UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended: June 30, 2021 or

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

For the transition period from ________________ to ________________
Commission file number: 000-25426

NATIONAL INSTRUMENTS CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	**74-1871327**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
11500 North MoPac Expressway Austin, Texas	**78759**
(Address of principal executive offices)	*(Zip code)*

Registrant's telephone number, including area code: (512) 683-0100
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol(s)	Name of exchange on which registered
Common Stock, $0.01 par value	NATI	Nasdaq Stock Market

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 ☒ No ☐

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☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, 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. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding at July 29, 2021
Common Stock, $0.01 par value	132,980,932

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PART I - FINANCIAL INFORMATION

ITEM 1. ***Financial Statements***

NATIONAL INSTRUMENTS CORPORATION
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	June 30, 2021	December 31, 2020
Assets	**(unaudited)**	
Cash and cash equivalents	$ 250,421	$ 260,232
Short-term investments	14,110	59,923
Accounts receivable, net	258,641	266,869
Inventories, net	211,023	194,012
Prepaid expenses and other current assets	80,121	68,470
Total current assets	814,316	849,506
Property and equipment, net	250,761	254,399
Goodwill	483,136	467,547
Intangible assets, net	149,126	172,719
Operating lease right-of-use assets	57,812	67,674
Other long-term assets	76,878	72,643
Total assets	$ 1,832,029	$ 1,884,488
Liabilities and stockholders' equity		
Accounts payable and accrued expenses	$ 56,477	$ 51,124
Accrued compensation	68,932	87,068
Deferred revenue - current	125,986	132,151
Operating lease liabilities - current	13,389	15,801
Other taxes payable	39,339	48,129
Debt, current	—	5,000
Other current liabilities	26,854	42,578
Total current liabilities	330,977	381,851
Deferred income taxes	28,359	25,288
Income tax payable - non-current	54,195	61,623
Deferred revenue - non-current	34,624	36,335
Operating lease liabilities - non-current	29,512	35,854
Debt, non-current	100,000	92,036
Other long-term liabilities	18,710	26,630
Total liabilities	596,377	659,617
Commitments and contingencies		
Stockholders' equity:		
Preferred stock: par value $0.01; 5,000,000 shares authorized; none issued and outstanding	—	—
Common stock: par value $0.01; 360,000,000 shares authorized; 132,980,932 shares and 131,246,615 shares issued and outstanding, respectively	1,330	1,312
Additional paid-in capital	1,087,622	1,033,284
Retained earnings	161,475	211,101
Accumulated other comprehensive loss	(14,775)	(20,826)
Total stockholders' equity	1,235,652	1,224,871
Total liabilities and stockholders' equity	$ 1,832,029	$ 1,884,488

The accompanying notes are an integral part of the financial statements.

NATIONAL INSTRUMENTS CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share data)
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	**2020**	**2021**	**2020**
Net sales:				
Product	$ 306,490	$ 266,261	$ 601,583	$ 540,239
Software maintenance	40,206	35,068	80,295	70,470
Total net sales	346,696	301,329	681,878	610,709
Cost of sales:				
Product	95,722	83,795	187,379	165,866
Software maintenance	3,516	2,106	7,273	3,796
Total cost of sales	99,238	85,901	194,652	169,662
Gross profit	247,458	215,428	487,226	441,047
Operating expenses:				
Sales and marketing	111,199	105,419	227,983	221,165
Research and development	81,434	64,225	161,520	135,846
General and administrative	30,277	29,369	63,636	55,549
Total operating expenses	222,910	199,013	453,139	412,560
Gain on sale of business/assets	—	—	—	159,753
Operating income	24,548	16,415	34,087	188,240
Other expense	(2,963)	(1,143)	(8,031)	(583)
Income before income taxes	21,585	15,272	26,056	187,657
Provision for income taxes	4,279	4,383	4,254	44,113
Net income	$ 17,306	$ 10,889	$ 21,802	$ 143,544
Basic earnings per share	$ 0.13	$ 0.08	$ 0.17	$ 1.10
Weighted average shares outstanding - basic	132,498	131,014	131,996	130,813
Diluted earnings per share	$ 0.13	$ 0.08	$ 0.16	$ 1.09
Weighted average shares outstanding - diluted	133,539	131,602	133,157	131,499
Dividends declared per share	$ 0.27	$ 0.26	$ 0.54	$ 0.52

The accompanying notes are an integral part of these financial statements.

NATIONAL INSTRUMENTS CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Net income	$ 17,306	$ 10,889	$ 21,802	$ 143,544
Other comprehensive income (loss), before tax and net of reclassification adjustments:				
Foreign currency translation adjustment	2,284	3,938	(4,911)	(1,975)
Unrealized (loss) gain on securities available-for-sale	(54)	2,634	(141)	(154)
Unrealized gain (loss) on derivative instruments	2,381	(74)	14,362	(598)
Other comprehensive income (loss), before tax	4,611	6,498	9,310	(2,727)
Tax expense (benefit) related to items of other comprehensive income	498	(56)	3,259	68
Other comprehensive income (loss), net of tax	4,113	6,554	6,051	(2,795)
Comprehensive income	$ 21,419	$ 17,443	$ 27,853	$ 140,749

The accompanying notes are an integral part of these financial statements.

NATIONAL INSTRUMENTS CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Six Months Ended June 30, 2021	Six Months Ended June 30, 2020
Cash flow from operating activities:		
Net income	$ 21,802	$ 143,544
Adjustments to reconcile net income to net cash provided by operating activities:		
Disposal gain on sale of business/assets	—	(159,753)
Depreciation and amortization	50,024	38,341
Stock-based compensation	37,208	27,335
Loss from equity-method investees	5,360	1,932
Deferred income taxes	1,301	2,711
Changes in operating assets and liabilities	(63,372)	47,388
Net cash provided by operating activities	52,323	101,498
Cash flow from investing activities:		
Acquisitions, net of cash received	(19,784)	—
Capital expenditures	(17,411)	(25,362)
Proceeds from sale of assets/business, net of cash divested	—	160,266
Capitalization of internally developed software	(721)	(3,108)
Additions to other intangibles	(1,519)	(630)
Payments to acquire equity-method investments	(12,551)	—
Purchases of short-term investments	—	(206,330)
Sales and maturities of short-term investments	45,671	306,955
Net cash (used in) provided by investing activities	(6,315)	231,791
Cash flow from financing activities:		
Proceeds from revolving line of credit	100,000	20,000
Proceeds from term loan	—	70,000
Payments on term loan	(98,750)	—
Debt issuance costs	(1,993)	(1,480)
Proceeds from issuance of common stock	17,239	17,252
Repurchase of common stock	—	(23,680)
Dividends paid	(71,428)	(68,156)
Net cash (used in) provided by financing activities	(54,932)	13,936
Effect of exchange rate changes on cash	(887)	(636)
Net change in cash and cash equivalents	(9,811)	346,589
Cash and cash equivalents at beginning of period	260,232	194,616
Cash and cash equivalents at end of period	$ 250,421	$ 541,205

The accompanying notes are an integral part of these financial statements.

NATIONAL INSTRUMENTS CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands, except share data and per share data)
(unaudited)

June 30, 2021
(Unaudited)

	Common Stock Shares	Common Stock Amount	Additional-Paid in Capital	Retained Earnings	Accumulated Other Comprehensive Income/(Loss)	Total Stockholders' Equity
Balance at March 31, 2021	131,607,036	$ 1,316	$ 1,059,018	$ 180,063	$ (18,888)	$ 1,221,509
Net income	—	—	—	17,306	—	17,306
Other comprehensive income, net of tax	—	—	—	—	4,113	4,113
Issuance of common stock under employee plans	1,373,896	14	8,660	—	—	8,674
Stock-based compensation	—	—	19,944	—	—	19,944
Dividends paid (1)	—	—	—	(35,894)	—	(35,894)
Balance at June 30, 2021	132,980,932	1,330	1,087,622	161,475	(14,775)	1,235,652

	Common Stock Shares	Common Stock Amount	Additional-Paid in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance at December 31, 2020	131,246,615	1,312	1,033,284	211,101	(20,826)	1,224,871
Net income	—	—	—	21,802	—	21,802
Other comprehensive loss, net of tax	—	—	—	—	6,051	6,051
Issuance of common stock under employee plans	1,734,317	18	17,221	—	—	17,239
Stock-based compensation	—	—	37,117	—	—	37,117
Dividends paid (1)	—	—	—	(71,428)	—	(71,428)
Balance at June 30, 2021	132,980,932	$ 1,330	$ 1,087,622	$ 161,475	$ (14,775)	$ 1,235,652

(1) Cash dividends declared per share of common stock were $0.27 for the three months ended June 30, 2021, and $0.54 for the six months ended June 30, 2021.

The accompanying notes are an integral part of these financial statements.

	June 30, 2020 (Unaudited)					
	Common Stock Shares	**Common Stock Amount**	**Additional-Paid in Capital**	**Retained Earnings**	**Accumulated Other Comprehensive Income/(Loss)**	**Total Stockholders' Equity**
Balance at March 31, 2020	130,595,203	$ 1,306	$ 973,354	$ 335,876	$ (30,419)	$ 1,280,117
Net income	—	—	—	10,889	—	10,889
Other comprehensive gain, net of tax	—	—	—	—	6,554	6,554
Issuance of common stock under employee plans	1,344,231	13	8,248	—	—	8,261
Stock-based compensation	—	—	15,130	—	—	15,130
Repurchase of common stock	(503,326)	(5)	(3,674)	(13,474)	—	(17,153)
Dividends paid (1)	—	—	—	(34,159)	—	(34,159)
Balance at June 30, 2020	131,436,108	1,314	993,058	299,132	(23,865)	1,269,639

	Common Stock Shares	**Common Stock Amount**	**Additional-Paid in Capital**	**Retained Earnings**	**Accumulated Other Comprehensive Income/(Loss)**	**Total Stockholders' Equity**
Balance at December 31, 2019	130,504,535	1,305	953,578	242,537	(21,070)	1,176,350
Net income	—	—	—	143,544	—	143,544
Other comprehensive loss, net of tax	—	—	—	—	(2,795)	(2,795)
Issuance of common stock under employee plans	1,599,772	16	17,236	—	—	17,252
Stock-based compensation	—	—	27,124	—	—	27,124
Repurchase of common stock	(668,199)	(7)	(4,880)	(18,793)	—	(23,680)
Dividends paid (1)	—	—	—	(68,156)	—	(68,156)
Balance at June 30, 2020	131,436,108	$ 1,314	$ 993,058	$ 299,132	$ (23,865)	$ 1,269,639

(1) Cash dividends declared per share of common stock were $0.26 for the three months ended June 30, 2020, and $0.52 for the six months ended June 30, 2020.

The accompanying notes are an integral part of these financial statements.

NATIONAL INSTRUMENTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 – Basis of presentation

The accompanying unaudited consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto for the fiscal year ended December 31, 2020, included in our Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 23, 2021 (the "Form 10-K"). In our opinion, the accompanying consolidated financial statements reflect all adjustments (consisting only of normal recurring items) considered necessary to present fairly our financial position at June 30, 2021 and December 31, 2020, the results of our operations and comprehensive income for three and six months ended June 30, 2021 and 2020, our cash flows for the six months ended June 30, 2021 and 2020 and our statement of stockholders' equity for the three and six months ended June 30, 2021 and 2020. Our operating results for the three and six months ended June 30, 2021 are not necessarily indicative of the results that may be expected for the year ending December 31, 2021. These financial statements have been prepared in accordance with accounting principles generally accepted in the United States.

Reclassifications

Certain reclassifications have been made to prior period amounts to conform to the current period presentation.

Recently Adopted Accounting Pronouncements

Clarification of Equity Method Transition

In January 2020, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2020-01, “Investments-Equity Securities (Topic 321), Investments-Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815): Clarifying the Interactions between Topic 321, Topic 323, and Topic 815,” which clarifies the interaction of the accounting for equity investments under Topic 321 and investments accounted for under the equity method of accounting in Topic 323 and the accounting for certain forward contracts and purchased options accounted for under Topic 815. The standard is effective for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. We adopted ASU 2020-01 on January 1, 2021, and the new standard did not have a material impact on our consolidated financial statements and related disclosures.

Recently Issued Accounting Pronouncements

Although there are several other accounting pronouncements recently issued by the FASB, we do not expect the adoption of any of these accounting pronouncements had or will have a material impact on our consolidated financial statements.

Summary of Significant Accounting Policies

There were no changes in our significant accounting policies during the three and six months ended June 30, 2021 compared to the significant accounting policies described in our Form 10-K.

Divestitures

AWR

On January 15, 2020, we completed the sale of our AWR Corporation subsidiary ("AWR") for approximately $161 million. We recognized a gain of approximately $160 million on the sale. The gain is included within "Gain on sale of business/assets" in the consolidated statements of income, which also included approximately $1 million of transaction costs.

The divestiture of AWR resulted in the derecognition of the following assets and liabilities (in thousands):

Cash	$	1,027
Accounts receivable, net		7,233
Prepaid and other current assets		283
Goodwill		7,221
Other non-current assets		556
Total Assets		16,320
Deferred revenue		15,296
Other current liabilities		940
Cumulative translation adjustment		(660)
Total liabilities and stockholders' equity		15,576
Total assets divested, net (including cash)	$	744

Other (Expense) Income

Other expense, net consisted of the following amounts (in thousands):

	Three Months Ended June 30, (Unaudited)		Six Months Ended June 30, (Unaudited)	
	2021	**2020**	**2021**	**2020**
Interest income	$ 113	$ 1,011	$ 274	$ 3,310
Interest expense	(1,224)	(66)	(1,927)	(142)
Loss from equity-method investments	(867)	(907)	(5,360)	(1,932)
Net foreign exchange loss	(896)	(838)	(1,455)	(1,343)
Other	(89)	(343)	437	(476)
Other expense, net	$ (2,963)	$ (1,143)	$ (8,031)	$ (583)

Earnings Per Share

Basic earnings per share ("EPS") is computed by dividing net income by the weighted average number of common shares outstanding during each period. Diluted EPS is computed by dividing net income by the weighted average number of common shares and common share equivalents outstanding (if dilutive) during each period. The number of common share equivalents, which includes restricted stock units ("RSUs"), is computed using the treasury stock method. The reconciliation of the denominators used to calculate basic EPS and diluted EPS for the three and six months ended June 30, 2021 and 2020 are as follows (in thousands):

	Three Months Ended June 30, (Unaudited)		Six Months Ended June 30, (Unaudited)	
	2021	**2020**	**2021**	**2020**
Weighted average shares outstanding-basic	132,498	131,014	131,996	130,81[illegible]
Plus: Common share equivalents				
RSUs	1,041	588	1,161	68[illegible]
Weighted average shares outstanding-diluted	133,539	131,602	133,157	131,49[illegible]

Shares issuable upon vesting of RSU awards of 1,369,000 shares and 1,206,000 shares for the three months ended June 30, 2021 and 2020, respectively, and 166,000 shares and 249,000 shares for the six months ended June 30, 2021 and 2020, respectively, were excluded in the computations of diluted EPS because the effect of including the stock awards would have been anti-dilutive.

Other Current Liabilities

Other current liabilities on our consolidated balance sheet includes the following amounts (in thousands):

	As of June 30, 2021 (unaudited)	As of December 31, 2020
Income taxes payable - current	$ —	$ 13,72
Hedge payable - current	7,671	13,03
Other	19,183	15,82
Total	$ 26,854	$ 42,57

Note 2 - Revenue

Revenue Recognition

Revenue is recognized upon transfer of control of the promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. We enter into contracts that can include various combinations of our products or services, which are generally capable of being distinct and accounted for as separate performance obligations. Revenue is recognized net of allowances for returns and any taxes collected from customers, which are subsequently remitted to governmental authorities.

Disaggregation of Revenues

We disaggregate revenue from contracts with customers based on the timing of transfer of goods or services to customers (point-in-time or over time) and geographic region based on the billing location of the customer. We sell our products in the following three geographic regions: the Americas; Europe, Middle East and Africa region ("EMEA"); and Asia-Pacific region ("APAC").

Total net sales based on the disaggregation criteria described above are as follows:

(In thousands)	Three Months Ended June 30, (Unaudited)					
	2021			2020		
Net sales:	**Point-in-Time(1)**	**Over Time**	**Total**	**Point-in-Time(1)**	**Over Time**	**Total**
Americas	$ 112,215	$ 22,455	$ 134,670	$ 103,113	$ 18,595	$ 121,708
EMEA	67,252	21,917	89,169	56,203	18,453	74,656
APAC	111,894	10,963	122,857	94,419	10,546	104,965
Total net sales(1)	$ 291,361	$ 55,335	$ 346,696	$ 253,735	$ 47,594	$ 301,329

(1) Net sales contains hedging gains and losses, which do not represent revenues recognized from customers.
See Note - 5 Derivative instruments and hedging activities of Notes to Consolidated Financial Statements for more information on the impact of our hedging activities on our results of operations.

(In thousands)	Six Months Ended June 30, (Unaudited)					
	2021			2020		
Net sales:	**Point-in-Time[(1)]**	**Over Time**	**Total**	**Point-in-Time[(1)]**	**Over Time**	**Total**
Americas	$ 216,801	$ 44,602	$ 261,403	$ 208,412	$ 38,313	$ 246,725
EMEA	132,355	42,336	174,691	123,896	37,489	161,385
APAC	224,524	21,260	245,784	181,607	20,992	202,599
Total net sales[(1)]	$ 573,680	$ 108,198	$ 681,878	$ 513,915	$ 96,794	$ 610,709

(1) Net sales contains hedging gains and losses, which do not represent revenues recognized from customers.
See Note - 5 Derivative instruments and hedging activities of Notes to Consolidated Financial Statements for more information on the impact of our hedging activities on our results of operations.

Information about Contract Balances

Amounts collected in advance of services being provided are accounted for as deferred revenue. Nearly all of our deferred revenue balance is related to extended hardware and software maintenance contracts. Payment terms and conditions vary by contract type, although payment is typically due within 30 to 90 days of contract inception. In instances where the timing of revenue recognition differs from the timing of invoicing, we have determined our contracts generally do not include a significant financing component. The primary purpose of our invoicing terms is to provide customers with simplified and predictable ways of purchasing our products and services, not to receive financing from our customers, such as invoicing at the beginning of a subscription term with a portion of the revenue recognized ratably over the contract period, or to provide customers with financing, such as multi-year on-premises licenses that are invoiced annually with revenue recognized upfront.

Changes in deferred revenue, current and non-current, during the six months ended June 30, 2021 were as follows:

	Amount (In thousands)
Balance as of December 31, 2020	$ 168,486
Deferral of revenue billed in current period, net of recognition	78,324
Recognition of revenue deferred in prior periods	(83,991)
Foreign currency translation impact	(2,209)
Balance as of June 30, 2021 (unaudited)	$ 160,610

For the six months ended June 30, 2021, revenue recognized from performance obligations satisfied in prior periods (for example, due to changes in transaction price) was not material. Amounts recognized as revenue in excess of amounts billed are recorded as unbilled receivables. Unbilled receivables which are anticipated to be invoiced in the next twelve months are included in "Other current assets" on the consolidated balance sheet. Based on the nature of our contracts with customers, we do not typically recognize unbilled receivables related to revenues recognized in excess of amounts billed. For the six months ended June 30, 2021, the amounts recorded that were related to unbilled receivables were not material.

Unsatisfied Performance Obligations

Revenue expected to be recognized in any future period related to remaining performance obligations, excluding revenue pertaining to contracts that have an original expected duration of one year or less and contracts where revenue is recognized as invoiced, was approximately $62 million as of June 30, 2021. Since we typically invoice customers at contract inception, this amount is included in our current and non-current deferred revenue balances. As of June 30, 2021, we expect to recognize approximately 27% of the revenue related to these unsatisfied performance obligations during the remainder of 2021, 40% during 2022, and 33% thereafter.

Assets Recognized from the Costs to Obtain a Contract with a Customer

We recognize an asset for the incremental costs of obtaining a contract with a customer if we expect the benefit of those costs to be longer than one year. We have determined that certain sales incentive programs meet the requirements to be capitalized. Capitalized incremental costs related to initial contracts and renewals are amortized over the same period because the commissions paid on both the initial contract and renewals are commensurate with one another. Total capitalized costs to obtain a contract were not material during the periods presented and are included in other long-term assets on our consolidated balance sheets.

Note 3 – Short-term investments

The following tables summarize unrealized gains and losses related to our short-term investments designated as available-for-sale debt securities:

(In thousands)	As of June 30, 2021 (Unaudited)			
	Adjusted Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Corporate bonds	$ 14,089	$ 21	$ —	$ 14,110
Total short-term investments	$ 14,089	$ 21	$ —	$ 14,110

(In thousands)	As of December 31, 2020			
	Adjusted Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Corporate bonds	$ 59,761	$ 163	$ (1)	$ 59,923
Total short-term investments	$ 59,761	$ 163	$ (1)	$ 59,923

The following tables summarize the contractual maturities of our short-term investments designated as available-for-sale debt securities:

(In thousands)	As of June 30, 2021 (Unaudited)	
Due in less than 1 year	Adjusted Cost	Fair Value
Corporate bonds	$ 14,089	$ 14,110
Total available-for-sale debt securities	$ 14,089	$ 14,110

Equity-Method Investments

The carrying value of our equity method investments was $33 million and $25 million as of June 30, 2021 and December 31, 2020, respectively. During the first quarter of 2021, we determined there was an other than temporary impairment for one of our equity-method investments, based on revised forecasts. We recorded a $3.5 million impairment loss related to this investment during the three months ended March 31, 2021. Our proportionate share of the income/(loss) from equity-method investments is included within "Other expense". Refer to Note 1 - Basis of Presentation of Notes to Consolidated Financial Statements for additional information on these amounts for the three and six months ended June 30, 2021 and 2020.

Note 4 – Fair value measurements

We define fair value to be the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, we consider the principal or most advantageous market that market participants may use when pricing the asset or liability.

