greater scale and

provide a broader range of services than we provide. We believe our competitive advantage is our track record in manufacturing technology, quality, complexity, responsiveness and cost-effective, value-added services. To remain competitive, we believe we must continue to provide technologically advanced manufacturing services and solutions, maintain quality levels, offer flexible delivery schedules, deliver finished products and services on time and compete favorably on price.

The competitive landscape in the CCS area remains aggressive, as demand growth continues to move from traditional enterprise network infrastructure providers to cloud-based service providers, resulting in aggressive bidding from EMS providers and increased competition from ODMs as they further penetrate these markets. As a result of the high concentration of our business in the CCS marketplace, we expect continued competitive pressures, aggressive pricing and technology-driven demand shifts, as well as certain materials constraints, to negatively impact our CCS businesses in future periods. We intend to continue to monitor these dynamics and focus on cost management in response to these factors. To enhance our competitiveness, we continue to focus on expanding our service offerings and capabilities beyond our traditional areas of EMS expertise.

See Item 3(D) Key Information — Risk Factors — "We operate in an industry comprised of numerous competitors and aggressive pricing dynamics" and Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Recent developments — Segment Reorganization and Segment Environment."

#### **Environmental Matters**

We are subject to various federal/national, state/provincial, local, foreign and supra-national laws and regulations, including environmental measures relating to the release, use, storage, treatment, transportation, discharge, disposal and remediation of contaminants, hazardous substances and waste, and health and safety measures related to practices and procedures applicable to the construction and operation of our sites. We have management systems in place designed to maintain compliance with such laws and regulations.

Our past operations and the historical operation by others of our sites may have resulted in soil and groundwater contamination on our sites, and in many jurisdictions in which we operate, environmental laws impose liability for the costs of removal, remediation or risk assessment of hazardous or toxic substances on an owner, occupier or operator of real property even if such person or company was unaware of or not responsible for the discharge or migration of such substances. From time-to-time we investigate, remediate and monitor soil and groundwater contamination at certain operating sites. We generally obtain Phase I or similar environmental assessments (which involve general inspections without soil sampling or groundwater analysis), or review assessment reports undertaken by others, for our manufacturing sites at the time of acquisition or leasing. However, such assessments may not reveal all environmental liabilities (due, for example, to limited available information about prior operations at the properties or other gaps in information at the time we acquire or lease such sites), and assessments have not been obtained for all sites. Where contamination is suspected at sites being acquired or leased, Phase II intrusive environmental assessments (that can include soil and/or groundwater testing) are usually performed. We expect to conduct Phase I or similar environmental assessments in respect of future property acquisitions or leases and intend to perform Phase II assessments where appropriate. Past environmental assessments have not revealed any environmental liability that we believe will have a material adverse effect on our operating results or financial condition, in part because of contractual retention of liability by landlords and former owners at certain sites. However, any such contractual retention of liability may not provide sufficient protection to reduce or eliminate our liability. Third party claims for damages or personal injury are also possible and could result in significant costs to us. If more stringent compliance or cleanup standards under environmental laws or regulations are imposed, or the results of future testing and analyses at our current or former sites indicate that we are responsible for the release of hazardous substances into the air, ground and/or water, we may be subject to additional liability. Environmental matters may arise in the future at sites where no problem is currently known or at sites that we may acquire in the future. See Item 3(D) Key Information — Risk Factors — "Compliance with governmental laws and obligations could be costly and may negatively impact our financial performance." Environmental legislation also occurs at the product level. Celestica works with its customers in connection with compliance with applicable product-level environmental legislation in the jurisdictions where products are manufactured and/or offered for use and sale by our customers.

## Backlog

Although we obtain purchase orders from our customers, they typically do not commit to delivery of products more than 30 to 90 days in advance. We do not believe that the backlog of expected product sales covered by purchase orders is a meaningful measure of future sales, since generally orders may be rescheduled or canceled.

#### Seasonality

Seasonality is reflected in the mix of products we manufacture from quarter-to-quarter. From time to time, we experience some level of seasonality in our quarterly revenue patterns across certain of our businesses. The addition of new customers may also introduce different demand cycles than our existing businesses. For example, cloud-based service providers have increased their use of products in our CCS segment in recent periods. These customers and markets are cyclically different from our traditional OEM customers, creating more volatility and unpredictability in our revenue patterns as we adjust to this shift, and additional challenges with respect to the management of our working capital requirements. The pace of technological change, the frequency of customers transferring business among EMS competitors and the constantly changing dynamics of the global economy will also continue to impact us. As a result of these factors, the impact of new program wins or program losses, overall demand variability, and limited visibility in technology end markets, it is difficult to isolate the impact of seasonality on our business. In recent periods, revenue from the storage component of our CCS segment has increased in the fourth quarter of the year compared to the third quarter, and then decreased in the first quarter of the following year, reflecting the increase in customer demand we typically experience in this business in the fourth quarter. In addition, we typically experience our lowest overall revenue levels during the first quarter of each year. There is no assurance that these patterns will continue. See also Item 3D Key Information — Risk Factors — "Our revenue and operating results may vary significantly from period to period."

### Controlling Shareholder Interest

Onex is our controlling shareholder with an approximate 80% voting interest in Celestica. Accordingly, Onex has the ability to exercise a significant influence over our business and affairs and generally has the power to determine all matters submitted to a vote of our shareholders where the subordinate voting shares and multiple voting shares vote together as a single class. Such matters include electing our Board and thereby influencing significant corporate transactions, including mergers, acquisitions, divestitures and financing arrangements. Gerald W. Schwartz, the Chairman of the Board, President and Chief Executive Officer of Onex, indirectly owns shares representing the majority of the voting rights of the shares of Onex. For further details, refer to Item 3D Key Information — Risk Factors — "The interest of our controlling shareholder, Onex Corporation, with an approximate 80% voting interest, may conflict with the interests of other shareholders" and footnotes 2 and 3 of Item 7(A) "Major Shareholders and Related Party Transactions — Major Shareholders."

#### Government Regulation

Information regarding material effects of government regulations on Celestica's business is provided in the risk factors entitled "We are subject to the risk of increasing income and other taxes, tax audits and the challenges of successfully defending our tax positions, and obtaining, renewing or meeting the conditions of tax incentives and credits, any of which may adversely affect our financial performance," "Compliance with governmental laws and obligations could be costly and may negatively impact our financial performance," "Compliance or the failure to comply with employment laws and regulations may negatively impact our financial performance," and "Policies or legislation proposed or instituted by the current U.S. administration could have a material adverse effect on our business, results of operations and financial condition" in Item 3(D) Key Information — Risk Factors.

Sustainability

Celestica's strategy in regard to sustainability is to integrate the elements of our sustainability program into every aspect of our business. The five elements of our strategy are employee sustainability, environmental sustainability, materials stewardship, sustainable solutions and sustainable communities.

Our guiding policies and principles include:

Our Values, developed with input from our employees to reflect the characteristics and behaviors that are core to Celestica;

Our Business Conduct Governance Policy, which outlines the ethics and practices we consider necessary for a positive working environment and the high legal and ethical standards to which our employees are held accountable; and

The Code of Conduct of the RBA, of which we were a founding (and remain a) member. The RBA's Code of Conduct outlines industry standards intended to ensure that working conditions in the supply chain are safe, workers are treated

with respect and dignity, and manufacturing processes are environmentally responsible. We are continually working to implement, manage and audit our compliance with the RBA's Code of Conduct.

We publish a Sustainability Report and a Business Conduct Governance Policy, both of which are available (along with our Values) on our corporate website at www.celestica.com. These documents outline our sustainability strategy, our high standards for business ethics, the policies we value and uphold, the progress we have made as a socially responsible organization and the key milestones we are working to achieve in 2019 and beyond. Financial Information Regarding Geographic Areas

Details of our financial information regarding geographic areas are disclosed in note 25 to the Consolidated Financial Statements in Item 18, in Item 4(B) "Information on the Company — Business Overview — Geographies," and in Item 4(D) "Information on the Company — Property, Plants and Equipment." Risks associated with our foreign operations are disclosed in Item 3(D) "Key Information — Risk Factors", including "Our ability to successfully manage unexpected changes or risks inherent in our global operations and supply chain may adversely impact our financial performance."

#### C. Organizational Structure

Onex, an Ontario corporation, is the Corporation's controlling shareholder with an approximate 80% voting interest in Celestica (via its direct and indirect beneficial ownership of approximately 18.6 million (100%) of the Corporation's multiple voting shares, and approximately 0.4 million of the Corporation's subordinate voting shares). Gerald W. Schwartz is the Chairman of the Board, President, and Chief Executive Officer of Onex, and indirectly owns multiple voting shares of Onex carrying the right to elect a majority of the Onex Board of Directors (see footnotes 2 and 3 to the Major Shareholders Table in Item 7(A) below).

Celestica conducts its business through subsidiaries operating on a worldwide basis. The following companies are considered significant subsidiaries of Celestica, and each of them is wholly-owned, directly or indirectly, by Celestica:

Celestica Cayman Holdings 1 Limited, a Cayman Islands corporation;

Celestica Cayman Holdings 9 Limited, a Cayman Islands corporation;

Celestica (Dongguan-SSL) Technology Limited, a China corporation;

Celestica Holdings Pte Limited, a Singapore corporation;

Celestica Hong Kong Limited, a Hong Kong corporation;

Celestica LLC, a Delaware, U.S. limited liability company;

Celestica (Suzhou) Technology Co. Ltd, a China corporation;

Celestica (Thailand) Limited, a Thailand corporation;

Celestica (USA) Inc., a Delaware, U.S. corporation;

Impakt Holdings LLC, a Delaware, U.S. limited liability company; and

2480333 Ontario Inc., an Ontario, Canada corporation.

#### D. Property, Plants and Equipment

The following table summarizes our principal owned and leased properties as of February 13, 2019. These sites are used to provide manufacturing services and solutions, such as the manufacture of printed circuit boards, assembly and configuration of final systems, complex mechanical assembly, precision machining as well as other related services and customer support activities, including design and development, warehousing, distribution, fulfillment and after-market services.

Major locations	Square Footage <sup>(1)</sup> (in thousands)	Owned/Leased (2)	Lease Expiration Dates
Canada <sup>(5)</sup>	888	Owned	N/A
Canada (3)(5)	341	Leased	between 2020 and 2028
Arizona	111	Leased	2027
California <sup>(3)</sup>	506	Leased	between 2019 and 2023
Oregon	188	Leased	2021
Massachusetts	55	Owned	N/A
Minnesota <sup>(3)</sup>	60	Leased	between 2019 and 2021
Mexico <sup>(3)</sup>	476	Leased	between 2019 and 2023
Ireland <sup>(3)</sup>	171	Leased	between 2020 and 2024
Spain	109	Owned	N/A
Romania	297	Owned	N/A
China <sup>(3)(4)</sup>	1,147	Owned/Leased	between 2020 and 2056
Malaysia(3)(4)	1,350	Owned/Leased	between 2019 and 2060
Thailand <sup>(3)(4)</sup>	903	Owned/Leased	between 2019 and 2048
Singapore <sup>(3)</sup>	202	Leased	between 2019 and 2021
South Korea (3)	279	Owned/Leased	between 2019 and 2024
Japan <sup>(3)</sup>	563	Owned/Leased	between 2020 and 2022
Laos	121	Leased	between 2021 and 2023

<sup>(1)</sup> Represents estimated square footage being used.

We consider each of the properties in the table above to be adequate for its purpose and suitably utilized according to the individual nature and requirements of the relevant operations. We currently expect to be able to extend the terms of expiring leases or to find replacement sites on commercially acceptable terms. Also see "Environmental Matters" in

<sup>(2)</sup> No owned or leased real properties are pledged as security under the New Credit Facility.

<sup>(3)</sup> Represents multiple locations.

<sup>(4)</sup> With respect to these locations, the land is leased, and the buildings are either owned or leased by us. On July 23, 2015, we entered into an agreement (which was amended in September of 2018) to sell our real property located in Toronto, Ontario, which includes the site of our corporate headquarters and our Toronto manufacturing operations. The closing of the transaction occurred on March 7, 2019. In anticipation of the sale, in November 2017, we entered into a long-term lease in the Greater Toronto area for our new manufacturing operations. We completed this relocation in February 2019. As part of the sale, we will enter into a long-term lease for our new corporate headquarters on commercially reasonable arm's-length terms. In connection therewith, we are relocating our corporate headquarters to a temporary location while space in a new office building (to be built by the purchaser of the property on the site of our current location) is under construction, and entered into a three-year lease for such temporary offices in September 2018. The temporary office relocation is currently expected to be

completed by the end of the first half of 2019. We have incurred significant capitalized and transition costs throughout the transition period (which commenced in the fourth quarter of 2017) in connection with these relocations. We incurred approximately \$17 million in capitalized building improvement and equipment costs for the new manufacturing location through February 13, 2019, and expect to incur: (i) approximately \$6 million in capitalized building improvement costs in connection with our temporary office relocation (approximately \$1 million of which has been incurred through February 13, 2019), and (ii) up to approximately \$20 million in transition costs through the end of the second quarter of 2019 (approximately \$16 million of which has been incurred through February 13, 2019). All of such costs have been, and the remainder are expected to be, funded from cash on hand. See Item 5, "Operating and Financial Review and Prospects — Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity — Toronto Real Property and Related Transactions."

Item 4(B) above.

Our principal executive office is currently located at 844 Don Mills Road, Toronto, Ontario, Canada M3C 1V7, and as of April 1, 2019, will be located at 5140 Yonge Street, Suite 1900, Toronto, Ontario, Canada M2N 6L7.

Our material tangible fixed assets are described in note 8 to the Consolidated Financial Statements in Item 18.

Item 4A. Unresolved Staff Comments None.

Item 5. Operating and Financial Review and Prospects

CELESTICA INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS
OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
FOR THE YEAR ENDED DECEMBER 31, 2018

The following Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) should be read in conjunction with our 2018 audited consolidated financial statements (2018 AFS), which we prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). Unless otherwise noted, all dollar amounts are expressed in U.S. dollars. The information in this discussion is provided as of February 13, 2019 unless we indicate otherwise.

Certain statements contained in this MD&A constitute forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended (U.S. Exchange Act), and contain forward-looking information within the meaning of Canadian securities laws. Such forward-looking information includes, without limitation, statements related to: our priorities, intended areas of focus, targets, objectives and goals; trends in the electronics manufacturing services (EMS) industry and our segments; the anticipated continuation and impact of adverse market conditions, particularly in our Connectivity & Cloud Solutions (CCS) segment; adverse market conditions in, and the cyclical nature of, our capital equipment business, in particular our semiconductor business; our anticipated financial and/or operational results; benefits anticipated from, and the range and timing of, our cost efficiency initiative; the anticipated impact of our comprehensive CCS segment portfolio review (CCS Review) on our business; the timing, quantity, and intended method of funding of purchases of subordinate voting shares under our current normal course issuer bid (NCIB); the timing of the valuation of certain recently-acquired assets and finalization of the related purchase price allocations; our growth and diversification strategies and plans (and potential hindrances thereto); the expected continuation, and adverse impact on our business, of materials constraints; supplier lead times; the anticipated impact of completed acquisitions (Atrenne Integrated Solutions, Inc. (Atrenne) and Impakt Holdings, LLC (Impakt)) and program wins, transfers, losses or disengagements on our business; anticipated expenses, restructuring actions and charges, capital expenditures and other anticipated working capital requirements, including the anticipated amounts, timing, impact and funding thereof; the anticipated impact on our operations of any new significant tariffs on items imported into the U.S. and related countermeasures; the anticipated repatriation of undistributed earnings from foreign subsidiaries; the impact of tax and litigation outcomes; our anticipated ability to use certain net operating losses; intended investments in our business and associated risks; the anticipated impact of the pace of technological changes, customer outsourcing, program transfers, and the global economic environment on our business; raw materials prices; the impact of outstanding indebtedness under our credit facility on our business; our intention to settle outstanding equity awards with subordinate voting shares; the anticipated aggregate cost of relocating our Toronto manufacturing operations and corporate headquarters; the timing of relocating our corporate headquarters; our expectation that the costs of our Toronto manufacturing and corporate office relocations will be more than offset by the cash proceeds from the property sale; the anticipated impact of recent U.S. tax reform on our business; transition activities related to, and the anticipated impact of, newly-issued accounting standards; the impact of price reductions and longer-term contracts on our business; our intention to sell a lower amount of accounts receivable under a customer's supplier financing program; the potential use of cash, securities issuances and further increases in third-party indebtedness to fund our operations or acquisitions, and the anticipated and potential adverse impacts of such uses and/or increase; the potential adverse impacts of Britain's intention to leave the European Union (Brexit) and/or policies or legislation proposed or instituted by the current administration in the U.S.; our pension obligations; our intentions with respect to our U.K. supplemental pension plan; the potential true-up premium on annuities purchased for our U.K. pension plans; the anticipated impact of the integration of Impakt on our internal controls; and the expected impact of the expiration of one of our income tax incentives in Thailand. Such forward-looking statements may, without limitation,

be preceded by, followed by, or include words such as "believes," "expects," "anticipates," "estimates," "intends," "plans," "continues," "project," "potential," "possible," "contemplate," "seek," or similar expressions, or may employ such future or conditional verbs as "may," "might," "will," "could," "should" or "would," or may otherwise be indicated as forward-looking statements by grammatical construction, phrasing or context. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the U.S. Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws.

Forward-looking statements are provided to assist readers in understanding management's current expectations and plans relating to the future. Readers are cautioned that such information may not be appropriate for other purposes. Forward-looking statements are not guarantees of future performance and are subject to risks that could cause actual results to differ materially from those expressed or implied in such forward-looking statements, including, among others, risks related to: our

customers' ability to compete and succeed with our products and services; customer and segment concentration; challenges of replacing revenue from completed or lost programs or customer disengagements; changes in our mix of customers and/or the types of products or services we provide; the impact on gross profit of higher concentrations of lower margin programs; price, margin pressures, and other competitive factors affecting, and the highly competitive nature of, the EMS industry in general and our CCS segment in particular; the cyclical nature of our capital equipment business, in particular our semiconductor business; delays in the delivery and availability of components, services and materials; the expansion or consolidation of our operations; defects or deficiencies in our products, services or designs; integrating acquisitions and "operate-in-place" arrangements, and achieving the anticipated benefits therefrom; negative impacts on our business resulting from recent increases in third-party indebtedness; our response to changes in demand, rapidly evolving and changing technologies, and changes in our customers' business and outsourcing strategies; customer, competitor and/or supplier consolidation; compliance with social responsibility initiatives; challenges associated with new customers or programs, or the provision of new services; the impact of our restructuring actions; the incurrence of future restructuring charges, impairment charges or other write-downs of assets; managing our operations, growth initiatives, and our working capital performance during uncertain market and economic conditions; disruptions to our operations, or those of our customers, component suppliers and/or logistics partners, including as a result of global or local events outside our/their control and the impact of significant tariffs on items imported into the U.S; changes to our operating model; changing commodity, materials and component costs as well as labor costs and conditions; retaining or expanding our business due to execution or quality issues (including our ability to successfully resolve these challenges); non-performance by counterparties (including the financial institutions party to our purchased annuities and other financial counterparties, key suppliers and/or customers); maintaining sufficient financial resources and working capital to fund currently anticipated financial obligations and to pursue desirable business opportunities; negative impacts on our business resulting from any significant uses of cash, securities issuances, and/or additional increases in third-party indebtedness for additional acquisitions or to otherwise fund our operations; our financial exposure to foreign currency volatility; recruiting or retaining skilled talent; our dependence on industries affected by rapid technological change; increasing taxes, tax audits, and challenges of defending our tax positions; obtaining, renewing or meeting the conditions of tax incentives and credits; the relocation of our corporate headquarters; computer viruses, malware, hacking attempts or outages that may disrupt our operations; the management of our IT systems and our ability to protect confidential information; the variability of revenue and operating results; compliance with applicable laws, regulations, and government grants; our pension obligations; interest rate fluctuations and changes to LIBOR; and current or future litigation, governmental actions, and/or changes in legislation. The foregoing and other material risks and uncertainties are discussed in our public filings at www.sedar.com and www.sec.gov, including in this MD&A, our most recent Annual Report on Form 20-F filed with, and subsequent reports on Form 6-K furnished to, the U.S. Securities and Exchange Commission (SEC), and as applicable, the Canadian Securities Administrators.

Our forward-looking statements are based on various assumptions, many of which involve factors that are beyond our control. Our material assumptions include those related to the following: fluctuation of production schedules from our customers in terms of volume and mix of products or services; the timing and execution of, and investments associated with, ramping new business; the successful pursuit, completion and integration of acquisitions; the success of our customers' products; our ability to retain programs and customers; the stability of general economic and market conditions, currency exchange rates, and interest rates; supplier performance, pricing and terms; compliance by third parties with their contractual obligations and the accuracy of their representations and warranties; the costs and availability of components, materials, services, equipment, labor, energy and transportation; that our customers will retain liability for recently-imposed tariffs and countermeasures; our ability to keep pace with rapidly changing technological developments; the impact of the recent U.S. tax reform on our operations; the timing, execution, and effect of restructuring actions; the successful resolution of quality issues that arise from time to time; our having sufficient financial resources and working capital to fund currently anticipated financial obligations and to pursue desirable business opportunities; our ability to successfully diversify our customer base and develop new capabilities; the availability of cash resources for repurchases of outstanding subordinate voting shares; that we achieve the

expected benefits from our acquisitions of Atrenne and Impakt; the impact of the CCS Review on our business; and the magnitude of anticipated losses in our capital equipment business in the first quarter of 2019. Although management believes its assumptions to be reasonable under the current circumstances, they may prove to be inaccurate, which could cause actual results to differ materially (and adversely) from those that would have been achieved had such assumptions been accurate. Forward-looking statements speak only as of the date on which they are made, and we disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

All forward-looking statements attributable to us are expressly qualified by these cautionary statements.

#### Overview

#### Celestica's business:

We deliver innovative supply chain solutions globally to customers in two operating and reportable segments: Advanced Technology Solutions (ATS) and Connectivity & Cloud Solutions (CCS). Our ATS segment consists of our ATS end market, and is comprised of our aerospace and defense, industrial, smart energy, healthtech, and capital equipment businesses. Our capital equipment businesses is comprised of our semiconductor, display, and power & signal distribution equipment businesses. Our CCS segment consists of our Communications and Enterprise end markets and is comprised of our enterprise communications, telecommunications, servers and storage businesses. Our customers include original equipment manufacturers (OEMs), service providers (including cloud-based service providers) and other companies in a wide range of industries. All period percentages and financial information herein reflect the current presentation. Information regarding our reportable segments is included in note 25 to our 2018 AFS.

Our global headquarters is located in Toronto, Ontario, Canada. We operate a network of sites and centers of excellence strategically located in North America, Europe and Asia, with specialized end-to-end supply chain capabilities tailored to meet specific market and customer product lifecycle requirements.

We offer a comprehensive range of product manufacturing and related supply chain services to customers in both of our segments, including design and development, new product introduction, engineering services, component sourcing, electronics manufacturing and assembly, testing, complex mechanical assembly, systems integration, precision machining, order fulfillment, logistics, asset management, product licensing, and after-market repair and return services. Within design and development, our Joint Design and Manufacturing (JDM) offering includes the creation of hardware platforms and design solutions in collaboration with customers, as well as management of aspects of the supply chain and manufacturing.

Revenue from our ATS segment currently represents approximately one-third of our aggregate revenue but generated just under one-half of our total segment income in 2018. Products and services in this segment are extensive and are often more regulated than in our CCS segment, and can include the following: government-certified and highly-specialized manufacturing, electronic and enclosure-related services for aerospace and defense-related customers; high-precision equipment and integrated subsystems used in the manufacture of semiconductors and displays; a wide range of industrial automation, controls, test and measurement devices; advanced solutions for surgical instruments, diagnostic imaging and patient monitoring; and efficiency products to help manage and monitor the energy and power industries. Our ATS segment businesses typically have a higher margin profile and longer product life cycles than the businesses in our CCS segment. Revenue from our CCS segment currently represents approximately two-thirds of our aggregate revenue and generated just over one-half of our total segment income in 2018. Products and services in this segment consist predominantly of enterprise-level data communications and information processing infrastructure products, and can include routers, switches, servers and storage-related products used by a wide range of businesses and cloud-based service providers to manage digital connectivity, commerce and social media applications. Our CCS segment businesses typically have a lower margin profile and higher volumes than the businesses in our ATS segment, and have been impacted in recent periods (and continue to be impacted) by aggressive pricing, rapid shifts in technology, model obsolescence and the commoditization of certain products.

Our CCS segment generally experiences a high degree of volatility in terms of revenue and product/service mix, and has been affected by sustained negative pricing pressures, which have significantly impacted our profitability in recent quarters. These factors, which are characteristic of the highly competitive nature of this market, are not expected to abate. As part of our strategy to continue to diversify our business and improve shareholder returns, we commenced a comprehensive review of our CCS revenue portfolio (CCS Review) in the second half of 2018, with the intention of addressing under-performing programs, as well as better aligning our investments with our strategic and financial

priorities. As a result of this review, we intend to disengage from certain CCS customer programs that are not anticipated to contribute to improved consistency in our revenues and CCS segment margin. The review of our CCS business, which generated \$4.4 billion of revenue in 2018, is currently expected to result in a decline in our CCS segment revenue of approximately \$500 million over the next 12 to 18 months, and a corresponding decline in overall company revenue in the single digit percentage range in 2019 (subject to change based on the growth or contraction of CCS programs not subject to the review). The CCS Review is substantially complete, and the customer programs that comprise the approximate \$500 million in revenue have been identified. We expect to complete the majority of related actions in 2019, including the intended restructuring actions (which have been built into our current cost efficiency initiative), and changes to our global manufacturing network. Although we expect reduced revenue in our CCS business as a result of the CCS Review, we intend to maintain a significant majority of our CCS business, and continue to invest in areas we believe are key to the long-term success of our CCS segment, including our JDM offering, to help drive improved CCS financial performance in future periods. Revenue attributable to our JDM business grew approximately 30% in 2018 as compared to 2017.

Within our capital equipment business, revenue from our semiconductor capital equipment customers has been adversely impacted by cyclical decreases in demand, primarily in the second half of 2018. The swift decrease in demand in the fourth quarter of 2018 drove lower utilization, resulting in operating losses in our capital equipment business in the mid-single digit million dollar range for that quarter. We expect the weaker semiconductor demand to continue throughout 2019 and have estimated a single digit million dollar operating loss in our capital equipment business for the first quarter of 2019. In response to this demand softness, we are undertaking actions (as part of our current cost efficiency initiative) to align this business to the current demand environment and to improve profitability. However, despite the current soft demand environment, we believe that new program wins, anticipated market share gains, anticipated growth in electronic content and connectivity, and our recent acquisition of Impakt Holdings, LLC (Impakt) position us favorably to benefit from potential growth in this business in the future. More generally, we continue to pursue new customers and acquisition opportunities in our ATS segment to expand our end market penetration, to diversify our end market mix, and to enhance and add new technologies and capabilities to our offerings.

Within both our CCS and ATS segments, we are focused on higher-value added services, including design and development, engineering, and after-market services. In support of our expansion efforts, we have executed two "operate-in-place" outsourcing agreements with existing aerospace and defense customers, pursuant to which we provide manufacturing and after-market repair services for specific product lines at such customers' sites. In addition, in our ATS segment, we completed the acquisitions of Lorenz, Inc. and Suntek Manufacturing Technologies, SA de CV, collectively known as Karel Manufacturing (Karel) in November 2016, Atrenne Integrated Solutions, Inc. (Atrenne) in April 2018, and Impakt in November 2018 (see "Recent developments" and "Operating Results — Acquisition Activity and Program Transfer" below).

To increase the value we deliver to our customers, we continue to make investments in people, value-added service offerings, new capabilities, capacity, technology, IT systems, software and tools. We continuously work to improve our productivity, quality, delivery performance and flexibility in our efforts to be recognized as a leading company in the EMS industry. We have invested in automation and the "Digital Factory" to streamline our processes and reduce costs. Our current cost efficiency initiative, and related restructuring actions, are also intended to further streamline our business, increase operational efficiencies and improve our productivity.

As we expand our business, open new sites, or transfer business within our network to accommodate growth or achieve synergies, however, we may encounter difficulties that result in higher than expected costs associated with such activities. Potential difficulties related to such activities include our ability: to manage growth effectively; to maintain existing business relationships during periods of transition; to anticipate disruptions in our operations that may impact our ability to deliver to customers on time, produce quality products and ensure overall customer satisfaction; and to respond rapidly to changes in customer demand or volumes. We may also encounter difficulties in ramping and executing new programs. We may require significant investments in additional capabilities and increased working capital to support these new programs, including those associated with business acquisitions, and may generate lower margins or losses during and/or following the ramp period. There can be no assurance that our increased investments will benefit our financial performance or result in business growth. As we pursue opportunities in new markets or technologies, we may encounter challenges due to our limited knowledge or experience in these areas. In addition, the success of new business models or programs depends on a number of factors including: understanding the new business or markets; timely and successful product development; market acceptance; the effective management of purchase commitments and inventory levels in line with anticipated demand; the development or acquisition of appropriate intellectual property and capital investments, to the extent required; the availability of materials in adequate quantities and at appropriate costs to meet anticipated demand; and the risk that new offerings may have quality or other defects in the early stages of introduction. Any of these factors could prevent us from realizing the anticipated benefits of growth in our business, including in new markets or technologies, which could materially adversely affect our business and operating results.

### Operating Goals and Principles:

Our current priorities are focused on evolving our revenue portfolio; expanding our non-IFRS operating margin\* and segment margins; and maintaining a balanced approach to capital allocation. Management believes that each of these goals and principles is reasonable.

Evolving our Revenue Portfolio — To evolve our revenue portfolio, we intend to continue to focus on: (i) realigning our portfolio towards more diversified revenue, (ii) driving sustainable profitable revenue growth, (iii) growing our ATS segment revenue organically by an average of 10% per year over the long term, (iv) supplementing our organic growth with disciplined and targeted acquisitions intended to expand capabilities, and (v) optimizing and reshaping our portfolio to drive more consistent returns and profitability.

Expanding Margins — With respect to expanding margins, we intend to focus on achieving, by the first half of 2020: (i) non-IFRS operating margin\* in the target range of 3.75% to 4.5%, (ii) ATS segment margin in the target range of 5.0% to 6.0%, and CCS segment margin in the target range of 2.0% to 3.0%, and (iii) greater than 50% of total segment income from our ATS segment. Our non-IFRS operating margin\* target range reflects anticipated benefits from our CCS Review, completion of our cost efficiency initiative (CEI), and ongoing expansion of our ATS segment revenue portfolio, both organically and through recent strategy-aligned acquisitions. See "Recent Developments" below. Balanced Approach to Capital Allocation — In terms of capital allocation, we are focused on: (i) returning approximately 50% of non-IFRS free cash flow\* to shareholders annually, on average, over the long term, (ii) investing 1.5% to 2.0% of annual revenue in capital expenditures to support our organic growth, and (iii) executing on strategic acquisitions as part of a disciplined capital allocation framework. We are also focused on maintaining a strong balance sheet.

The foregoing priorities and areas of intended focus constitute our objectives and goals, and are not intended to be projections or forecasts of future performance. Our future performance is subject to risks, uncertainties and other factors that could cause actual outcomes and results to differ materially from the goals and priorities described above. \* Operating margin and free cash flow are non-IFRS measures without standardized meanings and may not be comparable to similar measures presented by other companies. See "Non-IFRS measures" below for a discussion of the non-IFRS measures included herein, and a reconciliation of our non-IFRS measures to the most directly comparable IFRS measures. We do not provide reconciliations for forward-looking non-IFRS financial measures, as we are unable to provide a meaningful or accurate calculation or estimation of reconciling items and the information is not available without unreasonable effort. This is due to the inherent difficulty of forecasting the timing or amount of various events that have not yet occurred, are out of our control and/or cannot be reasonably predicted, and that would impact the most directly comparable forward-looking IFRS financial measure. For these same reasons, we are unable to address the probable significance of the unavailable information. Forward-looking non-IFRS financial measures may vary materially from the corresponding IFRS financial measures.

