



FOR IMMEDIATE RELEASE

Quad Reports Fourth Quarter and Full-Year 2018 Results

Company's Continued Quad 3.0 Transformation Drives Increased Net Sales

Company Expects to Complete Acquisition of LSC Communications, Inc., in Mid-2019

SUSSEX, WI, February 19, 2019 - Quad/Graphics, Inc. (NYSE: QUAD) ("Quad" or the "Company") today reported results for its fourth quarter and full year ending December 31, 2018.

Financial Highlights

- Increased full-year 2018 net sales 1.5% to \$4.2 billion with integrated services revenue now accounting for approximately 20% of net sales.
- Achieved full-year 2018 net earnings of \$8 million, diluted earnings per share of \$0.16, Non-GAAP Adjusted Diluted Earnings Per Share of \$1.79, and full-year 2018 Non-GAAP Adjusted EBITDA and Adjusted EBITDA Margin of \$415 million and 9.9%, respectively.
- Generated cash flow from operations of \$261 million and Free Cash Flow of \$164 million for full-year 2018, which reflects the Company's decision to increase long-term strategic investments.
- Reduced debt and capital leases by \$24 million during 2018 and Debt Leverage Ratio to 2.11x, net of excess cash, which is at the low end of Company's long-term targeted range of 2.0x to 2.5x.
- Provides 2019 guidance, which includes the acquisition of Periscope, one of the nation's top five independent creative agencies by annual revenue.
- Declares quarterly dividend of \$0.30 per share.

"2018 was a truly pivotal year in our Quad 3.0 transformation as reflected by last week's announcement to evolve our brand from Quad/Graphics to Quad," said Joel Quadracci, Chairman, President & CEO of Quad. "While maintaining our focus on preserving our high-quality, low-cost producer status, we made strategic investments to accelerate our transformation as a marketing solutions partner by acquiring Ivie & Associates, increasing our investment in Rise Interactive to a majority ownership and, in January 2019, acquiring Periscope. Our integrated services revenue, including Periscope, has grown to approximately 20% of our net sales, and represents over 40% growth since 2017."

Quadracci added: "Our Quad 3.0 strategy creates more value for clients by expanding our offering beyond print and content production to include an integrated stack of higher margin marketing services, which, in turn, drives incremental revenue across our print product categories. This integrated marketing solutions platform helps our clients reduce the complexity of working with multiple agency and vendor partners, while improving process efficiencies and enhancing marketing spend effectiveness. At a time of incredible media disruption, we remain confident that our Quad 3.0 strategy will create greater value for our clients and shareholders over the long-term."

"We expect to complete the acquisition of LSC Communications in mid-2019," Quadracci said. "We remain enthusiastic about the value this transaction will create for all clients and shareholders. This business combination will enhance our highly efficient print platform to fuel our Quad 3.0 transformation and strengthen the role of print in a multichannel media world."

Fourth Quarter 2018 Summary Results

Net sales increased 1.5% during the fourth quarter 2018 to \$1.2 billion, reflecting the impact of the Ivie & Associates and Rise Interactive investments as part of Quad's continuing transformation as a marketing solutions partner. Organic sales declined 4.6% for the quarter after excluding acquisition sales impact of 4.3%, increased pass-through paper sales of 2.5%, and a 0.7% unfavorable foreign exchange impact. The organic results reflect ongoing print industry volume and pricing pressures, and are consistent with the Company's expectations.

Net earnings attributable to Quad's common shareholders decreased during the fourth quarter of 2018 to a loss of \$21 million, and diluted earnings per share declined to a loss of \$0.42 per share as compared to an earnings per share of \$1.06 in 2017. Excluding restructuring costs, Non-GAAP Adjusted Diluted Earnings Per Share for the fourth quarter 2018 was \$0.53 per share compared to \$0.57 per share in the fourth quarter 2017. Fourth quarter 2018 Non-GAAP Adjusted EBITDA was \$110 million compared to \$122 million in the fourth quarter of 2017, and Adjusted EBITDA Margin was 9.3% compared to 10.5% in 2017. The Adjusted EBITDA variance to prior-year primarily reflects the impact from the organic sales decline of 4.6%, a \$10 million impact from strategic investments made to increase hourly production employees' wages, partially offset by the earnings impact from the growth in Quad's integrated services revenues and a \$6 million gain from a sales tax litigation settlement in Peru.

Full-Year 2018 Summary Results

Net sales increased 1.5% during the year ended December 31, 2018, to \$4.2 billion. Organic sales declined 3.8%, as expected, after excluding acquisition sales impact of 4.3%, increased pass-through paper sales of 1.4%, and a 0.4% unfavorable foreign exchange impact, reflecting ongoing print industry volume and pricing pressures.

Net earnings attributable to Quad common shareholders for the year ended December 31, 2018, decreased to \$9 million, or \$0.16 per share. Excluding a non-cash charge of \$22 million for an employee stock ownership plan contribution as part of the benefit of tax reform and restructuring charges, Non-GAAP Adjusted Diluted Earnings Per Share was \$1.79 per share during the year ended December 31, 2018, which is flat as compared to 2017. 2018 Non-GAAP Adjusted EBITDA was \$415 million compared to \$448 million for 2017, and Adjusted EBITDA Margin was 9.9% compared to 10.8% in 2017. The Adjusted EBITDA variance to prior-year primarily reflects the impact from the organic sales decline of 3.8%, a \$20 million impact from strategic investments in hourly production wages and marketing talent and infrastructure to support Quad 3.0 transformation, partially offset by the earnings impact from the growth in Quad's integrated services revenues and cost savings initiatives.