We follow a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. Fair value measurement is determined based on the lowest level input that is significant to the fair value measurement. The three values of the fair value hierarchy are the following:

Level 1 – Quoted prices in active markets for identical assets or liabilities

Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly

Level 3 – Inputs that are not based on observable market data

Assets and liabilities measured at fair value on a recurring basis are summarized below:

(In thousands)	**Fair Value Measurements at Reporting Date Using (Unaudited)**			
Description	**June 30, 2021**	Level 1	Level 2	Level 3
Assets				
Cash and cash equivalents:				
Money market funds	$ 133,432	$ 133,432	$ —	$ —
Short-term investments available for sale:				
Corporate bonds	14,110	—	14,110	—
Derivatives	8,164	—	8,164	—
Total Assets	$ 155,706	$ 133,432	$ 22,274	$ —
Liabilities				
Derivatives	$ (9,467)	$ —	$ (9,467)	$ —
Total Liabilities	$ (9,467)	$ —	$ (9,467)	$ —

(In thousands)	**Fair Value Measurements at Reporting Date Using**			
Description	**December 31, 2020**	Level 1	Level 2	Level 3
Assets				
Cash and cash equivalents:				
Money market funds	$ 145,466	$ 145,466	$ —	$ —
Short-term investments available for sale:				
Corporate bonds	59,923	—	59,923	—
Derivatives	6,124	—	6,124	—
Total Assets	$ 211,513	$ 145,466	$ 66,047	$ —
Liabilities				
Derivatives	$ (19,359)	$ —	$ (19,359)	$ —
Total Liabilities	$ (19,359)	$ —	$ (19,359)	$ —

We value our available-for-sale short-term investments based on pricing from third party pricing vendors, who may use quoted prices in active markets for identical assets (Level 1 inputs) or inputs other than quoted prices that are observable either directly or indirectly (Level 2 inputs) in determining fair value. We classify all of our fixed income available-for-sale securities as having Level 2 inputs. The valuation techniques used to measure the fair value of our financial instruments having Level 2 inputs were derived from non-binding market consensus prices that are corroborated by observable market data, quoted market prices for similar instruments, or pricing models, such as discounted cash flow techniques. We believe all of these sources reflect the credit risk associated with each of our available-for-sale short-term investments. Short-term investments available-for-sale consists of debt securities issued by states of the U.S. and political subdivisions of the U.S., corporate debt securities and debt securities issued by U.S. government organizations and agencies. All of our short-term investments available-for-sale have contractual maturities of less than 60 months.

Derivatives include foreign currency forward contracts. Our foreign currency forward contracts are valued using an income approach (Level 2) based on the spot rate less the contract rate multiplied by the notional amount. We consider counterparty credit risk in the valuation of our derivatives. However, counterparty credit risk did not impact the valuation of our derivatives during the six months ended June 30, 2021. There were no transfers in or out of Level 1 or Level 2 during the six months ended June 30, 2021.

As of June 30, 2021, our short-term investments did not include sovereign debt from any country other than the United States. The majority of our short-term investments that are located outside of the U.S. are denominated in the U.S. dollar.

We did not have any items that were measured at fair value on a nonrecurring basis at June 30, 2021 and December 31, 2020. The carrying value of net accounts receivable, accounts payable, and long-term debt contained in the consolidated balance sheets approximates fair value.

Note 5 – Derivative instruments and hedging activities

We recognize all of our derivative instruments as either assets or liabilities in our statement of financial position at fair value. The accounting for changes in the fair value (i.e., gains or losses) of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and further, on the type of hedging relationship. For those derivative instruments that are designated and qualify as hedging instruments, we designate the hedging instrument, based upon the exposure being hedged, as a fair value hedge, cash flow hedge, or a hedge of a net investment in a foreign operation.

We have direct operations in approximately 40 countries. Sales outside of the Americas accounted for approximately 61% and 60% of our net sales during the three months ended June 30, 2021 and 2020, respectively, and approximately 62% and 60% during the six months ended June 30, 2021 and 2020, respectively. Our activities expose us to a variety of market risks, including the effects of changes in foreign currency exchange rates. These financial risks are monitored and managed by us as an integral part of our overall risk management program.

We maintain a foreign currency risk management strategy that uses derivative instruments (foreign currency forward contracts) to help protect our earnings and cash flows from fluctuations caused by the volatility in currency exchange rates. Movements in foreign currency exchange rates pose a risk to our operations and competitive position, in that exchange rate changes may affect our profitability and cash flow, and the business or pricing strategies of our non-U.S. based competitors.

The vast majority of our foreign sales are denominated in the customers' local currency. We use foreign currency forward contracts as hedges of forecasted sales that are denominated in foreign currencies and as hedges of foreign currency denominated financial assets or liabilities. These contracts are entered into to help protect against the risk that the eventual dollar-net-cash inflows resulting from such sales or firm commitments will be adversely affected by changes in exchange rates. We also use foreign currency forward contracts as hedges of forecasted expenses that are denominated in foreign currencies. These contracts are entered into to help protect against the risk that the eventual dollar-net-cash outflows resulting from foreign currency operating and cost of sales expenses will be adversely affected by changes in exchange rates.

We designate foreign currency forward contracts as cash flow hedges of forecasted net sales or forecasted expenses. In addition, we hedge our foreign currency denominated balance sheet exposures using foreign currency forward contracts that are not designated as hedging instruments. None of our derivative instruments contain a credit-risk-related contingent feature.

Cash flow hedges

To help protect against the reduction in value caused by a fluctuation in foreign currency exchange rates of forecasted foreign currency cash flows resulting from international sales over the next one to three years, we have instituted a foreign currency cash flow hedging program. We hedge portions of our forecasted net sales and forecasted expenses denominated in foreign currencies with forward contracts. For forward contracts, when the dollar strengthens significantly against the foreign currencies, the change in the present value of future foreign currency cash flows may be offset by the change in the fair value of the forward contracts designated as hedges. We use foreign currency forward contracts for up to 100% of our forecasted exposures in selected currencies (primarily in Euro, Japanese yen, Hungarian forint, British pound, Malaysian ringgit, Korean won and Chinese yuan) and limit the duration of these contracts to 40 months or less.

For derivative instruments that are designated and qualify as a cash flow hedge, the gain or loss on the derivative is reported as a component of accumulated other comprehensive income ("OCI") and reclassified into earnings in the same line item (net sales, operating expenses, or cost of sales) associated with the forecasted transaction and in the same period or periods during which the hedged transaction affects earnings. Hedge effectiveness of foreign currency forwards designated as cash flow hedges is measured by comparing the hedging instrument's cumulative change in fair value from inception to maturity to the forecasted transaction's terminal value.

We held forward contracts designated as cash flow hedges with the following notional amounts:

(In thousands)	US Dollar Equivalent	
	As of June 30, 2021 (Unaudited)	**As of December 31, 2020**
British pound	$ 35,446	$ 25,133
Chinese yuan	86,142	45,553
Euro	205,346	219,115
Hungarian forint	69,193	82,429
Japanese yen	57,666	73,399
Korean won	22,889	22,301
Malaysian ringgit	35,257	36,249
Total forward contracts notional amount	$ 511,939	$ 504,179

The contracts in the foregoing table had contractual maturities of 30 months or less at June 30, 2021 and December 31, 2020.

At June 30, 2021, we expect to reclassify $1.4 million of losses on derivative instruments from accumulated OCI to net sales during the next twelve months when the hedged international sales occur, $0.1 million of losses on derivative instruments from accumulated OCI to cost of sales during the next twelve months when the hedged cost of sales are incurred and less than $0.1 million of gains on derivative instruments from accumulated OCI to operating expenses during the next twelve months when the hedged operating expenses occur. Expected amounts are based on derivative valuations at June 30, 2021. Actual results may vary materially as a result of changes in the corresponding exchange rates subsequent to this date.

Other Derivatives

Other derivatives not designated as hedging instruments consist primarily of foreign currency forward contracts that we use to hedge our foreign denominated net receivable or net payable positions to help protect against the change in value caused by a fluctuation in foreign currency exchange rates. We typically attempt to hedge up to 90% of our outstanding foreign denominated net receivables or net payables and typically limit the duration of these foreign currency forward contracts to approximately 90 days or less. The gain or loss on the derivatives as well as the offsetting gain or loss on the hedge item attributable to the hedged risk is recognized in current earnings under the line item "Other expense." As of June 30, 2021 and December 31, 2020, we held foreign currency forward contracts that were not designated as hedging instruments with a notional amount of $116 million and $89 million, respectively.

The following tables present the fair value of derivative instruments on our Consolidated Balance Sheets at June 30, 2021 and December 31, 2020, respectively.

	Asset Derivatives		
(In thousands)		June 30, 2021 (Unaudited)	December 31, 2020
	Balance Sheet Location	Fair Value	Fair Value
Derivatives designated as hedging instruments			
Foreign exchange contracts - ST forwards	Prepaid expenses and other current assets	$ 4,213	$ 1,564
Foreign exchange contracts - LT forwards	Other long-term assets	3,222	3,117
Total derivatives designated as hedging instruments		$ 7,435	$ 4,681
Derivatives not designated as hedging instruments			
Foreign exchange contracts - ST forwards	Prepaid expenses and other current assets	$ 729	$ 1,443
Total derivatives not designated as hedging instruments		$ 729	$ 1,443
Total derivatives		$ 8,164	$ 6,124

	Liability Derivatives		
(In thousands)		June 30, 2021 (Unaudited)	December 31, 2020
	Balance Sheet Location	Fair Value	Fair Value
Derivatives designated as hedging instruments			
Foreign exchange contracts - ST forwards	Other current liabilities	$ (5,506)	$ (12,549)
Foreign exchange contracts - LT forwards	Other long-term liabilities	(1,796)	(6,328)
Total derivatives designated as hedging instruments		$ (7,302)	$ (18,877)
Derivatives not designated as hedging instruments			
Foreign exchange contracts - ST forwards	Other current liabilities	$ (2,165)	$ (482)
Total derivatives not designated as hedging instruments		$ (2,165)	$ (482)
Total derivatives		$ (9,467)	$ (19,359)

The following tables present the effect of derivative instruments on our Consolidated Statements of Income for the three months ended June 30, 2021 and 2020, respectively:

June 30, 2021
(In thousands)
(Unaudited)

Derivatives in Cash Flow Hedging Relationship	Gain or (Loss) Recognized in OCI on Derivative		Location of Gain or (Loss) Reclassified from Accumulated OCI into Income	Gain or (Loss) Reclassified from Accumulated OCI into Income	
Foreign exchange contracts - forwards	$	(558)	Net sales	$	(2,408)
Foreign exchange contracts - forwards		1,692	Cost of sales		20
Foreign exchange contracts - forwards		1,247	Operating expenses		27
Total	$	2,381		$	(2,361)

June 30, 2020
(In thousands)
(Unaudited)

Derivatives in Cash Flow Hedging Relationship	Gain or (Loss) Recognized in OCI on Derivative		Location of Gain or (Loss) Reclassified from Accumulated OCI into Income	Gain or (Loss) Reclassified from Accumulated OCI into Income	
Foreign exchange contracts - forwards	$	(5,132)	Net sales	$	2,726
Foreign exchange contracts - forwards		2,962	Cost of sales		(850)
Foreign exchange contracts - forwards		2,096	Operating expenses		(637)
Total	$	(74)		$	1,239

(In thousands)

Derivatives not Designated as Hedging Instruments	Location of Gain (Loss) Recognized in Income	Amount of Gain (Loss) Recognized in Income		Amount of Gain (Loss) Recognized in Income	
		June 30, 2021 (Unaudited)		**June 30, 2020 (Unaudited)**	
Foreign exchange contracts - forwards	Other expense	$	(662)		(193)
Total		$	(662)	$	(193)

The following tables present the effect of derivative instruments on our Consolidated Statements of Income for the six months ended June 30, 2021 and 2020, respectively:

June 30, 2021
(In thousands)
(Unaudited)

Derivatives in Cash Flow Hedging Relationship	Gain or (Loss) Recognized in OCI on Derivative	Location of Gain or (Loss) Reclassified from Accumulated OCI into Income	Gain or (Loss) Reclassified from Accumulated OCI into Income
Foreign exchange contracts - forwards	$ 15,728	Net sales	$ (4,434)
Foreign exchange contracts - forwards	(837)	Cost of sales	(1)
Foreign exchange contracts - forwards	(529)	Operating expenses	18
Total	$ 14,362		$ (4,417)

June 30, 2020
(In thousands)
(Unaudited)

Derivatives in Cash Flow Hedging Relationship	Gain or (Loss) Recognized in OCI on Derivative	Location of Gain or (Loss) Reclassified from Accumulated OCI into Income	Gain or (Loss) Reclassified from Accumulated OCI into Income
Foreign exchange contracts - forwards	$ 5,724	Net sales	$ 5,260
Foreign exchange contracts - forwards	(3,798)	Cost of sales	(1,369)
Foreign exchange contracts - forwards	(2,524)	Operating expenses	(1,082)
Total	$ (598)		$ 2,809

(In thousands)

Derivatives not Designated as Hedging Instruments	Location of Gain (Loss) Recognized in Income	Amount of Gain (Loss) Recognized in Income	Amount of Gain (Loss) Recognized in Income
		June 30, 2021 (Unaudited)	**June 30, 2020 (Unaudited)**
Foreign exchange contracts - forwards	Other expense	$ (2,263)	$ 105
Total		$ (2,263)	$ 105

Note 6 – Inventories, net

Inventories, net consist of the following:

(In thousands)	June 30, 2021 (Unaudited)	December 31, 2020
Raw materials	$ 115,838	$ 99,942
Work-in-process	9,884	11,307
Finished goods	85,301	82,763
Total	$ 211,023	$ 194,012

Note 7 – Intangible assets, net and goodwill

Intangible assets at June 30, 2021 and December 31, 2020 are as follows:

(In thousands)	June 30, 2021 (Unaudited)			December 31, 2020		
	Gross Carrying Amount	**Accumulated Amortization**	**Net Carrying Amount**	**Gross Carrying Amount**	**Accumulated Amortization**	**Net Carrying Amount**
Capitalized software development costs	$ 85,064	$ (65,991)	$ 19,073	$ 115,251	$ (83,706)	$ 31,54[illegible]
Acquired technology	109,345	(25,454)	83,891	105,486	(17,913)	87,57[illegible]
Customer relationships	39,984	(13,588)	26,396	40,273	(10,026)	30,24[illegible]
Patents	35,625	(28,042)	7,583	35,803	(25,578)	10,22[illegible]
Other	27,270	(15,087)	12,183	27,440	(14,311)	13,12[illegible]
Total	$ 297,288	$ (148,162)	$ 149,126	$ 324,253	$ (151,534)	$ 172,71[illegible]

Software development costs capitalized for the three months ended June 30, 2021 and 2020 were $0.5 million and $1.3 million, respectively, and related amortization expense was $6.3 million and $7.4 million, respectively. For the six months ended June 30, 2021 and 2020, capitalized software development costs were $0.8 million and $3.3 million, respectively, and related amortization expense was $13.3 million and $14.7 million, respectively. Capitalized software development costs for the three months ended June 30, 2021 and 2020 included costs related to stock-based compensation of less than $0.1 million and $0.1 million, respectively. For the six months ended June 30, 2021 and 2020, capitalized software development costs included costs related to stock-based compensation of $0.1 million and $0.2 million, respectively. The related amounts in the table above are net of fully amortized assets.

Amortization of capitalized software development costs is computed on an individual product basis for those products available for market and is recognized based on the product’s estimated economic life, which generally range from three to six years. Acquired technology and other intangible assets are amortized over their useful lives, which generally range from five to ten years. Patents are amortized using the straight-line method over their estimated period of benefit, which generally range from ten to seventeen years. Total intangible assets amortization expenses were $15.9 million and $9.3 million for the three months ended June 30, 2021 and 2020, respectively, and $29.9 million and $18.7 million for the six months ended June 30, 2021 and 2020, respectively.

Goodwill

The carrying amount of goodwill as of June 30, 2021, was as follows:

	Amount (In thousands)
Balance as of December 31, 2020	$ 467,547
Acquisitions	16,893
Measurement period adjustments	1,973
Foreign currency translation impact	(3,277)
Balance as of June 30, 2021 (unaudited)	$ 483,136

The excess purchase price over the fair value of assets acquired is recorded as goodwill. As businesses are acquired, we assign assets acquired (including goodwill) and liabilities assumed to either our existing reporting unit or a newly identified reporting unit as of the date of the acquisition. In the event a disposal group meets the definition of a business, goodwill is allocated to the disposal group based on the relative fair value of the disposal group to the related reporting unit. As we have one operating segment comprised of components with similar economic characteristics, we allocate goodwill to one reporting unit for goodwill impairment testing. Goodwill is tested for impairment on an annual basis, and between annual tests if indicators of potential impairment exist, using a fair-value-based approach based on the market capitalization of the reporting unit. Our annual impairment test is performed in the fourth quarter of each year.

No impairment of goodwill was identified during the six months ended June 30, 2021 or the twelve months ended December 31, 2020.

Note 8 – Leases

We have operating leases for corporate offices, automobiles, and certain equipment. Our leases have remaining terms of 1 year to 93 years, some of which may include options to extend the leases for up to 9 years, and some of which may include options to terminate the leases within 1 year. Leases with an initial term of 12 months or less are not recorded on the balance sheet. We recognize lease expense for these leases on a straight-line basis over the lease term. Amounts related to finance lease activities and income from leasing activities were not material for the periods presented.

The components of operating lease expense were as follows (unaudited):

	Three Months Ended		Six Months Ended	
(In thousands)	June 30, 2021	June 30, 2020	June 30, 2021	June 30, 2020
Operating Lease Cost (1)	$ 5,208	$ 5,389	$ 10,538	$ 11,071

(1) Includes variable and short-term lease costs

Maturities of lease liabilities as of June 30, 2021 were as follows (unaudited):

(In thousands) **Years ending December 31,**	**Operating Leases**
2021 (Excluding the six months ended June 30, 2021)	$ 8,506
2022	11,611
2023	7,946
2024	6,978
2025	4,958
Thereafter	7,095
Total future minimum lease payments	47,094
Less imputed interest	(4,193)
Total lease liabilities	$ 42,901

As of June 30, 2021, we have additional operating leases that have not commenced during the six months ended June 30, 2021, which were not material.

Note 9 – Income taxes

We account for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts. Valuation allowances are established when necessary to reduce deferred tax assets to amounts which are more likely than not to be realized. We had a valuation allowance of $94 million and $93 million at June 30, 2021 and December 31, 2020, respectively. A majority of the valuation allowance is related to the deferred tax assets of National Instruments Hungary Kft.

We account for uncertainty in income taxes recognized in our financial statements using prescribed recognition thresholds and measurement attributes for financial statement disclosure of tax positions taken or expected to be taken on our tax returns. We had $10.7 million and $10.5 million of gross unrecognized tax benefits at June 30, 2021 and December 31, 2020, respectively, all of which would affect our effective income tax rate if recognized. We recorded a gross increase in unrecognized tax benefits of $0.2 million for the three months ended June 30, 2021, as a result of the tax positions taken during prior periods. As of June 30, 2021, it is reasonably possible that we will recognize gross tax benefits in the amount of $1.4 million in the next twelve months due to the closing of open tax years. The nature of the uncertainty is related to deductions taken on returns that have not been examined by the applicable tax authority. Our continuing policy is to recognize interest and penalties related to income tax matters in income tax expense. During the three months ended June 30, 2021, we recognized interest expense related to uncertain tax positions of approximately less than $0.1 million. As of June 30, 2021, we had approximately $0.5 million accrued for interest related to uncertain tax positions. The tax years 2014 through 2021 remain open to examination by the major taxing jurisdictions to which we are subject.

Our provision for income taxes reflected an effective tax rate of 20% and 29% for the three months ended June 30, 2021 and 2020, respectively, and 16% and 24% for the six months ended June 30, 2021 and 2020, respectively. For the three months ended June 30, 2021, our effective tax rate was lower than the U.S. federal statutory rate of 21% primarily as a result of the research and development tax credit, an enhanced deduction for certain research and development expenses and the deduction for foreign-derived intangible income, offset by the U.S. tax on global intangible low-taxed income, foreign taxes greater than the statutory rate, state income taxes net of federal benefit and nondeductible officer compensation. For the six months ended June 30, 2021, our effective tax rate was lower than the U.S. federal statutory rate of 21% primarily as a result of excess tax benefits from share-based compensation and other discrete items, the research and development tax credit, an enhanced deduction for certain research and development expenses and the deduction for foreign-derived intangible income, offset by the U.S. tax on global intangible low-taxed income, foreign taxes greater than the statutory rate, state income taxes net of federal benefit and nondeductible officer compensation. For the three and six months ended June 30, 2020, our effective tax rate was higher than the U.S. federal statutory rate of 21% primarily as a result of the gain on the sale of our AWR business, foreign taxes greater than the statutory rate, nondeductible officer compensation, and state income taxes net of the federal benefit, offset by the research and development tax credit, the deduction for foreign-derived intangible income, and an enhanced deduction for certain research and development expenses.

Our earnings from our operations in Hungary are subject to a statutory tax rate of 9%. In addition, our research and development activities in Hungary benefit from a tax law in Hungary that provides for an enhanced deduction for qualified research and development expenses. The tax position of our Hungarian operations resulted in income tax benefits of $0.2 million and $0.3 million for the three and six months ended June 30, 2021, respectively, and income tax expense of $0.3 million and $0.1 million for the three and six months ended June 30, 2020, respectively.

Earnings from our operations in Malaysia are free of tax under a tax holiday effective January 1, 2013. This tax holiday expires in 2037. If we fail to satisfy the conditions of the tax holiday, this tax benefit may be terminated early. The income tax benefits of the tax holiday for the three and six months ended June 30, 2021 were approximately $0.2 million and $0.3 million, respectively. The income tax benefits of the tax holiday for the three and six months ended June 30, 2020 were approximately $0.1 million and $0.3 million, respectively. The impact of the tax holiday on a per share basis for each of the three and six months ended June 30, 2021 and June 30, 2020 was less than $0.01 per share.

No other taxing jurisdictions had a significant impact on our effective tax rate. We have not entered into any advanced pricing or other agreements with the Internal Revenue Service ("IRS") with regard to any foreign jurisdictions.

Note 10 – Comprehensive income

Our OCI is comprised of net income, foreign currency translation adjustments, and unrealized gains and losses on forward contracts and securities classified as available-for-sale. The accumulated OCI, net of tax, for the six months ended June 30, 2021 and 2020, consisted of the following:

	June 30, 2021 (Unaudited)			
(In thousands)	Currency translation adjustment	Investments	Derivative instruments	Accumulated other comprehensive income/(loss)
Balance as of December 31, 2020	$ (10,066)	$ (426)	(10,334)	$ (20,826)
Current-period other comprehensive income (loss)	(4,911)	(141)	9,945	4,893
Reclassified from accumulated OCI into income	—	—	4,417	4,417
Income tax (benefit) expense	—	(3)	3,262	3,259
Balance as of June 30, 2021	$ (14,977)	$ (564)	$ 766	$ (14,775)

	June 30, 2020 (Unaudited)			
(In thousands)	Currency translation adjustment	Investments	Derivative instruments	Accumulated other comprehensive income/(loss)
Balance as of December 31, 2019	$ (25,831)	$ (85)	4,846	$ (21,070)
Current-period other comprehensive (loss) income	(1,975)	(154)	2,211	82
Reclassified from accumulated OCI into income	—	—	(2,809)	(2,809)
Income tax (benefit) expense	—	(56)	124	68
Balance as of June 30, 2020	$ (27,806)	$ (183)	$ 4,124	$ (23,865)

Note 11 – Authorized shares of common and preferred stock and stock-based compensation plans

Authorized shares of common and preferred stock

The total number of shares which we are authorized to issue is 365,000,000 shares, consisting of (i) 5,000,000 shares of preferred stock, par value $0.01 per share, and (ii) 360,000,000 shares of common stock, par value $0.01 per share.