Segment performance is evaluated based on segment revenue, segment income and segment margin (segment income as a percentage of segment revenue), each of which is defined in "Operating Results — Segment income and margin" below.

#### Overview of business environment:

The EMS industry is highly competitive, with multiple global EMS providers competing for customers and programs. In addition, demand can be volatile from period to period, and aggressive pricing is a common business dynamic, particularly in our CCS segment. As a result, customer and CCS segment revenue and mix, and overall profitability, are difficult to forecast.

Product lifecycles in the markets we serve, production lead times required by our customers, rapid shifts in technology, model obsolescence, commoditization of certain products, the emergence of new business models, shifting patterns of demand, such as the shift from traditional network infrastructures to highly virtualized and cloud-based environments, the prevalence of solid state or flash memory technology as a replacement for hard disk drives, as well as the proliferation of software-defined technologies enabling the disaggregation of software and hardware, increased competition, oversupply of products, pricing pressures, and the volatility of the economy all contribute to the complexity of managing our operations and fluctuations in our financial results. For example, declines in end-market demand for customer-specific proprietary systems in favor of open systems with standardized technologies has adversely impacted some of our CCS segment customers, and consequently, our CCS business. Capacity utilization, customer mix and the types of products and services we provide are important factors affecting our financial performance. The number of sites, the location of qualified personnel, the manufacturing capacity, and the mix of business through that capacity are vital considerations for EMS providers in terms of supporting their customers and generating appropriate returns. Because the EMS industry is working capital intensive, we believe that

non-IFRS adjusted ROIC, which is primarily based on non-IFRS operating earnings (each discussed in "Non-IFRS measures" below) and investments in working capital and equipment, is an important metric for measuring an EMS provider's financial performance.

In addition, uncertainty in the global economy and financial markets may impact current and future demand for our customers' products and services, and consequently, our operations. We continue to monitor the dynamics and impacts of the global economic and financial environment and work to manage our priorities, costs and resources to anticipate and prepare for any changes we deem necessary.

External factors that could adversely impact the EMS industry and our business include natural disasters and related disruptions, political instability, terrorism, armed conflict, labor or social unrest, criminal activity, disease or illness that affects local, national or international economies, unusually adverse weather conditions, and other risks present in the jurisdictions in which we, our customers, our suppliers, and/or our logistics partners operate. These types of events could disrupt operations at one or more of our sites or those of our customers, component suppliers and/or our logistics partners. These events could also lead

to higher costs or supply shortages or may disrupt the delivery of components to us, or our ability to provide finished products or services to our customers, any of which could adversely affect our operating results. In addition, uncertainties resulting from Brexit (given the lack of comparable precedent) and/or policies or legislation proposed or instituted by the current administration in the U.S., and/or increased tensions between the U.S. and North Korea, China, Russia and/or other countries, may adversely affect our business, results of operations and financial condition.

The United States, Canada and Mexico have agreed on a revised trade deal (USMCA) to replace the North American Free Trade Agreement. The USMCA was signed on November 30, 2018, but is subject to ratification by the legislatures of all three countries. We cannot currently quantify the impact on our business of the USMCA, if ratified. In addition, the current U.S. administration has increased tariffs on certain items imported into the U.S. from several countries, including China, Canada, Mexico, and the European Union (many of which are not addressed by the USMCA). Each of these countries has imposed retaliatory tariffs on specified items, which have been challenged by the U.S. These actions, or other governmental actions related to tariffs or international trade agreements, could increase the cost to our U.S. customers who use our non-U.S. manufacturing sites and components, and vice versa, which may materially and adversely impact demand for our services, our results of operations or our financial condition. We currently ship a significant portion of our worldwide production to customers in the U.S. from other countries. Increased tariffs, and/or changes to international trade agreements, may cause our U.S. customers to insource programs previously outsourced to us, transfer manufacturing to locations within our global network that are not impacted by such actions (potentially increasing production costs), and/or shift their business to other EMS providers. Additionally, tariffs on imported components for use in our U.S. production could have an adverse impact on demand for such production. Retaliatory tariffs could reduce demand for our U.S.-based production or make such production less profitable. Given the uncertainty regarding the scope and duration of these trade actions by the U.S. and other governments, whether trade tensions will escalate further, and whether our customers will bear the cost of the tariffs, their impact on our operations and results cannot be currently quantified, but may be material. Discussions with impacted customers on our recoverability of tariff costs, and/or the potential of transferring their production from China to other sites within our network, are ongoing.

In general, changes in U.S. social, political, regulatory and economic conditions or in laws and policies governing foreign trade, taxation, manufacturing, clean energy, the healthcare industry, development and investment in the jurisdictions in which we, and/or our customers or suppliers operate, could materially adversely affect our business, results of operations and financial condition.

We have significant suppliers that are important to our sourcing activities. If a key supplier (or any company within such supplier's supply chain) experiences financial or other difficulties, this may affect its ability to supply us with materials, components or services, which could halt or delay the production of a customer's products, and/or have a material adverse impact on our operations, financial results and customer relationships. We continue to experience materials constraints from certain suppliers in both our segments, due in part to industry-wide shortages for certain electronic components. These shortages caused delays in the production of customer products, and required us to carry higher than expected levels of inventory in 2017 and 2018. Although we expect these materials constraints and resulting adverse impacts to continue in the near term, we have begun to see improvements in the availability of certain previously constrained items. Nonetheless, only minor improvements in supplier lead times are currently expected. These supply constraints may result in higher materials costs, adversely impacting our financial results if we are unable to recover such increases from our customers.

Our ability to collect our accounts receivable and achieve future sales depends, in part, on the financial strength of our customers. If any of our customers have insufficient liquidity, we could encounter significant delays or defaults in payments owed to us by such customers, or we may extend our payment terms, which could adversely impact our short-term cash flows, financial condition and/or operating results. From time to time, we have extended the payment terms applicable to certain customers, which has adversely impacted our working capital requirements, and increased

our financial exposure and credit risk. In addition, customer financial difficulties or changes in demand for our customers' products may result in order cancellations and higher than expected levels of inventory, which could in turn have a material adverse impact on our operating results and working capital performance. We may not be able to return or re-sell this inventory, or we may be required to hold the inventory for a period of time, any of which may result in our having to record additional reserves for the inventory. We also may be unable to recover all of the amounts owed to us by a customer, including amounts to cover unused inventory or capital investments we incurred to support that customer's business. Furthermore, if a customer bankruptcy occurs, our profitability may be adversely impacted by our failure to collect our accounts receivable in excess of our estimated allowance for uncollectible accounts or amounts insured. Our failure to collect accounts receivable and/or the loss of one or more major customers could have an adverse effect on our operating results, financial position and cash flows.

Our business is dependent on the award of new programs. Customers may shift production between EMS providers for a number of reasons, including changes in demand for their products, pricing concessions, more favorable terms and conditions, execution or quality issues, their preference or need to consolidate their supply chain capacity or change their supply chain partners,

tax benefits, new trade policies or legislation, or consolidation among customers. Customers may also choose to increase the amount of business they outsource, insource previously outsourced business, or change the concentration or location of their EMS suppliers to better manage their supply continuity risk. These customer decisions may impact, among other items, our revenue and margins, the need for future restructuring, the level of capital expenditures and our cash flows.

While the demand environment remains volatile, driven largely by technology shifts and increased competition in our CCS segment, we remain committed to making the investments we believe are required to support our long-term objectives and to create shareholder value. These efforts include a focus on the diversification of our customer mix and product portfolios to address changing needs, including a larger emphasis on after-market services, as well as broadening our ATS segment capabilities, and continuing to expand the breadth of our JDM offerings in the areas of network switching and converged storage and servers. The costs of investments that we deem desirable may be prohibitive, however, and therefore prevent us from achieving these diversification objectives. In addition, the ramping activities associated with investments that we do make may be significant and could negatively impact our margins in the short and medium term. Simultaneously, we intend to continue to manage our costs and resources to maximize our efficiency and productivity.

#### Recent developments:

Segment Reorganization and Segment Environment:

During the first quarter of 2018, we completed a reorganization of our reporting structure, including our sales, operations and management systems, into two operating and reportable segments: ATS and CCS. Our prior period financial information has been reclassified to reflect the reorganized segment structure and to conform to the current presentation. The changes to our segment structure had no impact on our historical consolidated financial position, results of operations or cash flows as previously reported. See "Overview — Celestica's business" above for a description of the products, services and characteristics of each of our ATS and CCS segments.

The competitive landscape in our CCS segment remains aggressive, as demand growth continues to move from traditional enterprise network infrastructure providers to cloud-based service providers, resulting in aggressive bidding from EMS providers and increased competition from original design manufacturers as they further penetrate these markets. In addition, although we offer a broad range of services to our CCS customers, we have experienced a shift in the mix of our programs, including growth in our lower-margin fulfillment services, particularly in the first half of 2018. This shift in mix, combined with the pricing pressures described above, demand volatility, and investments we have made to grow our higher-value added after-market services, resulted in lower segment income and margins in our CCS segment for 2018 as compared to prior years. See "Operating Results" below. As a result of the high concentration of our business in the CCS marketplace, we expect continued competitive pressures, aggressive pricing and technology-driven demand shifts, as well as certain materials constraints, to continue to negatively impact our CCS businesses and overall profitability in future periods. In addition, cloud-based service providers have increased their use of products in our CCS segment in recent periods. These customers and markets are cyclically different from our traditional OEM customers, creating more volatility and unpredictability in our revenue patterns as we adjust to this shift, and additional challenges with respect to the management of our working capital requirements.

With respect to our ATS segment, see "Overview — Celestica's business" above for a discussion of recent adverse trends impacting our semiconductor capital equipment customers and our capital equipment business, including our estimation of a single digit million dollar operating loss in our capital equipment business for the first quarter of 2019.

#### CCS Revenue Portfolio Review:

See "Overview — Celestica's business" above for a discussion of our CCS Review, undertaken to address under-performing programs and to identify opportunities to improve our returns, as well as anticipated impacts of this review on our operations and financial results.

### Refinancing:

In June 2018, we entered into an \$800 million credit agreement with Bank of America, N.A., as Administrative Agent, and the other lenders party thereto (New Credit Facility), which provides for a \$350 million term loan (June Term Loan) that matures in June 2025, and a \$450 million revolving credit facility (New Revolver) that matures in June 2023. The net proceeds from the June Term Loan were used primarily to repay all amounts outstanding under our previous credit facility (Prior Facility), which was terminated on such repayment. In November 2018, we utilized the accordion feature under our New Credit Facility to add an incremental term loan of \$250 million (November Term Loan), maturing in June 2025. The June Term Loan and the November Term Loan are collectively referred to as the New Term Loans. The Prior Facility consisted of a \$250 million term loan

(Prior Term Loan) and a \$300 million revolving credit facility (Prior Revolver), each of which was scheduled to mature in May 2020. As of December 31, 2018, an aggregate of \$598.3 million was outstanding under the New Term Loans, and other than ordinary course letters of credit (described below), \$159.0 million was outstanding under the New Revolver.

#### Impakt Acquisition:

In November 2018, we completed the acquisition of U.S.-based Impakt, a highly-specialized, vertically integrated company providing manufacturing solutions for leading OEMs in the display (including LCD and Organic Light Emitting Diode (OLED)) and semiconductor industries, as well as other markets requiring complex fabrication services, with operations in California and South Korea. The purchase price was \$325.4 million, net of cash acquired, subject to a net working capital adjustment (which has not yet been finalized). The purchase was funded with borrowings under the New Revolver, \$245.0 million of which was repaid with proceeds of the November Term Loan. Through this acquisition, we have gained significant new capabilities in large-format, complex, high-mix manufacturing solutions for multiple industries within our ATS segment, and have broadened our precision component manufacturing, full system assembly, integration and machining capabilities. In addition, we expect to benefit from Impakt's full spectrum of specialized vertical services, including its South Korea-based machining and manufacturing expertise. We recorded \$111.2 million of goodwill in connection with this acquisition. We expect to finalize our purchase price allocation in the first half of 2019.

#### Atrenne Acquisition:

On April 4, 2018, we completed the acquisition of U.S.-based Atrenne, a designer and manufacturer of ruggedized electromechanical solutions, primarily for the aerospace and defense market. Atrenne's capabilities include connectors, machining, and the thermal and mechanical design and manufacture of ruggedized chassis and enclosures, primarily for military and commercial aerospace applications. We also believe that Atrenne's capabilities in the design and manufacture of value-added mechanical solutions will expand our service offerings for our industrial customers. The purchase price for Atrenne was \$141.7 million, net of cash acquired, including a net working capital adjustment of \$3.8 million (which is subject to finalization). The purchase was funded with borrowings under the Prior Revolver. We recorded \$64.0 million of goodwill in connection with the acquisition. We expect to finalize our purchase price allocation in the first quarter of 2019, once the net working capital adjustment has been finalized.

## Toronto Real Property and Related Transactions Update:

In September 2018, the agreement governing the sale of our Toronto real property (Property Sale Agreement), which includes our corporate headquarters and Toronto manufacturing operations, was assigned to a new purchaser (the Assignee), although the original purchaser was not released from its obligations under the Property Sale Agreement. In connection with such assignment, the Property Sale Agreement was amended to provide for the remaining proceeds of \$122 million Canadian dollars (approximately \$89 million at year-end exchange rates) to be paid in one lump sum cash payment at closing (previously, we were to receive one-half of the purchase price in the form of a two-year, interest-free, first-ranking mortgage). Other terms of the Property Sale Agreement remained unchanged. On January 21, 2019, the required municipal zoning approval was obtained. On March 7, 2019, we completed the sale of the real property and received total proceeds of approximately \$110 million, including a high density bonus and an early vacancy incentive related to the temporary relocation of our corporate headquarters. The gain on sale of this property will be recorded as recoveries through other charges (recoveries) in 2019. No net tax impact is anticipated from this sale, as the gain will be offset by the utilization of currently unrecognized tax losses. See "Liquidity — Toronto Real Property and Related Transactions" and note 8 of the 2018 AFS for a discussion of our Toronto property sale and related transactions, as well as transition and capital costs incurred in connection with related relocations.

## Restructuring Update:

We have recorded \$45 million in restructuring charges from the commencement of our CEI (described herein) through February 13, 2019. Our restructuring actions under the CEI include, among others, actions identified as part of our CCS Review, as well as actions in response to the demand environment in our capital equipment business. We continue to estimate total restructuring charges for the CEI to be within the previously disclosed range of between \$50.0 million and \$75.0 million, however we are extending the program by six months and expect the remainder of the charges to be recorded by the end of 2019. See "Operating Results — Other charges."

#### **Board Member Addition:**

Robert Cascella was appointed to Celestica's Board of Directors effective February 1, 2019. Mr. Cascella is currently an Executive Vice President and Executive Committee member of Royal Philips, a public Dutch multinational healthcare company. He is also the Chief Executive Officer (CEO) of Royal Philips' Diagnosis and Treatment businesses. He was formerly the President and CEO of Hologic, Inc., a public medical device and diagnostics company, from 2003 to 2013. He has also held senior leadership positions at CFG Capital, NeoVision Corporation, and Fischer Imaging Corporation.

#### Share Repurchases:

Since the commencement in November 2017 of an NCIB (2017 NCIB) through its expiry on November 12, 2018, we paid an aggregate of \$95.4 million (including transaction fees) to repurchase and cancel 8.7 million subordinate voting shares. We also purchased 1.1 million subordinate voting shares in the open market during the term of the 2017 NCIB, and 1.3 million shares after its expiration (during 2018), in order to satisfy delivery obligations under our stock-based compensation plans.

In December 2018, the TSX accepted our notice to launch a new NCIB (2018 NCIB), which allows us to repurchase, at our discretion, until the earlier of December 17, 2019 or the completion of the purchases thereunder, up to approximately 9.5 million subordinate voting shares in the open market, or as otherwise permitted. We have not repurchased or canceled any subordinate voting shares under the 2018 NCIB from its commencement through February 13, 2019.

#### Adoption of IFRS 15:

We adopted IFRS 15, Revenue from Contracts with Customers, effective January 1, 2018. We elected to apply the retrospective approach and as a result, have restated each of the required comparative reporting periods presented herein. A description of the impact of our transition to IFRS 15 is included in note 2 to our 2018 AFS.

#### Summary of Key Operating Results and Financial Information

Our consolidated financial statements have been prepared in accordance with IFRS as issued by the IASB and accounting policies we adopted in accordance with IFRS. Such consolidated financial statements reflect all adjustments that are, in the opinion of management, necessary to present fairly our financial position as at December 31, 2018 and 2017 and the financial performance, comprehensive income and cash flows for each of the years in the three-year period ended December 31, 2018. See "Critical Accounting Policies and Estimates" below.

The following tables set forth certain key operating results and financial information for the periods indicated (in millions, except per share amounts and percentages). Financial information for 2016 and 2017 has been restated to reflect our January 1, 2018 adoption of IFRS 15.

•	Year ended December 31						
	2016 2017 2018		2018	U		% Chang . 2018 v 2017	
	(restated)	(restated)					
Revenue	\$6,046.6	\$6,142.7	\$6,633.2	2	%	8	%
Gross profit	429.6	418.5	430.5	(3	)%	3	%
Selling, general and administrative expenses (SG&A)	211.1	203.2	219.0	(4	)%	8	%

Other charges	25.5	37.0	61.0	45	%	65	%	
Net earnings	138.3	105.5	98.9	(24	)%	(6	)%	
Diluted earnings per share	\$0.96	\$0.73	\$0.70	(24	)%	(4	)%	
Sagment rayanua* as a paraantaga of total rayanua	Year ended							
Segment revenue* as a percentage of total revenue:	Dagamhar 21							

December 31 2016 2017 2018

ATS revenue (% of total revenue) 32% 32% 33% CCS revenue (% of total revenue) 68% 68% 67%

#### Year ended December 31

Segment income and segment margin*:	2016	2017	2018
	Segment Margin	Segment Margin	Segment Margin
ATS segment	\$73.93.8%	\$96.84.9%	\$102.54.6%
CCS segment	149.3 3.6%	120.4 2.9%	111.4 2.5%

<sup>\*</sup> Segment performance is evaluated based on segment revenue, segment income and segment margin (segment income as a percentage of segment revenue), each of which are defined in "Operating Results — Segment income and margin" below.

December 31	December 31
2017	2018
\$ 515.2	\$ 422.0
2,964.2	3,737.7
187.5	598.3
_	159.0
	2017 \$ 515.2 2,964.2

	Year er	nded Dec	ember
	31		
	2016	2017	2018
Cash provided by operating activities	\$173.3	\$127.0	\$33.1
Shares repurchased for cancellation — aggregate price (including transaction costs)	\$34.3	\$19.9	\$75.5
— # (in millions)	3.2	1.9	6.8
Shares repurchased for delivery under stock-based plans — aggregate price (including transacticosts)	ion \$18.2	\$16.7	\$22.4
— # (in millions)	1.6	1.4	2.1

A discussion of the foregoing information is set forth under "Operating Results" below.

## Other performance indicators:

In addition to the key operating results and financial information described above, management reviews the following measures (which are not measures defined under IFRS)\*:

	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18
Cash cycle days:	(restated)*	(restated)*	(restated)*	(restated)*				
Days in A/R	61	57	58	58	62	57	60	62
Days in inventory	47	47	50	51	57	56	59	61
Days in A/P	(58)	(56)	(56)	(56)	(62)	(60)	(65)	(65)
Cash cycle days	50	48	52	53	57	53	54	58
Inventory turns	7.8x	7.7x	7.3x	7.2x	6.4x	6.6x	6.2x	6.0x

<sup>\* 2017</sup> periods have been restated to reflect the adoption of IFRS 15.

	2017				2018			
	MarchJune		SeptemberDecember		March June		September	rDecember
	31	30	30	31	31	30	30	31
A/R Sales (in millions)	\$50.0	\$50.0	\$ 50.0	\$ 80.0	\$113.0	\$113.0	\$ 113.0	\$ 130.0
Supplier Financing* (in millions)	44.5	65.4	55.1	52.3	77.8	76.0	81.0	50.0
Total (in millions)	\$94.5	5\$115.4	\$ 105.1	\$ 132.3	\$190.8	\$189.0	\$ 194.0	\$ 180.0

\* Represents A/R sold to a third party bank in connection with a customer's uncommitted supplier financing program that we joined in the fourth quarter of 2016.

Days in A/R is defined as the average A/R for the quarter divided by the average daily revenue. Days in inventory is defined as the average inventory for the quarter divided by the average daily cost of sales. Days in accounts payable (A/P) is defined as the average A/P for the quarter divided by average daily cost of sales. Cash cycle days is defined as the sum of days in A/R and days in inventory minus the days in A/P. Inventory turns is determined by dividing 365 by the number of days in inventory. A lower number of days in A/R, days in inventory, and cash cycle days, and a higher number of days in A/P and inventory turns generally reflect improved cash management performance.

A/R days increased 4 days from the fourth quarter of 2017 (Q4 2017) to 62 days for the fourth quarter of 2018 (Q4 2018) primarily due to the timing of collections. Inventory days increased 10 days from Q4 2017 to 61 days for Q4 2018 primarily due to the higher inventory levels resulting from acquisitions and a constrained materials environment, as well as requirements to support new programs. A/P days increased 9 days from Q4 2017 to 65 days in Q4 2018 primarily due to higher levels and timing of purchases, as well as the timing of payments. A/R and inventory days each increased 2 days sequentially due to the timing of collections and the impact of the Impakt acquisition, respectively.

We believe that cash cycle days (and the components thereof) and inventory turns are useful measures in providing investors with information regarding our cash management performance and are accepted measures of working capital management efficiency in our industry. These are not measures of performance under IFRS, and may not be defined and calculated in the same manner by other companies. These measures should not be considered in isolation or as an alternative to working capital as an indicator of performance.

Management also reviews other non-IFRS measures including adjusted net earnings, operating margin, adjusted ROIC and free cash flow. See "Non-IFRS measures" below.

#### Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, revenue and expenses, and the related disclosures of contingent assets and liabilities. We base our judgments, estimates and assumptions on current facts, historical experience and various other factors that we believe are reasonable under the circumstances. The economic environment could also impact certain estimates necessary to prepare our consolidated financial statements, including estimates related to the recoverable amounts used in our impairment testing of our non-financial assets (see notes 8 and 9 to our 2018 AFS), and the discount rates applied to our net pension and non-pension post-employment benefit assets or liabilities (see note 19 to our 2018 AFS). Our assessment of these factors forms the basis for our judgments on the carrying values of our assets and liabilities and the accrual of our costs and expenses. Actual results could differ materially from these estimates and assumptions. We review our estimates and underlying assumptions on an ongoing basis and make revisions as determined necessary by management. Revisions are recognized in the period in which the estimates are revised and may impact future periods as well. Significant accounting policies and methods used in the preparation of our consolidated financial statements are described in note 2 to our 2018 AFS. The following is a discussion of those accounting policies which management considers to be "critical," defined as accounting policies that management believes are both most important to the portrayal of our financial condition and results and require application of management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effects of matters that are inherently uncertain. On January 1, 2018, we adopted IFRS 9 and IFRS 15. See "Recently adopted accounting standards" in note 2 to our 2018 AFS.

Key sources of estimation uncertainty and judgment: We have applied significant estimates, judgment and assumptions in the following areas which we believe could have a significant impact on our reported results and

financial position: our determination of the timing of revenue recognition, measures of work in progress and estimates and timing of expected returns, revenues and related costs; valuations of inventory, assets held for sale and income taxes; the amount of our restructuring charges or recoveries; the measurement of the recoverable amounts of our cash generating units (or CGUs, which are the smallest identifiable group of assets that cannot be tested individually and generate cash inflows that are largely independent of those of other assets or groups of assets), which includes estimating future growth, profitability, discount and terminal growth rates, and the fair value of our real property; our valuations of financial assets and liabilities, pension and non-pension post-employment benefit costs; employee stock-based compensation expense, provisions and contingencies; and the allocation of the purchase price and other valuations related to our business acquisitions.

We have also applied significant judgment in the following areas: the determination of our CGUs (which can be comprised of a single site, a group of sites, or a line of business) and whether events or changes in circumstances during the relevant period are indicators that a review for impairment should be conducted, the timing of the recognition of charges or recoveries associated with our restructuring actions, and the decisions and timing of our pension annuity purchases.

Revenue recognition and deferred investment costs:

Under IFRS 15, which we adopted on January 1, 2018, where products are custom-made to meet a customer's specific requirements, and such customer is obligated to compensate us for the work performed to date, we will recognize revenue over time as production progresses to completion, or as services are rendered. We generally estimate revenue for our work in progress based on costs incurred to date plus a reasonable profit margin for eligible products for which we do not have alternative uses. We apply significant estimates, judgment and assumptions in determining the timing of revenue recognition, measuring work in progress, and estimating the amount and timing of expected returns, revenues and related costs. Judgment is also applied in determining the recoverability of deferred investment costs, comprised of contract acquisition or fulfillment costs, and in determining the amortization period for such costs, which is based on the projected period of expected future economic benefits. We review sales and profitability forecasts to determine the likelihood of recovery, as well as applicable contractual recoverability arrangements with customers in the event volumes do not materialize. We monitor these deferred costs for potential impairment on a regular basis. Adverse changes to these assumptions may result in impairment of these costs in future periods. Inventory valuation:

We procure inventory and manufacture based on specific customer orders and forecasts and value our inventory on a first-in, first-out basis at the lower of cost and net realizable value. The cost of our finished goods and work in progress includes direct materials, labor and overhead. We may require valuation adjustments to these items if actual market conditions or demand for our customers' products or services are less favorable than originally projected. The determination of net realizable value involves significant management judgment. We consider factors such as shrinkage, the aging of the inventory, our estimates of future demand for the inventory, and our contractual arrangements with customers. We attempt to utilize excess inventory in other products we manufacture or return inventory to the relevant suppliers or customers. We use future sales volume forecasts to estimate excess inventory on-hand. A change to these assumptions may impact our inventory valuation and our gross margins. Should our estimates change based on a change in circumstances, we may adjust our previous write-downs in our consolidated statement of operations in the period a change in estimate occurs.

Assets classified as held for sale:

Assets classified as held for sale are measured at the lower of their carrying amount and fair value less costs of disposal, and are no longer depreciated. The determination of fair value less costs of disposal involves judgment by management of the probability and timing of disposition and the expected amount of recoveries and costs. We may engage third parties to assist in the determination of the estimated fair values less costs of disposal for assets classified as held for sale. At the end of each reporting period, we evaluate the appropriateness of our estimates and assumptions. We may require adjustments to reflect actual experience or changes in estimates. Income taxes:

We record income tax expense or recovery based on taxable income earned or loss incurred in each tax jurisdiction where we operate at the enacted or substantively enacted tax rate applicable to that income or loss. In the ordinary course of business, we engage in many transactions for which the ultimate tax outcome is uncertain and therefore estimates are required for exposures related to potential and actual examinations by taxation authorities. We review these transactions and exposures and record tax liabilities for open years based on our assessment of many factors, including past experience and interpretations of tax law applied to the facts of each matter. Management periodically evaluates the positions taken in our tax returns with respect to situations in which applicable tax rules are subject to interpretation. We establish provisions related to tax uncertainties where appropriate, based on our estimate of the amount that ultimately will be paid to or received from the tax authorities. The various judgments and estimates by management in establishing provisions related to tax uncertainties significantly affect the amounts we recognize in our consolidated financial statements. The determination of tax liabilities is subjective and generally involves a significant

amount of judgment. We believe that our income tax liability reflects the probable outcome of our income tax obligations based on known facts and circumstances; however, the final income tax outcome may be different from our estimates. A change to these estimates could impact our income tax provision.

We recognize deferred income tax assets to the extent we believe it is probable, based on management's estimates, that future taxable profit will be available against which the deductible temporary differences as well as unused tax losses and tax credit carryforwards can be utilized. We consider factors such as the reversal of taxable temporary differences, projected future taxable income, the character of the income tax asset, tax planning strategies, changes in tax laws and other factors. A change to these factors could impact the amount of deferred income tax assets we recognize. We review our deferred income tax assets at each reporting date and reduce them to the extent it is no longer probable that we will realize the related tax benefits.

The U.S. Tax Cuts and Jobs Act (U.S. Tax Reform) was enacted on December 22, 2017 and became effective January 1, 2018. We believe all significant one-time impacts resulting from the enactment of the U.S. Tax Reform were recorded in the fourth quarter of 2017, but we will continue to assess additional impacts, if any, as they become known due to changes in our interpretations and assumptions, as well as applicable changes in our business and additional regulatory guidance that may be issued.

Goodwill, intangible assets and property, plant and equipment:

We estimate the useful lives of intangible assets and property, plant and equipment based on the nature of the asset, historical experience, the projected period of expected future economic benefits to be provided by the asset, the terms of any related customer contract, and expected changes in technology. We review the carrying amounts of goodwill, intangible assets and property, plant and equipment for impairment whenever events or changes in circumstances (triggering events) indicate that the carrying amount of such assets (or the related CGU or group of CGUs) may not be recoverable. In addition to an assessment of triggering events during the year, we conduct an annual goodwill impairment assessment of our CGUs with goodwill in the fourth quarter of the year. Judgment is required in the determination of our CGUs and whether a review for impairment should be conducted.

We recognize an impairment loss when the carrying amount of an asset, CGU or group of CGUs exceeds its recoverable amount. The recoverable amount of an asset, CGU or group of CGUs is measured as the greater of its expected value-in-use and its fair value less costs of disposal. The process of determining the recoverable amount is subjective and requires management to exercise significant judgment in estimating future growth, profitability, discount and terminal growth rates, and in projecting future cash flows, among other factors. Our expected value-in-use is determined based on a discounted cash flow analysis. Determining the estimated fair value less costs of disposal requires valuations and use of appraisals. Where applicable, we engage independent brokers to obtain market prices to estimate our real property and other asset values. At each reporting date, we review for indicators that could change the estimates we used to determine the recoverable amount of the relevant assets. Restructuring charges:

The recognition of restructuring charges (relating to workforce reductions, site consolidations, and costs associated with businesses we are downsizing or exiting) requires management to make certain judgments and estimates regarding the nature, timing and amounts associated with our restructuring actions. Our major assumptions include the timing of employee terminations, the measurement of termination costs, the timing and amount of lease obligations and any anticipated sublease recoveries from exited sites, and the timing of disposition and estimated fair values less costs of disposal for assets we no longer use and which are available for sale. For owned sites and equipment that are no longer in use and are available for sale, we recognize an impairment loss based on their fair value less costs of disposal, with fair value estimated based on market prices for similar assets. We may engage third parties to assist in the determination of the estimated fair values less costs of disposal for these assets. For leased sites that we intend to exit, we discount future contractual lease payments and cancellation fees, if any, less any estimated sublease recoveries, if any. To estimate future sublease recoveries, we engage independent brokers to determine the estimated tenant rents we can expect to realize. At the end of each reporting period, we evaluate the appropriateness of our restructuring charges and balances. Adjustments to the recorded amounts may be required to reflect actual experience or changes in estimates for future periods.

Legal and other contingencies:

We recognize a provision for loss contingencies, including legal claims, based on management's estimate of the probable outcome. Judgment is required when there is a range of possible outcomes. Management considers the degree of probability of the outcome and the ability to make a reasonable estimate of the loss. We may also use third

party advisors in making our determination. The ultimate outcome, including the amount and timing of any payments required, may vary significantly from our original estimates. Potential material legal and other material contingent obligations that have not been recognized as provisions, as the outcome is remote or not probable, or the amount cannot be reliably estimated, are disclosed as contingent liabilities.