Net cash provided by operating activities was \$261 million for the year ended December 31, 2018, compared to \$344 million in 2017, and Free Cash Flow was \$164 million as compared to \$258 million. Free Cash Flow decreased due to the Company's long-term strategic investment decisions to increase capital expenditures in manufacturing automation, increase wages for hourly production employees in the Company's most competitive labor markets, and transaction-related costs for the pending acquisition of LSC. Additionally, given paper supply pressures, the Company intentionally increased paper inventories to ensure uninterrupted client service.

"We are pleased to report that our Net Sales and Adjusted EBITDA full-year results were in-line with our expectations as we continued to invest in our business and execute on our strategic priorities for long-term growth and shareholder value," said Dave Honan, Executive Vice President & Chief Financial Officer of Quad. "Our Debt Leverage Ratio, net of excess cash, was 2.11x as of December 31, 2018, which is at the low end of our long-term targeted range of 2.0x to 2.5x. The strength of our balance sheet provides us with the ability to deploy our capital between investing back into our business, making strategic acquisitions and returning capital to our shareholders through our consistent dividend and share repurchases."

Quad's next quarterly dividend of \$0.30 per share will be payable on March 8, 2019, to shareholders of record as of February 25, 2019.

2019 Guidance

The Company provided the following 2019 financial guidance:

U.S. \$	2018 Actuals	2019 Guidance Range
Net Sales	\$4.2 billion	\$4.05 billion – \$4.25 billion
Adjusted EBITDA	\$415 million	\$360 million – \$400 million
Free Cash Flow before LSC-Related Payments ⁽¹⁾	\$164 million	\$145 million – \$185 million

⁽¹⁾ LSC-related payments are expected to be between \$20 million - \$30 million and are primarily related to incremental interest expense associated with the amended financing and transaction costs expected to be incurred prior to completing the acquisition.

“Our 2019 guidance does not reflect the pending acquisition of LSC,” Honan said. “We will continue to execute on our strategic priorities and work toward the successful completion of the LSC transaction, which represents a compelling opportunity for the achievement of \$135 million in net synergies, excluding non-recurring integration costs, in less than two years. In anticipation of the mid-2019 closing, we recently announced the successful completion of the amendment and extension of our debt facilities, which will provide us with the appropriate liquidity and structural flexibility to complete our pending acquisition and maintain a strong, flexible balance sheet to create future value for all shareholders.”

Forward-Looking Statements

This press release contains certain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements regarding, among other things, our current expectations about the Company’s future results, financial condition, revenue, earnings, free cash flow, margins, objectives, goals, strategies, beliefs, intentions, plans, estimates, prospects, projections and outlook of the Company and can generally be identified by the use of words or phrases such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “plan,” “foresee,” “project,” “believe,” “continue” or the negatives of these terms, variations on them and other similar expressions. These forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results to be materially different from those expressed in or implied by such forward-looking statements. Forward-looking statements are based largely on the Company’s expectations and judgments and are subject to a number of risks and uncertainties, many of which are unforeseeable and beyond our control.

The factors that could cause actual results to materially differ include, among others: the impact of decreasing demand for printed materials and significant overcapacity in the highly competitive environment creates downward pricing pressures and potential underutilization of assets; the impact of digital media and similar technological changes, including digital substitution by consumers; the impact of fluctuations in costs (including labor and labor-related costs, energy costs, freight rates and raw materials) and the impact of fluctuations in the availability of raw materials; the failure to successfully identify, manage, complete and integrate acquisitions and investments, including the proposed acquisition of LSC Communications, Inc. (“LSC”); the inability of the Company to reduce costs and improve operating efficiency rapidly enough to meet market conditions; the impact of increased business complexity as a result of the Company’s transformation into a marketing solutions provider; the impact of regulatory matters and legislative developments or changes in laws, including changes in cyber-security, privacy and environmental laws; the impact of changing future economic conditions; the failure of clients to perform under contracts or to renew contracts with clients on favorable terms or at all; the failure to attract and retain qualified talent across the enterprise; significant capital expenditures may be needed to maintain the Company’s platforms and processes and to remain technologically and economically competitive; the impact of changes in postal rates, service levels or regulations; the fragility and decline in overall distribution channels, including newspaper distribution channels; the impact of the various restrictive covenants in the Company’s debt facilities on the Company’s ability to operate its business; the impact of risks associated with the operations outside of the United States, including costs incurred or reputational damage suffered due to improper conduct of its employees, contractors or agents; the impact on the holders of Quad’s class A common stock of a limited active market for such shares and the inability to independently elect directors or control decisions due to the voting power of the class B common stock; the impact of an other than temporary decline in operating results and enterprise value that could lead to non-cash impairment charges due to the impairment of property, plant and equipment and intangible assets; the impacts that the proposed acquisition of LSC may have on the Company, both prior to and following consummation of that acquisition; and the other risk factors identified in the Company’s most recent Annual Report on Form 10-K, which may be amended or supplemented by subsequent Quarterly Reports on Form 10-Q or other reports filed with the Securities and Exchange Commission.