Stock-Based Compensation Plan

Our stockholders approved our 2005 Incentive Plan (the “2005 Plan”) on May 10, 2005. At the time of approval, 4,050,000 shares of our common stock were reserved for issuance under the 2005 Plan, as well as the number of shares which had been reserved but not issued under our 1994 Incentive Stock Options Plan (the “1994 Plan”) which terminated in May 2005, and any shares that returned to the 1994 Plan as a result of termination of options or repurchase of shares issued under such plan. The 2005 Plan provided for the granting of incentive awards in the form of restricted stock and RSUs to directors, executive officers and employees of the Company and its subsidiaries. Awards vest over a three, five or ten-year period, beginning on the date of grant. Vesting of ten-year awards may accelerate based on our previous year’s earnings and growth but ten-year awards cannot accelerate to vest over a period of less than five years. The 2005 Plan terminated on May 11, 2010, except with respect to outstanding awards previously granted thereunder. There were 3,362,304 shares of common stock that were reserved but not issued under the 2005 Plan as of May 11, 2010.

Our stockholders approved our 2010 Incentive Plan (the “2010 Plan”) on May 11, 2010. At the time of approval, 3,000,000 shares of our common stock were reserved for issuance under the 2010 Plan, as well as the 3,362,304 shares of common stock that were reserved but not issued under the 1994 Plan and the 2005 Plan as of May 11, 2010, and any shares that are returned to the 1994 Plan and the 2005 Plan as a result of the forfeiture or termination of options or RSUs or repurchase of shares issued under those plans. The 2010 Plan provided for the granting of incentive awards in the form of restricted stock and RSUs to employees, directors and consultants of the Company and employees and consultants of any parent or subsidiary of the Company. Awards vest over a three, five or ten-year period, beginning on the date of grant. Vesting of ten-year awards may accelerate based on our previous year’s earnings and growth but ten-year awards cannot accelerate to vest over a period of less than five years. The 2010 Plan terminated on May 12, 2015, except with respect to the outstanding awards previously granted thereunder. There were 2,518,416 shares of common stock that were reserved but not issued under the 2010 Plan as of May 12, 2015.

Our stockholders approved our 2015 Equity Incentive Plan (the “2015 Plan”) on May 12, 2015. At the time of approval, 3,000,000 shares of our common stock were reserved for issuance under the 2015 Plan, as well as the 2,518,416 shares of common stock that were reserved but not issued under the 2010 Plan as of May 12, 2015, and any shares that were returned to the 1994 Plan, 2005 Plan, and the 2010 Plan as a result of the forfeiture or termination of options or RSUs or repurchase of shares issued under those plans. The 2015 Plan provides for the granting of incentive awards in the form of restricted stock and RSUs to employees, directors and consultants of the Company and employees and consultants of any parent or subsidiary of the Company and such awards may be subject to performance-based vesting conditions. Awards generally vest over a three, four, five or ten-year period, beginning on the date of grant. Vesting of ten-year awards may accelerate based on our previous year’s earnings and growth but ten-year awards cannot accelerate to vest over a period of less than five years. The 2015 Plan terminated on May 5, 2020, except with respect to the outstanding awards previously granted thereunder. There were 567,142 shares of common stock that were reserved but not issued under the 2015 Plan as of May 5, 2020.

Our stockholders approved our 2020 Equity Incentive Plan (the “2020 Plan”) on May 5, 2020. At the time of approval, 4,500,000 shares of our common stock were reserved for issuance under the 2020 Plan, as well as the 567,142 shares of common stock that were reserved but not issued under the 2015 Plan as of May 5, 2020, and any shares that were returned to the 1994 Plan, 2005 Plan, 2010 Plan, and 2015 Plan as a result of the forfeiture or termination of options or RSUs or repurchase of shares issued under those plans. The 2020 Plan provides for the granting of incentive awards in the form of restricted stock and RSUs to employees, directors and consultants of the Company and employees and consultants of any parent or subsidiary of the Company. Awards generally vest over a one, two, three or four-year period, beginning on the date of the grant and awards may be subject to performance-based vesting conditions. There were 3,292,288 shares available for grant under the 2020 Plan at June 30, 2021.

Performance-based stock units

During the six months ended June 30, 2021 and 2020, we granted 130,006 and 144,647 performance-based restricted stock units (“PRSUs”), respectively, to executive officers pursuant to the 2020 Plan and 2015 Plan. The PRSUs may be earned based on our total shareholder return ("TSR") compared to the TSR of the Russell 2000 Index (the “Index”) over a three-year performance period. For the PRSUs granted during the six months ended June 30, 2021, the three-year performance period commenced on January 1, 2021 and will end on December 31, 2023, and for the PRSUs granted during the six months ended June 30, 2020, the three year performance commenced on January 1, 2020 and will end on December 31, 2022, using the average daily closing price over a 30-day lookback in each case. The number of awards earned could range from zero to two times the target number of shares granted.

The fair values of PRSUs are estimated using a Monte Carlo simulation. The determination of fair value of the PRSUs is based on our stock price and a number of assumptions including the expected volatility, expected dividend yield and the risk-free interest rate. The expected volatility at the date of grant was based on the historical volatilities of our stock and the companies included in the Index over the performance period. The Monte Carlo model is based on random projections of stock-price paths and must be repeated numerous times to achieve a probabilistic assessment. The key assumptions used in valuing these market-based awards are as follows:

	Six Months Ended (unaudited)	
	June 30, 2021	**June 30, 2020**
Number of simulations	100,000	100,000
Expected volatility	40.60%	27.41%
Expected life in years	2.95 years	2.92 years
Risk-free interest rate	0.21%	1.38%
Dividend yield	2.66%	2.32%

The weighted average grant date fair value of the market-based awards, as determined by the Monte Carlo valuation model, was $66.97 per share and $61.00 per share in 2021 and 2020, respectively.

Employee stock purchase plan

Our employee stock purchase plan ("ESPP") permits substantially all domestic employees and employees of designated subsidiaries to acquire our common stock at a purchase price of 85% of the lower of the market price at the beginning or the end of the purchase period. The plan has quarterly purchase periods generally beginning on February 1, May 1, August 1 and November 1 of each year. Employees may designate up to 15% of their compensation for the purchase of common stock under the ESPP. On May 14, 2019, our stockholders approved an additional 3,000,000 shares for issuance under our ESPP. At June 30, 2021, we had 2,490,594 shares of common stock reserved for future issuance under the ESPP. We issued 568,598 shares under this plan in the six months ended June 30, 2021 and the weighted average purchase price was $30.32 per share. During the six months ended June 30, 2021, we did not make any changes in accounting principles or methods of estimates with respect to our ESPP.

Authorized Preferred Stock and Preferred Stock Purchase Rights Plan

We have 5,000,000 authorized shares of preferred stock. There were no shares of preferred stock issued and outstanding at June 30, 2021.

Stock repurchases and retirements

On April 21, 2010, our Board of Directors authorized a program to repurchase of shares of our common stock from time to time, depending on market conditions and other factors. The Board amended such program several times over the years to increase the number of shares that may be purchased under the program. Most recently, on October 23, 2019, our Board amended the program to increase the number of shares that may be repurchased by 3,000,000 shares. At June 30, 2021, there was 1,609,943 shares remaining available for repurchase under the stock repurchase program. We did not repurchase any shares of our common stock during the three and six months ended June 30, 2021 under the program. During the three months ended June 30, 2020, we repurchased 503,326 shares of our common stock at a weighted average price per share of $34.08 and during the six months ended June 30, 2020, we repurchased 668,199 shares of our common stock at a weighted average price per share of $35.44. The stock repurchase program does not have an expiration date.

Note 12 – Segment and geographic information

We operate as one operating segment. Operating segments are defined as components of an enterprise for which separate financial information is evaluated regularly by the chief operating decision maker, who is our chief executive officer, in deciding how to allocate resources and in assessing performance. Our chief operating decision maker evaluates our financial information and resources and assesses the performance of these resources on a consolidated basis. Since we operate as one operating segment, all required financial segment information can be found in the condensed consolidated financial statements and the notes thereto.

We sell our products in three geographic regions which consist of Americas, EMEA and APAC. Our sales to these regions share similar economic characteristics including the nature of products and services we sell, the type and class of customers, and the methods used to distribute our products and services. Revenue from the sale of our products, which are similar in nature, and software maintenance is reflected as total net sales in our Consolidated Statements of Income. (See Note 2 - Revenue of Notes to Consolidated Financial Statements for total net sales by the major geographic areas in which we operate).

The following tables present summarized information for net sales by country. Revenues from external customers are generally attributed to countries based upon the customer's location. Net sales attributable to each individual foreign country outside the U.S. and China were not material.

	United States		China[1]		Rest of the World		Total	
				(in millions)				
Net sales:								
Three months ended June 30, 2021	$	127	$	59	$	161	$	347
Three months ended June 30, 2020	$	116	$	52	$	133	$	301
Six months ended June 30, 2021	$	247	$	113	$	322	$	682
Six months ended June 30, 2020	$	234	$	87	$	290	$	611
(1): Includes Mainland China and the Hong Kong Special Administrative Region								

The following tables present summarized information for long-lived assets by country. Long-lived assets attributable to each individual country outside the U.S., Hungary and Malaysia were not material. Long-lived assets consist of property, plant, and equipment, operating lease right-of-use assets and other long-term assets excluding intangible assets.

	United States		Hungary		Malaysia		Rest of the World		Total	
					(in millions)					
Long-lived Assets:										
June 30, 2021	$	127	$	51	$	75	$	56	$	309
December 31, 2020	$	127	$	52	$	75	$	68	$	322

Note 13 – Debt

On June 18, 2021, we entered into a Second Amended and Restated Credit Agreement (the "Credit Agreement") with Wells Fargo Bank, National Association, as the administrative agent, swingline lender and issuing lender (the "Administrative Agent"), Wells Fargo Securities, LLC, as sole lead arranger and bookrunner, and the lenders party thereto. The Credit Agreement amends and restates in its entirety and refinances our existing Amended and Restated Credit Agreement, dated as of June 12, 2020, by and among us, the lenders from time-to-time party thereto and Administrative Agent, as amended on October 30, 2020.

The Credit Agreement provides for a secured revolving loan facility in an aggregate principal amount of up to $500 million at any time outstanding, with a sublimit of $25 million for the issuance of letters of credit. Subject to the terms and conditions of the Credit Agreement, including obtaining commitments from existing lenders or new lenders, we may request term loans or additional revolving commitments. Pursuant the Credit Agreement, the revolving line of credit terminates, and all revolving loans under the Credit Agreement will be due and payable, on June 18, 2026.

The revolving loans accrue interest, at our option, at a base rate equal to the highest of (a) the prime rate, (b) the federal funds rate plus 0.50%, and (c) a LIBOR loan interest rate of LIBOR for an interest period of one month plus 1.00%, plus a margin of 0.25% to 0.75%, or LIBOR plus a margin of 1.25% to 1.75%, with the margin being determined based upon our consolidated total net leverage ratio. The Credit Agreement contains financial covenants requiring us to maintain a maximum total net leverage ratio of less than or equal to 3.50 to 1.00, which increases to 4.00 to 1.00 for a specified period following material acquisitions, and a minimum interest coverage ratio of greater than or equal to 3.00 to 1.00, in each case determined in accordance with the Credit Agreement. The Credit Agreement provides for a commitment fee of 0.150% to 0.250% per annum, determined based upon our consolidated total net leverage ratio, on the average daily unused amount of the revolving committed amount, payable quarterly in arrears.

Under the circumstances described in the Credit Agreement, certain of our wholly-owned domestic subsidiaries (the "Subsidiary Guarantors") are required to enter into a guaranty agreement ("Guaranty") in favor of the Administrative Agent guarantying the obligations of the Company under the Credit Agreement, among other things. There is no Subsidiary Guarantor, and no Guaranty has been executed in connection with the Credit Agreement, at this time. In connection with the Credit Agreement, we, our Subsidiary Guarantors from time-to-time party thereto and the Administrative Agent have entered (or will enter in the case of the future Subsidiary Guarantors) into an Amended and Restated Collateral Agreement ("Collateral Agreement") pursuant to which we and each of our Subsidiary Guarantor from time-to-time have granted (or will grant) a lien on substantially all of their assets to secure their obligations under the Credit Agreement and the Guaranty.

The Credit Agreement contains customary affirmative and negative covenants. The affirmative covenants include, among other things, delivery of financial statements, compliance certificates and notices, payment of taxes and other obligations, maintenance of existence, maintenance of properties and insurance, maintenance of books and records, and compliance with applicable laws and regulations. The negative covenants include, among other things, limitations on indebtedness, liens, mergers, consolidations, acquisitions and sales of assets, investments, changes in the nature of the business, affiliate transactions and certain restricted payments. The Credit Agreement contains customary events of default including, among other things, payment defaults, breaches of covenants or representations and warranties, cross-defaults with certain other indebtedness, bankruptcy and insolvency events, judgment defaults and change in control events, subject to grace periods in certain instances. Upon an event of default, the Administrative Agent and the lenders may declare all or a portion of the outstanding obligations payable by us to be immediately due and payable and exercise other rights and remedies provided for under the Credit Agreement. Under certain circumstances, a default interest rate will apply on all obligations during the existence of an event of default under the Credit Agreement at a per annum rate of interest equal to 2.00% above the otherwise applicable interest rate.

Proceeds of revolving loans of the Credit Agreement may be used for working capital and other general corporate purposes. We may prepay the loans under the Credit Agreement in whole or in part at any time without premium or penalty.

The following table presents the amounts outstanding related to our borrowing arrangements discussed above as of June 30, 2021 (unaudited) and December 31, 2020, respectively (in thousands):

	June 30, 2021	December 31, 2020
Secured		
2020 Term loan (effective interest rate of 1.7%)	$ —	$ 98,75
2021 Revolving line of credit (effective interest rate of 1.3%)	100,000	—
Total Debt	100,000	98,75
Less: Unamortized debt issuance costs	—	(1,71
Less: Current portion of total debt	—	(5,00
Total Debt, non-current	$ 100,000	$ 92,03

As of June 30, 2021, debt issuance costs of approximately $2.7 million attributable to the revolving line of credit are presented within "Other long-term assets" in our Consolidated Balance Sheet. These amounts are amortized to interest expense ratably over the life of the revolving line of credit.

Note 14 – Commitments and contingencies

We offer a one-year limited warranty on most hardware products which is included in the terms of sale of such products. We also offer optional extended warranties on our hardware products for which the related revenue is recognized ratably over the warranty period. Provision is made for estimated future warranty costs at the time of the sale for the estimated costs that may be incurred under the standard warranty. Our estimate is based on historical experience and product sales during the period. The warranty reserve for the six months ended June 30, 2021 and 2020 was as follows:

(In thousands)	Six Months Ended June 30, (Unaudited)			
	2021		2020	
Balance at the beginning of the period	$	2,872	$	2,561
Accruals for warranties issued during the period		1,375		1,165
Accruals related to pre-existing warranties		95		298
Settlements made (in cash or in kind) during the period		(1,456)		(1,322)
Balance at the end of the period	$	2,886	$	2,702

As of June 30, 2021, we had certain off-balance sheet commitments that require the future purchase of goods or services ("unconditional purchase obligations"). Our unconditional purchase obligations primarily consist of payments to various suppliers for customized inventory and inventory components. As of June 30, 2021, our total future payments under noncancellable unconditional purchase obligations having a remaining term in excess of one year were approximately $3.5 million..

Note 15 – Restructuring

On October 29, 2020, we announced a workforce reduction plan (the “Plan”) intended to accelerate our growth strategy and further optimize our operations and cost structure. The majority of charges related to this plan were recognized during the three months ended December 31, 2020. We implemented a majority of the actions under this Plan as of June 30, 2021.

A summary of the charges in our consolidated statement of operations resulting from our restructuring activities is shown below:

(In thousands)	Three Months Ended June 30, (Unaudited)			Six Months Ended June 30, (Unaudited)		
	2021		2020	2021		2020
Cost of sales	$	(118)	—	$	(43)	20
Research and development		223	79		379	4,679
Sales and marketing		61	1,227		4,147	7,542
General and administrative		147	247		2,105	562
Total restructuring and other related costs	$	313	1,553	$	6,588	12,803

A summary of balance sheet activity related to our restructuring activity is shown below:

	Restructuring Liability (in thousands)	
Balance as of December 31, 2020	$	28,993
Income statement expense		6,588
Cash payments		(27,578)
Balance as of June 30, 2021	$	8,003

The restructuring liability of $8.0 million at June 30, 2021 relating primarily to severance payments associated with the restructuring activity is recorded in the “accrued compensation” line item of our consolidated balance sheet.

Note 16 – Litigation

We are not currently a party to any material litigation. However, in the ordinary course of our business, we have in the past, are currently and will likely become involved in various legal proceedings, claims, and regulatory, tax or government inquiries and investigations, and could incur uninsured liability in any one or more of them. We also periodically receive notifications from various third parties related to alleged infringement of patents or intellectual property rights, commercial disputes or other matters. No assurances can be given with respect to the extent or outcome of any investigation, litigation or dispute.

Note 17 – Acquisitions

Acquisition of OptimalPlus

On July 2, 2020, we completed the acquisition of OptimalPlus Ltd. ("OptimalPlus"), a global leader in data analytics software for the semiconductor, automotive and electronics industries that is based in Israel. As a result of acquiring 100% of the outstanding share capital of OptimalPlus, OptimalPlus became our wholly-owned subsidiary. This transaction is being accounted for as a business combination using the acquisition method of accounting. All of the acquired assets and liabilities of OptimalPlus have been recorded at their respective fair values as of the acquisition date. Transaction costs have been expensed as incurred.

The acquisition was funded primarily by cash on hand in addition to $70 million drawn under our prior term loan facility on June 30, 2020. See Note 13 – Debt of Notes to Consolidated Financial Statements for further information on our outstanding borrowings. During the twelve months ended December 31, 2020, we expensed $7 million of transaction costs in connection with the acquisition of OptimalPlus, which are included in selling, general and administrative expenses.

At the acquisition date, total consideration transferred was approximately $353 million, inclusive of $18 million in cash acquired. Additionally, unvested in-the-money share options of certain OptimalPlus employees were exchanged into the right to receive deferred cash consideration in accordance with the terms of the share purchase agreement. Approximately $12 million of deferred cash consideration was allocated to post-combination expense and is not included in the total consideration transferred. The deferred cash consideration is subject to the original vesting schedule of the corresponding unvested options that were replaced and the amounts will be recognized as compensation expense over the remaining service period.

The excess of the purchase price over the net assets acquired was recorded as goodwill. Goodwill generated from the acquisition is primarily attributable to expected growth in the scope of and market opportunities for our software-defined automated test and measurement platform. As a result of the structure of the transaction, the balance of goodwill is deductible in the U.S. over 15 years for income tax purposes.

Fair value of net assets acquired and liabilities assumed

The information below represents the purchase price allocation of OptimalPlus (in thousands):

		July 2, 2020
Consideration Transferred	$	352,642
Cash		17,661
Intangible assets		129,000
Goodwill		205,038
Contract assets		15,454
Deferred revenue		(7,341)
Accounts receivable		4,927
Other assets and liabilities		(4,516)
Deferred tax liabilities		(7,581)
Net assets acquired	$	352,642

We finalized the purchase price allocation for our acquisition of OptimalPlus during the second quarter of 2021. Since the preliminary estimates reported in the third quarter of 2020, we updated certain amounts related to current and deferred income taxes, reflected in the final purchase price allocation, as summarized in the fair values of assets acquired and liabilities assumed in the table above. Measurement period adjustments were recognized in the reporting period in which the adjustments were determined and calculated as if the accounting had been completed at the acquisition date.

Acquired intangible assets will be amortized over their estimated useful lives on a straight-line basis. The following table summarizes the purchase price allocation, and the average remaining useful lives, for identifiable intangible assets acquired (dollars in thousands):

		Estimated Fair Value	Estimated Useful Lives (i years)
Customer relationships	$	30,100	5
Developed technology		82,400	6
In-process research and development (IPR&D)		10,400	6
Other intangibles		6,100	3-5
Total	$	129,000	

Developed technology and IPR&D relate to software platforms for data analytics in the semiconductor, automotive, and electronic industries that combine machine-learning with a global data infrastructure to provide real-time product analytics and extract insights from data across the entire supply chain. We valued the developed technology and IPR&D using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the technology less charges representing the contribution of other assets to those cash flows. The economic useful life was determined based on the technology cycle related to each technology, as well as the cash flows over the forecast period. IPR&D is initially capitalized at fair value as an intangible asset with an indefinite life and assessed for impairment thereafter. When a project underlying reported IPR&D is completed, the corresponding amount of IPR&D is amortized over the asset's estimated useful life.

Customer relationships represent the fair value of future projected revenue that will be derived from sales of products to existing customers. Customer relationships were valued using the with-and-without-method under the income approach. In the with-and-without method, the fair value was measured by the difference between the present values of the cash flows with and without the existing customers in place over the period of time necessary to reacquire the customers. The economic useful life was determined by evaluating many factors, including the useful life of other intangible assets, the length of time remaining on the acquired contracts and the historical customer turnover rates.

Unaudited Pro Forma Information

The results of OptimalPlus have been included in our consolidated statements of income for the period subsequent to the acquisition date. The following unaudited pro forma financial information presents combined results of operations for the periods presented, as if the OptimalPlus acquisition had occurred on January 1, 2019, with adjustments to give effect to pro forma events that are directly attributable to the acquisition. These pro forma adjustments include additional amortization expense for the identifiable intangible assets, a reduction in revenue related to deferred revenue purchase accounting adjustments, an increase in interest expense related to the term loan entered into in connection with the acquisition, and adjustments to compensation expense for the replacement of unvested share options discussed above, net of tax effects. For the pro forma presentation, given the assumed acquisition date of January 1, 2019, transaction and integration costs that were incurred at or subsequent to the actual acquisition date have been included in the calculation of pro forma net income for the three and six months ended June 30, 2020, whereas transaction and integration costs that were incurred prior to the acquisition date have been excluded from the calculation of pro forma net income. The unaudited pro forma results are presented for informational purposes only and are not necessarily indicative of what actual results of operations would have been if the acquisition had occurred as the beginning of the period presented, nor are they indicative of future results of operations. The unaudited pro forma results do not include the impact of synergies, nor any potential impacts on current or future market conditions which could alter the unaudited pro forma results.

	Three Months Ended June 30, 2020	**Six Months Ended June 30, 2020**
(in thousands)		
Net sales	$ 305,069	$ 620,239
Net (loss) income	$ (2,222)	$ 118,769

Other Acquisitions

During the second quarter of 2021, we also completed the acquisition of a software company that specializes in signal processing and hi-fi simulation software for validation of autonomous vehicles and advanced driver assistance systems (ADAS), for approximately $20 million in total cash consideration, subject to certain post-closing adjustments. This transaction is being accounted for as a business combination using the acquisition method of accounting. All of the acquired assets and liabilities of the software company have been recorded at their respective fair values as of the acquisition date. We recognized approximately $17 million of goodwill and $4 million of other intangible assets as part of our preliminary purchase price allocation. Transaction costs have been expensed as incurred and were not material to the periods presented.