#### Warranty:

We offer product and service warranties to our customers. We record a provision for future warranty costs based on management's estimate of probable claims under these warranties. In determining the amount of the provision, we consider several factors including the terms of the warranty (which vary by customer, product or service), the current volume of products sold or services rendered during the warranty period, and historical warranty information. We review and adjust these estimates as necessary to reflect our experience and new information. The amount and aging of our provision will vary depending on various factors including the length of the warranty offered, the remaining life of the warranty and the extent and timing of warranty claims.

Financial assets and financial liabilities:

We review financial assets at each reporting date. Financial assets are deemed to be impaired when objective evidence resulting from one or more events subsequent to the initial recognition of the asset indicates the estimated future cash flows of the asset have decreased. We use a forward-looking expected credit loss (ECL) model in determining our allowance for doubtful accounts as it relates to trade receivables, contract assets (under IFRS 15), and other financial assets. Our allowance is based on historical experience, and includes consideration of the aging of the balances, the customer's creditworthiness, current economic conditions, expectation of bankruptcies, and political and economic volatility in the markets/location of our customers, among other factors. We measure an impairment loss as the excess of the carrying amount over the present value of the estimated future cash flows discounted using the financial asset's original discount rate, and we recognize this loss in our consolidated statement of operations. A financial asset is written off or written down to its net realizable value as soon as it is known to be impaired. We will adjust previous write-downs to reflect changes in estimates or actual experience.

We value our derivative assets and liabilities based on inputs that are either readily available in public markets or derived from information available in public markets. The inputs we use include discount rates, forward exchange rates, interest rate yield curves and volatility, and credit risk adjustments. Changes in these inputs can cause significant volatility in the fair value of our financial instruments in the short-term.

Derivatives and hedge accounting:

We enter into forward exchange contracts and swaps to hedge the cash flow risk associated with firm purchase commitments and forecasted transactions in foreign currencies that are considered highly probable and to hedge foreign-currency denominated balances. We use estimates to forecast future cash flows and the future financial position of net monetary assets or liabilities denominated in foreign currencies. We enter into interest rate swap agreements to mitigate a portion of the interest rate risk on our term loan borrowings. We use judgment in determining the amount and timing of such swap agreements. We apply hedge accounting to those hedge transactions that are considered effective. Management assesses the effectiveness of hedges by comparing actual outcomes against our estimates on a regular basis. Subsequent revisions in estimates of future cash flow forecasts, if significant, may result in the discontinuation of hedge accounting for that hedge.

Pension and non-pension post-employment benefits:

We have pension and non-pension post-employment benefit costs and liabilities that are determined from actuarial valuations. Actuarial valuations require management to make certain judgments and estimates relating to salary escalation, compensation levels at the time of retirement, retirement ages, the discount rate used in measuring the net interest on the net defined benefit asset or liability, and expected healthcare costs (as applicable). These actuarial assumptions could change from period-to-period and actual results could differ materially from the estimates originally made by management. We evaluate our assumptions on a regular basis, taking into consideration current market conditions and historical data. Market driven changes may affect the actual rate of return on plan assets compared to our assumptions, as well as our discount rates and other variables which could cause actual results to differ materially from our estimates. Changes in assumptions could impact our defined benefit pension plan valuations and our future defined benefit pension expense and required funding.

To mitigate the actuarial and investment risks of our defined benefit pension plans, we from time to time purchase annuities (using existing plan assets) from third party insurance companies for certain, or all, plan participants. The purchase of annuities by the pension plan substantially hedges the financial investment risks associated with the pension obligations. See note 19(a) to our 2018 AFS.

### Employee stock-based compensation:

IFRS requires grants of share-based compensation to employees to be measured at fair value and expensed in our consolidated statement of operations over the service period (generally the vesting period) of the grant. We measure the fair value of options using the Black-Scholes option pricing model. Measurement inputs include the price of our subordinate voting shares on the grant date, the exercise price of the option, and our estimates of the following: expected price volatility of our subordinate voting shares (based on weighted average historic volatility), weighted average expected life of the option (based on historical experience and general option holder behavior), and the risk-free interest rate. We adjust compensation expense to reflect the estimated number of options that we expect to vest at the end of the vesting period.

The fair value of restricted share units (RSUs) is based on the market value of our subordinate voting shares at the time of grant.

For performance share units (PSUs) that vest based on non-market performance conditions (related to the achievement of pre-determined financial targets over a specified period), the fair value is based on the market value of our subordinate voting shares at the time of grant, and our estimate of the outcome of such performance condition. We adjust the cost of these PSUs as new facts and circumstances arise; the timing of these adjustments is subject to judgment (but is generally in the final year of their three-year term) based on management's estimate of the expected level of achievement of the relevant performance conditions. For PSUs that vest based on our relative total shareholder return (TSR) performance over a three-year period, a market performance condition, the fair value is based on a Monte Carlo simulation model. The number of awards expected to vest is factored into the grant date Monte Carlo valuation. For PSU grants which vest based on a non-market performance measurement in the final year of the three-year performance period, subject to modification by a separate non-market financial target and our relative TSR performance over the three-year vesting period, the fair value of the TSR modifier is based on a Monte Carlo simulation model, and the fair value of the non-TSR-based performance measurement and modifier are based on the market value of our subordinate voting shares at the time of grant and may be adjusted in subsequent periods to reflect a change in the estimated level of achievement related to the applicable non-market performance condition. We do not adjust the grant date fair value based on the eventual number of PSUs that vest based on the level of achievement of the market performance condition. We adjust compensation expense for PSU awards that are not expected to vest because the employment conditions are not expected to be satisfied.

### Business combinations:

All identifiable assets and liabilities acquired in business combinations are recorded at fair value as of the acquisition date. Potential obligations for contingent consideration and other contingencies are also recorded at fair value as of the acquisition date. We record subsequent changes in the fair value of such potential obligations from the date of acquisition to the settlement date in our consolidated statement of operations.

We use judgment to determine the estimates used to value identifiable net assets and the fair value of contingent consideration and other contingencies, if applicable, at the acquisition date. We may engage third parties to determine the fair value of certain inventory, property, plant and equipment and intangible assets. We use estimates to determine cash flow projections, including the period of expected future benefit, and future growth and discount rates, among other factors, to value intangible assets and contingent consideration. The fair value of acquired tangible assets are measured by applying market, cost or replacement costs, or the income approach, as applicable, using discounted cash flows and forecasts by management.

#### **Operating Results**

Financial information for 2016 and 2017 throughout this "Operating Results" section has been restated to reflect our January 1, 2018 adoption of IFRS 15.

Our annual and quarterly operating results are affected by, among other items: the level and timing of customer orders; our mix of customers and the types of products or services we provide; the rate at which, the costs associated

with, and the execution of, new program wins; demand volumes and the seasonality of our business; price competition and other competitive factors; the mix of manufacturing or service value-add; manufacturing efficiency; the degree of automation used in the assembly process; the

availability of components or labor; costs and inefficiencies of transferring programs between sites; program completions or losses, or customer disengagements and the timing and the margin of follow-on business or any replacement business; the impact of foreign exchange fluctuations; the performance of third-party providers; our ability to manage inventory, production location and equipment effectively; our ability to manage changing labor, component, energy and transportation costs effectively; fluctuations in variable compensation costs; the timing of our expenditures in anticipation of forecasted sales levels; and the timing of any acquisitions and related integration costs. Significant period-to-period variations can also result from the timing of new programs reaching full production or programs reaching end-of-life, the timing of follow-on or next generation programs and/or the timing of existing programs being fully or partially transferred internally or to a competitor.

See "Overview — Overview of business environment and Recent developments" above for a discussion of recent market conditions impacting our business.

Operating results expressed as a percentage of revenue:

	Year ended December 31						
	2016	2017	2018				
	(restated	(restated)					
Revenue	100.0%	100.0 %	100.0 %				
Cost of sales	92.9	93.2	93.5				
Gross profit	7.1	6.8	6.5				
SG&A	3.5	3.3	3.3				
Research and development costs	0.4	0.4	0.5				
Amortization of intangible assets	0.1	0.1	0.2				
Other charges	0.4	0.6	0.9				
Finance costs, net of refund interest income		0.2	0.4				
Earnings before income tax	2.7	2.2	1.2				
Income tax expense (recovery)	0.4	0.5	(0.3)				
Net earnings	2.3 %	1.7 %	1.5 %				

#### Revenue:

Revenue of \$6.6 billion for 2018 increased 8% compared to 2017. ATS segment revenue increased 13% in 2018 compared to 2017, and CCS segment revenue increased 6% in 2018 compared to 2017.

Revenue of \$6.1 billion for 2017 increased 2% compared to 2016. CCS segment revenue increased 2% in 2017 compared to 2016, and ATS segment revenue was relatively flat in 2017 compared to 2016.

The following table sets forth revenue from our reportable segments, as well as segment revenue as a percentage of our total revenue for the periods indicated (in millions, except percentages):

	2016			2017			2018		
		% of	f		% c	of		% (	of
		total			tota	1		tota	ıl
ATS revenue	\$1,954.2	232	%	\$1,958.6	532	%	\$2,209.7	733	%
CCS revenue	\$4,092.4	Ļ		\$4,184.1			\$4,423.5	5	
Communications	2,544.9	42	%	2,654.6	43	%	2,724.2	41	%
Enterprise	1,547.5	26	%	1,529.5	25	%	1,699.3	26	%
Revenue	\$6,046.6	100	%	\$6,142.7	7100	%	\$6,633.2	2100	)%

Our product and service volumes, revenue and operating results vary from period-to-period depending on various factors, as discussed above. See "Overview."

ATS segment revenue represented 33% of total revenue for 2018, compared to 32% for 2017 and 32% for 2016. ATS segment revenue for 2018 increased \$251.1 million (13%) compared to 2017, reflecting new aerospace and defense programs, including from our acquisition of Atrenne and our September 2017 "operate-in-place" program (described below), demand strength in our industrial business, higher year-over-year revenue in our capital equipment business, primarily from a strong first half of 2018, and to a lesser extent, revenue from our acquisition of Impakt. Revenue from our semiconductor capital equipment customers however, was weaker than expected for the second half of 2018, adversely impacted by cyclical decreases in demand, which we expect will continue throughout 2019. See "Overview — Celestica's business" above for a discussion of recent trends impacting our semiconductor capital equipment customers. ATS segment revenue for 2018 was also adversely impacted by a \$24 million decrease, as compared to the prior year, due to our exit from the solar panel manufacturing business (accounting for approximately 1% of our ATS segment revenue in 2017).

ATS segment revenue for 2017 was relatively flat compared to 2016, as growth in our capital equipment business and from new programs was offset by a 7% decrease in revenue due to our exit from the solar panel manufacturing business, and a decrease in revenue due to the completion of programs with one of our then-largest consumer customers during the third quarter of 2016. ATS segment revenue for 2017 benefited from a new "operate-in-place" program outsourced to us from one our aerospace and defense customers in September 2017, as well as our November 2016 Karel acquisition.

CCS segment revenue represented 67% of total revenue for 2018, compared to 68% for 2017 and 68% for 2016. CCS segment revenue for 2018 increased \$239.4 million (6%) compared to 2017. Communications end market revenue for 2018 increased 3% compared to 2017, as increased demand and new programs (including JDM programs) were partially offset by decreased demand from certain of our legacy customers. Enterprise end market revenue for 2018 increased 11% compared to 2017, primarily driven by strong demand in our storage business. Notwithstanding the increase in CCS segment revenue in 2018 as compared to 2017, we continued to be impacted by adverse pricing pressures in this segment in 2018, and expect these adverse conditions to continue in future periods. See "Overview — Recent developments — Segment reorganization and segment environment" above.

CCS segment revenue for 2017 increased 2% compared to 2016. Communications end market revenue in 2017 increased 4% compared to 2016, primarily due to demand strength in certain existing programs and new program growth (including with respect to our fulfillment services and JDM programs). Although Communications revenue increased compared to 2016, we experienced slower growth rates (particularly in the second half of 2017) compared to the prior year primarily due to programs reaching their full production levels, and increased pricing pressures and late changes in demand from certain customers in 2017. Enterprise end market revenue for 2017 decreased 1% compared to 2016, as growth from new programs primarily in the first half of 2017 was more than offset by softer demand in the second half of 2017.

Although we supply products and services to over 100 customers, we depend upon a small number of customers for a substantial portion of our revenue. In the aggregate, our top 10 customers represented 70% of total revenue for 2018 (2017 — 71%; 2016 — 68%). For 2018, we had two customers that individually represented more than 10% of total revenue (2017 and 2016 — two customers). Cisco Systems and Dell Technologies accounted for 14% and 10%, respectively, of our total revenue for 2018 (2017 — Cisco Systems (18%) and Juniper Networks (13%); 2016 — Cisco Systems (19%) and Juniper Networks (11%)), in each case from our CCS segment.

Whether any of our customers individually account for more than 10% of our total revenue in any period depends on various factors affecting our business with that customer and with other customers, including overall changes in

demand for our customers' products, the extent and timing of new program wins, follow-on business, program completions or losses, the phasing in or out of programs, the relative growth rate or decline of our business with our various customers, price competition and changes in our customers' supplier base or supply chain strategies, and the impact of seasonality on our business.

We are dependent to a significant degree upon continued revenue from our largest customers. We generally enter into master supply agreements with our customers that provide the framework for our overall relationship. These agreements typically do not guarantee a particular level of business or fixed pricing. Instead, we bid on a program-by-program basis and typically receive customer purchase orders for specific quantities and timing of products. There can be no assurance that revenue from any of our major customers will continue at historical levels or will not decrease in absolute terms or as a percentage of total revenue. A significant revenue decrease or pricing pressures from these or other customers, or a loss of a major customer or program, could

have a material adverse impact on our business, our operating results and our financial position. Changes in the types of product or services we provide to our customers in a particular period may also adversely impact our margins and operating results for such period. For example, providing a relatively higher concentration of fulfillment services (which commenced in 2017 as compared to prior years) negatively impacts our operating results for our CCS segment, as our fulfillment services generally have significantly lower margins than our traditional value-added services in that segment. Some of our customer agreements require us to provide specific price reductions to our customers over the term of the contracts, which has significantly impacted revenue and margins in our CCS segment. In addition, as longer-term contracts are becoming more prevalent, we anticipate that these adverse effects will increasingly impact our business in future periods.

In the EMS industry, customers may cancel contracts and volume levels can be changed or delayed. Customers may also shift business to a competitor or bring programs in-house to improve their own utilization or to adjust the concentration of their supplier base to manage supply continuity risk, or for other reasons. We cannot assure the replacement of completed, delayed, cancelled or reduced orders with new business. In addition, we cannot assure that any of our current customers will continue to utilize our services. Changes in demand, order cancellations, and changes or delays in production could have a material adverse impact on our results of operations and working capital performance, including requiring us to carry higher than expected levels of inventory. Materials constraints, primarily impacting our CCS segment (which commenced in 2017 and are expected to continue) can also cause delays in production and could have a material adverse impact on our operations and our inventory levels. In addition, in any given quarter, we can experience quality and process variances related to materials, testing or other manufacturing or supply chain activities. Although we were successful in resolving the majority of such issues that arose in 2018, the existence of these variances could have a material adverse impact on the demand for our services in future periods from any affected customers, which could in turn have a material adverse effect on our business and operating results. Order cancellations and delays could also lower our asset utilization, resulting in lower margins. Significant period-to-period changes in margins can also result if new program wins or follow-on business are more competitively priced than past programs. In addition, customers from time to time shift programs to us from other service providers, including some for lower complexity, light touch programs that are aggressively priced, which can adversely impact future operating results.

# Gross profit:

The following table shows gross profit and gross margin (gross profit as a percentage of total revenue) for the periods indicated:

Year ended December 31
2016 2017 2018
(restated) (restated)

Gross profit (in millions) \$429.6 \$418.5 \$430.5
Gross margin 7.1 % 6.8 % 6.5 %

Gross profit for 2018 increased 3%, or \$12.0 million, compared to 2017. The increase in gross profit was attributable to higher revenue levels in both our CCS and ATS segments. Despite the increase in revenue for 2018, gross margin decreased from 6.8% in 2017 to 6.5% for 2018. The decrease in gross margin resulted primarily from unfavorable changes in overall program mix (including as a result of demand softness in our capital equipment business), increased pricing pressures primarily in our CCS segment, approximately \$10 million in higher provisions we recorded for certain aged inventory during 2018 (Inventory Provisions), and the recognition of a \$1.6 million fair value adjustment with respect to the inventory acquired from Atrenne (Atrenne FVA) through cost of sales in the second quarter of 2018. The Inventory Provisions for 2018 of \$13.5 million (2017 — \$3.3 million) resulted primarily from an increase in our overall aged inventory levels, more than half of which related to customers in our ATS segment. These negative impacts more than offset the increase in gross profit in 2018 as compared to 2017 described

above.

Gross profit for 2017 decreased 3% compared to 2016. Gross margin decreased from 7.1% in 2016 to 6.8% in 2017. Gross profit and gross margin for 2017 were negatively impacted by unfavorable changes in program mix, increased pricing pressures and higher ramping costs, offset in part by margin improvements in our ATS segment. During 2017, our CCS segment faced increased pricing pressures, and was also negatively impacted by a higher concentration than in 2016 of new programs, including fulfillment services, that contributed significantly lower gross profit than our historical full-service traditional EMS programs. We also incurred additional ramping costs with respect to new programs, including aerospace and defense programs, as well as programs that required the establishment of infrastructures in multiple jurisdictions. Gross profit and gross margin attributable to our ATS segment businesses in 2017 increased compared to the prior year, as a result of increases in each of our

semiconductor and former solar businesses (the latter as a result of lower provisions recorded in 2017), offset in part by the completion of consumer programs which benefited gross margin in 2016. The gross margin for our former solar business was negatively impacted in 2016 by higher provisions (accounting for 15 basis points in 2016), primarily to write-down the carrying value of our solar panel inventory to then-recoverable amounts).

In general, multiple factors cause gross margin to fluctuate including, among others: volume and mix of products or services; higher/lower revenue concentration in lower gross margin products and businesses; pricing pressures; contract terms and conditions; production management; utilization of manufacturing capacity; changing material and labor costs, including variable labor costs associated with direct manufacturing employees; manufacturing and transportation costs; start-up and ramp-up activities; new product introductions; disruption in production at individual sites, including as a result of program transfers; cost structures at individual sites; foreign exchange volatility; and the availability of components and materials. Our gross profit and SG&A (discussed below) are also impacted by the level of variable compensation expense (including awards under our incentive and stock-based compensation plans) we record in each period.

#### Selling, general and administrative expenses:

SG&A for 2018 of \$219.0 million (3.3% of total revenue) increased \$15.8 million compared to \$203.2 million (3.3% of total revenue) for 2017, primarily due to higher variable expenses, including \$3.2 million in higher employee stock-based compensation expense (described below) in 2018, and \$10.5 million in SG&A attributable to acquisitions completed in 2018.

SG&A for 2017 of 203.2 million (3.3% of total revenue) decreased \$7.9 million compared to \$211.1 million (3.5% of total revenue) for 2016, primarily due to \$2.5 million of lower foreign exchange losses, \$2.5 million of lower stock-based compensation expense in 2017 (discussed below), and lower variable expenses, including costs associated with our Organizational Design (OD) initiative incurred in 2017 compared to 2016. As part of the wind down of our solar panel business, we recorded a provision of \$0.5 million in SG&A expenses during the second quarter of 2017 to write down our solar accounts receivable, primarily as a result of a solar customer's bankruptcy.

### Segment income and margin:

Segment performance is evaluated based on segment revenue (set forth above), segment income and segment margin (segment income as a percentage of segment revenue). Revenue is attributed to the segment in which the product is manufactured or the service is performed. Segment income is defined as a segment's net revenue less its cost of sales and its allocable portion of selling, general and administrative expenses and research and development expenses (collectively, Segment Costs). Identifiable Segment Costs are allocated directly to the applicable segment while other Segment Costs, including indirect costs and certain corporate charges, are allocated to our segments based on an analysis of the relative usage or benefit derived by each segment from such costs. Segment income excludes finance costs (net of refund interest, when applicable), amortization of intangible assets (excluding computer software), employee stock-based compensation expense, other solar charges, the Atrenne FVA (recognized in the second quarter of 2018), and net restructuring, impairment and other charges (recoveries) (each of which exclusions is quantified herein) as these costs and charges are managed and reviewed by our CEO at the company level. Net restructuring, impairment and other charges (recoveries) include, in applicable periods, restructuring charges (recoveries), impairment charges (recoveries), acquisition-related consulting, transaction and integration costs (Acquisition Costs), legal settlements (recoveries), Toronto transition costs (recoveries), and the accelerated amortization of unamortized deferred financing costs (as described under "Non-IFRS measures" below). See the reconciliation of segment income to our earnings before income taxes in note 25 to the 2018 AFS. Our segments do not record inter-segment revenue. Although segment income and segment margin are used to evaluate the performance of our segments, we may incur operating costs in one segment that may also benefit the other segment. Our accounting policies for segment reporting

are the same as those applied to the company as a whole.

The following table shows segment income (in millions) and segment margin for the periods indicated:

Year ended December	• 31
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Segment income and segment margin:	2016		2017		2018	
		Segment Margin		Segment Margin		Segment Margin
ATS segment	\$ 73.9	3.8%	\$ 96.8	4.9%	\$ 102.5	4.6%
CCS segment	149.3	3.6%	120.4	2.9%	111.4	2.5%

ATS segment income for 2018 increased \$5.7 million (6%) compared to 2017. ATS segment margin decreased from 4.9% in 2017 to 4.6% in 2018. The increase in ATS segment income for 2018 was primarily due to higher ATS segment revenue in 2018, as described above, including higher year-over-year revenue in our capital equipment business, primarily during the first half of 2018. The decrease in ATS segment margin was attributable primarily to the weaker than expected demand from our capital equipment business (primarily with respect to our semiconductor customers) in the second half of 2018, resulting in operating losses in this business in Q4 2018 in the mid-single digit million dollar range, due to the high level of associated fixed costs, which more than offset segment margin improvement from acquisitions and new ATS programs in other businesses. We expect the demand softness in our capital equipment business to continue into 2019, and have estimated a single digit million dollar operating loss in this business for the first quarter of 2019.

ATS segment income for 2017 increased \$22.9 million (31%) compared to 2016. ATS segment margin increased from 3.8% in 2016 to 4.9% in 2017. Despite ATS revenue for 2017 being relatively flat compared to 2016, ATS segment income and margin for 2017 increased primarily due to increases in each of our capital equipment and former solar businesses (the latter as a result of approximately \$10 million in lower inventory provisions recorded in 2017 compared to 2016), offset in part by the completion of consumer programs which benefited segment margin in 2016.

CCS segment income for 2018 decreased \$9.0 million (7%) compared to 2017. CCS segment margin decreased from 2.9% in 2017 to 2.5% in 2018. Despite the increase in our overall CCS segment revenue for 2018 as compared to 2017, CCS segment income and margin for 2018, as compared to 2017, were negatively impacted by increased pricing pressures from some of our significant customers, unfavorable changes in program mix, including a higher concentration of lower margin business compared to the prior year (particularly in the first quarter of 2018), and the Inventory Provisions recorded in 2018 (discussed above). These decreases were partially offset by CCS segment income contributions from our JDM business in 2018 as compared to the prior year. The performance of our CCS segment in recent periods resulted in the implementation of our CEI in October 2017 (and related restructuring actions) in order to reduce our cost structure (see "Other charges" below). In addition, as part of our strategy to diversify our business and improve shareholder returns, we commenced the CCS Review in the second half of 2018, with the intention of addressing under-performing programs. See "Overview — Celestica's business" above for a discussion of our CCS Review, as well as anticipated impacts of this review on our operations and financial results.

CCS segment income for 2017 decreased \$28.9 million (19%) compared to 2016. CCS segment margin decreased from 3.6% in 2016 to 2.9% in 2017. Despite the increase in our CCS segment revenue for 2017 compared to 2016, CCS segment income and margin for 2017, as compared to 2016, were negatively impacted by unfavorable changes in program mix, increased pricing pressures and higher ramping costs. During 2017, our CCS segment faced increased pricing pressures, and was also negatively impacted by a higher concentration than in 2016 of new programs, including fulfillment services, that contributed significantly lower gross profit than our historical full-service traditional EMS programs.

### Stock-based compensation:

Our employee stock-based compensation expense, which excludes deferred share unit (DSU) expense, varies each period. The portion of our expense that relates to performance-based compensation generally varies depending on our level of achievement of pre-determined performance goals and financial targets. In 2018, we recorded employee stock-based compensation expense of \$14.7 million (2017 — \$14.6 million; 2016 —\$15.0 million) in cost of sales and \$18.7 million (2017 — \$15.5 million; 2016 — \$18.0 million) in SG&A.

The following table shows employee stock-based compensation for the periods indicated:

Year ended December 31

2016 2017 2018

Employee stock-based compensation (in millions) \$33.0 \$30.1 \$33.4

Compared to 2017, our employee stock-based compensation expense for 2018 increased by \$3.3 million, reflecting \$2.4 million in higher reversals we recorded during 2017 in connection with forfeited awards, and additional expenses related to new grants made during 2018 as compared to 2017.

Compared to 2016, our employee stock-based compensation expense for 2017 decreased by \$2.9 million, (predominately through SG&A), primarily due to lower adjustments recorded in 2017 to reflect the reduced level of achievement related to our performance based compensation. In addition, the increase in forfeited awards during 2017 decreased our stock-based compensation by a further \$2.4 million in 2017, which offset a \$2.0 million increase in the accelerated recognition of stock-based compensation expense for employees eligible for retirement in 2017.

Management currently intends to settle all outstanding RSUs and PSUs with subordinate voting shares purchased in the open market by a broker or by issuing subordinate voting shares from treasury. Accordingly, we have accounted for these share unit awards as equity-settled awards. See "Cash requirements" below.

In 2018, we recorded DSU expense of \$2.0 million (2017 — \$2.2 million; 2016 — \$2.1 million) through SG&A. During 2017, we paid \$1.7 million in cash to a director that resigned in July 2017 to settle his outstanding DSUs, and we settled the outstanding DSUs of a director that resigned in November 2017 with 14,098 subordinate voting shares that we purchased in the open market, in each case in accordance with the provisions of the Directors' Share Compensation Plan.

Other charges:

(i) Restructuring charges:

We have recorded the following restructuring charges for the periods indicated (in millions):

Year ended December 31 2016 2017 2018

Restructuring charges \$31.9 \$28.9 \$35.4

We perform ongoing evaluations of our business, operational efficiency and cost structure, and implement restructuring actions as we deem necessary. In connection therewith, we are currently implementing restructuring actions under the CEI, including actions related to our CCS Review and anticipated continued demand softness in our capital equipment business. This initiative includes reductions to our workforce, as well as the potential consolidation of certain sites to better align capacity and infrastructure with current and anticipated customer demand, related transfers of customer programs and production, re-alignment of business processes, management reorganizations, and other associated activities. We continue to estimate total restructuring charges for the CEI to be within the previously disclosed range of between \$50.0 million and \$75.0 million, however we are extending the program by six months and expect the remainder of the charges to be recorded by the end of 2019. We have recorded \$43.4 million in restructuring charges from the commencement of our CEI through the end of 2018, including the \$35.4 million of restructuring charges recorded in 2018. The majority of the charges through December 31, 2018 pertained to workforce reductions at sites associated primarily with our CCS segment.

We recorded restructuring charges of \$35.4 million in 2018, consisting of cash charges of \$35.2 million, primarily for consultant costs, employee and lease termination costs, and non-cash charges of \$0.2 million, representing losses on the sale of surplus equipment. Our restructuring provision at December 31, 2018 was \$10.3 million, the majority of which we currently expect to pay in 2019. All cash outlays have been, and the balance is expected to be, funded with cash on hand.

We recorded restructuring charges of \$28.9 million in 2017, consisting of cash charges of \$25.1 million, comprised of employee termination costs resulting from the implementation of our previous OD and Global Business Services (GBS) initiatives (each of which were completed in 2017, and pertained to both of our segments), as well as from the

rationalization of our operations in the third quarter of 2017, and \$8.0 million of charges in connection with our CEI (described above) in the fourth quarter of 2017, as well as net non-cash impairment charges of \$3.8 million to write down the carrying value of our solar panel manufacturing equipment (in our ATS segment) to its fair value less costs of disposal, based on executed sales agreements (2017 Solar Write-down). Our restructuring provision at December 31, 2017 was \$12.7 million, comprised primarily of employee termination costs, which were paid with cash on hand.

Our aggregate restructuring charges of \$31.9 million for 2016 consisted of cash charges of \$10.7 million, primarily for employee termination costs relating to our GBS and OD initiatives, as well as our solar panel manufacturing and other exited operations, and non-cash charges of \$21.2 million, to write down certain plant assets and equipment to recoverable amounts,

including \$19.0 million related to our solar panel manufacturing equipment at our two locations (2016 Solar Write-down). The majority of these charges were associated with our ATS segment. See note 4 of our 2018 AFS for a description of our decision in the fourth quarter of 2016 to exit the solar panel manufacturing business, and associated write-downs of assets. Our restructuring provision at December 31, 2016 was \$6.6 million, comprised primarily of employee termination costs, which were all paid with cash on hand.

We may also propose additional future restructuring actions or divestitures as a result of changes in our business, the marketplace and/or our exit from less profitable, under-performing, non-core or non-strategic operations. In addition, an increase in the frequency of customers transferring business to our EMS competitors, changes in the volumes they outsource, pricing pressures, or requests to transfer their programs among our sites or to lower-cost locations, may also result in our taking future restructuring actions. We may incur higher operating expenses during periods of transitioning programs within our network or to our competitors. Any such restructuring activities, if undertaken at all, could adversely impact our operating and financial results, and may require us to further adjust our operations.

The recognition of restructuring charges requires us to make certain judgments and estimates regarding the nature, timing and amounts associated with our restructuring actions. See note 2(m) to our 2018 AFS.

### (ii) Asset impairment:

We review the carrying amounts of goodwill, intangible assets and property, plant and equipment whenever events or changes in circumstances (triggering events) indicate that the carrying amount of such assets (or the related CGU or group of CGUs) may exceed their recoverable amount. If any such indication exists, we test the carrying amount of such assets or CGUs for impairment. In addition to an assessment of triggering events during the year, we conduct an annual goodwill impairment assessment (Annual Impairment Assessment) of our CGUs with goodwill in the fourth quarter of the year to correspond with our annual planning cycle. Judgment is required in the determination of our CGUs and whether events or changes in circumstances during the year are indicators that a review for impairment should be conducted. We recognize an impairment loss when the carrying amount of an asset, CGU or a group of CGUs exceeds its recoverable amount, which is measured as the greater of its expected value-in-use and its fair value less costs of disposal. We did not identify any triggering event during the course of 2018 indicating that the carrying amount of our assets or CGUs may not be recoverable. In the fourth quarter of 2018, we performed our Annual Impairment Assessment of our CGUs with goodwill and determined that there was no goodwill impairment as the recoverable amount of such CGUs exceeded their respective carrying values as of December 31, 2018.

We did not identify any triggering event during the course of 2017 indicating that the carrying amount of our assets or CGUs may not be recoverable, other than with respect to our exit from the solar panel manufacturing business. In connection therewith, we recorded the 2017 Solar Write-down (through restructuring charges). In the fourth quarter of 2017, we performed our Annual Impairment Assessment of our CGUs with goodwill and determined that there was no impairment as the recoverable amount of such CGUs exceeded their respective carrying values as of December 31, 2017.