Except to the extent required by the federal securities laws, the Company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Non-GAAP Financial Measures

This press release contains financial measures not prepared in accordance with generally accepted accounting principles (referred to as Non-GAAP), specifically Adjusted EBITDA, Adjusted EBITDA Margin, Free Cash Flow, Debt Leverage Ratio and Adjusted Diluted Earnings Per Share. Adjusted EBITDA is defined as net earnings (loss) attributable to Quad common shareholders excluding interest expense, income tax expense (benefit), depreciation and amortization, restructuring, impairment and transaction-related charges, net pension income, employee stock ownership plan contributions, loss (gain) on debt extinguishment, equity in (earnings) loss of unconsolidated entity and net earnings (loss) attributable to noncontrolling interests. Adjusted EBITDA Margin is defined as Adjusted EBITDA divided by net sales. Free Cash Flow is defined as net cash provided by operating activities less purchases of property, plant and equipment. Debt Leverage Ratio is defined as total debt and capital lease obligations divided by the last twelve months of Adjusted EBITDA. Adjusted Diluted Earnings Per Share is defined as earnings (loss) before income taxes and equity in (earnings) loss of unconsolidated entity excluding restructuring, impairment and transaction-related charges, employee stock ownership plan contributions, loss (gain) on debt extinguishment, and adjusted for income tax expense at a normalized tax rate, divided by diluted weighted average number of common shares outstanding.

The Company believes that these Non-GAAP measures, when presented in conjunction with comparable GAAP measures, provide additional information for evaluating Quad's performance and are important measures by which Quad's management assesses the profitability and liquidity of its business. These Non-GAAP measures should be considered in addition to, not as a substitute for or superior to, net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. These Non-GAAP measures may be different than Non-GAAP financial measures used by other companies. Reconciliation to the GAAP equivalent of these Non-GAAP measures are contained in tabular form on the attached unaudited financial statements.

About Quad

Quad (NYSE: QUAD) is a worldwide marketing solutions partner dedicated to creating a better way for its clients through a data-driven, integrated marketing platform that helps clients reduce complexity, increase efficiency and enhance marketing spend effectiveness. Quad provides its clients with unmatched scale for client on-site services and expanded subject expertise in marketing strategy, creative solutions, media deployment and marketing management services. With a client-centric approach that drives its expanded offering, combined with leading-edge technology and single-source simplicity, Quad believes it has the resources and knowledge to help a wide variety of clients in multiple vertical industries, including retail, publishing and healthcare. Quad has multiple locations throughout North America, South America and Europe, and strategic partnerships in Asia and other parts of the world. For additional information visit www.QUAD.com.

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QUAD/GRAPHICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
For the Three Months Ended December 31, 2018 and 2017
(in millions, except per share data)
(UNAUDITED)

	Three Months Ended December 31,	
	2018	2017
Net sales	\$ 1,181.6	\$ 1,164.2
Cost of sales	978.5	928.5
Selling, general and administrative expenses	93.6	113.4
Depreciation and amortization	57.1	57.0
Restructuring, impairment and transaction-related charges	63.0	37.9
Total operating expenses	<u>1,192.2</u>	<u>1,136.8</u>
Operating income (loss)	(10.6)	27.4
Interest expense	19.3	17.5
Net pension income	(3.1)	(1.8)
Earnings (loss) before income taxes and equity in earnings of unconsolidated entity	(26.8)	11.7
Income tax benefit	(5.9)	(42.8)
Earnings (loss) before equity in earnings of unconsolidated entity	(20.9)	54.5
Equity in earnings of unconsolidated entity	(0.3)	(0.8)
Net earnings (loss)	(20.6)	55.3
Less: net earnings attributable to noncontrolling interests	0.2	—
Net earnings (loss) attributable to Quad common shareholders	\$ (20.8)	\$ 55.3
Earnings (loss) per share attributable to Quad common shareholders		
Basic	<u>\$ (0.42)</u>	<u>\$ 1.10</u>
Diluted	<u>\$ (0.42)</u>	<u>\$ 1.06</u>
Weighted average number of common shares outstanding		
Basic	<u>49.4</u>	<u>50.1</u>
Diluted	<u>49.4</u>	<u>52.3</u>

QUAD/GRAPHICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
For the Years Ended December 31, 2018 and 2017
(in millions, except per share data)
(UNAUDITED)

	Year Ended December 31,	
	2018	2017
Net sales	\$ 4,193.7	\$ 4,131.4
Cost of sales	3,429.3	3,259.4
Selling, general and administrative expenses	372.1	423.8
Depreciation and amortization	230.7	232.5
Restructuring, impairment and transaction-related charges	103.6	60.4
Total operating expenses	<u>4,135.7</u>	<u>3,976.1</u>
Operating income	58.0	155.3
Interest expense	73.3	71.1
Net pension income	(12.4)	(9.6)
Loss on debt extinguishment	—	2.6
Earnings (loss) before income taxes and equity in earnings of unconsolidated entity	(2.9)	91.2
Income tax benefit	(9.8)	(16.0)
Earnings before equity in earnings of unconsolidated entity	6.9	107.2
Equity in earnings of unconsolidated entity	(1.0)	—
Net earnings	7.9	107.2
Less: net loss attributable to noncontrolling interests	(0.6)	—
Net earnings attributable to Quad common shareholders	\$ 8.5	\$ 107.2
Earnings per share attributable to Quad common shareholders		
Basic	<u>\$ 0.17</u>	<u>\$ 2.16</u>
Diluted	<u>\$ 0.16</u>	<u>\$ 2.07</u>
Weighted average number of common shares outstanding		
Basic	<u>49.8</u>	<u>49.6</u>
Diluted	<u>51.6</u>	<u>51.8</u>