The preliminary purchase price allocation related to the acquisition was not finalized as of June 30, 2021, and is based upon a preliminary valuation which is subject to change as we obtain additional information with respect to certain intangible assets and income taxes. Pro-forma results of operations have not been presented because the effects of the acquired operations were not material.

The excess of the purchase price over the net assets acquired was recorded as goodwill. Goodwill generated from the acquisition is primarily attributable to expected growth in the scope of and market opportunities for our software-defined automated test and measurement platform. Goodwill is not deductible for tax purposes.

Note 18 – Subsequent events

Dividends

On July 21, 2021, our Board of Directors declared a quarterly cash dividend of $0.27 per common share, payable on August 30, 2021, to stockholders of record on August 9, 2021.

Item 2. ***Management's Discussion and Analysis of Financial Condition and Results of Operations***

National Instruments Corporation and its subsidiaries (referred to as the "Company," "we," "us," "our," "National Instruments" or "NI") has made forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are subject to risks and uncertainties. Any statements contained herein regarding our future financial performance, operations, plans, investments, expected effects of investments, or other matters (including, without limitation, statements to the effect that we "believe," "expect," "plan," "intend to," "may," "will," "project," "anticipate," "continue," "strive to," "endeavor to," "seek to," "are committed to," "remaining committed to," "are encouraged by," "remain cautious," "remain optimistic," "estimate", "focus on"; statements of "goals,""commitments," "strategy" or "visions"; or other variations thereof or comparable terminology or the negative thereof) should be considered forward-looking statements. All forward-looking statements are based on current expectations and projections of future events. We claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995 for all forward-looking statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, forward-looking statements are not guarantees of performance and actual results could differ materially from those projected in the forward-looking statements as a result of a number of important factors, including those set forth under the heading "Risk Factors" below and in "Part 1, Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 (the "Form 10-K"). Actual results could differ materially from those stated or implied by our forward-looking statements, due to risks and uncertainties associated with our business or under different assumptions or conditions. You should not place undue reliance on any of these forward-looking statements. Any forward-looking statement speaks only as of the date on which it is 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.

The following discussion should be read in conjunction with the Form 10-K filed with the U.S. Securities and Exchange Commission (the "SEC") and the condensed consolidated financial statements and accompanying notes included in Part 1, Item 1 of this Form 10-Q.

Overview and Current Business Outlook

For more than 40 years, we have enabled engineers and scientists around the world to accelerate productivity, innovation and discovery. Our software-centric platform provides an advanced approach through integration of software and modular hardware to create automated test and automated measurement systems. We believe our long-term track record of innovation and our differentiated platform help support the success of our customers, employees, suppliers, community and stockholders. We have been profitable in every year since 1990. We sell to a large number of customers in a wide variety of industries.

The key strategies that we focus on in running our business are the following:

- **Expanding our available market opportunity**

  We strive to increase our available market by identifying new opportunities in existing customers, attracting and serving new customers, and expanding our business to market adjacencies. Our large network of existing customers provides a broad base from which to expand.

- **Maintaining a high level of customer satisfaction**

  To maintain a high level of customer satisfaction we strive to offer innovative, modular and integrated products through a global sales and support network. We strive to maintain a high degree of backward compatibility across different platforms to preserve the customer's investment in our products. In this time of intense global competition, we believe it is crucial that we continue to offer products with high quality and reliability, and that our products provide cost-effective solutions for our customers.

- **Leveraging external and internal technology**

  Our product strategy is to provide superior products by leveraging generally available technology, supporting open architectures on multiple platforms and by leveraging our core technologies across multiple products.

  We sell into test and measurement and industrial/embedded applications in a broad range of industries and are subject to the economic and industry forces that drive those markets. Examples of these types of customers include semiconductor, transportation, and aerospace, defense and government ("ADG").

- **Leveraging a worldwide sales, distribution and manufacturing network**

  We distribute and sell our software and hardware products primarily through a direct sales organization. We also use independent distributors, original equipment manufacturers, value added resellers, system integrators, and consultants to market and sell our products. We have sales offices in the U.S. and sales offices and distributors in key international markets. Sales outside of the Americas accounted for approximately 61% and 60% of our net sales during the three months ended June 30, 2021 and 2020, respectively, and approximately 62% and 60% of our net sales during the six months ended June 30, 2021 and 2020, respectively. The vast majority of our foreign sales are denominated in the customers' local currency, which exposes us to the effects of changes in foreign currency exchange rates. We expect that a significant portion of our total revenues will continue to be derived from international sales. (See Note 2 - Revenue and Note 12 - Segment and geographic information of Notes to Consolidated Financial Statements for details concerning the geographic breakdown of our net sales and long-lived assets, respectively).

  We manufacture substantially all of our product volume at our facilities in Debrecen, Hungary and Penang, Malaysia.

- **Delivering high quality, reliable products**

  We believe that our long-term growth and success depend on delivering high quality software and hardware products on a timely basis. Accordingly, we focus significant efforts on research and development. We focus our research and development efforts on enhancing existing products and developing new products that incorporate appropriate features and functionality to be competitive with respect to technology, price and performance. Our success also depends on our ability to obtain and maintain patents and other proprietary rights related to technologies used in our products. We have engaged in litigation when necessary, and will likely engage in future litigation to protect our intellectual property rights.

Our operating results fluctuate from period to period due to changes in global economic conditions and a number of other factors such as the impact of the COVID-19 pandemic. As a result, we believe our historical results of operations should not be relied upon as indications of future performance. There can be no assurance that our net sales will grow, or not decline, or that we will remain profitable in future periods.

Current Business Outlook

During the second quarter of 2021, we continued to see strong demand from our customers across the geographic regions and end markets that we serve. Although we expect the strength and duration of the recent trends will vary by region and end market, we expect our customers will continue to make investments in emerging technologies related to 5G/mmWave, vehicle electrification, and advanced driver assistance systems (ADAS). We also anticipate that recent additions and enhancements to our software offerings will differentiate our products and fuel demand across our various end markets.

Additionally, during the second quarter of 2021, we continued to experience shortages of certain components in our supply chain due to global capacity constraints that were amplified by the COVID-19 pandemic and increasing global demand. Historically, our backlog levels have remained fairly consistent at the end of each quarter, representing approximately a week of quarterly sales activity, and the majority of these orders are fulfilled quickly within the following quarter. However, due to the shortage of certain components from our suppliers and the increase in demand from our customers, our backlog at the end of the second quarter was more than four times the historical average, representing approximately one month of quarterly sales activity. Longer lead times to fulfill orders for certain offerings have continued to shift the timing of revenue recognition into future periods and increased our costs to obtain a consistent supply of certain components. Consequently, while we expect some temporary headwinds related to the supply chain constraints to continue while global supply chains adjust to the significant increases in demand, we are optimistic about our ability to maintain competitive lead times while continuing to maintain higher backlog levels as part of our strategic focus on system offerings through the remainder of 2021.

We remain committed to maintaining our critical investments and capacity to run our business while continuing to innovate. Furthermore, we continue to focus on scale and efficiency in serving our broad-based customers. Our focus to streamline the process of doing business with NI means both reducing our costs and improving the experience of the large number of smaller accounts we serve. This commitment and focus include plans to invest in ni.com for a better digital experience and significantly expand the usage of our distributor channel in 2021 and beyond. We believe these actions will allow our direct sales force to support proactive engagements with accounts where we can deliver enterprise-level value.

During the three months ended June 30, 2021, indirect sales through our distributor channel increased to approximately 8% of our total sales, compared to 2% in the same period of 2020 and during the six months ended June 30, 2021, indirect sales through our distributor channels increased to approximately 6% of our total net sales, compared to 2% in the same period of 2020. As of June 30, 2021, our distributors did not have significant amounts of inventory on-hand and were not eligible for any variable adjustments related to their previous purchases.

As part of our efforts to streamline the process of doing business with NI, we have also increased our focus on customer account tiers when assessing trends in our order growth. Specifically, we have grouped our customers into tiers based on their historical spending patterns and potential for future order growth. Our "Focus" account tiers are comprised of approximately 2,500 accounts we have identified as having a high potential to maintain or expand our business through system-level offerings. The Focus tier currently represents approximately 70% of our total order value. Our "Broad-based" account tier is comprised of the remainder of our customer base of approximately 30,000 accounts. The Broad-based tier currently represents approximately 30% of our total order value. During the three months ended June 30, 2021, orders from our Focus accounts and Broad-based accounts increased by 28% and 49%, respectively, compared to the same period in 2020.

During the six months ended June 30, 2021, we saw continued volatility in the exchange rates between the U.S. dollar and many of the currency markets where we have exposure. During the first half of 2021, the U.S. dollar index, as tracked by the St. Louis Federal Reserve, was approximately 6% weaker compared to the first half of 2020 resulting in a modest year over year benefit to our US dollar equivalent sales. We cannot predict to what degree foreign currency markets will fluctuate in the future. See Results of Operations - Net Sales below for additional discussion on the impact of foreign exchange rates on our net sales and Note 5 - Derivative instruments and hedging activities of Notes to Consolidated Financial Statements for a further description of our derivative instruments and hedging activities.

Acquisitions and divestitures

Refer to Note 1 - Basis of presentation and Note 17 - Acquisitions of Notes to Consolidated Financial Statements for additional information on our acquisitions and divestitures during the periods presented.

Critical Accounting Estimates

In preparing our consolidated financial statements, we make assumptions, judgments and estimates that can have a significant impact on our net sales, operating income and net income, as well as on the value of certain assets and liabilities on our condensed consolidated balance sheets. We base our assumptions, judgments and estimates on historical experience and other factors that we believe to be reasonable under the circumstances. At least quarterly, we evaluate our assumptions, judgments and estimates, and make changes as deemed necessary.

These estimates may change as new events occur and additional information is obtained. Actual results could differ materially from these estimates under different assumptions or conditions. For further information about our critical accounting estimates, see the discussion in Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” under the heading “Critical Accounting Estimates” in our Form 10-K. There have been no material changes to our critical accounting policies and estimates since the Form 10-K.

Results of Operations

The following table sets forth, for the periods indicated, the percentage of net sales represented by certain items reflected in our Consolidated Statements of Income:

	Three Months Ended June 30, (Unaudited)		Six Months Ended June 30, (Unaudited)	
	2021	2020	2021	2020
Net sales:				
Americas	38.8 %	40.4 %	38.3 %	40.4 %
EMEA	25.7	24.8	25.6	26.4
APAC	35.4	34.8	36.0	33.2
Total net sales	100.0	100.0	100.0	100.0
Cost of sales	28.6	28.5	28.5	27.8
Gross profit	71.4	71.5	71.5	72.2
Operating expenses:				
Sales and marketing	32.1	35.0	33.4	36.2
Research and development	23.5	21.3	23.7	22.2
General and administrative	8.7	9.7	9.3	9.1
Total operating expenses	64.3	66.0	66.5	67.6
Gain on sale of business/asset	—	—	—	26.2
Operating income	7.1	5.4	5.0	30.8
Other expense	(0.9)	(0.4)	(1.2)	(0.1)
Income before income taxes	6.2	5.1	3.8	30.7
Provision for income taxes	1.2	1.5	0.6	7.2
Net income	5.0 %	3.6 %	3.2 %	23.5 %

Figures may not sum due to rounding.

Results of Operations for the three and six months ended June 30, 2021 and 2020

Net Sales. The following table sets forth our net sales for the three and six months ended June 30, 2021 and 2020 along with the changes between the corresponding periods.

	Three Months Ended June 30, (Unaudited)				**Six Months Ended June 30, (Unaudited)**			
			Change				**Change**	
(In millions)	**2021**	**2020**	**Dollars**	**Percentage**	**2021**	**2020**	**Dollars**	**Percentage**
Product sales	$ 306.5	$ 266.3	40.2	15%	$ 601.6	$ 540.2	61.3	11%
Software maintenance sales	40.2	35.1	5.1	15%	80.3	70.5	9.8	14%
Total net sales	$ 346.7	$ 301.3	45.4	15%	$ 681.9	$ 610.7	71.2	12%

Figures may not sum due to rounding.

Net Sales - Summary

Net sales for the three and six months ended June 30, 2021 were up 15 percent and 12 percent, respectively, compared to the same period in 2020.

- The increase in product sales was primarily attributable to strong demand for our system-level offerings, particularly in semiconductor and electronics test solutions as well as our transportation-related offerings. Additionally, we implemented price increases for certain offerings which increased net sales by approximately 5 percent compared to the same periods in 2020.

- The increase in software maintenance sales was primarily related to additional billings from annual renewals of software maintenance programs and our enterprise-level licensing arrangements during the trailing twelve months.

Net Sales by Region

The following table sets forth our net sales by geographic region for the three and six months ended June 30, 2021 and 2020 along with the changes between the corresponding periods and the region's percentage of total net sales.

	Three Months Ended June 30, (Unaudited)				Six Months Ended June 30, (Unaudited)			
			Change				Change	
(In millions)	**2021**	**2020**	**Dollars**	**Percentage**	**2021**	**2020**	**Dollars**	**Percentage**
Americas	$134.7	$121.7	13.0	11%	$261.4	$246.7	14.7	6%
Percentage of total net sales	38.8 %	40.4 %			38.3 %	40.4 %		
EMEA	$89.2	$74.7	14.5	19%	$174.7	$161.4	13.3	8%
Percentage of total net sales	25.7 %	24.8 %			25.6 %	26.4 %		
APAC	$122.9	$105.0	17.9	17%	$245.8	$202.6	43.2	21%
Percentage of total net sales	35.4 %	34.8 %			36.0 %	33.2 %		

Figures may not sum due to rounding.

We expect sales outside of the Americas to continue to represent a significant portion of our net sales. We intend to continue to expand our international operations by increasing our presence in existing markets, adding a presence in certain new geographical markets and continuing to increase the use of distributors to sell our products in some countries. Almost all of the sales made by our direct sales offices in the Americas (excluding the U.S.), EMEA, and APAC are denominated in local currencies, and accordingly, the U.S. dollar equivalent of these sales is affected by changes in foreign currency exchange rates. In order to provide a framework for assessing how our underlying business performed excluding the effects of foreign currency fluctuations between periods, we compare the percentage change in our results from period to period using constant currency disclosure. To calculate the change in constant currency, current and comparative prior period results for entities reporting in currencies other than U.S. Dollars are converted into U.S. Dollars at constant exchange rates (i.e., the average rates in effect during the three and six months ended June 30, 2020).

The following tables present this information, along with the impact of changes in foreign currency exchange rates on sales denominated in local currencies, for the three and six months ended June 30, 2021.

(In millions)	Three Months Ended June 30, 2020 GAAP Net Sales		Change in Constant Dollars		Impact of changes in foreign currency exchange rates on net sales		Three Months Ended June 30, 2021 GAAP Net Sales	
			Dollars	Percentage	Dollars	Percentage		
Americas	$	121.7	12.6	10.4%	0.4	0.3%	$	134.7
EMEA	$	74.7	10.9	14.6%	3.6	4.8%	$	89.2
APAC	$	105.0	14.4	13.7%	3.5	3.3%	$	122.9
Total net sales	$	301.3	38.0	12.6%	7.4	2.5%	$	346.7

(In millions)	Six Months Ended June 30, 2020 GAAP Net Sales		Change in Constant Dollars		Impact of changes in foreign currency exchange rates on net sales		Six Months Ended June 30, 2021 GAAP Net Sales	
			Dollars	Percentage	Dollars	Percentage		
Americas	$	246.7	14.2	5.7%	0.5	0.2%	$	261.4
EMEA	$	161.4	6.7	4.1%	6.6	4.1%	$	174.7
APAC	$	202.6	36.1	17.8%	7.1	3.5%	$	245.8
Total net sales	$	610.7	57.0	9.3%	14.2	2.4%	$	681.9

Figures may not sum due to rounding.

To help protect against changes in U.S. dollar equivalent value caused by fluctuations in foreign currency exchange rates of forecasted foreign currency cash flows resulting from international sales, we have a foreign currency cash flow hedging program. We hedge portions of our forecasted net sales denominated in foreign currencies with average rate forward contracts. During the three months ended June 30, 2021 and 2020, these hedges had the effect of decreasing our net sales by $2.4 million and increasing our net sales by $2.7 million, respectively. During the six months ended June 30, 2021 and 2020, these hedges had the effect of decreasing our net sales by $4.4 million and increasing our net sales by $5.3 million, respectively. (See Note 5 - Derivative instruments and hedging activities of Notes to Consolidated Financial Statements for further discussion regarding our cash flow hedging program and its related impact on our net sales for 2021 and 2020).

Gross Profit. Our gross profit as a percentage of sales is impacted by many factors including changes in the amount of revenues from our large customers and changes in the foreign currency exchange markets. We continue to focus on cost control and cost reduction measures throughout our manufacturing cycle. The following table sets forth our gross profit and gross profit as a percentage of net sales for the three and six months ended June 30, 2021 and 2020 along with the percentage changes in gross profit for the corresponding periods.

	Three Months Ended June 30, (Unaudited)		Six Months Ended June 30, (Unaudited)	
(In millions)	2021	2020	2021	2020
Gross Profit	$247.5	$215.4	$487.2	$441.0
% change compared with prior period	*14.9%*		*10.5%*	
Gross Profit as a percentage of net sales	71.4%	71.5%	71.5%	72.2%

The decreases in our gross profit and gross profit as a percentage of net sales were primarily related to the following:

	Three Months Ended (Unaudited)	Six Months Ended (Unaudited)
June 30, 2020	71.5 %	72.2 %
Impact of amortization of acquired intangible and other purchase accounting adjustments	(1.3)%	(1.5)%
Impact of increases in outbound freight and other logistics costs due to COVID-19	— %	(0.3)%
Impact of changes in sales mix and sales price	0.4 %	0.5 %
Changes in foreign currency exchange rates	0.8 %	0.6 %
June 30, 2021	71.4 %	71.5 %

To help protect against changes in our cost of sales caused by a fluctuation in foreign currency exchange rates of forecasted foreign currency cash flows, we have a foreign currency cash flow hedging program. We hedge portions of our forecasted costs of sales denominated in foreign currencies with average rate forward contracts. During the three months ended June 30, 2021 and 2020, these hedges had the effect of decreasing our cost of sales by less than $0.1 million and increasing our cost of sales by $0.9 million, respectively. During the six months ended June 30, 2021 and 2020, these hedges had the effect of increasing our cost of sales by less than $0.1 million and increasing our cost of sales by $1.4 million, respectively. (See Note 5 - Derivative instruments and hedging activities of Notes to Consolidated Financial Statements for further discussion regarding our cash flow hedging program and its related impact on our cost of sales for 2021 and 2020).

Operating Expenses. The following table sets forth our operating expenses for the three and six months ended June 30, 2021 and 2020, along with the percentage changes between the corresponding periods and the line item as a percentage of total net sales.

	Three Months Ended June 30, (Unaudited)			Six Months Ended June 30, (Unaudited)		
(In thousands)	**2021**	**2020**	**Change**	**2021**	**2020**	**Change**
Sales and marketing	$ 111,199	$ 105,419	5%	$ 227,983	$ 221,165	3%
Percentage of total net sales	32%	35%		33%	36%	
Research and development	$ 81,434	$ 64,225	27%	$ 161,520	$ 135,846	19%
Percentage of total net sales	23%	21%		24%	22%	
General and administrative	$ 30,277	$ 29,369	3%	$ 63,636	$ 55,549	15%
Percentage of total net sales	9%	10%		9%	9%	
Total operating expenses	$ 222,910	$ 199,013	12%	$ 453,139	$ 412,560	10%
Percentage of total net sales	64%	66%		66%	68%	

Operating Expenses - Three Months Ended June 30, 2021

The year over year increase of $24 million in our operating expenses during the three months ended June 30, 2021 was primarily related to the following:

- $10 million increase in non-acquisition personnel costs, primarily attributable to additional accruals for estimated attainment under our variable compensation programs and stock-based compensation expense (due to comparatively higher stock prices on the grant date of unvested awards and a shorter average service period for our awards) partially offset by a reduction in severance-related costs associated with our restructuring activities;
- $10 million increase attributable to amortization of acquisition-related intangibles and higher operating costs related to our recently acquired OptimalPlus business, partially offset by lower acquisition-related transaction costs;
- $3 million increase related to the year over year impact of changes in foreign currency exchange rates; and
- $1 million increase related to lower software development costs eligible for capitalization.

Sales and Marketing

The primary drivers of the increase in sales and marketing expenses for the three months ended June 30, 2021 compared to the same period in 2020 were additional costs related to accruals under our variable compensation programs and the amortization of acquired intangibles, which were partially offset by lower severance-related charges and a reduction in headcount.

Research and Development

The primary drivers of the increase in research and development expenses for the three months ended June 30, 2021 compared to the same period in 2020 were additional personnel costs related to accruals under our variable compensation programs, salaries, stock-based compensation and an anticipated decrease in software development costs eligible for capitalization.

General and administrative

The primary drivers of the increase in general and administrative expenses for the three months ended June 30, 2021 compared to the same period in 2020 were additional personnel costs related to accruals under our variable compensation programs and stock-based compensation.

Operating Expenses - Six Months Ended June 30, 2021

The year over year increase of $41 million in our operating expenses during the six months ended June 30, 2021 was primarily related to the following:

- $25 million increase related to the amortization of acquisition-related intangibles, additional operating costs of our recently acquired OptimalPlus business, and transaction and integration costs related to a one-time redemption fee associated with recently acquired intellectual property;
- $12 million increase in non-acquisition personnel costs, primarily attributable to additional accruals for estimated attainment under our variable compensation programs and additional stock-based compensation expense (due to comparatively higher stock prices on the grant date of unvested awards and a shorter average service period for our awards), partially offset by lower salaries and benefits due to lower headcount and reduced severance costs;
- $6 million increase related to the year over year impact of changes in foreign currency exchange rates;
- $2 million increase related to lower software development costs eligible for capitalization; and
- $(4) million decrease in travel and event related expenses related to the travel restrictions from COVID-19 and strategic cost saving initiatives.

Sales and Marketing

The primary drivers of the increase in sales and marketing expenses for the six months ended June 30, 2021 compared to the same period in 2020 were additional costs associated with accruals under our variable compensation programs, higher salaries and the amortization of acquired intangibles, which were partially offset by lower travel, severance-related costs and a reduction in headcount.

Research and Development

The primary drivers of the increase in research and development expenses for the six months ended June 30, 2021 compared to the same period in 2020 were additional personnel costs associated with accruals under our variable compensation programs, higher salaries, stock-based compensation, as well as an anticipated decrease in software development costs eligible for capitalization, which were partially offset by lower severance-related costs.

General and administrative

The primary drivers of the increase in general and administrative expenses for the six months ended June 30, 2021 compared to the same period in 2020 were additional personnel costs associated with accruals under our variable compensation programs, stock-based compensation, and severance, as well as a one-time redemption fee associated with recently acquired intellectual property.

Gain on sale of business/assets. As previously disclosed, on January 15, 2020, we completed the sale of our AWR subsidiary and recognized a gain on the sale of $160 million. These amounts are presented as "Gain on sale of business/assets" in our Consolidated Statements of Income.