We did not identify any triggering event during the course of 2016 indicating that the carrying amount of our assets or CGUs may not be recoverable, other than the 2016 Solar Write-down (recorded through restructuring charges). In the fourth quarter of 2016, we performed our Annual Impairment Assessment of our CGUs with goodwill and determined that there was no impairment as the recoverable amount of such CGUs exceeded their respective carrying values as of December 31, 2016.

The process of determining the recoverable amount of an asset, CGU or group of CGUs is subjective and requires management to exercise significant judgment in estimating future growth, profitability, and discount and terminal growth rates, among other factors. Where applicable, including with respect to the 2017 Solar Write-down and the

2016 Solar Write-down, we engage independent brokers to obtain market prices to estimate our real property and other asset values. The assumptions used in each of our 2017 and 2016 interim impairment assessments were determined based on past experiences adjusted for expected changes in future conditions. See note 9 of our 2018 AFS for a discussion of how we determine our cash flow projections for our impairment assessments, as well as the cash flow projection periods, growth rates, and discount rates used in our Annual Impairment Assessments for each of 2018, 2017 and 2016.

Our goodwill balance is allocated to the following CGUs (in millions):

- (1) Consists of: (i) in 2018, \$111.2 million of goodwill attributable to our acquisition of Impakt, and \$19.5 million attributable to a prior acquisition (Prior Goodwill); and (ii) in 2017 and 2016, the Prior Goodwill.
- (2) Consists of \$3.7 million of goodwill attributable to our acquisition of Karel completed in 2016.
- (3) Consists of \$64.0 million of goodwill attributable to our acquisition of Atrenne completed in 2018.

As part of our goodwill assessment, we also perform sensitivity analyses for the relevant CGUs in order to identify the impact of changes in key assumptions, including projected growth rates, profitability, and discount and terminal growth rates. We did not identify any key assumptions where a reasonable possible change would result in material impairments to the above goodwill balances in any of 2016, 2017 or 2018. Impairment assessments inherently involve judgment as to assumptions about expected future cash flows and the impact of market conditions on those assumptions. Future events and changing market conditions may impact our assumptions as to prices, costs or other factors that may result in changes in our estimates of future cash flows. Failure to realize the assumed revenues at an appropriate profit margin of a CGU could result in impairment losses in such CGU in future periods.

## (iii) Pension annuity purchases:

In March 2017, the Trustees of our U.K. Main pension plan entered into an agreement with a third party insurance company to purchase an annuity for participants in such plan who have retired. The purchase of this annuity resulted in a non-cash loss of \$17.0 million which we recorded in other comprehensive income (OCI) and simultaneously re-classified to deficit during the first quarter of 2017. In April 2017, the Trustees of our U.K. Supplementary pension plan entered into an agreement with a third party insurance company to purchase an annuity for all participants of this plan, all of whom are retired. The purchase of this annuity resulted in a non-cash loss of \$1.9 million, which we recorded during the second quarter of 2017 in other charges in our consolidated statement of operations, as we anticipate winding up this plan during the first half of 2019 (see note 16 of our 2018 AFS). In June 2018, the Trustees of the U.K. Main pension plan entered into an agreement with a third party insurance company to purchase an annuity for participants in such plan who have not yet retired. The purchase of this annuity resulted in a non-cash loss of \$63.3 million during the second quarter of 2018 which we recorded in OCI and simultaneously re-classified to deficit. The cost of the annuities are generally subject to true-up adjustments, and we may be required to pay additional premium amounts to the insurance company after completion of data verification of the participants.

### (iv) Toronto transition costs:

In 2018, we recorded \$13.2 million of such transition costs (2017 — \$1.6 million), consisting primarily of utility costs related to idle premises, depreciation charges and personnel costs incurred in the operation of duplicate production lines in advance of the transition, duplicate rent expenses, and relocation costs. See "Liquidity — Toronto Real Property and Related Transactions" below for a discussion of the sale of our Toronto real property and related relocations, including transition and capital costs incurred through December 31, 2018 and expected in connection therewith. See "Recent developments — Toronto Real Property and Related Transactions Update" above for a discussion of the consummation of this transaction.

#### (v) Accelerated amortization of unamortized deferred financing costs:

During the second quarter of 2018, we recorded a \$1.2 million charge to accelerate the amortization of unamortized deferred financing costs related to the extinguishment of the Prior Facility in June 2018.

#### (vi) Other:

During 2018, we recorded \$11.0 million (2017 — \$4.5 million; 2016 — \$1.4 million) in Acquisition Costs. See note 3 of our 2018 AFS. Additionally, during 2017 and 2016, we received recoveries of damages of \$1.1 million and \$12.0 million, respectively, in connection with the settlement of class action lawsuits in which we were a plaintiff, related to certain purchases we made in prior periods. These recoveries were partially offset by costs we recorded in each year for unrelated legal matters.

#### Refund interest income in 2016:

In 2016, we received refund interest income totaling \$14.3 million in connection with the resolution of certain previously disputed tax matters. See "Income taxes" below.

#### Income taxes:

For 2018, we had a net income tax recovery of \$17.0 million on earnings before tax of \$81.9 million, compared to a net income tax expense of \$27.6 million on earnings before tax of \$133.1 million for 2017 and a net income tax expense of \$24.7 million on earnings before tax of \$163.0 million for 2016.

Our net income tax recovery for 2018 of \$17.0 million was favorably impacted by the recognition of \$3.7 million and \$49.6 million of previously unrecognized deferred tax assets in our U.S. group of subsidiaries as a result of our acquisitions of Atrenne and Impakt, respectively (the benefit pertaining to Impakt is referred to as the Impakt Benefit), which partially offset the \$56.6 million in net deferred tax liabilities that arose in connection with such acquisitions, as well as the reversal of \$6.0 million of previously accrued Mexican taxes (described below). These favorable impacts were offset, in part, by adverse taxable foreign exchange impacts resulting from the weakening of the Malaysian ringgit and Chinese renminbi relative to the U.S. dollar, our functional currency (Currency Impacts). Our functional and reporting currency is the U.S. dollar; however, our income tax expense is based primarily on taxable income determined in the currency of the country of origin. As a result, foreign currency translation differences impact our income tax expense from period to period. During the second quarter of 2018, we received a favorable conclusion to our application for a bi-lateral advance pricing arrangement (BAPA) between the United States and Mexican tax authorities, and reversed \$6.0 million of Mexican income taxes previously accrued to reflect the approved BAPA terms.

Our net income tax expense for 2017 of \$27.6 million was favorably impacted by the recognition of a \$4.3 million deferred income tax benefit (Solar Benefit) related to our solar assets (discussed below), as well as taxable foreign exchange benefits resulting from the strengthening of the Malaysian ringgit and Chinese renminbi relative to the U.S. dollar, which was offset in part by \$4.0 million in deferred income tax expense related to taxable temporary differences associated with the then-anticipated repatriation of undistributed earnings from certain of our Chinese subsidiaries, and a \$2.0 million deferred income tax expense related to recently enacted U.S. Tax Reform (discussed below). In connection with our exit from the solar panel manufacturing business, we withdrew one of our tax incentives in Thailand (which related solely to such operations) during the second quarter of 2017. The withdrawal of this incentive allowed us to apply tax losses arising from the disposition of our solar assets against other taxable profits in Thailand, resulting in the recognition of the Solar Benefit in 2017 and ultimately realized in 2018.

The U.S. Tax Reform was enacted on December 22, 2017 and became effective January 1, 2018. We believe that we recorded all significant one-time impacts resulting from enactment of the U.S. Tax Reform in the fourth quarter of 2017 (consisting of a non-cash increase to our deferred income tax expense of \$2.0 million), but will continue to assess additional impacts, if any, throughout 2019 as they become known due to changes in our interpretations and assumptions, as well as applicable changes in our business and additional regulatory guidance that may be issued. No

significant amounts resulting from the U.S. Tax Reform were recorded in 2018. Based on currently available information, we estimate that the U.S. Tax Reform may have an annual adverse impact on our tax expense of approximately \$1 million starting in 2019.

Our net income tax expense for 2016 of \$24.7 million was favorably impacted by a reversal of provisions previously recorded for tax uncertainties related to the final reassessments and settlement of tax accounts in connection with the resolution of a transfer pricing matter for one of our Canadian subsidiaries. In connection therewith, we recorded aggregate income tax recoveries of \$45 million Canadian dollars (approximately \$34 million at the exchange rates at the time of recording), as well as aggregate refund interest income of \$14.3 million. Our net income tax expense for 2016 was negatively impacted by withholding taxes of \$1.5 million pertaining to the repatriation of \$50.0 million from a U.S. subsidiary, deferred income tax expense of \$8.0 million related to taxable temporary differences associated with the then-anticipated repatriation of undistributed earnings from certain of our Chinese subsidiaries, as well as adverse Currency Impacts of \$7.3 million. There was no tax impact recorded in

2016 associated with the \$21.2 million in non-cash impairment charges (recorded through restructuring), however, as discussed above, we recorded the Solar Benefit of \$4.3 million in 2017, which was ultimately realized in 2018.

We conduct business operations in a number of countries, including countries where tax incentives have been extended to encourage foreign investment or where income tax rates are low. Our effective tax rate can vary significantly from period to period for various reasons, including as a result of the mix and volume of business in various tax jurisdictions, and in jurisdictions with tax holidays and tax incentives that have been negotiated with the respective tax authorities (see discussion below). Our effective tax rate can also vary as a result of restructuring charges, foreign exchange fluctuations, operating losses, cash repatriations, certain tax exposures, the time period in which losses may be used under tax laws and whether management believes it is probable that future taxable profit will be available to allow us to recognize deferred income tax assets.

Certain countries in which we do business grant tax incentives to attract and retain our business. Our tax expense could increase significantly if certain tax incentives from which we benefit are retracted. A retraction could occur if we fail to satisfy the conditions on which these tax incentives are based, or if they are not renewed or replaced upon expiration. Our tax expense could also increase if tax rates applicable to us in such jurisdictions are otherwise increased, or due to changes in legislation or administrative practices. Changes in our outlook in any particular country could impact our ability to meet the required conditions.

We have multiple income tax incentives in Thailand with varying exemption periods. These incentives initially allow for a 100% income tax exemption (including distribution taxes), which after eight years transition to a 50% income tax exemption for the next five years (excluding distribution taxes). Upon full expiry of each of the incentives, taxable profits associated with such expired tax incentives become fully taxable. As a result of our exit from the solar panel manufacturing business, we withdrew our tax incentive related to our solar panel manufacturing operations in Thailand during the second quarter of 2017 (see above). One of our remaining three Thailand tax incentives expires in 2019, another expires in 2020, and the third incentive will transition to the 50% exemption in 2022, and expire in 2027. Upon expiry of the first tax incentive in 2019, we estimate an additional annual tax expense of approximately \$1.5 million based on current levels of profit, without accounting for the potential to shift certain Thailand production to incentives that do not expire in 2019.

In certain jurisdictions, primarily in the Americas and Europe, we currently have significant net operating losses and other deductible temporary differences, which we expect will be used to reduce taxable income in these jurisdictions in future periods, although not all are currently recognized as deferred tax assets.

We develop our tax filing positions based upon the anticipated nature and structure of our business and the tax laws, administrative practices and judicial decisions currently in effect in the jurisdictions in which we have assets or conduct business, all of which are subject to change or differing interpretations, possibly with retroactive effect. We are subject to tax audits of historical information by tax authorities in various jurisdictions which could result in additional tax expense in future periods relating to prior results. Reviews by tax authorities generally focus on, but are not limited to, the validity of our inter-company transactions, including financing and transfer pricing policies which generally involve subjective areas of taxation and a significant degree of judgment. Any such increase in our income tax expense and related interest and/or penalties could have a significant adverse impact on our future earnings and future cash flows.

In 2017, the Brazilian Ministry of Science, Technology, Innovation and Communications (MCTIC) issued assessments seeking to disqualify certain amounts of research and development (R&D) expenses for the years 2006 to 2009, which entitled our Brazilian subsidiary (which ceased operations in 2009) to charge reduced sales tax levies to its customers. The assessments against our Brazilian subsidiary (including interest and penalties) total approximately 39 million Brazilian real (approximately \$10 million at year-end exchange rates) for such years. Although we cannot

predict the outcome of this matter, we believe that our R&D activities for the period are supportable, and it is probable that our position will be sustained upon full examination by the appropriate Brazilian authorities and, if necessary, upon consideration by the Brazilian judicial courts. Our position is supported by our Brazilian legal advisers. The successful pursuit of assertions made by any taxing authority could result in our owing significant amounts of tax, interest and possibly penalties. We believe we adequately accrue for any probable potential adverse tax ruling. However, there can be no assurance as to the final resolution of any claims and any resulting proceedings. If any claims and any ensuing proceedings are determined adversely to us, the amounts we may be required to pay could be material, and could be in excess of amounts accrued.

### Net earnings:

Net earnings for 2018 decreased \$6.6 million compared to 2017. The decrease was primarily due to \$24.0 million in higher other charges (primarily restructuring charges, Acquisition Costs and Toronto transition costs), \$14.3 million in higher finance costs, (see "Liquidity — Cash provided by (used in) financing activities" below) and \$6.5 million in higher amortization of intangibles in 2018 as compared to the prior year, offset in part by \$44.6 million in lower income taxes in 2018 compared to 2017 (primarily due to the \$49.6 million Impakt Benefit).

Net earnings for 2017 decreased \$32.8 million compared to 2016. The decrease was primarily due to lower gross profit in 2017, as well as the receipt of legal recoveries (\$12.0 million) and refund interest income (\$14.3 million) that benefited 2016 compared to 2017.

Acquisition Activity and Program Transfer:

In November 2016, we acquired the business assets of Karel. The Karel acquisition supported our strategy to accelerate our growth in the aerospace and defense market through the addition of value-add capabilities and services. In 2018, we completed the acquisitions of Atrenne and Impakt. See "Overview — Recent developments" above. Our acquisitions of Karel, Atrenne and Impakt pertain to our ATS segment.

In September 2017, one of our existing aerospace and defense customers outsourced certain operations to us under a 10-year "operate-in-place" agreement, pursuant to which we provide manufacturing and after-market repair services for electromechanical and electronic assemblies across a wide array of technologies at such customers' site. This agreement further expanded our relationship with this customer, enhanced our ability to provide end-to-end product lifecycle solutions to our customers, and supported our strategy of growing our aerospace and defense business.

We may, at any time, be engaged in ongoing discussions with respect to possible acquisitions or strategic transactions that could expand our revenue base and/or service offerings, increase our penetration in various industries, establish strategic relationships with new or existing customers, enhance our competitiveness, and/or enhance our global supply chain network. There can be no assurance that any of these discussions will result in a definitive purchase agreement and, if they do, what the terms or timing of any such agreement would be. There can also be no assurance that any acquisition or other strategic transactions will be successfully integrated or will generate the returns we expect. We may fund acquisitions from cash on hand, third-party borrowings, the issuance of securities, or a combination thereof. Liquidity and Capital Resources

### Liquidity

The following tables set forth key liquidity metrics for the periods indicated (in millions):

December 31

2016 2017 2018

Cash and cash equivalents \$557.2 \$515.2 \$422.0 Borrowings under credit facility 227.5 187.5 757.3

	Year-ended December 31					
	2016	2017	2018			
	(restated)	l)*				
Cash provided by operating activities	\$173.3	\$ 127.0	\$33.1			
Cash used in investing activities	(64.0)	(89.3	) (545.6 )			
Cash generated from (used in) financing activities	(97.4)	(79.7	) 419.3			
Changes in non-cash working capital items (included in operating activities above):						
A/R	\$(134.6)	\$ (6.3	) \$(155.4)			
Inventories	(61.5)	(139.6	) (224.0 )			
Other current assets	(5.3)	(2.0	) 7.6			
A/P, accrued and other current liabilities and provisions	75.4	51.8	227.0			
Working capital changes	\$(126.0)	\$ (96.1	) \$(144.8)			
* Restated to reflect the impact of our adoption of IFRS 15 as of January 1, 2018 on net earnings and changes in						

### Cash provided by operating activities:

non-cash working capital.

In 2018, we generated \$33.1 million of cash from operating activities compared to \$127.0 million in 2017. The decrease of \$93.9 million was primarily due to a \$48.7 million increase in working capital requirements and \$51.2 million in lower earnings before income taxes in 2018 as compared to 2017. Higher working capital requirements for 2018 as compared to the prior year were driven primarily by increases in accounts receivable (\$149.1 million) and inventory (\$84.4 million) balances, offset in part by increases in accounts payable balances (\$175.2 million). Although part of the \$84.4 million in additional inventory in 2018 compared to 2017 was required to support new program ramps, we experienced demand reductions from certain of our customers in each of our segments, as well as materials constraints primarily from CCS segment suppliers during 2018, each of which resulted in us carrying higher than expected levels of inventory at December 31, 2018 compared to 2017. We anticipate that these market conditions will continue to adversely impact us in 2019. The increases in accounts receivable for 2018 as compared to 2017 generally reflect the higher amounts and timing of revenue earned during 2018. The increase in accounts payable reflects increased inventory purchases during 2018.

In 2017, we generated \$127.0 million of cash from operating activities compared to \$173.3 million in 2016. The decrease was primarily due to the income tax refund of \$52 million related to the resolution of certain tax matters we received in the fourth quarter of 2016 (See "Operating results — Income taxes" above), and the decrease in net earnings in 2017 as compared to 2016, offset in part by \$29.9 million in lower working capital requirements in 2017 as compared to 2016. Lower working capital requirements in 2017 were primarily due to improvements in A/R from the prior year (\$128.3 million), offset in part by higher inventory levels (\$78.1 million). Cash generated from accounts receivable improved compared to 2016, primarily due to lower revenue levels in the fourth quarter of 2017 compared to the same period in 2016, as well as \$30.0 million of additional accounts receivable sold under our A/R sales program in 2017 compared to 2016, which we used as an alternative to drawing on our Prior Revolver. Our inventory levels increased compared to 2016, in part to support our new program ramps, but also as a result of demand volatility in our CCS segment, including late changes from certain customers, as well as materials constraints throughout 2017, all of which resulted in us carrying higher than expected levels of inventory at December 31, 2017 as compared to 2016.

From time to time, we extend payment terms applicable to certain customers, and/or provide longer payment terms when deemed commercially reasonable. Longer payment terms, which have become more prevalent, could adversely impact our working capital requirements, and increase our financial exposure and credit risk. Commencing in the fourth quarter of 2016, the payment terms of one of our significant customers was extended. In connection therewith, we registered for that customer's supplier financing program (SFP) pursuant to which participating suppliers may sell

A/R from such customer to a third-party bank on an uncommitted basis in order to receive earlier payment. During December 31, 2018, we sold \$50.0 million of accounts receivable under this program (December 31, 2017 — \$52.3 million; December 31, 2016 — \$51.4 million). We utilized the SFP to substantially offset the effect of the extended payment terms on our working capital for the period. We pay discount charges with respect to this arrangement, which we record as finance costs in our consolidated statement of operations. Due to our anticipated disengagement from a portion of this customer's programs in early 2019, we expect to sell a lower amount of A/R under the SFP in future periods.

#### Free cash flow (non-IFRS):

Non-IFRS free cash flow is defined as cash provided by or used in operations after the purchase of property, plant and equipment (net of proceeds from the sale of certain surplus equipment and property), finance lease payments, repayments from a former solar supplier, and finance costs paid. As a measure of liquidity, and consistent with the inclusion of our Toronto relocation capital expenditures and transition costs in non-IFRS free cash flow in the periods incurred, we will include the amounts received from the sale of our Toronto real property, in non-IFRS free cash flow in the period of receipt. Note, however, that non-IFRS free cash flow does not represent residual cash flow available to Celestica for discretionary expenditures. Management uses non-IFRS free cash flow as a measure, in addition to IFRS cash provided by or used in operations, to assess our operational cash flow performance. We believe non-IFRS free cash flow provides another level of transparency to our liquidity. A reconciliation of this measure to cash provided by (used in) operating activities measured under IFRS is set forth below (in millions):

	Year ended December 31
	2016 2017 2018
IFRS cash provided by operations	\$173.3 \$127.0 \$33.1
Purchase of property, plant and equipment, net of sales proceeds	(63.1 ) (101.8 ) (78.5 )
Finance lease payments	(4.5 ) (6.5 ) (17.0 )
Repayments from former solar supplier	14.0 12.5 —
Finance costs paid	(9.5 ) (10.2 ) (36.0 )
Non-IFRS free cash flow	\$110.2 \$21.0 \$(98.4)

Our non-IFRS free cash flow of negative \$98.4 million for 2018 decreased \$119.4 million compared to 2017, primarily due to lower cash generated from operating activities in 2018 (discussed above) as compared to 2017, as well as the payment of approximately \$13 million of debt issuance costs incurred in connection with the arrangement of our New Credit Facility and New Term Loans, higher interest costs incurred on our higher borrowings in 2018, and \$11.3 million of finance lease payments (including accrued interest and fees) we made to settle our outstanding solar equipment leases in the first quarter of 2018. These decreases were offset by \$20.4 million in lower capital expenditures in 2018 as compared to 2017 (see "Cash used in investing activities" below). In addition, 2017 benefited from the repayment of \$12.5 million of advances from a former solar supplier.

Our non-IFRS free cash flow of \$21.0 million for 2017 decreased \$89.2 million compared to 2016, primarily due to lower cash generated from operating activities in 2017 (discussed above) and \$38.5 million of higher capital expenditures in 2017 as compared to 2016.

## Cash used in investing activities:

Our capital expenditures for 2018 were \$82.2 million (2017 — \$102.6 million; 2016 — \$64.1 million), primarily to enhance our manufacturing capabilities in various geographies and to support new customer programs (with approximately two-thirds of the equipment additions to support our ATS segment). See footnote (iii) to the "Additional Commitments" table below for further detail. As a result of the demand volatility experienced with certain CCS segment customers during 2018, and the shift in production to our other sites due to the impact of newly-imposed tariffs, certain of our planned CCS segment expenditures have been deferred. Our capital expenditures for 2018 included approximately \$15 million in building improvements and new machinery at our new Toronto manufacturing site. The expenditures in 2017 included expanding one of our production sites in Romania to support new ATS customers. We fund our capital expenditures from cash on hand. From time-to-time, we receive cash proceeds from the sale of surplus equipment and property (2018 — \$3.7 million; 2017 — \$0.8 million; 2016 — \$1.0 million).

In 2015, we entered into a supply agreement with a solar supplier (which was terminated in the fourth quarter of 2016) that included a commitment by us to provide cash advances to help secure our solar cell supply. All such cash

advances were repaid in full by the second quarter of 2017. We received cash advance repayments of \$12.5 million from this solar supplier in the first half of 2017 (\$14.0 million in 2016).

In November 2016, we completed the acquisition of Karel. The purchase price of \$14.9 million was financed with cash on hand. In April 2018, we completed the acquisition of Atrenne. The purchase price of \$141.7 million was funded with borrowings under the Prior Revolver. In November 2018, we completed the acquisition of Impakt. The purchase price of \$325.4 million was funded with available borrowings under our New Revolver, \$245.0 million of which was repaid with the proceeds of the November Term Loan. See "Overview — Recent developments."

Cash provided by (used in) financing activities:

#### Share repurchases:

During 2018, we paid \$75.5 million (including transaction fees) (2017 — \$19.9 million; 2016 — \$34.3 million) to repurchase and cancel 6.8 million subordinate voting shares (2017 —1.9 million; 2016 — 3.2 million) under our 2017 NCIB at a weighted average price of \$11.10 per share (2017 — \$10.58; 2016 — \$10.69).

During 2018, we paid \$22.4 million (including transaction fees) (2017 — \$16.7 million; 2016 — \$18.2 million) for a broker's purchase of 2.1 million subordinate voting shares (2017 — 1.4 million; 2016 — 1.6 million) in the open market to satisfy obligations under our stock-based compensation plans.

### Financing:

In June 2018, we entered into the \$800.0 million New Credit Facility, which provides for the \$350.0 million June Term Loan that matures in June 2025, and the \$450.0 million New Revolver that matures in June 2023. The net proceeds from the June Term Loan were used to repay all amounts outstanding under our Prior Facility (\$175.0 million under the Prior Term Loan and \$163.0 million under the Prior Revolver), which was terminated on such repayment, as well as costs related to the arrangement of the New Credit Facility. In November 2018, we utilized the accordion feature under our New Credit Facility to add the incremental \$250.0 million November Term Loan, maturing in June 2025.

During the second half of 2018, we made two scheduled quarterly principal repayments of \$0.875 million under the June Term Loan. In each quarter of 2016 and 2017, and the first two quarters of 2018, we made scheduled principal repayments of \$6.25 million under the Prior Term Loan. We also made a \$15.0 million repayment under the Prior Revolver during the first quarter of 2017.

During the fourth quarter of 2018, we borrowed \$339.5 million under the New Revolver to fund the Impakt acquisition in November 2018 (\$245.0 million of which was repaid with the proceeds from the November Term Loan). During the third quarter of 2018, we borrowed \$55.0 million under the New Revolver for working capital purposes. During the second quarter of 2018, we borrowed \$163.0 million under the Prior Revolver, primarily to fund the Atrenne acquisition in April 2018, as well as for working capital requirements.

During 2017, no amounts were borrowed under the Prior Revolver. As at December 31, 2016, the Prior Revolver had a balance of \$15.0 million, which was repaid during the first quarter of 2017.

During 2018, we paid finance costs of \$36.0 million (2017 — \$10.2 million; 2016 — \$9.5 million). During 2018, these payments included higher interest expense as compared to 2017 due to an increase in borrowings to fund our acquisitions in 2018, higher fees associated with the increased sale of A/R in 2018 as compared to 2017, and higher interest costs in 2018 as compared to 2017 due to rising interest rates (as a result of increases in LIBOR). During 2018, finance costs also included approximately \$13 million (2017 — nil; 2016 — nil) of debt issuance costs related to the arrangement of the New Credit Facility and our New Term Loans.

Finance lease payments:

During 2018, we paid \$17.0 million (2017 — \$6.5 million; 2016 — \$4.5 million) under our finance lease agreements (see "Cash Requirements" below). Finance lease payments during 2018 included \$11.3 million (including fees and accrued interest) we paid in January 2018 to settle and terminate our solar panel equipment leases in anticipation of the sale of such equipment. At December 31, 2018, we had a total of \$10.4 million finance lease obligations outstanding (December 31, 2017 — \$17.7 million; December 31, 2016 — \$18.4 million).

### Cash requirements:

We maintain the New Revolver, uncommitted bank overdraft facilities, and an A/R sales program, and we participate in the SFP, to provide short-term liquidity and to have funds available for working capital and other investments to support our strategic priorities. See "Capital Resources" below for a discussion of swing line and letter of credit sub-limits under the New Revolver, as well as the accordion feature of the New Credit Facility. Our working capital requirements can vary significantly from month-to-month due to a range of business factors, including the ramping of new programs, expansion of our services and business operations, timing of purchases, higher levels of inventory for new programs and anticipated customer demand, timing of payments and A/R collections, and customer forecasting variations. The international scope of our operations may also create working capital requirements in certain countries while other countries generate cash in excess of working capital needs. Moving cash between countries on a short-term basis to fund working capital is not always expedient due to local currency regulations, tax considerations, and other factors. To meet our working capital requirements and to provide short-term liquidity, we may draw on the New Revolver, sell A/R through our A/R sales program or participate in the SFP, while available. The timing and the amounts we borrow or repay under these facilities can vary significantly from month-to-month depending upon our cash requirements. As at December 31, 2018, other than ordinary course letters of credit, \$159.0 million was outstanding under the New Revolver for working capital purposes and to partially fund our acquisition of Impakt (December 31, 2017 — nil; December 31, 2016 — other than ordinary course letters of credit, \$15.0 million outstanding under the Prior Revolver). We have also increased the amounts sold under our A/R sales program in recent years (2018 — \$130.0 million; 2017 — \$80.0 million; 2016 — \$50.0 million), as a cost-effective alternative to drawing additional amounts on our revolving facility to meet our ordinary course cash requirements. However, since our A/R sales program and the SFP are both on an uncommitted basis, there can be no assurance that any participant bank will purchase the accounts receivable we wish to sell to them under these programs. In addition, due to our anticipated disengagement from a portion of this customer's programs in early 2019, we expect to sell a lower amount of A/R under the SFP in future periods. See "Capital Resources" below.

We do not believe that the aggregate amounts outstanding under our New Credit Facility as at December 31, 2018 (described under "Capital Resources" below) have had (or will have) a significant adverse impact on our liquidity, our results of operations or financial condition. Our quarterly principal repayment requirements under the New Credit Facility are \$1.5 million (or \$6 million annually) compared to quarterly principal repayments of \$6.25 million (or \$25 million annually) under our Prior Facility (see below for a description of required prepayments under the New Credit Facility). We estimate our aggregate interest expense, based on interest rates and amounts outstanding as of December 31, 2018, and including the impact of our interest rate swap agreements, to be approximately \$10 million per quarter, as compared to approximately \$2 million per quarter for 2016 and 2017, based on interest rates and amounts outstanding under the Prior Facility at the applicable year-end. At December 31, 2018, we had \$269.7 million available under our revolving facility for future borrowings, reflecting outstanding borrowings and letters of credit (December 31, 2017 — \$276.8 million available; December 31, 2016 — \$259.2 million available). We believe that our current level of leverage is acceptable for a company of our size and that we will remain in compliance with the financial covenants under the New Credit Facility. In addition, we believe that cash flow from operating activities, together with cash on hand, remaining availability under the New Revolver, intra-day and overnight bank overdraft facilities, and cash from the sale of A/R, will continue to be sufficient to fund our currently anticipated working capital needs and planned capital spending (including the commitments described elsewhere herein).

Notwithstanding the foregoing, however, our increased indebtedness, together with the mandatory prepayment provisions of the New Credit Agreement (described below), has reduced our ability to fund future acquisitions and/or to respond to unexpected capital requirements, and will require us to use an increased amount of our cash flow to service such debt, and may also: require us to pursue additional term loan financing for potential investments, which may not be available on acceptable terms, or at all; limit our ability to obtain additional financing for working capital, business activities, and other general corporate requirements; limit our ability to refinance our indebtedness on terms

acceptable to us or at all; limit our flexibility to plan for and adjust to changing business and market conditions, and increase our vulnerability to general adverse economic and industry conditions. In addition, the New Credit Facility contains restrictive covenants that limit our ability to engage in specified types of transactions and require us to maintain specified financial ratios (described in "Capital Resources" below). Our ability to meet those financial ratios will depend on our ongoing financial and operating performance, which, in turn, will be subject to economic conditions and to financial, market, and competitive factors, many of which are beyond our control. A breach of any of such covenants could result in a default under the instruments governing such indebtedness.

In addition to required aggregate quarterly principal repayments on the New Term Loans of \$1.5 million, commencing in 2020, we will be required to make an annual prepayment of outstanding obligations under the New Credit Facility (applied first to the New Term Loans, then to the New Revolver, in the manner set forth in the New Credit Facility) ranging from 0% - 50% (based on a defined leverage ratio) of specified excess cash flow (as defined in the New Credit Facility) for the prior fiscal year. Proceeds from the sale of our Toronto real property will be taken into account in the determination of excess cash flow. In addition, prepayments of outstanding obligations under the New Credit Facility (applied as described above) may also be required in the

amount of specified net cash proceeds received above a specified annual threshold (including proceeds from the disposal of certain assets, but excluding the net proceeds from the sale of our Toronto real property). Repaid amounts on the New Term Loans may not be re-borrowed. Repaid amounts on the New Revolver may be re-borrowed.