QUAD/GRAPHICS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
As of December 31, 2018 and 2017
(in millions)
(UNAUDITED)

	December 31, 2018	December 31, 2017
ASSETS		
Cash and cash equivalents	\$ 69.5	\$ 64.4
Receivables, less allowances for doubtful accounts	528.7	552.5
Inventories	300.6	246.5
Prepaid expenses and other current assets	47.8	45.1
Total current assets	946.6	908.5
Property, plant and equipment—net	1,257.4	1,377.6
Goodwill	54.6	—
Other intangible assets—net	112.6	43.4
Equity method investment in unconsolidated entity	4.0	3.6
Other long-term assets	93.9	119.3
Total assets	<u>\$ 2,469.1</u>	<u>\$ 2,452.4</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
Accounts payable	\$ 511.0	\$ 381.6
Accrued liabilities	292.3	316.7
Short-term debt and current portion of long-term debt	42.9	42.0
Current portion of capital lease obligations	5.1	5.6
Total current liabilities	851.3	745.9
Long-term debt	882.6	903.5
Capital lease obligations	10.3	13.7
Deferred income taxes	32.1	41.9
Other long-term liabilities	232.6	225.0
Total liabilities	2,008.9	1,930.0
Shareholders' Equity		
Preferred stock	—	—
Common stock	1.4	1.4
Additional paid-in capital	861.3	861.1
Treasury stock, at cost	(56.6)	(52.8)
Accumulated deficit	(211.4)	(162.9)
Accumulated other comprehensive loss	(152.2)	(124.4)
Quad's shareholders' equity	442.5	522.4
Noncontrolling interests	17.7	—
Total shareholders' equity and noncontrolling interests	460.2	522.4
Total liabilities and shareholders' equity	<u>\$ 2,469.1</u>	<u>\$ 2,452.4</u>

QUAD/GRAPHICS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
For the Years Ended December 31, 2018 and 2017
(in millions)
(UNAUDITED)

	Year Ended December 31,	
	2018	2017
OPERATING ACTIVITIES		
Net earnings	\$ 7.9	\$ 107.2
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	230.7	232.5
Employee stock ownership plan contribution	22.3	—
Impairment charges	26.5	12.0
Loss on debt extinguishment	—	2.6
Stock-based compensation	15.6	16.4
Gain on the sale or disposal of property, plant and equipment	(17.8)	(6.9)
Loss on the sale of a business	—	7.7
Gain from property insurance claims	(18.3)	(5.0)
Settlement loss on pension benefit plans	—	0.8
Deferred income taxes	(14.5)	(22.5)
Other non-cash adjustments to net earnings	2.5	3.5
Changes in operating assets and liabilities	5.7	(4.3)
Net cash provided by operating activities	<u>260.6</u>	<u>344.0</u>
INVESTING ACTIVITIES		
Purchases of property, plant and equipment	(96.3)	(85.9)
Proceeds from the sale of property, plant and equipment	32.7	23.9
Proceeds from the sale of a business	—	14.1
Proceeds from property insurance claims	14.5	8.0
Loan to an unconsolidated entity	—	(7.3)
Acquisition of businesses—net of cash acquired	(71.4)	—
Net cash used in investing activities	<u>(120.5)</u>	<u>(47.2)</u>
FINANCING ACTIVITIES		
Proceeds from issuance of long-term debt	7.8	375.0
Payments of long-term debt	(33.2)	(522.9)
Payments of capital lease obligations	(6.3)	(7.6)
Borrowings on revolving credit facilities	2,563.7	718.5
Payments on revolving credit facilities	(2,561.1)	(736.0)
Payments of debt issuance costs and financing fees	—	(4.7)
Purchases of treasury stock	(36.7)	(3.8)
Proceeds from stock options exercised	4.2	2.6
Equity awards redeemed to pay employees' tax obligations	(9.0)	(6.0)
Payment of cash dividends	(62.9)	(62.5)
Other financing activities	—	(4.3)
Net cash used in financing activities	<u>(133.5)</u>	<u>(251.7)</u>
Effect of exchange rates on cash and cash equivalents	<u>(1.5)</u>	<u>0.1</u>
Net increase in cash and cash equivalents	5.1	45.2
Cash and cash equivalents at beginning of year	<u>64.4</u>	<u>19.2</u>
Cash and cash equivalents at end of year	<u>\$ 69.5</u>	<u>\$ 64.4</u>

QUAD/GRAPHICS, INC.
SEGMENT FINANCIAL INFORMATION
For the Three Months and Years Ended December 31, 2018 and 2017
(in millions)
(UNAUDITED)