Operating Income. For the three months ended June 30, 2021 and 2020, operating income was $25 million and $16 million, respectively. As a percentage of net sales, operating income was 7.1% and 5.4% for the three months ended June 30, 2021 and 2020, respectively. For the six months ended June 30, 2021 and 2020, operating income was $34 million and $188 million, respectively. As a percentage of net sales, operating income was 5.0% and 30.8% for the six months ended June 30, 2021 and 2020, respectively. The increase in operating income in absolute dollars for the three months ended June 30, 2021, compared to the three months ended June 30, 2020, is attributable to the factors discussed in Net Sales, Gross Profit and Operating Expenses above. The decrease in operating income in absolute dollars for the six months ended June 30, 2021, compared to the six months ended June 30, 2020, is primarily attributable to the approximately $160 million gain on sale of our AWR subsidiary in 2020, partially offset by the factors discussed in Net Sales, Gross Profit and Operating Expenses above.

Other (Expense) Income.

- ***Interest Income.*** For the three months ended June 30, 2021 and 2020, interest income was $0.1 million and $1.0 million, respectively. For the six months ended June 30, 2021 and 2020, interest income was $0.3 million and $3.3 million, respectively. During the six months ended June 30, 2021, the Federal Reserve maintained the federal funds rate target to a range of zero to 0.25%. This will likely continue to have a negative impact on our interest income for the remainder of 2021.

- ***Interest Expense.*** For the three months ended June 30, 2021 and 2020, interest expense was approximately $1.2 million, and $0.1 million, respectively. For the six months ended June 30, 2021 and 2020, interest expense was approximately $1.9 million, and $0.1 million, respectively. These interest charges are due to interest on outstanding borrowings, commitment fees and amortization of deferred costs related to our Credit Agreement. During the three months ended June 30, 2021, we amended and restated in its entirety and refinanced our existing Credit Agreement. We recognized approximately $0.6 million of expense related to the portion of debt issuance costs that were allocated to the previous Credit Agreement and accounted for as an extinguishment of debt. Refer to Note 13 - Debt for additional information regarding the terms of our Credit Agreement and related borrowings.

- ***Loss From Equity-Method Investments***. For the three months ended June 30, 2021 and 2020, loss from equity-method investments was approximately $0.9 million. For the six months ended June 30, 2021 and 2020, loss from equity-methods investment was approximately $5.4 million and $1.9 million, respectively. The increase in the six months ended June 30, 2021 compared to the same period in 2020 was primarily attributable to an impairment loss of $3.5 million recorded in the three months ended March 31, 2021.

- ***Net Foreign Exchange Gain/Loss.*** For the three months ended June 30, 2021 and 2020, net foreign exchange loss was $0.9 million and $0.8 million, respectively. During the six months ended June 30, 2021 and 2020, net foreign exchange loss was $1.5 million and $1.3 million, respectively. These results are attributable to movements in the foreign currency exchange rates between the U.S. dollar and foreign currencies in subsidiaries for which our functional currency is not the U.S. dollar. We recognize the local currency as the functional currency in virtually all of our international subsidiaries. See "Results of Operations - Net Sales" above for additional discussion on the impact of foreign exchange rates on our net sales of operations for the three and six months ended June 30, 2021.

Provision for Income Taxes. For the three months ended June 30, 2021 and 2020, our provision for income taxes reflected an effective tax rate of 20% and 29%, respectively. For the six months ended June 30, 2021 and 2020, our provision for income taxes reflected an effective tax rate of 16% and 24%, respectively. The factors that caused our effective tax rate to change year over year are detailed in the table below:

	Three Months Ended June 30, 2021	**Six Months Ended June 30, 2021**
	(Unaudited)	**(Unaudited)**
Effective tax rate at June 30, 2020	29 %	24 %
Transition tax on deferred foreign income	(5)	(1)
Employee share-based compensation and other discrete items	(4)	(7)
Gain on sale of AWR business	(3)	(1)
Enhanced deduction for certain research and development expenses	(2)	(2)
Foreign taxes greater than federal statutory rate	—	(2)
Research and development tax credit	1	1
Change in unrecognized tax benefits	1	1
Global intangible low-taxed income inclusion ("GILTI")	3	3
Effective tax rate at June 30, 2021	20 %	16 %

Other operational metrics

We believe that the following additional unaudited operational metrics assist investors in assessing our operational performance relative to others in our industry and to our historical results. The following tables provide details with respect to the amount of GAAP charges related to certain items that were recorded in the line items indicated below (in thousands).

(In thousands)	Three Months Ended June 30, (Unaudited)		Six Months Ended June 30, (Unaudited)	
	2021	2020	2021	2020
Stock-based compensation				
Cost of sales	$ 1,191	$ 932	$ 2,305	$ 1,736
Sales and marketing	6,922	6,467	12,617	11,642
Research and development	6,180	4,428	11,893	7,947
General and administrative	5,854	3,404	10,520	6,008
Provision for income taxes	(3,916)	(2,905)	(7,241)	(4,406)
Total	$ 16,231	$ 12,326	$ 30,094	$ 22,927

(In thousands)	Three Months Ended June 30, (Unaudited)		Six Months Ended June 30, (Unaudited)	
	2021	2020	2021	2020
Amortization of acquisition-related intangibles and fair value adjustments				
Net sales	$ 738	$ —	$ 1,551	$ —
Cost of sales	$ 4,226	$ 635	$ 8,497	$ 1,381
Sales and marketing	2,357	480	4,528	966
Research and development	—	28	—	55
Other expense	554	117	948	241
Provision for income taxes	(979)	(133)	(1,969)	(290)
Total	$ 6,896	$ 1,127	$ 13,555	$ 2,353

(In thousands)	Three Months Ended June 30, (Unaudited)		Six Months Ended June 30, (Unaudited)	
	2021	2020	2021	2020
Acquisition-related transaction and integration costs, restructuring charges, and other(1)(2)				
Cost of sales	$ (118)	$ —	$ (43)	$ 20
Sales and marketing	839	1,239	5,487	7,612
Research and development	548	147	1,036	4,816
General and administrative	873	3,399	6,539	2,385
Gain on sale of business/assets	—	—	—	(159,753)
Other expense	280	—	4,006	128
Provision for income taxes	(578)	(78)	(3,463)	34,676
Total	$ 1,844	$ 4,707	$ 13,562	$ (110,116)

(1): During the first quarter of 2020, we recognized a gain of approximately $160 million related to the divestiture of AWR, presented within "Gain on sale of business/assets".

(2): During the first quarter of 2021, we recognized a $3.5 million impairment loss related to one of our equity-method investments.

(In thousands)	Three Months Ended June 30, (Unaudited)		Six Months Ended June 30, (Unaudited)	
	2021	2020	2021	2020
Capitalization and amortization of internally developed software costs				
Cost of sales	$ 6,227	$ 7,144	$ 13,101	$ 14,226
Research and development	(495)	(1,181)	(721)	(3,095)
Provision for income taxes	(1,204)	(1,252)	(2,600)	(2,337)
Total	$ 4,528	$ 4,711	$ 9,780	$ 8,794

Liquidity and Capital Resources

Overview

At June 30, 2021, we had $265 million in cash, cash equivalents and short-term investments. Our cash and cash equivalent balances are held in numerous financial institutions throughout the world, including substantial amounts held outside of the U.S., however, all of our short-term investments that are located outside of the U.S. are denominated in the U.S. dollar. The following table presents the geographic distribution of our cash, cash equivalents, and short-term investments as of June 30, 2021 (in millions):

	Domestic	International	Total
Cash and cash equivalents	$113.3	$137.1	$250.4
	45%	*55%*	
Short-term investments	$10.1	$4.0	$14.1
	72%	*28%*	
Total cash, cash equivalents and short-term investments	$123.4	$141.1	$264.5
	47%	*53%*	

The following table presents our working capital, cash and cash equivalents and short-term investments:

(In thousands)	**June 30, 2021 (unaudited)**	**December 31, 2020**	**Increase/ (Decrease)**
Working capital	$ 483,339	$ 467,655	$ 15,684
Cash and cash equivalents (1)	250,421	260,232	(9,811)
Short-term investments (1)	14,110	59,923	(45,813)
Total cash, cash equivalents and short-term investments	$ 264,531	$ 320,155	$ (55,624)

(1) Included in working capital

Our principal sources of liquidity include cash, cash equivalents, cash generated from the sale and maturity of marketable securities, cash flows generated from our operations, cash generated from purchase of common stock through our employee stock purchase plan and available borrowings under our Credit Agreement. The primary drivers of the net increase in working capital between December 31, 2020 and June 30, 2021 were:

- Cash, cash equivalents, and short-term investments decreased by $56 million for the six-month period ended June 30, 2021. Additional analysis of the changes in our cash flows for the period ended June 30, 2021 compared to the year ended December 31, 2020 is discussed below;

- Accounts receivable, net decreased by $8 million. Days sales outstanding increased to 57 days at June 30, 2021, compared to 56 days at December 31, 2020. The decrease in accounts receivable is primarily related to quarterly fluctuations in our net sales;

- Inventory increased by $17 million. Inventory turns on a trailing twelve month basis were 1.6 at June 30, 2021 and 1.7 at December 31, 2020. The increase in inventory was primarily attributable to an increase in raw materials to support increased demand for our products and minimize supply chain disruptions;

- The current portion of deferred revenue decreased by $6 million, which was primarily related to the timing of annual software maintenance renewals for our enterprise-level licensing arrangements;

- Accrued compensation decreased by $18 million attributable to annual payments under our variable compensation programs related to 2020 performance and severance payments under our current restructuring initiative, partially offset by accruals related to expected payouts under our 2021 variable compensation programs;

◦ Other current liabilities decreased by $16 million which was primarily related to income tax payments and changes in the fair value of foreign currency forward contracts designated as hedging instruments; and

◦ Other taxes payable decreased by $9 million primarily related to the timing of payments for VAT and other indirect taxes.

Analysis of Cash Flow

The following table summarizes our cash flow results for the six months ended June 30, 2021 and 2020.

(In thousands)	Six Months Ended June 30, (unaudited) 2021	2020
Cash provided by operating activities	$ 52,323	$ 101,498
Cash (used in) provided by investing activities	(6,315)	231,791
Cash (used in) provided by financing activities	(54,932)	13,936
Effect of exchange rate changes on cash	(887)	(636)
Net change in cash and cash equivalents	(9,811)	346,589
Cash and cash equivalents at beginning of period	260,232	194,616
Cash and cash equivalents at end of period	$ 250,421	$ 541,205

Operating Activities

Cash provided by operating activities is comprised of net income adjusted for certain items and changes in working capital. Cash flows from operating activities can fluctuate significantly from period to period as working capital needs and the timing of payments for income taxes, variable pay, restructuring activities, and other items impact reported cash flows.

Cash provided by operating activities for the six months ended June 30, 2021 decreased by $49 million compared to the same period in 2020. This decrease was primarily due to a $111 million decrease in cash provided by changes in operating assets and liabilities during the year, further described below, partially offset by an increase of $62 million in net income adjusted for certain non-cash operating items, including stock-based compensation, depreciation and amortization, and gains on sale of assets/businesses:

• The aggregate of accounts receivable, inventory and accounts payable used net cash of $7 million during the six months ended June 30, 2021 compared to net cash provided of $19 million in the comparable period in 2020. The amount of cash flow generated from or used by the aggregate of accounts receivable, inventory and accounts payable depends upon the cash conversion cycle, which represents the number of days that elapse from the day we pay for the purchase of raw materials and components to the collection of cash from our customers and can be significantly impacted by the timing of shipments and purchases, as well as collections and payments in a period.

◦ The aggregate of other movements in assets and liabilities used net operating cash of $57 million during the six months ended June 30, 2021 compared to net operating cash provided of $29 million in the comparable period in 2020. The year over year change is primarily attributable to the timing of payments of federal income taxes, variable compensation programs and severance payments under our current restructuring initiative.

Investing Activities

Cash provided by investing activities decreased by $238 million for the six months ended June 30, 2021 compared to the same period in 2020. This was primarily attributable to a $160 million decrease in proceeds received from the sale of our AWR subsidiary in January 2020, a $32 million increase in cash outflows related to acquisitions and equity-method investments, and a net sale of short-term investments of $46 million in the six months ended June 30, 2021 compared to a net sale of short-term investments of $101 million during the same period in 2020. The decrease in investing inflows was partially offset by a decrease of $10 million in capital expenditures and internally developed software costs that were eligible for capitalization during the six months ended June 30, 2021, compared to the same period in 2020.

Financing Activities

Cash provided by financing activities decreased by $69 million for the six months ended June 30, 2021 compared to the same period in 2020. This was primarily related to an $89 million decrease in net proceeds received under our term and revolving loan facilities, net of issuance costs, and an increase in cash outflows of $3 million related to our quarterly dividends, partially offset by a decrease in cash outflows of $24 million related to shares repurchased during the comparable period in 2020. (See Note 11 – Authorized shares of common and preferred stock and stock based compensation plans of Notes to Consolidated Financial Statements for additional discussion about our equity compensation plans and share repurchase program).

Contractual Cash Obligations. Information related to our contractual obligations as of December 31, 2020 can be found in “Management’s Discussion and Analysis of Financial Condition and Results of Operations-Contractual Obligations,” in Part II-Item 7 of the Form 10-K. At June 30, 2021, there were no material changes outside the ordinary course of business to our contractual obligations from those reported in our Form 10-K. See Note 8 - Leases of Notes to Consolidated Financial Statements for additional information regarding our non-cancellable operating lease obligations as of June 30, 2021.

Below are the payments due by period for our debt outstanding as of June 30, 2021:

	Payments due by period				
(In thousands)	Total	Less than one year	One to three years	Three to five years	More than five years
Revolving line of credit	$ 100,000	—	—	100,000	—

Credit Agreement. Refer to Note 13 - Debt of Notes to Consolidated Financial Statements for additional details on our secured revolving loan facility. As of June 30, 2021, we had approximately $400 million in available borrowing capacity under the Credit Agreement. Proceeds of additional borrowings made under the Credit Agreement may be used for working capital and other general corporate purposes. We may prepay the loans under the Credit Agreement in whole or in part at any time without premium or penalty. Certain of our future material domestic subsidiaries are required to guaranty our obligations under the Credit Agreement.

Off-Balance Sheet Arrangements. We do not have any off-balance sheet debt. At June 30, 2021, we did not have any relationships with any unconsolidated entities or financial partnerships, such as entities often referred to as structured finance entities, which would have been established for the purpose of facilitating off-balance sheet arrangements. As such, we are not exposed to any financing, liquidity, market or credit risk that could arise if we were engaged in such relationships.

Prospective Capital Needs. We believe that our existing cash, cash equivalents and short-term investments, together with cash generated from operations, cash generated from the purchase of common stock through our employee stock purchase plan and available borrowing under our Credit Agreement will be sufficient to cover our working capital needs, capital expenditures, investment requirements, commitments, payment of dividends to our stockholders and repurchases of our common stock for at least the next 12 months. We may also seek to pursue additional financing or to raise additional funds by seeking an additional increase in our secured revolving line of credit under our Credit Agreement or selling equity or debt to the public or in private transactions from time to time. If we elect to raise additional funds, we may not be able to obtain such funds on a timely basis or on acceptable terms, if at all. If we raise additional funds by issuing additional equity or convertible debt securities, the ownership percentages of our existing stockholders would be reduced. In addition, the equity or debt securities that we issue may have rights, preferences or privileges senior to those of our common stock.

Although we believe that we have sufficient capital to fund our operating activities for at least the next 12 months, our future capital requirements may vary materially from those now planned. We anticipate that the amount of capital we will need in the future will depend on many factors, including:

- payment of dividends to our stockholders;
- required levels of research and development and other operating costs;
- our business, product, capital expenditure and research and development plans, and product and technology roadmaps;
- acquisitions of other businesses, assets, products or technologies;
- repurchase of our common stock;
- the overall levels of sales of our products and gross profit margins;
- the levels of inventory and accounts receivable that we maintain;
- general economic and political uncertainty and specific conditions in the markets we address, including any volatility in the industrial economy in the various geographic regions in which we do business;
- the inability of certain of our customers who depend on credit to have access to their traditional sources of credit to finance the purchase of products from us, which may lead them to reduce their level of purchases or to seek credit or other accommodations from us;
- capital improvements for facilities;
- our relationships with suppliers and customers; and
- the amount of proceeds received as a result of our employee stock purchase plan.

Recently Issued Accounting Pronouncements

See Note 1 – Basis of presentation in Notes to Consolidated Financial Statements.

Item 3. ***Quantitative and Qualitative Disclosures About Market Risk***

Changes in currency exchange rates and interest rates are our primary financial market risks. Quantitative and qualitative disclosures about market risk appear in “Item 7A. Quantitative and Qualitative Disclosures About Market Risk” in Part II of our Form 10-K and the material changes during the six months ended June 30, 2021 to this information reported in our Form 10-K are described below.

Interest Expense Risk

Our borrowings under our Credit Agreement bear interest at a variable rate which exposes us to market risk related to changes in interest rates. We have not entered into derivative transactions related to our borrowing arrangements. The primary base interest rate is LIBOR. Assuming the outstanding balance on our floating rate indebtedness remains constant over a year, a 100-basis point increase in the interest rate would decrease annual net income and cash flow by less than $1 million. We do not expect changes in interest rates to have a material adverse effect on our income or our cash flows in 2021. However, we can give no assurance that interest rates will not significantly change in the future.

Item 4. ***Controls and Procedures***

Evaluation of Disclosure Controls and Procedures

Based on an evaluation under the supervision and with the participation of our management, our principal executive officer and our principal financial officer have concluded that our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act were effective as of June 30, 2021, to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and (ii) accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the second quarter of 2021, which were identified in connection with management's evaluation required by paragraph (d) of Rules 13a-15 and 15d-15 under the Exchange Act, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. ***Legal Proceedings***

We are not currently a party to any material litigation. However, in the ordinary course of our business, we have in the past, are currently and will likely become involved in various legal proceedings, claims, and regulatory, tax or government inquiries and investigations, and could incur uninsured liability in any one or more of them. We also periodically receive notifications from various third parties related to alleged infringement of patents or intellectual property rights, commercial disputes or other matters. No assurances can be given with respect to the extent or outcome of any investigation, litigation or dispute.

Item 1A. ***Risk Factors***

Our business, financial condition and operating results can be affected by a number of factors, whether currently known or unknown, including but not limited to those described in Part I, Item 1A of our Form 10-K under the heading "Risk Factors," any one or more of which could, directly or indirectly, cause our actual financial condition and operating results to vary materially from past, or from anticipated future, financial condition and operating results. Any of these factors, in whole or in part, could materially and adversely affect our business, financial condition, operating results and stock price.

The following risk factor is provided to update the risk factors previously disclosed under the heading "Risk Factors" in our Form 10-K. The developments described in the additional risk factor presented below have heightened, or in some cases manifested, certain of the risks disclosed in the other risk factors identified in the "Risk Factors" section of our Form 10-K.

A Global Shortage of Key Components Has and May Continue to Adversely Affect Our Business and Result of Operations. Various factors, including increased demand for certain components and production delays due to COVID-19 and other natural events and disasters, are contributing to shortages of certain components used in our products and increased difficulties in our ability to obtain a consistent supply of materials at stable pricing levels. Supply shortages and longer lead times for components used in our products, including limited source components, can result in significant additional costs and inefficiencies in manufacturing. A shortage of key components may cause a significant disruption to our production activities, which could have a substantial adverse effect on our financial condition or results of operations. If we are unsuccessful in resolving any such component shortages in a timely manner, we will experience a significant impact on the timing of revenue, a possible loss of revenue, or an increase in manufacturing costs, any of which would have a material adverse impact on our operating results.

Item 2. ***Unregistered Sales of Equity Securities and Use of Proceeds***

None.

Item 3. ***Defaults Upon Senior Securities***

None.

Item 4. ***Mine Safety Disclosures***

None.

Item 5. ***Other Information***

On August 1, 2021, following a review of corporate law developments and market practices, our Board of Directors amended our Amended and Restated By-laws (the “By-Laws”) to clarify and update certain disclosure requirements and procedures, account for legal changes, and make related technical and conforming changes. The By-Laws were last amended in 2019. The amendments to the By-Laws were effective immediately and include, among other changes: (i) updating terminology and gender-related references; (ii) updating the provisions regarding stockholder meetings to further address the use of stockholder meetings conducted by means of remote communication (e.g., “virtual” meetings), rules for conduct at stockholder meetings and use of inspectors of election and related matters; (iii) making various changes to conform with the provisions of the Delaware General Corporation Law; (iv) updating the disclosure and notice content requirements for director nominations and stockholder proposals submitted outside of the Rule 14a-8 process, in each case by stockholders, and addressing completion of director and officer questionnaires and representations and agreements by such nominees; (v) updating provisions regarding officer titles and roles and the Board’s ability to empower the Chief Executive Officer to appoint and remove other officers; (vi) requiring resignation notices to be provided in writing as contemplated by the Delaware General Corporation Law rather than merely orally; and (vii) updating procedures concerning Board action taken without a meeting (including through use of electronic transmission of consents) and the calling of special and regular meetings of the Board and Board committees.

The above summary description of the amendments to the By-laws is qualified in its entirety by reference to the full text of the By-laws, a copy of which is included as Exhibit 3.2 hereto.

EXHIBITS

3.1(1)	Certificate of Incorporation, as amended, of the Registrant, effective May 14, 2013
3.2*	Amended and Restated By-laws of the Registrant effective August 1, 2021
31.1*	Certification of Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*
10.1(2)	Second Amended and Restated Credit Agreement, dated as of June 18, 2021, among the Registrant, as borrower, the lenders from time to time party thereto, and Wells Fargo Bank, National Association, as the administrative agent, swingline lender and issuing lender
10.2(3)	Amended and Restated Collateral Agreement, dated as of June 18, 2021, among the Registrant, and certain of its subsidiaries from time to time party thereto, as grantors in favor of Wells Fargo Bank, National Association, as administrative agent
101*	Inline XBRL Document Set for the condensed consolidated financial statements and accompanying notes in Part I, Item 1, “Financial Statements” of this Quarterly Report on Form 10-Q
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)
(1)	Incorporated by reference to Exhibit 3.1 filed with the Registrant's Form 10-K for the fiscal year ended December 31, 2013, filed with the Commission on February 20, 2014
(2)	Incorporated by reference to Exhibit 10.1 filed with the Registrant's Form 8-K on June 23, 2021
(3)	Incorporated by reference to Exhibit 10.2 filed with the Registrant's Form 8-K on June 23, 2021

*Filed herewith

**Furnished herewith

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Dated: August 2, 2021

NATIONAL INSTRUMENTS CORPORATION
By: /s/ Karen Rapp
Karen Rapp
EVP, Chief Financial Officer
(Principal Financial Officer)

Exhibit 3.2

AMENDED AND RESTATED BY-LAWS

(as of August 1, 2021)

OF

NATIONAL INSTRUMENTS CORPORATION

A Delaware Corporation

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AMENDED AND RESTATED BY-LAWS

(as of August 1, 2021)

OF

NATIONAL INSTRUMENTS CORPORATION

A Delaware Corporation

PREAMBLE

These by-laws are subject to, and governed by, the General Corporation Law of the State of Delaware (the "**Delaware General Corporation Law**") and the certificate of incorporation of National Instruments Corporation, a Delaware corporation (the "**Corporation**"). In the event of a direct conflict between the provisions of these by-laws and the mandatory provisions of the Delaware General Corporation Law or the provisions of the certificate of incorporation of the Corporation, such provisions of the Delaware General Corporation Law or the certificate of incorporation of the Corporation, as the case may be, will be controlling.

ARTICLE 1: OFFICES

1.1 Registered Office and Agent. The registered office and registered agent of the Corporation shall be as designated from time to time by the appropriate filing by the Corporation in the office of the Secretary of State of the State of Delaware.

1.2 Other Offices. The Corporation may also have offices at such other places, both within and without the State of Delaware, as the board of directors may from time to time determine or as the business of the Corporation may require.

ARTICLE 2: MEETINGS OF STOCKHOLDERS

2.1 Annual Meeting. An annual meeting of stockholders of the Corporation shall be held each calendar year on such date and at such time as shall be designated from time to time by the board of directors and stated in the notice of the meeting or in a duly executed waiver of notice of such meeting. At such meeting, the stockholders shall elect directors and transact such other business as may properly be brought before the meeting. Failure to hold an annual meeting as required by these by-laws shall not invalidate any action taken by the board of directors or officers of the Corporation.

2.2 Special Meeting. A special meeting of the stockholders, for any purpose or purposes, may be called only by the Chairman of the Board, the Chief Executive Officer or the board of directors pursuant to a resolution approved by the affirmative vote of a majority of directors then in office.

2.3 Place of Meetings. An annual meeting of stockholders may be held at any place within or without the State of Delaware designated by the board of directors, and the board may designate such meeting to be held by means of remote communication in lieu of a physical place. A special meeting of stockholders may be held at any place within or without the State of Delaware (or by means of remote communication) designated in the notice of the meeting or a duly executed waiver of notice of such meeting. Meetings of stockholders shall be held at the principal office of the Corporation or by means of remote communication unless another place is designated for meetings in the manner provided herein.

2.4 Notice. Written or printed notice stating the place, day, and time of each meeting of the stockholders, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in case of a special meeting, the purpose or purposes for which the meeting is called, shall be delivered not less than ten nor more than 60 days before the date of the meeting, either personally or by mail or (if permitted by applicable law) by electronic transmission, by or at the direction of the Chief Executive Officer, the Secretary, or the officer or person(s) calling the meeting, to each stockholder of record entitled to vote at such meeting. If such notice is to be sent by mail, it shall be directed to such stockholder at her/his address as it appears on the records of the Corporation, unless she/he shall have filed with the Secretary of the Corporation a written request that notices to her/him be mailed to some other address, in which case it shall be directed to her/him at such other address. Notice of any meeting of stockholders shall not be required to be given to any stockholder who shall attend such meeting in person or by proxy and shall not, at the beginning of such meeting, object to the transaction of any business because the meeting is not lawfully called or convened, or who shall, either before or after the meeting, submit a signed waiver of notice, in person or by proxy.

2.5 Voting List. At least ten days before each meeting of stockholders, the Secretary or other officer of the Corporation who has charge of the Corporation's stock ledger, either directly or through another officer appointed by her/him or through a transfer agent appointed by the board of directors, shall prepare a complete list of stockholders entitled to vote thereat, arranged in alphabetical order and showing the address of each stockholder and number of shares registered in the name of each stockholder. For a period of ten days prior to such meeting, such list shall be open to the examination of any stockholder for any purpose germane to the meeting: (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours at the principal place of business of the Corporation. Such list shall be produced at such meeting and kept at the meeting at all times during such meeting and may be inspected by any stockholder who is present. In furtherance of the foregoing, if the meeting is to be held solely by means of remote communication, then such list shall be open to the examination of any stockholder during the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided in accordance with applicable law.

2.6 Quorum. The holders of a majority of the outstanding shares entitled to vote on a matter, present in person or by proxy, shall constitute a quorum at any meeting of stockholders, except as otherwise provided by law, the certificate of incorporation of the Corporation, or these by-laws. If a quorum shall not be present, in person or by proxy, at any meeting of stockholders, the stockholders entitled to vote thereat who are present, in person or by proxy, or, if no stockholder entitled to vote is present, any officer of the Corporation may adjourn the meeting from time to time, without notice other than announcement at the meeting (unless the board of directors, after such adjournment, fixes a new record date for the adjourned meeting), until a quorum shall be present, in person or by proxy. At any adjourned meeting at which a quorum shall be present, in person or by proxy, any business may be transacted which may have been transacted at the original meeting had a quorum been present; provided that, if the adjournment is for more than 30 days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the adjourned meeting. Notwithstanding any other provision of these by-laws, the chair of the meeting shall also have the authority to adjourn such meeting of stockholders from time to time, whether or not there is a quorum present. Notice of the time and place, if any, of adjourned meetings shall be required to be given solely as required by these by-laws and applicable law.

2.7 Required Vote; Withdrawal of Quorum. When a quorum is present at any meeting, the vote of the holders of at least a majority of the outstanding shares entitled to vote who are present, in person or by proxy, shall decide any question brought before such meeting, unless the question is one on which, by express provision of statute, the certificate of incorporation of the Corporation, or these by-laws, a different vote is required, in which case such express provision shall govern and control the decision of such question. The stockholders present at a duly constituted meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

2.8 Method of Voting; Proxies. Except as otherwise provided in the certificate of incorporation of the Corporation or by law, each outstanding share, regardless of class, shall be entitled to one vote on each matter submitted to a vote at a meeting of stockholders. Elections of directors need not be by written ballot. At any meeting of stockholders, every stockholder having the right to vote may vote either in person or by a proxy executed in writing by the stockholder or by her/his duly authorized attorney-in-fact. Each such proxy shall be filed with the Secretary of the Corporation before or at the time of the meeting. No proxy shall be valid after three years from the date of its execution, unless otherwise provided in the proxy. If no date is stated in a proxy, such proxy shall be presumed to have been executed on the date of the meeting at which it is to be voted. Each proxy shall be revocable unless expressly provided therein to be irrevocable and coupled with an interest sufficient in law to support an irrevocable power or unless otherwise made irrevocable by law.

2.9 Record Date. For the purpose of determining stockholders entitled to notice of or to vote at any meeting of stockholders, or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion, or exchange of stock or for the purpose of any other lawful action, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the board of directors, for any such determination of stockholders, such date in any case to be not more than 60 days and not less than ten days prior to such meeting nor more than 60 days prior to any other action. If no record date is fixed:

(a) In the absence of the board of directors fixing a different record date, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(b) In the absence of the board of directors fixing a different record date, the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the board of directors adopts the resolution relating thereto.

(c) A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may (but shall not be required to) fix a new record date for the adjourned meeting.

2.10 Conduct of Meeting. The Chairman of the Board, if such office has been filled, and, if not or if the Chairman of the Board is absent or otherwise unable to act, the Chief Executive Officer (or such other person as may be designated by the board of directors if the Chief Executive Officer is absent or otherwise unable to act) shall preside at all meetings of stockholders (and references in these by-laws to the chairman or chair of the meeting or to the presiding officer of the meeting and similar such references shall be deemed references to the foregoing person). The Secretary shall keep the records of each meeting of stockholders. In the absence or inability to act of any such officer, such officer’s duties shall be performed by the officer given the authority to act for such absent or non-acting officer under these by-laws or by some person appointed by the meeting. The board of directors and its designee(s) shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the board of directors, if any, the person presiding at the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such presiding individual, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies and such other persons as the presiding individual shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting and matters which are to be voted on by ballot.

2.11 Stockholder Proposals and Nominations of Persons for Election to the Board of Directors. Nominations of persons for election to the board of directors of the Corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders only (a) pursuant to the Corporation's notice of meeting, (b) by or at the direction of the board of directors, or (c) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in these by-laws, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this by-law.

For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of the foregoing paragraph, (1) the stockholder must have given timely notice thereof in writing to the secretary of the Corporation, (2) such business must be a proper matter for stockholder action under the Delaware General Corporation Law, (3) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the Corporation with a Solicitation Notice, as that term is defined subsequently in this by-law, such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the Corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the Corporation's voting shares reasonably believed by such stockholder or beneficial holder to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice and (4) if no Solicitation Notice relating thereto has been timely provided pursuant to this section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this section. To be timely, a stockholder's notice shall be delivered to the secretary of the Corporation at the principal executive offices of the Corporation not less than 60 or more than 90 days prior to the first anniversary (the "**Anniversary**") of the date on which the Corporation first mailed its proxy materials for the preceding year's annual meeting of stockholders; provided, however, that if the date of the annual meeting is advanced more than 30 days prior to or delayed by more than 30 days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not later than the close of business on the later of (i) the 90th day prior to such annual meeting or (ii) the 10th day following the day on which public announcement of the date of such meeting is first made. In no event shall any adjournment or postponement of a meeting of stockholders, or the public announcement thereof, commence a new time period for the giving of a stockholder's notice hereunder.

Such stockholder’s notice shall set forth as to each person whom the stockholder proposes to nominate for election or reelection as a director (i) all information relating to such person as would be required to be disclosed in solicitations of proxies for the contested election of such nominees as directors pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”); (ii) such person’s written consent to serve for a full term as a director if elected; (iii) all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among such stockholder and beneficial owner, if any, and their respective affiliates and associates, or others acting in concert therewith, on the one hand, and each proposed nominee, and her/his respective affiliates and associates, or others acting in concert therewith, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Rule 404 promulgated under Regulation S-K if the stockholder making the nomination and any beneficial owner on whose behalf the nomination is made, if any, or any affiliate or associate thereof or person acting in concert therewith, were the “registrant” for purposes of such rule and the nominee were a director or executive officer of such registrant; (iv) an executed written representation and agreement (in such form as the secretary shall provide to the requesting stockholder following written request) that such person (A) has not entered into and will not enter into any commitment or assurance to any person or entity that could limit or interfere with such individual’s ability to comply, if elected as a director of the Corporation, with such individual’s fiduciary duties under applicable law; (B) other than as disclosed to the Corporation, (1) is not, and will not become, a party to any agreement, arrangement or understanding with, and has not given, and will not give, any commitment or assurance to, any person or entity as to how such person, if elected as a director, will act or vote on any issue or question; and (2) is not, and will not become, a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a stockholder nominee or director; (C) if elected, will comply with the Corporation’s corporate governance guidelines, code of ethics, share ownership and trading policies and guidelines, and any other policies and guidelines of the Corporation applicable to directors, as well as any applicable law, rule or regulation or listing requirement; (D) consents to being named in the proxy statement for the annual meeting; (E) consents to the public disclosure of the information provided pursuant to these by-laws; and (F) represents that such person intends to serve as director of the Corporation for the full term if so elected; and (v) a completed and executed written questionnaire with respect to the background and qualification of such individual and the background of any other person or entity on whose behalf, directly or indirectly, the nomination is being made (which questionnaire shall be provided by the secretary to the requesting stockholder following written request). For the avoidance of doubt, in order to be eligible to be a nominee of any stockholder for election or reelection as a director of the Corporation, a person must deliver (in accordance with the time periods prescribed for delivery of notice under these by-laws) to the secretary at the principal executive offices of the Corporation compliant notices, including as to the written representations, agreements and questionnaires and other information contemplated hereby. The Corporation may require any proposed nominee to furnish such other information as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation or that could be material to a reasonable stockholder’s understanding of the independence, or lack thereof, of such nominee.

Such stockholder’s notice shall set forth as to any other business that the stockholder proposes to bring before the meeting, (i) a brief description of such business, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder, the beneficial owner, if any, on whose behalf the proposal is made and each of their respective affiliates or associates or others acting in concert therewith, if any, in such business; (ii) the text of the proposal or business (including the text of any resolutions proposed for consideration and, in the event that such proposal or business includes a proposal to amend any governing documents of the Corporation, the text of the proposed amendment); and (iii) a description of all agreements, arrangements and understandings between or among any of such stockholder, such beneficial owner and each of their respective affiliates or associates or others acting in concert therewith, if any, and any other person or persons (including their names) in connection with the proposal of such business by such stockholder.

Such stockholder’s notice shall also set forth as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the Corporation’s books, and of such beneficial owner, their affiliates and associates and others acting in concert therewith, (ii) (A) the class and number of shares of the Corporation that are owned beneficially and of record by such stockholder and such beneficial owner, their affiliates and associates and others acting in concert therewith, (B) any option, warrant, convertible security, stock appreciation right, or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or with a value derived, in whole or in part, from the value of any class or series of shares of the Corporation, or any derivative or synthetic arrangement having the characteristics of a long position in any class or series of shares of the Corporation, or any contract, derivative, swap or other transaction or series of transactions designed to produce economic benefits and risks that correspond substantially to the ownership of any class or series of shares of the Corporation, including due to the fact that the value of such contract, derivative, swap or other transaction or series of transactions is determined by reference to the price, value or volatility of any class or series of shares of the Corporation, whether or not such instrument, contract or right shall be subject to settlement in the underlying class or series of shares of the Corporation, through the delivery of cash or other property, or otherwise, and without regard to whether the stockholder of record, the beneficial owner, if any, or any affiliates or associates or others acting in concert therewith, may have entered into transactions that hedge or mitigate the economic effect of such instrument, contract or right, or any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation (any of the foregoing, a "**Derivative Instrument**") directly or indirectly owned beneficially by such stockholder, the beneficial owner, if any, or any affiliates or associates or others acting in concert therewith, (C) any proxy, contract, arrangement, understanding, or relationship pursuant to which such stockholder, such beneficial owner or any of their respective affiliates or associates or others acting in concert therewith has any right to vote any class or series of shares of the Corporation, (D) any agreement, arrangement, understanding, relationship or otherwise, including any repurchase or similar so-called "stock borrowing" agreement or arrangement, involving such stockholder, such beneficial owner or any of their respective affiliates or associates or others acting in concert therewith, directly or indirectly, the purpose or effect of which is to mitigate loss to, reduce the economic risk (of ownership or otherwise) of any class or series of the shares of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such stockholder, such beneficial owner or any of their respective affiliates or associates or others acting in concert therewith with respect to any class or series of the shares of the Corporation, or which provides, directly or indirectly, the opportunity to profit or share in any profit derived from any decrease in the price or value of any class or series of the shares of the Corporation (any of the foregoing, a "**Short Interest**"), (E) any rights to dividends on the shares of the Corporation owned beneficially by such stockholder, such beneficial owner or any of their respective affiliates or associates or others acting in concert therewith that are separated or separable from the underlying shares of the Corporation, (F) any proportionate interest in shares of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership in which such stockholder, such beneficial owner or any of their respective affiliates or associates or others acting in concert therewith is a general partner or, directly or indirectly, beneficially owns an interest in a general partner of such general or limited partnership, (G) any performance-related fees (other than an asset-based fee) that such stockholder, such beneficial owner or any of their respective affiliates or associates or others acting in concert therewith is entitled to based on any increase or decrease in the value of shares of the Corporation or Derivative Instruments, if any, including, without limitation, any such interests held by members of the immediate family sharing the same household of such stockholder, such beneficial owner and their respective affiliates or associates or others acting in concert therewith, (H) any significant equity interests or any Derivative Instruments or Short Interests in any competitor of the Corporation held by such stockholder, such beneficial owner or any of their respective affiliates or associates or others acting in concert therewith and (I) any direct or indirect interest of such stockholder, such beneficial owner and their respective affiliates or associates or others acting in concert therewith in any contract with the Corporation, any affiliate of the Corporation or any competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement); (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of a proposal, at least the percentage of the Corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the Corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "**Solicitation Notice**"); (iv) all information that would be required to be set forth in a Schedule 13D filed pursuant to Rule 13d-1(a) or an amendment pursuant to Rule 13d-2(a) if such a statement were required to be filed under the Exchange Act and the rules and regulations promulgated thereunder by such stockholder, such beneficial owner and their respective affiliates or associates or others acting in concert therewith, if any; and (v) any other information relating to such stockholder, such beneficial owner or any of their respective affiliates or associates or others acting in concert therewith, if any, that would be required to be disclosed in a proxy statement and form or proxy or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder.

If any information or communications provided by the such stockholder to the Corporation or its stockholders is not, when provided, or thereafter ceases to be, true, correct and complete in all material respects (including omitting a material fact necessary to make the statements made, in light of the circumstances under which they were made, not misleading), then such stockholder must promptly notify the secretary of the Corporation in writing and provide the information that is required to make such information or communication true, correct, complete and not misleading.

In addition, in order to be deemed timely notice hereunder, any person or entity providing any information to the Corporation pursuant to this Section 2.11 must further update and supplement such information, if necessary, so that all such information is true and correct as of the record date for the annual meeting and as of the date that is 10 business days prior to the annual meeting or any adjournment, postponement or other delay thereof. Any update or supplement (or a written certification that no such updates or supplements are necessary and that the information previously provided remains true and correct as of the applicable date) pursuant to this Section 2.11 must be delivered to, or mailed and received by, the secretary of the Corporation at the principal executive offices of the Corporation no later than (i) five business days after the record date for the annual meeting (in the case of any update and supplement required to be made as of the record date); and (ii) seven business days prior to the date of the annual meeting or any adjournment, postponement or other thereof (in the case of any update and supplement required to be made as of 10 business days prior to the annual meeting). No notification, update or supplement provided pursuant to these by-laws by or on behalf of a stockholder will be deemed to cure any defect in any previously provided information or communications, limit the remedies available to the Corporation relating to any such defect, extend any applicable deadlines hereunder or enable or be deemed to permit a stockholder who has previously submitted notice hereunder to amend or update any proposal or to submit any new proposal, including by changing or adding nominees, matters, business and or resolutions proposed to be brought before a meeting of the stockholders.

Notwithstanding the provisions of these by-laws, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this by-law; provided, however, that any references in these by-laws to the Exchange Act or the rules promulgated thereunder are not intended to and shall not limit the separate and additional requirements set forth in these by-laws with respect to nominations or proposals as to any other business to be considered. Nothing in these by-laws shall be deemed to affect any rights: (a) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act; or (b) of the holders of any series of preferred stock if and to the extent provided for under law, the certificate of incorporation or these by-laws. Subject to Rule 14a-8 under the Exchange Act, nothing in these by-laws shall be construed to permit any stockholder, or give any stockholder the right, to include or have disseminated or described in the Corporation's proxy statement any nomination of director or directors or any other business proposal.

Only persons nominated in accordance with the procedures set forth in this by-law shall be eligible to serve as directors and only such business shall be conducted at an annual meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this section. The chair of the meeting shall have the power and the duty to determine whether a nomination or any business proposed to be brought before the meeting has been made in accordance with the procedures set forth in these by-laws and, if any proposed nomination or business is not in compliance with these by-laws, to declare that such defective proposed business or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

For the purposes of this section, “public announcement” shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

2.12 Inspectors. The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at such meeting or any adjournment thereof and make written report(s). If any of the inspectors so appointed shall fail to appear or act, the chairman of the meeting shall, or if inspectors shall not have been appointed, the chairman of the meeting may, appoint one or more inspectors. Each inspector, before entering upon the discharge of such person’s duties as inspector, shall take and sign an oath faithfully to execute the duties of inspector at such meeting with strict impartiality and according to the best of such inspector’s ability. The inspectors shall have such duties as prescribed by law or by the board and shall ascertain the number of shares of capital stock of the Corporation outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, and the validity and effect of proxies; and shall receive, count and tabulate votes and ballots and otherwise act in accordance with their duties and responsibilities in determining the results fairly. On request of the chairman of the meeting, the inspectors shall make a report in writing of any challenge, request, or matter determined by them and shall execute a certificate of any fact found by them. No director or candidate for the office of director shall act as an inspector of an election of directors. Inspectors need not be stockholders.

2.13 Proxy Access for Director Nominees.

(a) *Inclusion of Stockholder Nominees in Proxy Materials*. Whenever the board of directors solicits proxies with respect to the election of directors at an annual meeting (beginning with the annual meeting to be held in 2020), subject to the provisions of this Section 2.13, the Corporation will include in its proxy materials for such annual meeting, in addition to any persons nominated for election by the board of directors or a committee appointed by the board of directors, the name, together with the Required Information (as defined below), of any person properly nominated for election (a "**Stockholder Nominee**") to the board of directors by an Eligible Stockholder (as defined below). An Eligible Stockholder must expressly elect, at the time of providing the notice required by this Section 2.13 (the "**Nomination Notice**"), to have each nominee of such Eligible Stockholder included in the Corporation's proxy materials pursuant to this Section 2.13. For the avoidance of doubt, if a Stockholder Nominee is included in the Corporation's proxy materials for an annual meeting, then the Corporation will also include such Stockholder Nominee on (i) any ballot distributed at such annual meeting; (ii) the Corporation's proxy card; and (iii) any other format through which the Corporation permits proxies to be submitted.

(b) *Definition of Eligible Stockholder*. An "**Eligible Stockholder**" is a stockholder, or a group of no more than 20 stockholders, of the Corporation that has satisfied (individually or, in the case of a group, collectively) all applicable conditions and has complied with all applicable procedures, in each case as set forth in this Section 2.13. No person may be a member of more than one group of persons constituting an Eligible Stockholder. A record holder acting on behalf of one or more beneficial owners will not be counted separately as a stockholder with respect to the shares owned by beneficial owners on whose behalf such record holder has been directed in writing to act, but each such beneficial owner will be counted separately, subject to the other provisions of this Section 2.13, for purposes of determining the number of stockholders whose holdings may be considered as part of an Eligible Stockholder's holdings. For purposes of this Section 2.13, two or more funds or trusts will be treated as one stockholder or beneficial owner (a "**Qualifying Fund**") if they are (i) under common management and investment control; (ii) under common management and funded primarily by the same employer; or (iii) a "group of investment companies," as such term is defined in Section 12(d)(1)(G)(ii) of the Investment Company Act of 1940, as amended.

(c) *Required Information*. For purposes of this Section 2.13, the "**Required Information**" that the Corporation will include in its proxy materials is (i) the information concerning the Stockholder Nominee and the Eligible Stockholder that is required to be disclosed in the Corporation's proxy statement by the rules and regulations of the Securities and Exchange Commission (the "**SEC**") promulgated under the Exchange Act; and (ii) if the Eligible Stockholder so elects, one or more Supporting Statements (as defined below).

(d) *Delivery of Nomination Notice*. To be timely, a Nomination Notice must be delivered to, or mailed and received at, the principal executive offices of the Corporation not less than 120 days nor more than 150 days prior to the anniversary of the day on which the Corporation's proxy statement relating to the immediately preceding annual meeting was first released to stockholders. No adjournment, postponement or other delay of an annual meeting, or any public announcement thereof, will commence a new time period (or extend any time period) for the giving of a Nomination Notice.

(e) *Maximum Number of Stockholder Nominees*.

(i) *Maximum Number; Reductions*. The maximum aggregate number of Stockholder Nominees that will be included in the Corporation's proxy materials with respect to an annual meeting will not exceed the greater of (A) two or (B) 20 percent of the number of directors in office as of the last day on which a Nomination Notice may be delivered pursuant to this Section 2.13, or if such amount is not a whole number, then the closest whole number below 20 percent. This maximum number will be reduced by (1) the number of persons serving as directors or as nominees for director who, in either case, were elected or appointed to the board of directors or will be included in the Corporation' proxy materials as an unopposed (by the Corporation) nominee pursuant to an agreement, arrangement or other understanding with a stockholder or group of stockholders (other than any such agreement, arrangement or understanding entered into in connection with an acquisition of shares of common stock of the Corporation by such stockholder or group of stockholders from the Corporation), other than any director whose term of office will expire at such annual meeting and who is not seeking (or agreeing) to be nominated at such annual meeting for another term of office; (2) any Stockholder Nominee whose name was submitted by an Eligible Stockholder for inclusion in the Corporation's proxy materials pursuant to this Section 2.13 and was accepted for nomination but either (a) is subsequently withdrawn, disregarded or declared invalid or ineligible; or (b) that the board of directors or a committee appointed by the board of directors decides to nominate for election; (3) the number of incumbent directors (as of the last day on which a

Nomination Notice may be delivered pursuant to this Section 2.13) who were Stockholder Nominees at any of the preceding three annual meetings (including any individual covered under clause (2) above) and whose election at the upcoming annual meeting is being recommended by the board of directors; and (4) the number of persons nominated in accordance with Section 2.11 (whether or not such nomination is subsequently withdrawn) at the annual meeting. Notwithstanding the previous sentence (x) in no event will the number of Stockholder Nominees appearing in the Corporation's proxy materials pursuant to this Section 2.13 for any annual meeting exceed one-half of the number of directors to be elected at such annual meeting; and (y) in no event will the aggregate number of Stockholder Nominees in the Corporation's proxy materials with respect to an annual meeting be below one if a valid Nomination Notice is properly delivered pursuant to this Section 2.13.

(ii) *Impact of Vacancies*. If (A) one or more vacancies for any reason occurs on the board of directors after the last day on which a Nomination Notice may be delivered pursuant to this Section 2.13 but before the date of the annual meeting and (B) the board of directors resolves to reduce the size of the board of directors in connection with such vacancy, then the maximum number of Stockholder Nominees will be calculated based on the number of directors in office as so reduced.

(iii)*Ranking of Stockholder Nominees*. Any Eligible Stockholder submitting more than one Stockholder Nominee for inclusion in the Corporation's proxy materials must rank its Stockholder Nominees in its Nomination Notice based on the order in which the Eligible Stockholder desires that such Stockholder Nominees be selected for inclusion in the Corporation's proxy materials. If the number of Stockholder Nominees submitted by Eligible Stockholders exceeds the maximum number of nominees provided for pursuant to Section 2.13(e)(i), then the highest-ranking qualifying Stockholder Nominee of each Eligible Stockholder will be selected by the Corporation for inclusion in the Corporation's proxy materials until the maximum number of Stockholder Nominees is reached, going in order by the number (largest to smallest) of shares of common stock of the Corporation that each Eligible Stockholder disclosed as Owned (as defined below) in its Nomination Notice. If the maximum number of Stockholder Nominees is not reached after the highest-ranking qualifying Stockholder Nominee of each Eligible Stockholder has been selected, then this process will continue with the next highest-ranked Stockholder Nominees as many times as necessary, following the same order each time, until the maximum number is reached.

(f) *Ownership*. For purposes of this Section 2.13, an Eligible Stockholder will be deemed to "**Own**" only those outstanding shares of common stock of the Corporation as to which the Eligible Stockholder possesses both (i) the full voting and investment rights pertaining to the shares; and (ii) the full economic interest in (including the opportunity for profit and risk of loss on) such shares. The number of shares calculated in accordance with the prior sentence will not include any shares (A) sold by such Eligible Stockholder or any of its affiliates in any transaction that has not been settled or closed, including any short sale; (B) borrowed by such Eligible Stockholder or any of its affiliates for any purpose; (C) purchased by such Eligible Stockholder or any of its affiliates subject to an agreement to resell; or (D) subject to any option, warrant, forward contract, swap, contract of sale, or other derivative or similar agreement entered into by such Eligible Stockholder or any of its affiliates, whether any such instrument or agreement is to be settled with shares or with cash based on the notional amount or value of shares of common stock of the Corporation, in any such case which instrument or agreement has, or is intended to have, or if exercised would have, the purpose or effect of (1) reducing in any manner, to any extent or at any time in the future, the full right to vote or direct the voting of any such shares by the Eligible Stockholder or its affiliates; or (2) hedging, offsetting or altering to any degree any gain or loss arising from the full economic ownership of such shares by such Eligible Stockholder or its affiliates. A stockholder will "Own" shares held in the name of a nominee or other intermediary so long as the stockholder retains the right to instruct how the shares are voted with respect to the election of directors and possesses the full economic interest in the shares. A stockholder's Ownership of shares will be deemed to continue during any period in which the stockholder has (a) loaned such shares so long as the stockholder has the power to recall such loaned shares on no more than five business days' notice and includes with the Nomination Notice an agreement that it (i) will promptly recall such loaned shares upon being notified by the Corporation that any of its Stockholder Nominees will be included in the Corporation's proxy materials and (ii) will continue to hold such recalled shares through the date of the annual meeting; or (b) delegated any voting power by means of a proxy, power of attorney, or other instrument or arrangement that is revocable at any time by the stockholder. The terms "Owned," "Owning", "Ownership" and other variations of the word "Own" will have correlative meanings. For purposes of this Section 2.13, the term "affiliate" will have the meaning given to it in Rule 405 promulgated under the Securities Act of 1933 (the "**Securities Act**").

(g) *Eligible Stockholder Requirements*.

(i) *Ownership Requirement*. To make a nomination pursuant to this Section 2.13, an Eligible Stockholder must have Owned continuously for at least three years (the "**Holding Period**") a number of shares representing at least three percent of the Corporation's common stock (such required number of shares, the "**Required Shares**"). For purposes of determining whether the Eligible Stockholder owned the Required Shares for the Holding Period, the number of shares of common stock will be determined by reference to the Corporation's most recent periodic filings with the SEC during the Holding Period prior to the submission of the Eligible Stockholder's Notice. The Required Shares must also be Owned continuously as of (i) the date on which the Nomination Notice is delivered to, or mailed and received at, the principal executive offices of the Corporation in accordance with this Section 2.13; (ii) the record date for determining stockholders entitled to vote at the annual meeting; and (iii) the date of the annual meeting.

(ii) *Additional Requirements for Groups of Stockholders*. If a group of stockholders aggregates Ownership of shares in order to meet the requirements under this Section 2.13, then (i) all shares held by each stockholder constituting their contribution to the Required Shares must have been held by that stockholder continuously for at least the Holding Period, and must also be Owned continuously as of (A) the date on which the Nomination Notice is delivered to, or mailed and received at, the principal executive offices of the Corporation in accordance with this Section 2.13; (B) the record date for determining stockholders entitled to vote at the annual meeting; and (C) the date of the annual meeting; (ii) each provision in this Section 2.13 that requires the Eligible Stockholder to provide any written statements, representations, undertakings, agreements or other instruments or to meet any other conditions will be deemed to require each stockholder that is a member of such group to provide such statements, representations, undertakings, agreements or other instruments and to meet such other conditions (except that the members of such group may aggregate their stockholdings in order to meet the Required Shares); and (iii) a breach of any obligation, agreement or representation under this Section 2.13 by any member of such group will be deemed a breach by the Eligible Stockholder.

(h) *Information to be Provided by an Eligible Stockholder*. Within the time period specified for providing the Nomination Notice, an Eligible Stockholder (which, for purposes of this Section 2.13(h), will be deemed to include any beneficial owner on whose behalf the nomination is made) making a nomination pursuant to this Section 2.13 must provide the following information in writing to the Secretary of the Corporation at the principal executive offices of the Corporation:

(i) the name and address of the Eligible Stockholder;

(ii) a statement by the Eligible Stockholder (A) setting forth and certifying as to the number of shares of common stock of the Corporation that it Owns and has Owned continuously during Holding Period; (B) agreeing to continue to Own the Required Shares through the date of annual meeting; and (C) indicating whether it intends to continue to own the Required Shares for at least one year following the annual meeting (it being understood that this statement will not be deemed to impose any obligation on the Eligible Stockholder to hold any of the Required Shares following the annual meeting);

(iii)in the case of a nomination by a group of stockholders that together is an Eligible Stockholder, (A) the designation by all group members of one group member that is authorized to receive communications, notices and inquiries from the Corporation and to act on behalf of all such members with respect to the nomination and all related matters (including any withdrawal of the nomination); (B) the written acceptance by such group member of such designation; and (C) the address, phone number and email address of such group member,

(iv)one or more written statements from each record holder of the Required Shares (and from each intermediary through which the Required Shares are or have been held during the Holding Period) verifying that, as of a date within seven calendar days prior to the date that Nomination Notice is delivered or received at the principal executive offices of the Corporation, the Eligible Stockholder then Owns, and has Owned continuously for the Holding Period, the Required Shares;

(v) an undertaking by the Eligible Stockholder to provide, within seven calendar days after (A) the record date for the annual meeting (if, prior to such record date, the Corporation (1) has made disclosure of the record date in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the Corporation with the SEC pursuant to Section 13, Section 14 or Section 15(d) of the Exchange Act; or (2) delivered a written notice (including by email) of the record date to the Eligible Stockholder) or (B) the date on which the Corporation delivered to the Eligible Stockholder written notice (including by email) of the record date (if such notice is provided after the record date), one or more written statements from each record holder of the Required Shares (and from each intermediary through which the Required Shares are or have been held during the Holding Period) verifying the Eligible Stockholder's continuous Ownership of the Required Shares through the record date;

(vi) in the case of a Qualifying Fund whose share Ownership is counted for purposes of qualifying as an Eligible Stockholder, documentation reasonably satisfactory to the board of directors that demonstrates that such Qualifying Fund meets the requirements of a Qualifying Fund;

(vii) the information, agreements, certifications, representations and other documents required to be set forth in or included with a stockholder's notice of a nomination pursuant to Section 2.11;

(viii) a copy of the Schedule 14N that has been or is concurrently being filed by such Eligible Stockholder with the SEC as required by Rule 14a-18 under the Exchange Act (or any successor rule);

(ix) a representation and undertaking that (A) the Eligible Stockholder (1) did not acquire, and is not holding, securities of the Corporation for the purpose or with the effect of influencing or changing control of the Corporation; (2) has not nominated, and will not nominate, for election to the board of directors at the annual meeting any person other than any Stockholder Nominees being nominated by it pursuant to this Section 2.13; (3) has not engaged, and will not engage, in, and has not and will not be a "participant" in another person's, "solicitation" within the meaning of Rule 14a-1(*l*) under the Exchange Act (or any successor rule) in support of the election of any individual as a director at the annual meeting (other than its Stockholder Nominees or a nominee of the board of directors); (4) has not distributed, and will not distribute, to any stockholder any form of proxy for the annual meeting other than the form distributed by the Corporation; (5) has complied, and will comply, with all laws, rules and regulations applicable to any actions taken pursuant to this Section 2.13, including the nomination of its Stockholder Nominees and any permissible solicitation in connection with the annual meeting; and (6) consents to the public disclosure of the information provided pursuant to this Section 2.13; and (B) the facts, statements and other information in all communications with the Corporation and its stockholders by the Eligible Stockholder are, and will be, true and correct in all material respects and do not, and will not, omit to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading;

(x) an undertaking that the Eligible Stockholder agrees to (A) assume all liability stemming from any legal or regulatory violation arising out of the Eligible Stockholder's communications with the stockholders of the Corporation or out of the information that the Eligible Stockholder provides to the Corporation; (B) indemnify and hold harmless the Corporation and each of its directors, officers, employees, agents and affiliates individually against any liability, loss or damages in connection with any threatened or pending action, suit or proceeding, whether legal, administrative or investigative, against the Corporation or any of its directors, officers, employees, agents or affiliates arising out of any nomination, solicitation or other activity by the Eligible Stockholder in connection with its efforts to elect any Stockholder Nominees pursuant to this Section 2.13; (C) comply with all requirements of this Section 2.13; and (D) upon request, provide to the Corporation within five business days after such request, but in any event prior to the date of the annual meeting, such additional information as is reasonably requested by the Corporation (including any information reasonably necessary to verify the Eligible Stockholder's continuous Ownership of the Required Shares for the Holding Period and through the date of the annual meeting).

(i) *Representations and Agreement of any Stockholder Nominee*.

(i) *Materials Required to be Provided*. Within the time period specified in this Section 2.13 for delivering the Nomination Notice, each Stockholder Nominee must deliver to the Secretary of the Corporation a written representation and agreement that the Stockholder Nominee (A) other than as disclosed to the Corporation, (1) is not, and will not become, a party to any agreement, arrangement or understanding with, and has not given, and will not give, any commitment or assurance to, any person or entity as to how such Stockholder Nominee, if elected as a director, will act or vote on any issue or question; and (2) is not, and will not become, a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a Stockholder Nominee or director; (B) if elected, will comply with the Corporation's corporate governance guidelines, code of ethics, share ownership and trading policies and guidelines, and any other policies and guidelines of the Corporation applicable to directors, as well as any applicable law, rule or regulation or listing requirement; (C) consents to being named in the Corporation's proxy statement for the annual meeting as a nominee of the applicable Eligible Stockholder or of the board of directors; (D) agrees to serve as a director if elected; (E) consents to the public disclosure of the information provided pursuant to this Section 2.13; and (F) represents that such Stockholder Nominee intends to serve as director of the Corporation for the full term if so elected.

(ii) *Additional Materials*. At the written request of the Corporation, the Stockholder Nominee must promptly, but in any event within five business days of such request, submit all (A) completed and signed questionnaires required of the Corporation's directors, nominees for director, and officers; and (B) additional information requested by the Corporation (1) as may be reasonably necessary to permit the board of directors or any of its committees to determine if such Stockholder Nominee (a) is independent under the listing standards of the principal U.S. exchange upon which the Corporation's common stock is listed, any applicable rules of the SEC and any publicly disclosed standards used by the board of directors in determining and disclosing the independence of the Corporation's directors (collectively, the "**Applicable Independence Standards**"); (b) is eligible to serve as a director of the Corporation; (c) has any direct or indirect relationship with the Corporation; and (d) is not, and has not been, subject to any event specified in Item 401(f) of Regulation S-K promulgated under the Securities Act (or any successor rule) or any order of the type specified in Rule 506(d) of Regulation D promulgated under the Securities Act (or any successor rule); and (2) that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such Stockholder Nominee.

(j) *Supporting Statement*. For each of its Stockholder Nominees, the Eligible Stockholder may provide to the Secretary of the Corporation, within the time period specified for providing the Nomination Notice, a written statement, not to exceed 500 words, for inclusion in the Corporation's proxy statement for the annual meeting in support of the candidacy of such Stockholder Nominee (a "**Supporting Statement**"). No Supporting Statement may include any images, charts, pictures, graphic presentations or similar items.

(k) *True, Correct and Complete Information*. If any information or communications provided by any Eligible Stockholder or Stockholder Nominee to the Corporation or its stockholders is not, when provided, or thereafter ceases to be, true, correct and complete in all material respects (including omitting a material fact necessary to make the statements made, in light of the circumstances under which they were made, not misleading), then such Eligible Stockholder or Stockholder Nominee, as the case may be, must promptly notify the Secretary of the Corporation in writing and provide the information that is required to make such information or communication true, correct, complete and not misleading. In addition, any person or entity providing any information to the Corporation pursuant to this Section 2.13 must further update and supplement such information, if necessary, so that all such information is true and correct as of the record date for the annual meeting and as of the date that is 10 business days prior to the annual meeting or any adjournment, postponement or other delay thereof. Any update or supplement (or a written certification that no such updates or supplements are necessary and that the information previously provided remains true and correct as of the applicable date) pursuant to this Section 2.13(k) must be delivered to, or mailed and received by, the Secretary of the Corporation at the principal executive offices of the Corporation no later than (i) five business days after the record date for the annual meeting (in the case of any update and supplement required to be made as of the record date); and (ii) seven business days prior to the date of the annual meeting or any adjournment, postponement or other thereof (in the case of any update and supplement required to be made as of 10 business days prior to the annual meeting). No notification, update or supplement provided pursuant to this Section 2.13(k) or otherwise will be deemed to cure any defect in any previously provided information or communications or limit the remedies available to the Corporation relating to any such defect (including the right to omit a Stockholder Nominee from its proxy materials).

(l) *Disqualifications and Exclusions of Stockholder Nominees*.

(i) *Bases for Disqualifying or Excluding Stockholder Nominees*. Notwithstanding anything to the contrary in this Section 2.13, the Corporation will not be required to include a Stockholder Nominee in its proxy materials (A) if the Eligible Stockholder who has nominated such Stockholder Nominee has engaged in or is currently engaged in, or has been or is a “participant” in another person’s, “solicitation” (within the meaning of Rule 14a-1(*l*) under the Exchange Act (or any successor rule)) in support of the election of any individual as a director at the annual meeting other than its Stockholder Nominees or a nominee of the board of directors; (B) who is not independent under the Applicable Independence Standards as of the date on which the Nomination Notice is delivered to, or mailed and received at, the principal executive offices of the Corporation, as determined in good faith by the board of directors or any of its committees; (C) whose election as a member of the board of directors would cause the Corporation to be in violation of these by-laws, the certificate of incorporation of the Corporation, the rules and listing standards of the principal exchanges upon which the Corporation’s shares of common stock are listed or traded, or any applicable law, rule or regulation; (D) who is or has been, within the past three years, an officer or director of a competitor, as defined in Section 8 of the Clayton Antitrust Act of 1914; (E) who is a named subject of a pending criminal proceeding (excluding traffic violations and other minor offenses) or has been convicted in such a criminal proceeding within the past 10 years; (F) who is subject to any order of the type specified in Rule 506(d) of Regulation D promulgated under the Securities Act (or any successor rule); (G) if such Stockholder Nominee dies, becomes disabled or otherwise becomes ineligible for inclusion in the Corporation’s proxy materials pursuant to this Section 2.13 or otherwise becomes unavailable for election at the annual meeting (including because such Stockholder Nominee is no longer willing to serve on the board of directors); (H) if such Stockholder Nominee or the Eligible Stockholder who has nominated such Stockholder Nominee has provided information to the Corporation with respect to such nomination that was untrue in any material respect or omitted to state a material fact necessary in order to make the statement made, in light of the circumstances under which it was made, not misleading, as determined by the board of directors; (I) if such Stockholder Nominee, or the Eligible Stockholder who has nominated such Stockholder Nominee, otherwise contravenes any of the agreements or representations made by such Stockholder Nominee or Eligible Stockholder, as applicable, or fails to comply with its obligations pursuant to this Section 2.13; (J) if the Eligible Stockholder who has nominated such Stockholder Nominee ceases to be an Eligible Stockholder for any reason, including, but not limited to, not Owning the Required Shares through the date of the annual meeting; or (K) if such Stockholder Nominee and the Eligible Stockholder (or a representative thereof) or, in the case of a nomination by a group of stockholders, the representative designated by the group in accordance with Section 2.13(h)(iii), do not appear at the annual meeting to, as applicable, present the Stockholder Nominee for election.

(ii) *Process Following Disqualification or Exclusion*. Following any determination in accordance with Section 2.13(l)(i), (A) the Corporation will not be required to include in its proxy materials any successor or replacement nominee proposed by the applicable Eligible Stockholder or any other Eligible Stockholder; (B) to the extent feasible, the Corporation may remove the information concerning a Stockholder Nominee and any related Supporting Statement (or portion thereof) from its proxy materials or otherwise communicate to its stockholders that such Stockholder Nominee will not be eligible for election at the annual meeting; and (C) the board of directors or the person presiding at the annual meeting will declare the nomination of such Stockholder Nominee to be invalid and such nomination will be disregarded notwithstanding that proxies in support of such Stockholder Nominee may have been received by the Corporation.

(m) *Filing Obligation*. The Eligible Stockholder (including any person or entity who Owns shares of common stock of the Corporation that constitute part of the Ownership of such Eligible Stockholder for purposes of meeting the Required Shares) must file with the SEC any solicitation of the Corporation’s stockholders relating to the annual meeting at which the Stockholder Nominee will be nominated, regardless of whether any such filing is required under Regulation 14A of the Exchange Act (or any successor rule) or whether any exemption from filing is available for such solicitation under Regulation 14A of the Exchange Act.

(n) *Omitted Disclosure by the Corporation*. Notwithstanding anything to the contrary contained in this Section 2.13, the Corporation may omit from its proxy materials any information or Supporting Statement (or portion thereof) that it, in its sole discretion, determines (i) is not true in all material respects or omits a material statement necessary to make such information or Supporting Statement (or portion thereof) not misleading; (ii) directly or indirectly impugns the character, integrity or personal reputation of, or directly or indirectly makes charges concerning improper, illegal or immoral conduct or associations, without factual foundation, with respect to, any person; or (iii) violates any applicable law, rule, regulation or listing standard or provision of the Corporation's certificate of incorporation or these by-laws.

(o) *No Limitation on the Corporation*. Nothing in these by-laws will limit the Corporation's ability to (i) solicit against any Stockholder Nominee; (ii) include in its proxy materials its own statements or other information relating to any Eligible Stockholder or Stockholder Nominee (including any information provided to the Corporation pursuant to this Section 2.13); or (iii) include in its proxy materials any Stockholder Nominee as a nominee of the board of directors.

(p) *Exclusive Method for Proxy Access*. This Section 2.13 provides the exclusive method for a stockholder to include nominees for election to the board of directors in the Corporation's proxy materials.

ARTICLE 3: DIRECTORS

3.1 Management. The business and property of the Corporation shall be managed by the board of directors. Subject to the restrictions imposed by law, the certificate of incorporation of the Corporation, or these by-laws, the board of directors may exercise all the powers of the Corporation.

3.2 Number; Qualification; Election; Term. The number of directors which shall constitute the entire board of directors shall be not less than three. The first board of directors shall consist of the number of directors named in the certificate of incorporation of the Corporation or, if no directors are so named, shall consist of the number of directors elected by the incorporator(s) at an organizational meeting or by unanimous written consent in lieu thereof. Thereafter, within the limits above specified, the number of directors which shall constitute the entire board of directors shall be determined by resolution of the board of directors. Except as otherwise required by law, the certificate of incorporation of the Corporation, or these by-laws, the directors shall be elected at an annual meeting of stockholders at which a quorum is present. Directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy and entitled to vote on the election of directors. At each annual meeting of stockholders, directors elected to succeed those whose terms are then expiring shall be elected for a full term of office expiring at the third succeeding annual meeting of stockholders after their election. Except as otherwise required by law, whenever the holders of any one or more series of preferred stock shall have the right, voting separately as a class, to elect one or more directors of the Corporation, the terms of the director or directors elected by such holders shall expire at the next succeeding annual meeting of stockholders. Each director shall hold office until her/his successor shall have been elected and qualified or until her/his earlier death, resignation or removal. Directors need not be residents of Delaware or stockholders of the Corporation. Each director must have attained the age of majority.

3.3 Change in Number. No decrease in the number of directors constituting the entire board of directors shall have the effect of shortening the term of any incumbent director.

3.4 Vacancies. Unless otherwise provided in the certificate of incorporation, any vacancy or any newly-created directorship resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, though less than a quorum, or by the affirmative vote of two directors if there are only two directors remaining, or by the sole remaining director. Any director elected by one or more directors to fill a newly created directorship or other vacancy shall hold office until the next election of the class for which such directors shall have been chosen and until her/his successor shall have been elected and qualified, or, if earlier, until her/his death, resignation, or removal from office. If there are no directors in office, an election of directors may be held in the manner provided by statute. When one or more directors shall resign from the board of directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have the power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in these by-laws with respect to the filling of other vacancies.

3.5 Meetings of Directors. The directors may hold their meetings and may have an office and keep the books of the Corporation, except as otherwise provided by statute, in such place or places within or without the State of Delaware as the board of directors may from time to time determine or as shall be specified in the notice of such meeting or duly executed waiver of notice of such meeting.

3.6 First Meeting. Each newly elected board of directors may hold its first meeting for the purpose of organization and the transaction of business, if a quorum is present, immediately after and at the same place as the annual meeting of stockholders, and no notice of such meeting shall be necessary.

3.7 [not used]

3.8 Regular Meetings. Regular meetings of the board of directors shall be held at such times and places as shall be designated from time to time by resolution of the board of directors. Notice of such regular meetings shall not be required.

3.9 Special Meetings. Special meetings of the board of directors shall be held whenever called by the Chairman of the Board, the Chief Executive Officer, or such number of directors as would constitute a quorum.

3.10 Notice. The Secretary shall give notice of each special meeting to each director at least 24 hours before the meeting. Notice of any such meeting need not be given to any director who shall, either before or after the meeting, submit a signed waiver of notice or who shall attend such meeting without protesting, prior to or at its commencement, the lack of notice to her/him. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the board of directors need be specified in the notice or waiver of notice of such meeting.

3.11 Quorum; Majority Vote. At all meetings of the board of directors, a majority of the directors fixed in the manner provided in these by-laws shall constitute a quorum for the transaction of business. If at any meeting of the board of directors there be less than a quorum present, a majority of those present or any director solely present may adjourn the meeting from time to time without further notice. Unless the act of a greater number is required by law, the certificate of incorporation of the Corporation, or these by-laws, the act of a majority of the directors present at a meeting at which a quorum is in attendance shall be the act of the board of directors. At any time that the certificate of incorporation of the Corporation provides that directors elected by the holders of a class or series of stock shall have more or less than one vote per director on any matter, every reference in these by-laws to a majority or other proportion of directors shall refer to a majority or other proportion of the votes of such directors.

3.12 Procedure. At meetings of the board of directors, business shall be transacted in such order as from time to time the board of directors may determine. The Chairman of the Board, if such office has been filled, and, if not or if the Chairman of the Board is absent or otherwise unable to act, the Chief Executive Officer shall preside at all meetings of the board of directors. In the absence or inability to act of either such officer, a chairman shall be chosen by the board of directors from among the directors present. The Secretary of the Corporation shall act as the secretary of each meeting of the board of directors unless the board of directors appoints another person to act as secretary of the meeting. The board of directors shall keep regular minutes of its proceedings which shall be placed in the minute book of the Corporation.

3.13 Presumption of Assent. A director of the Corporation who is present at the meeting of the board of directors at which action on any corporate matter is taken shall be presumed to have assented to the action unless her/his dissent shall be entered in the minutes of the meeting or unless she/he shall file her/his written dissent to such action with the person acting as secretary of the meeting before the adjournment thereof or shall forward any dissent by certified or registered mail to the Secretary of the Corporation immediately after the adjournment of the meeting. Such right to dissent shall not apply to a director who voted in favor of such action.

3.14 Action Without a Meeting. Any action required or permitted to be taken at any meeting of the board of directors may be taken without a meeting, without prior notice and without a vote, if all members of the board consent thereto in writing (including by electronic transmission), and, after such action is taken, the consent(s) are filed with the minutes of the proceedings of the board. Any person (whether or not then a director) may provide, whether through instruction to an agent or otherwise, that a consent to action will be effective at a future time (including a time determined upon the happening of an event), no later than 60 days after such instruction is given or such provision is made and such consent shall be deemed to have been given for purposes of this Section 3.14 at such effective time so long as such person is then a director and did not revoke the consent prior to such time. Any such consent shall be revocable prior to its becoming effective.

3.15 Compensation. The board of directors shall have the authority to fix the compensation, including fees and reimbursement of expenses, paid to directors for attendance at regular or special meetings of the board of directors or any committee thereof; provided, that nothing contained herein shall be construed to preclude any director from serving the Corporation in any other capacity or receiving compensation therefor.

ARTICLE 4: COMMITTEES

4.1 Designation. The board of directors may, by resolution adopted by a majority of the entire board of directors, designate one or more committees.

4.2 Number; Qualification; Term. Each committee shall consist of one or more directors appointed by resolution adopted by a majority of the entire board of directors. The number of committee members may be increased or decreased from time to time by resolution adopted by a majority of the entire board of directors. Each committee member shall serve as such until the earliest of (i) the expiration of her/his term as director, (ii) her/his resignation as a committee member or as a director, or (iii) her/his removal as a committee member or as a director.

4.3 Authority. Each committee, to the extent expressly provided in the resolution establishing such committee, shall have and may exercise all of the authority of the board of directors in the management of the business and property of the Corporation except to the extent expressly restricted by law, the certificate of incorporation of the Corporation, or these by-laws.

4.4 Committee Changes. The board of directors shall have the power at any time to fill vacancies in, to change the membership of, and to discharge any committee.

4.5 Alternate Members of Committees. The board of directors may designate one or more directors as alternate members of any committee. Any such alternate member may replace any absent or disqualified member at any meeting of the committee. If no alternate committee members have been so appointed to a committee or each such alternate committee member is absent or disqualified, the member or members of such committee present at any meeting and not disqualified from voting, whether or not she/he or they constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in the place of any such absent or disqualified member.

4.6 Regular Meetings. Regular meetings of any committee may be held without notice at such time and place as may be designated from time to time by the committee and communicated to all members thereof.

4.7 Special Meetings. Special meetings of any committee may be held whenever called by the Chair of the committee or by such number of directors as would constitute a quorum. The committee members calling any special meeting shall cause notice of such special meeting, including therein the time and place and, if such special meeting is not called by the Chair of the committee, the purpose, of such special meeting, to be given to each committee member at least two days before such special meeting. Other than as may be required by the foregoing in the case of a special meeting that is not called by the Chair of the committee, neither the business to be transacted at, nor the purpose of, any special meeting of any committee need be specified in the notice or waiver of notice of any special meeting.

4.8 Quorum; Majority Vote. At meetings of any committee, a majority of the number of members designated by the board of directors shall constitute a quorum for the transaction of business. If a quorum is not present at a meeting of any committee, a majority of the members present may adjourn the meeting from time to time, without notice other than an announcement at the meeting, until a quorum is present. The act of a majority of the members present at any meeting at which a quorum is in attendance shall be the act of a committee, unless the act of a greater number is required by law, the certificate of incorporation of the Corporation, or these by-laws.

4.9 Minutes. Each committee shall cause minutes of its proceedings to be prepared and shall report the same to the board of directors upon the request of the board of directors. The minutes of the proceedings of each committee shall be delivered to the Secretary of the Corporation for placement in the minute books of the Corporation.

4.10 Compensation. Committee members may, by resolution of the board of directors, be allowed a fixed sum and expenses of attendance, if any, for attending any committee meetings or a stated salary.

4.11 Responsibility. The designation of any committee and the delegation of authority to it shall not operate to relieve the board of directors or any director of any responsibility imposed upon it or such director by law.

ARTICLE 5: NOTICE

5.1 Method. Whenever by statute, the certificate of incorporation of the Corporation, or these by-laws, notice is required to be given to any committee member, director, or stockholder and no provision is made as to how such notice shall be given, personal notice shall not be required and any such notice may be given (a) in writing, by mail, postage prepaid, addressed to such committee member, director, or stockholder at her/his address as it appears on the books or (in the case of a stockholder) the stock transfer records of the Corporation, or (b) by any other method permitted by law (including but not limited to overnight courier service, telegram, telex, facsimile or electronic transmission). Any notice required or permitted to be given by mail shall be deemed to be delivered and given at the time when the same is deposited in the United States mail as aforesaid. Any notice required or permitted to be given by overnight courier service shall be deemed to be delivered and given at the time delivered to such service with all charges prepaid and addressed as aforesaid. Any notice required or permitted to be given by telegram, telex, or telefax shall be deemed to be delivered and given at the time transmitted with all charges prepaid and addressed as aforesaid. If notice is given by electronic transmission, such notice shall be deemed to be given at the times provided in the Delaware General Corporation Law.

5.2 Waiver. Whenever any notice is required to be given to any stockholder, director, or committee member of the Corporation by statute, the certificate of incorporation of the Corporation, or these by-laws, a waiver thereof in writing signed by the person or persons entitled to such notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be equivalent to the giving of such notice. Attendance of a stockholder, director, or committee member at a meeting shall constitute a waiver of notice of such meeting, except where such person attends for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called or convened.

ARTICLE 6: OFFICERS

6.1 Election; Titles; Term of Office; Appointments

(a) The officers of the Corporation shall be a Chief Executive Officer and a Secretary. The Corporation may also have, at the discretion of the board of directors, a Chairman of the Board, a President, one or more Vice Presidents, one or more Assistant Secretaries, a Treasurer, and such other officers or agents as may be appointed at the discretion of the board of directors, including those appointed in accordance with the provisions of Section 6.1(b) of these by-laws. The officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 6.1(b) or Section 6.3 of these by-laws, shall be chosen by the board of directors.

(b) The board of directors may appoint, or may empower the Chief Executive Officer to appoint, such other officers or agents as the business of the Corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these by-laws or as the board of directors, or if empowered by the board of the directors, as the Chief Executive Officer, may from time to time determine.

(c) Each officer shall hold office until her/his successor shall have been duly elected and shall have qualified, until her/his death, or until she/he shall resign or shall have been removed in the manner hereinafter provided. Any two or more offices may be held by the same person. None of the officers need be a stockholder or a director of the Corporation or a resident of the State of Delaware.

6.2 Removal. Any officer or agent elected or appointed by the board of directors may be removed by the board of directors, but such removal shall be without prejudice to the contract rights, if any, of the person so removed. Any officer or agent appointed by the Chief Executive Officer, or any other officer or agent over whom the board of directors has designated removal authority to the Chief Executive Officer, may also be removed by the Chief Executive Officer, but such removal shall be without prejudice to the contract rights, if any, of the person so removed. Election or appointment of an officer or agent shall not of itself create contract rights.

6.3 Vacancies. Any vacancy occurring in any office of the Corporation (by death, resignation, removal, or otherwise) may be filled by the board of directors. Any vacancy in an office appointed by the Chief Executive Officer (by death, resignation, removal, or otherwise) may be filled by the Chief Executive Officer.

6.4 Authority. Officers shall have such authority and perform such duties in the management of the Corporation as are provided in these by-laws or as may be determined by resolution of the board of directors or, if empowered by the board of directors, as determined by the Chief Executive Officer, not inconsistent with these by-laws.

6.5 Compensation. The compensation, if any, of officers and agents shall be fixed from time to time by the board of directors; provided, however, that the board of directors may delegate the power to determine the compensation of any officer and agent (other than the officer to whom such power is delegated) to the Chairman of the Board or the Chief Executive Officer or designees thereof.

6.6 Chairman of the Board. The Chairman of the Board, if elected by the board of directors, shall have such powers and duties as may be prescribed by the board of directors. Such officer shall preside at all meetings of the stockholders and of the board of directors. Such officer may sign all certificates for shares of stock of the Corporation.

6.7 Chief Executive Officer and President.

(a) Subject to such supervisory powers, if any, as may be given by the board of directors to the Chairman of the Board, the Chief Executive Officer of the Corporation shall, subject to the control of the board of directors, have general executive charge, management, and control of the properties and operations of the Corporation in the ordinary course of its business, with all such powers with respect to such properties and operations as may be reasonably incident to such responsibilities. If the board of directors has not elected a Chairman of the Board or in the absence or inability to act of the Chairman of the Board, the Chief Executive Officer shall exercise all of the powers and discharge all of the duties of the Chairman of the Board. As between the Corporation and third parties, any action taken by the Chief Executive Officer in the performance of the duties of the Chairman of the Board shall be conclusive evidence that there is no Chairman of the Board or that the Chairman of the Board is absent or unable to act.

(b) Subject to the supervision, direction and control of the Chief Executive Officer, if there be such an officer, the President shall have general executive charge, management, and control of the properties and operations of the Corporation in the ordinary course of its business, with all such powers with respect to such properties and operations as may be reasonably incident to such responsibilities. She/he shall have the general powers and duties of management usually vested in the office of President of a Corporation and shall have such other powers and duties as may be prescribed by the board of directors or these by-laws.

6.8 Vice Presidents. Each Vice President shall have such powers and duties as may be assigned to her/him by the board of directors, the Chairman of the Board, the Chief Executive Officer or the President, and (in order of their seniority as determined by the board of directors or, in the absence of such determination, as determined by the length of time they have held the office of Vice President) shall exercise the powers of the President during that officer’s absence or inability to act unless there is a then serving Chief Executive Officer, in which case the Chief Executive Officer shall exercise the powers of the President. As between the Corporation and third parties, any action taken by a Vice President in the performance of the duties of the President shall be conclusive evidence of the absence or inability to act of the President at the time such action was taken.

6.9 Treasurer. The Treasurer shall have custody of the Corporation's funds and securities, shall keep full and accurate account of receipts and disbursements, shall deposit all monies and valuable effects in the name and to the credit of the Corporation in such depository or depositories as may be designated by the board of directors, and shall perform such other duties as may be prescribed by the board of directors, the Chairman of the Board or the Chief Executive Officer.

6.10 Assistant Treasurers. Each Assistant Treasurer shall have such powers and duties as may be assigned to her/him by the board of directors, the Chairman of the Board or the Chief Executive Officer. The Assistant Treasurers (in the order of their seniority as determined by the board of directors or, in the absence of such a determination, as determined by the length of time they have held the office of Assistant Treasurer) shall exercise the powers of the Treasurer during that officer's absence or inability to act.

6.11 Secretary. Except as otherwise provided in these by-laws, the Secretary shall keep the minutes of all meetings of the board of directors and of the stockholders in books provided for that purpose, and she/he shall attend to the giving and service of all notices. She/he may sign with the Chairman of the Board or the Chief Executive Officer, in the name of the Corporation, all contracts of the Corporation and affix the seal of the Corporation thereto. She/he may sign with the Chairman of the Board or the Chief Executive Officer all certificates for shares of stock of the Corporation, and she/he shall have charge of the certificate books, transfer books, and stock papers as the board of directors may direct, all of which shall at all reasonable times be open to inspection by any director upon application at the office of the Corporation during business hours. She/he shall in general perform all duties incident to the office of the Secretary, subject to the control of the board of directors, the Chairman of the Board and the Chief Executive Officer.

6.12 Assistant Secretaries. Each Assistant Secretary shall have such powers and duties as may be assigned to her/him by the board of directors, the Chairman of the Board or the Chief Executive Officer. The Assistant Secretaries (in the order of their seniority as determined by the board of directors or, in the absence of such a determination, as determined by the length of time they have held the office of Assistant Secretary) shall exercise the powers of the Secretary during that officer's absence or inability to act.

ARTICLE 7: CERTIFICATES AND SHAREHOLDERS

7.1 Certificates for Shares. The shares of the Corporation shall be represented by certificates, provided that the board of directors may provide by resolution or resolutions that some or all of any or all classes or series of the

Corporation's stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Every holder of stock of the Corporation represented by certificates shall be entitled to have a certificate signed by, or in the name of, the Corporation by the Chairman or vice-chairperson of the board of directors, or the Chief Executive Officer or President or vice-president and by the Secretary or an assistant secretary of the Corporation or by any two other authorized officers of the Corporation or in such other manner as the board of directors may prescribe by resolution, with such certificate representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be by a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. The Corporation shall not have power to issue a certificate in bearer form.

7.2 Replacement of Lost or Destroyed Certificates. The board of directors may direct a new certificate or certificates to be issued in place of a certificate or certificates theretofore issued by the Corporation and alleged to have been lost or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate or certificates representing shares to be lost or destroyed. When authorizing such issue of a new certificate or certificates the board of directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost or destroyed certificate or certificates, or her/his legal representative, to advertise the same in such manner as it shall require and/or to give the Corporation a bond with a surety or sureties satisfactory to the Corporation in such sum as it may direct as indemnity against any claim, or expense resulting from a claim, that may be made against the Corporation with respect to the certificate or certificates alleged to have been lost or destroyed.

7.3 Transfer of Shares. Stock of the Corporation shall be transferable in the manner prescribed by law and in these by-laws. Transfers of stock shall be made on the books of the Corporation only by the record holder of such stock or by her/his attorney lawfully constituted in writing and, if such stock is certificated, upon the surrender of the certificate therefor, which shall be canceled before a new certificate shall be issued.

7.4 Registered Stockholders. The Corporation shall be entitled to treat the holder of record of any share or shares of stock as the holder in fact thereof and, accordingly, shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by law.

7.5 Regulations. The board of directors shall have the power and authority to make all such rules and regulations as they may deem expedient, including without limitation a requirement that a transferor furnish a legal opinion or such other evidence as is reasonably satisfactory to the Corporation and its counsel that any proposed transfer of shares does not violate the registration requirements of any state or federal securities law, concerning the issue, transfer, and registration or the replacement of certificates for shares of stock of the Corporation.

7.6 Legends. The board of directors shall have the power and authority to provide that certificates representing shares of stock bear such legends as the board of directors deems appropriate to assure that the Corporation does not become liable for violations of federal or state securities laws or other applicable law.

ARTICLE 8: MISCELLANEOUS PROVISIONS

8.1 Dividends. Subject to provisions of law and the certificate of incorporation of the Corporation, dividends may be declared by the board of directors at any regular or special meeting and may be paid in cash, in property, or in shares of stock of the Corporation. Such declaration and payment shall be at the discretion of the board of directors.

8.2 Reserves. There may be created by the board of directors out of funds of the Corporation legally available therefor such reserve or reserves as the directors from time to time, in their discretion, consider proper to provide for contingencies, to equalize dividends, or to repair or maintain any property of the Corporation, or for such other purpose as the board of directors shall consider beneficial to the Corporation, and the board of directors may modify or abolish any such reserve in the manner in which it was created.

8.3 Books and Records. The Corporation shall keep correct and complete books and records of account, shall keep minutes of the proceedings of its stockholders and board of directors and shall keep at its registered office or principal place of business, or at the office of its transfer agent or registrar, a record of its stockholders, giving the names and addresses of all stockholders and the number and class of the shares held by each.

8.4 Fiscal Year. The fiscal year of the Corporation shall be fixed by the board of directors; provided, that if such fiscal year is not fixed by the board of directors and the selection of the fiscal year is not expressly deferred by the board of directors, the fiscal year shall be the calendar year.

8.5 Seal. The seal of the Corporation shall be such as from time to time may be approved by the board of directors.

8.6 Resignations. Any director, committee member, or officer may resign by giving written notice to the Secretary or, if not to the Secretary, to the board of directors, the Chairman of the Board or the Chief Executive Officer, in each case with a copy to the Secretary. Such resignation shall take effect at the time specified therein or, if no time is specified therein, immediately upon its receipt. Unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

8.7 Securities of Other Corporations. The Chairman of the Board, the Chief Executive Officer, or any vice president of the Corporation shall have the power and authority to transfer, endorse for transfer, vote, consent, or take any other action with respect to any securities of another issuer which may be held or owned by the Corporation and to make, execute, and deliver any waiver, proxy, or consent with respect to any such securities.

8.8 Telephone Meetings. Stockholders (acting for themselves or through a proxy), members of the board of directors, and members of a committee of the board of directors may participate in and hold a meeting of such stockholders, board of directors, or committee by means of a conference telephone or similar means of remote communications by which persons participating in the meeting can hear each other, and participation in a meeting pursuant to this section shall constitute presence in person at such meeting, except where a person participates in the meeting for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called or convened.

8.9 Invalid Provisions. If any part of these by-laws shall be held invalid or inoperative for any reason, the remaining parts, so far as it is possible and reasonable, shall remain valid and operative.

8.10 Mortgages, etc. With respect to any deed, deed of trust, mortgage, or other instrument executed by the Corporation through its duly authorized officer or officers, the attestation to such execution by the Secretary of the Corporation shall not be necessary to constitute such deed, deed of trust, mortgage, or other instrument a valid and binding obligation against the Corporation unless the resolutions, if any, of the board of directors authorizing such execution expressly state that such attestation is necessary.

8.11 Headings. The headings used in these by-laws have been inserted for administrative convenience only and do not constitute matter to be construed in interpretation.

8.12 References. Whenever herein the singular number is used, the same shall include the plural where appropriate, and words of any gender should include each other gender where appropriate.

8.13 Amendments. The Board of Directors shall have the power to adopt, alter, amend or repeal the by-laws of the Corporation by vote of not less than a majority of the directors then in office. The holders of shares of capital stock of the Corporation entitled at the time to vote for the election of directors shall, to the extent such power is at the time conferred on them by applicable law, also have the power to adopt, alter, amend or repeal the by-laws of the Corporation, but only if such action receives the affirmative vote of at least 80% of the outstanding Voting Stock (as defined in the Corporation's certificate of incorporation), voting together as a single class.

The undersigned, the Secretary of the Corporation, hereby certifies that the foregoing by-laws were adopted by resolution of the directors of the Corporation as of August 1, 2021.

/S/ R. Eddie Dixon, Jr.
R. Eddie Dixon, Jr., Secretary

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Eric Starkloff, certify that:

1. I have reviewed this report on Form 10-Q of National Instruments Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 2, 2021

By: /s/ Eric Starkloff
Eric Starkloff
Chief Executive Officer

EXHIBIT 31.2

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Karen Rapp, certify that:

1. I have reviewed this report on Form 10-Q of National Instruments Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 2, 2021

By: /s/ Karen Rapp
Karen Rapp
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Eric Starkloff, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of National Instruments Corporation on Form 10-Q for the fiscal quarter ended June 30, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Form 10-Q fairly presents in all material respects the financial condition and results of operations of National Instruments Corporation.

By: /s/ Eric Starkloff
Eric Starkloff
Chief Executive Officer
Date: August 2, 2021

I, Karen Rapp, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of National Instruments Corporation on Form 10-Q for the fiscal quarter ended June 30, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Form 10-Q fairly presents in all material respects the financial condition and results of operations of National Instruments Corporation.

By: /s/ Karen Rapp
Karen Rapp
Chief Financial Officer
Date: August 2, 2021