Interest expense under the New Credit Facility, based on interest rates and amounts outstanding as at December 31, 2018, and including the impact of our interest rate swap agreements, is approximately \$10 million per quarter. Any increase in prevailing interest rates, margins, or amounts outstanding, would cause this amount to increase (see discussion below). We also recorded \$0.5 million of quarterly non-cash charges in Q4 2018 to amortize the \$13.4 million in deferred financing costs incurred in connection with the arrangement of the New Credit Facility and New Term Loans. Commitment fees paid during 2018 were \$1.3 million (2017 — \$1.3 million; 2016 — \$1.4 million).

We may use cash on hand, issue debt (including convertible debt) or equity securities, or further increase our levels of third-party indebtedness to fund operations and/or make additional acquisitions (or any combination of the foregoing). Any significant use of cash would adversely impact our cash position and liquidity. Any issuance or incurrence of additional debt would increase our debt leverage, increase our interest expense, and may reduce our debt agency ratings. In addition, any issuance of equity or convertible debt securities (the pricing of which would be subject to market conditions at the time of issuance) could dilute current shareholders' positions; debt or convertible debt securities could have rights and privileges senior to those of equity holders; and the terms of debt securities could impose restrictions on our operations. Sales of our equity securities or convertible debt, or the perception that these sales could occur, could also cause the market price of our subordinate voting shares to decline. Any further increase in our overall debt levels would further adversely impact our ability to fund future acquisitions and/or respond to unexpected capital requirements, and may: limit our ability to obtain additional financing for working capital, business activities, and other general corporate requirements; limit our ability to refinance our indebtedness on terms acceptable to us or at all; limit our flexibility to plan for and adjust to changing business and market conditions, and increase our vulnerability to general adverse economic and industry conditions; and require us to dedicate an additional portion of our cash flow to make interest payments, principal repayments and potential principal prepayments on such indebtedness, thereby limiting the availability of our cash flow for other purposes.

As at December 31, 2018, a significant portion of our cash and cash equivalents was held by foreign subsidiaries outside of Canada, a large part of which may be subject to withholding taxes upon repatriation under current tax laws. Cash and cash equivalents held by subsidiaries related to undistributed earnings that are considered indefinitely reinvested outside of Canada (which we do not intend to repatriate in the foreseeable future) are not subject to these withholding taxes. We currently expect to repatriate approximately \$30 million from various foreign subsidiaries in the near term, and have recorded the anticipated future withholding taxes as deferred income tax liabilities, if applicable. While some of our subsidiaries are subject to local governmental restrictions on the flow of capital into and out of their jurisdictions (including in the form of cash dividends, loans or advances to us), which is required or desirable from time to time to meet our international working capital needs and other business objectives (as described above), these restrictions have not had a material impact on our ability to meet our cash obligations. At December 31, 2018, we had approximately \$355 million (December 31, 2017 — \$351 million) of cash and cash equivalents held by foreign subsidiaries outside of Canada that we do not intend to repatriate in the foreseeable future.

As at December 31, 2018, we had known contractual obligations that require future payments as follows (in millions):

	Total	2019	2020	2021	2022	2023	Thereafter
Borrowings under New Credit Facility(i)	\$757.3	\$6.0	\$6.0	\$6.0	\$6.0	\$165.0	\$ 568.3
Operating leases	107.4	31.5	23.7	14.5	9.5	6.6	21.6
Finance leases	11.7	3.8	3.3	2.8	1.4	0.4	
Pension plan contributions(ii)	12.0	12.0					
Non-pension post-employment plan payments	35.8	3.6	2.4	2.6	2.8	3.4	21.0

Binding purchase order obligations (iii)	1,075.1	1,075.1			_		
Purchase obligations under IT support agreements <sup>(iv)</sup>	120.8	19.7	19.7	16.5	13.7	13.5	37.7
C	\$2,120.1	\$1,151.7	\$55.1	\$42.4	\$33.4	\$188.9	\$ 648.6

Represents mandatory principal repayment obligations for our borrowings under the New Revolver and New Term Loans (based on amounts outstanding as of December 31, 2018), which mature in June 2023 and June 2025, respectively, and excludes related interest and fees. The Term Loans require mandatory aggregate quarterly principal repayments of \$1.5 million until their maturity (when remaining amounts outstanding are due), and borrowings under the New Revolver are due upon maturity. Borrowings under the New Revolver bear interest for the period of the draw at LIBOR, Canadian Prime, or Base Rate (each as defined in the New Credit Facility) plus a specified margin, or in the case of any bankers' acceptance, at the B/A Discount Rate (as defined in the New Credit Facility). The margin for borrowings under the New Revolver ranges from 0.75% to 2.5%, depending on the rate we select and our consolidated leverage ratio. As a result of our use of the accordion feature of the New Credit Facility in November 2018, interest on the June Term Loan increased from LIBOR plus 2.0% to LIBOR plus

(i) 2.125%. The November Term Loan currently bears interest at LIBOR plus 2.5%. Based on the rates and the principal amount outstanding under the New Term Loans (\$598.3 million) and the New Revolver (other than \$21.3 million in letters of credit, \$159.0 million) as of December 31, 2018, and including the impact of our interest rate swap agreements, interest and fees are estimated to be approximately \$10 million per quarter. Actual amounts could differ materially from these estimates. Payment defaults under the credit facility will incur interest on unpaid amounts at an annual rate equal to the sum of (i) 2%, plus (ii) the rate per annum otherwise applicable to such unpaid amounts, or if no rate is specified or available, the rate per annum applicable to Base Rate revolving loans. If an event of default occurs and is continuing, the administrative agent may declare all advances on the facility to be immediately due and payable, and may cancel the lenders' commitments to make further advances thereunder. See "Capital Resources" below and note 12 to our 2018 AFS for a description of our credit facility, including amounts outstanding thereunder, repayment dates and interest obligations.

Based on our latest actuarial valuations, we estimate our funding requirement for 2019 to be \$12.0 million (2018 — \$13.3 million; 2017 — \$11.9 million). See note 19 to our 2018 AFS. A significant deterioration in the asset values or asset returns could lead to higher than expected future contributions. Risks and uncertainties associated with

- (ii) actuarial valuation measurements may also result in higher future cash contributions. We fund our pension contributions from cash on hand. Although we have defined benefit plans that are currently in a net unfunded position, we do not expect our pension obligations will have a material adverse impact on our future results of operations, cash flows or liquidity.
- Represents outstanding purchase orders with suppliers to acquire inventory. These purchase orders are generally short-term in nature and legally binding. However, a substantial portion of these purchase orders are for standard inventory items which we have procured for specific customers based on their purchase orders or forecasts, under which such customers have contractually assumed liability for such material, if not consumed.
- (iv) Represents obligations under IT support agreements.

This table excludes \$25.5 million of long-term deferred income tax liabilities and \$20.6 million of provisions and other non-current liabilities primarily pertaining to warranties and asset retirement obligations, as we are unable to reliably estimate the timing of any future payments related thereto. However, long-term liabilities included in our consolidated balance sheet include these items. In addition, our interest rate swap agreements require us to pay a fixed rate of interest with respect to an aggregate of \$350.0 million outstanding under the New Term Loans. These

(v) fixed rate of interest with respect to an aggregate of \$350.0 million outstanding under the New Term Loans. These payments, however, are partially offset by related interest we receive, based on the variable interest rates swapped. As the offsets are not determinable and vary from quarter to quarter, this table also excludes the interest payments on our interest rate swap agreements.

#### **Additional Commitments:**

As at December 31, 2018, we had additional commitments that expire as follows (in millions):

	Total	2019	2020	2021	2022	2023	Thereafter
Foreign currency contracts(i)	\$544.2	\$544.2	<b>\$</b> —	<b>\$</b> —	\$ -	-\$ -	<b>\$</b> —
Letters of credit, letters of guarantee and surety bonds <sup>(ii)</sup>	35.7	29.1	1.6	0.3			4.7
Capital expenditures <sup>(iii)</sup>	33.6	33.6		—		—	_
Total	\$613.5	\$606.9	\$1.6	\$0.3	\$ -	-\$ -	\$ 4.7

- (i) Represents the aggregate notional amounts of our forward currency contracts and swaps.
- (ii) Includes \$21.3 million in letters of credit issued under our Revolving Facility.

Our capital spending varies each period based on the timing of new business wins and forecasted sales levels. Based on our current operating plans, we anticipate capital spending for 2019 to be approximately 1.5% to 2.0% of revenue, and expect to fund these expenditures from cash on hand and through the financing agreements described below under "Capital Resources." As at December 31, 2018, we had committed \$33.6 million for capital expenditures, principally for machinery and equipment to support new customer programs. Of such amount, approximately 25% is committed for Asia, approximately 25% is committed for North America (excluding Canada), approximately 30% is committed for Europe, and approximately 20% is committed for Canada (primarily for building improvements related to our temporary corporate headquarters).

Customer or program transfers between EMS providers are part of the competitive nature of our industry. From time-to-time, we make commitments to purchase assets, primarily inventory, or fund certain costs, as part of transitioning programs from a customer or a competitor. In September 2017, we purchased \$5 million of inventory and assumed the relevant workforce in connection with a program transferred to us under an "operate-in-place" arrangement.

We have entered into financing agreements for the lease of machinery and equipment. For leases where the risks and rewards of ownership have substantially transferred to us, we capitalize the leased asset and record a corresponding liability on our consolidated balance sheet. See "Finance leases" in the contractual obligations table above. See note 2(x) of our 2018 AFS for a discussion of a new IFRS standard pertaining to leases which we adopted January 1, 2019, eliminating the distinction between operating and finance leases.

#### Toronto Real Property and Related Transactions:

On July 23, 2015, we entered into the Property Sale Agreement with a special purpose entity (Property Purchaser) for a purchase price of approximately \$137 million Canadian dollars (approximately \$100 million at year-end exchange rates), exclusive of applicable taxes and subject to specified adjustments, including for certain density bonuses and other items in accordance with usual commercial practice. Upon execution of the Property Sale Agreement, we were paid a cash deposit of \$15 million Canadian dollars (\$11.2 million at the then-prevailing exchange rate).

In September 2018, the Property Sale Agreement was assigned to the Assignee, although the Property Purchaser was not released from its obligations under the Property Sale Agreement. In connection with the assignment, the Property Sale Agreement was amended to provide for the remaining proceeds of \$122 million Canadian dollars (approximately \$89 million at year-end exchange rates) to be paid in one lump sum cash payment at the closing of the transaction (previously we were to receive one-half of the purchase price in the form of a two-year, interest-free, first-ranking mortgage). Other terms of the agreement remained unchanged. On January 21, 2019, the required municipal zoning approval was obtained. On March 7, 2019, we completed the sale of the real property and received total proceeds of approximately \$110 million, including a high density bonus and an early vacancy incentive related to the temporary relocation of our corporate headquarters. The gain on the sale of this property will be recorded as recoveries through other charges (recoveries). See "Related Party Transactions" below for a description of the ownership of the Property Purchaser and its option to obtain an interest in the Assignee.

In connection with the anticipated sale, we have moved our Toronto manufacturing operations to another location in the Greater Toronto area and in connection therewith, entered into a long-term lease in November 2017, with occupancy commenced in March 2018. We completed the transition to this new manufacturing location in February 2019. In addition, we will enter into a long-term lease with the Assignee for our new corporate headquarters. In connection therewith, we are relocating our corporate headquarters to a temporary location while space in a new office building (to be built by the Assignee on the site of our former location) is under construction. In connection therewith, in September 2018, we entered into a 3-year lease for such temporary offices, and such relocation is currently expected to be completed by the end of the first half of 2019. We have incurred (and will continue to incur) significant costs throughout the transition period (which commenced in the fourth quarter of 2017) to relocate our corporate headquarters and to transfer our Toronto manufacturing operations to its new location, and as we prepare and customize the new site to meet our manufacturing needs. These costs consist of building improvements and new equipment which we will capitalize, as well as transition-related costs which we record in other charges. Transition costs are comprised of direct relocation costs, duplicate costs (such as rent expense, utility costs, depreciation charges, and personnel costs) incurred during the transition period, as well as cease-use costs incurred in connection with idle or vacated portions of the relevant premises that we would not have incurred but for these relocations. We incurred approximately \$17 million in capitalized costs through February 13, 2019 (2018 — \$15 million) for the new manufacturing location, funded from cash on hand. We also expect to incur approximately \$6 million (\$1 million of which has been incurred through February 13, 2019; 2018 — nil) of capitalized building improvements in connection with our temporary corporate headquarters. We expect to incur total transition costs (including in connection with the relocation of our corporate headquarters) of up to \$20 million through the end of the second quarter of 2019. We incurred approximately \$16 million of such costs through February 13, 2019, consisting primarily of utility costs related to idle premises, depreciation charges and personnel costs incurred in the operation of duplicate production lines in advance of the transition, duplicate rent expenses, and relocation costs.

### Share Repurchases:

We have funded and intend to continue to fund our share repurchases from cash on hand, borrowings under our New Revolver, or a combination thereof. See "Cash provided by (used in) financing activities" above.

#### Indemnities:

We provide routine indemnifications, the terms of which range in duration and often are not explicitly defined. These may include indemnifications against third-party intellectual property infringement claims and certain third-party negligence claims for property damage. We have also provided indemnifications in connection with the sale of certain businesses and real property. The maximum potential liability from these indemnifications cannot be reasonably estimated. In some cases, we have recourse

against other parties to mitigate our risk of loss from these indemnifications. Historically, we have not made significant payments relating to these types of indemnifications.

### Litigation and contingencies:

In the normal course of our operations, we may be subject to lawsuits, investigations and other claims, including environmental, labor, product, customer disputes and other matters. Management believes that adequate provisions have been recorded where required. Although it is not always possible to estimate the extent of potential costs, if any, management believes that the ultimate resolution of all such pending matters will not have a material adverse impact on our financial performance, financial position or liquidity. See "Operating Results — Income Taxes" above for a description of certain tax matters.

#### Capital Resources

Our capital resources consist of cash provided by operating activities, access to a revolving facility, intraday and overnight bank overdraft facilities, an A/R sales program, the SFP, and our ability to issue debt or equity securities. We regularly review our borrowing capacity and make adjustments, as permitted, for changes in economic conditions and changes in our requirements. As part of our strategic initiatives to scale and diversify our ATS revenue base and expand our capabilities in our ATS segment, we have increased our levels of third-party indebtedness and A/R sales in order to fund acquisitions and working capital needs. In addition, we may use cash on hand, issue equity or debt, or further increase our levels of third-party indebtedness in order to fund operations or additional acquisitions (or any combination of the foregoing). See "Liquidity — Cash requirements" above for a discussion of expected and potential adverse impacts from such actions. We centrally manage our funding and treasury activities in accordance with corporate policies, the main objectives of which are to ensure appropriate levels of liquidity, to have funds available for working capital or other investments we determine are required to grow our business, to comply with debt covenants, to maintain adequate levels of insurance, and to balance our exposures to market risks.

At December 31, 2018, we had cash and cash equivalents of \$422.0 million (December 31, 2017 — \$515.2 million), of which approximately 97% was cash and 3% was cash equivalents, consisting of bank deposits. The majority of our cash and cash equivalents was denominated in U.S. dollars, and the remainder was held primarily in Chinese renminbi and the Euro. We also held cash and cash equivalents in the following currencies: British pound sterling, Brazilian real, Canadian dollar, Czech koruna, Hong Kong dollar, Indian rupee, Japanese yen, Korean won, Lao kip, Malaysian ringgit, Mexican peso, Philippines peso, Romanian leu, Singapore dollar, Taiwan dollar and Thai baht. Our cash and cash equivalents are subject to intra-quarter swings, generally related to the timing of A/R collections, inventory purchases and payments, and other capital uses.

Until June 27, 2018, we were party to the Prior Facility, that consisted of the \$300.0 million Prior Revolver and the fully drawn \$250.0 million Prior Term Loan, each of which was scheduled to mature in May 2020. The Prior Revolver had an accordion feature that allowed us to increase the \$300.0 million limit by an additional \$150.0 million on an uncommitted basis upon satisfaction of certain terms and conditions. The Prior Revolver also included a \$25.0 million swing line, subject to the overall revolving credit limit, that provided for short-term borrowings up to a maximum of seven days. Borrowings under the Prior Revolver bore interest at various base rates selected by us consisting of LIBOR, Prime, Base Rate Canada, and Base Rate (each as defined in the Prior Facility), plus a specified margin. The margin for borrowings under the Prior Revolver ranged from 0.6% to 1.4% (except in the case of the LIBOR loans, in which case, the margin ranged from 1.6% to 2.4%), based on a specified financial ratio based on indebtedness. Outstanding amounts under the Prior Revolver were due at maturity (but were required to be repaid prior thereto under specified circumstances). The Prior Term Loan bore interest at LIBOR plus a margin ranging from 2.0% to 3.0% based on the same financial ratio. The Prior Term Loan required quarterly principal repayments of \$6.25 million, with the remainder due at maturity. Prepayments on the Prior Term Loan were required under certain

circumstances. We were required to comply with certain restrictive covenants under the Prior Facility, including those relating to the incurrence of senior ranking indebtedness, the sale of assets, a change of control, and certain financial covenants related to indebtedness and interest coverage. Certain of our assets were pledged as security for borrowings under the Prior Facility.

In June 2018, we entered into the \$800.0 million New Credit Facility, providing for the \$350.0 million June Term Loan and the \$450 million New Revolver. In November 2018, we added the \$250.0 million November Term Loan. As of December 31, 2018, an aggregate of \$598.3 million was outstanding under the New Term Loans, and other than ordinary course letters of credit, \$159.0 million was outstanding under the New Revolver (December 31, 2017 — \$187.5 million outstanding under the Prior Term Loan and other than ordinary course letters of credits, no amounts outstanding under the Prior Revolver). See "Liquidity — Cash provided by (used in) financing activities — Financing" above for a discussion of amounts borrowed and repaid under our credit facilities during 2016 to 2018. The June Term Loan requires quarterly principal repayments of \$0.875 million commencing September 30, 2018 and the November Term Loan requires quarterly principal repayments of \$0.625 million, commencing March 31, 2019, and in each case

a lump sum repayment of the remainder outstanding at maturity. See "Liquidity — Cash requirements" above for a description of mandatory prepayments required under the New Credit Facility. Except under specified circumstances, and subject to the payment of breakage costs (if any), we are generally permitted to make voluntary prepayments of outstanding amounts under the New Revolver and the New Term Loans without any other premium or penalty. Repaid amounts on the New Term Loans may not be re-borrowed. Repaid amounts on the New Revolver may be re-borrowed.

The New Credit Facility has an accordion feature that allows us to increase the term loans and/or revolving loan commitments by approximately \$110 million, plus an unlimited amount to the extent that a specified leverage ratio on a pro forma basis does not exceed specified limits, in each case on an uncommitted basis and subject to the satisfaction of certain terms and conditions. The New Revolver also includes a \$50.0 million sub-limit for swing line loans, providing for short-term borrowings up to a maximum of ten business days, as well as a \$150.0 million sub-limit for letters of credit, in each case subject to the overall New Revolver credit limit. The New Revolver permits us and certain designated subsidiaries to borrow funds (subject to specified conditions) for general corporate purposes, including for capital expenditures, certain acquisitions, and working capital needs. Borrowings under the New Revolver bear interest at LIBOR, Canadian Prime, or Base Rate (each as defined in the New Credit Facility) plus a specified margin, or in the case of any bankers' acceptance, at the B/A Discount Rate (as defined in the New Credit Facility). The margin for borrowings under the New Revolver ranges from 0.75% to 2.5%, depending on the rate we select and our consolidated leverage ratio. As a result of our use of the accordion feature of the New Credit Facility in November 2018, interest on the June Term Loan increased from LIBOR plus 2.0% to LIBOR plus 2.125%. The November Term Loan currently bears interest at LIBOR plus 2.5%.

As part of our risk management program, we attempt to mitigate interest rate risk through interest rate swaps. In order to partially hedge against our exposure to interest rate variability on the New Term Loans, we entered into 5-year agreements with a syndicate of third-party banks in August and December 2018 to swap the variable interest rate with a fixed rate of interest on \$175.0 million of the total borrowings outstanding under each of the June Term Loan and the November Term Loan (for an aggregate of \$350.0 million). The swap agreements include an option that allows us to cancel up to \$75.0 million of the notional amount of each of the original swap agreements starting in August 2021 for the June Term Loan and December 2020 for the November Term Loan. The cancellable option in the swap agreements is aligned with our risk management strategy for our New Term Loans as it allows us to make voluntary prepayments of outstanding amounts without premium or penalty, subject to certain conditions. Our unhedged borrowings under the New Credit Facility at December 31, 2018 are \$407.3 million (comprised of \$248.3 million under the New Term Loans and \$159 million under the New Revolver). A one-percentage point increase in relevant interest rates would increase interest expense, based on the outstanding unhedged borrowings at December 31, 2018, by \$4.1 million annually. See note 21(b) of our 2018 AFS for further information regarding our interest rate swaps.

We are required to comply with certain restrictive covenants under the New Credit Facility, including those relating to the incurrence of certain indebtedness, the existence of certain liens, the sale of certain assets (excluding real property then held for sale), specified investments and payments, sale and leaseback transactions, and certain financial covenants relating to a defined interest coverage ratio and leverage ratio that are tested on a quarterly basis. At December 31, 2018, we were in compliance with all restrictive and financial covenants under the New Credit Facility. The obligations under the New Credit Facility are guaranteed by us and certain specified subsidiaries. Subject to specified exemptions and limitations, all assets of the guarantors are pledged as security for the obligations under the New Credit Facility. The New Credit Facility contains customary events of default. If an event of default occurs and is continuing, the administrative agent may declare all amounts outstanding under the New Credit Facility to be immediately due and payable and may cancel the lenders' commitments to make further advances thereunder. In the event of a payment or other specified defaults, outstanding obligations accrue interest at a specified default rate. We incurred debt issuance costs of \$4.9 million in connection with the June Term Loan, and \$5.4 million in connection with the November Term Loan, which we recorded as an offset against the proceeds therefrom. Such costs have been deferred (as long-term debt on our consolidated balance sheet) and will be amortized over the term of the

term loans using the effective interest rate method. We incurred debt issuance costs of \$3.1 million in connection with the New Revolver, which have been deferred (as other assets on our consolidated balance sheet) and will be amortized over the term of the New Revolver. We accelerated the amortization of the remaining \$1.2 million of unamortized deferred financing costs related to the Prior Facility upon its termination (\$0.6 million related to our Prior Revolver recorded in other assets and \$0.6 million related to our Prior Term Loan recorded in long-term debt), and recorded it to other charges in our consolidated financial statements in June 2018.

Commitment fees paid during 2018 were \$1.3 million (2017 — \$1.3 million; 2016 — \$1.4 million). At December 31, 2018, we had \$21.3 million outstanding in letters of credit under the New Revolver (December 31, 2017 — \$23.2 million). We

also arrange letters of credit and surety bonds outside our revolving facility. At December 31, 2018, we had \$14.4 million of such letters of credit and surety bonds outstanding (December 31, 2017 — \$13.6 million).

At December 31, 2018, we also had a total of \$132.8 million of uncommitted bank overdraft facilities available for intraday and overnight operating requirements (December 31, 2017 — \$73.5 million). There were no amounts outstanding under these overdraft facilities at December 31, 2018 or December 31, 2017.

At December 31, 2018, we had \$269.7 million available under the New Revolver for future borrowings, reflecting outstanding borrowings and letters of credit (December 31, 2017 — \$276.8 million available under the Prior Revolver).

We have an agreement to sell up to \$250.0 million (increased from \$200 million in November 2018 based on a review of our requirements) in accounts receivable on an uncommitted basis (subject to pre-determined limits by customer) to two third-party banks. The term of this agreement has been annually extended in recent years (including in November 2018) for additional one-year periods (and is currently extendable to November 2020 under specified circumstances), but may be terminated earlier as provided in the agreement. At December 31, 2018, \$130.0 million (December 31, 2017 — \$80.0 million) of A/R were sold under this program, and de-recognized from our accounts receivable balance. As our A/R sales program is on an uncommitted basis, there can be no assurance that any of the banks will purchase the A/R we intend to sell to them under this program.

We have entered into the SFP, pursuant to which participating suppliers may sell accounts receivable from such customer to a third-party bank on an uncommitted basis in order to receive earlier payment. The third-party bank collects the relevant receivables directly from the customer. At December 31, 2018, we sold \$50.0 million of accounts receivable under the SFP (December 31, 2017 — \$52.3 million). We utilized the SFP to substantially offset the effect of extended payment terms required by such customer on our working capital for the period. As the SFP is on an uncommitted basis, there can be no assurance that the bank will purchase the A/R we intend to sell to them thereunder. Due to our anticipated disengagement from a portion of this customer's programs in early 2019, we expect to sell a lower amount of A/R under the SFP in future periods.

The timing and the amounts we borrow and repay under our revolving credit and overdraft facilities, or sell under the SFP or our A/R sales program, can vary significantly from month-to-month depending upon our working capital and other cash requirements.

Our strategy on capital risk management has not changed significantly since the end of 2017. Other than the restrictive and financial covenants associated with our New Credit Facility noted above, we are not subject to any contractual or regulatory capital requirements. While some of our international operations are subject to government restrictions on the flow of capital into and out of their jurisdictions, these restrictions have not had a material impact on our operations or cash flows.

#### Financial instruments:

Our short-term investment objectives are to preserve principal and to maximize yields without significantly increasing risk, while at the same time not materially restricting our short-term access to cash.

The majority of our cash balances are held in U.S. dollars. We price the majority of our products in U.S. dollars and the majority of our materials costs are also denominated in U.S. dollars. However, a significant portion of our non-materials costs (including payroll, pensions, site costs and costs of locally sourced supplies and inventory) are denominated in various other currencies. As a result, we may experience foreign exchange gains or losses on translation or transactions due to currency fluctuations.

We have a foreign exchange risk management policy in place to govern our hedging activities. We do not enter into speculative trades. Our current hedging activity is designed to reduce the variability of our foreign currency costs where we have local manufacturing operations. We enter into foreign exchange forward contracts to hedge our cash flow exposures and foreign currency swaps to hedge our balance sheet exposures. Balance sheet hedges are based on our forecasts of the future position of net monetary assets or liabilities denominated in foreign currencies and, therefore, may not mitigate the full impact of any translation impacts in the future. There can be no assurance that our hedging transactions will be successful in mitigating our foreign exchange risk.

At December 31, 2018, we had foreign exchange forwards and swaps to trade U.S. dollars in exchange for the following currencies:

Currency	Contract amount in U.S. dollars (in millions)	Weighted average exchange rate in U.S. dollars	Maximum period in months	Fair value gain (loss) (in millions)
Canadian dollar	\$ 210.2	\$ 0.76	12	\$ (10.3)
Thai baht	81.1	0.03	12	(0.7)
Malaysian ringgit	53.4	0.24	12	(0.8)
Mexican peso	25.6	0.05	12	0.2
British pound	5.3	1.27	4	_
Chinese renminbi	66.8	0.15	12	(1.6)
Euro	35.8	1.17	12	0.3
Romanian leu	40.4	0.25	12	(0.9)
Singapore dollar	22.1	0.74	12	(0.3)
Other	3.5	0.01	1	(0.1)
Total	\$ 544.2			\$ (14.2)

These contracts, which generally extend for periods of up to 12 months, will expire by the end of the fourth quarter of 2019. The fair value of the outstanding contracts at December 31, 2018 was a net unrealized loss of \$14.2 million (December 31, 2017 — net unrealized gain of \$10.3 million). The unrealized gains or losses are a result of fluctuations in foreign exchange rates between the date the currency forward or swap contracts were entered into and the valuation date at period end.

#### Financial risks:

We are exposed to a variety of risks associated with financial instruments and otherwise.

Currency risk: Due to the global nature of our operations, we are exposed to exchange rate fluctuations on our financial instruments denominated in various currencies. The majority of our currency risk is driven by operational costs, including income tax expense, incurred in local currencies by our subsidiaries. As part of our risk management program, we attempt to mitigate currency risk through a hedging program using forecasts of our anticipated future cash flows and balance sheet exposures denominated in foreign currencies. We enter into foreign exchange forward contracts and swaps, generally for periods up to 12 months, to lock in the exchange rates for future foreign currency transactions, which is intended to reduce the variability of our operating costs and future cash flows denominated in local currencies. While these contracts are intended to reduce the effects of fluctuations in foreign currency exchange rates, our hedging strategy does not mitigate the longer-term impacts of changes to foreign exchange rates. Although our functional currency is the U.S. dollar, currency risk on our income tax expense arises as we are generally required to file our tax returns in the local currency for each particular country in which we have operations. While our hedging program is designed to mitigate currency risk vis-à-vis the U.S. dollar, we remain subject to taxable foreign exchange impacts in our translated local currency financial results relevant for tax reporting purposes. We do not use derivative financial instruments for speculative purposes.

We cannot predict changes in currency exchange rates, the impact of exchange rate changes on our operating results, nor the degree to which we will be able to manage the impact of currency exchange rate changes. Such changes, including as a result of Brexit or other global events impacting currency exchange rates could materially adversely affect our business, results of operations and financial condition.

Interest rate risk: Borrowings under the New Credit Facility bear interest at specified rates, plus specified margins (as described above). We have entered into 5-year interest rate swap agreements with a syndicate of third-party banks in each of August and December 2018 to partially hedge against our exposures to interest rate variability on our New Term Loans. The derivative instruments swap the variable rate of interest for a fixed rate of interest on an aggregate of \$350.0 million of the outstanding borrowings under the New Term Loans. The swap agreements include an option that allows us to cancel up to \$75.0 million of the notional amount of each swap agreement, starting in August 2021 with respect to the June Term Loan and December 2020 with respect to the November Term Loan.

Our unhedged borrowings under the New Credit Facility at December 31, 2018 were \$407.3 million (December 31, 2017 — \$187.5 million under the Prior Credit Facility). Unhedged borrowings expose us to interest rate risk due to the potential variability in market interest rates. A one-percentage point increase in applicable rates would increase interest expense, based on the outstanding unhedged borrowings at December 31, 2018, by \$4.1 million annually. Without accounting for the interest rate swap agreements described above, a one-percentage point increase in applicable rates would increase interest expense, based on our outstanding borrowings of \$757.3 million under the New Credit Facility as at December 31, 2018, by \$7.6 million annually.

Credit risk: Credit risk refers to the risk that a counterparty may default on its contractual obligations resulting in a financial loss to us. We believe our credit risk of counterparty non-performance is relatively low, however, if a key supplier (or any company within such supplier's supply chain) or customer experiences financial difficulties or fails to comply with their contractual obligations, this could result in a financial loss to us. If an institution from which we purchased annuities for our pension plans defaults on their contractual obligations, this would result in a financial loss to us, as we retain ultimate responsibility for the payment of benefits to plan participants unless and until such pension plans are wound-up. With respect to our financial market activities, we have adopted a policy of dealing only with credit-worthy counterparties to help mitigate the risk of financial loss from defaults. We monitor the credit risk of the counterparties with whom we conduct business, through a combined process of credit rating reviews and portfolio reviews.

We also provide unsecured credit to our customers in the normal course of business. Customer exposures that potentially subject us to credit risk include our accounts receivable, inventory on hand, and non-cancellable purchase orders in support of customer demand. From time to time, we extend the payment terms applicable to certain customers, and/or provide longer payment terms when deemed commercially reasonable. Longer payment terms, which have become more prevalent, could adversely impact our working capital requirements, and increase our financial exposure and credit risk. We attempt to mitigate customer credit risk by monitoring our customers' financial condition and performing ongoing credit evaluations as appropriate. In certain instances, we may obtain letters of credit or other forms of security from our customers. We may also purchase credit insurance from a financial institution to reduce our credit exposure to certain customers. We consider credit risk in determining our allowance for doubtful accounts and we believe our allowances, as adjusted from time to time, are adequate. The carrying amount of financial assets recorded in our consolidated financial statements, net of our allowance for doubtful accounts, represents our estimate of maximum exposure to credit risk. At December 31, 2018, approximately 1% of our gross accounts receivable are over 90 days past due. Accounts receivable are net of an allowance for doubtful accounts of \$5.3 million at December 31, 2018 (December 31, 2017 — \$4.3 million).