	Net Sales	Operating Income (Loss)	Restructuring, Impairment and Transaction-Related Charges ⁽¹⁾
Three months ended December 31, 2018			
United States Print and Related Services	\$ 1,079.0	\$ 51.4	\$ 6.1
International	102.6	(9.6)	17.3
Total operating segments	1,181.6	41.8	23.4
Corporate	—	(52.4)	39.6
Total	\$ 1,181.6	\$ (10.6)	\$ 63.0
Three months ended December 31, 2017			
United States Print and Related Services	\$ 1,059.3	\$ 37.7	\$ 35.9
International	104.9	4.3	1.5
Total operating segments	1,164.2	42.0	37.4
Corporate	—	(14.6)	0.5
Total	\$ 1,164.2	\$ 27.4	\$ 37.9
Year ended December 31, 2018			
United States Print and Related Services	\$ 3,806.6	\$ 154.0	\$ 37.8
International	387.1	1.5	22.2
Total operating segments	4,193.7	155.5	60.0
Corporate	—	(97.5)	43.6
Total	\$ 4,193.7	\$ 58.0	\$ 103.6
Year ended December 31, 2017			
United States Print and Related Services	\$ 3,740.1	\$ 194.3	\$ 53.6
International	391.3	19.6	3.3
Total operating segments	4,131.4	213.9	56.9
Corporate	—	(58.6)	3.5
Total	\$ 4,131.4	\$ 155.3	\$ 60.4

⁽¹⁾ Restructuring, impairment and transaction-related charges are included within operating income (loss).

QUAD/GRAPHICS, INC.
RECONCILIATION OF GAAP TO NON-GAAP MEASURES
EBITDA, EBITDA MARGIN, ADJUSTED EBITDA AND ADJUSTED EBITDA MARGIN
For the Three Months Ended December 31, 2018 and 2017
(in millions)
(UNAUDITED)

	Three Months Ended December 31,	
	2018	2017
Net earnings (loss) attributable to Quad common shareholders	\$ (20.8)	\$ 55.3
Interest expense	19.3	17.5
Income tax benefit	(5.9)	(42.8)
Depreciation and amortization	57.1	57.0
EBITDA (Non-GAAP)	\$ 49.7	\$ 87.0
EBITDA Margin (Non-GAAP)	4.2%	7.5%
Restructuring, impairment and transaction-related charges ⁽¹⁾	63.0	37.9
Net pension income ⁽²⁾	(3.1)	(1.8)
Equity in earnings of unconsolidated entity ⁽³⁾	(0.3)	(0.8)
Net earnings attributable to noncontrolling interests ⁽⁴⁾	0.2	—
Adjusted EBITDA (Non-GAAP)	\$ 109.5	\$ 122.3
Adjusted EBITDA Margin (Non-GAAP)	9.3%	10.5%

⁽¹⁾ Operating results for the three months ended December 31, 2018 and 2017, were affected by the following restructuring, impairment and transaction-related charges:

	Three Months Ended December 31,	
	2018	2017
Employee termination charges ^(a)	\$ 5.8	\$ 13.7
Impairment charges ^(b)	10.5	11.0
Transaction-related charges ^(c)	7.1	1.3
Integration costs ^(d)	0.6	—
Other restructuring charges ^(e)	39.0	11.9
Restructuring, impairment and transaction-related charges	\$ 63.0	\$ 37.9

^(a) Employee termination charges were related to workforce reductions through facility consolidations and separation programs.

^(b) Impairment charges were primarily for certain property, plant and equipment no longer being utilized in production as a result of facility consolidations, as well as other capacity and strategic reduction restructuring initiatives, including \$5.0 million of impairment charges for machinery and equipment in Peru during the three months ended December 31, 2018.

^(c) Transaction-related charges consisted of professional service fees related to business acquisition and divestiture activities, including \$6.4 million of legal fees incurred related to the proposed acquisition of LSC Communications, Inc. ("LSC") during the three months ended December 31, 2018, and \$1.0 million of legal fees incurred related to the sale of a business during the three months ended December 31, 2017.

^(d) Integration costs were primarily related to the integration of acquired companies.

^(e) Other restructuring charges includes costs to maintain and exit closed facilities, as well as lease exit charges, and is presented net of gains on the sale of facilities. Included in other restructuring charges during the three months ended December 31, 2018, was a \$32.1 million increase to the Company's multiemployer pension plans ("MEPPs") withdrawal liability and \$10.0 million in charges for certain legal matters and customer contract penalties related to the Company's operations in Peru. A \$6.7 million loss on the sale of a business was recorded during the three months ended December 31, 2017.

⁽²⁾ As required by United States GAAP, pension components other than service cost are required to be excluded from operating income. The Company has also excluded pension income from the calculation of Adjusted EBITDA, which is reflected in all periods presented.

⁽³⁾ The equity in earnings of unconsolidated entity includes the results of operations for an investment in an entity where Quad has the ability to exert significant influence, but not control, which is accounted for using the equity method of accounting.

⁽⁴⁾ The net earnings attributable to noncontrolling interests is the portion of the net earnings not owned by Quad for an investment where Quad has a controlling financial interest.

In addition to financial measures prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), this earnings announcement also contains Non-GAAP financial measures, specifically EBITDA, EBITDA Margin, Adjusted EBITDA, Adjusted EBITDA Margin, Free Cash Flow, Debt Leverage Ratio and Adjusted Diluted Earnings Per Share. The Company believes that these Non-GAAP measures, when presented in conjunction with comparable GAAP measures, provide additional information for evaluating Quad's performance and are important measures by which Quad's management assesses the profitability and liquidity of its business. These Non-GAAP measures should be considered in addition to, not as a substitute for or superior to, net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. These Non-GAAP measures may be different than Non-GAAP financial measures used by other companies.

QUAD/GRAPHICS, INC.
RECONCILIATION OF GAAP TO NON-GAAP MEASURES
EBITDA, EBITDA MARGIN, ADJUSTED EBITDA AND ADJUSTED EBITDA MARGIN
For the Years Ended December 31, 2018 and 2017
(in millions)
(UNAUDITED)

	Year Ended December 31,	
	2018	2017
Net earnings attributable to Quad common shareholders	\$ 8.5	\$ 107.2
Interest expense	73.3	71.1
Income tax benefit	(9.8)	(16.0)
Depreciation and amortization	230.7	232.5
EBITDA (Non-GAAP)	\$ 302.7	\$ 394.8
EBITDA Margin (Non-GAAP)	7.2%	9.6%
Restructuring, impairment and transaction-related charges ⁽¹⁾	103.6	60.4
Net pension income ⁽²⁾	(12.4)	(9.6)
Employee stock ownership plan contribution ⁽³⁾	22.3	—
Loss on debt extinguishment ⁽⁴⁾	—	2.6
Equity in earnings of unconsolidated entity ⁽⁵⁾	(1.0)	—
Net loss attributable to noncontrolling interests ⁽⁶⁾	(0.6)	—
Adjusted EBITDA (Non-GAAP)	\$ 414.6	\$ 448.2
Adjusted EBITDA Margin (Non-GAAP)	9.9%	10.8%

⁽¹⁾ Operating results for the years ended December 31, 2018 and 2017, were affected by the following restructuring, impairment and transaction-related charges:

	Year Ended December 31,	
	2018	2017
Employee termination charges ^(a)	\$ 23.0	\$ 26.9
Impairment charges ^(b)	26.5	12.0
Transaction-related charges ^(c)	8.2	3.1
Integration costs ^(d)	1.3	—
Other restructuring charges ^(e)	44.6	18.4
Restructuring, impairment and transaction-related charges	\$ 103.6	\$ 60.4

^(a) Employee termination charges were related to workforce reductions through facility consolidations and separation programs.

^(b) Impairment charges were primarily for certain property, plant and equipment no longer being utilized in production as a result of facility consolidations, as well as other capacity and strategic reduction restructuring initiatives, including \$5.0 million of impairment charges for machinery and equipment in Peru during the year ended December 31, 2018.

^(c) Transaction-related charges consisted of professional service fees related to business acquisition and divestiture activities, including \$6.4 million of legal fees incurred related to the proposed acquisition of LSC during the year ended December 31, 2018, and \$1.0 million of legal fees incurred related to the sale of a business during the year ended December 31, 2017.

^(d) Integration costs were primarily related to the integration of acquired companies.

^(e) Other restructuring charges includes costs to maintain and exit closed facilities, as well as lease exit charges, and is presented net of gains on the sale of facilities and a gain related to the Company's Argentina Subsidiaries' settlements with vendors through bankruptcy proceedings during the year ended December 31, 2017. Included in other restructuring charges during the year ended December 31, 2018, was a \$32.1 million increase to the Company's MEPPs withdrawal liability and \$10.0 million in charges for certain legal matters and customer contract penalties related to the Company's operations in Peru. A \$6.7 million loss on the sale of a business was recorded during the year ended December 31, 2017.

⁽²⁾ As required by United States GAAP, pension components other than service cost are required to be excluded from operating income. The Company has also excluded pension income from the calculation of Adjusted EBITDA, which is reflected in all periods presented.

⁽³⁾ The Company made a \$22.3 million non-cash contribution to the Company's employee stock ownership plan during the year ended December 31, 2018.

⁽⁴⁾ The \$2.6 million loss on debt extinguishment recorded during the year ended December 31, 2017, related to the second amendment to the Company's April 28, 2014 Senior Secured Credit Facility, completed on February 10, 2017.

⁽⁵⁾ The equity in earnings of unconsolidated entity includes the results of operations for an investment in an entity where Quad has the ability to exert significant influence, but not control, which is accounted for using the equity method of accounting.

⁽⁶⁾ The net loss attributable to noncontrolling interests is the portion of the net loss not owned by Quad for an investment where Quad has a controlling financial interest.

In addition to financial measures prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), this earnings announcement also contains Non-GAAP financial measures, specifically EBITDA, EBITDA Margin, Adjusted EBITDA, Adjusted EBITDA Margin, Free Cash Flow, Debt Leverage Ratio and Adjusted Diluted Earnings Per Share. The Company believes that these Non-GAAP measures, when presented in conjunction with comparable GAAP measures, provide additional information for evaluating Quad's performance and are important measures by which Quad's management assesses the profitability and liquidity of its business. These Non-GAAP measures should be considered in addition to, not as a substitute for or superior to, net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. These Non-GAAP measures may be different than Non-GAAP financial measures used by other companies.