Liquidity risk: Liquidity risk is the risk that we may not have cash available to satisfy our financial obligations as they come due. The majority of our financial liabilities recorded in accounts payable, accrued and other current liabilities and provisions are due within 90 days. We manage liquidity risk by maintaining a portfolio of liquid funds and investments and having access to a revolving credit facility, intraday and overnight bank overdraft facilities, an accounts receivable sales program and the SFP. Since our accounts receivable sales program and the SFP are each on an uncommitted basis, there can be no assurance that any participant bank will purchase all the accounts receivable that we wish to sell thereunder. However, we believe that cash flow from operating activities, together with cash on hand, cash from the sale of accounts receivable, and borrowings available under the New Revolver and intraday and overnight bank overdraft facilities are sufficient to fund our currently anticipated financial obligations.

See note 21 to our 2018 AFS for further details.

#### **Related Party Transactions**

Onex Corporation (Onex) beneficially owns or controls, directly or indirectly, all of our outstanding multiple voting shares. Accordingly, Onex has the ability to exercise significant influence over our business and affairs and generally has the power to determine all matters submitted to a vote of our shareholders where the subordinate voting shares and multiple voting shares vote together as a single class. Mr. Gerald Schwartz, the Chairman of the Board, President and Chief Executive Officer of Onex, indirectly owns shares representing the majority of the voting rights of Onex. Onex has entered into an agreement with Celestica and with Computershare Trust Company of Canada (as successor to the Montreal Trust Company of Canada), as trustee for the benefit of the holders of the subordinate voting shares, for the purpose of ensuring that the holders of subordinate voting shares will not be deprived of any rights under applicable take-over bid legislation to which they would be otherwise entitled in the event of a take-over bid (as that term is defined in applicable securities legislation) if multiple voting shares and subordinate voting shares were of a single class of shares. Subject to certain permitted forms of sale, such as identical or better offers to all holders of subordinate voting shares, Onex has agreed that it, and any of its affiliates that may hold multiple voting shares from time to time, will not sell any multiple voting shares, directly or indirectly, pursuant to a take-over bid (as that term is defined under applicable securities legislation) under circumstances in which any applicable securities legislation would have required the same offer or a follow-up offer to be made to holders of subordinate voting shares if the sale had been a sale of subordinate voting shares rather than multiple voting shares, but otherwise on the same terms. In January 2009, we entered into a Services Agreement with Onex for the services of Mr. Schwartz (amended in 2017 to replace references to Mr. Schwartz with references to Mr. Tawfiq Popatia, also an officer of Onex) as a director of Celestica, pursuant to which Onex receives compensation for such services. This agreement automatically renews for successive one-year terms unless either party provides a notice of intent not to renew. Under such agreement, as amended, the annual fee payable to Onex is \$235,000 payable in DSUs in equal quarterly installments in arrears. The Services Agreement terminates automatically and the rights of Onex to receive compensation (other than accrued and unpaid compensation) will terminate (a) 30 days after the first day on which Onex ceases to hold at least one multiple voting share of Celestica or any successor company or (b) the date Mr. Popatia ceases to be a director of Celestica for any reason.

The original parties to the Property Sale Agreement were the Company and the Property Purchaser, a consortium of four real estate partnerships. Approximately 27% of the interests in the Property Purchaser were at the time of execution of the Property Sale Agreement, and are, held by a privately-held partnership in which Mr. Schwartz has a material interest; and approximately 25% of the interests in the Property Purchaser were at the time of execution of the Property Sale Agreement, and are, held by a partnership in which Mr. Schwartz has a non-voting interest. In September 2018, the Property Sale Agreement was assigned to the Assignee, although the Property Purchaser was not released from its obligations under the Property Sale Agreement. At the time of execution of such assignment, the Assignee was unrelated to us or the Property Purchaser. Subsequent to the execution of such assignment, the Assignee granted the Property Purchaser an option to obtain a 5% non-voting interest in the Assignee. See "Overview — Recent developments and Liquidity — Toronto Real Property and Related Transactions" above.

#### **Outstanding Share Data**

As of February 13, 2019, we had 118,079,397 outstanding subordinate voting shares and 18,600,193 outstanding multiple voting shares. As of such date, we also had 345,577 outstanding stock options, 5,085,274 outstanding RSUs, 4,223,278 outstanding PSUs (assuming vesting of 100% of the target amount granted (amounts that will vest range from 0% to 200% of the target amount granted)), and 1,627,598 outstanding DSUs; each vested option or unit entitling the holder thereof to receive one subordinate voting share (or in certain cases, cash) pursuant to the terms thereof, subject to certain time or performance-based vesting conditions.

#### Controls and Procedures

Evaluation of disclosure controls and procedures:

Our management is responsible for establishing and maintaining a system of disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the U.S. Exchange Act) designed to ensure that information we are required to disclose in the reports that we file or submit under the U.S. Exchange Act is recorded, processed, summarized and reported within the time periods specified in the U.S. Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the U.S. Exchange Act is accumulated and communicated to the issuer's management, including its principal executive officer or officers and principal financial officer or officers, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision of and with the participation of management, including our principal executive officer and principal financial officer, we have evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2018. Based on that evaluation, our principal executive officer and principal financial officer have concluded that, as of December 31, 2018, our disclosure controls and procedures are effective to meet the requirements of Rules 13a-15(e) and 15d-15(e) under the U.S. Exchange Act.

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that its objectives are met. Due to inherent limitations in all such systems, no evaluation of controls can provide absolute assurance that all control issues within a company have been detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met.

Changes in internal control over financial reporting:

We did not identify any change in our internal control over financial reporting in connection with our evaluation thereof that occurred during the year ended December 31, 2018 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

On April 4, 2018, we completed the acquisition of Atrenne, and, as a result, have integrated the processes and controls relating to Atrenne into our existing system of internal control over financial reporting. The integration of Atrenne did not result in changes that would materially affect, or would be reasonably likely to materially affect, our internal control over financial reporting. On November 9, 2018, we completed the acquisition of Impakt, and are in the process of assessing its processes and internal controls. Although this assessment may result in changes to our internal control over financial reporting, we do not currently anticipate that the integration of Impakt will result in changes that would materially affect, or would be reasonably likely to materially affect, our internal control over financial reporting. In addition, there were no significant changes to our internal control over financial reporting as a result of our preparation for the adoption of IFRS 16 (Leases) effective January 1, 2019.

Management's report on internal control over financial reporting:

Reference is made to our Management's Report on Internal Control over Financial Reporting on page F-1 of our Annual Report on Form 20-F for the year ended December 31, 2018. Our auditors, KPMG LLP, an independent registered public accounting firm, have issued an audit report on our internal control over financial reporting as of December 31, 2018, which appears on page F-2 of such Annual Report.

Unaudited Quarterly Financial Highlights (in millions, except percentages and per share amounts):

	2017*				2018			
	First	Secon	d Third	Fourth	First	Secon	d Third	Fourth
	Quarter	r Quarte	er Quarte	er Quarter	Quart	er Quarte	er Quarte	er Quarter
Revenue	\$1,482.	.1\$1,557	7.6\$1,532	2.8\$1,570.2	\$1,49	9.7\$1,695	5.2\$1,71	1.3\$1,727.0
Gross margin	6.9 %	%7.0	% 6.9	% 6.5 %	6.2	%6.2	% 6.6	% 6.9 %
Net earnings	\$22.5	\$34.6	\$34.8	\$13.6	\$14.1	\$16.1	\$8.6	\$60.1
Weighted average # of basic shares	142.1	143.4	143.7	143.3	142.2	139.6	139.0	136.8
Weighted average # of diluted shares	144.0	145.5	145.7	145.5	143.5	140.7	140.3	138.0
# of shares outstanding	143.2	143.6	143.7	141.8	139.6	139.3	137.4	136.3
IFRS EPS:								
basic	\$0.16	\$0.24	\$0.24	\$0.09	\$0.10	\$0.12	\$0.06	\$0.44
diluted	\$0.16	\$0.24	\$0.24	\$0.09	\$0.10	\$0.11	\$0.06	\$0.44

<sup>\* 2017</sup> quarterly results have been restated to reflect the adoption of IFRS15.

All quarters in the table above have been impacted by our restructuring charges, the amounts of which vary from quarter to quarter.

#### Q4 2018 compared to Q4 2017:

Revenue of \$1.7 billion for the Q4 2018 increased 10% compared to Q4 2017. Compared to Q4 2017, revenue dollars in Q4 2018 from our CCS segment increased 10%. Communications end market revenue increased 7% in Q4 2018 as compared to the prior year period, as increased demand and new programs (including JDM programs) were partially offset by demand softness from certain of our legacy customers. Enterprise end market revenue increased 14% in O4 2018 compared to the prior year period, primarily driven by strong demand in our storage business. ATS segment revenue increased 11% in Q4 2018 compared to Q4 2017, driven by demand strength and new programs in our industrial business and revenue from our Atrenne acquisition, offset in part by weaker than expected demand in our capital equipment business. Gross profit increased \$18.4 million in Q4 2018 as compared to Q4 2017, and gross margin for O4 2018 increased to 6.9% of total revenue compared to 6.5% of total revenue for O4 2017. The increases in gross profit and gross margin were primarily due to higher revenue (primarily in our Enterprise end market and our ATS segment businesses other than capital equipment), changes in CCS program mix, including higher JDM revenues, offset in part by lower utilization and operating losses in our capital equipment business, particularly in our semiconductor business. CCS segment margin for Q4 2018 increased to 3.3% of segment revenue, compared to 2.2% for O4 2017. ATS segment margin decreased from 5.2% for O4 2017 to 3.7% for O4 2018, attributable primarily to the weaker than expected demand from our capital equipment business, resulting in operating losses in this business in Q4 2018 in the mid single-digit million dollar range. Net earnings for Q4 2018 of \$60.1 million were \$46.5 million higher compared to Q4 2017, primarily due to the Impakt Benefit in the fourth quarter of 2018. In addition, the improvement in gross profit was offset in part by \$8.5 million in higher SG&A, \$3.9 million in higher amortization of intangible asset charges (primarily due to our recent acquisitions), and \$6.6 million in higher finance costs in Q4 2018 as compared to Q4 2017.

#### Q4 2018 compared to the third quarter 2018 (Q3 2018):

Revenue for Q4 2018 increased 1% compared to Q3 2018. Compared to the previous quarter, CCS segment revenues were relatively flat, as demand strength from our Enterprise end market (including from JDM), was offset by revenue declines primarily from legacy customers in our Communications end market. ATS segment revenue increased 2% sequentially, as revenue from our recent acquisitions were offset, in part, by a sequential revenue decline in our capital equipment business, as weaker than expected demand resulted in lower utilization and losses for the quarter in this

business (discussed above), due to its high fixed cost infrastructure. Gross margin for Q4 2018 increased to 6.9% of total revenue compared to 6.6% of total revenue for Q3 2018. The increase in gross margin was due primarily to improvements in our CCS segment, reflecting favorable changes in customer and program mix, including higher levels of JDM business. CCS segment margin for Q4 2018 increased to 3.3% of segment revenue compared to 2.7% for Q3 2018, while ATS segment margin decreased from 4.6% in Q3 2018 to 3.7% for Q4 2018 (for the reasons discussed above). Net earnings for Q4 2018 of \$60.1 million were \$51.5 million higher compared to Q3 2018, primarily due to the Impakt Benefit.

### Selected fourth quarter 2018 IFRS results:

	Actual
IFRS revenue (in billions)	\$1.7
IFRS EPS (diluted)*	\$0.44
IFRS earnings before income taxes as a % of revenue	1.2%
IFRS SG&A (in millions)	\$59.6

<sup>\*</sup> IFRS EPS for the fourth quarter of 2018 of \$0.44 on a diluted basis included an aggregate charge of \$0.18 (pre-tax) per share for employee stock-based compensation expense, amortization of intangible assets (excluding computer software), Toronto transition costs (described below) and restructuring charges. This aggregate charge is within the range we provided on October 24, 2018 of an aggregate charge of between \$0.14 to \$0.20 per share for these items.

### Fourth quarter 2018 actual compared to guidance

1		
	Q4 2018	
	Guidance	Actual
IFRS revenue (in billions)	\$1.70 to \$1.80	\$1.7
Non-IFRS operating margin	3.5% at the mid-point of our revenue and non-IFRS adjusted EPS guidance ranges	3.5%
Non-IFRS adjusted SG&A (in millions)	\$49.0 to \$51.0	\$55.0
Non-IFRS adjusted EPS (diluted)	\$0.27 to \$0.33	\$0.29

For Q4 2018, our revenue was within our guidance range, but slightly below our guidance mid-point as lower than expected demand in our Communications end market and demand softness from our capital equipment business were partially offset by stronger than expected demand in our Enterprise end market. Non-IFRS operating margin for Q4 2018 met our guidance. Non-IFRS adjusted SG&A for Q4 2018 was higher than our guidance range primarily due to higher than expected variable expenses and SG&A costs incurred in connection with our Impakt acquisition. Our non-IFRS adjusted EPS results for Q4 2018 were within our guidance range.

Our guidance includes a range for adjusted EPS (which is a non-IFRS measure and is defined below). Management considers non-IFRS adjusted EPS to be an important measure for investors to understand our core operating performance. A reconciliation of non-IFRS adjusted net earnings to IFRS net earnings is set forth below.

#### Non-IFRS measures:

Management uses adjusted net earnings and the other non-IFRS measures described herein (i) to assess operating performance and the effective use and allocation of resources, (ii) to provide more meaningful period-to-period comparisons of operating results, (iii) to enhance investors' understanding of the core operating results of our business, and (iv) to set management incentive targets. We believe the non-IFRS measures we present herein are useful to investors, as they enable investors to evaluate and compare our results from operations in a more consistent manner (by excluding specific items that we do not consider to be reflective of our ongoing operating results), to evaluate cash resources that we generate each period, and to provide an analysis of operating results using the same measures our chief operating decision makers use to measure performance. In addition, management believes that the use of a non-IFRS adjusted tax expense and a non-IFRS adjusted effective tax rate provides improved insight into the tax effects of our ongoing business operations, and is useful to management and investors for historical comparisons and forecasting. These non-IFRS financial measures result largely from management's determination that the facts and circumstances surrounding the excluded charges or recoveries are not indicative of the ordinary course of the ongoing operation of our business.

We believe investors use both IFRS and non-IFRS measures to assess management's past, current and future decisions associated with our priorities and our allocation of capital, as well as to analyze how our business operates in, or responds to, swings in economic cycles or to other events that impact our core operations.

Non-IFRS measures do not have any standardized meaning prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. Non-IFRS measures are not measures of performance under IFRS and should not be considered in isolation or as a substitute for any standardized measure under IFRS. The most significant limitation to

management's use of non-IFRS financial measures is that the charges or credits excluded from the non-IFRS measures are nonetheless charges or credits that are recognized under IFRS and that have an economic impact on us. Management compensates for these limitations primarily by issuing IFRS results to show a complete picture of our performance, and reconciling non-IFRS results back to the most directly comparable IFRS results.

In addition to cash cycle days (including the components thereof) and inventory turns (each described under the caption "Other Performance Indicators" above), which have no defined meanings under IFRS, we use the following non-IFRS measures: adjusted gross profit, adjusted gross margin (adjusted gross profit as a percentage of revenue), adjusted SG&A, adjusted SG&A as a percentage of revenue, operating earnings (adjusted EBIAT), operating margin (operating earnings or adjusted EBIAT as a percentage of revenue), adjusted net earnings, adjusted EPS, adjusted ROIC, free cash flow, adjusted tax expense and adjusted effective tax rate. Adjusted EBIAT, adjusted ROIC, free cash flow, adjusted tax expense and adjusted effective tax rate are further described in the tables below. In calculating these non-IFRS financial measures, management excludes the following items, where applicable: employee stock-based compensation expense, amortization of intangible assets (excluding computer software), restructuring and other charges, net of recoveries (as defined below), impairment charges, other solar charges (as defined below), and acquisition inventory fair value adjustments, all net of the associated tax adjustments (which are set forth in the table below), and non-core tax impacts (tax adjustments related to acquisitions, and certain other tax costs or recoveries related to restructuring actions or restructured sites).

The economic substance of these exclusions and management's rationale for excluding them from non-IFRS financial measures is provided below:

Employee stock-based compensation expense, which represents the estimated fair value of stock options, RSUs and PSUs granted to employees, is excluded because grant activities vary significantly from quarter-to-quarter in both quantity and fair value. In addition, excluding this expense allows us to better compare core operating results with those of our competitors who also generally exclude employee stock-based compensation expense in assessing their operating performance, who may have different granting patterns and types of equity awards, and who may use different valuation assumptions than we do.

Amortization charges (excluding computer software) consist of non-cash charges against intangible assets that are impacted by the timing and magnitude of acquired businesses. Amortization of intangible assets varies among our competitors, and we believe that excluding these charges permits a better comparison of core operating results with those of our competitors who also generally exclude amortization charges in assessing operating performance.

Restructuring and other charges, net of recoveries, consist of costs relating to employee severance, lease terminations, site closings and consolidations, write-downs of owned property and equipment which are no longer used and are available for sale, reductions in infrastructure, Toronto transition costs (recoveries) (defined below), acquisition-related consulting, transaction and integration costs (Acquisition Costs), legal settlements (recoveries), and the accelerated amortization of \$1.2 million in unamortized deferred financing costs recorded on the extinguishment of our Prior Facility during the second quarter of 2018. We exclude these restructuring and other charges, net of recoveries, because we believe that they are not directly related to ongoing operating results and do not reflect expected future operating expenses after completion of these activities. We believe these exclusions permit a better comparison of our core operating results with those of our competitors who also generally exclude these charges, net of recoveries, in assessing operating performance.

Toronto transition costs (recoveries) are costs (recoveries) recorded in connection with the sale of our Toronto real property, the relocation of our Toronto manufacturing operations, the move of our corporate headquarters to a temporary location while space in a new office building for such headquarters at our current location is under construction, as well as the move to such new office space upon its completion. Toronto transition costs consist of

direct relocation costs, duplicate costs (such as rent expense, utility costs, depreciation charges, and personnel costs) incurred during the transition period, as well as cease-use costs incurred in connection with idle or vacated portions of the relevant premises that we would not have incurred but for these relocations. Toronto transition recoveries will consist of amounts received from the purchaser of the Toronto real property or gains we record in connection with its sale. We believe that excluding these costs and recoveries permits a better comparison of our core operating results from period-to-period, as these costs will not reflect our ongoing operations once these relocations are complete.

Impairment charges, which consist of non-cash charges against goodwill, intangible assets and property, plant and equipment, result primarily when the carrying value of these assets exceeds their recoverable amount. Our competitors may record impairment charges at different times, and we believe that excluding these charges permits a better comparison of our core operating results with those of our competitors who also generally exclude these charges in assessing operating performance.

Other solar charges, consisting of non-cash charges to further write-down the carrying value of our then-remaining solar panel inventory and the write-down of solar accounts receivable (A/R) (primarily as a result of a solar customer's bankruptcy) to

estimated recoverable amounts, were recorded in the second quarter of 2017 through cost of sales and SG&A expenses, respectively. These impairment charges, which were identified during the wind-down of our solar operations, were excluded as they pertained to a business we had exited, and therefore were no longer directly related to our ongoing core operating results. Although we recorded significant impairment charges to write down our solar panel inventory in the third quarter of 2016, those charges were not excluded in the determination of our non-IFRS financial measures for such period, as we were then still engaged in the solar panel manufacturing business. In connection with this wind-down, we also recorded net non-cash impairment charges to write down the carrying value of our solar panel manufacturing equipment held for sale to its estimated sales value less costs of disposal, which we recorded through other charges during 2017.

Acquisition inventory fair value adjustments relate to the write-up of the inventory acquired in connection with our acquisitions, representing the difference between the cost and fair value of such inventory. Acquired assets and liabilities are recorded on our balance sheet at their fair values as of the date of acquisition. Fair value adjustments are recognized through cost of sales in the period during which the acquired inventory is sold. We recognized the full \$1.6 million adjustment related to inventory acquired from Atrenne during the second quarter of 2018 (as all of the inventory was sold during that quarter), which negatively impacted our gross profit and net earnings for such period. No such adjustment was recorded with respect to inventory acquired from Impakt. We exclude the impact of the recognition of these adjustments, when incurred, because we believe such exclusion permits a better comparison of our core operating results from period-to-period, as their impact is not indicative of our ongoing operating performance.

Non-core tax impacts are excluded, as we believe that these costs or recoveries do not reflect core operating performance and vary significantly among those of our competitors who also generally exclude these charges or recoveries in assessing operating performance.

The following table sets forth, for the periods indicated, the various non-IFRS measures discussed above, and a reconciliation of non-IFRS measures to the most directly comparable IFRS measures, (in millions, except percentages and per share amounts). 2017 financial information has been restated to reflect our adoption, effective January 1, 2018, of IFRS 15.

	Three months ended December 31			Year ended December 31					
			2018		2017 (restated)		2018		
	(restated)	% of		% of	(restated)	% of		% of	
		revenue		revenue		revenue		revenue	
IFRS revenue	\$1,570.2		\$1,727.0		\$6,142.7		\$6,633.2		
IFRS gross profit	\$101.6	6.5%	\$120.0	6.9%	\$418.5	6.8%	\$430.5	6.5%	
Employee stock-based compensation expense Other solar charges (inventory	3.2		3.8		14.6		14.7		
write-down) Acquisition inventory fair value	_		_		0.9		_		
adjustment	_		_		_		1.6		
Non-IFRS adjusted gross profit	\$104.8	6.7%	\$123.8	7.2%	\$434.0	7.1%	\$446.8	6.7%	
IFRS SG&A Employee stock-based compensation	\$51.1	3.3%	\$59.6	3.5%	\$203.2	3.3%	\$219.0	3.3%	
expense	(4.2)		(4.6)		(15.5)		(18.7)		
Other solar charges (A/R write-down)					(0.5)		_		
Non-IFRS adjusted SG&A	\$46.9	3.0%	\$55.0	3.2%	\$187.2	3.0%	\$200.3	3.0%	
IFRS earnings before income taxes Finance costs	\$21.3 2.6	1.4%	\$20.1 9.2	1.2%	\$133.1 10.1	2.2%	\$81.9 24.4	1.2%	
Employee stock-based compensation expense	7.4		8.4		30.1		33.4		
Amortization of intangible assets (excluding computer software)	1.1		5.1		5.5		11.6		
Net restructuring, impairment and other charges (recoveries) (1)	17.5		16.9		37.0		61.0		
Other solar charges (inventory and A/R write-down)			_		1.4		_		
Acquisition inventory fair value adjustment	_		_		_		1.6		
Non-IFRS operating earnings (adjusted EBIAT) (1)	\$49.9	3.2%	\$59.7	3.5%	\$217.2	3.5%	\$213.9	3.2%	
IFRS net earnings	\$13.6	0.9%	\$60.1	3.5%	\$105.5	1.7%	\$98.9	1.5%	
Employee stock-based compensation expense	7.4		8.4		30.1		33.4		
Amortization of intangible assets (excluding computer software)	1.1		5.1		5.5		11.6		
Net restructuring, impairment and other charges (recoveries) (1)	17.5		16.9		37.0		61.0		
Other solar charges (inventory and A/R write-down)	_		_		1.4		_		
Acquisition inventory fair value adjustment	_		_		_		1.6		

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Adjustments for taxes (2) Non-IFRS adjusted net earnings	(0.5 \$39.1	)	(50.8 \$39.7	)	(6.5 \$173.0	)	(56.7 \$149.8	)
Diluted EPS								
Weighted average # of shares (in millions)	145.5		138.0		145.2		140.6	
IFRS earnings per share	\$0.09		\$0.44		\$0.73		\$0.70	
Non-IFRS adjusted earnings per share	\$0.27		\$0.29		\$1.19		\$1.07	
# of shares outstanding at period end (in millions)	<sup>1</sup> 141.8		136.3		141.8		136.3	
IFRS cash provided by (used in) operations	\$43.7		\$(1.9	)	\$127.0		\$33.1	
Purchase of property, plant and equipment, net of sales proceeds	(20.6	)	(18.8	)	(101.8	)	(78.5	)
Finance lease payments	(1.7	)	(0.9	)	(6.5	)	(17.0	)
Repayments from former solar supplier			_		12.5			
Finance costs paid	(2.6	)	(14.3	)	(10.2	)	(36.0	)
Non-IFRS free cash flow (3)	\$18.8		\$(35.9	)	\$21.0		\$(98.4	)
IFRS ROIC % (4) Non-IFRS Adjusted ROIC % (4)	7.0 16.4	% %	5.0 15.0	% %	11.5 18.8	% %	5.8 15.1	% %

<sup>(1)</sup> Management uses non-IFRS operating earnings (adjusted EBIAT) as a measure to assess performance related to our core operations. Non-IFRS adjusted EBIAT is defined as earnings before income taxes, finance costs (consisting of interest and fees related to our credit facility, our accounts receivable sales program, and the SFP), amortization of intangible assets (excluding computer software), and in applicable periods, employee stock-based compensation expense, net restructuring and other charges (recoveries) (consisting of restructuring charges (recoveries), Acquisition Costs, legal settlements (recoveries), Toronto transition costs (recoveries), and the accelerated amortization of unamortized deferred financing costs), impairment charges (recoveries), other solar charges, and acquisition inventory fair value adjustments. See "Operating Results -- Other charges" for separate quantification and discussion of impairment charges, and the components of net restructuring and other charges (recoveries).

<sup>(2)</sup> The adjustments for taxes, as applicable, represent the tax effects of our non-IFRS adjustments and non-core tax impacts (described below).

The following table sets forth a reconciliation of our IFRS tax expense and IFRS effective tax rate to our non-IFRS adjusted tax expense and our non-IFRS adjusted effective tax rate for the periods indicated, in each case determined by excluding the tax benefits or costs associated with the listed items (in millions, except percentages) from our IFRS tax expense for such periods:

	Three months ended				Year ended				
		nber 31		December 31					
	2017 t	Effectiv ax rate	e2018	Effective tax rate	$2017 \frac{1}{t}$	Effective tax rate	<sup>e</sup> 2018	Effect tax r	
	(restate	ed)			(restate	ed)			
IFRS tax expense and IFRS effective tax rate	\$7.7	36 %	\$(40.0	)(199)%	\$27.62	21 %	\$(17.0)	(21	)%
Tax costs (benefits) of the following items excluded									
from IFRS tax expense:									
Employee stock-based compensation expense	0.9		1.1		1.7		2.3		
Amortization of intangible assets (excluding computer software)	_				_		_		
Net restructuring, impairment and other charges	(0.4)		0.7		1.0		1.4		
Other solar charges (inventory and A/R write-down)					0.4		_		
Non-core tax impact related to fair value adjustment on acquisitions*	_		49.6		_		53.3		
Non-core tax impacts related to restructured sites**			(0.6	)	3.4		(0.3)	)	
Non-IFRS adjusted tax expense/Non-IFRS adjusted effective tax rate	\$8.2	17 %	\$10.8	21 %	\$34.1	16 %	\$39.7	21	%

<sup>\*</sup> Consists of deferred tax assets attributable to our acquisitions of Atrenne (recorded in the second quarter of 2018) and Impakt (recorded in the fourth quarter of 2018)

- (3) Management uses non-IFRS free cash flow as a measure, in addition to IFRS cash provided by (used in) operations, to assess our operational cash flow performance. We believe non-IFRS free cash flow provides another level of transparency to our liquidity. Non-IFRS free cash flow is defined as cash provided by (used in) operations after the purchase of property, plant and equipment (net of proceeds from the sale of certain surplus equipment and property), finance lease payments, repayments from a former solar supplier, and finance costs paid. As a measure of liquidity, and consistent with the inclusion of our Toronto relocation capital expenditures and transition costs in non-IFRS free cash flow in the periods incurred, we will include amounts we receive from the sale of our Toronto real property in non-IFRS free cash flow in the period of receipt. Note that non-IFRS free cash flow, however, does not represent residual cash flow available to Celestica for discretionary expenditures.
- (4) Management uses non-IFRS adjusted ROIC as a measure to assess the effectiveness of the invested capital we use to build products or provide services to our customers, by quantifying how well we generate earnings relative to the capital we have invested in our business. Our non-IFRS adjusted ROIC measure reflects non-IFRS operating earnings, working capital management and asset utilization. Non-IFRS adjusted ROIC is calculated by dividing non-IFRS adjusted EBIAT by average net invested capital. Net invested capital (calculated in the table below) consists of the following IFRS measures: total assets less cash, accounts payable, accrued and other current liabilities and provisions, and income taxes payable. We use a two-point average to calculate average net invested capital for the quarter and a five-point average to calculate average net invested capital for the year. A comparable measure under IFRS would be determined by dividing IFRS earnings before income taxes by net invested capital (which we have set forth in the charts above and below), however, this measure (which we have called IFRS ROIC), is not a measure defined under IFRS.

<sup>\*\*</sup> Includes the Solar Benefit recorded in the second quarter of 2017.

The following table sets forth, for the periods indicated, our calculation of IFRS ROIC % and non-IFRS adjusted ROIC % (in millions, except IFRS ROIC % and non-IFRS adjusted ROIC %). 2017 financial information has been restated to reflect our adoption, effective January 1, 2018, of IFRS 15.

		Three mon December		Year ended December 31			
		2017	2018	2017	2018		
IFRS earnings before income taxes		(restated) \$21.3 4	\$20.1 4	(restated) \$133.1	\$ 81.9 1		
Multiplier to annualize earnings Annualized IFRS earnings before income taxes		\$85.2	\$80.4	\$133.1	\$ 81.9		
Average net invested capital for the period		\$1,216.5	\$1,594.1	\$1,152.9	\$ 1,413.6		
IFRS ROIC % (1)		7.0 %	5.0 %	11.5 %	5.8 %		
		Three mon December 2017		Year ended December 2017			
Non IEDS operating comings (adjusted EDIAT)		(restated) \$49.9	\$59.7	(restated) \$217.2	\$ 213.9		
Non-IFRS operating earnings (adjusted EBIAT) Multiplier to annualize earnings		549.9 4	\$39.7 4	\$217.2 1	\$ 213.9 1		
Annualized non-IFRS adjusted EBIAT		\$199.6	\$238.8	\$217.2	\$ 213.9		
Average net invested capital for the period		\$1,216.5	\$1,594.1	\$1,152.9	\$ 1,413.6		
Non-IFRS adjusted ROIC % (1)		16.4 %	15.0 %	18.8 %	15.1 %		
	December 31 2017 (restated)	,March 31, 2018	June 30, 2018	September 2018	3December 31, 2018		
Net invested capital consists of: Total assets	\$ 2,964.2	\$2,976.0	\$3,212.2	\$3,316.1	\$ 3,737.7		
Less: cash	515.2	435.7	401.4	457.7	422.0		
Less: accounts payable, accrued and other current liabilities, provisions and income taxes payable	1,228.6	1,278.1	1,413.8	1,473.3	1,512.6		
Net invested capital at period end (1)	\$ 1,220.4	\$1,262.2	\$1,397.0	\$1,385.1	\$ 1,803.1		
	December 31 2016 (restated)	,March 31, 2017 (restated)	June 30, 2017 (restated)	September 2017 (restated)	3December 31, 2017 (restated)		
Net invested capital consists of: Total assets Less: cash	\$ 2,841.9 557.2	\$2,833.5 558.0	\$2,876.7 582.7	\$2,892.0 527.0	\$ 2,964.2 515.2		
Less: accounts payable, accrued and other current	1,189.7	1,165.2	1,167.9	1,152.4	1,228.6		
liabilities, provisions and income taxes payable Net invested capital at period end (1) (1) See footnote 4 of the previous table.	\$ 1,095.0	\$1,110.3	\$1,126.1	\$1,212.6	\$ 1,220.4		

Recently issued accounting pronouncements:

IFRS 16, Leases:

In January 2016, the IASB issued this standard, which brings most leases on-balance sheet for lessees under a single model, eliminating the distinction between operating and finance leases. IFRS 16 supersedes IAS 17, Leases, and related interpretations, and is effective for periods beginning on or after January 1, 2019. We adopted this standard effective January 1, 2019 applying the modified retrospective approach, whereby the cumulative effect of adopting IFRS 16 will be recognized as an adjustment to the opening retained deficit balance as of January 1, 2019, without restatement of prior period comparative information. We have implemented changes to our business processes, systems and controls to enable the preparation of our consolidated financial statements in accordance with IFRS 16. We will recognize new right-of-use assets and lease liabilities related to the majority of our operating leases on our consolidated balance sheet as of January 1, 2019 upon initial application of IFRS 16. The amortization of these assets will be recognized as a depreciation charge, and the interest expense on the lease liabilities will be recognized as finance costs in our consolidated statement of operations. Previously, we recognized operating lease expenses on a straight-line basis over the lease term generally in cost of sales or SG&A in our consolidated statement of operations. No significant changes are expected for our existing finance leases nor for any leases in which we are a lessor. Although we are completing our analysis of the impact of adopting IFRS 16, we anticipate that the initial application of the new standard will have a material impact on our consolidated financial statements, and we currently estimate that we will recognize right-of-use assets and lease liabilities on our consolidated financial statements of approximately \$113 million as of January 1, 2019. The opening retained deficit adjustment is not expected to be material.