QUAD/GRAPHICS, INC.
RECONCILIATION OF GAAP TO NON-GAAP MEASURES
FREE CASH FLOW
For the Years Ended December 31, 2018 and 2017
(in millions)
(UNAUDITED)

	Year Ended December 31,	
	2018	2017
Net cash provided by operating activities	\$ 260.6	\$ 344.0
Less: purchases of property, plant and equipment	(96.3)	(85.9)
Free Cash Flow (Non-GAAP)	\$ 164.3	\$ 258.1

In addition to financial measures prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), this earnings announcement also contains Non-GAAP financial measures, specifically EBITDA, EBITDA Margin, Adjusted EBITDA, Adjusted EBITDA Margin, Free Cash Flow, Debt Leverage Ratio and Adjusted Diluted Earnings Per Share. The Company believes that these Non-GAAP measures, when presented in conjunction with comparable GAAP measures, provide additional information for evaluating Quad's performance and are important measures by which Quad's management assesses the profitability and liquidity of its business. These Non-GAAP measures should be considered in addition to, not as a substitute for or superior to, net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. These Non-GAAP measures may be different than Non-GAAP financial measures used by other companies.

QUAD/GRAPHICS, INC.
RECONCILIATION OF GAAP TO NON-GAAP MEASURES
DEBT LEVERAGE RATIO
As of December 31, 2018 and 2017
(in millions, except ratio)
(UNAUDITED)

	December 31, 2018	December 31, 2017
Total debt and capital lease obligations on the condensed consolidated balance sheets	\$ 940.9	\$ 964.8
Divided by:		
Adjusted EBITDA for Quad for the year ended (Non-GAAP)	\$ 414.6	\$ 448.2
January 1, 2018 to February 20, 2018 pro forma Adjusted EBITDA for Ivie (Non-GAAP) ⁽¹⁾	2.9	—
Adjusted EBITDA for the year ended (Non-GAAP)	\$ 417.5	\$ 448.2
Debt Leverage Ratio (Non-GAAP)	2.25x	2.15x
Debt Leverage Ratio—net of excess cash (Non-GAAP) ⁽²⁾	2.11x	2.03x

⁽¹⁾ As permitted by the Company's senior secured credit facility, certain pro forma financial information related to the acquisition of Ivie & Associates ("Ivie") was included in calculating the Debt Leverage Ratio as of December 31, 2018. As the acquisition of Ivie was completed on February 21, 2018, the \$2.9 million pro forma Adjusted EBITDA represents the period from January 1, 2018, to February 20, 2018. Adjusted EBITDA for Ivie was calculated in a consistent manner with the calculation above for Quad. Ivie's financial information has been consolidated within Quad's financial results since the date of acquisition. If the two months of pro forma Adjusted EBITDA for Ivie was not included in the calculation, the Company's Debt Leverage Ratio would have been 2.27x as of December 31, 2018.

⁽²⁾ The Company had \$70 million and \$64 million in cash and cash equivalents at December 31, 2018 and 2017, respectively. Based on the Company's typical year-end cash balance of approximately \$10 million, Quad had \$60 million and \$54 million of excess cash at December 31, 2018 and 2017, respectively. If the excess cash in each year was used to further pay down debt, the Debt Leverage Ratio would have been 2.11x and 2.03x at December 31, 2018 and 2017, respectively.

In addition to financial measures prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), this earnings announcement also contains Non-GAAP financial measures, specifically EBITDA, EBITDA Margin, Adjusted EBITDA, Adjusted EBITDA Margin, Free Cash Flow, Debt Leverage Ratio and Adjusted Diluted Earnings Per Share. The Company believes that these Non-GAAP measures, when presented in conjunction with comparable GAAP measures, provide additional information for evaluating Quad's performance and are important measures by which Quad's management assesses the profitability and liquidity of its business. These Non-GAAP measures should be considered in addition to, not as a substitute for or superior to, net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. These Non-GAAP measures may be different than Non-GAAP financial measures used by other companies.

QUAD/GRAPHICS, INC.
RECONCILIATION OF GAAP TO NON-GAAP MEASURES
ADJUSTED DILUTED EARNINGS PER SHARE
For the Three Months Ended December 31, 2018 and 2017
(in millions, except per share data)
(UNAUDITED)

	Three Months Ended December 31,	
	2018	2017
Earnings (loss) before income taxes and equity in earnings of unconsolidated entity	\$ (26.8)	\$ 11.7
Restructuring, impairment and transaction-related charges	63.0	37.9
	<u>36.2</u>	<u>49.6</u>
Income tax expense at normalized tax rate ⁽²⁾	9.1	19.8
Adjusted net earnings (Non-GAAP)	<u>\$ 27.1</u>	<u>\$ 29.8</u>
Basic weighted average number of common shares outstanding	49.4	50.1
Plus: effect of dilutive equity incentive instruments (Non-GAAP)	1.5	2.2
Diluted weighted average number of common shares outstanding (Non-GAAP)	<u>50.9</u>	<u>52.3</u>
Adjusted diluted earnings per share (Non-GAAP) ⁽¹⁾	<u>\$ 0.53</u>	<u>\$ 0.57</u>
Diluted earnings (loss) per share attributable to Quad common shareholders (GAAP)	\$ (0.42)	\$ 1.06
Restructuring, impairment and transaction-related charges per share	1.24	0.72
Income tax benefit from condensed consolidated statement of operations per share	(0.11)	(0.82)
Income tax expense at normalized tax rate per share ⁽²⁾	(0.18)	(0.38)
Equity in earnings of unconsolidated entity from condensed consolidated statement of operations per share	—	(0.01)
Net earnings attributable to noncontrolling interests from condensed consolidated statement of operations per share	—	—
Adjusted diluted earnings per share (Non-GAAP) ⁽¹⁾	<u>\$ 0.53</u>	<u>\$ 0.57</u>

⁽¹⁾ Adjusted diluted earnings per share excludes the following: (i) restructuring, impairment and transaction-related charges; (ii) discrete income tax items; (iii) equity in earnings of unconsolidated entity; and (iv) net earnings attributable to noncontrolling interests.

⁽²⁾ A normalized income tax rate of 25% was used for the three months ended December 31, 2018, based on rates resulting from the enactment of the Tax Cuts and Jobs Act in December 2017. The Company used a normalized income tax rate of 40% for the three months ended December 31, 2017, consistent with the normalized rate used prior to the enactment of the Tax Cuts and Jobs Act.

In addition to financial measures prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), this earnings announcement also contains Non-GAAP financial measures, specifically EBITDA, EBITDA Margin, Adjusted EBITDA, Adjusted EBITDA Margin, Free Cash Flow, Debt Leverage Ratio and Adjusted Diluted Earnings Per Share. The Company believes that these Non-GAAP measures, when presented in conjunction with comparable GAAP measures, provide additional information for evaluating Quad's performance and are important measures by which Quad's management assesses the profitability and liquidity of its business. These Non-GAAP measures should be considered in addition to, not as a substitute for or superior to, net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. These Non-GAAP measures may be different than Non-GAAP financial measures used by other companies.

QUAD/GRAPHICS, INC.
RECONCILIATION OF GAAP TO NON-GAAP MEASURES
ADJUSTED DILUTED EARNINGS PER SHARE
For the Years Ended December 31, 2018 and 2017
(in millions, except per share data)
(UNAUDITED)

	Year Ended December 31,	
	2018	2017
Earnings (loss) before income taxes and equity in earnings of unconsolidated entity	\$ (2.9)	\$ 91.2
Restructuring, impairment and transaction-related charges	103.6	60.4
Employee stock ownership plan contribution	22.3	—
Loss on debt extinguishment	—	2.6
	<u>123.0</u>	<u>154.2</u>
Income tax expense at normalized tax rate ⁽²⁾	30.8	61.7
Adjusted net earnings (Non-GAAP)	<u>\$ 92.2</u>	<u>\$ 92.5</u>
Basic weighted average number of common shares outstanding	49.8	49.6
Plus: effect of dilutive equity incentive instruments	1.8	2.2
Diluted weighted average number of common shares outstanding	<u>51.6</u>	<u>51.8</u>
Adjusted diluted earnings per share (Non-GAAP) ⁽¹⁾	<u>\$ 1.79</u>	<u>\$ 1.79</u>
Diluted earnings per share attributable to Quad common shareholders (GAAP)	\$ 0.16	\$ 2.07
Restructuring, impairment and transaction-related charges per share	2.01	1.17
Employee stock ownership plan contribution per share	0.43	—
Loss on debt extinguishment per share	—	0.05
Income tax benefit from condensed consolidated statement of operations per share	(0.19)	(0.31)
Income tax expense at normalized tax rate per share ⁽²⁾	(0.59)	(1.19)
Equity in earnings of unconsolidated entity from condensed consolidated statement of operations per share	(0.02)	—
Net loss attributable to noncontrolling interests from condensed consolidated statement of operations per share	(0.01)	—
Adjusted diluted earnings per share (Non-GAAP) ⁽¹⁾	<u>\$ 1.79</u>	<u>\$ 1.79</u>

⁽¹⁾ Adjusted diluted earnings per share excludes the following: (i) restructuring, impairment and transaction-related charges; (ii) employee stock ownership plan contribution; (iii) loss on debt extinguishment; (iv) discrete income tax items; (v) equity in earnings of unconsolidated entity; and (vi) net loss attributable to noncontrolling interests.

⁽²⁾ A normalized income tax rate of 25% was used for the year ended December 31, 2018, based on rates resulting from the enactment of the Tax Cuts and Jobs Act in December 2017. The Company used a normalized income tax rate of 40% for the year ended December 31, 2017, consistent with the normalized rate used prior to the enactment of the Tax Cuts and Jobs Act.

In addition to financial measures prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), this earnings announcement also contains Non-GAAP financial measures, specifically EBITDA, EBITDA Margin, Adjusted EBITDA, Adjusted EBITDA Margin, Free Cash Flow, Debt Leverage Ratio and Adjusted Diluted Earnings Per Share. The Company believes that these Non-GAAP measures, when presented in conjunction with comparable GAAP measures, provide additional information for evaluating Quad's performance and are important measures by which Quad's management assesses the profitability and liquidity of its business. These Non-GAAP measures should be considered in addition to, not as a substitute for or superior to, net earnings (loss) as a measure of operating performance or to cash flows provided by operating activities as a measure of liquidity. These Non-GAAP measures may be different than Non-GAAP financial measures used by other companies.