Research and development, patents and licenses, etc.

The information required by this item is set forth above in Item 4(B) "Information on the Company — Business Overview — Research and Technology Development."

**Trend Information** 

The information required by this item is set forth above in "Overview," "Operating Results," and "Liquidity and Capital Resources," in Item 3(D) "Key Information — Risk Factors," and in Item 4(B) "Information on the Company — Business Overview."

Off-Balance Sheet Arrangements

Not applicable.

Item 6. Directors, Senior Management and Employees

# A. Directors and Senior Management

Each director of Celestica is elected by the shareholders to serve until the close of the next annual meeting of shareholders or until a successor is elected or appointed, unless such office is earlier vacated in accordance with the Corporation's by-laws. The following table sets forth certain information regarding the current directors and executive officers of Celestica as of February 13, 2019.

Name	A	ge Directo	Position with Celestica	Reside	ence	
William A. Etherington <sup>(1)</sup> 77 2001		2001	Chair of the Board O		Ontario, Canada	
Robert A. Cascella <sup>(2)</sup>	64	2019	Director	Florida, U.S.		
Deepak Chopra <sup>(3)</sup>	55	2018	Director	Ontario, Canada		
Daniel P. DiMaggio	68	2010	Director	Georgia, U.S.		
Laurette T. Koellner	64	2009	Director	Florida	a, U.S.	
Carol S. Perry	68		Director	Ontario, Canada		
Tawfiq Popatia	44		Director	Ontari	o, Canada	
Eamon J. Ryan	73	2008	Director	Ontari	o, Canada	
Michael M. Wilson	67	2011	Director	Albert	a, Canada	
Robert A. Mionis	55	2015	Director, President and Chief Executive Officer	New H	Iampshire, U.S.	
		Executive				
Name	_	Officer	Position with Celestica		Residence	
		Since				
1		2017	Chief Financial Officer		Ontario, Canada	
	49	2018	Chief Operations Officer		Connecticut, U.S.	
Elizabeth L. DelBianco	59	1998	Chief Legal and Administrative Officer and Corpo Secretary	rate	Ontario, Canada	
John ("Jack") J. Lawless	58	2015	President, ATS		Georgia, U.S.	
Jason Phillips <sup>(5)</sup>	44	2019	President, CCS		North Carolina, U.S.	
Michael P. McCaughey	56	2007	Advisor		Québec, Canada	
• •	46	2016	Chief Strategy Officer		Colorado, U.S.	

<sup>(1)</sup> Chair of the Board since April 2012.

<sup>(2)</sup> Director since February 1, 2019.

<sup>(3)</sup> Director since April 27, 2018.

<sup>(4)</sup> Executive Officer since January 4, 2018.

<sup>(5)</sup> Executive Officer since January 1, 2019.

The following is a brief biography of each of Celestica's directors, director nominees and executive officers: William A. Etherington. Mr. Etherington is a corporate director. In addition to being the Chair of the Board of Celestica, he is also a director of Onex\* (a public company). He is a former director and non-executive Chairman of the board of directors of the Canadian Imperial Bank of Commerce (a public company), and a former director of St. Michael's Hospital. In 2001, Mr. Etherington retired as Senior Vice President and Group Executive, Sales and Distribution, IBM Corporation (a public company), and as Chairman, President and Chief Executive Officer of IBM World Trade Corporation. He holds a Bachelor of Science degree in Electrical Engineering and a Doctor of Laws (Hon.) from Western University.

 $_*$ Onex holds an approximate 80% voting interest in Celestica. See "Controlling Shareholder Interest" under Item 4(B) above.

Robert A. Cascella. Mr. Cascella is currently an Executive Vice President and Executive Committee member of Royal Philips, a public Dutch multinational healthcare company. He is also the Chief Executive Officer (CEO) of their Diagnosis and Treatment businesses. He served as the President and CEO of Hologic, Inc., a public medical device and diagnostics company, from 2003 to 2013. He has also held senior leadership positions at CFG Capital, NeoVision Corporation and Fischer Imaging Corporation. Mr. Cascella served on Hologic, Inc.'s board of directors from 2008 to 2013. He also previously served on the board of Tegra Medical and acted as chair of the boards of Dysis Medical and Miranda Medical. He holds a Bachelor's degree in Accounting from Fairfield University.

Deepak Chopra. Mr. Chopra most recently served as President and Chief Executive Officer of Canada Post Corporation from February 2011 to March 2018. He has more than 30 years of global experience in the financial services, technology, logistics and supply-chain industries. Mr. Chopra worked for Pitney Bowes Inc., a NYSE-traded technology company known for postage meters, mail automation and location intelligence services, for more than 20 years. He served as President of Pitney Bowes Canada and Latin America from 2006 to 2010. He held a number of increasingly senior executive roles internationally, including President of its new Asia Pacific and Middle East region from 2001 to 2006 and Chief Financial Officer for the Europe, Africa and Middle East (EAME) region from 1998 to 2001. He has previously served on the boards of Canada Post Corporation, Purolator Inc., SCI Group, the Canada Post Community Foundation, the Toronto Region Board of Trade and the Conference Board of Canada. He currently sits on the board of The North West Company Inc., a TSX-traded retailer. Mr. Chopra is a Fellow of the Institute of Chartered Professional Accountants of Canada and has a Bachelor's degree in Commerce (Honours) and a Master's Degree in Business Management (PGDBM).

Daniel P. DiMaggio. Mr. DiMaggio is a corporate director. Prior to retiring in 2006, he spent 35 years with United Parcel Services (UPS) (a public company), most recently as Chief Executive Officer of the UPS Worldwide Logistics Group. Prior to leading UPS' Worldwide Logistics Group, Mr. DiMaggio held a number of positions at UPS with increasing responsibility, including leadership roles for the UPS International Marketing Group, as well as the Industrial Engineering function. In addition to his senior leadership roles at UPS, Mr. DiMaggio was a member of the board of directors of Greatwide Logistics Services, Inc.\* and CEVA Logistics (a public company). He holds a Bachelor of Science degree from the Lowell Technological Institute (now the University of Massachusetts Lowell).

\*Mr. DiMaggio was serving as a director of Greatwide Logistics Services, Inc., a privately held company, when that entity filed for bankruptcy in 2008.

Laurette T. Koellner. Ms. Koellner is a corporate director. She most recently served as Executive Chairman of International Lease Finance Corporation, an aircraft leasing subsidiary of American International Group, Inc. (AIG) from 2012 until its sale in 2014. Ms. Koellner retired as President of Boeing International, a division of The Boeing Company, in 2008. While at Boeing, she was a member of the Office of the Chairman and served as the Executive Vice President, Internal Services, Chief Human Resources and Administrative Officer, President of Shared Services, and Corporate Controller. Ms. Koellner currently serves on the board of directors of Papa John's International, Inc., The Goodyear Tire & Rubber Company, and Nucor Corporation, all public companies. Ms. Koellner previously served on the board of directors and was the Chair of the Audit Committee of Hillshire Brands Company (a public company, formerly Sara Lee Corporation and now merged with Tyson Foods, Inc.), and on the board of directors of AIG (a public company). She holds a Bachelor of Science degree in Business Management from the University of Central Florida and a Master of Business Administration from Stetson University, as well as a Certified Professional

Contracts Manager designation from the National Contracts Management Association.

Carol S. Perry. Ms. Perry is a corporate director. She is Chair of the Independent Review Committee of the mutual funds managed by 1832 Asset Management L.P., a mutual fund manager and wholly-owned affiliate of The Bank of Nova Scotia. She also serves as Chair of the Independent Review Committees of investment funds managed by Jarislowsky Fraser Limited and MD Financial Management Inc., which are subsidiaries of The Bank of Nova Scotia. Previously, she was a Commissioner of the Ontario Securities Commission, and has served on adjudicative panels and acted as a director and Chair of its Governance and Nominating Committee. With over 20 years of experience in the investment industry as an investment banker, Ms. Perry held senior positions with leading financial services companies including RBC Capital Markets, Richardson Greenshields of Canada Limited and CIBC World Markets and later founded MaxxCap Corporate Finance Inc., a financial advisory firm. She is a former director of Softchoice Corporation, Atomic Energy of Canada Limited and DALSA Corporation. Ms. Perry has a Bachelor of Engineering Science (Electrical) degree from the University of Western Ontario and a Master of Business Administration degree from the University of Toronto. She also holds the professional designation ICD.D from the Institute of Corporate Directors.

Tawfiq Popatia. Mr. Popatia has been a Managing Director of Onex\* since 2014 and leads its efforts in automation, aerospace and other transportation-focused industries, having joined the firm in 2007. Prior to joining Onex, Mr. Popatia worked at the private equity firm of Hellman & Friedman LLC and in the Investment Banking Division of Morgan Stanley & Co. Mr. Popatia currently serves on the boards of Advanced Integration Technology, an aerospace automation company, and BBAM, a provider of commercial jet aircraft leasing, financing and management. He previously served on the board of Spirit Aerosystems (a public company), and is a former Employer Trustee of the International Association of Machinists National Pension Fund. Mr. Popatia holds a Bachelor of Science degree in Microbiology and a Bachelor of Commerce degree in Finance from the University of British Columbia.

\*\*Onex holds an approximate 80% voting interest in Celestica. See "Controlling Shareholder Interest" under

Eamon J. Ryan. Mr. Ryan is a corporate director. He is the former Vice President and General Manager, Europe, Middle East and Africa for Lexmark International Inc. (a public company). Prior to that, he was the Vice President and General Manager, Printing Services and Solutions Manager, Europe, Middle East and Africa. Mr. Ryan joined Lexmark International Inc. in 1991 as the President of Lexmark Canada. Prior to that, he spent 22 years at IBM Canada, where he held a number of sales and marketing roles in its Office Products and Large Systems divisions. Mr. Ryan's last role at IBM Canada was Director of Operations for its Public Sector, a role he held from 1986 to 1990. He holds a Bachelor of Arts degree from the University of Western Ontario.

Item 4(B) above.

Michael M. Wilson. Mr. Wilson is a corporate director. Until his retirement in December 2013, he was the President and Chief Executive Officer, and a director, of Agrium Inc. (a public agricultural crop inputs company that has subsequently merged with Potash Corporation of Saskatchewan Inc. to form Nutrien Ltd.), and has over 30 years of international and executive management experience. Prior to joining Agrium Inc., Mr. Wilson served as President of Methanex Corporation (a public company), and held various senior positions in North America and Asia during his 18 years with The Dow Chemical Company (a public company). Mr. Wilson also currently serves on the board of directors of Air Canada and Suncor Energy Inc., and previously served on the board of directors of Finning International Inc. (each a public company), and was also the past Chair of the Calgary Prostate Cancer Centre. He holds a degree in Chemical Engineering from the University of Waterloo.

Robert A. Mionis. Mr. Mionis has been President and Chief Executive Officer of the Corporation since August 1, 2015. From July 2013 until August 2015, he was an Operating Partner at Pamplona Capital Management (Pamplona), a global private equity firm focused on companies in the industrial, aerospace, healthcare and automotive segments. Before joining Pamplona, Mr. Mionis spent over six years as the President and CEO of StandardAero, a global aerospace maintenance, repair and overhaul company. Before StandardAero, Mr. Mionis held senior leadership roles at Honeywell, most recently as the head of the Integrated Supply Chain Organization for Honeywell Aerospace. Prior to Honeywell, Mr. Mionis held a variety of progressively senior leadership roles with General Electric (GE) and Axcelis Technologies (each a public company) and AlliedSignal. Mr. Mionis has been serving on the board of directors of Shawcor Ltd., a TSX-listed energy company, since 2018. He holds a Bachelor of Science in Electrical Engineering from the University of Massachusetts.

Mandeep Chawla. Mr. Chawla has been Chief Financial Officer of the Corporation since October 2017. As Chief Financial Officer, Mr. Chawla is responsible for overseeing Celestica's financial strategy, as well as its accounting, financial and investor relations functions. Mr. Chawla joined Celestica in 2010 and has held a variety of roles, including most recently Senior Vice President, Finance and Interim Chief Financial Officer. Prior to joining Celestica, he held financial management roles with MDS Inc., Tyco International, and General Electric. Mr. Chawla holds a Master of Finance degree from Queen's University and a Bachelor of Commerce degree from McMaster University. He holds a CPA, CMA of Ontario, Canada designation.

Todd C. Cooper. Mr. Cooper joined Celestica as Chief Operations Officer in 2018 with over 25 years of experience in operations leadership and advisory roles. Prior to joining Celestica, Mr. Cooper led Supply Chain, Procurement, Logistics, and Sustainability value creation efforts across the portfolio companies of KKR, a leading global investment firm, from 2008 to 2018. Prior to that, he was the Vice President of Global Sourcing in Honeywell's Aerospace Division from 2005 to 2008. Before Honeywell, Mr. Cooper held various management roles at Storage Technology Corporation, McKinsey & Company, and served as a Captain in the U.S. Army.

Elizabeth L. DelBianco. Ms. DelBianco is Chief Legal and Administrative Officer and Corporate Secretary. In this role, she oversees legal, contracts, brand and communications, human resources and sustainability. Ms. DelBianco joined Celestica in 1998 and since that time has been responsible for managing legal, governance, and compliance matters for Celestica on a global basis. Prior to joining Celestica, Ms. DelBianco was a senior corporate legal advisor in the telecommunications industry. She holds a Bachelor of Arts degree from the University of Toronto, a Bachelor of Laws degree from Queen's University, and a Master of Business Administration degree from Western University. She is admitted to practice in Ontario and New York.

John ("Jack") J. Lawless. Mr. Lawless is President, ATS. In this role, he is responsible for the strategy and execution of Celestica's aerospace and defense, industrial, healthtech, smart energy, and capital equipment businesses. He has served in this role since joining Celestica in October 2015; however, his title changed in October 2016 from Executive Vice President, Diversified Markets in order to reflect organizational developments made to better align with the Corporation's business strategy and operational model. From 2009 to 2014, Mr. Lawless was the CEO of Associated Air Center, a subsidiary of StandardAero, one of the world's largest independent global aerospace maintenance, repair and overhaul companies. He also held the role of Chief Operating Officer of StandardAero, where he was responsible for operations, supply chain, quality, IT, and engineering. Prior to StandardAero, Mr. Lawless held a number of Vice President-level roles with Honeywell. Before joining Honeywell, he held progressively senior positions with Axcelis Technologies, General Cable and AlliedSignal.

Jason Phillips. Mr. Phillips was appointed President, CCS, effective January 1, 2019. In this role, he is responsible for the Corporation's enterprise and communications businesses and customers. From 2014 to 2018, he served as Senior Vice President for the Corporation's enterprise and cloud solutions businesses, where he was central to building the Corporation's JDM business. From 2008 to 2014, he held various positions within the Corporation's enterprise and communications business. Prior to joining Celestica, Mr. Phillips held various leadership roles with global EMS companies. He holds a BSBA from the University of North Carolina at Chapel Hill - Kenan-Flagler Business School. Michael P. McCaughey. Mr. McCaughey became an Advisor to the Corporation, effective January 1, 2019. In this role, he provides strategic advice to the Corporation and transitional support. From 2012 through 2018, he served as President, CCS and was responsible for strategic direction of the Corporation's enterprise and communications businesses, including its managed services businesses. From 2005 to 2012, he held senior positions within the Corporation's enterprise and communications businesses. Prior to joining Celestica in 2005, Mr. McCaughey held the role of Senior Vice President, Wireline Network Systems, at Sanmina-SCI. Before joining Sanmina-SCI, Mr. McCaughey held senior roles at Hyperchip Inc. and SCI Systems (prior to that company's merger with Sanmina). He holds a DEC in Electrotechnology from Vanier College and studied Electrical Engineering at McGill University. Nicolas Pujet. Mr. Pujet has been Chief Strategy Officer since July 2016. In this role, he leads Celestica's strategy and corporate development including the design and development of the Company's vision, strategic framework and planning activities in support of the Company's business objectives, as well as mergers and acquisitions. Prior to joining Celestica, Mr. Pujet spent more than 16 years in various strategic and leadership roles. From 2003 to 2016, he served in various strategy positions at Level 3 Communications. Most recently, he was the Senior Vice President, Corporate Strategy and was responsible for that company's strategic outlook and strategic planning and analyses worldwide. From 1999 to 2003, Mr. Pujet served as a management consultant with McKinsey & Company, a global management consulting firm. He holds a Ph.D. in Aeronautics and Astronautics from MIT. There are no family relationships among any of the foregoing persons, and there are no arrangements or

There are no family relationships among any of the foregoing persons, and there are no arrangements or understandings with any person pursuant to which any of our directors or executive officers were selected. None of the directors of the Corporation during 2018, or current directors or nominees serve together as directors of other corporations.

The following table identifies the functional competencies, expertise and qualifications of the Corporation's current directors and nominees pursuant to a skills matrix developed by the Nominating and Governance Committee to identify functional competencies, expertise and qualifications that our Board would ideally possess:

### B. Compensation

**Director Compensation** 

Director compensation is set by the Board on the recommendation of the Compensation Committee and in accordance with director compensation guidelines and principles established by the Nominating and Corporate Governance Committee. Under these guidelines and principles, the Board seeks to maintain director compensation at a level that is competitive with director compensation at comparable companies, and requires a substantial portion of such compensation to be taken in the form of DSUs. The director fee structure for 2018 is set forth in Table 1 below.

Table 1: Directors' Fee<sup>(1)</sup>

Director Fee Structure Element

for 2018<sup>(2)</sup>

\$360,000 – Board Chair Annual Board Retainer(3) \$235,000 – Directors

Travel Fees<sup>(4)</sup> \$2.500 Annual Retainer for the Audit Committee Chair \$20,000 Annual Retainer for the Compensation \$15,000

Committee Chair

Annual Retainer for the Nominating and

Corporate Governance Committee Chair<sup>(5)</sup>

Directors must elect to be paid either 100% or 75% of their

aggregate annual retainers (including committee Chair retainers) and

travel fees in the form of DSUs

Does not include Mr. Mionis, President and Chief Executive Officer ("CEO") of the Corporation, whose

(1) compensation is set out in Table 15. Does not include fees payable to Onex for the service of Mr. Popatia as a director, which is described in footnote 7 to Table 2.

Directors may also receive further retainers and meeting fees for participation on ad hoc committees. No fees were

- paid for participation on the Director Search Committee (an ad hoc committee formed to identify potential new directors) during 2018. The Board has the discretion to grant supplemental equity awards to individual directors as deemed appropriate (no such discretion was exercised in 2018).
- (3) Paid on a quarterly basis.

DSU Election(6)

- (4) The travel fee is available only to directors who travel outside of their home state or province to attend a Board or Committee meeting.
- (5) The Chair of the Board also served as the Chair of the Nominating and Corporate Governance Committee in 2018, for which no additional fee was paid.

Credited on a quarterly basis. The number of DSUs granted are calculated by dividing the notional cash amount for (6) the quarter by the closing price of SVS on the NYSE on the last business day of such quarter. If no election is made, 100% of a director's aggregate annual retainer and travel fees will be paid in DSUs.

Subject to the terms of the Directors' Share Compensation Plan, each DSU represents the right to receive one SVS or an equivalent value in cash (at the Corporation's discretion) when the director (a) ceases to be a director of the Corporation and (b) is not an employee of the Corporation or a director or employee of any corporation that does not deal at arm's length with the Corporation (collectively, "Retires"). The date used in valuing the DSUs for settlement is the date that is 45 days following the date on which the director Retires, or as soon as practicable thereafter. DSUs are redeemed and payable on or prior to the 90th day following the date on which the director Retires. The number of DSUs granted is calculated by dividing the fee that would otherwise be payable by the closing price of SVS on the NYSE on the last business day of the quarter.

As part of the Compensation Committee's 2018 competitive review of director compensation (the "2018 Review"), the Compensation Committee engaged Willis Towers Watson (the "Compensation Consultant") to provide market information on director compensation policies and practices. The 2018 Review included a review of the mix of the elements of director compensation. As a result of the 2018 Review, amendments to director compensation and related

changes to the Directors' Share Compensation Plan were approved effective January 1, 2019 by the Compensation Committee and the Board. Specifically, directors who are paid for their service on the Board were previously required to elect to receive either 75% or 100% of their annual board fees, committee chair retainer fees and travel fees (collectively, "Annual Fees") in DSUs. Effective January 1, 2019, each such director may elect to receive 0%, 25% or 50% of their Annual Fees in cash, with the balance in DSUs, until such director has

satisfied the requirements of the Director Share Ownership Guidelines described (and defined) under Director Share Ownership Guidelines below. Once a director has satisfied the requirements of the Director Share Ownership Guidelines, the director may then elect to receive 0%, 25% or 50% of their Annual Fees in cash, with the balance in either DSUs or RSUs. If a director does not make an election, 100% of such director's Annual Fees will be paid in DSUs.

2019 Director Elections

Prior to Satisfaction of Director Share 
Ownership Guidelines 
Option 1 
Option 2 
Option 1 
Option 2 
Option 1 
Option 2 
Option 1 
Option 2 
Option 3 
Option 3 
Option 5 
Option 5 
Option 6 
Option 7 
Option 7 
Option 8 
Option 9 
Option 9 
Option 1 
Option 9 
Option 1 
Option 2 
Option 1 
Option 2 
Option 3 
Option 1 
Option 2 
Option 3 
Option 5 
Option 6 
Option 7 
Option 7 
Option 8 
Option 8 
Option 8 
Option 9 
Option 9

RSUs granted to directors will be governed by the terms of the Corporation's Long-Term Incentive Plan ("LTIP"). Grants of RSUs will be credited quarterly in arrears. The number of RSUs to be granted to a director will be determined by multiplying the amount of such director's Annual Fees for the quarter by the percentage of the Annual Fees that the director elected to receive in the form of RSUs and dividing the product by the closing price of the SVS on the NYSE on the last business day of the quarter. Each quarterly grant of RSUs will vest in installments of one-third per year on the first, second and third anniversary dates of the grant. Each vested RSU will entitle the holder thereof to one SVS. Unvested RSUs will vest immediately on the date that the director Retires. These changes were made in order to provide additional payment options for directors who have already met or exceeded the requirements of the Director Share Ownership Guidelines and to provide an option for greater liquidity to our long-serving Board members. See Directors' Ownership of Securities – Director Share Ownership Guidelines. Directors' Fees Earned in 2018

All compensation paid in 2018 by the Corporation to its directors is set out in Table 2, except for the compensation of Mr. Mionis, President and CEO of the Corporation, which is set out in Table 15, and Mr. Cascella, who was appointed to the Board effective February 1, 2019. In 2018, the Board (excluding Mr. Popatia – see footnote 7 to Table 2) earned total Annual Fees in the amount of \$1,776,250, including total grants of DSUs in the amount of \$1,542,187. Table 2: Director Fees Earned in Respect of 2018

	Annual Fees I	Allocation of Annual Fees <sup>(1)</sup>			
Name	Annual Board Retainer	Annual Committee Chair Retainer		Total Fees	DSUs <sup>(2)</sup> Cash <sup>(3)</sup>
Deepak Chopra <sup>(4)</sup>	\$176,250	_	_	\$176,250	\$132,187\$44,063
Daniel P. DiMaggio	\$235,000	_	\$10,000	\$245,000	\$183,750\$61,250
William A. Etherington <sup>(5)</sup>	\$360,000	_	_	\$360,000	\$360,000-
Laurette T. Koellner	\$235,000	\$20,000(6)	\$10,000	\$265,000	\$198,750\$66,250
Carol S. Perry	\$235,000	_	_	\$235,000	\$235,000-
Tawfiq Popatia <sup>(7)</sup>	_	_	_	_	
Eamon J. Ryan	\$235,000	\$15,000(8)	_	\$250,000	\$187,500\$62,500
Michael M. Wilson	\$235,000	_	\$10,000	\$245,000	\$245,000-

Directors were required to elect to receive either 75% or 100% of their 2018 Annual Fees (set forth in the "Total Fees" column above) in DSUs (i.e., at least 75% of such fees were payable in DSUs in 2018). The Annual Fees received by directors in DSUs for 2018 were credited quarterly, and the number of DSUs granted in respect of the amounts credited quarterly was determined using the closing price of the SVS on the NYSE on the last business day of each quarter, which was \$10.35 on March 29, 2018, \$11.87 on June 29, 2018, \$10.83 on September 28, 2018 and \$8.77 on December 31, 2018.

Amounts in this column for each of Messrs. Chopra, DiMaggio and Ryan and Ms. Koellner (who elected to receive 75% of their 2018 Annual Fees in DSUs), represent the grant date fair value of DSUs issued in respect of 75% of their 2018 Annual Fees. Amounts in this column for each of Messrs. Etherington and Wilson and Ms. Perry (who

- (2) their 2018 Annual Fees. Amounts in this column for each of Messrs. Etherington and Wilson and Ms. Perry (who elected to receive 100% of their Annual Fees paid in DSUs), represent the grant date fair value of DSUs issued in respect of 100% of their 2018 Annual Fees. The grant date fair value of the grants is the same as their accounting value.
- (3) Amounts in this column for Messrs. Chopra, DiMaggio and Ryan and Ms. Koellner represent the portion of their 2018 Annual Fees (25%), which they elected to have paid in cash.

- (4)Mr. Chopra was elected to the Board of Directors effective April 27, 2018.
  - During 2018, Mr. Etherington was the Chair of the Board and the Chair of the Nominating and Corporate
- (5) Governance Committee. Mr. Etherington received an annual Board Chair retainer fee in the amount of \$360,000. He did not receive a committee chair annual retainer in his capacity as Chair of the Nominating and Corporate Governance Committee.
- (6) Represents the annual retainer for the Chair of the Audit Committee.
  - Mr. Popatia is an officer of Onex and did not receive any compensation in his capacity as a director of the Corporation in 2018; however, Onex received compensation for providing the services of Mr. Popatia as a director in 2018 pursuant to a Services Agreement between the Corporation and Onex, entered into on January 1, 2009 (as amended January 1, 2017, the "Services Agreement"). The Services Agreement automatically renews for successive one year terms unless the Corporation or Onex provide notice of intent not to renew. The Services Agreement
- (7) terminates automatically and the rights of Onex to receive compensation (other than accrued and unpaid compensation) will terminate (a) 30 days after the first day on which Onex ceases to hold at least one MVS of Celestica or any successor company or (b) the date Mr. Popatia ceases to be a director of Celestica, for any reason. Onex receives compensation under the Services Agreement in an amount equal to \$235,000 per year (consistent with current annual Board retainer fees), payable in DSUs in equal quarterly installments in arrears. The number of DSUs is determined using the closing price of the SVS on the NYSE on the last day of the fiscal quarter in respect of which the installment is to be credited.
- (8) Represents the annual retainer for the Chair of the Compensation Committee.

Directors' Ownership of Securities

Outstanding Share Based Awards

Information concerning all outstanding share based awards as of December 31, 2018 made by the Corporation to each director proposed for election at the Meeting (other than Mr. Mionis, whose information is set out in Table 16, and Mr. Cascella, who was appointed to the Board effective February 1, 2019), including awards granted prior to 2018, is set out in Table 3. Such awards consist solely of DSUs. DSUs that were granted prior to January 1, 2007 may be settled in the form of SVS issued from treasury, SVS purchased in the open market, or an equivalent value in cash (at the discretion of the Corporation). DSUs granted after January 1, 2007 may only be settled in SVS purchased in the open market or an equivalent value in cash (at the discretion of the Corporation). In 2005, the Corporation amended the LTIP to prohibit grants to directors of options to acquire SVS. There are no options granted to directors (or former directors) prior to the foregoing amendment that remain outstanding.

Table 3: Outstanding Share Based Awards

	Number of	Market Value of
Name	Outstanding DSUs <sup>(1)</sup>	Outstanding DSUs <sup>(2)</sup>
	(#)	(\$)
Deepak Chopra <sup>(3)</sup>	12,804	\$112,291
Daniel P. DiMaggio	186,932	\$1,639,394
William A. Etherington	419,552	\$3,679,471
Laurette T. Koellner	212,688	\$1,865,274
Carol S. Perry	123,702	\$1,084,867
Tawfiq Popatia <sup>(4)</sup>	_	_
Eamon J. Ryan	262,768	\$2,304,475
Michael M. Wilson	190,013	\$1,666,414

- (1) Represents all outstanding DSUs, including the regular quarterly grant of DSUs issued on January 1, 2019 in respect of the fourth quarter of 2018.
- (2) The market value of DSUs was determined using a share price of \$8.77, which was the closing price of the SVS on the NYSE on December 31, 2018.
- (3)Mr. Chopra was elected to the Board of Directors effective April 27, 2018.

(4)

Mr. Popatia had no share-based awards from the Corporation outstanding as of December 31, 2018; however 219,139 DSUs have been issued to Onex (and are outstanding) pursuant to the Services Agreement since its inception, including 22,749 DSUs issued to Onex for the services of Mr. Popatia as a director of the Corporation in 2018. For further information see footnote 7 to Table 2.

### Changes in Directors' Equity Interest

The following table sets out, for each director proposed for election at the Meeting (other than Mr. Mionis, whose information is set out in Table 16), such director's direct or indirect beneficial ownership of, or control or direction over, shares and share-based awards in the Corporation as of February 13, 2019, and any changes therein since February 14, 2018, the date of disclosure in the Corporation's 2017 Annual Report on Form 20-F (the "2017 Annual Report").

Table 4: Changes in Directors' Equity Interest<sup>1)</sup>

Name	Date	SVS	Share-Based Awards (DSUs)	Total
Name	Date	(#)	(#)	(#)
	Feb. 14, 2018	_	N/A	_
Robert A. Cascella <sup>(2)</sup>	Feb. 13, 2019	_	N/A	_
	Change	_	N/A	_
	Feb. 14, 2018	_	_	_
Deepak Chopra <sup>(2)</sup>	Feb. 13, 2019	_	12,804	12,804
	Change	_	12,804	12,804
	Feb. 14, 2018	_	169,144	169,144
Daniel P. DiMaggio	Feb. 13, 2019	_	186,932	186,932
	Change	_	17,788	17,788
	Feb. 14, 2018	10,000	384,702	394,702
William A. Etherington <sup>(3)</sup>	Feb. 13, 2019	10,000	1419,552	429,552
	Change	_	34,850	34,850
	Feb. 14, 2018	_	193,448	193,448
Laurette T. Koellner	Feb. 13, 2019	_	212,688	212,688
	Change	_	19,240	19,240
	Feb. 14, 2018	_	100,953	100,953
Carol S. Perry	Feb. 13, 2019	_	123,702	123,702
	Change	_	22,749	22,749
	Feb. 14, 2018	_	_	_
Tawfiq Popatia <sup>(3)(4)</sup>	Feb. 13, 2019	_	_	_
	Change	_	_	_
	Feb. 14, 2018	_	244,617	244,617
Eamon J. Ryan	Feb. 13, 2019	_	262,768	262,768
-	Change	_	18,151	18,151
	Feb. 14, 2018	_	166,296	166,296
Michael M. Wilson	Feb. 13, 2019	_	190,013	190,013
	Change	_	23,717	23,717

<sup>(1)</sup> Information as to SVS beneficially owned, or controlled or directed, directly or indirectly, is not within the Corporation's knowledge and therefore has been provided by each individual set forth in the table.

**Director Share Ownership Guidelines** 

<sup>(2)</sup> Mr. Cascella was appointed to the Board of Directors effective February 1, 2019. Mr. Chopra was elected to the Board of Directors effective April 27, 2018.

As of February 13, 2019, Mr. Etherington also owned 10,000 subordinate voting shares of Onex and Mr. Popatia (3) owned 8,894 subordinate voting shares of Onex. Other than Messrs. Etherington and Popatia, no director of the Corporation during 2018 owned, and no current director nominee owns, shares of Onex.

<sup>22,749</sup> DSUs were issued to Onex for the services of Mr. Popatia as a director of the Corporation in 2018. 219,139

DSUs have been issued to Onex (and are outstanding) pursuant to the Services Agreement since its inception.

Onex's beneficial ownership of securities of the Corporation (which does not include DSUs) is set forth in footnote 2 to the Major Shareholder's Table in Item 7(A).

The Corporation has minimum shareholding requirements (the "Director Share Ownership Guidelines") for directors who are not employees or officers of the Corporation or Onex (see Executive Share Ownership for share ownership guidelines applicable to Mr. Mionis in his role as President and CEO of the Corporation). Subject to the amendment described below, the Director Share Ownership Guidelines require that a director hold SVS and/or DSUs with an aggregate value equal to 150% of the annual retainer and that the Chair of the Board hold SVS and/or DSUs with an aggregate value equal to 187.5% of the annual retainer. Directors have five years from January 1, 2016 or from the time of their appointment to the Board, as applicable, to comply with the Director Share Ownership Guidelines. Effective January 1, 2019, directors may elect to receive 0%, 25% or 50% of their Annual Fees in

cash, with the balance in DSUs, until the director has satisfied the requirements of the Director Share Ownership Guidelines. Once a director has satisfied the requirements of the Director Share Ownership Guidelines, the director may then elect to receive the non-cash portion of their Annual Fees in either DSUs or RSUs. See Director Compensation above. As a result, the Director Share Ownership Guidelines were amended effective January 1, 2019 to include the value of any unvested RSUs held by a director in determining whether such director has maintained compliance with such guidelines after initial satisfaction. Although directors subject to the Director Share Ownership Guidelines will not be deemed to have breached such Guidelines by reason of a decrease in the market value of the Corporation's securities, such directors are required to purchase further securities within a reasonable period of time after such occurrence to comply with the Director Share Ownership Guidelines. Each director's holdings of securities are reviewed annually as of December 31. The following table sets out, for each applicable director proposed for election at the Meeting, whether such director was in compliance with the Director Share Ownership Guidelines as of December 31, 2018.

Table 5: Shareholding Requirements

_	Shareholding Requirements						
Director <sup>(1)</sup>	Target Value as of	Value as of	Met Target as of				
	December 31, 2018	December 31, 2018 (2)	December 31, 2018				
Deepak Chopra <sup>(3)</sup>	\$352,500	\$112,291	Not yet applicable				
Daniel P. DiMaggio	\$352,500	\$1,639,394	Yes				
William A. Etherington	\$675,000	\$3,679,471	Yes				
Laurette T. Koellner	\$352,500	\$1,865,274	Yes				
Carol S. Perry	\$352,500	\$1,084,867	Yes				
Eamon J. Ryan	\$352,500	\$2,304,475	Yes				
Michael M. Wilson	\$352,500	\$1,666,414	Yes				

As President and CEO of the Corporation, Mr. Mionis is subject to the Executive Share Ownership Guidelines. As an officer of Onex, Mr. Popatia is not subject to the Director Share Ownership Guidelines. Mr. Cascella will be required to comply with the Director Share Ownership Guidelines within five years of his appointment to the Board.

Attendance of Directors at Board and Committee Meetings

The following table sets forth the attendance of directors at Board meetings and at meetings of those standing committees of which they are members, from January 1, 2018 to February 13, 2019. All then-members of the Board attended the Corporation's last annual meeting of shareholders.

Table 6: Directors' Attendance at Board and Committee Meetings

					Meen	ngs
					Atten	ded %
Director	Board	Audit C	ompensation	Nominating and Corporate Governance	Board	Committee
Robert A. Cascella <sup>(1)</sup>	_	1 of 1 –		_	_	100%
Deepak Chopra <sup>(1)</sup>	5 of 5	4 of 4 4	of 4	2 of 2	100%	100%
Daniel P. DiMaggio	10 of 10	$6 \ of \ 7 \ 6$	of 6	4 of 4	100%	94%
William A. Etherington	10 of 10	7 of 7 6	of 6	4 of 4	100%	100%
Laurette T. Koellner	10 of 10	7 of 7 6	of 6	4 of 4	100%	100%
Robert A. Mionis	10 of 10			_	100%	_
Carol S. Perry	10 of 10	7 of 7 6	of 6	4 of 4	100%	100%
Tawfiq Popatia	10 of 10			_	100%	_
Eamon J. Ryan	10 of 10	7 of 7 6	of 6	4 of 4	100%	100%

Maatingo

<sup>(2) \$8.77,</sup> which was the closing price of the SVS on the NYSE on December 31, 2018.

<sup>(3)</sup> Mr. Chopra was elected to the Board of Directors effective April 27, 2018 and he is required to comply with the Director Share Ownership Guidelines within five years of his election.

Michael M. Wilson 10 of 10 6 of 7 6 of 6 4 of 4 100% 94%

Mr. Cascella was appointed to the Board of Directors effective February 1, 2019. Mr. Chopra was elected to the Board of Directors effective April 27, 2018.

### COMPENSATION DISCUSSION AND ANALYSIS

This Compensation Discussion and Analysis sets out the policies of the Corporation for determining compensation paid to the Corporation's CEO, its Chief Financial Officer ("CFO"), and the three other most highly compensated executive officers (collectively, the "Named Executive Officers" or "NEOs"). The NEOs who are the subject of this Compensation Discussion and Analysis are:

- Robert A. Mionis President and CEO;
- Mandeep Chawla CFO;

Michael P. McCaughey – President, CCS (effective January 1, 2019, Mr. McCaughey's title was changed to Advisor); John "Jack" J. Lawless – President, ATS; and

• Todd C. Cooper – Chief Operations Officer.

A description and explanation of the significant elements of compensation awarded to the foregoing NEOs during 2018 is set out in the section Compensation Discussion and Analysis – 2018 Compensation Decisions. Note Regarding Non-IFRS Measures

This Compensation Discussion and Analysis contains references to operating margin, adjusted return on invested capital ("adjusted ROIC"), and adjusted earnings per share ("EPS"), each of which are non-International Financial Reporting Standards ("IFRS") measures. With respect to all references to these measures, please note the following: Non-IFRS operating margin is defined as non-IFRS operating earnings divided by revenue. Non-IFRS operating earnings is defined as earnings before income taxes, finance costs (consisting of interest and fees relating to the Corporation's credit facility, accounts receivable sales program and a customer's supplier financing program), amortization of intangible assets (excluding computer software), and in applicable periods, employee stock based compensation expense, net restructuring and other charges (recoveries) (consisting of restructuring charges (recoveries), acquisition-related consulting, transaction, and integration costs, legal settlements (recoveries), Toronto transition costs (recoveries), and the accelerated amortization of unamortized deferred financing costs), impairment charges (recoveries), charges relating to the Corporation's solar panel manufacturing business ("Solar Charges") and acquisition inventory fair value adjustments ("FVAs").

Adjusted ROIC is determined by dividing non-IFRS operating earnings by average net invested capital, where net invested capital consists of the following IFRS measures: total assets less cash, accounts payable, accrued and other current liabilities and provisions, and income taxes payable, using a five-point average to calculate average net invested capital for the year.

Adjusted EPS is determined by dividing non-IFRS adjusted net earnings by the weighted average number of diluted shares for the applicable period. Non-IFRS adjusted net earnings is defined as net earnings before amortization of intangible assets (excluding computer software), and in applicable periods, employee stock based compensation expense, net restructuring and other charges (recoveries) (as defined above), impairment charges (recoveries), Solar Charges, FVAs, the tax impact of the foregoing items, and non-core tax impacts (tax adjustments related to acquisitions, and certain other tax costs or recoveries related to restructuring actions or restructured sites). See "Non-IFRS measures" in the Corporation's Management's Discussion and Analysis for the first three quarters of 2018 (available at www.sec.gov) and in Item 5 of this Annual Report for, among other things, a discussion of the exclusions used to determine these non-IFRS measures, how these non-IFRS measures are used, as well as a reconciliation of historical non-IFRS operating margin, non-IFRS adjusted ROIC, and non-IFRS adjusted EPS to the most directly comparable IFRS measures. These non-IFRS measures do not have any standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies.

### Compensation Objectives

The Corporation's executive compensation philosophies and practices are designed to attract, motivate and retain the leaders who drive the success of the Corporation. The Compensation Committee reviews compensation policies and practices regularly, considers related risks, and makes any adjustments it deems necessary to ensure the compensation policies are not reasonably likely to have a material adverse effect on the Corporation.

A substantial portion of the compensation of our executives is linked to the Corporation's performance. The Compensation Committee establishes target compensation with reference to the median compensation of a comparator group of Celestica's competitors, major suppliers, customers, and other major international technology companies that generally fall in the range of 50% to 200% of Celestica's revenue (such group, the "Comparator Group"). However, neither each element of compensation nor total compensation is expected to match the median of such Comparator Group exactly. NEOs have the opportunity for higher compensation for performance that exceeds target performance goals, and will receive lower compensation for performance that is below target performance goals.

The 2018 compensation package was designed to:

ensure executives are compensated fairly and in a way that does not result in the Corporation incurring undue risk or encouraging executives to take inappropriate risks;

provide competitive fixed compensation (i.e., base salary and benefits), as well as a substantial amount of at-risk pay through our annual and equity based incentive plans;

reward executives, through both annual cash incentives and long-term equity based incentives, for achieving operational and financial results that meet or exceed the Corporation's business plan and that are superior to those of direct competitors in the electronics manufacturing services ("EMS") industry;

align the interests of executives and shareholders through long-term equity based compensation; recognize tenure and utilize a multi-year approach for setting and transitioning target compensation for executives

reflect internal equity, recognize fair and appropriate compensation levels relative to differing roles and responsibilities, and encourage executives to work as a team to achieve corporate results; and ensure direct accountability for the annual operating results and the long-term financial performance of the Corporation.

# Independent Advice

who are new in their role;

The Compensation Committee, which has the sole authority to retain and terminate an executive compensation consultant, has engaged the Compensation Consultant since October 2006 as its independent compensation consultant to assist in identifying appropriate comparator companies against which to evaluate the Corporation's compensation levels, to provide data about those companies, and to provide observations and advice with respect to the Corporation's compensation practices versus those of the Comparator Group and the market in general.

The Compensation Consultant also provides advice (upon request) to the Compensation Committee on the policy recommendations prepared by management and keeps the Compensation Committee apprised of market trends in executive compensation. The Compensation Consultant attended portions of all Compensation Committee meetings held in 2018, in person or by telephone, as requested by the Chair of the Compensation Committee. At each of its meetings, the Compensation Committee held an in camera session with the Compensation Consultant without any member of management being present. Decisions made by the Compensation Committee, however, are the responsibility of the Compensation Committee and may reflect factors and considerations supplementary to the information and advice provided by the Compensation Consultant.

Each year, the Compensation Committee reviews the scope of activities of the Compensation Consultant and, if it deems appropriate, approves the corresponding budget. During such review, the Compensation Committee also considers the independence

factors required to be considered by the NYSE prior to the selection or receipt of advice from a compensation consultant. After consideration of such independence factors and prior to engaging the Compensation Consultant in 2018, the Compensation Committee determined that the Compensation Consultant was independent. The Compensation Consultant meets with the Chair of the Compensation Committee and management at least annually to identify any initiatives requiring external support and agenda items for each Compensation Committee meeting throughout the year. The Compensation Consultant reports directly to the Chair of the Compensation Committee and is not engaged by management. The Compensation Consultant may, with the approval of the Compensation Committee, assist management in reviewing and, where appropriate, developing and recommending compensation programs to align the Corporation's practices with competitive practices. Any such service in excess of \$25,000 provided by the Compensation Consultant relating to executive compensation must be pre approved by the Chair of the Compensation Committee. In addition, any non-executive compensation consulting service in excess of \$25,000 must be submitted by management to the Compensation Committee for pre-approval, and any services that will cause total non executive compensation consulting fees to exceed \$25,000 in aggregate in a calendar year must also be pre approved by the Compensation Committee.

The following table sets out the fees paid by the Corporation to the Compensation Consultant in each of the past two

Table 7: Fees of the Compensation Consultant

Year Ended December 31 2018 2017

Executive Compensation-Related Fees<sup>(1)</sup> C\$328,828C\$246,859

All Other Fees

C\$-C\$-

Services for 2018 and 2017 included support on executive compensation matters that are part of its annual agenda (e.g., executive compensation competitive market analysis, review of trends in executive compensation, peer group review, pay-for-performance analysis and assistance with executive compensation-related disclosure), annual

(1) valuation of PSUs for accounting purposes, TSR peer group analysis, attendance at all Compensation Committee meetings, and support with ad-hoc executive compensation issues that arose throughout the year. Services for 2018 also included a compensation risk assessment and the 2018 Review of director compensation. Services for 2017 also included advice on incentive plan design changes and research and commentary on strategic incentive awards.

**Compensation Process** 

Executive compensation is determined as part of an annual process followed by the Compensation Committee, as supported by the Compensation Consultant, as follows:

Before/At Commencement of the

Performance Period

• Review and approve Comparator
• Review of pay-for-performance alignment

- Review of Comparator Group compensation and pay positioning
- Establish target compensation levels
- Review trends in executive compensation
- Establish performance objectives
- Conduct risk assessment of compensation programs

During the Performance Period

relative to Comparator Group

- Evaluate interim performance relative to objectives
- Approve appointments to designated positions and any related compensation changes
- Reevaluate Comparator Group and update for the next performance period
- Review management succession plans, including retention value of unvested equity awards

After the Performance Period

- Evaluate individual performance relative to objectives
- Determine achievement of performance criteria for annual and long term incentives

The Compensation Committee reviews and approves compensation for the CEO and the other NEOs, including base salaries, target annual incentive awards under the CTI and equity based incentive grants. The Compensation Committee evaluates the performance of the CEO relative to financial and business goals and objectives approved by the Board from time to time for such purpose. The Compensation Committee reviews data for the Comparator Group and other competitive market data, and consults

with the Compensation Consultant before exercising its independent judgment to determine appropriate compensation levels. The CEO reviews the performance evaluations of the other NEOs with the Compensation Committee and provides compensation recommendations. The Compensation Committee considers these recommendations, reviews market compensation information, consults with the Compensation Consultant, and then exercises its independent judgment to determine if any adjustments are required prior to approval of the compensation of such other NEOs. The Compensation Committee generally meets five times a year, in January, April, July, October and December. At the July meeting, the Compensation Committee, based on recommendations from the Compensation Consultant, approves the Comparator Group that will be used for the compensation review for the following year. At the October meeting, the Compensation Consultant presents a competitive analysis of the total compensation for each of the NEOs, including the CEO, with reference to the established Comparator Group as well as other competitive market data. Using this analysis, the CEO develops base salary and equity based incentive recommendations for the NEOs which are then reviewed with the Compensation Consultant. The CEO's compensation is determined by the Compensation Committee in consultation with the Compensation Consultant with input from the Corporation's chief human resources executive. At the December meeting, preliminary compensation proposals for the CEO and the NEOs for the following year are reviewed, including base salary recommendations and the value and mix of their equity based incentives. By reviewing the compensation proposals in advance, the Compensation Committee is afforded sufficient time to discuss and provide input regarding proposed compensation changes prior to the January meeting at which time the Compensation Committee approves the compensation proposals, revised as necessary or appropriate, based on input provided at the December meeting. Previous grants of equity based awards and their current retention value are reviewed and may be taken into consideration when making decisions related to equity based compensation. The Compensation Committee also considers the potential value of the total compensation package for the CEO, which is stress-tested at different levels of performance and different stock prices to ensure that there is an appropriate link between pay and performance, taking into consideration the range of potential total compensation. The CEO and the NEOs are not present at the Compensation Committee meetings when their respective compensation is discussed.

Based on a management plan approved by the Board, CTI targets for the relevant year are approved by the Compensation Committee at the beginning of the year. The Compensation Committee reviews the Corporation's performance relative to these targets and the projected payment at the October and December meetings. At the January meeting of the following year, final payments under the CTI, as well as the vesting percentages for any previously granted equity based incentives that have performance vesting criteria, are calculated and approved by the Compensation Committee based on the Corporation's year-end results as approved by the Audit Committee. The amounts related to the CTI are then paid in February.

The Compensation Committee may exercise its discretion to either award compensation absent attainment of a relevant performance goal or similar condition, or to reduce or increase the size of any award or payout to any NEO. The Compensation Committee did not exercise such discretion for 2018 compensation with respect to any NEO. Compensation Risk Assessment and Governance Analysis

The Compensation Committee, in performing its duties and exercising its powers under its mandate, considers the implications of the risks associated with the Corporation's compensation policies and practices. This includes: identifying any such policies or practices that encourage executive officers to take inappropriate or excessive risks, identifying risks arising from such policies and practices that are reasonably likely to have a material adverse effect on the Corporation, and considering the risk implications of the Corporation's compensation policies and practices and any proposed changes to them.

The Corporation's compensation programs are designed with a balanced approach aligned with its business strategy and risk profile. A number of compensation practices have been implemented to mitigate potential compensation policy risk. The Compensation Consultant completed a risk assessment in 2018. It is the Compensation Committee's view that the Corporation's 2018 compensation policies and practices did not promote excessive risk-taking that would be reasonably likely to have a material adverse effect on the Corporation, and that appropriate risk mitigation features are in place within the Corporation's compensation program. In reaching its opinion, the Compensation Committee reviewed key risk-mitigating features in the Corporation's compensation governance processes and compensation

structure including the following:

#### Governance

Compensation
Decision-Making Process

Non-binding Shareholder Advisory Vote on Executive Compensation

Annual Review of Incentive Programs

External Independent Compensation Advisor

Overlapping Committee Membership • The Corporation has formalized compensation objectives to help guide compensation decisions and incentive design and to effectively support its pay-for-performance policy (see Compensation Discussion and Analysis – Compensation Objectives).

- The Corporation annually holds an advisory vote on executive compensation, allowing shareholders to express approval or disapproval of its approach to executive compensation.
- Each year, the Corporation reviews and sets performance measures and targets for the CTI and for PSU grants under the Celestica Share Unit Plan ("CSUP") and the LTIP that are aligned with the business plan and the Corporation's risk profile to ensure continued relevance and applicability.
- When new compensation programs are considered, they are stress tested to ensure potential payouts would be reasonable within the context of the full range of performance outcomes. CEO compensation is stress tested annually.
- On an ongoing basis, the Compensation Committee retains the services of an independent compensation advisor, to provide an external perspective as to marketplace changes and best practices related to compensation design, governance and compensation risk management.
- All of the Corporation's independent directors sit on the Compensation Committee to provide continuity and to facilitate coordination between the Committee's and the Board's respective oversight responsibilities.

Compensation Program Design

Review of Incentive Programs

- At appropriate intervals, Celestica conducts a review of its compensation strategy, including pay philosophy and program design, in light of business requirements, market practice and governance considerations.
- For the NEOs, a significant portion of target total direct compensation is delivered through variable compensation (CTI and long term, equity based incentive plans).
- The majority of the value of target variable compensation is delivered through grants under long term, equity based incentive plans which are subject to time and/or performance vesting requirements.
- The mix of variable compensation provides a strong pay-for-performance relationship.
- The NEO compensation package provides a competitive base level of compensation through salary, and mitigates the risk of encouraging the achievement of short term goals at the expense of creating and sustaining long term shareholder value, as NEOs benefit if shareholder value increases over the long term.
- Celestica's "one-company" annual incentive plan (the CTI) helps to mitigate risk-taking by tempering the results of any one business unit on Celestica's overall corporate performance, and aligning executives and employees in the various business units and regions with corporate goals.
- The CTI ensures a holistic assessment of performance with ultimate payout tied to measurable corporate financial metrics.
- Individual performance is assessed based on business results, teamwork and key accomplishments, and market performance is captured through RSUs as well as PSUs (which vest based on performance relative to both absolute and relative financial targets).
- For 2018, a specified corporate profitability requirement was established for any payout to occur under the CTI.
- Additionally, a second performance measure must be achieved for payment above target.
- Each of the CTI and PSU payouts have a maximum payout of two times target.

Incentive Programs

Fixed versus Variable Compensation

"One-company" Annual Incentive Plan

Balance of Financial Performance Metrics as well as Absolute and Relative Performance Metrics

Minimum Performance Requirements and Maximum Payout Caps

# Share Ownership Requirement

- The Corporation's share ownership guidelines require executives to hold a significant minimum amount of the Corporation's securities to help align their interests with those of shareholders' and the long term performance of the Corporation.
- This practice also mitigates against executives taking inappropriate or excessive risks to improve short term performance at the expense of longer-term objectives.
- In the event of the cessation of Mr. Mionis' employment with the Corporation for any reason, he will be required to retain the share ownership level set out in the Executive Share Ownership Guidelines on his termination date for the 12 month period immediately following his termination date as set out in Mr. Mionis' amended CEO employment agreement effective August 1, 2016 (the "CEO Employment Agreement").

Anti-hedging and Anti-pledging Policy • Executives and directors are prohibited from entering into speculative transactions and transactions designed to hedge or offset a decrease in market value of equity securities of the Corporation granted as compensation or purchasing securities of the Corporation on margin, borrowing against securities of the Corporation held in a margin account, or pledging Celestica securities as collateral for a loan.

"Clawback" Policy

• A "clawback" policy provides for recoupment of incentive-based compensation from the CEO and CFO that was received during a specified period in the event of an accounting restatement due to material non compliance with financial reporting requirements as a result of misconduct, as well as any profits realized from the sale of securities during such period (see - "Clawback" Provisions).

"Double Trigger"

• In addition, all longer term incentive awards made to NEOs may be subject to recoupment if certain employment conditions are breached. The LTIP and CSUP currently provide for change of control treatment for outstanding

**Severance Protection** 

equity based on a "double trigger" requirement. • NEOs' entitlements on termination without cause are in part contingent on complying with

Analysis

confidentiality, non solicitation and non competition obligations (two years). Pay-For-Performance • Periodic scenario testing of the executive compensation programs is conducted, including a pay-for-performance analysis.

**Comparator Group** 

The Compensation Committee establishes salary, annual incentive and equity based incentive awards with reference to the median of such elements for the Comparator Group, but is not bound to any target percentile for any element of compensation of the Comparator Group. The Comparator Group is comprised of a selection of the Corporation's competitors, major suppliers, customers, and other international technology companies that generally fall in the range of 50% to 200% of the Corporation's revenues and is approved annually by the Compensation Committee. The Compensation Committee also considers the Corporation's business objectives and its participation in global markets when approving the Comparator Group. While the Corporation is incorporated and headquartered in Canada, our business is global and we compete for executive talent worldwide with companies in the technology industry. Our global recruiting strategy has been evidenced by the fact that several of our executive officers were not recruited from Canada; and in fact, the Corporation's three most recent CEOs have come from the United States. There are no EMS competitor companies in the Comparator Group that are headquartered in Canada. For non-EMS companies, competitors of similar size and scope within Canada would not provide the desired global perspective. As a result, the determination of the Comparator Group is not bound by geographic limitations and instead includes a representation from a broad group of relevant companies which are publicly traded and against which the Corporation competes for executive leaders. Most of the companies in the current Comparator Group are based in the United States. The Comparator Group chosen in 2017 was used to establish 2018 executive compensation. In 2018, Level 3 Communications was acquired by another company and was subsequently removed from the Comparator Group. Applied Materials Inc. was also removed from the Comparator Group since its revenue was outside of an acceptable range for comparison. The Comparator Group chosen in 2018 to establish 2019 executive compensation was reviewed and approved by the Compensation Committee, and is set out in Table 8 below.

Industry Company Name	2017 Annual Revenue (billions)	Industry Company Name	2017 Annual Revenue (billions)	Industry Company Name	2017 Annual Revenue (billions)
Electronic Manufacturing Services		Communications		Technology Hardware, Storage, Peripherals	
Flex Ltd.	\$23.9	Harris Corp.	\$5.9	NCR Corp.	\$6.5
Jabil Circuit, Inc.	\$19.1	Juniper Networks, Inc.	\$5.0	NetApp, Inc.	\$5.5
Sanmina Corporation Benchmark Plexus Corp.	\$6.9 \$2.5 \$2.5	Motorola Solutions ARRIS Internationa			
Electronic Components		Diversified Markets	S	Semiconductor	
Corning Inc.	\$10.1	Agilent Technologies Inc.	\$4.5	Advanced Micro Devices Inc.	\$5.3
Amphenol Corporation	\$7.0	C		Lam Research	\$8.0
•				NVIDIA Corp. Overall	\$6.9
				25th Percentile	\$5.3
				50th Percentile	\$6.5
				75th Percentile	\$7.0
				Celestica Inc.	\$6.1
				Percentile	40 <sup>th</sup> percentile

(1) All data was provided by the Compensation Consultant (sourced by it from Standard & Poor's Capital IQ), reflecting fiscal year 2017 revenue for each company, and is presented in U.S. dollars.

Additionally, broader market compensation survey data for other similarly sized organizations as well as Canadian market data provided by the Compensation Consultant is analyzed in accordance with a process approved by the Compensation Committee. The Compensation Committee considered such survey data, among other matters, in making compensation decisions. In addition to the survey data, proxy disclosure of the Comparator Group companies for the most recently completed fiscal year was considered when determining the compensation of the CEO and the other NEOs.

### Anti-Hedging and Anti-Pledging Policy

The Insider Trading Policy prohibits executives from, among other things, entering into speculative transactions and transactions designed to hedge or offset a decrease in market value of equity securities of the Corporation granted as compensation. Accordingly, executive officers may not sell short the Corporation's securities, buy or sell put or call options on the Corporation's securities, or purchase financial instruments (including prepaid variable contracts, equity swaps, collars or units of exchange funds) which are designed to hedge or offset a decrease in market value of the Corporation's securities. Executive officers are also prohibited from purchasing the Corporation's securities on margin, borrowing against the Corporation's securities held in a margin account, or pledging the Corporation's securities as collateral for a loan. The directors of the Corporation also must comply with the provisions of the Insider Trading policy which prohibit hedging and/or pledging of the Corporation's securities.

"Clawback" Provisions

The Corporation is subject to the "clawback" provisions of the Sarbanes Oxley Act of 2002. Accordingly, if the Corporation is required to restate financial results due to material non compliance with financial reporting requirements as a result of misconduct, the CEO and CFO would be required to reimburse the Corporation for any

bonuses or incentive based compensation they had received during the 12 month period following the first public issuance or filing with the SEC (whichever is earlier) of a financial document embodying such financial reporting requirement, as well as any profits they had realized from the sale of securities of the Corporation during that 12-month period.

In addition, under the terms of the stock option grants and the PSU and RSU grants made under the LTIP and the CSUP, a NEO may be required by the Corporation to repay an amount equal to the market value of the shares (or in the case of options, the intrinsic value realized by the executive) at the time of release, net of taxes, if, within 12 months of the release date, the executive:

accepts employment with, or accepts an engagement to supply services, directly or indirectly to, a third party that is in competition with the Corporation or any of its subsidiaries; or

fails to comply with, or otherwise breaches, the terms and conditions of a confidentiality agreement or non disclosure agreement with, or confidentiality obligations to, the Corporation or any of its subsidiaries; or

on his or her behalf or on another's behalf, directly or indirectly recruits, induces or solicits, or attempts to recruit, induce or solicit any current employee or other individual who is/was supplying services to the Corporation or any of its subsidiaries.

Executives who are terminated for cause also forfeit all unvested RSUs, PSUs and stock options as well as all vested and unexercised stock options.

Compensation Elements for the Named Executive Officers

The compensation of the NEOs in 2018 was comprised of the following elements:

Elements Rationale

Provides a fixed level of compensation intended to reflect the scope of an executive's responsibilities

Base Salary and level of experience and to reward sustained performance over time, as well as to approximate

competitive base salary levels

Annual Cash Incentives

Aligns executive performance with the Corporation's annual goals and objectives

Equity-Based Incentives

• RSUs Provides a strong incentive for long-term executive retention

• PSUs

Aligns executives' interests with shareholder interests and provides incentives for long-term

performance

Benefits Designed to help ensure the health and wellness of executives
Pension Designed to assist executives in saving for their retirement

Perquisites are provided to executives on a case-by-case basis as considered appropriate and in the

interests of the Corporation

### Compensation Element Mix

In order to ensure that our executive compensation program is market competitive, we annually review the program design and pay levels of companies in the Comparator Group and other competitive market data. We assess total target direct compensation (base salary, annual cash incentive and equity grants) as well as specific elements of compensation when reviewing market information relative to our executive compensation program. The Compensation Committee uses the median of the Comparator Group as a guideline when determining total target direct compensation but is not bound to any target percentile for any specific element of compensation. In addition to the Comparator Group, we also consider executive compensation relative to internal peers where responsibilities and experience vary. In determining appropriate positioning relative to the Comparator Group and internal peers, we utilize a multi-year approach for setting and transitioning target compensation for executives who are new in their role.

The at risk portion of total compensation varies by role and executive level, but has the highest weighting at the most senior levels of management. CTI awards and certain equity based incentive plan awards are contingent upon the Corporation's financial and operational performance and are therefore at-risk. With a significant portion of total target direct compensation delivered through variable compensation, the Corporation intends to continue to align NEO compensation with shareholder interests. The relative weighting of the compensation elements for the CEO and the other NEOs (average) for 2018 is set forth below.

Compensation Element Mix for CEO

Compensation Element Mix for NEOs (Average)

Base Salary

The objective of base salary is to attract, reward and retain top talent. Base salaries for executive positions are determined with consideration given to the market median of the Comparator Group. Base salaries are reviewed annually and adjusted if appropriate, to reflect individual performance, relevant knowledge, experience and the executive's level of responsibility within the Corporation.

Celestica Team Incentive Plan

The objective of the CTI is to reward all eligible employees, including the NEOs, for the achievement of annual objectives. CTI awards for the NEOs are based on the achievement of pre determined corporate and individual goals, and are paid in cash. Payouts can vary from 0% for performance below a threshold up to a maximum capped at 200% of the Target Award (defined below). Awards are determined in accordance with the following formula: