SPARTON CORP
Form 11-K
June 24, 2016

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

FORM 11-K

x ANNUAL REPORT PURSUANT TO SECTION 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the six-months ended December 31, 2015
or

¨TRANSITION REPORT PURSUANT TO SECTION 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission File number 1-1000

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:
SPARTON CORPORATION 401(k) PLAN

B. Name of issuer of the securities held pursuant to the plan and the address of its principle executive office:
SPARTON CORPORATION
425 N. Martingale — Suite 1000
Schaumburg, IL 60173-2213

Sparton Corporation 401(k) Plan
Financial Statements and Supplemental Schedule
Six-Months Ended December 31, 2015 and Year Ended June 30, 2015

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Report of Independent Registered Public Accounting Firm

To the Members of the Investment Review Committee
Sparton Corporation 401(k) Plan
Schaumburg, Illinois

We have audited the accompanying statements of net assets available for benefits of the Sparton Corporation 401(k) Plan (the "Plan") as of December 31, 2015 and June 30, 2015, and the related statements of changes in net assets available for benefits for the six-month period ended December 31, 2015 and year ended June 30, 2015. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 1, the Plan changed its fiscal year to a calendar year. With this change, the Plan had a short fiscal period of July 1 to December 31, 2015, and subsequent to this short period, will then operate for a full calendar year for 2016 forward. As also discussed in Note 1, the Sparton Real Time Enterprises Inc. 401(k) Plan merged into the Plan effective July 1, 2015, the Sparton Aubrey Group Inc. Retirement Plan merged into the Plan effective March 1, 2015, and the Sparton Beckwood Services Inc. LLC 401(k) Plan merged into the Plan effective September 1, 2014.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2015 and June 30, 2015, and the changes in net assets available for benefits for the six-month period ended December 31, 2015 and year ended June 30, 2015, in conformity with accounting principles generally accepted in the United States of America.

The accompanying supplemental Schedule of Assets (Held at End of Year) as of December 31, 2015 has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental schedule is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental schedule reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental schedule. In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental schedule is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ BDO USA, LLP

Grand Rapids, Michigan
June 24, 2016

Sparton Corporation 401(k) Plan
Financial Statements and Supplemental Schedule
Six-Months Ended December 31, 2015 and Year Ended June 30, 2015

Statements of Net Assets Available for Benefits

| | December 31, 2015 | June 30, 2015 |
|---|---|---|
| Investments: | | |
| Money market fund | $1,446 | $238,789 |
| Mutual funds | 36,656,756 | 37,795,091 |
| Common/collective trust | 6,350,374 | 3,307,267 |
| Sparton Corporation common stock | 2,098,259 | 3,020,843 |
| Total investments | 45,106,835 | 44,361,990 |
| Notes receivable from participants | 1,572,560 | 1,390,632 |
| Net assets available for benefits | $46,679,395 | $45,752,622 |

See accompanying notes to financial statements.

Sparton Corporation 401(k) Plan
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Statements of Changes in Net Assets Available for Benefits

| | December 31, 2015 | June 30, 2015 |
|---|---|---|
| Additions | | |
| Investment income: | | |
| Dividend income from mutual funds | $725,926 | $1,598,982 |
| Net (depreciation) in fair value of investments | (2,616,905) | (531,447) |
| Net investment (loss) income | (1,890,979) | 1,067,535 |
| | | |
| Interest income from notes receivable from participants | 30,661 | 48,388 |
| Contributions: | | |
| Participant | 2,168,582 | 3,817,097 |
| Employer | 725,619 | 1,315,291 |
| Rollovers | 125,543 | 790,799 |
| Total contributions | 3,019,744 | 5,923,187 |
| Total Additions | 1,159,426 | 7,039,110 |
| | | |
| Deductions | | |
| Benefits paid directly to participants | 2,157,502 | 3,655,313 |
| Deemed distributions | 70,036 | 92,405 |
| Corrective distributions | 38,719 | 0 |
| Administrative expenses | 21,114 | 12,385 |
| Total Deductions | 2,287,371 | 3,760,103 |
| | | |
| Net (decrease) increase | (1,127,945) | 3,279,007 |
| | | |
| Plan Mergers | 2,054,718 | 4,759,044 |
| | | |
| Net Assets Available for Benefits, beginning of year | 45,752,622 | 37,714,571 |
| Net Assets Available for Benefits, end of period | $46,679,395 | $45,752,622 |

See accompanying notes to financial statements.

Sparton Corporation 401(k) Plan
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Notes to Financial Statements

1. Plan Description

The following description of Sparton Corporation 401(k) Plan (the "Plan") provides only general information. Participants should refer to the Plan Agreement or Summary Plan Description for a more complete description of the Plan's provisions.

General

The Plan includes all eligible employees of Sparton Corporation and its wholly owned United States subsidiaries (referred to as "the Company"). The Plan is a defined contribution plan covering employees of the Company who have attained the age of 20 and have completed at least 30 days of service (effective July 1, 2015, at least 60 days of service). The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Changes in Reporting Periods and Trustees

The Plan changed its fiscal year end to a calendar year end. With this transition, the Plan has a six-month fiscal period of July 1 to December 31, 2015. Subsequent to this period, the Plan will then operate for the twelve month calendar year beginning January 1, 2016 and for each year thereafter.

Effective November 23, 2015, the Plan's trustee was changed to Merrill Lynch, Pierce, Fenner & Smith Incorporated ("Merrill Lynch") from SunTrust Banks, Inc. ("SunTrust Bank"). In conjunction with this change, the Plan's assets were frozen for transactions from November 13 to December 10, 2015. On December 11, 2015, the Plan resumed normal and recurring operations.

Plan Acquisitions and Mergers

On January 20, 2015, the Company acquired Real Time Enterprises, Inc. Upon acquisition, the Real Time Enterprises, Inc. 401(k) Profit Sharing Plan was renamed the Sparton Real Time Enterprises, Inc. 401(k) Plan (the "Real Time Plan"). On July 24, 2015, all of the Real Time Plan assets totaling $2,054,718 were merged into the Plan. As a result of the merger, Real Time Plan participants were allowed to participate in the Plan effective July 1, 2015.

On March 17, 2014, the Company acquired Aubrey Group, Inc. Upon acquisition, The Aubrey Group Inc. Retirement Plan was renamed the Sparton Aubrey Group Inc. LLC Retirement Plan (the "Aubrey Plan"). On March 4, 2015, all of the Aubrey Plan assets totaling $2,027,984 were merged into the Plan. As a result of the merger, Aubrey Plan participants were allowed to participate in the Plan effective March 1, 2015.

On December 11, 2013, the Company acquired Beckwood Services, Inc. Upon acquisition, the Beckwood Services 401(k) Plan was renamed the Sparton Beckwood Services, Inc. LLC 401(k) Plan (the "Beckwood Plan"). On September 3, 2014, all of the Beckwood Plan assets totaling $2,731,060 were merged into the Plan. As a result of the merger, Beckwood Plan participants were allowed to participate in the Plan effective September 1, 2014.

The table below notes the Company's United States fiscal 2015 acquisitions and the dates that employees of the acquired businesses were allowed to participate in and to rollover previous 401(k) and other retirement savings into the Plan.

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| Company | Acquisition Date | Employees Allowed to participate in the Plan |
|---|---|---|
| Electronic Manufacturing Technology, LLC | July 9, 2014 | January 1, 2015 |
| Industrial Electronic Devices, Inc. | December 3, 2014 | December 3, 2014 |
| Argotec, Inc. | December 8, 2014 | December 8, 2014 |
| Real Time Enterprises, Inc. | January 20, 2015 | July 1, 2015 |
| KEP Marine | January 21, 2015 | January 21, 2015 |
| Hunter Technology Corporation | April 14, 2015 | January 1, 2016 |

Contributions

Eligible employees may elect to contribute up to 100% of their compensation, subject to certain limitations. Effective July 1, 2015, the Plan also offers Roth 401(k) contributions as an alternative to traditional pre-tax contributions. Participants may also make rollover contributions of amounts representing distributions from other qualified retirement plans. The Plan provides that the Company may contribute, on a discretionary basis, contributions in the form of matching contributions or non-elective contributions. During each of the six month ended December 31, 2015 and the fiscal year ended June 30, 2015 periods, the Company matched 50% of participants' contributions up to 6% of their eligible compensation. There were no non-elective contributions made to the Plan during either reporting periods presented. All contributions are subject to certain limitations of the Internal Revenue Code.

Participant Accounts

Each participant account is credited with the participant's and the Company's contributions, as well as an allocation of Plan earnings or losses. Investment earnings and losses are credited to each participant's account on a daily basis based upon the performance of the funds in that participant's account. Participants direct the investment of their accounts into various investment funds offered by the Plan. The Plan currently offers various mutual funds, common/collective trusts, and the Company's common stock as investment options for participants. The benefit to which a participant is entitled is the vested benefit that can be provided from the participant's account.

Diversification

Participants may invest both employee and employer contributions in any of the available investment options under the Plan, which includes the Company's common stock.

Participant Loans

Participants may borrow up to the lesser of $50,000 or 50% of their vested account balance, excluding Company common stock. The loans are secured by the balance in the participant's account and bear interest rates that range from 4.25% to 9.25%, which rates represented the Prime Rate plus one percent at the time that they were originated. Loans must be repaid within five years with the exception of loans for a primary residence, which must be repaid within 15 years. Principal and interest are paid ratably through regular payroll deductions.

Vesting

Participants are immediately vested in their voluntary contributions plus actual earnings thereon. Vesting on employer matching contributions and employer non-elective contributions made prior to January 1, 2011 is based upon years of credited service, becoming fully vested after five years of credited service. Employer matching contributions made after January 1, 2011 are immediately 100% vested. Employer non-elective contributions made after January 1, 2011 vest based upon years of credited service, becoming 100% vested after five years of credited service.

Payment of Benefits

In the event of normal, early, or disability retirement of a participant, termination of employment or in the event of death, the participant or beneficiary can elect to receive a lump sum payment equal to their vested account balance or, if the vested account balance exceeds $5,000, maintain their account in the Plan on a tax deferred basis until the participant

reaches age 70 1/2. Under certain hardship conditions, a participant may be allowed to withdraw all or a portion of their contributions.

Forfeitures

Forfeitures consist of the non-vested portions of terminated participants' accounts. If a participant was subsequently rehired prior to five one-year consecutive breaks in service, forfeitures may be reinstated to the participant's account. Forfeitures are held by the Plan and become available immediately to pay administrative fees related to the Plan. No forfeitures were used to pay Plan expenses for the six months ended December 31, 2015 or the fiscal year ended June 30, 2015 periods, respectively. The unused forfeiture balance amounted to $49,075 and $16,502 at December 31, 2015 and June 30, 2015, respectively.

Administrative Fees

The Company pays certain administrative costs of the Plan, that are not paid through forfeitures, associated with any professional services provided to the Plan, and the cost of communications to the participants. Administrative expenses recorded in the Plan represent trustee fees and record keeping fees paid directly from the Plan to the Plan's trustee. Loan fees are deducted directly from the participants' accounts.

2. Summary of Significant Accounting Policies

Recent Accounting Pronouncements

In May 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update 2015-07 "Disclosures for Investments in Certain Entities that Calculate Net Asset Value Per Share (or its Equivalent)," ("ASU 2015-07"). ASU 2015-07 removes the requirement to categorize within the fair value hierarchy investments for which fair values are estimated using the net asset value practical expedient provided by Accounting Standards Codification 820, Fair Value Measurement. Disclosures about investments in certain entities that calculate net asset value per share are limited under ASU 2015-07 to those investments for which the entity has elected to estimate the fair value using the net asset value practical expedient. ASU 2015-07 is effective for fiscal years beginning after December 15, 2015, with early adoption permitted.

In July 2015, the FASB issued Accounting Standards Update 2015-12 "Plan Accounting: Defined benefit Pension Plans (Topic 960), Defined Contribution Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965)" ("ASU 2015-12"). The amendments in Part I of the ASU eliminated the requirements that employee benefit plan measure the fair value of fully benefit -responsive investment contracts and provide the related fair value disclosures, rather these contracts will be measured and disclosed only at contract value. The amendments in Part II of the ASU will require plans to disaggregate their investments measured using fair value only by general type, either on the financial statements or in the notes. Part II also eliminated the requirement to disclose the net appreciation/depreciation in fair value of investments by general type and the requirements to disclose individual investments that represent 5% or more of net assets available for benefits. The amendments in Part III of the ASU 2015-12 provide a practical expedient to permit plans to measure its investments and investment related accounts as of a month-end date closest to its fiscal year for a plan with a fiscal year end that does not coincide with the end of a calendar month. The amendments in the ASU 2015-12 are effective for reporting periods beginning after December 15, 2015, with early adoption permitted.

Plan management reviewed both ASU 2015-07 and ASU 2015-12 and decided to early adopt both standards at June 30, 2015 as it believed it will simplify Plan accounting and its presentation in the financial statements. As such, the accounting and disclosures in these financial statements and notes follow ASU 2015-07 and ASU 2015-12.

Basis of Accounting

The accompanying financial statements have been prepared under the accrual method of accounting.

Sparton Corporation 401(k) Plan
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Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of changes in net assets available for benefits.

Concentration of Investments

Included in investments at December 31, 2015 and June 30, 2015 are shares of the Company's common stock amounting to $2,098,259 and $3,020,843, respectively. This investment represented approximately 5% and 7% of total investments at December 31, 2015 and June 30, 2015, respectively. A significant decline in the market value of the Company's stock would significantly affect the net assets available for benefits.

Investment Valuation and Income Recognition

Plan assets invested in mutual funds and Company common stock are stated at aggregate fair value based upon quoted market prices.

The Plan holds shares in a money market fund which is valued at the net asset value ("NAV") of the shares held by the Plan at year-end, which is determined based on the fair value of the underlying investments, primarily high quality, short-term fixed income securities issued by banks, corporations, and the United States government.

The Plan holds units of common/collective trusts ("CCT") with Federated Capital Preservation Fund IP ("Federated"), Putnam Stable Value Fund ("Putnam") and Putnam Stable Value Fund GM ("Putnam") that have investments in fully benefit-responsive investment contracts. The fair value of the Plan's interest in the CCTs is based on audited financial information reported by the issuers, Federated Investors Trust Company for the Federated CCT, and Putnam Fiduciary Trust Company for the Putnam CCTs. The issuers determine fair value based on the underlying investments (primarily conventional, synthetic and separate account investment contracts, and cash equivalents). The value of the CCTs represents contributions plus earnings, less participant withdrawals and administrative expenses. Participant-directed redemptions for the Federated and the Putnam CCTs have no restrictions; the Plan, however, is required to provide a one-year redemption notice to liquidate its entire share in each of the respective funds.

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. No allowance for credit losses has been recorded as of December 31, 2015 and June 30, 2015. Delinquent participant loans are recorded as distributions on the basis of the terms of the Plan agreement.

Purchases and sales of investments are recorded on a trade-date basis. Dividends are recorded on the ex-dividend date. Interest income is recorded on the accrual basis. Net appreciation (depreciation) includes the Plan's gains and losses on investments bought or sold as well as held during the year.

Payment of Benefits

Benefits are recorded when paid.

3. Fair Value Measurements

The Plan classifies its investments into Level 1, which refers to securities valued using quoted prices in active markets for identical assets; Level 2, which refers to securities not traded on an active market but for which observable market inputs are readily available; and Level 3, which refer to securities valued based on significant unobservable inputs.

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Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The following table sets forth, by level within the fair value hierarchy, a summary of the Plan's investments measured at fair value on a recurring basis at December 31, 2015 and June 30, 2015:

| | December 31, 2015 | | | |
|---|---|---|---|---|
| | Fair Value | Level 1 Inputs | Level 2 Inputs | Level 3 Inputs |
| Money market fund | $1,446 | $1,446 | $ — | $ — |
| Mutual funds | 36,656,756 | 36,656,756 | — | — |
| Sparton Corporation common stock | 2,098,259 | 2,098,259 | — | — |
| Total assets in fair value hierarchy | 38,756,461 | 38,756,461 | — | — |
| Investments measured at net asset value * | 6,350,374 | — | — | — |
| Investments at fair value | $45,106,835 | $38,756,461 | $ — | $ — |

| | June 30, 2015 | | | |
|---|---|---|---|---|
| | Fair Value | Level 1 Inputs | Level 2 Inputs | Level 3 Inputs |
| Money market fund | $238,789 | $238,789 | $ — | $ — |
| Mutual funds | 37,795,091 | 37,795,091 | — | — |
| Sparton Corporation common stock | 3,020,843 | 3,020,843 | — | — |
| Total assets in fair value hierarchy | 41,054,723 | 41,054,723 | — | — |
| Investments measured at net asset value * | 3,307,267 | — | — | — |
| Investments at fair value | $44,361,990 | $41,054,723 | $ — | $ — |

* Common/collective trust fund investments are measured at fair value using the net asset value (or its equivalent) and have not been categorized in the fair value hierarchy.

4. Plan Termination

Although it has not expressed any intent to do so, the Company has the right to discontinue its contributions at any time and to terminate or partially terminate the Plan, subject to the provisions of ERISA. In the event of Plan termination, participants become 100% vested in their Company contribution account.

5. Income Tax Status

The Internal Revenue Service has determined in a letter dated March 31, 2008 that the prototype plan document was in compliance with the applicable requirements of the Internal Revenue Code ("IRC"). The Plan document has been amended since receiving the determination letter, including amendments made for plan mergers as well as to comply with recent law changes. However, the Plan Administrator and trustee believe that the Plan is designed, and is currently being operated, in compliance with the applicable provisions of the IRC.

Accounting principles generally accepted in the United States of America require Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the Internal Revenue Service. The Plan Administrator has analyzed the tax positions taken by the Plan and has concluded that as of December 31, 2015 there are no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions. The U. S. Department of Labor, Employee Benefits Security Administration (the "DOL") informed Plan management on April 11, 2016 of its intent to review the Plan for the time period of January 1, 2013 through April 11, 2016. The DOL review is currently in

process. Plan management believes that this DOL review is compliance oriented and routine in nature, and is currently unaware of any instances of non-compliance with ERISA provisions.

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6. Related Party Transactions

The Plan invests in certain investments managed by Merrill Lynch and by SunTrust Bank, the trustees, and as such, these investments are considered party-in-interest transactions. Fees paid to the trustees totaled $21,114 and $12,285 for the six month and fiscal year periods ended December 31, 2015 and June 30, 2015, respectively.

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Schedule H, Line 4i - Schedule of Assets (Held at End of Year)
December 31, 2015

EIN: 38-1054690

Plan Number: 002

| Identity of Issuer, Borrower, Lessor or Similar Party | Description of Investment, Including Maturity Par or Maturity Value | | Cost |
|---|---|---|---|
| Money market fund: | | | |
| BIF Money Fund | 1,446 | shares | ** |
| Common/collective trust: | | | |
| Federated Capital Preservation Fund IP | 396,855 | shares | ** |
| Putnam Stable Value Fund | 508,340 | shares | ** |
| Putnam Stable Value Fund GM | 1,873,483 | shares | ** |
| Total common/collective trusts | | | |
| Mutual funds: | | | |
| JP Morgan Government Bond Fund | 1,185 | shares | ** |
| JP Morgan Government Bond Fund GM | 357,129 | shares | ** |
| JP Morgan Small Cap Value Fund A | 336 | shares | ** |
| JP Morgan Small Cap Value A GM | 37,120 | shares | ** |
| JP Morgan Equity Income Fund A | 3,911 | shares | ** |

| | | | |
|---|---|---|---|
| Janus Triton Fund CL A | 10,042 | shares | ** |
| Janus Triton Fund CL A GM | 40,800 | shares | ** |
| American Cent Real Estate Fund ADV | 791 | shares | ** |
| American Cent Real Estate Fund ADV GM | 44,840 | shares | ** |
| Columbia Midcap Index Fund CL A | 8,752 | shares | ** |
| Victory Sycamore Estate Value Fund A | 2,912 | shares | ** |
| Victory Sycamore Estate Value Fund GM | 59,799 | shares | ** |
| MFS International Diversification A | 6,044 | shares | ** |
| MFS International Diversification A GM | 222,208 | shares | ** |
| Pioneer Select Mid Cap Growth A | 3,146 | shares | ** |
| Pioneer Select Mid Cap Growth A GM | 55,125 | shares | ** |
| Pimco Income Fund CL A | 1,045 | shares | ** |

A breach in cyber security due to unauthorized access to our computer systems or mis
of assets or sensitive information, the corruption data or other operational disruption.
networks could be caused by internal or external events, such as incursions by intrude
failures in hardware or software, or cyber terrorists. If we do experience a breach or fa
experience operational delays resulting from the disruption of systems, loss due to the
data, or negative impacts from the loss of confidential data or intellectual property. W
event any of the personal information we maintain is lost or otherwise subject to misu
disclosure. Further, we could experience negative publicity resulting in reputation or l
partners.

Additionally, we are subject to privacy and data security laws across multiple jurisdic
storage of health information, which are complex, overlapping and rapidly evolving. A
expand, we may be subject to additional laws which impose further restrictions on the
health and other personal information which may impact our business either directly o
with applicable privacy or security laws or significant changes in these laws could sig
future business plans. For example, we may be subject to regulatory action or lawsuit

applicable privacy laws.

We have a significant amount of debt that may adversely affect our financial conditio

We have a significant amount of debt and debt service obligations as well as restrictiv lenders. A high level of indebtedness increases the risk that we may default on our de may prevent us from borrowing additional funds. There is no assurance that we will b to pay the interest on our debt and comply with our debt covenants or that future worl financing will be available to repay or refinance our debt. If we are unable to generate on our debt and comply with our debt covenants, we may have to delay or curtail our The level of our indebtedness could, among other things:

- make it difficult for us to make required payments on our debt;
- make it difficult for us to obtain any financing in the future necessary for working ca requirements or other purposes;

- limit our flexibility in planning for, or reacting to, changes in our business and the inc
- make us more vulnerable in the event of a downturn in our business.

Our business may require substantial additional capital, which we may not be able to
all.

Our future capital requirements and level of expenses will depend upon numerous fac
with:

- marketing, sales and customer support efforts;
- research and development activities;
- expansion of our facilities;
- consummation of possible future acquisitions of technologies, products or businesses
- demand for our products and services;
- repayment or refinancing of debt; and
- payments in connection with our hedging activities.

We currently anticipate that our short-term capital requirements will be satisfied by ca
December 31, 2016, we had outstanding long-term debt of approximately $1.1 billion
Furthermore, as of December 31, 2016, we had capital lease obligations, including the
expire in various years through 2020. We may need to refinance all or part of these lia
maturities.

If at some point in time our existing resources should be insufficient to fund our activ
through public or private debt or equity financings. The funds for the refinancing of e
funding of our business may not be available or, if available, not on terms acceptable
available, we may be required to reduce or delay expenditures for research and develo
expenditures and/or acquisitions, which could have a material adverse effect on our b
the extent that additional capital is raised through the sale of equity or convertible sec
could result in dilution to our shareholders.

The accounting for the Cash Convertible Notes will result in recognition of interest ex
stated interest rate of the notes and may result in volatility to our Consolidated Statem

We will settle any conversions of the Cash Convertible Notes entirely in cash. Accord
part of the Cash Convertible Notes will be accounted for as a derivative pursuant to ac
derivative instruments and hedging activities. Refer to Note 13, “Derivatives and Hed
Debt," of the Notes to Consolidated Financial Statements. In general, this resulted in a
option separate from the debt component of the Cash Convertible Notes, resulting in a
issue discount will be accreted to interest expense over the term of the Cash Convertib
effective interest rate reported in our financial statements significantly in excess of the
Convertible Notes. This accounting treatment will reduce our earnings. For each finan
issuance of the Cash Convertible Notes, a gain (or loss) will be reported in our financ
valuation of the conversion option changes from the previous period. The Call Option
derivative instruments, substantially offsetting the gain (or loss) associated with chang
option. This may result in increased volatility to our results of operations.

The cash convertible note hedge and warrant transactions we entered into in connectio
Convertible Notes may not provide the benefits we anticipate, and may have a dilutiv

Concurrently with the issuance of the Cash Convertible Notes, we entered into Call O
entered into the Call Options with the expectation that they would offset potential cas
principal amount of the Cash Convertible Notes upon conversion of the Cash Convert
counterparties fail to deliver potential cash payments to us, as required under the Call
benefit of such transaction. Separately, we also issued Warrants. The Warrants could
extent that the market price per share of our common stock, as measured under the ter
price of the Warrants.

An impairment of goodwill and intangible assets could reduce our earnings.

At December 31, 2016, our consolidated balance sheet reflected approximately $1.9 b
$557.2 million of intangible assets. Goodwill is recorded when the purchase price of a
tangible and separately measurable intangible net assets. U.S. generally accepted acco
requires

us to test goodwill for impairment on an annual basis or when events or circumstance
be impaired. Long-lived assets, such as intangible assets with finite useful lives, are re
events or changes in circumstances indicate that the carrying amount may not be reco
cannot be done at the level of the individual asset and it must instead be applied to a g
annual goodwill impairment testing based on the current circumstances of how we ma
is the Company as a whole. If we determine that any of our goodwill or intangible ass
to take an immediate charge to earnings and our results of operations could be adverse

Our strategic equity investments may result in losses.

We have made, and may continue to make, strategic investments in businesses as opp
review the carrying value of these investments for impairment, considering factors tha
transactions, book values from the most recent financial statements, and forecasts and
results of these valuations may fluctuate due to market conditions and other condition
Estimating the fair value of non-marketable equity investments in life science compan
events differ from our assumptions and other than temporary unfavorable fluctuations
are indicated, we could be required to write-down the investment. This could result in
could materially adversely affect our results of operations. It is uncertain whether or n
benefits from these strategic investments.

Doing business internationally creates certain risks.

Our business involves operations in several countries outside of the U.S. Our consum
located in Germany, China, the United Kingdom and the U.S. We source raw materia
our products from different countries. We have established sales subsidiaries in nume
Germany, Japan, the United Kingdom, France, Switzerland, Australia, Canada, the Ne
Singapore, Turkey, South Korea, Taiwan, Malaysia, China, Spain, Brazil, Mexico, So
products are sold through independent distributors serving more than 40 other countri
operations on an international scale requires close coordination of activities across mu
consumes significant management resources. We have invested heavily in computeriz
manage more efficiently the widely dispersed components of our operations. If we fai
activities effectively, our business and results of operations will be adversely affected

Our operations are subject to other risks inherent in international business activities, s
the countries in which we operate, longer accounts receivable payment cycles in certa
structures, unexpected changes in regulatory requirements, and compliance with a var

Other risks associated with international operations include import and export licensin
exchange controls and changes in tariff and freight rates, as may occur as a result of n
conditions, an inability to successfully manage our international operations could hav
business and results of operations.

We have made investments in and are expanding our business into emerging markets,

Our top seven emerging markets are Brazil, Russia, India, China, South Korea, Mexic
accounted for approximately 16% of total sales in 2016, and we expect to continue to
these or other fast-growing markets. In addition to the currency and international oper
international operations are subject to a variety of risks that include those arising out o
language and cultural barriers in countries where we have operations or do business. I
may be faced with several risks that are more significant than in other countries in wh
business. These risks include economies that may be dependent on only a few produc
significant fluctuations, weak legal systems which may affect our ability to enforce co
unstable governments, and privatization or other government actions affecting the flo
conducting our business, we move products from one country to another and may pro
subsidiary located in another country. Accordingly, we are vulnerable to abrupt chang
could have significant negative impacts on our results of operations.

Unethical behavior and non-compliance with laws by our sales agents, consultants, di
seriously harm our business.

Our business in countries with a history of corruption and transactions with foreign go
associated with our international activities. Based on our international operations, we
Practices Act (FCPA), the U.K. Bribery Act and other laws that prohibit improper pay
governments and their officials and political parties by business entities for the purpo
We have

operations, agreements with third parties and make sales in countries known to experi
expansion may involve increased exposure to such practices. Our activities in these co
create risks of unauthorized payments or offers of payments, non-compliance with law
of our employees, consultants, sales agents or distributors, that could be in violation o
even though these parties are not always subject to our control. It is our policy to impl
or other unethical practices by our employees and distributors including online and in
internal audits and standard reviews of our distributors. However, our existing safegu
not prove to be effective, and our employees, consultants, sales agents or distributors
might be held responsible. Violations of the FCPA and other laws may result in crimi
severe, and we may be subject to other liabilities, which could negatively affect our b
financial condition.

We depend on patents and proprietary rights that may fail to protect our business.

Our success depends to a large extent on our ability to develop proprietary products a
protect our patent and trademark rights in these products and technologies. As of Dec
patents in the United States, 241 issued patents in Germany and 1,613 issued patents i
In addition, at December 31, 2016, we had 776 pending patent applications, and we in
patents as our products and technologies are developed. The patent positions of techn
complex legal and factual questions and may be uncertain, and the laws governing the
periods of enforceability of patent protection are subject to change. In addition, patent
maintained in secrecy until patents issue, and publication of discoveries in the scientif
behind actual discoveries by several months. Therefore, no assurance can be given tha
applications that we own or license or if patents do issue, that the claims allowed will
technology. In addition, no assurance can be given that any issued patents that we ow
invalidated or circumvented, or that the rights granted thereunder will provide us com
patents expire, we may lose some competitive advantage as others develop competing
revenue.

Certain of our products incorporate patents and technologies that are licensed from th
these in-licensed patents together with other patents provide us with a competitive adv
commercialization, sublicensing and other obligations on us. Our failure to comply w
the conversion of the applicable license from being exclusive to non-exclusive or, in s
and as a result, we may lose some competitive advantage and experience a loss of rev

We also rely on trade secrets and proprietary know-how, which we seek to protect thr
our employees and consultants. There can be no assurance that any confidentiality agr
employees, consultants, outside scientific collaborators and sponsored researchers and
meaningful protection for our trade secrets or adequate remedies in the event of unaut
information. There also can be no assurance that our trade secrets will not otherwise b
developed by competitors.

We currently engage in, and may continue to engage in, collaborations with academic
be no assurance that under the terms of such collaborations, third parties will not acqu
developed during the course of these collaborations.

We are subject to risks associated with patent litigation.

The biotechnology industry has been characterized by extensive litigation regarding p
rights. We are aware that patents have been applied for and/or issued to third parties c
and assay technologies that are closely related to those we use. From time to time, we
confirmation that we do not infringe patents of third parties. We endeavor to follow d
not believe that our technologies or products infringe any proprietary rights of third p
assurance that third parties will not challenge our activities and, if so challenged, that
and proprietary rights of others could require that we alter our products or processes,
activities, and there can be no assurance that we will be able to license any technologi
terms. In addition, litigation, including proceedings that may be declared by the U.S.

International Trade Commission, may be necessary to respond to any assertions of inf
and/or determine the scope and validity of our proprietary rights or those of third part
substantial cost, and there can be no assurance that we would prevail in any proceedin
Our business exposes us to potential product liability.
The marketing and sale of our products and services for certain applications entail a p
Although we are not currently subject to any material product liability claims, produc
against us in the future. Further, there can be no assurance that our products will not b
inappropriate research or

applications, which may in turn put us at risk of litigation. We carry product liability i
scope and amount. There can be no assurance that we will be able to maintain this ins
reasonable terms, or that this insurance will be adequate to protect us against any or a
We are subject to various laws and regulations generally applicable to businesses in th
operate, including laws and regulations applicable to the handling and disposal of haz
accidental contamination or injury from these materials cannot be completely elimina
we could be held liable for any damages that result, and any such liability could have
Our operating results may vary significantly from period to period and this may affec
Shares.
Our operating results may vary significantly from quarter to quarter, and also from ye
upon a broad range of factors that include demand for our products, the level and timi
commercialization efforts, the timing of government funding budgets of our customer
development activities and related regulatory approvals, the impact of sales and mark
restructuring activities, the introduction of new products by us or our competitors, cor
rate fluctuations and general economic conditions. Our expense levels are based in pa
trends. As a result, sales and earnings may vary significantly from quarter to quarter c
and earnings results in any one period will not necessarily be indicative of results to b
Our results may also fail to meet or exceed the expectations of securities analysts or i
in the market price of our Common Shares.
Our holding company structure makes us dependent on the operations of our subsidia
QIAGEN N.V. is incorporated under Dutch law as a public limited liability company
organized as a holding company. Currently, the material assets are the outstanding sh
intercompany receivables and other financial assets such as cash and short-term inves
dependent upon payments, dividends and distributions from the subsidiaries for funds
as well as to pay future cash dividends or distributions, if any, to holders of our Comm
by subsidiaries in a currency other than the U.S. dollar may result in a loss upon a sub
U.S. civil liabilities may not be enforceable against us.
We are incorporated under Dutch law, and substantial portions of our assets are locate
certain members of our Managing and Supervisory Boards and our officers reside out
difficult for investors to effect service of process within the U.S. upon us or such othe
U.S. any judgments obtained against such persons in U.S. courts, in any action, includ
liability provisions of U.S. securities laws.
In addition, it may be difficult for investors to enforce, in original actions brought in c
the U.S., rights predicated upon the U.S. securities laws. There is no treaty between th
mutual recognition and enforcement of judgments (other than arbitration awards) in c
result, a final judgment for the payment of money rendered by any federal or state cou
whether or not predicated solely upon the federal securities laws, would not be directl
However, if the party in whose favor such final judgment is rendered brings a new su
Netherlands, such party may submit to the Dutch court the final judgment which has b
court finds that the jurisdiction of the federal or state court in the U.S. has been based
acceptable and that proper legal procedures have been observed, the Dutch court will,
final judgment which has been rendered in the U.S. without substantive re-examinatio
subject matter thereof, unless such judgment contravenes Dutch principles of public p
can be no assurance that U.S. investors will be able to enforce against us, members of
or officers who are residents of the Netherlands or countries other than the U.S. any ju
civil and commercial matters, including judgments under the federal securities laws. I
a Dutch court would impose civil liability on us, the members of our Managing or Su
original action predicated solely upon the federal securities laws of the U.S. brought i
the Netherlands against us or such members or officers, respectively.
Our Common Shares may have a volatile public trading price.

The market price of our Common Shares since our initial public offering in Septembe
been highly volatile. In the last two years, the price of our Common Shares has range
$19.94 on NASDAQ, and a high of €27.26 to a low of €17.76 on the Frankfurt Stock
market fluctuations, factors that may have a significant impact on the price of our Co

- announcements of technological innovations or the introduction of new products by u
- developments in our relationships with collaborative partners;
- quarterly variations in our operating results or those of our peer companies;
- changes in government regulations, tax laws or patent laws;
- developments in patent or other intellectual property rights;
- developments in government spending budgets for life sciences-related research;
- general market conditions relating to the diagnostics, applied testing, pharmaceutical
- impact from foreign exchange rates.

The stock market has from time to time experienced extreme price and trading volum affected the market for technology-based companies. These fluctuations have not nec performance of these companies. These broad market fluctuations may adversely affe Shares.

Holders of our Common Shares should not expect to receive dividend income.

In January 2017, we completed a synthetic share repurchase that combined a direct ca split and we plan to complete an additional share repurchase program of up to $50.0 m anticipate paying any cash dividends on our Common Shares for the foreseeable futur distribution in connection with a synthetic share repurchase, we have not paid cash di we do not anticipate paying any cash dividends on a regular basis, the distribution of than the U.S. dollar will be subject to the risk of foreign currency transaction losses. I Common Shares if they are seeking dividend income; the only return that may be real Shares would be through an appreciation in the share price.

Holders of our Common Shares may not benefit from continued stock repurchase pro Between October 2012 and April 2013, we repurchased a total of 5.1 million of our C of $99.0 million, and between September 2013 and June 2014, we repurchased an add Shares for $100.4 million (including performance fees). In 2014 and 2015, we repurch Shares for an aggregate cost of $69.9 million under our third share repurchase progra synthetic share repurchase that combined a direct capital repayment with a reverse sto announced in August 2016 and involved an approach used by various large, multinati returns to all shareholders in a faster and more efficient manner than traditional open- returned to shareholders through the transaction, which reduced the total number of is 3.7% to 230.8 million (of which 4.95 million in treasury) as of January 31, 2017. In a repurchase, we announced additional share repurchases to take place via the open mar a view to return an aggregate amount of $300.0 million to our shareholders.

The purpose of these repurchases has been to hold the shares in treasury in order to sa debt instruments and/or employee share-based remuneration plans and thus to reduce Common Shares. We may decide not to continue such programs in the future, the cov limit our ability to use available cash to do so, and the market price of our Common S desirable. In any of these cases, holders of our Common Shares may suffer dilution fr issuance of shares pursuant to employee remuneration plans that would otherwise be shares.

Future sales and issuances of our Common Shares could adversely affect our stock pr Any future sale or issuance of a substantial number of our Common Shares in the pub sale may occur, could adversely affect the market price of our Common Shares. Unde shares up to its authorized share capital provided for in its Articles of Association. Pu our authorized share capital amounts to EUR 9.0 million, which is divided into 410.0 financing preference shares and 450.0 million preference shares, with all shares havin December 31, 2016, a total of approximately 234.6 million Common Shares were out 11.6 million additional shares reserved for issuance upon exercise or release of outsta which 1.4 million were vested. A total of approximately 17.9 million Common Shares issuances under our stock plans as of December 31, 2016, including the shares subjec

awards. The majority of our outstanding Common Shares may be sold without restric
affiliates, which are subject to certain limitations on resale. Additionally, the Warrant
Convertible Notes Call Spread Overlay cover an aggregate of 25.8 million shares of c
anti-dilution adjustments under certain circumstances).

Shareholders who are United States residents could be subject to unfavorable tax trea
We may be classified as a “passive foreign investment company,” or a PFIC, for U.S.
tests are met. Our treatment as a PFIC could result in a reduction in the after-tax retur
would likely cause a reduction in the value of these shares. If we were determined to
purposes, highly complex rules would apply to our U.S. shareholders. We would be c
U.S. shareholder if for any taxable year in which the U.S. shareholder held the Comm
our gross income for the taxable year is passive income; or (ii) the average value of o
which produce or are held for the production of passive income is at least 50% of the
year. Based on our income, assets and activities, we do not believe that we were a PF
purposes for our taxable year ended December 31, 2016, and do not expect to be a PF
future taxable year. No assurances can be made, however, that the Internal Revenue S
or that we will not subsequently become a PFIC. In countries outside the U.S., other c
result in unfavorable tax treatment for any dividends received.
Provisions of our Articles of Association and Dutch law and an option we have grante
remove management and may inhibit or delay a takeover.
Our Articles of Association (Articles) provide that our shareholders may only suspend
and Supervisory Directors against their wishes with a vote of two-thirds of the votes c
50% of our issued share capital. If the proposal was made by the joint meeting of the
Board, a simple majority is sufficient. The Articles also provide that if the members o
Managing Board have been nominated by the joint meeting of the Supervisory Board
may only overrule this nomination with a vote of two-thirds of the votes cast if such v
issued share capital.
Certain other provisions of our Articles allow us, under certain circumstances, to prev
majority of the voting control of our Common Shares through the issuance of Preferen
and the resolution adopted by our General Meeting of Shareholders, our Supervisory
Shares in case of an intended takeover of our company by (i) any person who alone o
directly or indirectly, have acquired or given notice of an intent to acquire (beneficial
aggregate equals 20% or more of our share capital then outstanding or (ii) an “adverse
Supervisory Board. If the Supervisory Board opposes an intended takeover and autho
the bidder may withdraw its bid or enter into negotiations with the Managing Board a
a higher bid price for our Shares.
In 2004, we granted an option to the Stichting Preferente Aandelen QIAGEN, or the F
conditions described in the paragraph above, which allows the Foundation to acquire
enables the Foundation to acquire such number of Preference Shares as equals the nu
Shares at the time of the relevant exercise of the option, less one Preference Share. W
exercising its voting rights on these Preference Shares, the Foundation must act in our
stakeholders. The purpose of the Foundation option is to prevent or delay a change of
interests of us and our stakeholders. An important restriction on the Foundation’s abil
control is that a public offer must be announced by a third party before it can issue (pr
that would enable the Foundation to exercise rights to 30% or more of the voting righ
mandatory offer for all shares held by the remaining shareholders. In addition, the hol
Foundation is restricted to two years, and this protective stake must fall below the 30%
two-year period ends.
Note Regarding Forward-Looking Statements and Risk Factors
Our future operating results may be affected by various risk factors, many of which ar
statements included in this Annual Report and the documents incorporated herein by
statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as a
Securities Exchange Act of 1934, as amended, including statements regarding potenti
income and liquidity. These statements can be identified by the use of forward-lookin
“plan,” “intend,” “seek,” “may,” “will,” “could,” “should,” “would,” “expect,” “antic

is made in particular to the description of our plans and objectives for future operation and objectives, and other forward-looking statements. Such statements are based on m are subject to a number of factors and uncertainties that could cause actual results to d in the forward-looking statements. We caution investors that there can be no assuranc conditions will not differ materially from those projected or suggested in such forwar various factors. Factors which could cause such results to differ materially from those statements include those set forth in the risk factors below. As a result, our future succ When considering forward-looking

statements, you should keep in mind that the risk factors could cause our actual result
contained in any forward-looking statement.

Item 4. Information on the Company

Description of our business

Company overview

QIAGEN is a global leader in Sample to Insight solutions that transform biological sa
insights. Our vision is to make improvements in life possible by enabling our custome
Diagnostics, Applied Testing, Pharma and Academia - to achieve outstanding success
efficient solutions for molecular testing.

QIAGEN's Sample to Insight solutions integrate sample and assay technologies, bioin
Our solutions support more than 500,000 customers worldwide in generating insights
life. Our proven solutions are providing answers in hospitals and laboratories worldw
increasing volumes and complexity of biological information.

Since the first sequencing of the human genome was completed in 2003, knowledge o
mechanisms and diseases has been growing exponentially. In what observers call “the
acceleration in the speed of sequencing - and reduction in cost - is generating new dis
genomic data. This revolution in the life sciences is transforming healthcare and influ
life. QIAGEN’s mission is to drive this ongoing wave of discoveries and the wide-ran

QIAGEN began operations in 1986 as a pioneer in the emerging biotechnology sector
standardized and accelerated extraction and purification of nucleic acids from biologi
grown to influence many areas of life, QIAGEN has expanded to serve the full spectr
technologies are unmatched in quality for isolating and preparing DNA (deoxyribonu
proteins from blood or other liquids, tissue, plants or other materials. Our assay techn
biomolecules accessible for analysis, such as identifying the genetic information of a
tumor. QIAGEN’s industry-leading bioinformatics solutions allows users to analyze a
actionable insights. Our automation platforms based on polymerase chain reaction (PC
(NGS) and other technologies tie these together in seamless and cost-effective molecu
to Insight.

Net sales of $1.34 billion in 2016 were comprised of consumable kits and other reven
systems and instruments (13% of sales). Approximately 50% of net sales in 2016 wer
went to Life Sciences customer classes in the Academia, Pharma and Applied Testing

QIAGEN has grown by introducing innovative products and making strategic acquisi
needs of customers to transform biological samples into valuable molecular insights.
internally generated funds, debt offerings and private and public sales of equity securi
are listed on the NASDAQ exchange under the ticker symbol “QGEN” and on the Fra

The company is registered under its commercial and legal name QIAGEN N.V. with
koophandel) of the Dutch region Limburg Noord under file number 12036979. QIAG
company (naamloze vennootschap) under Dutch law as a holding company. Our princ
Hulsterweg 82, 5912 PL Venlo, The Netherlands, and our telephone number is +31-7

As a holding company, QIAGEN conducts business through subsidiaries located thro
about QIAGEN can be found at www.qiagen.com. By referring to our website, we do
portion of the website by reference into this Annual Report.

Recent Developments

QIAGEN has recently achieved a number of strategic milestones in serving customers

Leadership in differentiated core technologies continuing to drive growth:

Building on our long-standing core strength in sample technologies, which laboratorie
highest-quality DNA and RNA for molecular testing, QIAGEN continued to expand o
differentiated solutions for the front-end challenges of customers. QIAGEN technolog
biological samples a day. Our strategic focus is on rapidly growing areas of research a

- QIAGEN expanded our leadership in “liquid biopsies,” solutions that unlock molecul
non-invasive alternatives to surgical biopsies. Our technologies for isolation and stab

in an estimated 80% of liquid biopsy testing. In 2016, we continued to introduce cutti
sample and library preparation challenges.

- QIAGEN also launched the first Sample to Insight NGS solution for analyzing either paraffin-embedded (FFPE) tissue samples in clinical cancer research, a complete wor System and our Actionable Insights Tumor Panel and our unique and new QIAGEN solution.
- QIAGEN delivered brisk growth from the industry's broadest Sample to Insight portf and metagenomics, the study of microbial interactions with the environment and hum MO BIO Laboratories, QIAGEN sample technologies are the starting point for the m integrated front-end kits with specialized assays and bioinformatics to provide compl Acquisition of the Danish company Exiqon A/S in 2016 added to QIAGEN’s portfoli RNA in the fight against cancer and other diseases. Integrating the Exiqon solutions the market for non-coding RNA (ncRNA) analysis in epigenetic research, with future diagnostics.
- QIAGEN further expanded our leadership in solutions for single-cell analysis, which heterogeneity to research the pathways of disease or to monitor patient progress, in fi neurobiology and stem-cell biology. In 2016, we launched QIAscout, a compact instr efficiently select and isolate viable single cells for analysis with NGS, PCR or other single-cell sample kits.

QuantiFERON-TB Gold growing rapidly as world focuses on tuberculosis control:

- QIAGEN is aiding the global fight against tuberculosis (TB), an infectious disease th annually, with our QuantiFERON-TB Gold and QuantiFERON-TB Gold Plus tests, t infection. Screening for latent TB in high-risk patient populations, an asymptomatic p dormant for years and then “reactivate” as active, contagious TB, is increasingly reco the disease.
- Our novel technology, delivering reliable results with the third-generation QuantiFE fourth-generation QuantiFERON-TB Gold Plus (QFT-Plus), has become the latent T the world. The efficient, laboratory-based tests are displacing the less accurate, centu surpassed $140 million in 2016.
- QuantiFERON-TB Gold gained momentum in 2016 from key clinical guidelines for Services Task Force recommended that primary care clinicians screen adult patients a QFT as a test proven to be reliable. A separate task force, backed by the U.S. Centers (CDC) and two professional societies, updated evidence-based guidelines to broaden TB tests such as QFT over the century-year-old tuberculin skin test. It also broadened infection. These guidelines were endorsed by the European Respiratory Society.
- QuantiFERON-TB Gold-Plus was submitted to the U.S. Food and Drug Administrati approval. QFT-Plus has been launched in more than 60 countries following European new test, which adds proprietary CD8 T-cell technology and other enhancements to important support in the global TB control community. The World Health Organizati cited early clinical results on QFT-Plus indicating its ability to measure CD8 T-cell re patients at greater risk of progression to active TB.

Next-generation sequencing solutions extending QIAGEN's reach:

- Our GeneReader NGS System, the first complete Sample to Insight next-ge for any laboratory to deliver actionable results, has been well received in ea late-2015 launch. GeneReader NGS adoption is accelerating, achieving our 2016, more than a 10% share of the estimated global annual market for new oncology applications. The system is the world's first truly end-to-end NGS final report - providing a simpler, more cost-effective way for laboratories t and improve outcomes.

QIAGEN has initiated the roll out of a deep pipeline of enhancements to the GeneRea
basic and translational research labs. In 2016 these included adaptation of our Action
liquid biopsies, adding to FFPE tissue samples; an extensive package of quality contr
validation; a partnership to integrate the GeneReader NGS System with users' labora
(LIMS); and the option of QIAsymphony SP for higher-throughput front-end automa

In November 2016, two months after a U.S. court issued a preliminary injunction rest
GeneReader NGS System while considering a competitor's lawsuit, QIAGEN annou
sequencing chemistry that avoids the patent at issue in the United States. The new ch
- U.S. customers in an early-access phase starting December 1, 2016, and full commerc
rest of the world, GeneReader NGS System marketing has continued without interrup
enhanced performance will be rolled out in 2017.

In 2017, QIAGEN expects to launch additional enhancements and new content to imp
effectiveness of the GeneReader NGS System. We plan to launch at least five new G
in-depth breast and lung cancer panels as well as customized panels for specific custo
- Actionable Insights Tumor Panel (ATP), the first GeneRead QIAact panel, reduce tur
of tissue or liquid biopsy samples analyzed. Proprietary Digital NGS technology in th
mutation types such as large rearrangements, gene fusions, copy number variations (C
deletions (InDels), in addition to current detection of single nucleotide polymorphism

- As the leader in "universal" technologies for use with any sequencing system,
portfolio. In 2016, we added to our line-up of liquid biopsy solutions with the
- All-in-One Kit, the first dedicated solution for use on any NGS platform that c
library preparation for liquid biopsy analysis. QIAGEN pre-analytical solution
NGS reactions.

- Also in 2016, we launched a comprehensive portfolio of QIAseq NGS panels with ou
more accurate quantification and detection of DNA, RNA and miRNA across all next

Leadership in Personalized Healthcare continuing its momentum:

QIAGEN continues to roll out novel companion diagnostics that deliver actionable in
based on patients' individual genomic information. In 2016, QIAGEN launched the n
- Europe, a unique CE-IVD marked assay for use in blood cancers known as myelopro
latest addition to the ipsogen portfolio of assays for common and rare leukemia types
QIAsymphony RGQ platforms.

Our Personalized Healthcare pipeline continues to expand through collaborations wit
companies to develop and commercialize companion diagnostics paired with targeted
milestone of 20 master collaboration agreements with Pharma companies, each provi
- partnerships in 2016 with Mirati Therapeutics, Inc., to commercialize a companion di
non-small cell lung cancer; with Daiichi Sankyo for multiple projects; and with an un
immuno-oncology. Most of the specific projects are unannounced at the request of th
leading independent developer of molecular technologies, QIAGEN is the industry's
companion diagnostics.

QIAGEN offers our collaborators in Personalized Healthcare access to multiple platfo
GeneReader NGS System and the multi-modal Modaplex system. These projects incl
- assays or multiplex panels, depending on specific needs and biomarkers involved for
therapies. In addition, some Personalized Healthcare tests provide predictive value fo
individual patients' progress.

In 2016, we entered a collaboration with Therawis Diagnostics GmbH to develop and
- oncology. An initial project is to commercialize an assay for PITX2 as a biomarker to
treatment in triple negative and other high-risk breast cancer patients, an area of high

QIAGEN also began a collaboration with HTG Molecular Diagnostics, Inc. (HTG), to
- solution for developing of companion diagnostics with Pharma companies, with a foc
includes assay development, commercialization and manufacturing. QIAGEN also m

QIAsymphony delivering platform growth as content menu expands:

- QIAGEN achieved our 2016 goal of surpassing 1,750 cumulative placemen
QIAsymphony platform, up from 1,500 at the end of 2015. The QIAsymph
to Insight automation for medium-throughput molecular testing workflows
expanding content menus drove our 2016 growth in consumables.

In 2016, QIAGEN made the QIAsymphony SP instrument available as a front-end op
GeneReader NGS System, adding highly automated, higher throughput sample volun
• first complete Sample to Insight solution for NGS. The NGS workflow now integrate
enabling laboratories outside the United States to perform sample processing of diffe
continuous loading, random access and greater speed for demanding environments.

- To enhance the QIAsymphony platform's value to customers worldwide, QIAGEN co
- development projects for regulator-approved molecular diagnostics to run on the plat
- Testing content.
- The QIAsymphony platform serves all of our customer classes: Approximately 60% o
- Diagnostics, and 40% are in the Life Sciences with Applied Testing, Pharma and Aca
- Industry-leading bioinformatics turning raw genomic data into valuable insights:
- QIAGEN’s broad offering of content-enabled software, the leading portfolio of bioin
- valuable insights from sequencing data, continues to grow as a standalone franchise.
- driver for Sample to Insight workflows across all platforms and applications. Our bio
- genomic data into actionable insights for customers, addressing a critical bottleneck i
- especially for clinical research and diagnostics. We continue to roll out new solutions
- and healthcare and to integrate rich bioinformatics with QIAGEN’s molecular testing
- In January 2017, QIAGEN acquired OmicSoft Corporation to expand our offering wi
- visualize and mine large institutional and publicly available “omics” datasets, in addi
- literature-based datasets marketed by QIAGEN. The OmicSoft solutions meet a grow
- research to access and manage huge amounts of data on DNA, RNA and other variab
- sequencing.
- The unique RNA-seq Explorer Solution, a bioinformatics-driven approach to analysis
- data from liquid biopsies, was introduced in 2016. RNA-seq Explorer integrates QIA
- software solutions to generate clear insights for research into the detection, diagnosis
- QIAGEN also enhanced our research workflow for hereditary and rare diseases, targe
- with capabilities using liquid biopsies for non-invasive prenatal testing (NIPT) and ca
- In 2016, we partnered with lab informatics company Genohm to empower GeneRead
- data management by integrating our genomic workflow with their laboratory informa
- GeneRead Link, a middleware co-developed by the two companies, provides full con
- workflows with the leading LIMS systems.
- QIAGEN pursues collaborations and linkages across the genomics and bioinformatic
- access possible to insights for research and diagnostics. In 2016, we offered our Here
- plugin to implement the Broad Institute’s GATK best practices, the gold standard for
- Biomedical Genomics Workbench software. For microbiome researchers, we partner
- big data company, in the launch of a metagenomics analysis plug-in for the QIAGEN
- CLC Genomics Workbench.
- In 2016, we announced collaborations to combine our industry-leading genome analy
- solutions from tech leaders Intel and BioTeam, aiming to create infrastructure solutio
- analysis feasible for more researchers. Both projects are in development for use in ma
- data from NGS research.
- Targeted actions improving efficiency and increasing returns to shareholders
- In 2016, QIAGEN announced initiatives to return $300 million in capital to shareholo
- announced a series of targeted restructuring actions to improve efficiency and profita
- momentum, after a period of investment to support QIAGEN's transformation as a m
- The commitment to return $300 million in cash to QIAGEN shareholders included a
- completed in January 2017. This transaction returned about $244 million to shareholo
- capital repayment with a reverse stock split. QIAGEN intends to return the balance o
- through open-market share repurchases during 2017.
- Restructuring actions initiated in the fourth quarter of 2016 include closing the site in
- certain activities in Hombrechtikon, Switzerland; expanding the use of shared service
- excellence to consolidate activities; streamlining selected organizational structures to
- global and regional marketing teams; and optimizing sales channels to better engage
- of digital technologies. A pre-tax restructuring charge of $79.1 million ($0.24 per sha
- approximately $42.4 million of non-cash items, was recorded in the fourth quarter of

approximately $10 million (or about $0.03 per share after taxes) are expected during
Our Products

QIAGEN leverages our leadership in Sample to Insight solutions for molecular testing and customer classes. We provide more than 500 core consumable products (sample a that automate the use of these products. Our bioinformatics solutions connect laborato amounts of genomic data, reporting relevant insights to enable scientists or clinicians QIAGEN's diverse revenue streams can be seen in two main categories: consumables platforms and instruments.

Consumables and related revenues

Consumable products, accounting for approximately 79%-80% of net sales, typically and purify molecules of interest from biological samples and assay technologies that molecules available for analysis and interpretation. To maximize customer convenien contain all necessary reagents and a manual of protocols and background information use and cost-effectiveness are keys to the success of molecular testing products.

QIAGEN's differentiated sample technologies ensure that each biological sample is p standardized method with the highest quality. A broad range of kits support applicatio RNA purification and stabilization, genomic and viral nucleic acid purification, DNA target enrichment, and library preparation for sequencing. For example, in 2016 we in and library preparation kits adding to our global leadership in solutions for minimally expanded our portfolio of solutions for processing difficult samples in research into th

Our assay technology solutions contain all the needed reagents to enable customers to detection on platforms supporting PCR, NGS or multimodal analysis. Each assay kit i applications, varying from a single application to kits containing more than 1,000 app open, general-purpose PCR reagents, as well as kits for the detection of specific viral humans and animals, pharmacogenomic testing and genotyping. In PCR, examples ar diagnostics, artus line for profiling infectious diseases, and investigator assays for for our GeneGlobe portal gives customers access to a vast portfolio of predesigned assays panels enable sequencing to identify DNA or RNA variants relevant to clinical or rese diseases. In 2016 we launched a comprehensive portfolio of universal QIAseq kits wi to run on any NGS platform, and in early 2017 we added GeneRead QIAact lung canc growing menu of molecular content designed for the GeneReader NGS System.

Related revenues, accounting for approximately 7%-8% of our net sales, include bioin freestanding software or cloud-based solutions and also integrated into QIAGEN cons Sample to Insight workflows. Examples of our bioinformatics solutions:

Ingenuity Variant Analysis, a powerful cloud-based platform tapping into the QIAGE from NGS analysis to efficiently filter genetic variants and interpret links to diseases.

QIAGEN Clinical Insight, a unique evidence-based decision support solution, draws deliver clinically relevant insights from complex genomic variants identified in NGS.

CLC Genomics Workbench incorporates cutting-edge technology and algorithms to c in analyzing and visualizing data from all major NGS platforms.

GeneGlobe, a web-based portal, enables researchers to search and select gene- and pa approximately 25 million pre-designed and custom PCR assay kits, NGS assay panels

Related revenues also include royalties, milestone payments from co-development ag companies, payments from technology licenses and patent sales, and custom services, services, DNA sequencing, and non-cGMP DNA production on a contract basis.

Automation platforms and instruments

Our instrumentation systems, contributing approximately 12%-13% of net sales toget automate the use of consumables into efficient workflows for a broad range of laborat designed to carry our customers from Sample to Insight - handling and preparation of sequencing technologies, and interpretation that delivers valuable insights. These inst reliable and reproducible processes, including nucleic acid sample preparation, assay interpretation of genomic information. Often several of these instruments are integrat

Among the automation platforms that contribute to QIAGEN's business:

25

QIAsymphony is an easy-to-use modular system that has launched a new era of integ
automation, making molecular testing more efficient and helping to disseminate stand
diagnostics. Our fully integrated QIAsymphony RGQ, launched in 2010, includes thr
sample preparation, QIAsymphony AS for assay setup, and our real-time PCR platfor
module, the world's first rotary real-time PCR cycler system, makes sequences of DN
amplification and quantifiable. In 2016, our installed base increased to more than 1,75
more than triple the number at the end of 2011. The platform offers many features to
continuous loading, random access and the ability to process an almost unlimited rang
the broadest content menu in its category in Europe and other markets, and QIAGEN
assays to add value for customers.

GeneReader NGS System, introduced in late 2015, is the first complete Sample to Ins
(NGS) solution designed for any laboratory to deliver actionable results. This end-to-
cost-effective way for basic and translational research to take advantage of NGS techn
GeneReader workflow offers the flexibility of scalable batch sizes and continuous loa
customers can create relevant reports using QIAGEN's proven gene panels and bioinf
out several expansions in the GeneReader system’s capabilities, including use with no
to tissue samples; sample and library preparation with either QIAcube or QIAsympho
technology for control of the analysis and reliable detection of extremely rare mutatio
information management systems (LIMS).

Modaplex is a multimodal automation system integrating amplification, capillary elec
quantification of multiple targets in a single reaction. This innovative platform allows
targets and different types of assays, to run simultaneously in a single well.

QIAcube robotic workstations provide highly versatile solutions for automated sampl
for purification of DNA, RNA and proteins. Seamless integration of sample prep free
enabling laboratories to increase productivity and achieve standardized results in anal
is available in a standard and high-throughput version.

EZ1 Advanced XL performs automated nucleic acid purification for many sample typ
identity testing, forensics, biomedical research, and gene expression analysis.

QIAxcel replaces traditional slab-gel analysis, eliminating time-consuming nucleic ac
high-throughput labs and offering unprecedented sensitivity and time-to-results for an

QIAscout, a small benchtop instrument that enables researchers to efficiently select an
analysis with NGS, PCR or other methods. QIAscout was launched in 2016.

PyroMark, a high-resolution detection platform with Pyrosequencing technology, ena
quantification of genetic mutations and DNA methylation patterns to identify variatio
and pathogen detection, or conduct epigenetic research.

QIAgility is a compact benchtop instrument that enables rapid, high-precision PCR se
plate formats, as well as Rotor-Discs for the Rotor-Gene Q.

ESEQuant portable, battery-operated instruments enable optical measurement for Poi
healthcare and other applications, particularly in physician practices, emergency room
with limited or delayed access to laboratories.

Customers

From the early days of the biotechnology revolution, QIAGEN believed that innovati
samples and the analysis of nucleic acids would play an increasingly important role in
insights extracted from DNA and RNA would be increasingly valuable in research, in
With a growing portfolio of innovative products for molecular testing, we have built o
life science value chain. Discoveries often surface in universities and research institut
resources for development by pharmaceutical and biotech companies, and finally mov
healthcare and other areas of life. We serve the needs of four major customer classes:

- Molecular Diagnostics - healthcare providers engaged in patient care including hospit
reference laboratories and physician practices

- Applied Testing - government or industry customers using molecular technologies in diagnostics and food safety testing

- Pharma - pharmaceutical and biotechnology companies using molecular testi translational medicine and clinical development efforts
- Academia - researchers exploring the secrets of life such as disease mechanism translating findings into drug targets or other products

Molecular Diagnostics

The ability of advanced diagnostic technologies to unlock molecular information for p medicine, creating a large and growing market for nucleic acid sample preparation, as clinical care. Dissemination of PCR and other amplification technologies has brought in healthcare around the world, and next-generation sequencing is rapidly disseminati Technologies for molecular diagnostics enable clinicians and labs to identify and prof bacteria and viruses by detecting their specific nucleic acid sequences or characterizin sequences related to diseases. Commercial applications are multiplying as researchers disease and develop novel technologies to decipher these diagnostic clues.

The molecular diagnostics market generates total sales estimated by industry experts a including about $3-4 billion potentially addressable with QIAGEN's product portfolio dynamic segment of the global in vitro diagnostics market and is growing at a compo single-digits or low double-digits. Given the advantages of precise genetic informatio expects the healthcare market to continue to provide significant growth opportunities.

In QIAGEN’s robustly growing Molecular Diagnostics business we focus on three pr Oncology - accurately diagnosing cancer, enabling prevention or early detection, and individualized molecular insights. QIAGEN offers a broad portfolio of companion dia mutations of genes such as KRAS, EGFR, BRAF and others that influence the efficac provide industry-leading tests used in screening women for human papillomavirus (H Infectious diseases - detecting and differentiating a broad range of viral and bacterial HIV, hepatitis and healthcare-associated infections. Use of molecular testing to differ in guiding treatment, such as selection of antibiotic or antiviral therapies.

Immune monitoring - using advanced technologies that detect immune-system marke screening patients for latent TB infection to guard against active TB disease, as well a such as in transplantation patients.

QIAGEN offers one of the broadest portfolios of molecular technologies for healthca depends on the ability to accurately analyze purified nucleic acid samples from source and stool, on automated systems that process these samples very reliably and efficient concurrently. Other key factors are the range of assays for diseases and biomarkers, c workflow, and reliability and standardization of lab procedures.

Our QuantiFERON-TB Gold and QuantiFERON-TB Gold Plus tests lead the industry tuberculosis (TB), the largest killer of any infectious disease. The World Health Orga 10.4 million new active TB cases in 2015 and 1.8 million deaths, including 0.4 millio persons. An estimated one-third of the global population is infected with tuberculosis disease, a condition known as latent TB infection (LTBI). Up to 10% of patients with contagious TB disease during their lifetime. Particularly vulnerable groups include im receiving immunosuppressive drugs. The QuantiFERON-TB tests detect latent TB inf decisions to initiate preventative therapy in order to avoid progression to active TB. T TB infection testing is estimated at up to $1 billion.

QIAGEN also is the global leader in screening technologies for HPV, a viral infection cancer, which kills about 270,000 women a year. Our “gold standard” digene HC2 HP low-resource regions lead the market in HPV screening around the world. In the Unite leader although vigorous price competition has reduced that business to about 3% of c regions, we are a leader in a growing HPV market based on clinical evidence and poli cancer. In 2016, we launched a follow-up diagnostic test for women at risk of develop QIAsure Methylation Test stratifies cervical cancer risk by detecting and measuring D

QIAGEN's oncology test portfolio includes a broad range of Personalized Healthcare
including regulator-approved companion diagnostics for oncogenes such as KRAS an
gene panels for research applications in next-generation sequencing. In 2016, we laun
PCR Kit in Europe, a

unique CE-IVD marked assay for use in blood cancers known as myeloproliferative n
synergistic with our European market-leading ipsogen JAK2 RGQ PCR Kit for use in
As the world's leading independent developer of molecular technologies, QIAGEN is
pharmaceutical and biotech companies to develop and commercialize companion diag
the only company offering PCR and NGS technology. In 2016, we initiated additiona
existing and new partners and surpassed a milestone of 20 master collaboration agree
These partnerships add to our pipeline of companion diagnostics to be commercialize
and regulatory approvals along with the drugs.
QIAGEN also offers an extensive range of kits for diagnosing infectious diseases, and
seeking regulatory approvals of new tests in additional markets.
A key element of our expansion in Molecular Diagnostics is enabling laboratories to e
on QIAGEN automation platforms. Our flagship PCR platform is QIAsymphony, bas
capabilities. We offer broad portfolios of companion diagnostics and infectious diseas
system. We also are developing companion diagnostics for our GeneReader NGS Sys
acid samples purified on our instruments are ready for use in the demanding and sensi
molecular diagnostic applications. We market assays directly via QIAGEN sales chan
major diagnostic partners or other companies to broaden the distribution of our produ
Applied Testing
Use of molecular technologies is expanding in more areas of life as industry and gove
standardized Sample to Insight solutions to diverse needs. Applied Testing is our term
healthcare and research - such as human identification and forensics, food and enviro
The value of genetic "fingerprinting" has been shown for criminal investigations or cl
public policy compliance for food safety and genetically modified organisms (GMOs)
commercial livestock. Molecular testing can be performed by well-trained researchers
increasingly also by less-trained personnel provided with easy-to-use, reproducible an
Need testing.
QIAGEN has developed relationships with molecular testing laboratories and continu
fields. In 2016, we launched automated high-throughput solutions to serve the growin
reference samples for law enforcement databases. QIAGEN also entered a collaborati
on Missing Persons to develop and validate a complete NGS solution, including the C
the ability to identify missing persons. Also, manufacturing of our investigator kits fo
met the newly published international standards for forensics. In environmental resear
metagenomics gained visibility in 2016 and are increasingly used in studies of microb
Pharma
QIAGEN has deep relationships with pharmaceutical and biotechnology companies. I
research efforts increasingly employ genomic information, both to guide research in d
populations most likely to respond to particular therapies. We estimate that about half
class support research, while the other half supports clinical development, including s
based on genetic information. QIAGEN's bioinformatics solutions also are widely use
As new drugs are commercialized, testing technologies developed in parallel with tho
R&D into the healthcare market as companion diagnostics, which QIAGEN markets i
class. Healthcare providers use companion diagnostics to test for specific genetic biom
efficacy profiles of drugs in individual patients, achieving the best possible outcomes
A wave of newly discovered biomarkers and companion diagnostics has begun to tran
other diseases.
In addition to the broad portfolio of molecular technologies, QIAGEN brings to the P
co-development programs, intellectual property on platforms and content, extensive re
reach, and independence as a company focusing exclusively on these types of technol
Academia

QIAGEN provides Sample to Insight solutions to leading research institutions around
laboratories continue to use manual, labor-intensive methods for nucleic acid separati
focused on enabling labs to replace time-consuming traditional methods with reliable
high-quality nucleic acid extraction and purification technologies. QIAGEN often par
research projects.

As academic institutions increasingly embrace translational research, bridging from d

medicine, our relationships in Academia also support our presence in the Molecular D
classes. Research in university settings often helps in the development of specific tech
and academic research also can result in scientific publications that validate the usefu
specific applications.

Global Presence by Category of Activity and Geographic Market

Product Category Information

Net sales for the product categories are attributed based on those revenues related to s
similarly related revenues including bioinformatics solutions, and revenues derived fr

| (in thousands) | 2016 | 2015 | 2014 |
|---|---|---|---|
| Net Sales | | | |
| Consumables and related revenues | $1,166,131 | $1,114,580 | $1,172,728 |
| Instrumentation | 171,860 | 166,406 | 172,049 |
| Total | $1,337,991 | $1,280,986 | $1,344,777 |

Geographical Information

QIAGEN currently markets products in more than 130 countries. The following table
market for the past three years (net sales are attributed to countries based on the locati
subsidiaries have international distribution):

| (in thousands) | 2016 | 2015 | 2014 |
|---|---|---|---|
| Net Sales | | | |
| Americas: | | | |
| United States | $555,676 | $525,532 | $543,877 |
| Other Americas | 71,797 | 79,578 | 75,974 |
| Total Americas | 627,473 | 605,110 | 619,851 |
| Europe, Middle East and Africa | 428,055 | 409,955 | 451,092 |
| Asia Pacific and Rest of World | 282,463 | 265,921 | 273,834 |
| Total | $1,337,991 | $1,280,986 | $1,344,777 |

QIAGEN has built an increasing presence in key emerging markets as a growth strate
markets - Brazil, Russia, India, China, South Korea, Mexico and Turkey - contributed

Growth Drivers and Key Catalysts

We believe the addressable global market totals approximately $8 billion for QIAGE
products for customers across the continuum of life science research and molecular di
long-term growth are ongoing breakthroughs and insights into molecular biology, the
sequencing, bioinformatics to analyze and interpret molecular information, use of dia
and reduce costs, and revenue streams made possible through consumable products.

We have grown substantially with a flexible strategy to accelerate innovation and gro
platforms, consumables and bioinformatics products, partnering with researchers and
companies or technologies to complement our portfolio.

We are building momentum by continuing to focus on strategic growth drivers and ke

1. Differentiated Core technologies: Our growing portfolio of Sample to Insight soluti
global leadership in technologies to extract and isolate DNA and RNA from biologi
sample technologies with innovative workflows to enable “liquid biopsies” and cutt
next-generation sequencing.

2. QuantiFERON-TB: As the modern standard for detecting latent tuberculosis infecti
control by screening subpopulations of at-risk patients. In 2016, our fourth-generati
which provides additional insights for patients at greatest risk, gained momentum in
submitted it for FDA approval.

3. Next-generation sequencing: Our strategic initiative to drive NGS adoption in clinic momentum in 2016 with growing adoption of our innovative GeneReader NGS Sys cost-effective way for laboratories to take advantage of NGS technology and impro "universal" solutions for NGS users also is growing rapidly.

4. Personalized Healthcare: We continue to develop and introduce companion cancer and other diseases, as well as innovative sample technologies to sup leading partner for pharmaceutical companies in co-developing tests paired

5. QIAsymphony: We are driving global adoption of the QIAsymphony automation pl cumulative placements in 2016, and expanding the content menu of test kits for the placements and the broad menu of innovative consumables, together, drive sales gr

6. Bioinformatics: Our industry-leading bioinformatics portfolio is growing rapidly as seek solutions for handling huge amounts of genomic data. In 2016, we expanded o for basic and clinical research in oncology and rare inherited diseases, as well as me We continue to integrate bioinformatics with QIAGEN products to create Sample to

Research and Development

We are committed to expanding our global leadership in Sample to Insight solutions f the life sciences. Our strategy for managing innovation focuses on addressing the mos scientific needs. We target our resources to develop promising technologies for use by Diagnostics, Applied Testing, Pharma and Academia - and to meet the needs of clinic markets.

Innovation at QIAGEN follows parallel paths:

- Creating new systems for automation of workflows - platforms for laboratories, hospi molecular technologies.
- Expanding our broad portfolio of novel "content" - including assays to detect and me identification.
- Integrating bioinformatics with the testing process - software and cloud-based resourc molecular data into useful insights.

As a percentage of sales, our research and development investments are among the hi employees in research and development work in QIAGEN centers of excellence on th intellectual property portfolio encompasses approximately 2,200 granted patents and Strengthening our leadership in the automation of laboratories is a key to driving diss healthcare and other fields, as well as generating increased demand for our consumab modular QIAsymphony platform, enabling hospitals and other customers to adopt or diagnostics. QIAGEN also is rolling out a range of performance enhancements and ex System to add value by addressing new applications and improving output and conne We are commercializing a deep pipeline of assays for preventive screening and diagn biomarkers to guide personalized medicine in cancer and other diseases, and a broad development program generates commercial launches of tests that add value to our Q NGS platforms. In 2016, we launched a comprehensive portfolio of QIAseq panels w unbiased, accurate quantification of DNA, RNA and miRNA, compatible any next-ge Applied Testing, we continue to develop new content for human identification, food s are also expanding our extensive portfolio of products for disease pathway research b addition, we are developing assays for specific applications in key markets such as Ch Our bioinformatics teams are developing new software solutions and adding proprieta latest research and clinical trends in molecular testing, especially the interpretation of next-generation sequencing. In addition, we are integrating these digital technologies content to provide our customers seamless Sample to Insight workflows.

Sales and Marketing

We market our products in more than 130 countries, mainly through subsidiaries in m greatest sales potential in the Americas, Europe, Australia and Asia. Experienced mar

scientists with academic degrees in molecular biology or related areas, sell our produc
customers. Key accounts are overseen by business managers to ensure that we serve c
procurement processes,

financing, data on costs and value of our systems, and collaborative relationships. In
independent distributors and importers.

Our marketing strategy focuses on providing differentiated, high-quality products acr
Insight, when possible, integrating components into end-to-end solutions, and enhanc
technical excellence and customer service. Our “omni-channel” approach seeks to eng
channels - online, by phone, in person, etc. – and to optimize investment in different
Digital channels - including our website (www.qiagen.com), product-specific sites an
actions to drive the growth of digital commercialization channels. Our website makes
online product catalog and ordering. The site can be viewed in Chinese and Japanese,
in French, German and Korean. Our eCommerce team works with clients to provide a
variety of electronic transactions and all major eProcurement systems. Information co
through it, is not part of this Annual Report.

Our GeneGlobe Genes & Pathways web portal (www.geneglobe.com) is a valuable o
Academia, enabling researchers to search and order from approximately 25 million pr
kits, NGS assay panels and other products. We have integrated GeneGlobe with our b
biological interpretation with ordering of relevant assays to accelerate research.

QIAGEN uses a range of tools to provide customers with direct access to technical su
offerings, and enhance our reputation for technical excellence, high-quality products a
example, our technical service hotline allows existing or potential customers to discus
products and molecular biology procedures, online or via phone, with Ph.D. and M.Sc
communication with customers enables us to identify market needs, learn of new dev
respond with new products.

We also distribute publications, including our catalog, to existing and potential custom
product information, updates, and articles about existing and new applications. In add
seminars at clinical, academic and industrial research institutes worldwide. We condu
announce new products and special promotions, and we offer personalized electronic
biology applications.

For laboratories that frequently rely on our consumables, the QIAstock program main
their requirements. QIAGEN representatives make regular visits to replenish the stock
automating this process with digital technologies. Easy-to-use online ordering, invent
changes make QIAstock an efficient system for providing ready access to our product
worldwide who use this program.

Seasonality

Our business does not experience significant, predictable seasonality. Historically, a s
been to researchers, universities, government laboratories and private foundations wh
from government agencies, such as the National Institutes of Health and similar bodie
experience increases, decreases or delays in funding arrangements and budget approv
customers' activities are slowed, such as during times of higher unemployment, vacati
government budgets, we may experience fluctuations in sales volumes during the yea
in the recognition of sales.

Intellectual Property, Proprietary Rights and Licenses

We have made and expect to continue to make investments in intellectual property. In
assets totaled $19.4 million. While we do not depend solely on any individual patent
dependent in the aggregate on technology that we own or license. Therefore, we cons
technologies and products one of the major keys to our business success. We rely on a
trademarks to establish and protect proprietary rights. As of December 31, 2016, we
States, 241 issued patents in Germany and 1,613 issued patents in other major industr
patent applications. Our policy is to file patent applications in Western Europe, the U
have a term of 17 years from the date of issue (for patents issued from applications su
years from the date of filing (in the case of patents issued from applications submitted

most other countries have a term of 20 years from the date of filing the patent applica
prosecute and enforce patents and to otherwise protect our proprietary technologies. V
know-how, continuing technological innovation and licensing opportunities to develo
position.

Our practice is to require employees, consultants, outside scientific collaborators, spo
to execute confidentiality agreements upon commencement of their relationships with

confidential information developed by or made known to the individual during the co
confidential and not disclosed to third parties, subject to a right to publish certain info
certain circumstances and to other specific exceptions. In the case of our employees, t
inventions conceived by individuals in the course of their employment will be our exc
See “Risk Factors” included in Item 3 above for details regarding risks related to our

Competition

In the Academic and Pharma markets, we believe our primary competition in sample
traditional separation and purification methods, such as phenol extraction, cesium chl
and precipitation. These methods utilize widely available reagents and other chemical
Merck KGaA (MilliporeSigma business). and Roche Diagnostics GmbH (Applied Sc
these methods through innovative technologies and products, offering a comprehensiv
pre-treatment, separation and purification needs and providing significant advantages
reproducibility and ease of use.

We also experience competition in various markets from other companies providing s
and assay solutions. These competitors include, but are not limited to, Promega Corp.
and Macherey-Nagel GmbH for nucleic acid separation and purification; Thermo Fish
solutions and for transfection reagents; and Sigma-Aldrich Corp. and Thermo Fisher
believe our proprietary technologies and products offer significant advantages over co
purity, speed, reliability and ease-of-use.

Some of our other products within our molecular diagnostics customer class, such as
hepatitis B virus, herpes simplex virus and CMV, compete against existing screening,
technologies, including tissue culture and antigen-based diagnostic methodologies. O
diagnostic probes include Roche Diagnostics, Abbott, Siemens, Cepheid and Hologic
factors in the market for gene-based probe diagnostics and other screening devices are
reliability, ease of use, standardization, cost, proprietary position, competitors' market
channels, regulatory approvals and reimbursement.

We do not believe our competitors typically have the same comprehensive approach t
or the ability to provide the broad range of technologies and depth of products and ser
range of manual and fully automated solutions, we believe we offer the value of stand
therefore, more reliable results. We also believe our integrated strategic approach give
quality of sample technologies-an area in which we have a unique market and leaders
reliable molecular assay solutions, which increasingly are being applied in emerging
and Applied Testing.

Current and potential competitors may be in the process of seeking FDA or foreign re
products. Our continued future success will depend in large part on our ability to mai
competing products, expand our market presence and preserve customer loyalty. Ther
able to compete effectively in the future or that development by others will not render
non-competitive.

Suppliers

As part of our quality assessment procedures, we periodically evaluate the performan
suppliers, potential new alternative sources of such materials and components, and th
existing suppliers. We buy materials for our products from many suppliers, and are no
group of suppliers for our business as a whole. Raw materials generally include chem
plastics and packaging. Raw materials are generally readily available at competitive,
suppliers. Certain raw materials are produced under our specifications, so we closely
adequate supplies. We believe we maintain inventories at a sufficient level to ensure
to guard against normal volatility in availability.

Government Regulations

We are subject to a variety of laws and regulations in the European Union, the United
and scope of the regulation varies depending on the country or defined economic regi

things, the research, development, testing, clinical trials, manufacture, storage, record
and commercial sales and distribution, of many of our products.

European Union Regulations

In the European Union, in vitro diagnostic medical devices (IVDs) are regulated unde
Directive) and corresponding national provisions. The IVD Directive requires that me
requirements set out

in an annex of the directive. These requirements include the safety and efficacy of the
Directive, the Member States presume compliance with these essential requirements i
conformity with the relevant national standards transposing the harmonized standards
been published in the Official Journal of the European Communities. These harmoniz
the quality standard for medical device manufacturers.
IVD medical devices, other than devices for performance evaluation, must bear the C
are placed on the market. The CE mark is a declaration by the manufacturer that the p
provisions of the relevant legislation implementing the relevant European Directive. A
must follow the procedure of the EC Declaration of conformity to obtain this CE mar
Each European country must adopt its own laws, regulations and administrative provi
IVD Directive. Member States may not create any obstacle to the placing on the mark
their territory of devices bearing the CE marking according to the conformity assessm
2012, the European Commission (EC) adopted a proposal for new EU regulations for
finalized will impose additional regulatory requirements on IVDs used in the EU. The
signed into law in early 2017 with a 5 year implementation requirement. Once implem
will have to comply with the new requirements.
Other Country Specific Requirements
In many countries outside of the United States and the EU, coverage, pricing and rein
required. Additionally, many of the major markets are adopting regulations and requi
Administration (FDA) which require additional submission activities and managemen
requirements.
We are also required to maintain accurate information and control over sales and distr
the purview of the Foreign Corrupt Practices Act, its books and records provisions an
U.S. Regulations
In the United States, in vitro diagnostic kits are subject to regulation by the FDA as m
approved before they can be marketed. Failure to comply with applicable U.S. require
variety of administrative or judicial sanctions, such as FDA refusal to approve pendin
recalls, product seizures, total or partial suspension of production or distribution, inju
criminal prosecution. In addition, some of our test kits are sold for research use only i
promote these tests for clinical diagnostic use, and they are labeled “For Research Us
FDA.
In Vitro Diagnostics
The FDA regulates the sale or distribution of medical devices, including in vitro diagn
Developed Tests (LDTs). The information that must be submitted to the FDA in orde
market a new medical device varies depending on how the medical device is classifie
classified into one of three classes on the basis of the controls deemed by the FDA to
safety and effectiveness. Class I devices are subject to general controls, including labe
adherence to the FDA’s quality system regulations, which are device-specific good m
are subject to general controls and special controls, including performance standards a
devices are subject to most of the previously identified requirements as well as to pre-
are exempt from premarket review; most Class II devices require 510(k) clearance, an
premarket approval before they can be sold in the United States. The payment of a fee
to the FDA is usually required when a 510(k) notice or premarket approval applicatio
510(k) Premarket Notification. A 510(k) notification requires the sponsor to demonstr
substantially equivalent to another marketed device, termed a “predicate device”, that
and for which a premarket approval application (PMA) was not required. A device is
device if it has the same intended use and technological characteristics as the predicat
different technological characteristics, where the information submitted to the FDA d
and effectiveness and demonstrates that the device is at least as safe and effective as t

The FDA generally issues a decision letter within 90 days of receipt of the 510(k) if it first action letter requesting additional information within 75 days. Most 510(k)s do n but a minority will. Requests for additional data, including clinical data, will increase notice. If the FDA believes that the device is not substantially equivalent to a predicat Substantially Equivalent" letter and designate the device as a Class III device, which approval of a PMA before the new

device may be marketed. Under certain circumstances, the sponsor may petition the F
determination of the new device and reclassify the new device as a Class I or Class II
reevaluate the 510(k) review process, and we cannot predict what if any changes will
Premarket Approval. The PMA process is more complex, costly and time consuming
be supported by more detailed and comprehensive scientific evidence, including clini
efficacy of the medical device for its intended purpose. If the device is determined to
may not begin a clinical trial until it submits an investigational device exemption (IDE
begin the trial.

After the PMA is submitted, the FDA has 45 days to make a threshold determination
to permit a substantive review. If the PMA is complete, the FDA will file the PMA. T
goal review time for a PMA that is 180 days from the date of filing, although in pract
Questions from the FDA, requests for additional data and referrals to advisory commi
considerably. The total process may take several years and there is no guarantee that t
if approved, the FDA may limit the indications for which the device may be marketed
clinical data as a condition of approval or after the PMA is approved. Any changes to
supplemental PMA to be submitted and approved before changed medical device may

Any products sold by us pursuant to FDA clearances or approvals will be subject to p
the FDA, including record keeping requirements, reporting of adverse experiences wi
on the advertising and promotion of our products. Device manufacturers are required
their devices with the FDA and are subject to periodic inspections by the FDA and ce
with applicable FDA requirements can result in, among other things, warning letters,
recalls or seizures of products, total or partial suspension of production, refusal of the
PMA approval for new devices, withdrawal of 510(k) clearances and/or PMA approv

Regulation of Companion Diagnostic Devices

If a sponsor or the FDA believes that a diagnostic test is essential for the safe and effe
therapeutic product, the sponsor of the therapeutic product will typically work with a
companion diagnostic device, or IVD. IVDs are regulated by the FDA as medical dev
document in 2014, entitled “In Vitro Companion Diagnostic Devices” that is intended
companion diagnostic devices and companies developing therapeutic products that de
companion diagnostic for the safe and effective use of the product. The FDA defined
as a device that provides information that is essential for the safe and effective use of

The FDA expects that the therapeutic sponsor will address the need for an approved c
device in its therapeutic product development plan and that, in most cases, the therape
IVD companion diagnostic will be developed contemporaneously.

It also issued a draft guidance on July 15, 2016, entitled, “Principles for Codevelopme
Diagnostic Device with a Therapeutic Product” to serve as a practical guide to assist t
sponsors in developing a therapeutic product and an accompanying IVD companion d

The FDA indicated that it will apply a risk-based approach to determine the regulator
diagnostic devices, as it does with all medical devices. This means that the regulatory
risk to patients, based on the intended use of the IVD companion diagnostic device an
reasonable assurance of safety and effectiveness. The two primary types of marketing
clearance of a premarket notification under Section 510(k) of the Federal Food, Drug,
approval of a premarket approval application, or PMA. We expect that any IVD comp
use with our drug candidates will utilize the PMA pathway and that a clinical trial per
exemption, or IDE, will have to be completed before the PMA may be submitted.

The FDA expects that the therapeutic sponsor will address the need for an IVD compa
therapeutic product development plan and that, in most cases, the therapeutic product
diagnostic device will be developed contemporaneously. If the companion diagnostic
treatment decisions such as patient selection, treatment assignment, or treatment arm,
significant risk device for which a clinical trial will be required.

The sponsor of the IVD companion diagnostic device will be required to comply with
apply to clinical trials of significant risk devices. If the diagnostic test and the therape
support their respective approvals, the clinical trial must meet both the IDE and IND

PMAs must be supported by valid scientific evidence, which typically requires extens
preclinical, clinical and manufacturing data, to demonstrate to the FDA's satisfaction
device. For diagnostic tests, a PMA typically includes data regarding analytical and c
review of the PMA, the FDA will conduct a pre-approval inspection of the manufactu
compliance with the Quality System Regulation, or QSR, which requires manufacture
documentation and other quality assurance procedures. FDA review of an initial PMA
complete.

If the FDA evaluations of both the PMA and the manufacturing facilities are favorabl
approval order or an approvable letter, which usually contains a number of conditions
final approval of the PMA. If the FDA's evaluation of the PMA or manufacturing fac
send the applicant a not approvable letter or an order denying approval. A not approva
in the application and, where practical, will identify what is necessary to make the PM
determine that additional clinical trials are necessary, in which case the PMA approva
years while the trials are conducted and then the data submitted in an amendment to t
may be withdrawn by the FDA if compliance with post approval requirements, condit
standards is not maintained or problems are identified following initial marketing.

After approval, the use of an IVD companion diagnostic device with a therapeutic pro
instructions for use in the labeling of both the diagnostic device and the correspondin
diagnostic test that was approved through the PMA process or one that was cleared th
on the market will be subject to many of the same regulatory requirements that apply
approved a number of drug/diagnostic device companions in accordance with the Gui
In September 2013, the FDA issued its final rule on the Unique Device Identifier. Thi
registered identifier, including a special barcode, on all FDA regulated medical devic
with the first deadline of September 24, 2014 being established for all Class III medic
impacted the hc2, QuantiFERON, and therascreen products. We established a task for
but this will place additional administrative and regulatory burden on us related to the
these products to the new regulation. Class II and Class I products are required to hav
24, 2016 and 2018, respectively. QIAGEN was fully compliant with the new rule by t
deadlines and we continue to work to ensure that we will be able to meet the remainin
require additional compliance oversight now that it has been implemented. The requir
confirmed as part of our annual reporting and PMA submissions. They are also assess
FDA.

Some of our products are sold for research purposes in the U.S., and labeled "For Res
biology applications." In November 2013, the FDA issued a final Guidance for Indust
Staff entitled, "Distribution of In Vitro Diagnostic Products Labeled for Research Use
the Guidance, RUO refers to devices that are in the laboratory phase of development,
refers to devices that are in the product testing phase of development. These types of
regulatory controls. Because we do not promote our RUOs for clinical diagnostic use
clinical laboratories with respect to these tests, we believe that these tests are exempt
other requirements. If the FDA were to disagree with our designation of any of these
stop selling the product until we obtain appropriate regulatory clearance or approval.
RUOs may be used by some customers without our knowledge in their LDTs, which
clinical use. However, as previously noted, we do not promote these products for use
of the LDTs for clinical diagnostic use.

On October 3, 2014, the FDA published notices in the Federal Register formally anno
of a 120-day public comment period, which ended on February 2, 2015, for the Draft
Administration Staff, and Clinical Laboratories: Framework for Regulatory Oversight
(LDTs), and Docket No. FDA-2011-D-0357 for Draft Guidance for Industry, Food an
Clinical Laboratories: FDA Notification and Medical Device Reporting for Laborator
draft Guidances were withdrawn in January 2017, and replaced by an informal non-en

some of the feedback that it received from QIAGEN and other companies and industr
assess the potential impact of the discussion paper on the issuance of any new draft G
executive task force that is monitoring and participating in the draft process to insure
developments in this area.

HIPAA and Other Privacy and Security Laws

Numerous privacy and data security laws apply to personal information, including hea
their application. For example, the Health Insurance Portability and Accountability A
Information Technology for Economic and Clinical Health Act, and their implementi
uses,

disclosures and security of identifiable health information (protected health informati
health care providers, health plans or health care clearing houses (covered entities). H
entities' uses and disclosures of PHI and requires the implementation of administrativ
keep PHI secure. HIPAA also applies to organizations that create, receive, maintain o
for or on behalf of covered entities (business associates). Business associates and cert
to comply with certain privacy and all of the security standards of HIPAA. Business a
also comply with breach notification standards established by HIPAA. The HIPAA br
covered entities to notify affected individuals, the government, and in some cases, loc
breach of PHI that has not been secured by encryption. The breach notification standa
notify covered entity customers of their own breaches of unsecured PHI so that the re
required notifications. If we were to act as a HIPAA covered entity or business associ
obligations.

Almost all states have adopted data breach notification laws relating to the "personal
information typically includes an individual's name or initials coupled with social sec
state-issued identification number or other information that could lead to identity thef
these laws, but most require notification to affected individuals (and some require not
event of breach. Other laws of some states require that that we comply with data secu
to us when we receive or maintain personal information regarding individuals, includ

The Genetic Information Nondiscrimination Act of 2008, also referred to as GINA, is
from discrimination in the health insurance and employment contexts because of DNA
health. GINA prohibits covered employers from requesting, obtaining, or using emplo
limited exceptions), and prohibits covered health insurers from requesting genetic inf
they may already have for purposes of making eligibility, premium, or coverage-relat

Many states have also adopted genetic testing and privacy laws. These laws typically
genetic testing as well as consent for the disclosure of genetic test results and otherwi
testing results. A few states have adopted laws that give their residents property rights
our institutional and physician customers are covered entities under HIPAA and must
de-identify information so that we may provide services. When PHI is de-identified in
disclosure of PHI is authorized by a patient, HIPAA does not impose any compliance
use and disclosure of the information may be limited by contract or the terms of the a

We are subject to enforcement by state attorneys general who have authority to enforc
Accordingly, we maintain an active privacy and data security program designed to ad
requirements.

Privacy and data security laws, including those relating to health information, are con
evolving. As our activities evolve and expand, additional laws may be implicated, for
laws that impose restrictions on the transfer, access, use, and disclosure of health and
these laws impact our business either directly or indirectly. Our failure to comply with
significant changes in these laws could significantly impact our business and future b
subject to regulatory action or lawsuits in the event we fail to comply with applicable
liability in the event any of the personal information we maintain is lost or otherwise
use, access or disclosure.

Compliance with Fraud and Abuse Laws

We have to comply with various U.S. federal and state laws, rules and regulations per
including anti-kickback laws and physician self-referral laws, rules and regulations. V
are punishable by criminal and civil sanctions, including, in some instances, exclusion
healthcare programs, including Medicare and Medicaid.

Anti-Kickback Statute

The federal Anti-Kickback Statute prohibits persons from knowingly or willfully soli
remuneration, directly or indirectly, in exchange for or to induce:

- The referral of an individual for a service or product for which payment may be made
government-sponsored healthcare program; or
- Purchasing, ordering, arranging for, or recommending the ordering of, any service or
made by a government-sponsored healthcare program.

The definition of “remuneration” has been broadly interpreted to include anything of

certain discounts, waiver of payments, and providing anything at less than its fair mar
have interpreted the law to mean that if “one purpose” of an arrangement is intended t
The Anti-Kickback Statue is broad and prohibits many arrangements and practices tha
the healthcare industry. Recognizing that the Anti-Kickback Statute is broad and may
or beneficial arrangements, the Office of Inspector General of the Department of Hea
issued regulations, commonly known as "safe harbors." These safe harbors set forth c
will assure healthcare providers, including medical device manufacturers, that they w
Anti-Kickback Statute. Although full compliance with these safe harbor provisions en
Anti-Kickback Statute, full compliance is often difficult and the failure of a transactio
specific safe harbor does not necessarily mean that the transaction or arrangement is i
Anti-Kickback Statute will be pursued. However, conduct and business arrangements
applicable safe harbor may result in increased scrutiny by government enforcement au
statutory penalties for violating the Anti-Kickback Statute include imprisonment for u
to $25,000 per violation. In addition, through application of other laws, conduct that v
also give rise to False Claims Act lawsuits, civil monetary penalties and possible excl
and other federal healthcare programs. In addition to the Federal Anti-Kickback Statu
kickback laws. Often, these laws closely follow the language of the federal law, altho
scope, exceptions, safe harbors or sanctions. In some states, these anti-kickback laws
government health care program but also with respect to other payors, including comm
Other Fraud and Abuse Laws
The federal False Claims Act (FCA) prohibits any person from knowingly presenting
claim or knowingly making, or causing to made, a false statement to obtain payment f
found in violation of the FCA can be subject to fines and penalties of three times the d
plus mandatory civil penalties of between $5,500 and $11,000 for each separate false
can be brought by any individual on behalf of the government, a "qui tam" action, and
or, more commonly, as a "whistleblower," who may share in any amounts paid by the
and penalties or by way of settlement. In addition, certain states have enacted laws mo
legislative activity is expected to increase. Qui tam actions have increased significantl
numbers of healthcare companies, including medical device manufacturers, to defend
penalties or be excluded from Medicare, Medicaid or other federal or state healthcare
arising out of such actions.
The OIG also has authority to bring administrative actions against entities for alleged
including the Anti-Kickback Statute and the Stark Law. The OIG may seek to impose
from the Medicare, Medicaid and other federal healthcare programs. Civil monetary p
$50,000 for each violation or failure plus, in certain circumstances, three times the am
illegal remuneration. Typically, exclusions last for five years.
In addition, we must comply with a variety of other laws, such as laws prohibiting fal
Medicare and Medicaid, all of which can also be triggered by violations of federal ant
Portability and Accounting Act of 1996, which makes it a federal crime to commit he
statements; and the Federal Trade Commission Act and similar laws regulating advert
There are also an increasing number of state “sunshine” laws that require manufacture
governments on pricing and marketing information. Several states have enacted legisl
companies to, among other things, establish marketing compliance programs, file peri
periodic public disclosures on sales and marketing activities, and to prohibit or limit c
practices. In addition, a federal law known as the Physician Payments Sunshine Act, r
to track and report to the federal government certain payments and other transfers of v
hospitals and ownership or investment interests held by physicians and their immedia
government discloses the reported information on a publicly available website. If we
these laws or to otherwise comply with these laws, we could be subject to the penalty
federal authorities.

Environment, Health and Safety

We are subject to laws and regulations related to the protection of the environment, th
the handling, transportation and disposal of medical specimens, infectious and hazard
For example, the U.S. Occupational Safety and Health Administration (OSHA) has es
relating specifically to workplace safety for healthcare employers in the U.S. This inc
implement multi-faceted programs to protect workers from exposure to blood-borne p
and C, including preventing or minimizing any exposure through needle stick injuries
biological

materials and laboratory supplies are classified as hazardous materials and are subject
following agencies: the U.S. Department of Transportation, the U.S. Public Health Se
and the International Air Transport Association.

Reimbursement

United States

In the United States, payments for diagnostic tests come from several sources, includi
maintenance organizations and preferred provider organizations; government health p
Medicaid; and, in certain circumstances, hospitals, referring laboratories or the patien
and state governments in the United States have pursued methods to reduce the cost o
2010, the United States enacted major healthcare reform legislation known as the Pati
Act (ACA). Such changes have had, and are expected to continue to have, an impact o
payment rates are affected by across-the-board federal budget cuts commonly referred
sequestration, the Centers for Medicare & Medicaid Services (CMS), the federal agen
Medicare and Medicaid, reduced Medicare payments to providers by 2% annually beg
Code Assignment. In the United States, a third-party payor's decisions regarding cove
large part, by the specific Current Procedural Terminology, or CPT, code used to iden
Association, or AMA, publishes the CPT, which is a listing of descriptive terms and i
services and procedures. The purpose of the CPT is to provide a uniform language tha
surgical, and diagnostic services and therefore to ensure reliable nationwide communi
patients, and third-party payors.

A manufacturer of in vitro diagnostic kits or a provider of laboratory services may req
CPT code for a new product. Assignment of a specific CPT code ensures routine proc
test by both private and government third-party payors.

The AMA has specific procedures for establishing a new CPT code and, if appropriat
to incorporate a new test into an existing code. If the AMA concludes that a new code
unnecessary, the AMA will inform the requestor how to use one or more existing cod
While the AMA's decision is pending, billing and collection may be sought under an e
manufacturer or provider may decide not to request assignment of a CPT code and ins
for reimbursement purposes. However, use of such codes may result in more frequent
clinical documentation from the third-party payor and in lower reimbursement rates, v
location.

In 2012, the AMA added 127 new CPT codes for molecular pathology services that b
These new CPT codes are biomarker specific and were designed to replace the previo
molecular pathology testing, which involved “stacking” a series of non-biomarker spe
testing performed. The new CPT codes were issued final national reimbursement pric
These federal reimbursement amounts are widely acknowledged to be lower than the
outdated “stacking” method, but commercial payors and Medicare contractors are stil
coverage and reimbursement policies for the testing described by these new CPT code
experienced in the field of molecular pathology testing may soon be extending to othe
Schedule as CMS begins to base CPT laboratory code payment on third party payer ra
to Medicare Act (PAMA) passed in April 2014.

Coverage Decisions. When deciding whether to cover a particular diagnostic test, priv
generally consider whether the test is a contractual benefit and, if so, whether it is rea
or treatment of illness and injury. Most third-party payors do not cover experimental s
often are influenced by current standards of practice and clinical data, particularly at t
Medicare & Medicaid Services (CMS) which is the government agency responsible fo
has the authority to make coverage determinations on a national basis, but most Medi
the local level by contractors that administer the Medicare program in specified geogr
third-party payors have separate processes for making coverage determinations, and p
not follow Medicare's coverage decisions. If a third-party payor has a coverage deter

diagnostic test, billing for that test must comply with the established policy. Otherwis
reimbursement decisions on a case-by-case basis.

Payment. Payment for covered diagnostic tests is determined based on various metho
payment systems and fee schedules. In addition, private third-party payors may negot
providers or

set rates as a percentage of the billed charge. Diagnostic tests furnished to Medicare i
bundled payment made to the hospital under Medicare's Inpatient Prospective Payme
Groups (DRGs) depending on the patient’s condition. Payment for diagnostic tests fu
outpatient circumstances is made based on the Clinical Laboratory Fee Schedule, und
to each covered CPT code, or through the Outpatient Prospective Payment System (O
equivalent of the DRG model. The law technically requires fee schedule amounts to b
increase in the consumer price index (CPI) for the prior year, but Congress has froze
Medicaid programs generally pay for diagnostic tests based on a fee schedule, but rei

European Union

In the European Union, the reimbursement mechanisms used by private and public he
public systems, reimbursement is determined by guidelines established by the legislat
elsewhere, inclusion in reimbursement catalogues focuses on the medical usefulness,
patients and the healthcare system. Acceptance for reimbursement comes with cost, u
again can vary by country.

Conflict Minerals

Recent U.S. legislation has been enacted to improve transparency and accountability
minerals from mines located in the conflict zones of the Democratic Republic of Con
The term conflict minerals currently encompasses tantalum, tin, tungsten (or their ore
instrumentation product components which we purchase from third party suppliers co
requires manufacturers, such as us, to investigate our supply chain and disclose if the
originating in the DRC or adjoining countries. We conduct due diligence measures an
conflict minerals in our products and the source of any such conflict minerals. Becaus
directly from smelters or refineries, we rely on our suppliers to specify to us their Co
their conflict minerals status. We disclosed our most recent Conflict Minerals finding
Commission for the calendar year ending December 31, 2015 on Form SD on May 25
disclosure to the Securities Exchange Commission as required.

Organizational Structure

QIAGEN N.V. is the holding company for more than 50 consolidated subsidiaries, m
function of distributing our products and services on a regional basis. Certain subsidia
development or production activities. A listing of our significant subsidiaries and thei
included in Exhibit 8.1 to this Annual Report.

Description of Property

Our production and manufacturing facilities for consumable products are located in G
the United Kingdom. Our facilities for software development are located in the Unite
Romania. In recent years, we have made investments in automated and interchangeab
our production capacity and improve efficiency. Our production and manufacturing o
benefit from sophisticated inventory control. Production management personnel are h
advanced degrees in engineering, business and science. We also have installed and co
systems that are included in our integrated information and control system based on th
from SAP AG. Worldwide, we use SAP software to integrate most of our operating su
property, plant and equipment totaled $74.5 million, $97.8 million and $86.6 million
We have an established quality system, including standard manufacturing and docum
that products are produced and tested in accordance with the FDA's Quality System R
Good Manufacturing Practice (cGMP) requirements. For cGMP production, special a
Hilden, Germany, and Germantown, Maryland. These facilities operate in accordance
The consumable products manufactured at QIAGEN GmbH in Germany, and QIAGE
produced under ISO 9001: 2008, ISO 13485:2012, ISO 13485:2003 CMDCAS. Our c
commitment to provide our customers with high-quality, state-of-the-art sample and a
Quality Management system.

Our facilities in Hilden, Germany, currently occupy a total of approximately 776,000 pursuant to separate contracts, the last of which expires in 2018. In December 2016, w additional office and warehouse space of approximately 4,400 square feet which we p 2017. During 2015, we purchased additional office and warehouse space of approxim production capacity is increased through our manufacturing and research facilities in LLC owns a 24-acre site

in Germantown, Maryland. The 285,000 square foot Germantown facility consists of
arrangement and can accommodate over 500 employees. There is room for future exp
facility space. In 2015, we completed expansion of our research and production facili
renovations of administrative facilities in Germantown, Maryland.
We lease a facility in Frederick, Maryland comprising a total of 42,000 square feet fo
distribution and research operations. We also lease facilities in Massachusetts with 44
GeneReader NGS system development and 39,100 square feet in Beverly for enzyme
have a total of 33,500 square feet in Redwood City for Bioinformatics. Additionally,
China and Manchester, United Kingdom for manufacturing, warehousing, distributio
completed expansion work in Manchester to add additional research and developmen
the world lease smaller amounts of space. Our corporate headquarters are located in l
Netherlands.
We believe our existing production and distribution facilities can support anticipated
months. Our production and manufacturing operations are subject to various federal,
including environmental regulations. We do not believe we have any material issues

Item 4A. Unresolved Staff Comments
Not applicable.

Item 5. Operating and Financial Review and Prospects
This section contains a number of forward-looking statements. These statements are b
expectations, and actual results may differ materially. Among the factors that could ca
management's expectations are those described in "Risk Factors" and "Forward-looki
this Annual Report.
Results of Operations
Overview
We are a leading global provider of Sample to Insight solutions to transform biologica
insights. QIAGEN sample technologies isolate and process DNA, RNA and proteins
blood or tissue. Assay technologies make these biomolecules visible and ready for an
a virus or a mutation of a gene. Bioinformatics solutions integrate software and cloud
volumes of biological data and report relevant, actionable insights. Our automation so
and cost-effective molecular testing workflows.
We sell our products - consumables, automated instrumentation systems using those t
analyze and interpret the data - to four major customer classes:

- Molecular Diagnostics - healthcare providers engaged in many aspects of patient care areas of oncology, infectious diseases and immune monitoring
- Applied Testing - government or industry customers using molecular technologies in diagnostics and food safety testing
- Pharma - pharmaceutical and biotechnology companies using molecular testi translational medicine and clinical development efforts
- Academia - researchers exploring the secrets of life such as the mechanisms and path translating that research into drug targets or commercial applications

We market products in more than 130 countries, mainly through subsidiaries in marke
potential in Europe, Asia, the Americas and Australia. We also work with specialized
importers. As of December 31, 2016, we employed approximately 4,700 people in mo
Recent Acquisitions
We have made a number of strategic acquisitions since 2014, targeting innovative tec
positions in high-growth areas of molecular diagnostics and research. These transactio
offerings and technology platforms, as well as our geographic presence. They include

-

In January 2017, QIAGEN acquired OmicSoft Corporation, a privately held company of North Carolina, to expand our industry-leading bioinformatics offering with compl to visualize and mine large institutional and publicly available “omics” datasets. The

solutions meet a growing need in discovery and translational research to access and m
RNA and other biological variables generated by next-generation sequencing studies.

- During 2016, QIAGEN acquired Exiqon A/S, a publicly traded company based in Ve leadership position in Sample to Insight solutions for RNA analysis. Exiqon's RNA a Locked Nucleic Acid (LNA) technology, are used by academic, biotech and pharmac explore correlations between gene activity and the development of cancer and other d DKK 627.4 million ($95.2 million) for approximately 94.52% of the outstanding com the remaining Exiqon shares subsequent to the acquisition date for $5.5 million in cas December 31, 2016.
- In November 2015, we acquired MO BIO Laboratories, Inc., a privately-held provide for studies of the microbiome and metagenomics, analyzing the impact of microbial c environment. The acquisition added a complementary portfolio of sample technologie next-generation sequencing. MO BIO kits, based on proprietary Inhibitor Removal Te DNA from challenging samples like soil, water, plants and stool.
- In March 2015, we acquired an innovative technology that enables enrichment and m cells (CTCs) from blood samples from AdnaGen GmbH, a subsidiary of Alere Inc. Th pipeline of technologies for molecular testing through non-invasive liquid biopsies as tissue biopsies. Other assets acquired include two marketed CE-IVD marked products AdnaTest Prostate Cancer, for treatment monitoring and detection of tumor relapse.
- In February 2015, we announced the spin-off of teams and activities of QIAGEN Ma majority-owned and fully consolidated entity. In the divestiture, QIAGEN Marseille a liabilities, with the exception of its intellectual property portfolio, to a stand-alone co commercialize the ipsogen line of products, including companion diagnostics for bloo made a tender offer to acquire the remaining QIAGEN Marseille shares. We acquired and held 100% of the QIAGEN Marseille shares as of December 31, 2016.
- In December 2014, we acquired the enzyme solutions business of Enzymatics, a U.S. an estimated 80% of all next-generation sequencing workflows. The broad Enzymatic leading offering of universal NGS products, advancing our strategy to drive the adopt
- In April 2014, we acquired BIOBASE, a provider of expertly curated biological datab Wolfenbu ttel, Germany, expanding our bioinformatics solutions with BIOBASE co fields of inherited diseases and pharmacogenomics. QIAGEN integrated the BIOBAS Knowledge Base, adding value for customers in interpreting genomic data from next-

Our financial results include the contributions of recent acquisitions and the QIAGEN dates, as well as costs related to the transactions and integration of the acquired comp closure of certain facilities.

We determined that we operate as one business segment in accordance with ASC Top operating decision maker (CODM) makes decisions on business operations and resou the QIAGEN Group as a whole. Considering the acquisitions made during 2016, we c business segment. We provide certain revenue information by customer class to allow This information is estimated using certain assumptions to allocate revenue among th

Year Ended December 31, 2016, Compared to 2015

Net Sales

In 2016, net sales grew 4% to $1.34 billion compared to $1.28 billion in 2015, includi currency movements. Excluding the effect of adverse currency movements, organic b percentage points to total sales growth while nearly two percentage points of addition 2015 acquisition of MO BIO Laboratories Inc, a leader in sample technologies for me and the June 2016 acquisition of Exiqon A/S, a leader in RNA analysis technologies. sharply lower U.S. sales of HPV tests, which created approximately two percentage p of adverse currency movements, net sales rose approximately 8% in 2016. All regions higher sales of consumables and related revenues (+5% / 87% of sales) and instrumen

Net sales by geographic region

41

| | Full-year 2016 | | |
|---|---|---|---|
| | Sales (In $ m) | % change | % of sales |
| Americas[1] | $627 | 4% | 47% |
| Europe / Middle East / Africa | $428 | 4% | 32% |
| Asia-Pacific / Japan | $279 | 10% | 21% |
| | | | |
| Top 7 emerging markets[2] | $209 | 13% | 16% |

(1) Americas excluding U.S. HPV (+6%)
(2) Top 7 emerging markets: Brazil, Russia, India, China, South Korea, Mexico and T
FY 2016: Rest of world represented less than 1% of net sales.

Geographic regions: The Asia-Pacific / Japan region led the geographic performance adverse currency movements of one percentage point of sales growth, benefiting from Korea and India. The Americas advanced at a faster pace (+6%) when excluding U.S. QuantiFERON-TB test and improved conditions among Life Science customers. Euro 4% reflecting adverse currency movements of approximately four percentage points c expansion in markets such as France, the United Kingdom, Turkey and the Middle Ea and Brazil were key contributors (+13% / 16% of sales) when excluding adverse curre points.
Customer classes: An overview of performance in QIAGEN's four customer classes:
Net sales by product category and customer class

| | Full-year 2016 | | |
|---|---|---|---|
| | Sales (In $ m) | % change | % of sales |
| Consumables and related revenues | $1,166 | 5% | 87% |
| Instruments | $172 | 3% | 13% |
| | | | |
| Molecular Diagnostics[1] | $663 | 4% | 50% |
| Of which: U.S. HPV test solutions | $33 | -29% | 3% |
| MDx excluding U.S. HPV [1] | $630 | 7% | 47% |
| Applied Testing | $120 | 5% | 9% |
| Pharma | $262 | 5% | 19% |
| Academia | $293 | 4% | 22% |

(1) Includes companion diagnostic co-development revenues ($32 million, -8%)

Molecular Diagnostics, which contributed approximately 50% of net sales, expanded currency movements of three percentage points of sales growth. The core portfolio de before adverse currency impacts and the ongoing decline in sales of U.S. HPV test pr consumables used on the QIAsymphony automation platform also grew at a solid pac exceeded its goal for new QIAsymphony placements.
Applied Testing represented approximately 9% of net sales, grew 5% in 2016 compar movements resulting in a loss of two percentage points of sales growth. Before negati advanced on high-single digit growth rates for instruments while consumables and rel rates.

Pharma experienced 5% sales growth in 2016 compared to 2015 with adverse currenc
percentage points of sales growth and provided 19% of net sales. Pharma grew on hig
consumables and related revenues while instruments maintained a mid-single digit rat
negative currency impacts.
Academia represented approximately 22% of net sales and rose 4% in 2016 compared
currency movements. Before negative currency impacts, Academia advanced on a mi
consumables and related revenues while all regions showed gains in this customer cla
Gross Profit
Gross profit was $844.7 million, or 63% of net sales, in 2016, compared with $826.7
Generally, our consumables and related products have a higher gross margin than our
arrangements. Fluctuations in the sales levels of these products and services can resul
between periods. Gross profit in 2016 was impacted by lower gross margins for comp
gross profit in 2016 was impacted by impairment charges of $12.0 million recognized
restructuring. Additionally, during 2016, we incurred incremental costs in connection
of the manufacturing of certain products to our European production site in Hilden, G
the in-sourcing of the manufacturing of our QuantiFERON product to our U.S. produc
Amortization expense related to developed technology and patent and license rights, w
combinations, is included in cost of sales. The amortization expense on acquisition-re
decreased slightly to $80.1 million in 2016 from $84.5 million in 2015. Acquisition-re
increase in the future should we make further acquisitions.
Research and Development
Research and development expenses increased by 20% to $176.1 million (13% of net
million (11% of net sales) in 2015. The increase in 2016 includes $26.4 million in res
restructuring activities, including personnel related and asset impairment costs. Durin
NGS System and continue to invest in research and development as we develop a ran
address new applications and market segments. We also plan to introduce additional c
longer-term expansion of the NGS content menu beyond oncology. The increase in re
2016 also reflects our ongoing investments in NGS and our life sciences portfolio, as
late 2015 and Exiqon in 2016 together with regulatory activity in support of new prod
develop and acquire new products and technologies, we expect to incur additional exp
employees engaged in research and development. Additionally, research and develop
result of seeking regulatory approvals, including U.S. FDA Pre-Market Approval (PM
EU CE approval of certain assays or instruments. Further, business combinations, alo
technologies, may increase our research and development costs in the future. We have
and expect to continue to make investments in our research and development efforts.
Sales and Marketing
Sales and marketing expenses increased 12% to $401.4 million (30% of net sales) in 2
sales) in 2015. The increase in 2016 includes $24.9 million in restructuring costs relat
including personnel related and advisory costs. Additionally, sales and marketing exp
sales in 2016 as compared to 2015 to support commercialization of growth drivers an
marketing expenses are primarily associated with personnel, commissions, advertising
and logistics expenses, and other promotional expenses. In 2016, we continued invest
activities related to our sales force, in particular the addition of sales representatives f
sciences markets. We have also continued our e-commerce initiatives as well as inves
markets such as the Middle East and Asia. These incremental investments more than
lower compensation costs following a reassessment of stock units with performance c
sales and marketing costs will increase along with new product introductions and grow
decrease as a percentage of sales. Further, looking forward we expect a lower cost bas
marketing activities as part of the restructuring project initiated in the fourth quarter o
General and Administrative, Integration and Other

General and administrative, integration and other costs increased by 27% to $129.2 m
$102.1 million (8% of net sales) in 2015. In 2016, acquisition and integration costs to
million related to the transaction costs incurred in connection with the acquisition of I
integration

costs totaled $13.9 million, of which $7.5 million related to the transaction costs incu
of MO BIO Laboratories. Acquisition and integration related costs in 2016 are net of
gains recorded in general and administrative costs from the reduction in the fair value
unmet milestones. Additionally, the increase in 2016 includes $4.9 million in restruct
restructuring activities, including severance and retention costs. The increase in gener
other costs also reflects an increase of $5.1 million related to share-based compensati
of lower share based compensation costs following a reassessment of stock units with
integrate the acquired companies and pursue other opportunities to gain efficiencies,
additional business integration in 2017. Over time, we believe the integration activitie
efficiency in operations.

Acquisition-Related Intangible Amortization

Amortization expense related to developed technology and patent and license rights a
included in cost of sales. Amortization of trademarks and customer base acquired in a
operating expense under the caption “acquisition-related intangible amortization.” An
not acquired in a business combination are recorded within cost of sales, research and
line items based on the use of the asset.

During 2016, amortization expense on acquisition-related intangibles within operating
compared to $38.7 million in 2015. We expect acquisition-related intangible amortiza
future acquisitions.

Other Income (Expense)

Total other expense, net was $41.9 million in 2016, compared to $43.2 million in 201
the result of interest expense and other expense, partially offset by interest income.

For the year ended December 31, 2016, interest income increased to $6.8 million from
includes interest earned on cash, cash equivalents and short term investments, income
derivatives as discussed in Note 13 in the accompanying consolidated financial statem
the interest portion of operating lease transactions.

Interest expense increased to $39.0 million in 2016, compared to $37.4 million in 201
debt, discussed in Note 15 in the accompanying consolidated financial statements.

Other expense, net was $9.7 million for the year ended December 31, 2016, and inclu
connection with the impairment of an equity-method investment and a $2.6 million ch
following the transfer of the research and development activities of our instrumentatio
program initiated late in 2016. Included in $10.6 million of other expense, net in 2015
the repurchase of the $130.5 million loan payable to and warrant agreement with QIA
December 31, 2016, we recorded net losses on foreign currency of less than $0.1 mill
due to foreign currency rate fluctuations.

Provision for Income Taxes

Our effective tax rates differ from The Netherlands statutory tax rate of 25% due in pa
exposed to effective tax rates ranging from zero to more than 40%. In 2016 and 2015,
and 4.7%, respectively. The comparison is impacted by pre-tax book income which w
compared to $136.3 million in 2015. Pretax book income was lower in 2016 primarily
with the restructuring program initiated in the fourth quarter of 2016. Fluctuations in
income among our operating subsidiaries can lead to fluctuations of the effective tax r
statements. In 2016 and 2015, tax expense on foreign operations was favorably impac
partial tax exemptions on foreign income primarily derived from operations in Germa
and Switzerland. These foreign tax benefits are due to a combination of favorable tax
exemptions in these jurisdictions. In particular, we have pre-tax income in Germany w
tax on intercompany foreign royalty income. Further, we have intercompany financin
and Ireland in which the intercompany income is partially exempt. See Note 16 to the
full reconciliation of the effective tax rate to The Netherlands statutory rate.

In future periods, our effective tax rate may fluctuate from similar or other factors as
their application could adversely affect our results of operations or financial flexibilit
Year Ended December 31, 2015, Compared to 2014

Net Sales

In 2015, net sales decreased 5% to $1.28 billion compared to $1.34 billion in 2014, du
adverse currency movements. Excluding the effect of adverse currency movements, to
contributions from consumables and related revenues (+3% / 87% of sales) and instru
Excluding the effect of adverse currency movements, about two percentage points of
acquisitions of the Enzymatics NGS technology and consumables portfolio (acquired
bioinformatics business (acquired in April 2014), while sales in the rest of the busines
Late in the fourth quarter of 2015, we completed the acquisition of MO BIO Laborato
technologies for metagenomics and microbiome analysis, but this had a negligible co
Excluding the expected impact of sharply lower U.S. sales of HPV tests, which create
points of headwind, as well as the effect of adverse currency movements, net sales ros
Geographic regions: Excluding the loss of 15 percentage points of sales growth due to
Europe / Middle East / Africa region led the geographic performance, benefiting from
as improving performances in other countries. The Americas advanced at a faster pace
sales and when excluding 3 percentage points of adverse currency movements. Asia-P
China and ongoing robust growth in South Korea while Japan sales declined on macro
percentage points of adverse currency movements. Turkey, China, South Korea and I
markets (+8% / 15% of sales) against declining sales in Mexico and Russia when excl
10 percentage points.

Customer classes: An overview of performance in QIAGEN's four customer classes:

Molecular Diagnostics, which contributed approximately 50% of net sales, declined 7
movements of eight percentage points of sales growth in 2015. The core portfolio deli
before adverse currency impacts and the ongoing decline in sales of U.S. HPV test pr
consumables used on the QIAsymphony automation platform also grew at a solid pace
achieved its goal for new QIAsymphony placements, but revenues were negatively im
agreements. Personalized Healthcare sales also grew at a higher-single-digit rate for t
Applied Testing represented approximately 9% of net sales, declined 1% in 2015 com
movements resulting in a loss of eight percentage points of sales growth. Before nega
maintained a higher-single-digit growth pace for consumables and related revenues du
a lower-single-digit rate in the fourth quarter and for the year. All regions showed gai
human ID / forensics.

Pharma sales growth remained unchanged compared to 2014 and provided approxima
currency movements resulting in a loss of six percentage points of sales growth. Befo
advanced on mid-single-digit growth for both instruments and consumables and relate
Middle East / Africa region and the Americas offset lower sales in Asia-Pacific / Japa
Academia represented approximately 22% of net sales and declined 4% in 2015 comp
movements resulting in a loss of ten percentage points of sales growth. Academia adv
rates for instruments while consumables and related revenues grew at a mid-single dig
before negative currency impacts. The Americas led growth among all regions and be
funding trends.

Gross Profit

Gross profit was $826.7 million, or 65% of net sales, in 2015, compared with $865.2
Adverse currency movements negatively impacted gross profit in 2015 by $71.9 milli
related products have a higher gross margin than our instrumentation products and ser
sales levels of these products and services can result in fluctuations in gross margin be
expense related to developed technology and patent and license rights, which have be
is included in cost of sales. Gross profit in 2014 was impacted by charges of $26.4 mi
connection with internal restructuring efforts as well as those related to acquisitions. I
million in impairments and $2.2 million in contract termination costs as discussed in N
consolidated financial statements.

Cost of sales includes amortization expense related to developed technology and pate
business combinations. The amortization expense on acquisition-related intangibles w
$84.5 million in 2015 from $81.7 million in 2014. Acquisition-related intangible amo
should we make further acquisitions.

Research and Development

Research and development expenses decreased by 10% to $146.8 million (11% of net
million (12% of net sales) in 2014. The decrease in research and development expens
favorable currency exchange impacts. During 2015, we introduced our GeneReader N
in research and development as we are developing a range of upgrades and enhancem
market segments. We also plan to introduce additional cancer-related gene panels, wi
content menu beyond oncology. Further, business combinations, along with the acqui
increase our research and development costs in the future. As we continue to discover
and technologies, we expect to incur additional expenses related to facilities, licenses
and development. Additionally, research and development costs are expected to incre
approvals, including U.S. FDA Pre-Market Approval (PMA), U.S. FDA 510(k) cleara
assays or instruments. We have a strong commitment to innovation and expect to con
research and development efforts.

Sales and Marketing

Sales and marketing expenses decreased 4% to $359.6 million (28% of net sales) in 2
sales) in 2014. The decrease was driven by $33.5 million of favorable currency excha
costs resulting from increased sales and marketing activities. Sales and marketing exp
personnel, commissions, advertising, trade shows, publications, freight and logistics e
excise tax (which has been suspended for 2016 and 2017) and other promotional expe
investments in our commercialization activities related to our sales force and e-comm
the favorable currency impacts and lower compensation costs following a reassessme
criteria. We anticipate that sales and marketing costs will increase along with new pro
of our products.

General and Administrative, Integration and Other

General and administrative, integration and other costs decreased by 19% to $102.1 m
$126.6 million (9% of net sales) in 2014. The comparison was affected by $8.3 millio
to internal restructuring of subsidiaries, including severance and retention costs as dis
consolidated financial statements. The decrease in general and administrative, busines
includes a $9.9 million favorable currency exchange impact. Additionally, share base
compared to 2014 following a reassessment of stock units with performance criteria.
acquisition transaction costs of approximately $7.5 million and $2.0 million, respectiv
2015 acquisitions, including MO BIO Laboratories, and the 2014 acquisitions of Enzy
integrate the acquired companies and pursue other opportunities to gain efficiencies, w
additional business integration in 2016. Over time, we believe the integration activitie
efficiency in operations.

Acquisition-Related Intangible Amortization

Amortization expense related to developed technology and patent and license rights a
included in cost of sales. Amortization of trademarks and customer base acquired in a
operating expense under the caption “acquisition-related intangible amortization.” An
not acquired in a business combination are recorded within cost of sales, research and
line items based on the use of the asset.

During 2015, amortization expense on acquisition-related intangibles within operating
compared to $37.1 million in 2014. We expect acquisition-related intangible amortiza
future acquisitions.

Other Income (Expense)

Other expense was $43.2 million in 2015, compared to $42.3 million in 2014. Total o
of interest expense and other expense, partially offset by interest income and impacts
Included in other expense, net for the year ended December 31, 2015, is a $7.6 millio
the $130.5 million loan payable to and warrant agreement with QIAGEN Finance. Fo
$4.6 million loss recognized on the redemption of the $300 million loan payable to an

Euro Finance is included. Both transactions are discussed more fully in Note 15 to the
For the year ended December 31, 2015, interest income increased to $4.8 million from
includes interest earned on cash, cash equivalents and short term investments, income
derivatives entered into in 2015 as discussed in Note 13 and other components includ
lease transactions.

Interest expense decreased to $37.4 million in 2015, compared to $39.3 million in 201
debt, discussed in Note 15 in the accompanying notes to the consolidated financial sta
primarily as a result of the repayments of the 2006 Notes as discussed in Note 15 to th
For the year ended December 31, 2015, we recorded net losses on foreign currency of
$1.9 million in 2014. These gains and losses are due to foreign currency rate fluctuati
Provision for Income Taxes
Our effective tax rates differ from The Netherlands statutory tax rate of 25% due in pa
exposed to effective tax rates ranging from zero to more than 40%. Fluctuations in the
among our operating subsidiaries can lead to fluctuations of the effective tax rate in th
2015 and 2014, our effective tax rates were 4.7% and 2.1%, respectively. In 2014, Th
favorably impacted by fully tax exempt income related to financing activities which c
accordingly, the related income tax benefit will not impact our effective tax rate beyo
2014, tax expense on foreign operations was favorably impacted by lower income tax
foreign income primarily derived from operations in Germany, Singapore, Luxembou
benefits are due to a combination of favorable tax laws, rules, rulings, and exemption
we have pre-tax income in Germany which is statutorily exempt from trade tax on int
Further, we have intercompany financing arrangements through Luxembourg in whic
exempt. See Note 16 to the consolidated financial statements for a full reconciliation
Netherlands statutory rate.
In future periods, our effective tax rate may fluctuate from similar or other factors as
their application could adversely affect our results of operations or financial flexibilit
Foreign Currencies
QIAGEN N.V.'s reporting currency is the U.S. dollar, and most of our subsidiaries' f
currencies of the countries in which they are headquartered. All amounts in the financ
functional currency is not the U.S. dollar are translated into U.S. dollar equivalents at
and liabilities at period-end rates, (2) income statement accounts at average exchange
(3) components of shareholders' equity at historical rates. Translation gains or losses
transaction gains and losses are reflected in net income. The net (loss) gain on foreign
less than $(0.1) million and in 2015 and 2014 was $(0.5) million, and $1.9 million, re
expense, net.
Derivatives and Hedging. In the ordinary course of business, we use derivative instru
and/or options, to manage potential losses from foreign currency exposures and varia
such derivative instruments is to minimize the risks and/or costs associated with globa
We do not utilize derivative or other financial instruments for trading or speculative p
as either assets or liabilities on the balance sheet, measure those instruments at fair va
value in earnings in the period of change, unless the derivative qualifies as an effectiv
In determining fair value, we consider both the counterparty credit risk and our own c
derivatives are not covered by collateral agreements with the respective counterpartie
estimated our own credit rating by benchmarking the price of our outstanding debt to
from rated companies. Using the estimated rating, we quantify our credit risk by refer
corresponding rating.
Foreign Currency Derivatives. As a globally active enterprise, we are subject to risks
currencies in our ordinary operations. This includes foreign currency-denominated rec
balance sheet positions including intercompany items. We manage our balance sheet
foreign exchange options and cross-currency swaps.
Interest Rate Derivatives. We use interest rate derivative contracts on certain borrowi
exposures. We have entered into interest rate swaps in which we agree to exchange, a
between fixed and floating interest amounts calculated by reference to an agreed-upon
We also make use of economic hedges. Further details of our derivative and hedging
the accompanying consolidated financial statements.

Liquidity and Capital Resources

To date, we have funded our business primarily through internally generated funds, d
equity. Our primary use of cash has been to support continuing operations and our inv
expenditure requirements and acquisitions. As of December 31, 2016 and 2015, we ha
million and $290.0 million, respectively. We also had short-term investments of $93.0
and cash

equivalents are primarily held in U.S. dollars and euros, other than those cash balance
subsidiaries to meet local working capital needs. At December 31, 2016, cash and cas
million from December 31, 2015, primarily as a result of cash provided by operating a
offset by cash used in financing activities of $10.6 million and cash used in investing
December 31, 2016 and 2015, we had working capital of $729.1 million and $693.0 m
Operating Activities. For the years ended December 31, 2016 and 2015, we generated
$341.6 million and $317.5 million, respectively. While net income was $80.3 million
income included $213.1 million of depreciation and amortization and $44.4 million a
costs, primarily asset impairment and disposal costs incurred in connection with the re
fourth quarter of 2016.
Operating cash flows include a net decrease in working capital of $1.3 million exclud
instruments. The current period change in working capital is primarily due to increase
partially offset by increased accrued liabilities and taxes payable. Because we rely hea
activities to fund our business, a decrease in demand for our products, longer collectio
advances of competitors would have a negative impact on our liquidity.
Investing Activities. Approximately $179.1 million of cash was used in investing acti
million during 2015. Investing activities during 2016 consisted principally of $496.3 m
investments, $74.5 million in cash paid for purchases of property and equipment, as w
assets and $23.4 million paid for strategic investments in privately and publicly held c
partially offset by $533.8 million from the sale of short-term investments. Cash paid f
of $90.5 million primarily represents the total cash paid for the acquisition of Exiqon
Financing Activities. Approximately $10.6 million of cash was used in financing activ
2016 compared to $258.6 million in 2015. Cash used during 2016 consisted primarily
debt assumed via the acquisition of Exiqon, as well as other financing activities inclu
consideration and $5.5 million for the acquisition of the remaining noncontrolling inte
2015, was mainly due to the repayment of the long-term debt of QIAGEN Finance of
"Lines of Credit and Debt." Additionally, cash used during 2015 included $20.8 millio
which was partially offset by $10.3 million for the issuance of common shares in con
Other Factors Affecting Liquidity and Capital Resources
In October 2016, we extended the maturity of our €400 million syndicated revolving c
contractual lifetime until December 2021 of which no amounts were utilized at Decem
utilized in Euro, British pounds sterling, Swiss franc or U.S. dollar and bears interest
EURIBOR, or LIBOR in relation to any loan not in euro, and is offered with interest p
months. We have additional credit lines totaling €36.6 million with no expiration date
December 31, 2016. We also have capital lease obligations, including interest, in the a
carry $1.1 billion of long-term debt, of which no amounts are current as of December
In March 2014, we issued $730.0 million aggregate principal amount of Cash Conver
million is due in 2019 (2019 Notes) and $300.0 million is due in 2021 (2021 Notes). W
2021 Notes, collectively as the “Cash Convertible Notes” which are discussed fully in
statements. Interest on the Cash Convertible Notes is payable semiannually in arrears
each year, at rates of 0.375% and 0.875% per annum for the 2019 Notes and 2021 No
September 19, 2014. The 2019 Notes will mature on March 19, 2019 and the 2021 No
unless repurchased or converted in accordance with their terms prior to such date.
In October 2012, we completed a U.S. private placement through the issuance of new
amount of $400 million with a weighted average interest rate of 3.66% (settled on Oc
in three series: (1) $73 million 7-year term due in 2019 (3.19%); (2) $300 million 10-
$27 million 12-year term due in 2024 (3.90%).
We had notes payable, which were the long-term borrowings of the proceeds from the
unsubordinated convertible notes, with a 1.5% coupon due in 2024 through QIAGEN
Notes were convertible into our common shares at a conversion price of $12.6449, su

conversions of $14.9 million of the 2004 Notes, we previously repaid $14.5 million o
2015, we paid $250.9 million for the redemption of the remaining loan and repurchas
QIAGEN Finance and recognized a loss of $7.6 million in other expense, net.

In connection with certain acquisitions, we could be required to make additional conti
$27.6 million based on the achievement of certain revenue and operating results miles
2017, $5.1 million in 2019, and $7.0 million, payable in any 12-month period from no
accomplishment of certain revenue targets. Of the $27.6 million total contingent oblig
at December 31, 2016, to be $8.8 million, of which of which $5.8 million is included
million is included in accrued liabilities in the accompanying balance sheet as of Dec
In 2013, we announced a share buyback program, to purchase up to 100 million of ou
transaction costs). We completed the share repurchase program in June 2014 having r
and June 2014 a total of approximately 4.4 million QIAGEN shares for a total aggreg
performance fees).
In July 2014, we announced the launch of our third $100 million share repurchase pro
million of our common shares (excluding transaction costs). In 2014, 2.1 million QIA
$49.1 million (excluding transaction costs) and in 2015 0.8 million QIAGEN shares w
This program expired in December 2015.
In January 2017, we completed a synthetic share repurchase that combined a direct ca
split. The transaction was announced in August 2016 and involved an approach used
companies to provide returns to shareholders in a faster and more efficient manner tha
$244.0 million was returned to shareholders through the transaction, which reduced th
shares by approximately 3.7% to 230.8 million (of which 4.95 million in treasury) as
additional share repurchases to take place via the open market during the remainder o
aggregate amount of $300 million to our shareholders.
Repurchased shares will be held in treasury in order to satisfy various obligations, wh
connection with the issuance of our Cash Convertible Notes and employee share-base
We expect that cash from financing activities will continue to be impacted by issuanc
with our equity compensation plans and that the market performance of our stock will
issuances. Additionally, we may make future acquisitions or investments requiring ca
equity or debt financing.
We believe that funds from operations, existing cash and cash equivalents, together w
private sales of equity, and availability of financing facilities, will be sufficient to fun
expansion during the coming year. However, any global economic downturn may hav
currently expected, and we may experience a decrease in the sales of our products, wh
generate cash. If our future cash flows from operations and other capital resources are
needs, we may be required to obtain additional debt or equity financing or to reduce o
acquisitions or research and development projects. If we could not obtain financing on
terms, or implement timely reductions in our expenditures, our business could be adv
Off-Balance Sheet Arrangements
Other than our former arrangements with QIAGEN Finance and QIAGEN Euro Finan
consolidated financial statements, we did not use special purpose entities and do not h
arrangements as of and during the years ended December 31, 2016, 2015 and 2014.
Contractual Obligations
As of December 31, 2016, our future contractual cash obligations are as follows:

| Contractual Obligations | Payments Due by Period | | | | |
|---|---|---|---|---|---|
| (in thousands) | Total | 2017 | 2018 | 2019 | 2020 |
| Long-term debt [1] | $1,161,611 | $18,869 | $18,869 | $493,339 | $14,928 |
| Purchase obligations | 95,276 | 61,643 | 19,824 | 12,257 | 891 |
| Operating leases | 38,602 | 13,338 | 9,292 | 6,121 | 3,752 |
| License and royalty payments [2] | 65,502 | 15,969 | 11,562 | 10,702 | 10,438 |
| Capital lease obligations [3] | 2,719 | 1,114 | 1,534 | 59 | 12 |
| Total contractual cash obligations | $1,363,710 | $110,933 | $61,081 | $522,478 | $30,02 |

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(1) Amounts include required principal, stated at the current carrying values, and inter
(2) As of December 31, 2016, $14.8 million and $40.3 million are included in accrued
long-term liabilities, respectively.
(3) Includes future cash payments, including interest, due under capital lease arrangem
In addition to the above and pursuant to purchase agreements for several of our recen
make additional contingent cash payments totaling up to $27.6 million based on the a
operating results milestones as follows: $15.5 million in 2017, $5.1 million in 2019 a
12-month period from now until 2029 based on the accomplishment of certain revenu
products or the grant of certain patent rights. As of December 31, 2016, we have accr
payments of which $5.8 million is included in other long-term liabilities and $3.0 mil
current liabilities.
Liabilities associated with uncertain tax positions, including interest and penalties, are
as of December 31, 2016 and are not included in the table above, as we cannot reason
would be paid to a government agency. Ultimate settlement of these liabilities is depe
such as examinations by each agency and expiration of statutes of limitation for asses
Critical Accounting Policies, Judgments and Estimates
The preparation of our financial statements in accordance with accounting principles
requires management to make assumptions that affect the reported amounts of assets,
contingencies as of the date of the financial statements, as well as the reported amoun
reporting period. Critical accounting policies are those that require the most complex
result of the need to make estimates about the effects of matters that are inherently un
events differ from management's estimates and assumptions, there could be a materia
applying our critical accounting policies, at times we used accounting estimates that e
about matters that were highly uncertain at the time the estimate was made or it is rea
accounting estimate may occur from period to period that would have a material impa
operations, financial position or cash flows. Our critical accounting policies are those
share-based compensation, income taxes, investments, variable interest entities, goodw
purchase price allocation and fair value measurements. We reviewed the developmen
critical accounting policies and estimates with the Audit Committee of our Supervisor
Revenue Recognition. We recognize revenue when four basic criteria are met: (1) per
exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or
reasonably assured. Determination of criteria (3) and (4) could require management's
of the fee charged for services rendered and products delivered and the collectability
sales agreements contain standard terms and conditions, we do enter into agreements
non-standard terms and conditions. Sometimes interpretation of the sales agreement c
arrangements is complex in determining whether there is more than one unit of accou
should be recognized for each element is subject to certain estimates or assumptions.
elements are delivered to the customer if the delivered item has value on a stand-alone
the undelivered item is probable and substantially in our control. Revenue is allocated
method. Should changes in conditions cause management to determine that these crite
transactions, revenue recognized for any reporting period could be adversely affected
Share-Based Compensation. Our stock plan, the QIAGEN N.V. 2014 Stock Plan (the
rights, incentive stock options, as well as for non-qualified options, stock grants and s
performance-based stock units subject to performance periods of one-year up to three
performance achieved during the performance period may be subject to significant ch
performance is completed. While we have not granted stock options since 2013, in the
Black-Scholes-Merton valuation model for estimating the fair value of our stock optio
including Black-Scholes-Merton, require the input of highly subjective assumptions,
expected dividend yield, expected volatility, and the expected life of the award. Chan

materially affect the grant date fair value of an award.

Income Taxes. Calculation of our tax provision is complex due to our international op
jurisdictions in which we operate. Some of our deferred tax assets relate to net operati
NOLs is not assured and is dependent on generating sufficient taxable income in the f
it is more likely than not that we will generate sufficient taxable income to utilize sub
evaluating the

NOLs related to our newer subsidiaries requires us to make estimates that we believe
uncertain given that we do not have direct experience with these subsidiaries or their
subject to significant changes from period to period as we gain that experience. To the
taxable income are insufficient to utilize all available NOLs, a valuation allowance w
income taxes in the period the determination is made, and the deferred tax assets will
could be material. In the event that actual circumstances differ from management's es
estimates are adjusted in the future, any changes to the valuation allowance could mat
and results of operations.

Investments. We have equity investments accounted for under the cost method. We pe
these investments for permanent impairment, considering factors such as the most rec
from the most recent financial statements, and forecasts and expectations of the inves
nonmarketable equity investments in biotech companies is inherently subjective, and
management's assumptions, it could require a write-down of the investment that coul
position and results of operations.

In addition, generally accepted accounting principles require different methods of acc
on the level of influence that we exert. Assessing the level of influence involves subje
assumptions with respect to its level of influence differ in future periods and we there
investments under a method other than the cost method, it could have a material impa

Variable Interest Entities. We have made strategic investments in certain companies a
the Consolidated Financial Statements, some of which are variable interest entities. F
company to consolidate a variable interest entity in which it holds a variable interest i
beneficiary of that entity even if the company does not have a majority of voting inter
generally defined as an entity with insufficient equity to finance its activities or where
and rewards of ownership. Assessing the requirements of ASC Topic 810 involves su
assumptions with respect to the criteria differ in future periods, and we therefore have
under a different method, it could have a material impact on our financial statements.

Goodwill and Other Intangible Assets. We assess goodwill for impairment at least ann
possible impairment and immediately upon an indicator of possible impairment. Good
determine that the carrying value of our reporting unit is more than the fair value. Due
with our judgments and assumptions relating to the valuation of reporting units and th
affecting these valuations, both the precision and reliability of the resulting estimates
additional information becomes known, we may change our estimates.

In the fourth quarter of 2016, we performed our annual impairment assessment of goo
2016). We performed our goodwill impairment testing on a single reporting unit basis
structure. In testing for potential impairment, we have the option to first assess qualita
more likely than not that the fair value of our single reporting operating unit is less tha
determining whether it is necessary to perform the two-step goodwill impairment test
likely than not that the fair value is less than the carrying amount, or if we opt not to p
the two-step goodwill impairment test will be performed. For 2016, we measured the
based upon discounted future operating cash flows using a discount rate reflecting our

Differences in assumptions used in projecting future operating cash flows and cost of
on the determination of impairment amounts. In estimating future cash flows, we used
were based on recent sales data for existing products, planned timing of new product
customer commitments related to new and existing products. These budgets also inclu
volumes and pricing. Based on the sensitivity analysis performed, we determined that
projected future cash flows were too high by 10%, there would still be no impact on t
concluded that no impairment existed at October 1, 2016 or through December 31, 20

Purchase Price Allocation. The purchase price allocation for acquisitions requires exte
judgments to allocate the purchase price to the identifiable tangible and intangible ass
research and development, and liabilities assumed based on their respective fair value

contingent consideration as part of the purchase price. Contingent consideration is acc
acquisition date with subsequent changes to the fair value being recognized in earning
whether an acquired entity is considered to be a business or a set of net assets, becaus
only be allocated to goodwill in a business combination.

We have made several acquisitions in recent years. The purchase prices for the acquis
intangible assets acquired and liabilities assumed based on their estimated fair values
an

independent third-party valuation firm to assist us in determining the estimated fair va
development and identifiable intangible assets. Such a valuation requires significant e
but not limited to determining the timing and estimated costs to complete the in-proce
approvals, estimating future cash flows, and developing appropriate discount rates. W
contingent consideration and assets acquired and liabilities assumed are based on reas
value estimates for the purchase price allocations may change during the allowable al
year from the acquisition dates, if additional information becomes available.

Fair Value Measurements. We have categorized our assets and liabilities that are mea
priority of the inputs to the valuation techniques, in a three-level fair value hierarchy:
markets for identical assets or liabilities; Level 2 - using observable inputs other than
unobservable inputs. We primarily apply the market approach for recurring fair value
observable inputs and minimize our use of unobservable inputs. We utilize the mid-po
for valuing the majority of our assets and liabilities measured and reported at fair valu
make assumptions in valuing assets and liabilities, including assumptions about risk a
the valuation technique.

Certain of our derivative instruments, which are classified in Level 2 of the fair value
industry-standard models that consider various inputs, including time value, volatility
contractual prices for the underlying instruments, as well as other relevant economic r
inputs are observable in the marketplace throughout the full term of the instrument, ca
are supported by observable prices at which transactions are executed in the marketpl

Certain of our acquisitions involve contingent consideration, the payment of which is
events. Contingent consideration is classified in Level 3 of the fair value hierarchy an
a cost of the acquisition. After the acquisition, the contingent consideration liability is

The fair value of contingent consideration is measured predominantly on unobservabl
likelihood of achieving specified milestone criteria, projections of future financial per
assumed weightings applied to potential scenarios in deriving a probability weighted
in developing these estimates and assumptions both at the acquisition date and in subs
from management's estimates, or to the extent these estimates are adjusted in the futur
operations could be affected in the period of any change.

For other fair value measurements, we generally use an income approach to measure f
observable price for an identical or similar asset or liability. This approach utilizes ma
expectations of projected cash flows, and discounts the expected cash flows using a co
rate.

The above listing is not intended to be a comprehensive list of all our accounting poli
treatment of a particular transaction is specifically dictated by generally accepted acco
with limited or no need for management’s judgment. There are also areas in which ma
available alternatives may or may not produce a materially different result. See our au
and notes thereto in Item 18 of this Annual Report, containing a description of accoun
required by generally accepted accounting principles in the United States.

Recent Authoritative Pronouncements

For information on recent accounting pronouncements impacting our business see No
Financial Statements included in Item 18.

Item 6. Directors, Senior Management and Employees

Managing Directors and Supervisory Directors are appointed annually for the period l
Annual General Meeting of our shareholders up to and including the date of the Annu
following year.

Our Supervisory Directors and Managing Directors for the year ended December 31,
2017, are as follows:

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Managing Directors:

| Name | Age | Position |
|---|---|---|
| Peer M. Schatz | 51 | Managing Director, Chief Executive Officer |
| Roland Sackers | 48 | Managing Director, Chief Financial Officer |

Supervisory Directors:

| Name[(1)] | Age | Position |
|---|---|---|
| Stéphane Bancel | 44 | Supervisory Director, Member of the Compensation Committ Technology Committee |
| Dr. Metin Colpan | 62 | Supervisory Director, Chairman of the Science and Technolo Selection and Appointment Committee |
| Prof. Dr. Manfred Karobath | 76 | Chairman of the Supervisory Board, Supervisory Director, Ch Appointment Committee, Member of the Compensation Com and Technology Committee |
| Prof. Dr. Ross L. Levine | 45 | Supervisory Director and Member of the Science and Techno |
| Prof. Dr. Elaine Mardis | 54 | Supervisory Director and Member of the Science and Techno |
| Lawrence A. Rosen | 59 | Supervisory Director and Chairman of the Audit Committee |
| Elizabeth E. Tallett | 67 | Supervisory Director, Chairwoman of the Compensation Con Committee and Member of the Selection and Appointment C |

(1) Dr. Werner Brandt was a member of the Supervisory Board since 2007 and did no Company's Annual General Meeting in June 2016.

The following is a brief summary of the background of each of the Supervisory Direc References to “QIAGEN” and the “Company” in relation to periods prior to April 29, consolidated subsidiaries:

Managing Directors

Peer M. Schatz, 51, joined QIAGEN in 1993, when the Company had just 30 employ million, and has been Chief Executive Officer since January 1, 2004. He was Chief Fi 2003 and became a member of the Managing Board in 1998. Mr. Schatz was previous buyout group in Switzerland, worked in finance and systems positions in Sandoz, Ltd participated in the founding of start-up companies in the computer and software tradi States. Mr. Schatz graduated from the University of St. Gallen, Switzerland, with a M obtained an M.B.A. in Finance from the University of Chicago Graduate School of B member of the German Corporate Governance Commission from 2002 to 2012. He is Management GmbH. He is a board member of AdvaMedDx, an advocacy dedicated t industry in the United States and Europe, and ALDA (the Analytical, Life Science an association of developers and suppliers in these fields.

Roland Sackers, 48, joined the Company in 1999 as Vice President Finance and has b 2004. In 2006, Mr. Sackers became a member of the Managing Board. Between 1995 Arthur Andersen Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft. Mr. Sa Business Administration (Diplom-Kaufmann) from University of Münster, Germany. Supervisory Board and Audit Committee of IBS AG and a former member of the boa Biotechnologies, Inc. Mr. Sackers is a board member of the industry association BIO non-executive director and chair of the audit committee of Immunodiagnostic System producer of immunological tests for research and diagnostic applications publicly list

Supervisory Directors

Stéphane Bancel, 44, joined the Company's Supervisory Board as well as the Compen
the Audit Committee and Science and Technology Committee in 2014. He is Chief E
Therapeutics, Inc., a clinical-stage biotechnology company based in Cambridge, Mass
drug development programs involving messenger RNA therapeutics. Before joining M
years as

Chief Executive Officer of the French diagnostics company bioMérieux SA. Prior to
of Eli Lilly in Belgium and Executive Director of Global Manufacturing Strategy and
Indianapolis, Indiana, after having started at Lilly in Great Britain. Before joining Eli
Asia-Pacific Sales and Marketing Director for bioMérieux while based in Tokyo, Japa
degree from École Centrale Paris (ECP), a Master of Science in Chemical Engineerin
and an M.B.A. from Harvard Business School.

Dr. Metin Colpan, 62, is a co-founder of QIAGEN and was the Company's Chief Exe
Director from 1985 through 2003. Dr. Colpan has been a member of the Supervisory
Chairman of the Science and Technology Committee since 2014. He has been a mem
Committee since 2015. Dr. Colpan obtained his Ph.D. and M.S. in Organic Chemistry
Darmstadt Institute of Technology in 1983. Prior to founding QIAGEN, Dr. Colpan w
Institute for Biophysics at the University of Düsseldorf. Dr. Colpan has had wide exp
the separation and purification of nucleic acids in particular, and has filed many paten
as a Supervisory Board member of Qalovis Farmer Automatic Energy GmbH, Laer, G
as a Supervisory Board member of Ingenium Pharmaceuticals AG, GenPat77 Pharma
Morphosys AG, each in Munich, Germany.

Professor Dr. Manfred Karobath, 76, has been a member of the Supervisory Board sin
Committee in 2005. In 2016, Prof. Karobath was appointed as Chairman of the Super
member of our Science and Technology Committee from 2014 to 2016 and joined the
He is also the Chairman of the Selection and Appointment Committee. Prof. Dr. Karo
to 1980 he worked first in the Dept. of Biochemistry of the University of Vienna and,
joined the Dept. of Psychiatry where he became Professor of Biological Psychiatry. In
Basel, first in drug discovery, and later becoming Senior Vice President and head of R
joined Rhone Poulenc Rorer (RPR) as President of R&D and Executive Vice Presider
the boards of directors of RPR, Pasteur Mérieux Connought, Centeon and Rhone Pou
scientific awards and has published 92 scientific papers.

Professor Dr. Ross L. Levine, 45, joined the Supervisory Board and its Science and T
physician-scientist focused on researching and treating blood and bone marrow cance
Chair in Leukemia Research, the Director of the Center for Hematologic Malignancie
Memorial Sloan Kettering Cancer Center, as well as Professor of Medicine at Weill C
research lab investigating genetics and targeted therapies in myeloid malignancies and
next-generation sequencing technology in the practice of medicine in hematologic can
at Massachusetts General Hospital and in hematology-oncology at the Dana-Farber C
certification in these specialties. He received his M.D. from the Johns Hopkins Unive
degree from Harvard College.

Professor Dr. Elaine Mardis, 54, joined the Company’s Supervisory Board and its Sci
2014. Dr. Mardis is the Co-Executive Director of the Institute for Genomic Medicine
Columbus, OH. She also is Professor of Pediatrics at the Ohio State University Colleg
research interests in the application of genomic technologies to improving our unders
improving the precision of medical diagnosis, prognosis and treatment. Prof. Dr. Mar
F. Dunn Distinguished Professor of Medicine at Washington University School of Me
was on the faculty for 22 years. As Co-Director of the McDonnell Genome Institute, s
that contributed to the Human Genome Project and has since played key roles in the 1
Genome Atlas, and the Pediatric Cancer Genome Project. Prior to joining the Washin
senior research scientist at BioRad Laboratories in Hercules, CA. Prof. Dr. Mardis is
Association for Cancer Research, and has scientific advisory roles at the Regeneron G
Interpreta LLC. She also serves the U.S. government as a scientific advisor to the Vet
Veterans Program. Prof. Dr. Mardis received her Bachelor of Science degree in Zoolo
and Biochemistry in 1989, both from the University of Oklahoma.

Lawrence A. Rosen, 59, joined the Company's Supervisory Board as well as the Audi
the committee's chairman since 2014. Mr. Rosen was a member of the Board of Mana
Deutsche Post DHL until September 2016. Holding this position since 2009, Mr. Ros
corporate accounting and reporting, investor relations, corporate finance, corporate in
as the group’s global business services. Prior to joining Deutsche Post DHL, Mr. Ros
Fresenius Medical Care AG & Co. KGaA in Germany from 2003 to 2009. Prior to tha
Treasurer for Aventis SA in Strasbourg, France. Between 1984 and 2000, Mr. Rosen
predecessor

companies Hoechst AG and American Hoechst/Hoechst Celanese Inc. Mr. Rosen, wh
Business Administration from the State University of New York and an M.B.A. from
Elizabeth E. Tallett, 67, joined the Company's Supervisory Board as well as the Audit
Committee in 2011 and since 2016 has served as Chairwoman of the Compensation C
of Hunter Partners, LLC, a management company for early to mid-stage pharmaceutic
companies, from 2002 until February 2015. Ms. Tallett continues to consult with early
senior management experience includes President and CEO of Transcell Technologie
Pharmaceuticals, member of the Parke-Davis Executive Committee, and Director of W
Warner-Lambert Company. Ms. Tallett graduated from Nottingham University, Engla
honors in mathematics and economics. She is a member of the board of directors of P
she is currently the Lead Director), Anthem, Inc. and Meredith Corp. She is a former
Inc., Varian Semiconductor Equipment Associates, Inc., Coventry Health Care, Inc. a
Tallett was a founding board member of the Biotechnology Council of New Jersey an
Pennsylvania.
Dr. Werner Brandt, 63, joined the Company’s Supervisory Board in 2007 and was Ch
June 2016. He was also Chairman of the Selection and Appointment Committee, and
Chairman of the Audit Committee. Dr. Brandt was a member of the Executive Board
SE from 2001 until his retirement from SAP in 2014. For some years from 2010 onwa
Relations Director. From 1999 to 2001, he was a member of the Executive Board and
German-American healthcare company, Fresenius Medical Care AG, where he also s
From 1992 to 1999, Dr. Brandt was a member of the Managing Board of Baxter Deut
European Operations. Dr. Brandt began his career in 1981 at the former Price Waterh
PricewaterhouseCoopers) in Frankfurt. Dr. Brandt completed his doctorate in busines
University of Darmstadt, Germany in 1991, after studying business administration at
Germany from 1976 to 1981. During his time on the Supervisory Board, Dr. Brandt w
Supervisory Board of ProSiebenSat.1 Media AG, a member of the Supervisory Board
of the Supervisory Board of RWE AG and a member of the Supervisory Board of OS
of the Audit Committee). Dr. Werner Brandt did not stand for re-election at the Comp
2016.
Compensation of Managing Board Members and Supervisory Directors
Remuneration policy
The objective of our remuneration policy is to attract and retain the talented, highly q
skilled individuals, who enable QIAGEN to achieve its short and long-term strategic
Our remuneration policy aligns remuneration with individual performance, corporate
growth and long-term value creation in the context of QIAGEN’s social responsibility
The remuneration policy and overall remuneration levels are benchmarked regularly,
and key markets in which QIAGEN operates, to ensure overall competitiveness. QIA
compensation benchmarking surveys that provide information on the level, as well as
awarded by various companies and industries for a broad range of positions around th
group are selected on the basis of market capitalization, competitors for talent, similar
operating in similar industries.
The performance of the Managing Board members is measured annually against a wr
the Managing Board members is linked to the achievement of QIAGEN’s strategic an
remuneration is linked to performance, a significant proportion of the remuneration pa
performance of the individual and the company. These goals are set at ambitious leve
performance, with a focus on achieving both long-term strategic initiatives and short-
operative planning. Performance metrics used for these goals include the achievemen
The remuneration package of the Managing Board members consists of a combinatio
cash award and several elements of long term incentives (together, ‘total direct compe
the Managing Board receive a pension arrangement and other benefits that are standa

car.

The total target remuneration package of the Managing Board members is appropriate
which includes external and internal equity, experience, complexity of the position, so
provide the members of the Managing Board a total direct compensation at market me
The structure of the remuneration package for the Managing Board is designed to bala
with long-term sustainable value creation while taking into account the interests of its
part of the total remuneration of the Managing Board members consist of variable rem
substantially from

year to year depending on our corporate results and individual performance and may i
which may be subject to vesting conditions over a period of 10 years.
The remuneration policies for the Managing Board and for other senior management
aligned and consistent.
Managing Board compensation
The compensation granted to the members of the Managing Board in 2016 consisted
components, with the significant majority of compensation awarded in the form of QI
for a long multi-year period to align management with the interests of shareholders an
compensation included annual payments linked to business performance (annual bonu
incentives that were awarded based on individual performance.
In 2014, the General Meeting of Shareholders approved a new remuneration policy fo
that future annual regular equity-based compensation grants to members of the Manag
performance stock units. Grants of stock options and restricted stock units which are l
longer be granted on a regular basis and shall be reserved for use as special equity inc
Stock options granted to the Managing Board members must have an exercise price th
the time of grant. Restricted Stock Units granted to the Managing Board members, ve
Stock Units are subject to long-term vesting periods and contingent upon the achieven
multi-year period.
In 2013, QIAGEN issued Performance Stock Units that are directly linked with the fu
five-year business plan as well as implemented mandatory minimum holding levels o
approximately 50 managers. This program is referred to as the "Commitment Program
the these Performance Stock Units were based on three-year goals as defined within Q
covering the period from 2014 until the end of 2016. The targets for vesting were set
Board, and they consist of specific quantitative goals for net sales, earnings before int
invested capital (ROIC) and QIAGEN Value Added (QVA), a steering metric that me
generate returns and exceed its cost of capital. Achievement of these 2013 Performan
December 31, 2016 at 20%. In 2016, a new grant of Performance Stock Units with ma
QIAGEN shares was made under the Commitment Program linked to achievement of
2018 including quantitative goals for net sales, EBIT, QVA and share price developm
For the year ended December 31, 2016, the Managing Board members received the fo

| | Annual Compensation | | | | Long-Term Compensa | |
|---|---|---|---|---|---|---|
| Name | Fixed Salary | Variable Cash Bonus (1) | Other (5) | Total | Defined Contribution Benefit Plan | Perform Stock U Granted |
| Managing Board | | | | | | |
| Peer M. Schatz | $1,146,000 | 165,000 | 12,000 | $1,323,000 | $ 72,000 | 791,869 |
| Roland Sackers | $514,000 | 53,000 | 37,000 | $604,000 | $ 74,000 | 229,383 |

(1) The Variable Cash Bonus amount does not include values which were converted to
The Performance Stock Units Granted amount includes the number of Performanc
(2) Managing Board member at his election in lieu of the value of the cash bonus earn
in 2016. These performance stock units vest over two years from the grant date. In
27,677 performance stock units and Mr. Sackers received a grant of 8,884 perform
performance grants were achieved at 90% of the targeted vesting amount.
The Performance Stock Units Granted amount includes the number of Performanc
(3) Managing Board member under the Company's Commitment Program. In 2016, M
performance stock units and Mr. Sackers received a grant of 144,809 performance
In lieu of cash bonus, each Managing Board member elected to receive the value e
(4) which vest over two years from the grant date. In 2016, Mr. Schatz received a gran
Mr. Sackers received a grant of 7,153 restricted stock units.

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(5) Amounts include, among others, car lease and reimbursed personal expenses such occasionally reimburse our Managing Directors' personal expenses related to atten directly related to their attendance. Amounts do not include the reimbursement of incurred at the request of QIAGEN, other reimbursements or payments that in tota amounts paid by the Company to tax authorities in order to avoid double-taxation employment agreements.

Supervisory Board compensation

In early 2014, we conducted a board remuneration benchmark review of 36 peer com in similar industries, including biotechnology, life science supplies, diagnostics and p this review, the Supervisory Board remuneration was aligned to the applicable marke European Markets as a Dutch company as well as our U.S. focus as a NASDAQ listed and the fact that three of the seven Supervisory Board members are residing in the Un The Supervisory Board compensation for 2016 consists of fixed retainer compensatio Chairman and Vice Chairman. Annual remuneration of the Supervisory Board membe

Fee payable to the Chairman of the Supervisory Board

Fee payable to the Vice Chairman of the Supervisory Board

Fee payable to each member of the Supervisory Board

Additional compensation payable to members holding the following positions:

Chairman of the Audit Committee

Chairman of the Compensation Committee

Chairman of the Selection and Appointment Committee and other board committees

Fee payable to each member of the Audit Committee

Fee payable to each member of the Compensation Committee

Fee payable to each member of the Selection and Appointment Committee and other

Further, the Supervisory Board members will be reimbursed for tax consulting costs i preparation of their tax returns up to an amount of €5,000 per person per fiscal year. Supervisory board members also receive a variable component, in the form of share-b any agency or advisory service fees to members of the Supervisory Board.

For the year ended December 31, 2016, the Supervisory Board members received the

| Name | Fixed Remuneration | Chairman/ Vice-Chairman Committee | Committee Membership | Total[2] | Rest Stoc |
|---|---|---|---|---|---|
| Supervisory Board | | | | | |
| Stéphane Bancel | $ 57,500 | — | 32,000 | $89,500 | 10,7 |
| Dr. Werner Brandt[1] | $ 75,000 | 6,000 | — | $81,000 | 10,7 |
| Dr. Metin Colpan | $ 57,500 | 12,000 | 6,000 | $75,500 | 10,7 |
| Prof. Dr. Manfred Karobath | $ 120,000 | 15,000 | 14,500 | $149,500 | 10,7 |
| Prof. Dr. Ross L. Levine | $ 28,750 | — | 3,000 | $31,750 | — |
| Prof. Dr. Elaine Mardis | $ 57,500 | — | 6,000 | $63,500 | 10,7 |
| Lawrence A. Rosen | $ 57,500 | 25,000 | — | $82,500 | 10,7 |
| Elizabeth E. Tallett | $ 57,500 | 9,000 | 23,500 | $90,000 | 10,7 |

(1) Dr. Werner Brandt who was a member of the Supervisory Board since 2007 did n Company's Annual General Meeting in June 2016.

(2) Supervisory Directors are reimbursed for travel costs and for any value-added tax These reimbursements are excluded from the amounts presented herein.

Committees of the Supervisory Board

The Supervisory Board has established an Audit Committee, a Compensation Commi
Committee and a Science and Technology Committee from among its members and c
deemed beneficial. The Supervisory Board has approved charters under which each o
charters are published on our website www.qiagen.com. The committees are compris

| Name of Supervisory Director [1] | Member of Audit Committee | Member of Compensation Committee | Member and Appo Committe |
|---|---|---|---|
| Stéphane Bancel | | | |
| Dr. Metin Colpan | | | |
| Prof. Dr. Manfred Karobath | | | (Chairma |
| Prof. Dr. Ross L. Levine | | | |
| Prof. Dr. Elaine Mardis | | | |
| Lawrence A. Rosen | (Chairman) | | |
| Elizabeth E. Tallett | | (Chairwoman) | |

(1) Dr. Werner Brandt served as the Chairman of the Selection and Appointment Con

We believe that all of our Supervisory Directors meet the independence requirements
Governance Code (the Dutch Code). We further believe that all Supervisory Board D
the Marketplace Rules of the NASDAQ Stock Market. Pursuant to the NASDAQ rule
Directors must qualify as independent, as defined in the Rules.

Audit Committee

The Audit Committee currently consists of three members, Mr. Rosen (Chairman), M
least quarterly. The Audit Committee members are appointed by the Supervisory Boa
believe that all members of our Audit Committee meet the independence requirement
Securities Exchange Act of 1934, as amended, and the Marketplace Rules of the NAS
Rosen as an “audit committee financial expert” as that term is defined in the United S
Commission rules adopted pursuant to the Sarbanes-Oxley Act of 2002 and as define
Dutch Code. The Audit Committee performs a self-evaluation of its activities on an a
The Audit Committee's primary duties and responsibilities include, among other thing
objective party to monitor QIAGEN's accounting and financial reporting process and
compliance systems. The Audit Committee also is directly responsible for proposing
Board, which then proposes the appointment of the external auditor to the General M
responsible for the compensation and oversight of QIAGEN’s external auditor and fo
communication among the external auditor as well as the Management Board and the
department operates under the direct responsibility of the Audit Committee. Further,
establish procedures to allow for the confidential and or anonymous submission by e
this includes the receipt, retention and treatment of submissions received regarding ac
or auditing matters. The Audit Committee discusses our financial accounting and repo
adequacy of our internal accounting, financial and operating controls and procedures
management; considers and approves any recommendations regarding changes to our
reviews with management and the external auditor our quarterly earnings reports prio
reviews the quarterly and annual reports (reported on Forms 6-K and 20-F) to be furn
Exchange Commission and the Deutsche Boerse. The Audit Committee met seven tim

auditor excluding members of the Managing Board in December 2016. The Audit Co
exposures, pre-approves related-party transactions, and reviews any legal matter inclu
have a significant impact on the financial statements.

Compensation Committee

The Compensation Committee's primary duties and responsibilities include, among o
proposal for the Supervisory Board concerning the Remuneration Policy for the Mana
General Meeting, the preparation of a proposal concerning the individual compensatio
adopted by the Supervisory Board and the preparation of the Remuneration Report on
Managing Board to be adopted by the Supervisory Board. The Compensation Commi
equity-based compensation, reviews and approves the annual salaries, bonuses and ot
reviews general policies relating to employee compensation and benefits. The Remun
implementation of the Remuneration Policy in the most recent year and provides an o
the future. The Compensation Committee currently consists of three members, Ms. Ta
Karobath and Mr. Bancel. Members are appointed by the Supervisory Board and serv
Compensation Committee met seven times in 2016.

Selection and Appointment Committee

The Selection and Appointment (Nomination) Committee is primarily responsible for
and appointment procedures for members of the Supervisory Board and Managing Bo
of the scope and composition of the Managing Board and the Supervisory Board, incl
Board. Additionally, the Selection and Appointment Committee periodically evaluate
members of the Managing Board and Supervisory Board, reporting these results to ou
the (re-)appointments of members of our Managing Board and Supervisory Board and
Managing Board in relation to selection and appointment criteria for senior managem
and Appointment Committee are Professor Karobath (Chairman), Dr. Colpan and Ms
Supervisory Board and serve for a one-year term. The Selection and Appointment Co

Science and Technology Committee

The Science and Technology Committee is primarily responsible for reviewing and m
projects, programs, budgets, infrastructure management and overseeing the managem
portfolio and information technology platforms. The Science and Technology Commi
clarification and validation of the fundamental technical basis of the Company's busin
Supervisory Board to make informed, strategic business decisions and vote on related
Board to ensure that powerful, global, world-class science is developed, practiced and
create shareholder value. The current members of the Science and Technology Comm
Professor Karobath, Professor Levine, Mr. Bancel and Professor Mardis. Members ar
and serve for a term of one year. The Science and Technology Committee met four ti

Share Ownership

The following table sets forth certain information as of January 31, 2017 concerning t
our directors and officers. In preparing the following table, we have relied on informa

| | Shares Beneficially Owned [1] | | |
|---|---|---|---|
| Name and Country of Residence | Number [2] | | Percent Ownership |
| Peer M. Schatz, Germany | 2,046,821.92 | (3) | 0.91 % |
| Roland Sackers, Germany | 19,258.00 | (4) | * |
| Stéphane Bancel, United States | — | (5) | — |
| Dr. Metin Colpan, Germany | 3,523,427.00 | (6) | 1.56 % |
| Prof. Dr. Manfred Karobath, Austria | 17,986.00 | (7) | * |
| Prof. Dr. Ross L. Levine, Unites States | — | | — |
| Prof. Dr. Elaine Mardis, United States | — | | — |
| Lawrence A. Rosen, Germany | — | (8) | — |
| Elizabeth Tallett, United States | 4,854.00 | (9) | * |

* Indicates that the person beneficially owns less than 0.5% of the Common Shares i
January 31, 2017.

(1) The number of Common Shares outstanding as of January 31, 2017 was 2 entities named in the table have sole voting and investment power with re beneficially owned by them and have the same voting rights as shareholde

(2) Does not include Common Shares subject to options or awards held by such perso below for information regarding options now exercisable or that could become exe this table.

(3) Does not include 731,158 shares issuable upon the exercise of options now exercis from $15.59 to $22.43 per share. Options expire in increments during the period b 2023. Does not include 1,195,512 shares issuable upon the release of unvested sto within 60 days from the date of this table.

(4) Does not include 196,121 shares issuable upon the exercise of options now exercis from $15.59 to $22.43 per share. Options expire in increments during the period b 2023. Does not include 143,644 shares issuable upon the release of unvested stock within 60 days from the date of this table.

(5) Does not include 4,000 shares issuable upon the release of unvested stock awards days from the date of this table.

(6) Does not include 9,835 shares issuable upon the exercise of options now exercisab $15.59 to $22.43 per share. Options expire in increments during the period betwee Includes 2,741,579 shares held by CC Verwaltungs GmbH, of which Dr. Colpan is shares held by Colpan GbR. Does not include 6,716 shares issuable upon the relea become releasable within 60 days from the date of this table.

(7) Does not include 9,835 shares issuable upon the exercise of options now exercisab $15.59 to $22.43 per share. Options expire in increments during the period betwee not include 6,716 shares issuable upon the release of unvested stock awards that co from the date of this table.

(8) Does not include 4,000 shares issuable upon the release of unvested stock awards days from the date of this table.

(9) Does not include 1,563 shares issuable upon the exercise of options now exercisab share. Options expire on February 2022. Does not include 6,716 shares issuable up awards that could become releasable within 60 days from the date of this table.

The following table sets forth the options of our officers and directors as of January 3

| Name | Total Vested Options | Expiration Dates | Exercise Prices |
|---|---|---|---|
| Peer M. Schatz | 731,158 | 2/28/2018 to 2/28/2023 | $15.59 to $22.43 |
| Roland Sackers | 196,121 | 2/28/2018 to 2/28/2023 | $15.59 to $22.43 |
| Stéphane Bancel | — | — | — |
| Dr. Metin Colpan | 9,835 | 4/25/2017 to 2/28/2022 | $15.59 to $22.43 |
| Prof. Dr. Manfred Karobath | 9,835 | 4/25/2017 to 2/28/2022 | $15.59 to $22.43 |
| Prof. Dr. Elaine Mardis | — | — | — |
| Lawrence A. Rosen | — | — | — |
| Elizabeth E. Tallett | 1,563 | 2/28/2022 | $15.59 |

Employees

As of December 31, 2016, we employed 4,684 individuals, of which 21% worked in r sales, 21% in production/logistics, 7% in marketing and 10% in administration.

| Region | Research & Development | Sales | Production | Marketing | Administ |
|---|---|---|---|---|---|
| Americas | 197 | 634 | 261 | 75 | 93 |
| Europe, Middle East & Africa | 753 | 694 | 622 | 158 | 316 |
| Asia Pacific & Rest of World | 45 | 581 | 113 | 75 | 67 |
| December 31, 2016 | 995 | 1,909 | 996 | 308 | 476 |

At December 31, 2015 and 2014, we employed 4,559 and 4,339 individuals, respectiv relations with regional labor unions and employees are good.

Stock Plans

We adopted the QIAGEN N.V. Amended and Restated 2005 Stock Plan (the 2005 Pla shareholders on June 14, 2005. The 2005 Plan expired by its terms in April 2015 and under the 2005 Plan. On June 25, 2014, our shareholders approved the QIAGEN N.V which replaced the 2005 Plan in April 2015. An aggregate of 9.1 million Common Sh pursuant to the 2014 Plan, subject to certain antidilution adjustments. We issue Treasu and award releases and had approximately 17.9 million Common Shares reserved and and 2014 Plans at December 31, 2016.

Pursuant to the 2014 Plan, stock rights, which include options to purchase our Comm stock-based awards, may be granted to employees and consultants of QIAGEN and it Directors. Options granted pursuant to the 2014 Plan may either be incentive stock op Section 422 of the United States Internal Revenue Code of 1986, as amended (the Co Options granted to members of the Supervisory Board and the Managing Board must than the market price at the time of grant. Generally, each of the options has a term of termination in the event of death, disability or other termination of employment. The stock rights will be accelerated in the event of a Change of Control, as defined in the The Plan is administered by the Compensation Committee of the Supervisory Board, eligible employees, consultants and directors and determines the number of shares sub length of time the award will remain outstanding, the manner and time of the award's the award and other terms and conditions of the award consistent with the Plan. The C are subject to the approval of the Supervisory Board.

The Compensation Committee has the power, subject to Supervisory Board approval, such rules and regulations (including the adoption of “sub plans” applicable to partici deem necessary or appropriate. The Compensation Committee or the Supervisory Boa

any

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respect, subject to Supervisory Board approval, and except that (i) no amendment tha
any participant under any option previously granted may be made without such partic
shall be effective prior to shareholder approval to the extent such approval is required
incentive stock options or to ensure compliance with Rule 16b-3 under the United Sta
as amended (the Exchange Act) at such times as any participants are subject to Sectio
As of January 31, 2017, there were 1.4 million options outstanding with exercise pric
and expiring between April 25, 2017 and October 31, 2023. The exercise price of the
Common Shares as of the date of grant or a premium above fair market value. Additi
unit awards outstanding as of January 31, 2017. These awards will be released betwe
2026. As of January 31, 2017, options to purchase 0.9 million Common Shares and 4.
by the officers and directors of QIAGEN, as a group.

Item 7. Major Shareholders and Related Party Transactions

The following table sets forth certain information as of December 31, 2016, concernin
each holder of greater than 5% ownership. None of these holders have any different v
Common Shares.

| | Shares Beneficially Owned | |
|---|---|---|
| Name and Country of Residence | Number | Percent Ownership [1] |
| PRIMECAP Management Company, United States | 19,143,036 [2] | 8.16 % |
| BlackRock, Inc., United States | 19,433,223 [3] | 8.28 % |
| Franklin Resources, Inc., United States | 25,705,128 [4] | 10.96 % |

(1) The percentage ownership was calculated based on 234,560,586 Common Shares

(2) Of the 19,143,036 shares attributed to PRIMECAP Management Company, it has sole dispositive power over all 19,143,036 shares. This information is based solely PRIMECAP Management Company with the Securities and Exchange Commissio ownership as of December 31, 2016.

(3) Of the 19,433,223 shares attributed to BlackRock, Inc., it has sole voting po dispositive power over all 19,433,223 shares. This information is based sole BlackRock, Inc. with the Securities and Exchange Commission on January of December 31, 2016.

(4) Of the 25,705,128 shares attributed to Franklin Resources, Inc., it shares voting an 25,705,128 shares with various members of a reporting group of which it is part. T Schedule 13G filed by Franklin Resources Inc. with the Securities and Exchange C which reported ownership as of December 31, 2016.

Our common stock is traded on the NASDAQ Global Select Market in the United Sta
Segment of the Frankfurt Stock Exchange in Germany. A significant portion of our sh
account of a stockbroker, therefore we generally have no way of determining who ou
location or how many shares a particular shareholder owns. As of January 31, 2017 th
our Common Shares.

Control of Registrant

To our knowledge, we are not directly or indirectly owned or controlled by another co
or by any other natural or legal person. As of January 31, 2017, the officers and direct
beneficially owned 5.6 million Common Shares, or 2.48% of the then outstanding Co

Related Party Transactions

For information on related party transactions, see Note 22 of the Notes to Consolidate

Item 8. Financial Information

See Item 18.

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Legal Proceedings

For information on legal proceedings, see Note 19 of the Notes to Consolidated Finan
While no assurances can be given regarding the outcome of proceedings described in
currently available, we believe that the resolution of these matters is unlikely to have
financial position or results of future operations for QIAGEN N.V. as a whole. Howe
uncertainties of litigation, should the outcomes be unfavorable, certain aspects of our
results of operations and cash flows could be materially adversely affected.

Statement of Policy on Dividend Distribution

We have not paid any dividends on our Common Shares since our inception and do n
Common Shares in the foreseeable future. We intend to retain our earnings, if any, fo

Disclosure pursuant to Section 219 of the Iran Threat Reduction & Syria Human Righ

We conduct limited business with certain Iranian entities which contributed $3.1 mill
consolidated net sales in 2016. Although these activities are compliant with applicabl
Iran Threat Reduction and Syria Human Rights Act of 2012 (the "Act") requires us to
this report. Sales consisted of our consumables and instrumentation products. U.S. aff
by U.S. affiliates, are not involved in these sales activities and we have not knowingly
a person or entity designated in U.S. Executive Orders No. 13224 and 13382. No busi
Government of Iran as defined in the Act. We do not believe any of our activities are
Act or the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 201
concerned, we do not currently intend to cease our commercial operations with Irania

Item 9. The Offer and Listing

Effective July 3, 2006, our Common Shares began trading on the NASDAQ Global S
Previously, since February 15, 2005, our Common Shares had been quoted on the NA
symbol QGEN. Prior to that, since June 27, 1996, our Common Shares had been quot
under the symbol QGENF. The following tables set forth the annual high and low sal
quarterly high and low sale prices for the last two years, and the monthly high and lo
our Common Shares on the NASDAQ Global Select and NASDAQ National Market,

| | High ($) | Low ($) |
|---|---|---|
| Annual: | | |
| 2012 | 19.41 | 14.05 |
| 2013 | 24.74 | 18.30 |
| 2014 | 25.32 | 19.46 |
| 2015 | 28.53 | 22.11 |
| 2016 | 28.84 | 19.94 |

| | High ($) | Low ($) |
|---|---|---|
| Quarterly 2015: | | |
| First Quarter | 25.91 | 22.11 |
| Second Quarter | 25.74 | 23.63 |
| Third Quarter | 28.53 | 24.38 |
| Fourth Quarter | 28.04 | 23.80 |
| Quarterly 2016: | | |
| First Quarter | 26.89 | 20.10 |
| Second Quarter | 24.05 | 19.94 |
| Third Quarter | 27.70 | 21.38 |
| Fourth Quarter | 28.84 | 23.94 |
| Quarterly 2017: | | |
| First Quarter (through February 28, 2017) | 29.79 | 27.40 |

| | High ($) | Low ($) |
|---|---|---|
| Monthly: | | |
| September 2016 | 27.59 | 25.30 |
| October 2016 | 27.74 | 24.28 |
| November 2016 | 28.50 | 23.94 |
| December 2016 | 28.84 | 26.79 |
| January 2017 | 29.09 | 27.40 |
| February 2017 | 29.79 | 27.93 |

From September 25, 1997, to December 31, 2002, our Common Shares were traded o
Markt under the symbol QIA and with the security code number 901626. As of Janua
Shares was transferred to the Prime Standard Segment of the Frankfurt Stock Exchan
TecDAX, an index of the 30 leading technology companies in Germany not included
following table sets forth the annual high and low sale prices for the last five years, th
the last two years, and the monthly high and low sale prices for the last six months of
Standard.

| | High (EUR) | Low (EUR) |
|---|---|---|
| Annual: | | |
| 2012 | 15.05 | 10.69 |
| 2013 | 18.15 | 13.67 |
| 2014 | 19.64 | 14.38 |
| 2015 | 26.05 | 18.72 |
| 2016 | 27.26 | 17.76 |

| | High (EUR) | Low (EUR) |
|---|---|---|
| Quarterly 2015: | | |
| First Quarter | 24.00 | 18.72 |
| Second Quarter | 24.14 | 20.77 |
| Third Quarter | 26.05 | 21.19 |
| Fourth Quarter | 25.54 | 21.73 |
| Quarterly 2016: | | |
| First Quarter | 24.96 | 17.76 |
| Second Quarter | 21.40 | 18.16 |
| Third Quarter | 24.77 | 19.27 |
| Fourth Quarter | 27.26 | 21.77 |
| Quarterly 2017: | | |
| First Quarter (through February 28, 2017) | 27.77 | 25.53 |

| | High (EUR) | Low (EUR) |
|---|---|---|
| Monthly: | | |
| September 2016 | 24.51 | 22.11 |
| October 2016 | 24.71 | 22.30 |
| November 2016 | 26.51 | 21.77 |
| December 2016 | 27.26 | 25.24 |
| January 2017 | 27.67 | 25.53 |
| February 2017 | 27.77 | 26.27 |

Item 10. Additional Information

Memorandum and Articles of Association

We are a public company with limited liability (naamloze vennootschap) incorporated the Dutch Trade Register under file number 12036979. Set forth below is a summary Articles of Association, as lastly amended on January 24, 2017 (the Articles), and Du Corporate Governance Code, (the Dutch Code), contains principles of good corporate provisions. The Dutch Code contains the principles and concrete provisions which the (including Managing Board members and Supervisory Board members) and stakehold another. A revised Dutch Code was published on December 8, 2016 and is applicable company should either comply with, or if not, explain in its annual report why and to the best practice provisions of the Dutch Code. The Dutch Code has been taken into a This summary does not purport to be complete and is qualified in its entirety by refere Dutch Code.

Corporate Purpose

Our objectives include, without limitation, the performance of activities in the biotech incorporating, acquiring, participating in, financing, managing and having any other i any nature, raising and lending funds and such other acts as may be conducive to our

Managing Directors

QIAGEN shall be managed by a Managing Board consisting of one or more Managin the Supervisory Board. The Managing Directors must take into account our interests a stakeholders (which includes but is not limited to our shareholders). Managing Direct Meeting of our shareholders upon the joint meeting of the Supervisory Board and the having made a binding nomination for each vacancy. However, the General Meeting nature of such a nomination by a resolution adopted by at least a two-thirds majority represents more than half the issued share capital. This is different from the provision

including the Delaware General Corporation Law, which give the directors of a corpo
executive officers of a corporation. Under our Articles, the General Meeting may susp
any time. The Supervisory Board shall also at all times be entitled to suspend (but not
Articles provide that the Supervisory Board may adopt management rules governing t
Managing Board.

Furthermore, the Supervisory Board shall determine the salary, the bonus, if any, and
conditions of employment of the Managing Directors within the scope of the remuner
of the Managing Board has been adopted in our Annual General Meeting on June 25,
Under Dutch law, in the event that there is a conflict of interest between a Managing
that Managing Director shall not participate in the discussions and voting on that matt
conflict of interest, such resolution shall be adopted by the Supervisory Board. If all S
interest as well, the General Meeting will be authorized to resolve on such matter. Ac
conflict of interest or apparent conflict of interest between the company and Managin
Decisions to enter into transactions under which Managing Directors would have con
significance to the Company and/or to the relevant Managing Director require the app

Supervisory Directors

The Supervisory Board shall be responsible for supervising the policy pursued by the
course of affairs. Under our Articles, the Supervisory Directors are required to serve c
interest of all stakeholders (which includes but is not limited to our shareholders) in fu
Board shall consist of such number of members as the Joint Meeting may from time t
three members. The Supervisory Directors shall be appointed by the General Meeting
binding nomination for each vacancy. If during a financial year a vacancy occurs in th
Board may appoint a Supervisory Director who will cease to hold office at the next A
law and the Dutch Code, a Supervisory Director must excuse him or herself in the cas
Supervisory Directors have a conflict of interest, the relevant resolution shall be adop
to enter into transactions under which a Supervisory Director would have a conflict of
significance to QIAGEN and/or to the Supervisory Director concerned, require the ap
Under Dutch law and the Dutch Code, the General Meeting determines the compensa
the proposal of the Compensation Committee. Any shares held by a Supervisory Dire
sits should be long-term investments.

Under our Articles, the General Meeting may suspend or dismiss a Supervisory Direc
the provisions of many American corporate statutes, including the Delaware General
directors may vote to fill vacancies on the board of directors of a corporation.

Liability of Managing Directors and Supervisory Directors

Under Dutch law, as a general rule, Managing Directors and Supervisory Directors ar
Under certain circumstances, however, they may become liable, either towards QIAG
(external liability), although some exceptions are described below.

Liability towards QIAGEN

Failure of a Managing or Supervisory Director to perform his or her duties does not a
is only incurred in the case of a clear, indisputable shortcoming about which no reaso
have any doubt. In addition, the Managing or Supervisory Director must be deemed to
Managing Directors are jointly and severally liable for failure of the Managing Board
Managing Director will not be held liable if he or she is determined not to have been
and has not been negligent in preventing its consequences. Supervisory Directors are
of the Supervisory Board as a whole, but an individual Supervisory Director will not
not to have been responsible for the mismanagement and has not been negligent in pr

Liability for Misrepresentation in Annual Accounts

Managing and Supervisory Directors are also jointly and severally liable to any third
of misrepresentation in the annual accounts, management commentary or interim stat
Managing or Supervisory Director will not be held liable if found not to be personally

Moreover, a Managing or Supervisory Director may be found to be criminally liable i
annual accounts or deliberately allows the publication of such false annual accounts.
Tort Liability

Under Dutch law, there can be liability if one has committed a tort (onrechtmatige da
there is no clear definition of “tort” under Dutch law, breach of a duty of care towards
be a tort. Therefore, a Dutch corporation may be held liable by any third party under t
regarding tort claims. In exceptional cases, Managing Directors and Supervisory Dire
basis of tort under Dutch common law, but it is generally difficult to hold a Managing
liable for a tort claim. Shareholders cannot base a tort claim on any losses which deriv
suffered. In such cases, only we can sue the Managing or Supervisory Directors.

Criminal Liability

Under Dutch law, if a legal entity has committed a criminal offence, criminal proceed
entity itself as well as against those who gave order to or were in charge of the forbid
a Managing Director is only criminally liable if he or she played a reasonably active r

Indemnification

Article 27 of our Articles provides that we shall indemnify every person who is or wa
Director against all expenses (including attorneys’ fees) judgments, fines and amount
threatened pending or completed action, suit or proceeding as well as against expense
and reasonably incurred in connection with the defense or settlement of an action or p
good faith and in a manner he reasonably could believe to be in or not opposed to our
respect of any claim, issue or matter as to which such person shall have been adjudge
willful misconduct in the performance of his or her duty to us.

Classes of Shares

The authorized classes of our shares consist of Common Shares, Financing Preference
Financing Preference Shares or Preference Shares have been issued.

Common Shares

Common Shares are issued in registered form only. Until January 24, 2017, Common
issue of a share certificate, or Type I shares, or with issue of a share certificate, or Typ
of an entry in the share register. At the discretion of the Supervisory Board, Type I sh
such Type I shares will be registered in either our shareholders register with America
New York Transfer Agent, our transfer agent and registrar in New York, or our share
B.V., Westblaak 89, NL-3012 KG Rotterdam, The Netherlands. The Type II shares w
Transfer Agent.

On January 24, 2017 an adjustment to the capital structure of the Company took place
250 million to the Company’s shareholders via a so called synthetic share repurchase.
Company's Articles. With the first amendment of the Articles, the par value of each C
second Amendment of the Articles, the Shares were consolidated on the basis of a rat
Board as result thereof the total number of issued Shares were decreased and fractiona
fractional Share represents one/twenty-seventh (1/27$^{e}$) portion of the value of an ordi
second amendment of the articles of association, the Company can no longer issue sh
certificates are no longer valid and therefore no longer a distinction is made between
third amendment of the Articles the par value per Share was decreased to EUR 0.01 (
amendment of the Articles). A part of the value whereby the par value of Shares was

The transfer of registered shares requires that we issue a written instrument of transfe
such transfer (or, in the case of Type II shares as existed until January 24, 2017, the N
name)), and surrender of the share certificates, if any, to us or (in our name) to the Ne
surrender of a share certificate for the purpose of transfer of the relevant shares, we (o
name) acknowledge the transfer by endorsement on the share certificate or by issuanc
transferee, at the discretion of the Managing Board.

Financing Preference Shares

No Financing Preference Shares are currently issued or outstanding. If issued, Financ
registered form only. No share certificates are issued for Financing Preference Shares
fully paid up upon issue. The preferred dividend rights attached to Financing Preferen
“Dividends” below. We have no present plans to issue any Financing Preference Shar

Preference Shares

No Preference Shares are currently issued or outstanding. If issued, Preference Shares
No share certificates shall be issued for Preference Shares. Only 25% of the nominal
upon subscription for Preference Shares. The obligatory payable part of the nominal a
each Preference Share. The Managing Board may, subject to the approval of the Supe
and up to which amount a further call must be paid on Preference Shares which have
preferred dividend rights attached to Preference Shares are described under "Dividend
Pursuant to our Articles, QIAGEN's Supervisory Board is entitled, if and in so far as
designated by our General Meeting, to resolve to issue Preference Shares in case of an
by (i) any person who alone or with one or more other persons, directly or indirectly,
intent to acquire (beneficial) ownership of an equity stake which in aggregate equals 2
outstanding or (ii) an "adverse person" as determined by the Supervisory Board. For t
generally any (legal) person, alone or together with affiliates or associates, with an eq
Supervisory Board considers to be substantial and where the Supervisory Board is of
engaged in an acquisition that is intended to cause or pressure QIAGEN to enter into
person with short-term financial gain under circumstances that would not be in the int
or whose ownership is reasonably likely to cause a material adverse impact on our bu
Supervisory Board has not been designated to issue Preference Shares.

On August 2, 2004, we entered into an agreement (Option Agreement) with Stichting
(SPAQ) which was most recently amended on June 4, 2012. Pursuant to the Option A
option to acquire such number of Preference Shares as are equal to the total number o
minus one in our share capital at the time of the relevant exercise of the right. SPAQ
Preference Shares in all situations that it believes that our interest or our stakeholders
are not limited to (i) receipt of a notification from the Managing Board that a takeove
notification from the Managing Board that one or more activist shareholders take a po
QIAGEN, our shareholders or our other stakeholders), provided that the conditions m
have been met. Due to the implementation of the EC Directive on Takeover Bids in D
option to acquire Preference Shares by SPAQ and the subsequent issuance of Preferen
with due observance and in consideration of the restrictions imposed by the Public Of
SPAQ was incorporated on August 2, 2004. Its principal office is located at Hulsterw
Netherlands. Its statutory objectives are to protect our interests and our enterprise and
are linked to us. SPAQ shall attempt to accomplish its objectives by way of acquiring
of QIAGEN and to exercise the voting rights in our interests and the interests of our s
The board of SPAQ shall consist of at least two directors. Upon incorporation of SPA
board of SPAQ. Additional board members shall be appointed by the board of SPAQ.
unanimity of the votes cast. SPAQ will be represented either by its board or by the ch

Pre-emptive Rights

Under our Articles, existing holders of Common Shares will have pre-emptive rights
Common Shares in proportion to the number of Common Shares held by them, unless
below. Holders of Common Shares shall not have pre-emptive rights in respect of futu
Shares or Preference Shares. Holders of Financing Preference Shares and Preference
rights in respect of any future issuances of share capital. Pre-emptive rights do not app
against contributions other than in cash or shares issued to our employees or one of ou
Articles, the Supervisory Board has the power to limit or exclude any pre-emptive rig
entitled, provided that it has been authorized by the General Meeting to do so. The au
limit or exclude pre-emptive rights can only be exercised if at that time the authority
effect. The authority to limit or exclude pre-emptive rights may be extended in the sa
shares. If there is no designation of the Supervisory Board to limit or exclude pre-emp
Meeting shall have authority to limit or exclude such pre-emptive rights, but only upo
Board.

Resolutions of the General Meeting (i) to limit or exclude pre-emptive rights or (ii) to
the corporate body that has authority to limit or exclude pre-emptive rights, require a
votes cast in a meeting of shareholders if less than 50% of the issued share capital is p
purposes, issuances of shares include the granting of rights to subscribe for shares, su
issue of shares upon exercise of such rights.

On June 21, 2016, the General Meeting resolved to authorize the Supervisory Board u
Common Shares and Financing Preference Shares or grant rights to subscribe for such
which shall be equal to the aggregate par value of all shares issued and outstanding in
December 31, 2015 as included in the Annual Accounts for Fiscal Year 2015.
The General Meeting subsequently resolved to grant the authority to restrict or exclud
21, 2017. However, the General Meeting has limited this authority in a way that the S
limit the pre-emptive rights in relation to no more than 20% of the aggregate number
the capital of the Company as of December 31, 2015.
Acquisition of Our Own Shares
We may acquire our own shares, subject to certain provisions of Dutch law and our A
the payment required to make the acquisition does not fall below the sum of paid-up a
required by Dutch law or the Articles and (ii) we and our subsidiaries would not there
nominal value exceeding half of our issued share capital. Shares that we hold in our o
subsidiaries may not be voted. The Managing Board, subject to the approval of the Su
acquisition of shares in our own capital. Our acquisitions of shares in our own capital
Meeting has granted to the Managing Board the authority to effect such acquisitions.
maximum period of 5 years and must specify the number of shares that may be acquir
acquired and the price limits within which shares may be acquired. Dutch corporate la
Managing Board to purchase a number of shares equal to up to 50% of the Company'
acquisition. On June 21, 2016, the General Meeting resolved to extend the authorizati
manner that the Managing Board may cause us to acquire shares in our own share cap
June 21, 2016 until December 21, 2017, without limitation at a price between one Eur
ten percent (110%) of the price for such shares on the NASDAQ Global Select Marke
Exchange, for the five trading days prior to the day of purchase, or, with respect to Pr
shares, against a price between one Euro cent (Euro 0.01) and three times the issuance
applicable provisions of Dutch law and our Articles.
Capital Reduction
Subject to the provisions of Dutch law and our Articles, the General Meeting may, up
Board, resolve to reduce the issued share capital by (i) canceling shares or (ii) reducin
an amendment of our Articles. Cancellation with repayment of shares or partial repay
obligation to pay up may also be made or given exclusively with respect to Common
Preference Shares.
Financial Year, Annual Accounts and Independent Registered Public Accounting Firm
Our financial year coincides with the calendar year. Dutch law and our Articles requir
of the financial year, the Managing Board must make available a report with respect t
financial statements for such year prepared under International Financial Reporting St
of an Independent Registered Public Accounting Firm. The annual report is submitted
adoption.
The General Meeting appoints the external auditor of our statutory financial statemen
International Financial Reporting Standards and to issue a report thereon. On June 21
KPMG Accountants N.V. to serve as our external auditor for our statutory consolidate
accordance with International Financial Reporting Standards for the year ending Dece
Dividends and Other Distributions
Subject to certain exceptions, dividends may only be paid out of profits as shown in o
adopted by the General Meeting. Distributions may not be made if the distribution wo
the sum of the paid-up capital and any reserves required by Dutch law or our Articles
Out of profits, dividends must first be paid on any outstanding Preference Shares (the
percentage (the Preference Share Dividend Percentage) of the obligatory call amount
beginning of the financial year in respect of which the distribution is made. The Prefe
equal to the average main refinancing rates during the financial year for which the dis

refinancing rate shall be understood to mean the average value on each individual day
the distribution is made of the main refinancing rates prevailing on such day. The mai
to mean the rate of the Main Refinancing Operation as determined and published from
Bank. If and to the extent that profits are not sufficient to pay the Preference Share Di
out of the reserves, with the

exception of any reserve, which was formed as share premium reserve upon the issue
any financial year the profit is not sufficient to make the distributions referred to abov
partial distribution is made from the reserves referred to above, such that the deficit is
distributions will be made as described below until the deficit has been made good.
Out of profits remaining after payment of any dividends on Preference Shares, the Su
amounts as shall be kept in reserve as determined by the Supervisory Board. Out of ar
reserve, a dividend (the Financing Preference Share Dividend) shall be paid on the Fi
percentage (the Financing Preference Share Dividend Percentage) over the nominal v
Shares, increased by the amount of share premium that was paid upon the first issue o
Financing Preference Shares Dividend Percentage which percentage is related to a fix
interest rate on corporate loans in the United States as quoted in the Wall Street Journ
Articles. If and to the extent that the profits are not sufficient to pay the Financing Pre
deficit may be paid out of the reserves if the Managing Board so decides with the app
the exception of the reserve which was formed as share premium upon the issue of Fi
Insofar as the profits have not been distributed or allocated to reserves as specified ab
allocate such profits, provided that no further dividends will be distributed on the Pref
Preference Shares.
The General Meeting may resolve, on the proposal of the Supervisory Board, to distri
partially, in the form of QIAGEN shares.
Distributions as described above are payable as from a date to be determined by the S
payment on Type I shares may differ from the date of payment on Type II shares. Dis
address or addresses in The Netherlands to be determined by the Supervisory Board, a
country where the shares are listed or quoted for trading. The Supervisory Board may
cash distributions, provided that cash distributions in respect of Type II shares will, su
the currency of a country where our shares are listed or quoted for trading, converted
determined for that purpose by the Supervisory Board. Distributions in cash that have
and two days after they have become due and payable shall revert to QIAGEN.
Dutch law provides that the declaration of dividends out of the profits that are at the f
the exclusive right of the General Meeting. This is different from the corporate law of
States, which permit a corporation’s board of directors to declare dividends.
Shareholder Meetings, Voting Rights and Other Shareholder Rights
The annual General Meeting is required to be held within six months after the end of
among other things, adopting the annual accounts and filling of any vacancies on the
Extraordinary General Meetings are held as often as deemed necessary by the Manag
upon the request of one or more shareholders and other persons entitled to attend mee
of our issued share capital or by one or more shareholders jointly representing at least
provided for and in accordance with the laws of The Netherlands.
General Meetings are held in Amsterdam, Haarlemmermeer (Schiphol Airport), Arnh
The Hague. The notice convening a General Meeting must be given in such manner a
but not limited to an announcement published by electronic means no later than the fo
general meeting. The notice will contain the agenda for the meeting or state that the a
The agenda shall contain such subjects to be considered at the General Meeting, as th
meeting shall decide. Under Dutch law, holders of shares representing solely or jointl
issued share capital may request QIAGEN not later than on the sixtieth day prior to th
include certain subjects on the notice convening a meeting. No valid resolutions can b
respect of subjects which are not mentioned in the agenda.
Dutch corporate law sets a mandatory (participation and voting) record date for Dutch
twenty-eighth day prior to the day of the shareholders’ meeting. Shareholders register
attend and exercise their rights as shareholders at the General Meeting, regardless of a

General Meetings are presided over by the chairman of the Supervisory Board or, in h
by the Supervisory Board.

At the General Meeting, each share shall confer the right to cast one vote, unless othe
No votes may be cast in respect of shares that we or our subsidiaries hold, or by usufr
shareholders and other persons entitled to vote at General Meetings are entitled to atte
meeting and to vote. They must notify the Managing Board in writing of their intentio
than on the third day prior to the day of the meeting, unless the Managing Board perm
of time prior to any such meeting. Subject to certain exceptions, resolutions may be p
cast.

Except for resolutions to be adopted by the meeting of holders of Preference Shares, c
of shareholders resolutions by written consent (or otherwise without holding a meetin
A resolution of the General Meeting to amend our Articles, dissolve QIAGEN, issue s
shares or limit or exclude any pre-emptive rights to which shareholders shall be entitl
General Meeting by the Supervisory Board.

A resolution of the General Meeting to amend our Articles is further only valid if the
available for inspection by the shareholders and the other persons entitled to attend G
the day of notice convening such meeting until the end of the meeting. A resolution to
rights attached to the shares of a specific class requires the approval of the relevant cl
Resolutions of the General Meeting in a meeting that has not been convened by the M
Board, or resolutions included on the agenda for the meeting at the request of shareho
with a majority of two-thirds of votes cast representing more than half the issued shar
greater majority or quorum.

A resolution of the General Meeting to approve a legal merger or the sale of all or sub
if adopted by a vote of at least two-thirds of the issued share capital, unless proposed
case a simple majority of the votes cast shall be sufficient.

A shareholder shall upon request be provided, free of charge, with written evidence o
regard to the shares registered in its name. Furthermore, any shareholder shall, upon w
normal business hours, to inspect our share register and a list of our shareholders and
to make copies or extracts therefrom. Such request must be directed to our Managing
The Netherlands or at our principal place of business. Financial records and other con
made public) are not available in this manner for shareholder review, but an extract o
shall be made available.

According to Dutch law and our Articles, certain resolutions of the Managing Board r
identity or nature of us or our enterprise are subject to the approval of the General Me
Managing Board require the approval of the General Meeting in any event:

(i) the transfer of our enterprise or practically our entire enterprise to a third party;
the entry into or termination of a long-term cooperation by us or one of our subsid

(ii) another legal person or partnership or as a fully liable general partner of a limited
such cooperation or termination is of a far-reaching significance for us; and
the acquisition or divestment by us or one of our subsidiaries (dochtermaatschapp

(iii) capital of a company with a value of at least one-third of the sum of our assets acc
sheet and explanatory notes in our last adopted annual accounts.

No Derivative Actions; Right to Request Independent Inquiry

Dutch law does not afford shareholders the right to institute actions on behalf of us or
at least one-tenth of our issued capital, or EUR 225,000, in nominal value of our share
and the Supervisory Board of their objections as to our policy or the course of our affa
thereafter, may request the Enterprises Division of the Court of Appeal in Amsterdam
the course of our affairs by independent investigators. If such an inquiry is ordered an
has been mismanagement, the shareholders can request the Division to order certain r
annulment of resolutions.

Dissolution and Liquidation

The General Meeting may resolve to dissolve QIAGEN. If QIAGEN is dissolved, the
person designated for that purpose by the General Meeting, under the supervision of t
Meeting shall upon the proposal of the Supervisory Board determine the remuneration
person responsible for supervising the liquidation.

During the liquidation process, the provisions of our Articles will remain applicable t
In the event of our dissolution and liquidation, the assets remaining after payment of a
be distributed among registered holders of Common Shares in proportion to the nomi
subject to liquidation preference rights of holders of Preference Shares and Financing

Restrictions on Transfer of Preference Shares

The Supervisory Board, upon application in writing, must approve each transfer of Pr
the Supervisory Board will designate prospective purchasers willing and able to purch
will be deemed approved.

Limitations in our Articles on Rights to Own Securities

Other than with respect to usufructuaries and pledgees who have no voting rights, our
rights to own our securities.

Provisions which May Defer or Prevent a Change in Control

The Option Agreement and our Articles could, under certain circumstances, prevent a
of the voting control of our shares by issuing Preference Shares. Under the Option Ag
Preference Shares subject to the provisions referred to under "Preference Shares".

If SPAQ acquires the Preference Shares, the bidder may withdraw its bid or enter into
Board and/or Supervisory Board and agree on a higher bid price for our shares.

Shareholders who obtain control of a company are obliged to make a mandatory offer
threshold for a mandatory offer is set at the ability to exercise 30% of the voting right
shareholders in a Dutch public limited company (naamloze vennootschap) whose secu
regulated market in the EU, such as QIAGEN.

Ownership Threshold Requiring Disclosure

Our Articles do not provide an ownership threshold above which ownership must be d
requirements to disclose share ownership above certain thresholds under Dutch law—
Disclose Major Holdings".

Exchange Controls

There are currently no limitations either under the laws of The Netherlands or in our A
from outside The Netherlands to hold or vote Common Shares. Under current foreign
Netherlands, there are no material limitations on the amount of cash payments that we
countries.

Obligation of Shareholders to Disclose Major Holdings

Certain holders of our shares or rights to acquire shares (which include options and co
subject to notification obligations under Chapter 5.3 of the Dutch Financial Markets S
Under Chapter 5.3 of the FMSA, any person who, directly or indirectly, acquires or d
potential interest, such as options and convertible bonds), in our capital or voting righ
Netherlands Authority for the Financial Markets (AFM) by means of a standard form
disposal, the percentage of capital interest or voting rights held by such person in QIA
any of the following thresholds: 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%
capital interests in the issued capital of QIAGEN. This also applies if a short position
acquired. If both a (gross) short position and a long position exceeding the threshold a
to be reported.

A notification requirement also applies if a person's capital interest or voting rights re
mentioned thresholds as a result of a change in our total share capital or voting rights.
later than the fourth trading day after the AFM has published our notification as descr
the AFM immediately of the changes to our total share capital or voting rights if our s
by 1% or more since our previous notification. We must furthermore quarterly notify
end of the relevant quarter, in the event our share capital or voting rights changed by
since our previous notification.

Furthermore, each person who is or ought to be aware that, as a result of the exchange
as options for shares, his actual capital or voting interest in QIAGEN, reaches, exceed

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thresholds: 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95%, vis
the AFM, must give notice to the AFM no later than the fourth trading day after he be
change.
Controlled entities, within the meaning of the FMSA, do not have notification obligat
and indirect interests are attributed to their (ultimate) parent. Any person may qualify
including an individual. A person who has a 3% or larger interest in our share capital
controlled entity for these purposes must immediately notify the AFM. As of the date
obligations under the FMSA will become applicable to that entity. For the purpose of
interest or voting rights, among other metrics, the following interests must be taken in
rights on our shares directly held (or acquired or disposed of) by a person, (ii) our sha
(or acquired or disposed of) by such person's subsidiaries or by a third party for such
with whom such person has concluded an oral or written voting agreement (including
and (iii) our shares or voting rights on our shares which such person, or any subsidiar
acquire pursuant to any option or other right held by such person (or acquired or dispo
on the basis of convertible bonds). Special rules apply with respect to the attribution o
shares which are part of the property of a partnership or other community of property
usufruct (vruchtgebruik) in respect of our shares can also be subject to the notification
person has, or can acquire, the right to vote on our shares or, in the case of depository
acquisition of (conditional) voting rights by a pledgee or usufructuary may also trigge
pledgee or beneficial owner were the legal holder of our shares or voting rights on ou
settled derivatives (such as cash settled call options and total equity return swaps) refe
taken into account for the purpose of calculating the percentage of capital interest.
In addition, pursuant to Regulation (EU) No 236/2012, each person holding a net sho
issued share capital of a Dutch company that has shares admitted to trading on a Euro
report it to the AFM. Each subsequent increase of this position by 0.1% above 0.2% v
short position equal to 0.5% of the issued share capital of a Dutch listed company and
position by 0.1% will be made public via the AFM short selling register. To calculate
person has a net short position, their short positions and long positions must be set-of
only be contracted if a reasonable case can be made that the shares sold can actually b
confirmation of a third party that the shares have been located.
The AFM does not issue separate public announcements of these notifications. It does
notifications under the FMSA on its website www.afm.nl. Third parties can request to
changes to the public register in relation to a particular company’s shares or a particul
Non-compliance with the notification obligations under the FMSA may lead to crimin
imprisonment or other sanctions. In addition, non-compliance with the shareholding o
may lead to civil sanctions, including suspension of the voting rights relating to our sh
of not more than three years and a prohibition applicable to the offender to acquire an
shares for a period of up to five years.
Management
Pursuant to European Union Regulation (EU) No 596/2014 (the “Market Abuse Regu
thereunder, any Managing Board member and Supervisory Board member, as well as
managerial responsibilities in respect of QIAGEN who has regular access to inside in
to QIAGEN and power to take managerial decisions affecting future developments an
must notify the AFM by means of a standard form of any transactions conducted for h
shares or debt instruments of QIAGEN or to derivatives or other financial instruments
In addition, pursuant to the Market Abuse Regulation, certain persons who are closely
members and Supervisory Board members or any of the other persons as described ab
any transactions conducted for their own account relating to the shares or debt instrum
other financial instruments linked thereto. The Market Abuse Regulation covers, inter
persons: (i) the spouse or any partner considered by national law as equivalent to the s

other relatives who have shared the same household for at least one year at the relevan
person, trust or partnership whose, among other things, managerial responsibilities are
under (i) to (iii) above or by the relevant Managing Board members and Supervisory
discharging the managerial responsibilities in respect of QIAGEN as described above

The notifications pursuant to the Market Abuse Regulation described above must be m
business day following the relevant transaction date. Under certain circumstances, the
until all transactions within a calendar year have reached a total amount of €5,000 (ca
subsequent transaction must be notified as set forth above.

Taxation

The following is a general summary of certain material United States federal income
Common Shares who are "U.S. Holders" (as such term is defined below) and certain
holders of our Common Shares who are "non-resident Shareholders" or "Shareholder
summary does not discuss every aspect of such taxation that may be relevant to such
purchasers of our Common Shares described above are advised to consult their own ta
States federal, state and local tax consequences, as well as The Netherlands tax conse
Common Shares. This summary is based upon the advice of Blais, Halpert, Lieberma
consequences for U.S. Holders under United States law and Baker & McKenzie with
non-resident Shareholders or Shareholders under Netherlands law.

The statements of The Netherlands and United States tax laws set out below are based
this Annual Report on Form 20-F, and as a consequence are subject to any changes in
or in the double taxation conventions between the United States and The Netherlands

Netherlands Tax Considerations

The following describes the material tax consequences under Netherlands law of an in
Such description is based on current Netherlands law as interpreted under officially p
tax implications for an owner of our Common Shares who is not, or is not deemed to
purposes of the relevant tax codes (a "non-resident Shareholder" or "Shareholder").

Dividend Withholding Tax

General. Upon distribution of dividends, we would be obligated to withhold 15% divi
amount withheld to The Netherlands tax authorities. The term "dividends" means inc
participating in profits, as well as income from other corporate rights that is subjected
income from shares by the laws of The Netherlands. Dividends include dividends in c
certain repayments of capital qualified as dividends, interest on loans that are treated
income tax purposes and liquidation proceeds in excess of, for Netherlands tax purpos
dividends are also subject to withholding tax, unless derived from our paid-in share p
for Netherlands tax purposes.

No withholding tax applies on the proceeds resulting from the sale or disposition of o
than QIAGEN and our affiliates.

A Shareholder can be eligible for a reduction or a refund of Netherlands dividend wit
which is in effect between the country of residence of the Shareholder and The Nethe
such conventions with, among others, the United States, Canada, Switzerland, Japan a
Shareholder can also be eligible for a refund of Netherlands dividend withholding tax
Netherlands income tax or corporate income tax that would have been payable if such
resident of the Netherlands.

U.S. Shareholders. Under the Tax Convention between The Netherlands and the Unit
15% withholding tax on dividends we pay to a resident of the United States (as define
the benefits of the Convention, may be reduced to 5% (in the case of a corporate U.S.
of the voting power of a Netherlands company) unless such U.S. shareholder has a pe
Netherlands with which the shares are effectively connected.

A full exemption from Netherlands withholding tax may apply to certain U.S. corpora
QIAGEN voting power for a period of at least twelve months prior to the distribution
Dividends we pay to U.S. pension funds and U.S. tax exempt organizations may be el
withholding tax.

Dividend Stripping. A refund, reduction, exemption, or credit of Netherlands dividend
Netherlands tax law or on the basis of a tax treaty between The Netherlands and anoth

dividends are paid to the beneficial owner (“uiteindelijk gerechtigde”) of the dividend
considered to be the beneficial owner of a dividend in an event of “dividend stripping
related to the receipt of such dividend. In general terms, “dividend stripping” can be d

foreign or domestic person (usually, but not necessarily, the original shareholder) has
entitlement to the dividend distributions to a party that has a more favorable right to a
dividend withholding tax than the foreign or domestic person. In these situations, the
original shareholder) avoids Netherlands dividend withholding tax while retaining his
the dividend distributions, by transferring his shares or his entitlement to the dividend

Income Tax and Corporate Income Tax

General. A non-resident Shareholder will not be subject to Netherlands income tax or
dividends we distribute on our Common Shares or with respect to capital gains derive
Common Shares, provided that:

(a) the non-resident Shareholder does not carry on or have an interest in a business in
establishment or a permanent representative to which or to whom the Common Share
attributable;

(b) the non-resident Shareholder does not have a direct or indirect substantial or deem
belang," as defined in The Netherlands tax code) in our share capital or, in the event t
substantial interest, such interest is a "business asset", or, in case of a corporate Share
arrangements are not put in place with the main purpose or one of the main purposes
tax for another person or otherwise cannot be considered artificial. An arrangement or
artificial to the extent not put in place for valid commercial reasons that reflect econo

(c) the non-resident Shareholder is not entitled to a share in the profits of an enterpris
attributable and that is effectively managed in The Netherlands, other than by way of
contract.

In general terms, a substantial interest ("aanmerkelijk belang") in our share capital do
(individuals as well as corporations), alone or together with his partner, does not own
the nominal paid-in capital of, or any class of our shares, does not have the right to ac
paid-in capital of, or any class of our shares (including a call option) and does not hav
liquidation revenue amounting to 5% or more of the annual profits or liquidation reve

There is no all-encompassing definition of the term "business asset"; whether this det
depends on the facts presented and in particular on the activities performed by the Sha
conducts a business activity, while the key interest of his investment in our Shares wi
investment in our Shares but our economic activity, an investment in our Shares will
business asset, in particular if the Shareholder's involvement in our business will exce
investment in our Shares.

U.S. Shareholders. Pursuant to the Convention, the gain derived by a U.S. Shareholde
Shares constituting a substantial interest of the Shareholder in QIAGEN, not effective
with a permanent establishment or permanent representative of the Shareholder in The
Netherlands income tax or corporate income tax, provided that the gain from the alien
derived by an individual Shareholder who has, at any time during the five-year period
resident of The Netherlands according to Netherlands tax law and who owns, at the ti
together with close relatives, at least 25% of any class of our shares.

Gift and Inheritance Tax

A gift or inheritance of our Common Shares from a non-resident Shareholder will gen
gift and inheritance tax, provided that the Shareholder does not own a business which
through a permanent establishment or a permanent representative in The Netherlands
Shares are attributable. The Netherlands has concluded a tax convention with the Uni
taxation on inheritances may be avoided if the inheritance is subject to Netherlands an
deceased was a resident of either The Netherlands or the United States.

United States Federal Income Tax Considerations

The following summarizes certain material U.S. federal income tax consequences of t
our Common Shares by an investor that purchases such Common Shares and that will
assets. This summary does not purport to be a complete analysis or listing of all poten

address holders subject to special treatment under U.S. federal income tax laws (inclu
organizations, regulated investment companies, financial institutions, broker dealers,
alternative minimum tax, or holders that own, actually or constructively, 10% or more

As used herein, references to a “U.S. Holder” are to a holder of our Common Shares t
purposes of the United States, (ii) a corporation, limited liability company or partners
United States or any political subdivision thereof, (iii) any estate (other than an estate
outside the United States that is not effectively connected with a trade or business wit
in its gross income for U.S. federal income tax purposes), and (iv) any trust if a court
exercise primary supervision over the administration of the trust and one or more U.S
all substantial decisions of the trust; and references to a “non-U.S. Holder” are to a ho
U.S. Holder.

Taxation of Dividends

To the extent paid out of our current or accumulated earnings and profits, as determin
principles, distributions, if any, made with respect to our Common Shares will be incl
purposes in the income of a U.S. Holder as ordinary dividend income in an amount eq
market value of any property that we distribute, before reduction for Netherlands with
eligible to be treated by U.S. Holder individuals, trusts and estates as “qualified divid
rate of 20 percent (plus possibly an additional 3.8 percent on net investment income; s
Income Tax Considerations — Surtax on Net Investment Income”), if the shareholder
holding period requirements, does not treat the dividends as "investment income" for
deduction, is not under any obligation to make related payments with respect to positi
property, and if we are not treated for our taxable year in which the dividend is paid, o
passive foreign investment company (see “Taxation—United States Federal Income T
Investment Company Status”). To the extent that such distribution exceeds our curren
will be treated as a non-taxable return of capital to the extent of the U.S. Holder’s adj
and thereafter as taxable capital gain. Dividends generally will be treated as income fr
and generally will be passive category income (or, in the case of certain holders, “fina
the foreign tax credit limitation. Dividends we pay will not be eligible for the dividen
corporations in certain circumstances under the United States Internal Revenue Code
U.S. Holder may elect annually to either deduct The Netherlands withholding tax (see
Considerations—Dividend Withholding Tax”) against their income (in which case, th
taxes such U.S. Holder paid in that year) or take the withholding taxes as a credit agai
U.S. foreign tax credit limitation rules. If the dividends are qualified for the lower app
above), the amount of the dividend income taken into account for calculating the fore
be limited to the gross amount of the dividend, multiplied by the reduced rate, divided
applicable to dividends. The rules governing the foreign tax credit are complex. We u
advisors regarding the availability of the foreign tax credit in your particular circumst
A non-U.S. Holder generally will not be subject to U.S. federal income tax or withhol
to our Common Shares that are treated as dividend income for U.S. federal income ta
effectively connected with the conduct of a trade or business within the United States
attributable to a permanent establishment maintained in the United States by such non
tax treaty so requires as a condition for such non-U.S. Holder to be subject to U.S. tax
of income from our Common Shares), in which case the non-U.S. Holder generally w
dividends in the same manner as a U.S. Holder. Any such effectively connected incom
treated as a corporation for U.S. federal income tax purposes may also, under certain
additional “branch profits tax” at a 30% rate or such lower rate as may be specified by
non-U.S. Holder generally will not be subject to U.S. federal income tax or withholdi
our Common Shares that are treated as capital gain for U.S. federal income tax purpo
subject to U.S. federal income tax on gain realized on the sale or other disposition of
below.

Surtax on Net Investment Income

Certain U.S. Holders that are individuals, estates or trusts and whose income exceeds
additional 3.8% surtax on some or all of their “net investment income” (or, in the case

undistributed net investment income). Net investment income generally includes divi
disposition of, our Common Shares unless such dividends or gain is derived in the ord
or business (other than a trade or business that consists of certain passive or trading ac
advisors regarding the effect this surtax may have, if any, on your acquisition, owners
Shares.

Taxation of Capital Gains

Subject to the "passive foreign investment company" (PFIC) rules discussed below, u
Common Shares, a U.S. Holder will recognize gain or loss for U.S. federal income ta
difference between the amounts realized on the disposition of our Common Shares an
in our Common Shares. Such gain or loss generally will be subject to U.S. federal inc
generally subject to a maximum capital gains rate of 20% for our Common Shares he
an additional 3.8 percent on net investment income, as discussed above). For U.S. fed
losses are subject to limitations on deductibility. Gain realized by a U.S. Holder on th
Common Shares generally will be treated as income from sources within the United S
credit limitation.

A non-U.S. Holder will not be subject to U.S. federal income tax or withholding tax o
disposition of our Common Shares unless (i) the gain is effectively connected with a t
Holder in the United States (and is attributable to a permanent establishment maintain
non-U.S. Holder, if an applicable income tax treaty so requires as a condition for such
taxation on a net income basis in respect of gain from the sale or other disposition of
holder is an individual who is present in the United States for 183 days or more in the
other conditions are met. Effectively connected gains realized by a corporate Non-U.S
circumstances, be subject to an additional “branch profits tax” at a 30% rate or such lo
applicable income tax treaty.

Passive Foreign Investment Company Status

We may be classified as a PFIC for U.S. federal income tax purposes if certain tests a
to a U.S. Holder if for any taxable year in which the U.S. Holder held our Common S
gross income for the taxable year is passive income; or (ii) the average value of our as
produce or are held for the production of passive income is at least 50% of the averag
Passive income means, in general, dividends, interest, royalties, rents (other than rent
conduct of a trade or business and not derived from a related person), annuities, and g
such income other than sales of inventory. For the purpose of the PFIC tests, if a forei
value of the stock of another corporation, the foreign corporation is treated as owning
the other corporation, and as if it had received directly its proportionate share of the in
effect of this special provision with respect to QIAGEN and our ownership of our sub
income and assets tests described above, will be treated as owning directly our propor
subsidiaries and of receiving directly our proportionate share of each of those compan
directly or indirectly, at least 25% by value of the particular company’s stock. Active
will be treated as our active business income, rather than as passive income. Based on
do not believe that we were a PFIC for our taxable years ended December 31, 2014, D
2016, and do not expect to be a PFIC for the current taxable year. No assurances can b
not challenge this position or that we will not subsequently become a PFIC. Followin
to promptly send a notice to all shareholders of record at any time during such year, if
Prospective purchasers of our Common Shares are urged to consult their tax advisors
effect on an investment in our Common Shares, with particular regard to (i) the advisa
electing fund" election in the event that we notify the shareholders that we have becom
(ii) the advisability of making the "mark-to-market" election provided in the tax law.

Backup Withholding and Information Reporting

In general, dividend payments, or other taxable distributions, paid within the United S
financial intermediaries on our Common Shares will be subject to information reporti
withholding tax at the rate of 28% for a non-corporate United States person and, who

- fails to provide an accurate taxpayer identification number;
- is notified by the Internal Revenue Service that the individual has failed to repo
  be shown on the Federal income tax returns; or
- in certain circumstances, fails to comply with applicable certification requirements.

Certain corporations and persons that are not United States persons may be required t
information reporting and backup withholding by certifying their status on Internal R
applicable Form W-8.

If a United States person sells our Common Shares to or through a United States offic
proceeds is subject to both United States backup withholding and information reportin
they are a non-U.S. person, under penalties of perjury, or they otherwise establish an
sells our Common Shares through a non-U.S. office of a non-U.S. broker and the sale
outside the United

States then information reporting and backup withholding generally will not apply to
information reporting requirements, but not backup withholding, will apply to a paym
payment is made to the United States person outside the United States, if the person s
non-U.S. office of a broker that is a U.S. person or has certain other contacts with the
A holder generally may obtain a refund of any amounts withheld under the backup wi
holder's income tax liability by filing a refund claim with the United States Internal R

Foreign Currency Issues

If dividends on our Common Shares are paid in euros, the amount of the dividend dis
U.S. Holder will be the U.S. dollar value of the payments made in euros, determined a
applicable to the date such dividend is includible in the income of the U.S. Holder, re
fact converted into U.S. dollars. Generally, gain or loss (if any) resulting from currenc
period from the date the dividend is paid to the date such payment is converted into U
income or loss. We have never paid cash dividends on our share capital and do not int

Certain Information Reporting Requirements

Individuals who are U.S. Holders (and to the extent specified in applicable Treasury r
Holders and certain U.S. Holders that are entities), and who hold "specified foreign fi
6038D of the Code), including stock of a non-U.S. corporation that is not held in an a
institution" (as defined in section 6038D of the Code), whose aggregate value exceed
year or $75,000 at any time during the tax year, may be required to attach to their tax
information (on IRS Form 8938). (Higher thresholds apply to married individuals filin
residing outside of the United States.) An individual who fails to timely furnish the re
penalty, unless the failure is shown to be due to reasonable cause and not due to willfu
U.S. Holder does not file such a report, the statute of limitations on the assessment an
taxes of such U.S. Holder for the related tax year may not close before such report is
entity may be treated as an individual for purposes of the foregoing rules. U.S. Holder
their own tax advisors regarding their reporting obligations under this legislation.

Documents on Display

Documents referred to in this Annual Report may be inspected at our principal execut
5912 PL Venlo, The Netherlands.

Item 11. Quantitative and Qualitative Disclosures About Market Risk

Our market risk relates primarily to interest rate exposures on cash, short-term investm
currency exposures. Financial risk is centrally managed and is regulated by internal g
internal risk analysis. The overall objective of our risk management is to reduce the p
changes in interest and foreign exchange rates. Exposures are managed through opera
instruments relating to interest rate and foreign exchange risks. In the ordinary course
instruments, including swaps, forwards and/or options, to manage potential losses fro
interest rates. The principal objective of such derivative instruments is to minimize th
global financial and operating activities. We do not utilize derivative or other financia
speculative purposes. All derivatives are recognized as either assets or liabilities in th
fair value with any change in fair value recognized in earnings in the period of change
effective hedge that offsets certain exposures. In determining fair value, we consider
our own creditworthiness, to the extent that the derivatives are not covered by collater
counterparties.

Foreign Currency Derivatives. As a globally active enterprise, we are subject to risks
currencies in our ordinary operations. This includes foreign currency-denominated rec
balance sheet positions. We manage our balance sheet exposure on a group-wide basi
forward contracts, options and cross-currency swaps.

Interest Rate Derivatives. We are using interest rate derivatives to align our portfolio
with our risk management objectives. We have entered into interest rate swaps in whi

intervals, the difference between fixed and floating interest amounts calculated by ref
principal amount.

Further details of our derivative and hedging activities can be found in Note 13 to the
statements.

Interest Rate Risk

At December 31, 2016, we had $439.2 million in cash and cash equivalents as well as
investments. Interest income earned on our cash investments is affected by changes in
rates. We only invest in high-grade investment instruments. A hypothetical adverse 1
would not have materially impacted our financial statements.

Borrowings against lines of credit are at variable interest rates. We had no amounts ou
December 31, 2016. A hypothetical adverse 10% movement in market interest rates w
financial statements.

At December 31, 2016, we had $1.1 billion in long-term debt, none of which is at a va
rate derivatives we have swapped $200 million of our fixed rate debt into a variable in
LIBOR. A hypothetical adverse 10% movement in market interest rates would not ha
statements, as the increased interest expense would have been off-set by increased int
financial assets.

Foreign Currency Exchange Rate Risk

As a global enterprise, we are subject to risks associated with fluctuations in foreign c
operations. This includes foreign currency-denominated receivables, payables, debt, a
well as future cash flows resulting from anticipated transactions including intra-group

A significant portion of our revenues and expenses are earned and incurred in currenc
is the most significant such currency, with others including the British pound, Japanes
and Canadian and Australian dollars. Fluctuations in the value of the currencies in wh
the U.S. dollar have caused and will continue to cause U.S. dollar translations of such
another. Due to the number of currencies involved, the constantly changing currency
volatility of currency exchange rates, we cannot predict the effect of exchange rate flu
results. In general terms, depreciation of the U.S. dollar against our other foreign curr
However, this effect is, at least partially, offset by the fact that we also incur substanti

We have significant production and manufacturing facilities located in Germany and
expose us to foreign currency exchange rate risk. Intercompany sales of inventory are
currency of the subsidiary purchasing the inventory in order to centralize foreign curr
subsidiary. We use an in-house bank approach to net and settle intercompany payable
intercompany foreign exchanged swaps and forward contracts in order to centralize th
extent possible. We have entered in the past and may enter in the future into foreign e
forwards, swaps and options to manage the remaining foreign exchange exposure.

Item 12. Description of Securities Other than Equity Securities

Not applicable.

PART II

Item 13. Defaults, Dividend Arrearages and Delinquencies
Not applicable.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceed
Not applicable.

Item 15. Controls and Procedures
Disclosure Controls and Procedures
Our Managing Directors, with the assistance of other members of management, perfo
of the design and operation of our disclosure controls and procedures, as that term is
15d-15(e) of the Securities Exchange Act of 1934, as amended, within 90 days of the
evaluation, they concluded that as of December 31, 2016, our disclosure controls and
that information required to be disclosed by us in the reports that we file or submit un
processed, summarized and reported, within the time periods specified in the SEC's r
communicated to our management, including our Managing Directors, as appropriate
required disclosure.
There are inherent limitations to the effectiveness of any system of disclosure control
designed, such as the possibility of human error and the circumvention or overriding
Therefore, even those systems determined to be effective may not prevent or detect m
reasonable assurance of achieving their control objectives. In addition, any determina
a projection of any effectiveness of those controls to future periods, as those controls
changes in conditions or the degree of compliance with the policies or procedures ma
Report of Management on Internal Control over Financial Reporting
Our management is responsible for establishing and maintaining adequate internal co
defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934,
internal controls over financial reporting is designed to provide reasonable assurance
reporting and the preparation of the consolidated financial statements in accordance w
principles.
Because of its inherent limitations, internal control over financial reporting may not p
even when determined to be effective can provide only reasonable assurance with res
and presentation. Projections of any evaluation of effectiveness to future periods are s
become inadequate because of changes in conditions, or that the degree of compliance
deteriorate.
Our management assessed the effectiveness of the Company's internal control over fi
2016. In making this assessment, management used the updated criteria set forth in 20
Organizations of the Treadway Commission (COSO) in Internal Control-Integrated F
Based on our assessment under the COSO Internal Control-Integrated Framework, ma
December 31, 2016, our internal control over financial reporting is effective.
Attestation Report of the Independent Registered Public Accounting Firm
KPMG AG Wirtschaftsprüfungsgesellschaft, the independent registered public accou
consolidated financial statements prepared in accordance with U.S. generally accepte
and for the year ended December 31, 2016, has also audited the effectiveness of the C
financial reporting as of December 31, 2016. Their report is included in this Annual R
Changes in Internal Control over Financial Reporting
There has been no change in our internal control over financial reporting during 2016
reasonably likely to materially affect, our internal control over financial reporting.

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Item 16A. Audit Committee Financial Expert

The Supervisory Board has designated Mr. Lawrence Rosen as an “audit committee f
the SEC rules adopted pursuant to the Sarbanes-Oxley Act. Mr. Rosen is “independen
the NASDAQ as applicable to Audit Committees.

Item 16B. Code of Ethics

QIAGEN has in place a Code of Conduct which qualifies as a code of ethics, as requi
Marketplace Rules. The Code of Conduct applies to all of QIAGEN’s employees, inc
principal financial officer, principal accounting officer or controller and other persons
text of the Code of Conduct is available on our website at www.qiagen.com.

Item 16C. Principal Accountant Fees and Services

Audit Committee Pre-Approval Policies and Procedures

The Audit Committee has adopted a policy that requires the pre-approval of all servic
independent registered public accounting firm. Additionally, the Audit Committee ha
Chairman full authority to approve any management request for pre-approval, provide
given at its next scheduled meeting. All audit-related services, tax services and other s
registered public accounting firm or their affiliates were pre-approved by the Audit C
maintaining the auditor’s independence.

Set forth below are the total fees billed (or expected to be billed), on a consolidated ba
public accounting firm or their affiliates for providing audit and other professional ser

| (in millions) | 2016 | 2015 |
|---|---|---|
| Audit fees | $1.9 | $1.9 |
| -consolidated financial statements | 1.2 | 1.3 |
| -statutory financial statements | 0.7 | 0.6 |
| Audit-related fees | 0.5 | 0.1 |
| Total | $2.4 | $2.0 |

Audit fees consist of fees and expenses billed for the annual audit and quarterly reviev
statements. They also include fees billed for other audit services, which are those serv
provide, and include the review of documents filed with the Securities Exchange Com
Audit-related fees consist of fees and expenses billed for assurance and related servic
of the audit or review of QIAGEN’s financial statements and include consultations co
reporting standards and review of the opening balance sheets of newly acquired comp
Tax fees include fees and expenses billed for tax compliance services, including assis
and claims for refund; tax consultations, such as assistance and representation in conn
other fees include various fees and expenses billed for services as approved by the Au
Sarbanes-Oxley Act of 2002. Tax fees for the year ended December 31, 2016 totaled

Item 16D. Exemptions From the Listing Standards for Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Not applicable.

Item 16F. Change in Registrant’s Certifying Accountant

Not applicable.

Item 16G. Corporate Governance

We recognize the importance of clear and straightforward rules on corporate governa adapted our internal organization and processes to these rules. This section provides a governance structure and includes details of the information required under the Dutch Dutch Code). The Dutch Code is applicable to QIAGEN N.V. (in the following also r publicly listed company incorporated under the laws of The Netherlands with a regist The Dutch Code contains the principles and concrete provisions which the persons in Managing Board members and Supervisory Board members) and stakeholders should Our corporate governance practices generally derive from the provisions of the Dutch Governance Code. Further, due to our listing on the NASDAQ exchange in the U.S., Supervisory Board of QIAGEN N.V. declared their intention to disclose in QIAGEN' compliance with the corporate governance practices followed by U.S. companies und state the deviations recorded in the period.

A brief summary of the principal differences follows.

Corporate Structure

QIAGEN is a 'Naamloze Vennootschap,' or N.V., a Dutch limited liability company States. QIAGEN has a two-tier board structure. QIAGEN is managed by a Managing management acting under the supervision of a Supervisory Board (non-executives), si corporation. It is in the interest of QIAGEN and all its stakeholders that each Board p that there is a clear division of responsibilities between the Managing Board, the Supe shareholders (General Meeting) and the external auditor in a well-functioning system

Managing Board

General

The Managing Board manages QIAGEN and is responsible for defining and achievin and results. The Managing Board is also responsible for complying with all relevant l for managing the risks associated with the business activities and the financing of QI to and discusses the internal risk management and control systems with the Supervisо The Managing Board is accountable for the performance of its duties to the Supervisо Shareholders (General Meeting). The Managing Board provides the Supervisory Boar for the exercise of the duties of the Supervisory Board. In discharging its duties, the M interests of QIAGEN, its enterprises and all parties involved in QIAGEN, including s

Composition and Appointment

The Managing Board consists of one or more members as determined by the Supervis Managing Board are appointed by the General Meeting upon the joint meeting of the Board (the Joint Meeting) having made a binding nomination for each vacancy. Howe times overrule the binding nature of such a nomination by a resolution adopted by at l cast, if such majority represents more than half the issued share capital. Managing Di period beginning on the date following the Annual General Meeting up to and includi Meeting held in the following year.

Members of the Managing Board may be suspended and dismissed by the General Me two-thirds majority of the votes cast, if such majority represents more than half of the proposal was made by the Joint Meeting, in which case a simple majority of votes cas Supervisory Board may at any time suspend (but not dismiss) a member of the Manag

Conflicts of Interest, Loans or Similar Benefits

Resolutions to enter into transactions under which members of the Managing Board c QIAGEN, and which are of material significance to QIAGEN and/or the relevant mer the approval of the Supervisory Board. QIAGEN has not entered into any such transa similar benefits were granted to members of the Managing Board. Additionally, the M receive any benefits from third parties that were either promised or granted in view of Managing Board.

Further information on our Managing Directors can be found in Item 6 of this Annual
Supervisory Board

General

The Supervisory Board supervises the policies of the Managing Board, the general co
and the business enterprises which we operate. The Supervisory Board assists the Ma
relating to the business activities of QIAGEN. In 2016, the Supervisory Board had fiv
the attendance of the Managing Board, while certain agenda items were discussed exc
Board members. In discharging its duties, the Supervisory Board takes into account th
and all parties involved in QIAGEN, including shareholders and other stakeholders. T
for the quality of its own performance. In this respect, the Supervisory Board conduct
Our Supervisory Board has specified matters requiring its approval, including decisio
fundamentally change the company's assets, financial position or results of operations
an Audit Committee, a Compensation Committee, a Selection and Appointment (Nom
Technology Committee from among its members and can appoint other committees a
Board has approved charters pursuant to which each of the committees operates.

Composition and Appointment

The Supervisory Board consists of at least three members, or a larger number as deter
of the Supervisory Board are appointed by the General Meeting upon the Joint Meetin
for each vacancy. However, the General Meeting may at all times overrule the bindin
resolution adopted by at least a two-thirds majority of the votes cast, if such majority
share capital.

The Supervisory Board shall be composed in a way that enables it to carry out its duti
act critically and independently of one another and of the Managing Board and any pa
Supervisory Board has adopted a profile of its size and composition that takes into ac
activities and the desired expertise and background of the members of the Supervisory
Supervisory Board can be found on our website. The Supervisory Board has appointe
has the duties assigned to him by the Articles of Association and the Dutch Code.

Members of the Supervisory Board are appointed annually for the period beginning o
Meeting up to and including the date of the General Meeting held in the following ye
may be suspended and dismissed by the General Meeting by a resolution adopted by a
if such majority represents more than half of the issued share capital, unless the propo
and the Supervisory Board in which case a simple majority of votes cast is sufficient.

Conflicts of Interest, Loans or Similar Benefits

Resolutions to enter into transactions under which members of the Supervisory Board
QIAGEN, and which are of material significance to QIAGEN and/or the relevant mem
the approval of the Supervisory Board plenum. In 2016, neither QIAGEN nor its Supe
into any such transactions. No credit, loans or similar benefits were granted to membe
Additionally, the Supervisory Board Members did not receive any benefits from third
granted in view of their position as members of the Supervisory Board.

Further information on our Supervisory Directors can be found in Item 6 of this Annu

Additional Information

Shareholders

Our shareholders exercise their voting rights through Annual and Extraordinary Gene
General Meeting are adopted by an absolute majority of votes cast, unless a different
required by Dutch law or the Articles of Association. Each common share confers the
Furthermore, the Managing Board, or where appropriate, the Supervisory Board, shal
parties in the financial markets with equal and simultaneous information about matter
price.

QIAGEN is required to convene an Annual General Meeting in the Netherlands no la
of each year. The agenda for the Annual General Meeting must contain certain matter
Association and under Dutch law, including, among other things, the adoption of QIA

Additional Extraordinary General Meetings may be convened at any time by the Man
by one or more shareholders jointly representing at least 40% of QIAGEN's issued sh
shareholders, who jointly represent at least 10% of QIAGEN's issued share capital ma
by the district court judge having applications for interim relief, to convene a General

propose items for the agenda of the General Meeting provided that they hold at least 3
Proposals for agenda items for the General Meeting must be submitted at least 60 day
convening a General Meeting, accompanied by the agenda, shall be sent no later than
QIAGEN informs the General Meeting by means of explanatory notes to the agenda,
relevant to the proposed resolutions.

Independence

Unlike the NASDAQ listing standards which require a majority of the Supervisory Bo
Dutch Corporate Governance Code recommends that all Supervisory Board members
one person, shall be independent within the meaning of its “best practice” provision. I
requirement is more stringent, such as by requiring a longer “look back” period (five
other cases, the NASDAQ rules are more stringent, such as a broader definition of dis
majority of our Supervisory Board are “independent” under both the NASDAQ and D

Independent Auditors

In accordance with the requirements of Dutch law, our independent registered public
consolidated financial statements prepared in accordance with International Financial
Netherlands Authority for the Financial Markets (AFM), is appointed, and may be rem
Supervisory Board nominates a candidate for the appointment as external auditor, for
Committee and the Managing Board advise the Supervisory Board. At the Annual Ge
Accountants N.V. was appointed as external auditor for the Company for 2016 year. T
the meeting of the Supervisory Board at which the statutory financial statements prep
Financial Reporting Standards and filed with the AFM shall be approved and is furthe
Meeting at which the statutory financial statements are adopted and may be questione
statement on the fairness of our annual accounts prepared in accordance with Internat
Following the appointment of KPMG Accountants N.V. for the audit of our statutory
external auditor for our consolidated financial statements prepared under U.S. general
KPMG AG Wirtschaftsprüfungsgesellschaft who audited the consolidated financial st
December 31, 2016 contained in this annual report.

The remuneration of the external auditor, and instructions to the external auditor to pr
approved by the Supervisory Board on the recommendation of the Audit Committee a
Managing Board. At least once every four years, the Supervisory Board and the Audi
assessment of the functioning of the external auditor. The main conclusions of this ass
General Meeting for the purposes of assessing the nomination for the appointment of

Whistleblower Policy and Code of Conduct

We have a formal Whistleblower Policy concerning the reporting of alleged irregulari
operational or financial nature. Furthermore, we have a published Code of Conduct th
employees and rules of conduct. The Code of Conduct can be found on our website at

Anti-Takeover Measures

In 2004, the Supervisory Board granted an option to the Dutch Foundation Stichting I
allows the Foundation to acquire preference shares from QIAGEN if (i) a person has
expressed a desire to acquire more than 20% of our issued share capital, or (ii) a perso
share capital has been designated as a hostile person by our Supervisory Board. The o
acquire preference shares equal to the number of our outstanding common shares at th
right, less one share. When exercising the option and exercising its voting rights on th
the interest of QIAGEN and the interests of our stakeholders. No preference shares ar

Dutch Corporate Governance Code--Comply or Explain

The corporate governance structure and compliance with the Dutch Code is the joint r
and the Supervisory Board. They are accountable for this responsibility to the Genera
to improve our corporate governance by measuring itself against international best pra
amended on December 8, 2016, and can be found at www.commissiecorporategovern

Non-application of a specific best practice provision is not in itself considered objecti
well be justified because of particular circumstances relevant to a company. In accord
our Annual Report the application of the Dutch Code's principles and best practice pr

To the extent that we do not apply certain principles and best practice provisions, or d
current or the subsequent year, we state the reasons.
We take a positive view of the Dutch Code and apply nearly all of the best practice pr
apply some provisions due to the international character of our business as well as the
Commission that drafted the Dutch Code - that existing contractual agreements betwe
of the Managing Board cannot be set aside at will.
The following provides an overview of exceptions that we have identified:

1. Best practice provision II.1.1 recommends that a management board member is app
years. A member may be reappointed for a term of not more than four years at a tim

Members of the Managing Board are appointed annually for a one-year period beginn
Meeting up to and including the day of the General Meeting held in the following yea

2. Best practice provision II.2.4 recommends that the number of granted options shall
challenging targets specified beforehand.

On June 25, 2014 the Annual General Meeting approved amendments to the remunera
("Remuneration Policy") which state that grants of stock options shall no longer be m
reserved for use as special equity incentive rewards in certain situations. No stock opt
the Managing Board in 2016.

3. Best practice provision II.2.5 recommends that shares granted to management boarc
consideration shall be retained for a period of at least five years or until at least at th
period is shorter. The number of shares to be granted shall be dependent on the achi
challenging targets specified beforehand.

Pursuant to the Company’s Remuneration Policy, long-term equity-based grants to m
the 2014 Plan primarily consist of an award of performance stock units, i.e. long-term
upon the achievement of pre-defined performance goals. Grants of restricted stock un
only, are no longer to be granted on a regular basis and shall be reserved for use as sp
certain situations. Performance stock units and restricted stock units are basically stru
after three years, 50% after five years and the remaining 10% after ten years. In 2015
Managing Board elected to receive in lieu of their cash bonus the value earned in thes
restricted stock units respectively which vested over two years from the grant date.

4. Best practice provision II.2.8 recommends that the maximum remuneration in the e
board member may not exceed one year's salary (the "fixed" remuneration compone
salary would be manifestly unreasonable for a management board member who is d
such board member shall be eligible for a severance pay not exceeding twice the an

Our Managing Board members have entered into employment agreements with QIAC
for which they hold managing positions. In case of termination of an agreement witho
applicable law, the respective affiliate would remain obliged to compensate the Mana
term of the employment agreement. QIAGEN believes that these contractual arranger
tenures of the Managing Board members.

5. Best practice provision III.3.5 recommends that a person may be appointed to the s
three 4-year terms.

Prof. Karobath has been a member of the Supervisory Board of QIAGEN N.V. since
profound scientific and industry experience from various management positions in the
profile. He has a unique knowledge about QIAGEN which is considered to be highly
strongly supports the reappointment Prof. Karobath beyond the 12-year term as recon

6. Best practice provision III.3.6 recommends that the supervisory board shall draw up
avoid, as far as possible, a situation in which many supervisory board members reti
schedule shall be made generally available and shall be posted on the company’s w

The Supervisory Board follows the practice to discuss retirement plans of individual m
continuity within the Supervisory Board. QIAGEN believes that this practice provide
planning than a fixed retirement schedule.

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7. Best practice provision III.7.1 recommends that a supervisory board member may n to shares by way of remuneration.

QIAGEN has granted stock options to the members of the Supervisory Board as a ren establishment. Since 2007, Supervisory Board members have also been granted restri reasonable level of equity based compensation which we practice allows a positive al the other duties of the Supervisory Board and that this practice is necessary to attract as the granting of share-based compensation to Supervisory Board members is a com

8. Best practice provision IV.1.1 recommends that a general meeting of shareholders i nominations of candidates for the management board and supervisory board, and to simple majority of votes of those in attendance, although the company may require voting rights outstanding for such vote to have force. If such quorum is not represe attendance votes in favor of the proposal, a second meeting may be convened and it one-third quorum.

Our Articles of Association currently state that the General Meeting may at all times resolution adopted by at least a two-thirds majority of the votes cast, if such majority share capital. Although a deviation from provision IV.1.1 of the Dutch Code, the Sup Board hold the view that these provisions will enhance the continuity of QIAGEN's m

NASDAQ Exemptions

Exemptions from the NASDAQ corporate governance standards are available to forei when those standards are contrary to a law, rule or regulation of any public authority or contrary to generally accepted business practices in the issuer's country of domicil public offering, NASDAQ granted QIAGEN exemptions from certain corporate gove the laws, rules, regulations or generally accepted business practices of The Netherlan followed by QIAGEN are described below:

- QIAGEN is exempt from NASDAQ's quorum requirements applicable to meetings o the law of The Netherlands and generally accepted business practices in The Netherla provide that there are no quorum requirements generally applicable to meetings of the
- QIAGEN is exempt from NASDAQ's requirements regarding the solicitation of prox for meetings of the General Meeting. QIAGEN does furnish proxy statements and sol shareholders. Dutch corporate law sets a mandatory (participation and voting) record at the twenty-eighth day prior to the day of the shareholders' meeting. Shareholders r to attend and exercise their rights as shareholders at the General Meeting, regardless
- QIAGEN is exempt from NASDAQ's requirements that shareholder approval be obta material amendments to, stock option or purchase plans and other equity compensatio options or stock may be acquired by directors, officers, employees or consultants. QI requirements that shareholder approval be obtained prior to certain issuances of stock occurring in connection with acquisitions of stock or assets of another company or iss book or market value other than in a public offering. QIAGEN's Articles of Associati General Meeting prior to the establishment of a stock plan. The Articles of Associatio grant the Supervisory Board general authority to issue shares without further approva General Meeting has granted the Supervisory Board general authority to issue up to a without further approval of the General Meeting. QIAGEN plans to seek approval of and stock issuances only where required under the law of The Netherlands or under Q

Further Information

For additional information regarding our Boards, including the Audit and other Comm please refer to the discussion in Item 6 above.

Item 16H. Mine Safety Disclosure

Not applicable.

PART III

Item 17. Financial Statements
See Item 18.

Item 18. Financial Statements
See pages F-1 through F-48 included herein.

(A) The following financial statements, together with the reports of KPMG and Ernst
this annual report:



Item 19. Exhibits

| | |
|---|---|
| *1.1 | Articles of Association as confirmed by notarial deed as of January 24, 2017 (E |
| 2.4 | $400 Million Note Purchase Agreement dated as of October 16, 2012 (filed as E |
| 2.5 | 2019 Bonds Indenture dated March 19, 2014 (Filed as Exhibit 2.7) (2) |
| 2.6 | 2021 Bonds Indenture dated March 19, 2014 (Filed as Exhibit 2.8) (2) |
| 2.7 | 2019 Form of Warrant Confirmation dated March 12, 2014 (Filed as Exhibit 2.9 |
| 2.8 | 2021 Form of Warrant Confirmation dated March 12, 2014 (Filed as Exhibit 2.1 |
| 2.9 | 2019 Form of Bond Hedge Confirmation dated March 12, 2014 (Filed as Exhib |
| 2.10 | 2021 Form of Bond Hedge Confirmation dated March 12, 2014 (Filed as Exhib |
| 4.1 | Lease Between QIAGEN GmbH and Gisantus Grundstuecksverwaltungsgesells (the "Max-Volmer-Strasse 4 Lease") (Filed as Exhibit 10.3) (3) |
| 4.2 | The Max-Volmer-Strasse 4 Lease Summary (Filed as Exhibit 10.3(a)) (3) |
| 4.3 | QIAGEN N.V. Amended and Restated 2005 Stock Plan (Filed as Exhibit 99.1) |
| 4.4 | QIAGEN N.V. 2014 Stock Plan (Filed as Exhibit 99.1) (5) |
| *8.1 | List of Subsidiaries |
| *12.1 | Certification under Section 302; Peer M. Schatz, Managing Director and Chief |
| *12.2 | Certification under Section 302; Roland Sackers, Managing Director and Chief |
| *13.1 | Certifications under Section 906; Peer M. Schatz, Managing Director and Chief Sackers, Managing Director and Chief Financial Officer |
| *15.1 | Consent of Independent Registered Public Accounting Firm |
| *15.2 | Consent of Independent Registered Public Accounting Firm |
| †*101 | XBRL Interactive Data File |

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*Filed herewith.

† Pursuant to Rule 406(T) of Regulation S-T, the Interactive Data Files on Exhibit 101 registration statement or prospectus for purposes of Sections 11 or 12 of the Securitie not filed for purposes of Section 18 of the Securities and Exchange Act of 1934, as an to liability under those sections.

(1) Incorporated by reference to Form 20-F Annual Report of QIAGEN N.V. filed wit Commission on March 1, 2013.

(2) Incorporated by reference to Form 20-F Annual Report of QIAGEN N.V. filed wit Commission on March 2, 2015.

(3) Incorporated by reference to Form 20-F Annual Report of QIAGEN N.V. filed wit Commission on March 31, 2000.

(4) Incorporated by reference to Registration Statement of QIAGEN N.V. on Form S- Exchange Commission on November 17, 2011.

(5) Incorporated by reference to Registration Statement of QIAGEN N.V. on Form S- Exchange Commission on April 2, 2015.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form
authorized the undersigned to sign this annual report on its behalf.

QIAGEN N.V.

Dated: March 3, 2017

By: /s/ Peer M. Schatz
Peer M. Schatz, Chief Executive Officer

/s/ Roland Sackers
Roland Sackers, Chief Financial Officer

QIAGEN N.V. AND SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Supervisory Board of QIAGEN N.V.:

We have audited the accompanying consolidated balance sheets of QIAGEN N.V. an
December 31, 2016 and 2015, and the related consolidated statements of income, com
equity, and cash flows for each of the years in the two year period ended December 3
of the consolidated financial statements, we also have audited the financial statement
These consolidated financial statements and the financial statement schedule are the r
management. Our responsibility is to express an opinion on these consolidated financ
statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Ac
States). Those standards require that we plan and perform the audit to obtain reasonab
financial statements are free of material misstatement. An audit includes examining, o
amounts and disclosures in the financial statements. An audit also includes assessing
significant estimates made by management, as well as evaluating the overall financial
that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly,
position of QIAGEN N.V. and subsidiaries as of December 31, 2016 and 2015, and th
cash flows for each of the years in the two year period ended December 31, 2016, in
accounting principles. Also in our opinion, the related financial statement schedule, w
consolidated financial statements taken as a whole, presents fairly, in all material resp

As discussed in Note 1 to the consolidated financial statements, in 2016, the Company
share-based compensation from a straight-line attribution method for expense recogni
method. The Company applied this change in accounting principle retrospectively to

We also have audited, in accordance with the standards of the Public Company Accou
States), QIAGEN N.V.'s internal control over financial reporting as of December 31,
Internal Control - Integrated Framework (2013) issued by the Committee of Sponsori
Commission (COSO), and our report dated March 3, 2017 expressed an unqualified o
Company's internal control over financial reporting.

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft
Düsseldorf, Germany
March 3, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Supervisory Board and Shareholders of QIAGEN N.V. and Subsidiaries

We have audited the accompanying consolidated statements of income, comprehensiv
flows of QIAGEN N.V. and Subsidiaries for the year ended December 31, 2014. Our
statement schedule listed in the Index at Item 18(A). These financial statements and s
Company's management. Our responsibility is to express an opinion on these financia
audit.

We conducted our audits in accordance with the standards of the Public Company Ac
States). Those standards require that we plan and perform the audit to obtain reasonab
financial statements are free of material misstatement. An audit includes examining, o
amounts and disclosures in the financial statements. An audit also includes assessing
significant estimates made by management, as well as evaluating the overall financial
that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material
their operations and their cash flows for the year ended December 31, 2014, in confor
accounting principles. Also, in our opinion, the related financial statement schedule, w
financial statements taken as a whole, presents fairly in all material respects the infor

February 27, 2015

Except for Note 20 as to which the date is March 3, 2017

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft
Düsseldorf, Germany

| | |
|---|---|
| /s/ Hendrik Hollweg | /s/ Tobias Schlebusch |
| Wirtschaftsprüfer | Wirtschaftsprüfer |
| [German Public Auditor] | [German Public Auditor] |

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Supervisory Board of QIAGEN N.V.:

We have audited QIAGEN N.V.'s ("QIAGEN" or "the Company") internal control o
2016, based on criteria established in Internal Control - Integrated Framework (2013)
Sponsoring Organizations of the Treadway Commission (COSO). The Company's ma
maintaining effective internal control over financial reporting and for its assessment o
over financial reporting, included in the accompanying 'Report of Management on In
Our responsibility is to express an opinion on the Company's internal control over fin

We conducted our audit in accordance with the standards of the Public Company Acc
States). Those standards require that we plan and perform the audit to obtain reasonab
internal control over financial reporting was maintained in all material respects. Our a
understanding of internal control over financial reporting, assessing the risk that a ma
evaluating the design and operating effectiveness of internal control based on the asse
performing such other procedures as we considered necessary in the circumstances. W
reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide
reliability of financial reporting and the preparation of financial statements for externa
generally accepted accounting principles. A company's internal control over financial
procedures that (1) pertain to the maintenance of records that, in reasonable detail, ac
transactions and dispositions of the assets of the company; (2) provide reasonable ass
necessary to permit preparation of financial statements in accordance with generally a
receipts and expenditures of the company are being made only in accordance with aut
directors of the company; and (3) provide reasonable assurance regarding prevention
acquisition, use, or disposition of the company's assets that could have a material effe

Because of its inherent limitations, internal control over financial reporting may not p
projections of any evaluation of effectiveness to future periods are subject to the risk
because of changes in conditions, or that the degree of compliance with the policies o

In our opinion, QIAGEN N.V. maintained, in all material respects, effective internal c
December 31, 2016, based on criteria established in Internal Control - Integrated Fram
Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accou
States), the consolidated balance sheets of QIAGEN N.V. and subsidiaries as of Dece
related consolidated statements of income, comprehensive income (loss), changes in e
years in the two-year period ended December 31, 2016, and the related financial state
and our report dated March 3, 2017 expressed an unqualified opinion on those consol
related financial statement schedule as listed in Item 18 (A).

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft
Düsseldorf, Germany
March 3, 2017

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QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands)

Assets
Current assets:
Cash and cash equivalents
Short-term investments
Accounts receivable, net of allowance for doubtful accounts of $7,614 and $7,255 in 2016 and 2015, respectively
Income taxes receivable
Inventories, net
Prepaid expenses and other current assets
Deferred income taxes
Total current assets
Long-term assets:
Property, plant and equipment, net of accumulated depreciation of $451,160 and $409,634 in 2016 and 2015, respectively
Goodwill
Intangible assets, net of accumulated amortization of $948,072 and $827,084 in 2016 2015, respectively
Deferred income taxes
Other long-term assets (of which $13,067 and $7,472 in 2016 and 2015 due from rela parties, respectively)
Total long-term assets
Total assets

The accompanying notes are an integral part of these consolidated financial statement

F- 4

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except par value)

Liabilities and equity
Current liabilities:
Accounts payable
Accrued and other current liabilities (of which $3,926 in 2016 due to related parties)
Income taxes payable
Deferred income taxes
Total current liabilities
Long-term liabilities:
Long-term debt, net of current portion
Deferred income taxes

Other long-term liabilities (of which $5,889 in 2016 due to related parties)

Total long-term liabilities
Commitments and contingencies
Equity:
Preference shares, 0.01 EUR par value, authorized—450,000 shares, no shares issued
outstanding
Financing preference shares, 0.01 EUR par value, authorized—40,000 shares, no shar
issued and outstanding
Common Shares, 0.01 EUR par value, authorized—410,000 shares, issued — 239,70
shares in 2016 and 2015
Additional paid-in capital
Retained earnings
Accumulated other comprehensive loss
Less treasury shares, at cost— 5,147 and 6,702 shares in 2016 and 2015, respectively
Equity attributable to the owners of QIAGEN N.V.
Noncontrolling interest
Total equity
Total liabilities and equity

The accompanying notes are an integral part of these consolidated financial statement

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share data)

| | Note | |
|---|---|---|
| Net sales | (3, 4) | $ |
| Cost of sales | | |
| Gross profit | | |
| Operating expenses: | | |
| Research and development | (3) | |
| Sales and marketing | | |
| General and administrative, integration and other | (3) | |
| Acquisition-related intangible amortization | | |
| Total operating expenses | | |
| Income from operations | | |
| Other income (expense): | | |
| Interest income | | |
| Interest expense | | ( |
| Other expense, net | (6) | ( |
| Total other expense, net | | ( |
| Income before income taxes | | |
| Income taxes | (3, 16) | ( |
| Net income | | |
| Net (loss) income attributable to noncontrolling interest | | ( |
| Net income attributable to the owners of QIAGEN N.V. | | $ |
| Basic net income per common share attributable to the owners of QIAGEN N.V. | | $ |
| Diluted net income per common share attributable to the owners of QIAGEN N.V. | | $ |
| | | |
| Weighted-average common shares outstanding | | |
| Basic | (18) | |
| Diluted | (18) | |

The accompanying notes are an integral part of these consolidated financial statement

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

Net income
Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods:
(Losses) Gains on cash flow hedges, before tax
Reclassification adjustments on cash flow hedges, before tax
Cash flow hedges, before tax
(Losses) gains on marketable securities, before tax
Gains (losses) on pensions, before tax
Foreign currency translation adjustments, before tax
Other comprehensive loss, before tax
Income tax relating to components of other comprehensive loss
Total other comprehensive loss, after tax
Comprehensive income (loss)
Comprehensive (income) loss attributable to noncontrolling interest
Comprehensive income (loss) attributable to the owners of QIAGEN N.V.

The accompanying notes are an integral part of these consolidated financial statement

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

| (in thousands) | Note | Common Shares | | Additional Paid-In Capital | Retained Earnings | Accumulated Other Comprehensive Income (Loss) | Treasu |
|---|---|---|---|---|---|---|---|
| | | Shares | Amount | | | | Shares |
| BALANCE AT DECEMBER 31, 2013 | | 239,707 | $2,812 | $1,807,002 | $1,033,343 | $(4,192) | (5,817 |
| Acquisition of QIAGEN Marseille S.A. shares from noncontrolling interests | (5) | — | — | — | — | — | — |
| Net income | | — | — | — | 116,365 | — | — |
| Issuance of warrants | (17) | — | — | 68,900 | — | — | — |
| Unrealized loss, net on pension | (17) | — | — | — | — | (481) | — |
| Translation adjustment, net | (17) | — | — | — | — | (130,062) | — |
| Purchase of treasury shares | (17) | — | — | — | — | — | (5,558 |
| Issuance of common shares in connection with warrant exercise | (15) | — | — | — | (12,115) | — | 1,373 |
| Common stock issuances under employee stock plans | (20) | — | — | — | (33,264) | — | 2,318 |
| Excess tax benefit of employee stock plans | | — | — | 1,596 | — | — | — |
| Share-based compensation | (20) | — | — | 41,313 | — | — | — |
| Proceeds from subscription receivables | | — | — | 536 | — | — | — |
| | (15) | — | — | (67,943) | — | — | — |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Redemption of subscription receivables | | | | | | | |
| BALANCE AT DECEMBER 31, 2014 | | 239,707 | $2,812 | $1,851,404 | $1,104,329 | $(134,735) | (7,684 |
| Acquisition of QIAGEN Marseille S.A. shares from noncontrolling interests | | — | — | — | — | — | — |
| Net income | | — | — | — | 130,148 | — | — |
| Unrealized loss, net on pension | (17) | — | — | — | — | (1,266) | — |
| Unrealized gain, net on hedging contracts | (13) | — | — | — | — | 4,003 | — |
| Realized gain, net on hedging contracts | (13) | — | — | — | — | (3,955) | — |
| Unrealized gain, net on marketable securities | (10) | — | — | — | — | 1,215 | — |
| Translation adjustment, net | (17) | — | — | — | — | (124,418) | — |
| Purchase of treasury shares | (17) | — | — | — | — | — | (842 |
| Issuance of common shares in connection with stock plan | (20) | — | — | — | (25,280) | — | 1,824 |
| Excess tax benefit of employee stock plans | | — | — | 3,328 | — | — | — |
| Share-based compensation | (20) | — | — | 23,761 | — | — | — |
| Proceeds from subscription receivables | | — | — | 97 | — | — | — |
| Redemption of subscription receivables | (15) | — | — | (112,995) | — | — | — |
| BALANCE AT | | 239,707 | $2,812 | $1,765,595 | $1,209,197 | $(259,156) | (6,702 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DECEMBER 31, 2015 | | | | | | | |
| Acquisition of QIAGEN Marseille S.A. shares from noncontrolling interests | (5) | — | — | — | — | — | — |
| Acquisition of Exiqon A/S | (5) | — | — | — | — | — | — |
| Acquisition of Exiqon A/S shares from noncontrolling interests | (5) | — | — | — | — | — | — |
| Net income | | — | — | — | 80,404 | — | — |
| Unrealized gain, net on pension | (17) | — | — | — | — | 650 | — |
| Unrealized loss, net on hedging contracts | (13) | — | — | — | — | (2,977) | — |
| Realized gain, net on hedging contracts | (13) | — | — | — | — | (4,671) | — |
| Unrealized loss, net on marketable securities | (10) | — | — | — | — | (1,371) | — |
| Translation adjustment, net | (17) | — | — | — | — | (66,314) | — |
| Issuance of common shares in connection with stock plan | (20) | — | — | — | (26,137) | — | 1,555 |
| Excess tax benefit of employee stock plans | | — | — | 782 | — | — | — |
| Share-based compensation | (20) | — | — | 28,288 | — | — | — |
| BALANCE AT DECEMBER 31, 2016 | | 239,707 | $2,812 | $1,794,665 | $1,263,464 | $(333,839) | (5,147 |

The accompanying notes are an integral part of these consolidated financial statement

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

| (in thousands) | N |
|---|---|
| Cash flows from operating activities: | |
| Net income | |
| Adjustments to reconcile net income to net cash provided by operating activities, net of effects of businesses acquired: | |
| Depreciation and amortization | |
| Non-cash acquisition, impairment and restructuring related costs | ( |
| Amortization of debt discount and issuance costs | |
| Share-based compensation expense | ( |
| Excess tax benefits from share-based compensation | |
| Deferred income taxes | ( |
| Loss on early redemption of debt | ( |
| (Gain) loss on marketable securities | |
| Changes in fair value of contingent consideration | ( |
| Other items, net including fair value changes in derivatives | |
| Net changes in operating assets and liabilities: | |
| Accounts receivable | ( |
| Inventories | ( |
| Prepaid expenses and other current assets | ( |
| Other long-term assets | |
| Accounts payable | |
| Accrued and other current liabilities | ( |
| Income taxes | ( |
| Other long-term liabilities | |
| Net cash provided by operating activities | |
| Cash flows from investing activities: | |
| Purchases of property, plant and equipment | |
| Proceeds from sale of equipment | |
| Purchases of intangible assets | |
| Purchases of investments | |
| Purchases of short-term investments | ( |
| Proceeds from sales of short-term investments | ( |
| Cash paid for acquisitions, net of cash acquired | ( |
| Other investing activities | |
| Net cash used in investing activities | |
| Cash flows from financing activities: | |
| Purchase of call option related to cash convertible notes | ( |
| Proceeds from issuance of warrants, net of issuance costs | ( |
| Net proceeds from issuance of cash convertible notes and cash paid for issuance costs | ( |
| Repayment of long-term debt | ( |
| Principal payments on capital leases | |
| Proceeds from subscription receivables | |
| Excess tax benefits from share-based compensation | |
| Proceeds from issuance of common shares | |
| Purchase of treasury shares | ( |
| Other financing activities | |

Net cash used in financing activities
Effect of exchange rate changes on cash and cash equivalents
Net increase (decrease) in cash and cash equivalents
Cash and cash equivalents, beginning of period
Cash and cash equivalents, end of period
Supplemental cash flow disclosures:
Cash paid for interest
Cash paid for income taxes
Supplemental disclosure of non-cash investing and financing activities:
Equipment purchased through capital lease
Intangible assets acquired in non-monetary exchange
The accompanying notes are an integral part of these consolidated financial statement

QIAGEN N.V. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2016

1. Corporate Information and Basis of Presentation

Corporate Information

QIAGEN N.V. is a public limited liability company ('naamloze vennootschap') under
Hulsterweg 82, Venlo, The Netherlands. QIAGEN N.V., a Netherlands holding comp
Company) is the leading global provider of Sample to Insight solutions to transform b
molecular insights. Our sample technologies isolate and process DNA, RNA and prot
materials. Assay technologies make these biomolecules visible and ready for analysis
knowledge bases interpret data to report relevant, actionable insights. Automation sol
and cost-effective molecular testing workflows. We provide these workflows to four
Diagnostics (human healthcare), Applied Testing (forensics, veterinary testing and fo
and biotechnology companies) and Academia (life sciences research). We market our

Basis of Presentation

The accompanying consolidated financial statements were prepared in accordance wi
principles (GAAP) and all amounts are presented in U.S. dollars rounded to the neare
indicated. The consolidated financial statements have been prepared on a historical co
instruments, contingent consideration and available-for-sale financial instruments tha
On June 28, 2016, we acquired Exiqon A/S, located in Vedbaek, Denmark and on No
BIO Laboratories, Inc., located in Carlsbad, California. On December 16, 2014, we ac
Beverly, Massachusetts and on April 3, 2014, we acquired BIOBASE GmbH, located
Accordingly, at the acquisition dates, all of the assets acquired and liabilities assumed
values and our consolidated results of operations include the operating results from th
acquisition dates.

Certain prior year amounts have been revised to reflect a change in attribution metho
further discussion in the Revision of Previously Issued Financial Statements for Chan
Note 20 - Share-Based Compensation. Additionally, for the year ended December 31,
have been reclassified upon adoption of ASU 2015-03 as further discussed within No
Pronouncements.

2. Effects of New Accounting Pronouncements

Adoption of New Accounting Standards

The following new FASB Accounting Standards Updates (ASU) were effective for th
ASU 2015-02, Consolidation (Topic 810): Amendments to the Consolidation Analysi
consolidation under the variable interest model and the voting model. ASU 2015-02 b
quarter of 2016. The adoption did not have an impact on our consolidated financial st
ASU 2015-03, Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Pr
requires that debt issuance costs related to a recognized debt liability be presented in t
from the carrying amount of that debt liability. ASU 2015-03 does not address presen
debt issuance costs related to line-of-credit arrangements. The FASB issued Accounti
Interest - Imputation of Interest (Subtopic 835-30): Presentation and Subsequent Mea
Associated with Line-of-Credit Arrangements - Amendments to SEC Paragraphs Purs
18, 2015 EITF Meeting. This ASU adds SEC paragraphs pursuant to the SEC Staff A
Emerging Issues Task Force meeting about the presentation and subsequent measuren
with line-of-credit arrangements. Given the absence of authoritative guidance within
related to line-of-credit arrangements, the SEC staff indicated that it would not object
debt issuance costs as an asset and subsequently amortizing the deferred debt issuanc

line-of-credit arrangement, regardless of whether there are any outstanding borrowing
ASU 2015-03 became effective for us beginning in the first quarter of 2016 and was a
wherein the balance sheet of each period presented is adjusted to reflect the period-sp
guidance. As of December

31, 2015, the effect of the change in balance sheet presentation was a reduction in pre
of $0.2 million and a reduction in other long-term assets of $10.3 million. These amo
long-term debt liability.
ASU 2015-05, Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 35
Paid in a Cloud Computing Arrangement provides guidance to help entities determine
arrangement contains a software license that should be accounted for as internal-use s
2015-05 became effective for our financial statements beginning in the first quarter of
impact on our consolidated financial statements.
ASU 2015-16, Business Combinations (Topic 805): Simplifying the Accounting for M
simplifies the accounting for adjustments made to provisional amounts recognized in
amendments eliminate the requirement to retrospectively account for those adjustmen
acquirer recognizes adjustments to provisional amounts that are identified during the
period in which the adjustment amounts are determined. The amendments require tha
period's financial statements, the effect on earnings of changes in depreciation, amort
as a result of the change to the provisional amounts, calculated as if the accounting ha
date. The amendments became effective for our financial statements beginning in the
material impact on our consolidated financial statements.
ASU 2015-17, Income Taxes (Topic 740): Balance Sheet Classification of Deferred T
classified on organizations' balance sheets. The ASU eliminates the requirement for o
liabilities and assets as current and noncurrent in a classified balance sheet. Instead, o
classify all deferred tax assets and liabilities as noncurrent. We elected to adopt the an
prospectively in advance of the timeline in which we were required to adopt the amen
period has not been retrospectively adjusted. The adoption did not have a material im
statements.
New Accounting Standards Not Yet Adopted
The following new FASB Accounting Standards Updates, which are not yet adopted,
effective dates:
First Quarter of 2017
ASU 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory req
inventory measured using first-in, first out (FIFO) or average cost, to be measured at
value. Net realizable value is the estimated selling price in the ordinary course of busi
of completion, disposal, and transportation. ASU 2015-11 became effective for us beg
have a material impact on our consolidated financial statements.
ASU 2016-07, Investments - Equity Method and Joint Ventures (Topic 323): Simplify
Method of Accounting eliminates the requirement to retroactively adopt the equity me
investment qualifies for use of the equity method as a result of an increase in the level
The new guidance became effective for us beginning on January 1, 2017 with no imp
statements.
ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to E
Accounting is intended to simplify several aspects of the accounting for share-based p
income tax consequences, classification of awards as either equity or liabilities, and c
flows. The new guidance became effective for us beginning January 1, 2017. The imp
limited to the recording of any windfall or shortfall benefit directly to the tax provisio
items in our statement of cash flows, which we intend to adopt prospectively. We will
compensation award forfeitures in determining the amount of compensation cost to be
increase to our cash flows from operating activities and a decrease to cash flows from
adoption, we expect volatility in our effective tax rate as any windfall or shortfall tax
compensation will be recorded directly into our results of operations.
First Quarter of 2018

ASU 2014-09, Revenue from Contracts with Customers (Topic 606) affects any entity
customers to transfer goods or services or enters into contracts for the transfer of nonf
are within the scope of other standards (e.g., insurance contracts or lease contracts). In
Accounting Standards Update No. 2015-14 (ASU 2015-14), Revenue from Contracts
of the Effective Date which defers the effective date of ASU 2014-09 to interim and a
after December 15, 2017. The FASB has continued to issue accounting standards upd
implementation guidance related

to Revenue from Contracts with Customers, including ASU 2016-08 Revenue from C
versus Agent Considerations, ASU 2016-10 Revenue from Contracts with Customers
and Licensing, and ASU 2016-12 Revenue from Contracts with Customers: Narrow-S
Expedients. An entity should apply the amendments either retrospectively to each pri
entity may elect certain practical expedients (the full retrospective method of adoptio
cumulative effect of initially applying this ASU recognized at the date of initial applic
method of adoption). We have not experienced significant issues in our implementati
date, we currently do not expect the adoption to have a material impact on our existin
recognition of revenue from product sales. However, we continue to evaluate the imp
connection with collaboration and license agreements and other revenue sources. We
effective date, January 1, 2018. We have not yet determined the method of adoption,
material, we expect to adopt the new standard using the modified retrospective metho
retained earnings for the cumulative effect of the change.

ASU 2016-01, Financial Instruments - Overall (Subtopic 825-10): Recognition and M
Financial Liabilities will impact certain aspects of recognition, measurement, presenta
instruments. The new guidance makes targeted improvements to existing U.S. GAAP

- requiring equity investments (except those accounted for under the equity method of
consolidation of the investee) to be measured at fair value with changes in fair value
- requiring public business entities to use the exit price notion when measuring the fair
disclosure purposes;
- requiring separate presentation of financial assets and financial liabilities by measure
asset (i.e., securities or loans and receivables) on the balance sheet or the accompanyi
- eliminating the requirement to disclose the fair value of financial instruments
organizations that are not public business entities;
- eliminating the requirement for public business entities to disclose the method(s) and
estimate the fair value that is required to be disclosed for financial instruments measu
sheet; and
- requiring a reporting organization to present separately in other comprehensive incom
fair value of a liability resulting from a change in the instrument-specific credit risk (
organization has elected to measure the liability at fair value in accordance with the fa
instruments.

The amendments will become effective for our financial statements beginning in the f
implementation of the amendments is expected to increase the volatility of net income
will be dependent upon the significance of the equity investments at the time of adopt
a net unrealized $0.2 million loss, net of tax, from equity investments recorded in equ
standard, such gains or losses will be recognized in net income.

ASU No. 2016-15, Statement of Cash Flows (Topic 320): Classification of Certain Ca
consensus of the FASB Emerging Issues Task Force), addresses eight classification is
flows:

- debt prepayment or debt extinguishment costs;
- settlement of zero-coupon bonds;
- contingent consideration payments made after a business combination;
- proceeds from the settlement of insurance claims;
- proceeds from the settlement of corporate-owned life insurance policies, including ba
- distributions received from equity method investees;
- beneficial interests in securitization transactions; and
- separately identifiable cash flows and application of the predominance principle.

ASU 2016-15 will become effective for us for annual and interim periods in fiscal yea
Early adoption is permitted, including adoption in an interim period. We will be requi
retrospective transition method to each period presented other than for issues where a
which case we will be permitted to apply the amendments for those issues prospective
The new guidance will become effective for us on January 1, 2018. We are currently
2016-15 on our consolidated financial statements.

ASU 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Tha
accounting for the income tax consequences of intra-entity transfers of assets other th
an entity to recognize the income tax consequences of an intra-entity transfer of an as
transfer occurs. The amendments in this update should be applied on a modified retro
cumulative-effect adjustment directly to retained earnings as of the beginning of the p
effective for annual periods beginning after December 15, 2017, and interim periods
adoption permitted, including adoption in an interim period. We are currently evaluat
standard will have on our financial position and results of operations.

ASU 2016-18, Statement of Cash Flows (Topic 320): Restricted Cash, requires entitie
cash, cash equivalents, restricted cash and restricted cash equivalents in the statement
no longer present transfers between cash and cash equivalents and restricted cash and
statement of cash flows. The amendments in this update should be applied using a ret
period presented. This update is effective for annual periods beginning after Decembe
those fiscal years with early adoption permitted, including adoption in an interim peri
impact the adoption of this new standard will have on our financial position and resul

ASU 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Bu
robust framework to use in determining when a set of assets and activities is a busines
should be applied prospectively on or after the effective date. This update is effective
December 15, 2017, and interim periods within those periods. Early adoption is perm
transactions occurring before the issuance date or effective date and only when the tra
issued or made available for issuance financial statements. We are currently evaluatin
standard will have on our financial position and results of operations.

First Quarter of 2019

ASU 2016-02, Leases (Topic 842) aims to increase transparency and comparability ar
lease assets and lease liabilities on the balance sheet and disclosing key information a
2016-02 will become effective for us beginning in the first quarter of 2019 and requir
for leases that exist or are entered into after the beginning of the earliest comparative
do not plan to early adopt this standard and we anticipate that the adoption of this stan
systems and processes. We expect this standard to increase total assets and total liabil
evaluating the potential size of the impact that ASU 2016-02 may have on our consol

First Quarter of 2020

ASU 2016-13, Financial Instruments-Credit Losses (Topic 326): Measurement of Cre
provides financial statement users with more decision-useful information about the ex
instruments and other commitments to extend credit held by a reporting entity at each
objective, the amendments in ASU 2016-13 replace the incurred loss impairment met
methodology that reflects expected credit losses and requires consideration of a broad
information to inform credit loss estimates. The new guidance will become effective f
We are currently evaluating the potential impact ASU 2016-13 may have on our cons

ASU 2017-04, Intangibles—Goodwill and Other (Topic 350): Simplifying the Test fo
of the goodwill impairment test. A goodwill impairment will now be the amount by w
exceeds its fair value, not to exceed the carrying amount of goodwill. ASU 2017-04 is
beginning January 1, 2020 and early adoption is permitted. The new guidance is requi
basis. We are currently evaluating the impact the adoption of this new standard will h

results of operations.

3. Summary of Significant Accounting Policies and Critical Accounting Estimates
Principles of Consolidation

The consolidated financial statements include the accounts of QIAGEN N.V. and its
significant intercompany accounts and transactions have been eliminated. Investment
in-substance common stock of companies where we exercise significant influence ov
control, and where we are not the primary beneficiary, are accounted for using the eq
accounted for under the cost method. When there is a portion of equity in an acquired
indirectly, to the Company, we record the fair value of the noncontrolling interests at
amounts attributable to noncontrolling interests separately in equity in the consolidate
subsequent changes in the Company's ownership interest while the Company retains i
subsidiary are accounted for as equity transactions.

Use of Estimates

The preparation of financial statements in conformity with accounting principles gene
requires management to make estimates and assumptions that affect the reported amo
of contingencies at the date of the financial statements as well as the reported amount
reporting period. Actual results could differ from those estimates.

Concentrations of Risk

We buy materials for products from many suppliers, and are not dependent on any on
business as a whole. However, key components of certain products, including certain
chemicals, are available only from a single source. If supplies from these vendors wer
reason, we may not be able to obtain these materials timely or in sufficient quantities
and sales levels could be negatively affected. Additionally, our customers include res
biotechnology companies, academic institutions, and government and private laborato
development budgets of these researchers and their organizations for applications in v
a significant effect on the demand for our products.

The financial instruments used in managing our foreign currency, equity and interest
in that the counterparties may be unable to meet the terms of the agreements. We atte
the counterparties to a diverse group of highly-rated international financial institution
instruments incorporate the non-performance risk by using market pricing for credit r
believe that any counterparties will default on their obligations and therefore do not e
counterparty default. In order to minimize our exposure with any single counterparty,
agreements which allow us to manage the exposure with the respective counterparty o

Other financial instruments that potentially subject us to concentrations of credit risk
short-term investments, and accounts receivable. We attempt to minimize the risks re
short-term investments by dealing with highly-rated financial institutions and investin
financial instruments. We have established guidelines related to credit quality and ma
maintain safety and liquidity. Concentration of credit risk with respect to accounts rec
diverse customer base, which is dispersed over different geographic areas. Allowance
losses and such losses have historically been within expected ranges.

Foreign Currency Translation

Our reporting currency is the U.S. dollar and our subsidiaries’ functional currencies a
respective countries in which they are headquartered. All amounts in the financial stat
currency is not the U.S. dollar are translated into U.S. dollar equivalents at exchange
liabilities at period-end rates, (2) income statement accounts at average exchange rate
equity at historical rates. Translation gains or losses are recorded in equity, and transa
net income as a component of other expense, net. Realized gains or losses on the valu
hedge the exchange rate exposure of receivables and payables are also included in net
expense, net. The net (loss) gain on foreign currency transactions in 2016 was less tha
was $(0.5) million, and $1.9 million, respectively, and is included in other expense, n

The exchange rates of key currencies were as follows:

| | Closing rate at December 31, | | Annual average rate | | |
|---|---|---|---|---|---|
| (US$ equivalent for one) | 2016 | 2015 | 2016 | 2015 | 2014 |
| Euro (EUR) | 1.0541 | 1.0887 | 1.1068 | 1.1100 | 1.3287 |
| Pound Sterling (GBP) | 1.2312 | 1.4833 | 1.3560 | 1.5286 | 1.6474 |
| Swiss Franc (CHF) | 0.9816 | 1.0048 | 1.0153 | 1.0406 | 1.0938 |
| Australian Dollar (AUD) | 0.7222 | 0.7308 | 0.7439 | 0.7522 | 0.9025 |
| Canadian Dollar (CAD) | 0.7430 | 0.7202 | 0.7552 | 0.7836 | 0.9059 |
| Japanese Yen (JPY) | 0.0085 | 0.0083 | 0.0092 | 0.0083 | 0.0095 |
| Chinese Yuan (CNY) | 0.1440 | 0.1542 | 0.1506 | 0.1592 | 0.1623 |

Segment Information

We determined that we operate as one operating segment in accordance with the Fina
(FASB) Accounting Standards Codification (ASC) Topic 280, Segment Reporting. O
(CODM) makes decisions based on the Company as a whole. In addition, we have a c
types of products and services which derive revenues and consistent product margins.
decisions as one reporting unit.

Revenue Recognition

Our revenues are reported net of sales and value added taxes, discounts and sales allo
the sale of consumable and instrumentation products, and to a much lesser extent, fro
property and technology. We recognize revenue when four basic criteria are met: (1)
exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed o
reasonably assured.

Consumable and Related Products: In the last three years, revenue from consumable p
approximately 79%-80% of our net sales and is generally recognized upon transfer of
terms. We maintain a small amount, on average less than $2.0 million in total, of cons
locations. Revenues for the consumable products which are consigned in this manner
generally allow returns of consumable products if the product is returned in a timely
Allowances for returns are provided for based upon the historical pattern of returns a
factors that impact the risk of returns.

Revenues from related products include software-as-a-service (SaaS), license fees, in
royalties and milestone payments and over the last three years has accounted for appr
Revenue from SaaS arrangements has increased following our 2013 acquisition of In
the duration of the agreement unless the terms of the agreement indicate that revenue
pattern, for example based on usage. License fees from research collaborations includ
access rights. Non-refundable, up-front payments received in connection with collabo
agreements are generally deferred and recognized on a straight-line basis over the co
continuing obligation. Revenue from intellectual property and patent sales is recogniz
sale, or over the contract period when licensed. Payments for milestones, generally ba
and at-risk performance criteria, are recognized in full at such time as the specified m
to the terms of the agreement. Royalties from licensees are based on reported sales of
calculated based on contract terms when reported sales are reliably measurable, fees a
collectability is reasonably assured.

Instrumentation: Revenue from instrumentation includes the instrumentation equipme
instrumentation services, such as extended warranty services or product maintenance
has accounted for approximately 12%-13% of net sales. Revenue from instrumentatio
passes to the customer, upon either shipment or written customer acceptance after sati
requirements.

We offer our customers access to our instrumentation via reagent rental agreements w
customers without requiring them to purchase the equipment. Instead, we recover the
in the amount charged for consumable products. The instruments placed with custome

are depreciated and charged to cost of sales on a straight-line basis over the estimated
years. The costs to maintain these instruments in the field are charged to cost of sales
reagent rental agreements is allocated to the elements within the arrangement (the lea
services) in accordance with ASC 605-25, Revenue Recognition—Multiple-Element
unit of accounting as appropriate.

We have contracts with multiple elements which include instrumentation equipment,
agreement or sold directly, together with other elements such as installation, training,
maintenance contracts or consumable products. These contracts are accounted for unc
Recognition—Multiple-Element Arrangements. Multiple-element arrangements are a
more than one unit of accounting. In order for a deliverable to qualify as a separate ur
criteria must be met:

- The delivered items have value to the client on a stand-alone basis;
- If the arrangement includes a general right of return relative to the delivered item, del
undelivered item or items is considered probable and substantially in the control of th

Arrangement consideration is allocated at the inception of the arrangement to all deliv
selling price. When applying the relative selling price method, the selling price for ea
vendor-specific objective evidence (VSOE) of selling price, if it exists; or otherwise (
If neither VSOE nor third-party evidence of selling price exists for a deliverable, then
deliverable is used. The arrangement consideration is allocated to the separate units o
relative fair value. If these criteria are not met, deliverables included in an arrangemer
accounting and revenues and costs are deferred until the period or periods in which th
We have evaluated the deliverables in our multiple-element arrangements and conclu
accounting because the delivered item or items have value to the customer on a standa
includes a general right of return relative to the delivered item(s), delivery or perform
considered probable and substantially in our control. Revenues from installation and t
completed, based on VSOE, which is determined by reference to the price customers
separately. Revenues from extended warranty services or product maintenance contra
basis over the term of the contract, typically one year. VSOE of fair value of extended
maintenance is determined based on the price charged for the maintenance and suppo
from the instrumentation equipment and consumable products are recognized when th
no further performance obligations. VSOE of fair value of instrumentation equipment
determined based on the price charged for the instrument and consumables when sold
rental arrangements include termination provisions for breach of contract. However, t
impact recognized revenues. Our other arrangements do not include any provisions fo

Warranty

We provide warranties on our products against defects in materials and workmanship
for estimated future warranty costs is recorded in cost of sales at the time product reve
obligations are included in accrued and other current liabilities in the accompanying c
changes in the carrying amount of warranty obligations are as follows:

| (in thousands) | Total |
|---|---|
| BALANCE AT DECEMBER 31, 2014 | $3,279 |
| Provision charged to cost of sales | 2,202 |
| Usage | (2,569) |
| Adjustments to previously provided warranties, net | (91) |
| Currency translation | (184) |
| BALANCE AT DECEMBER 31, 2015 | $2,637 |
| Provision charged to cost of sales | 3,562 |
| Usage | (2,936) |
| Adjustments to previously provided warranties, net | (424) |
| Currency translation | (60) |
| BALANCE AT DECEMBER 31, 2016 | $2,779 |

Research and Development

Research and product development costs are expensed as incurred. Research and deve
salaries and related expenses, facility costs and amounts paid to contract research orga
provision of services and materials as well as costs for internal use or clinical trials.

Government Grants

We recognize government grants when there is reasonable assurance that all condition
will be received. Our government grants generally represent subsidies for specified ac
when earned as a reduction of the expenses recorded for the activity that the grants ar
the grant relates to research and development expense, the grant is recognized over th
incurred. Otherwise, amounts received under government grants are recorded as liabil
grant relates to an asset, the nominal amount of the grant is deducted from the carryin
over the same period that the related asset is depreciated.

Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of
of time to get ready for its intended use or sale are capitalized as part of the cost of the
when such borrowing costs are significant. All other borrowing costs are expensed in

Shipping and Handling Income and Costs

Shipping and handling costs charged to customers are recorded as revenue in the perio
is recorded. Associated costs of shipping and handling are included in sales and mark
December 31, 2016, 2015 and 2014, shipping and handling costs totaled $26.5 million
respectively.

Advertising Costs

The costs of advertising are expensed as incurred and are included as a component of
Advertising costs for the years ended December 31, 2016, 2015 and 2014 were $8.4 m
respectively.

General and Administrative, Integration and Other

General and administrative expenses primarily represent the costs required to support
addition, we incur indirect acquisition and business integration costs in connection wi
represent incremental costs that we believe would not have been incurred absent the b
components of these costs include payroll and related costs for employees remaining
basis; public relations, advertising and media costs for re-branding of the combined o
fees incurred to integrate or restructure the acquired operations.

Restructuring

Restructuring costs include personnel costs (principally termination benefits), facility
Termination benefits are accounted for in accordance with FASB ASC Topic 712, Co
Postemployment Benefits, and are recorded when it is probable that employees will b
can be reasonably estimated. Estimates of termination benefits are based on the freque
similarity of benefits under the current plan and prior plans, and the existence of statu
Facility closure, some termination benefits and other costs are accounted for in accord
or Disposal Cost Obligations and are recorded when the liability is incurred. The spec
associated estimated costs are based on management's best business judgment under t
the estimates are made. If future events require changes to these estimates, such adjus
of the revised estimate.

Income Taxes

We account for income taxes under the liability method. Under this method, total inco
income taxes expected to be payable for the current year plus the change from the beg
tax assets and liabilities established for the expected further tax consequences resultin
reporting and tax basis of assets and liabilities. Deferred tax assets and/or liabilities ar
differences between the financial reporting and tax reporting bases for assets and liab
to be in effect when such differences are recovered or settled. Deferred tax assets are
the amount more likely than not to be realized. The effect on deferred taxes of a chang
in the period that includes the enactment date.

Tax benefits are initially recognized in the financial statements when it is more likely
sustained upon examination by the tax authorities. Such tax positions are initially and
amount of tax benefit that is greater than 50 percent likely of being realized upon settl

the cumulative probability method, assuming the tax authority has full knowledge of t
policy is to recognize interest accrued related to unrecognized tax benefits in interest
income tax expense.

Derivative Instruments

We enter into derivative financial instrument contracts to minimize the variability of c
associated with the anticipated transactions being hedged or to hedge fluctuating inter
currency or interest rate impact the value of anticipated transactions, the fair value of
changes, offsetting foreign currency or interest rate fluctuations. Derivative instrumen
fair value. Changes in fair value of derivatives are recorded in current earnings or oth
on whether a derivative is designated as part of a hedge transaction.

Share-Based Payments

Compensation cost for all share-based payments is recorded based on the grant date fa
pre-vesting forfeitures, recognized in expense over the service period. As discussed in
in 2016 we made a change in accounting principle to move from a straight-line attribu
to an accelerated attribution method.

Stock Options: We utilize the Black-Scholes-Merton valuation model for estimating t
granted. Option valuation models, including Black-Scholes-Merton, require the input
changes in the assumptions used can materially affect the grant date fair value of an a
risk-free rate of interest, expected dividend yield, expected volatility, expected life of
not granted stock options since 2013.

Restricted Stock Units and Performance Stock Units: Restricted stock units and perfo
receive Common Shares at a future date. The fair market value of restricted and perfo
on the number of stock units granted and the fair market value of our shares on the gr
time of the grant, less an estimate for pre-vesting forfeitures, is recognized in expense
reporting period, the estimated performance achievement of the performance stock un
estimated achievement is recorded on a cumulative basis in the period of adjustment.

Forfeiture Rate—This is the estimated percentage of grants that are expected to be for
before becoming fully vested. We estimated the forfeiture rate based on historical for

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on deposit in banks and other cash invested
that are short-term and highly liquid, and having an original maturity of less than 90 c

| (in thousands) | 2016 | 2015 |
|---|---|---|
| Cash at bank and on hand | $137,615 | $217,644 |
| Short-term bank deposits | 301,565 | 72,367 |
| Cash and Cash Equivalents | $439,180 | $290,011 |

Short-Term Investments

Short-term investments are classified as “available for sale” and stated at fair value in
Interest income is accrued when earned and changes in fair market values are reflecte
calculated on the specific identification method, as a component of accumulated other
equity. The amortization of premiums and accretion of discounts to maturity arising f
income. A decline in fair value that is judged to be other-than-temporary is accounted
write-down is included in the consolidated statements of income. Realized gains and l
identification basis, on the sale of short-term investments are included in income.

Fair Value of Financial Instruments

The carrying amount of cash and cash equivalents, notes receivable, accounts receiva
liabilities approximate their fair values because of the short maturities of those instrun
variable rate debt and capital leases approximates their fair values because of the shor
are comparable to those available to us on similar terms. The fair values of the Cash C
estimation using available over-the-counter market information. The fair values of the
further described in Note 15 were estimated using the changes in the U.S. Treasury ra

Accounts Receivable

Our accounts receivable are unsecured and we are at risk to the extent such amounts b
monitor accounts receivable balances, and provide for an allowance for doubtful acco
questionable based on payment history or age of the receivable. Amounts determined

against the reserve. For the years ended December 31, 2016, 2015 and 2014, write-of
million,

$2.0 million and $2.3 million, respectively, while provisions for doubtful accounts wh
$2.1 million, $2.1 million and $1.4 million, respectively. For all years presented, no s
ten percent of accounts receivable or consolidated net sales.

Inventories

Inventories are stated at the lower of cost, determined on a first-in, first-out basis, or m
capitalized labor and overhead costs. Inventories consisted of the following as of Dec

| (in thousands) | 2016 | 2015 |
|---|---|---|
| Raw materials | $29,402 | $27,051 |
| Work in process | 28,123 | 21,066 |
| Finished goods | 79,027 | 88,469 |
| Total inventories, net | $136,552 | $136,586 |

Property, Plant and Equipment

Property, plant and equipment, including equipment acquired under capital lease oblig
accumulated amortization. Capitalized internal-use software costs include only those
development or acquisition of computer software for internal use, including costs asso
installation and testing of the system. Costs associated with preliminary development
of alternatives, as well as training, maintenance and support are expensed as incurred.
or otherwise marketed that are related to the conceptual formulation and design are ex
produce the product after technological feasibility is established are capitalized and ar
accounting standards for the costs of software to be sold, leased, or otherwise marketed
using the straight-line method over the estimated useful lives of the assets (3 to 40 yea
improvements is computed on a straight-line basis over the lesser of the remaining life
life of the improvement asset. We have a policy of capitalizing expenditures that mate
charging ordinary maintenance and repairs to operations as incurred. When property o
and related accumulated depreciation and amortization are removed from the account
earnings.

Acquired Intangibles and Goodwill

Acquired intangibles with alternative future uses are carried at cost less accumulated a
technology held by third parties and other acquired intangible assets. Amortization is
life of the underlying patents, which has historically ranged from one to twenty years.
in business combinations, other than goodwill, are amortized over their estimated use
determined to be indefinite. Intangibles are assessed for recoverability considering the
over which the intangible will contribute to future cash flow. The unamortized cost of
are independent and identifiable from other assets, is evaluated periodically and adjus
circumstances indicate that a decline in value below the carrying amount has occurred
impairments of $21.4 million related to the restructuring as discussed in Note 6. For th
2014, we recorded intangible asset impairments of $0.2 million and $8.7 million, resp
recorded during the year ended December 31, 2014 are further discussed in Note 6 Re
Amortization expense related to developed technology and patent and license rights w
combination is included in cost of sales. Amortization of trademarks, customer base a
have been acquired in a business combination is recorded in operating expense under
intangible amortization'. Amortization expenses of intangible assets not acquired in a
within either the cost of sales, research and development or sales and marketing line i
Goodwill represents the difference between the purchase price and the estimated fair
from business combinations. Goodwill is subject to impairment tests annually or earli
exist, using a fair-value-based approach. We have elected to perform our annual test f
October 1st of each year. Following the annual impairment tests for the years ended D
goodwill has not been impaired. As discussed in Note 6 Restructuring, in 2016 we rec
goodwill.

Investments

We have investments in non-marketable securities issued by privately held companies other long-term assets in the accompanying consolidated balance sheets and are accou method of accounting.

Investments are evaluated periodically, or when impairment indicators are noted, to d
other-than-temporary. In making that determination, we consider all available evidenc
security. This evidence includes, but is not limited to, the following:

- adverse financial conditions of a specific issuer, segment, industry, region or other va
- the length of time and the extent to which the fair value has been less than cost; and
- the financial condition and near-term prospects of the issuer.

We consider whether the fair values of any of our cost or equity method investments l
value whenever adverse events or changes in circumstances indicate that recorded val
such decline is considered to be other than temporary (based on various factors, inclu
product development activities and the overall health of the affiliate's industry), then
be recorded in operating expense to its estimated fair value. In 2016, we recorded an i
investment of $8.3 million, in other expense, net. For the year ended December 31, 20
cost method investment of $2.2 million, in other expense, net. For the year ended Dec
impairments to cost method investments of $6.0 million, of which $4.8 million was re
million was recorded in research and development expense.

Impairment of Long-Lived Assets

We review our long-lived assets for impairment whenever events or changes in circun
amount of an asset or a group of assets may not be recoverable. We consider, amongs
operating losses or a change in expected sales levels to be indicators of potential impa
evaluated for impairment at the lowest level for which there are identifiable cash flow
cash flows of other groups of assets. If an asset is determined to be impaired, the loss
the carrying amount of the asset exceeds fair value which is determined by applicable
market prices are not available, we generally measure fair value by discounting projec
Considerable judgment is necessary to estimate discounted future cash flows. Accord
such estimates. During the year ended December 31, 2016, in connection with the res
recorded asset impairment charges of $10.9 million, of which $9.2 million is recorded
$1.5 million is recorded in general and administrative, integration and other expense,
sales and $0.1 million is recorded in sales and marketing expense. In 2015, we record
million in general and administrative, integration and other expenses in the accompan
income related to the abandonment of certain software projects following the acquisit
December 31, 2014 in connection with our internal and acquisition related restructuri
charges of $19.6 million, of which $15.5 million is recorded in cost of sales, $2.4 mil
expense, and $1.7 million in general and administrative, integration and other expense
statements of income.

4. Segment Information

Considering the acquisitions made during 2016, we determined that we still operate a
with FASB ASC Topic 280, Segment Reporting. As a result of our continued restruct
organization, our chief operating decision maker (CODM) continues to make decision
and resource allocation based on evaluations of QIAGEN as a whole. Accordingly, w
Summarized product category and geographic information is shown in the tables belo

Product Category Information

Net sales for the product categories are attributed based on those revenues related to s
similarly related revenues including bioinformatics solutions, and revenues derived fr

| (in thousands) | 2016 | 2015 | 2014 |
|---|---|---|---|
| Net Sales | | | |
| Consumables and related revenues | $1,166,131 | $1,114,580 | $1,172,728 |
| Instrumentation | 171,860 | 166,406 | 172,049 |
| Total | $1,337,991 | $1,280,986 | $1,344,777 |

Geographical Information

Net sales are attributed to countries based on the location of the customer. QIAGEN o
Germany, China, the United Kingdom, and the United States that supply products to c
subsidiaries

in other countries. The sales from these manufacturing operations to other countries a
countries in which the manufacturing locations are based. The intersegment portions
consolidated net sales. No single customer represents more than ten percent of consol
domicile is the Netherlands, which reported net sales of $12.4 million, $11.3 million a
2016, 2015 and 2014, respectively, and these amounts are included in the line item Eu
shown in the table below.

| (in thousands) | 2016 | 2015 | 2014 |
|---|---|---|---|
| Net Sales | | | |
| Americas: | | | |
| United States | $555,676 | $525,532 | $543,877 |
| Other Americas | 71,797 | 79,578 | 75,974 |
| Total Americas | 627,473 | 605,110 | 619,851 |
| Europe, Middle East and Africa | 428,055 | 409,955 | 451,092 |
| Asia Pacific and Rest of World | 282,463 | 265,921 | 273,834 |
| Total | $1,337,991 | $1,280,986 | $1,344,777 |

Long-lived assets include property, plant and equipment. The Netherlands, which is in
reported long-lived assets of $1.4 million and $0.3 million as of December 31, 2016 a

| (in thousands) | 2016 | 2015 |
|---|---|---|
| Long-lived assets | | |
| Americas: | | |
| United States | $145,813 | $148,748 |
| Other Americas | 4,544 | 2,691 |
| Total Americas | 150,357 | 151,439 |
| Germany | 237,190 | 243,120 |
| Other Europe | 37,057 | 35,573 |
| Asia Pacific and Rest of World | 12,051 | 12,812 |
| Total | $436,655 | $442,944 |

5. Acquisitions

Acquisitions have been accounted for as business combinations, and the acquired con
the accompanying consolidated statements of income from their respective dates of ac
historically been made at prices above the fair value of the acquired net assets, resulti
synergies of combining the businesses. These synergies include use of our existing in
service centers, distribution channels and customer relations, to expand sales of the ac
infrastructure of the acquired businesses to cost-effectively expand sales of our produ
facilities, functions and staffing.

2016 Acquisitions

During the second quarter of 2016, we acquired a majority shareholding in Exiqon A/
company headquartered in Vedbaek, Denmark, which is a leading provider of RNA a
Locked Nucleic Acid (LNA) technology. The acquisition expands our leadership posi
RNA analysis. On June 28, 2016, we paid DKK 627.4 million ($95.2 million) for app
Exiqon common shares. On the acquisition date, the fair value of the remaining share
this noncontrolling share was based on reference to quoted market values of Exiqon s
have acquired the remaining Exiqon shares for $5.5 million in cash, which is included
accompanying consolidated statements of cash flows, and as of December 31, 2016 w
the year ended December 31, 2016, acquisition-related costs of $6.3 million are inclu
integration and other in the accompanying consolidated statements of income.

The preliminary purchase price allocation as of December 31, 2016 did not differ fro
allocation as of June 30, 2016 other than a $9.4 million increase in developed technol
tax asset on tax loss carry forwards, a $2.8 million decrease in customer relationships
deferred tax liability, a $0.4 million increase in prepaid expenses and other current as
increase of other opening balance sheet liabilities. The corresponding impact for these
goodwill of $14.7 million.
The allocation of the purchase price is preliminary and is not yet finalized. The prelim
is based upon preliminary estimates which used information that was available to ma
statements were prepared and these estimates and assumptions are subject to change w
one year from the acquisition date. Accordingly, the allocation may change. We conti
deferred taxes related to the intangible assets acquired as well as the deferred tax asse

| (in thousands) | Exiqon acquisi |
|---|---|
| Purchase Price: | |
| Cash consideration | $ 95,16 |
| Fair value of remaining shares | 5,519 |
| | $ 100,6 |
| Preliminary Allocation: | |
| Cash and cash equivalents | $ 4,824 |
| Accounts receivable | 3,581 |
| Inventory | 1,553 |
| Prepaid expenses and other current assets | 1,853 |
| Accounts payable | (1,289 |
| Accruals and other current liabilities | (11,58 |
| Debt assumed | (6,068 |
| Other long-term liabilities | (197 |
| Deferred tax asset on tax loss carry forwards | 10,016 |
| Fixed and other long-term assets | 2,870 |
| Developed technology | 18,500 |
| Customer relationships | 3,800 |
| Tradenames | 1,400 |
| Goodwill | 76,807 |
| Deferred tax liability on fair value of identifiable intangible assets acquired | (5,381 |
| | $ 100,6 |

The weighted average amortization period for the intangible assets is 11.1 years. The
tax purposes.
Revenue and earnings in the reporting periods since the acquisition date have not bee
information has been provided herein as the acquisition of Exiqon did not have a mat
earnings per share on a pro forma basis.

2015 Acquisitions
During 2015, we completed three acquisitions, including the acquisition of MO BIO
company, that is considered a leader in sample technologies for metagenomics and m
consideration for these acquisitions totaled $66.9 million in cash, net of cash acquired
purchase price allocations are final. Each of these acquisitions did not have a material
earnings per share and therefore no pro forma information has been provided herein.
2014 Acquisition

F- 22

In December 2014, we acquired the enzyme solutions business of Enzymatics Inc. (E products are used in an estimated 80% of all next-generation sequencing (NGS) work portfolio complements QIAGEN's leading offering of universal NGS products, advan of NGS in clinical healthcare. The cash consideration totaled $114.2 million. The acq material business impact to net sales, net income or earnings per share, and therefore been provided herein.

The final purchase price allocation of Enzymatics did not differ from the preliminary $2.1 million in fair value of contingent consideration, a $0.4 million increase of long- additional $0.1 million increase of other opening balance sheet adjustments. The corr was an increase to goodwill of $2.4 million. These changes to arrive at the final purch to the consolidated financial statements.

The final purchase price allocation for Enzymatics was as follows:

| (in thousands) | Enzym acquisi |
|---|---|
| Purchase Price: | |
| Cash consideration | $ 114,2 |
| Fair value of contingent consideration | 13,600 |
| | $ 127,8 |
| Final Allocation: | |
| Cash and cash equivalents | $ 1,178 |
| Accounts receivable | 2,813 |
| Prepaid expenses and other current assets | 1,330 |
| Fixed and other long-term assets | 1,414 |
| Accounts payable | (3,090 |
| Accruals and other current liabilities | (1,940 |
| Developed technology | 28,600 |
| Tradenames | 6,600 |
| Customer relationships | 22,300 |
| Goodwill | 90,177 |
| Deferred tax liability on fair value of identifiable intangible assets acquired | (21,558 |
| | $ 127,8 |

The weighted-average amortization period for the intangible assets is 11.1 years. The tax purposes.

Certain acquisitions may include contingent consideration which is recorded as part o the acquisition date fair value. Under the purchase agreement, potential contingent ca million, of which the fair value of $13.6 million was recorded as purchase price using future milestones using discount rates between 0.70% and 2.20%. See Note 14, "Fair the changes in the fair value of the contingent consideration liabilities.

Other 2014 Acquisitions

During 2014, we completed other acquisitions which individually were not significan statements. The cash paid for these acquisitions, net of cash acquired, totaled $47.4 m individually did not have a material impact to net sales, net income or earnings per sh information has been provided herein.

Other Acquisition

During 2011, we acquired a majority shareholding in QIAGEN Marseille S.A., forme publicly listed company founded and based in Marseille, France. During 2014, we acq total of $0.3 million and held 90.27% of the Marseille shares as of December 31, 201

consolidated entity, sold all its assets and liabilities, with the exception of its intellect
acquired additional Marseille shares through a tender offer for a total of $8.0 million
Marseille shares as of December 31, 2015. Per the terms of the tender offer, $2.5 mill
in restricted cash for the remaining shares which were acquired in the first quarter of
held 100% of the QIAGEN Marseille shares.

6. Restructuring

2016 Restructuring

During the fourth quarter of 2016, we initiated series of targeted actions to support fa
efficiency and accountability. The objective with these actions is to ensure that we gr
coming years. Measures include simplifying our geographic presence with site reduct
service centers, and streamlining selected organizational structures. We expect to com
cost of approximately $90.0 million, of which $79.1 million was incurred in 2016 and
expected to be incurred in 2017 primarily related to personnel and facility costs.

The table below shows how the costs related to the restructuring program were record

| (in thousands) | Personnel Related | Facility Related | Contract and Other Costs | Asset Impai & Dis |
|---|---|---|---|---|
| Cost of sales | $ 1,222 | $ 205 | $ 43 | $ 10, |
| Research and development | 4,176 | 1,798 | 14 | 20,37 |
| Sales and marketing | 12,753 | 4,335 | 6,797 | 1,046 |
| General and administrative, integration and other | 1,069 | 827 | 1,461 | 1,547 |
| Other expense, net | — | — | — | 10,94 |
| Total | $ 19,220 | $ 7,165 | $ 8,315 | $ 44, |

Personnel and related expense includes a $2.0 million reduction in costs as a result of
compensation in connection with terminations. We incurred consulting costs of $7.5 m
Costs, related to third party consulting costs associated with the development of the re
and Disposals include $21.4 million for intangible asset impairments, $10.9 million fo
million primarily in connection with the write-off of prepaid contract costs. The total
other expense, net in the accompanying consolidated statements of income is compos
impairment of an equity method investment and a disposal of goodwill of $2.6 millio
The following table summarizes the cash components of the restructuring activity.

| (in thousands) | Personnel Related | Facility Related | Contra and Other Costs |
|---|---|---|---|
| Costs incurred in 2016 | $21,252 | $7,165 | $8,315 |
| Payments | (2,742) | (601) | (2,391 |
| Facility deferred rent reclassified to restructuring liability | — | 1,326 | — |
| Foreign currency translation adjustment | (30) | (8) | 19 |
| Liability at December 31, 2016 | $18,480 | $7,882 | $5,943 |

At December 31, 2016, $27.6 million of the liability is included in accrued and other
included in other long-term liabilities in the accompanying consolidated balance shee

2014 Restructuring

During the fourth quarter of 2014, we recorded pretax charges of $37.1 million in rest
the acquisition of Enzymatics discussed in Note 5 and from the implementation of he
consolidations to further streamline operations and various measures as part of a com
and related to QIAGEN's strategic focus on its five growth drivers. Of these charges,
sales, $2.4 million is recorded in sales and marketing, and $8.3 million is recorded in

other. The pretax charge consists of $6.4 million for workforce reductions, $19.6 mill
charges, $8.7 million for intangible asset abandonment charges in line with strategic i
technologically and competitively

current. Additionally, we incurred contract termination and consulting costs of $2.4 m
incurred in 2015 or 2016 related to this program.
The following table summarizes the components of the 2014 restructuring costs. At D
were payable under this restructuring program. At December 31, 2015, a restructuring
in accrued and other current liabilities.

| (in thousands) | Personnel Related | Facility Related | Contract and Other Costs | Total |
|---|---|---|---|---|
| Balance at December 31, 2014 | $ 6,341 | $7,627 | $ 652 | $14,620 |
| Payments | (4,789) | (4,199) | (418) | (9,406) |
| Release of excess accrual | (453) | — | (20) | (473) |
| Foreign currency translation adjustment | (630) | — | — | (630) |
| Balance at December 31, 2015 | $ 469 | $3,428 | $ 214 | $4,111 |
| Payments | (143) | (3,428) | (214) | (3,785) |
| Release of excess accrual | (325) | — | — | (325) |
| Foreign currency translation adjustment | (1) | — | — | (1) |
| Balance at December 31, 2016 | $ — | $— | $ — | $— |

2011 Restructuring
Late in 2011, we began a project to enhance productivity by streamlining the organiza
strategic initiatives. This project eliminated organizational layers and overlapping stru
included actions to focus research and development activities on higher-growth areas
operations at fewer sites, and realign sales and regional marketing teams in the U.S. a
needs in a more streamlined manner across the continuum from basic research to tran
diagnostics.
The following table summarizes the cash components of the restructuring costs.

| (in thousands) | Personnel Related | Facility Related | Contract and Other Costs | Total |
|---|---|---|---|---|
| Balance at December 31, 2013 | $ 9,782 | $ 313 | $ 511 | $10,606 |
| Payments | (8,071) | (313) | (511) | (8,895) |
| Release of excess accrual | (775) | — | — | (775) |
| Foreign currency translation adjustment | (210) | — | — | (210) |
| Balance at December 31, 2014 | $ 726 | $ — | $ — | $726 |
| Payments | (381) | — | — | (381) |
| Release of excess accrual | (340) | — | — | (340) |
| Foreign currency translation adjustment | (5) | — | — | (5) |
| Balance at December 31, 2015 | $ — | $ — | $ — | $— |

7. Short-Term Investments
At December 31, 2016 and 2015, we had $89.3 million and $127.1 million, respective
paper due from financial institutions. These loan receivables and commercial paper ar
fixed or determinable payments that are not quoted in an active market and are carried
the cost. At December 31, 2016, these loans consist of $63.5 million and €24.5 millio
2016) which mature at various dates through December 2018. All instruments that ha
months include redemption rights on at least a quarterly basis. Interest income is dete
method. These loans are classified as current assets in the accompanying consolidated
the loans at our discretion.

At December 31, 2016 and 2015, we also had €3.5 million ($3.7 million) and €3.4 mi
deposits with final maturities in August 2017. The deposits can be withdrawn at the e
are therefore classified as current assets in the accompanying consolidated balance sh

For the year ended December 31, 2016 and 2015, proceeds from sales of short term in
$367.7 million, respectively. During the year ended December 31, 2016, realized gain
years ended December 31, 2015 and 2014, realized losses totaled $6.0 million and $3

8. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets are summarized as follows as of December

| (in thousands) | 2016 | 2015 |
|---|---|---|
| Prepaid expenses | $35,529 | $38,986 |
| Value added tax | 14,985 | 15,219 |
| Other receivables | 10,899 | 9,658 |
| Fair value of derivative instruments | 5,386 | 3,758 |
| Amounts held in escrow in connection with acquisitions | — | 2,500 |
| Total prepaid expenses and other current assets | $66,799 | $70,121 |

9. Property, Plant and Equipment

Property, plant and equipment, including equipment acquired under capital lease oblig
of December 31, 2016 and 2015:

| (in thousands) | Estimated useful life (in years) | 2016 | 2015 |
|---|---|---|---|
| Land | — | $16,327 | $15,452 |
| Buildings and improvements | 5-40 | 301,092 | 302,068 |
| Machinery and equipment | 3-10 | 257,349 | 253,556 |
| Computer software | 3-7 | 176,227 | 125,396 |
| Furniture and office equipment | 3-10 | 89,560 | 92,281 |
| Construction in progress | — | 47,260 | 63,825 |
| | | 887,815 | 852,578 |
| Less: Accumulated depreciation and amortization | | (451,160 ) | (409,634 ) |
| Property, plant and equipment, net | | $436,655 | $442,944 |

Amortization of assets acquired under capital lease obligations is included within acc
amortization above for the years ended December 31, 2016 and 2015, respectively. Fo
2015 and 2014 depreciation and amortization expense totaled $75.1 million, $59.5 mi
For the years ended December 31, 2016, 2015 and 2014 amortization related to comp
marketed totaled $9.3 million, $5.1 million and $6.2 million, respectively.
In 2016, we recorded asset impairment charges of $10.9 million related to the restruct
Impairments included $7.5 million of computer software to be sold, leased or markete
equipment, $1.5 million in internal-use software, $0.1 million in furniture and office e
buildings and improvements. In 2015, we recorded asset impairment charges of $3.1
to computer software to be sold, leased or marketed related to the abandonment of cer
of MO BIO.
Repairs and maintenance expense was $13.0 million, $15.4 million and $15.9 million
For the year ended December 31, 2016 and 2015, construction in progress primarily i
software development projects. For the years ended December 31, 2016, 2015 and 20
with construction projects was not significant.

10. Investments

We have made strategic investments in certain companies that are accounted for using
accounting. The method of accounting for an investment depends on the level of influ
circumstances that may

require a reassessment of the level of influence. We periodically review the carrying v
impairment, considering factors such as the most recent stock transactions and book v
statements. The fair value of cost and equity-method investments is estimated when th
circumstances that may have an impact on the fair value of the investment. Additiona
equity securities that have readily determinable fair values that are classified as availa
reported at fair value, with unrealized gains and losses recorded in accumulated other
equity.

Equity Method Investments

A summary of these equity method investments, which are included in other long-ter
sheets, is as follows:

| ($ in thousands) | Ownership Percentage | | Equity investm as of Decembe 2016 | 201 |
|---|---|---|---|---|
| PreAnalytiX GmbH | 50.00 | % | $ 3,519 | $ 10 |
| Biotype Innovation GmbH | 24.90 | % | 3,339 | 3,77 |
| Pyrobett | 19.00 | % | 2,444 | 2,11 |
| Hombrechtikon Systems Engineering AG | 19.00 | % | 1,524 | — |
| QIAGEN (Suzhou) Institute of Translation Research Co., Ltd. | 30.00 | % | — | 203 |
| QIAGEN Finance | 100.00 | % | — | — |
| QBM Cell Science | 19.50 | % | — | — |
| Dx Assays Pte Ltd | 33.30 | % | — | — |
| | | | $ 10,826 | $ 16 |

In connection with the restructuring activities discussed in Note 6, we transferred the
our instrumentation business to a new company, Hombrechtikon Systems Engineering
19.0% interest for a total obligation of $9.8 million which is payable over three years.
million was included in accrued and other current liabilities and $5.9 million was incl
the accompanying consolidated balance sheet. HSE is a variable interest entity and we
do not hold the power to direct the activities that most significantly impact the econo
HSE is not consolidated. In 2016, we recorded an impairment of the investment in HS
and accordingly, as of December 31, 2016, the investment has a carrying value of $1.
long-term assets in the consolidated balance sheets, representing our maximum expos
We had a 100% interest in QIAGEN Finance (Luxembourg) S.A. (QIAGEN Finance)
of issuing convertible debt in 2004. The proceeds of the 2004 Notes were loaned to su
QIAGEN N.V. group. QIAGEN N.V. had guaranteed the 2004 Notes, and had agreen
common shares to the investors in the event of conversion of the 2004 Notes. QIAGE
entity. We did not hold any variable interests in QIAGEN Finance, and we were not t
QIAGEN Finance was not consolidated. Accordingly, the 2004 convertible debt was
statements of QIAGEN N.V., though QIAGEN N.V. did report the full obligation of t
QIAGEN Finance. QIAGEN N.V. accounted for its investment in QIAGEN Finance
quarter of 2015 and accordingly recorded 100% of the profit or loss of QIAGEN Fina
method investees. During the first quarter of 2015, we repaid the $250.9 million loan
the warrant agreement with QIAGEN Finance.

Cost Method Investments

At December 31, 2016 and 2015, we had a total of cost-method investments in non-pu
amounts of $38.2 million and $17.2 million, respectively, which are included in other
balance sheets. The fair-value of these cost-method investments are not estimated unl
changes in circumstances that may have a significant adverse effect on the fair value
ended December 31, 2016, and 2015, we made cost-method investments totaling $20.

respectively. In August 2016, we converted a $0.6 million short-term loan into additio
cost-method investment. In 2015, we recorded total impairments to a cost method inv
expense, net. In 2014, we recorded total impairments to a cost method investment of $
recorded in other expense, net and $1.2 million was recorded in research and develop

Marketable Equity Securities

During 2016, we made an investment in HTG Molecular Diagnostics, Inc., a publicly long-term marketable security. At December 31, 2016, we held 833,333 shares with a a cost of $2.0 million. Our former cost-method investment in Curetis AG was reclassi during 2015 upon the completed IPO of its Dutch holding company, Curetis N.V. At shares with a cost of $2.3 million. As of December 31, 2016 and 2015, the fair marke and $3.5 million, respectively. Long-term marketable securities are included in other consolidated balance sheets.

11. Goodwill and Intangible Assets

The following sets forth the intangible assets by major asset class as of December 31,

| (in thousands) | Weighted Average Life (in years) | 2016 Gross Carrying Amount | A A |
|---|---|---|---|
| Amortized Intangible Assets: | | | |
| Patent and license rights | 10.61 | $373,609 | $ |
| Developed technology | 10.64 | 708,825 | ( |
| Customer base, trademarks, and non-compete agreements | 10.71 | 422,797 | ( |
| | 10.65 | $1,505,231 | $ |
| Unamortized Intangible Assets: | | | |
| Goodwill | | $1,925,518 | |

The changes in intangible assets for the years ended December 31, 2016 and 2015 are

| (in thousands) | Intangibles | Goodwill |
|---|---|---|
| BALANCE AT DECEMBER 31, 2014 | $726,914 | $1,887,963 |
| Additions | 45,575 | — |
| Purchase adjustments | (8,200) | 1,656 |
| Acquisitions | 31,412 | 37,084 |
| Amortization | (131,953) | — |
| Impairment losses | (205) | — |
| Foreign currency translation adjustments | (27,122) | (51,005) |
| BALANCE AT DECEMBER 31, 2015 | $636,421 | $1,875,698 |
| Additions | 70,937 | 76,807 |
| Purchase adjustments | (321) | 316 |
| Acquisitions | 23,700 | — |
| Amortization | (137,949) | — |
| Disposals | (29) | (2,650) |
| Impairment losses | (21,423) | — |
| Foreign currency translation adjustments | (14,177) | (24,653) |
| BALANCE AT DECEMBER 31, 2016 | $557,159 | $1,925,518 |

Amortization expense on intangible assets totaled approximately $137.9 million, $13 respectively, for the years ended December 31, 2016, 2015 and 2014.

In 2016, we recorded an intangible asset abandonment charge of $21.4 million relate technologies in connection with the restructuring discussed more fully in Note 6. Of t is

included in cost of sales and $11.1 million is included in research and development in
statements of income.
Cash paid for purchases of intangible assets during the years ended December 31, 201
$19.7 million of which $3.9 million and $6.4 million, respectively, were not yet in ser
long-term assets in the consolidated balance sheet. Intangible asset additions of $70.9
paid during the year ended December 31, 2016, together with $7.1 million of addition
prepayments and $48.4 million of additions which were accrued as of December 31, 2
million relate to licenses for which fixed payments are expected to occur through the
The changes in the carrying amount of goodwill during the years ended December 31
from changes in foreign currency translation together with acquired goodwill from the
adjustments made in connection with 2015 purchase price allocation for the acquisitio
discussed in Note 5. Additionally, $2.6 million of goodwill was disposed of in connec
and development activities of our instrumentation business as part of the restructuring
Accumulated goodwill impairment totaled $1.6 million as of December 31, 2016 and
Amortization of intangibles for the next five years is expected to be approximately:

| (in thousands) | Amortization |
|---|---|
| Years ended December 31: | |
| 2017 | $ 128,561 |
| 2018 | $ 106,175 |
| 2019 | $ 84,389 |
| 2020 | $ 59,125 |
| 2021 | $ 50,845 |

12. Accrued and Other Current Liabilities

Accrued and other current liabilities at December 31, 2016 and 2015 consist of the fo

| (in thousands) | 2016 | 2015 |
|---|---|---|
| Accrued expenses | $74,245 | $51,784 |
| Payroll and related accruals | 54,772 | 52,036 |
| Deferred revenue | 44,629 | 49,812 |
| Restructuring | 27,590 | 4,144 |
| Accrued royalties | 7,801 | 13,786 |
| Cash collateral | 6,984 | 7,826 |
| Fair value of derivative instruments | 6,089 | 525 |
| Accrued interest on long-term debt | 4,239 | 4,239 |
| Accrued contingent consideration and milestone payments | 2,957 | 6,995 |
| Current portion of capital lease obligations | 999 | 922 |
| Total accrued and other current liabilities | $230,305 | $192,069 |

13. Derivatives and Hedging

In the ordinary course of business, we use derivative instruments, including swaps, fo
potential losses from foreign currency exposures and interest bearing assets or liabilit
derivative instruments is to minimize the risks and/or costs associated with our global
do not utilize derivative or other financial instruments for trading or other speculative
as either assets or liabilities on the balance sheet on a gross basis, measure those instr
change in fair value in earnings in the period of change, unless the derivative qualifies
certain exposures. In 2015, we agreed with almost all of our counterparties with whom
swaps, interest rate swaps or foreign exchange contracts, to enter into bilateral collate
receive or provide cash collateral, as the case may be, for the net position with each o
December 31, 2016,

cash collateral positions consisted of $7.0 million recorded in accrued and other curre
in prepaid and other current assets in the accompanying consolidated balance sheet. A
was recorded in accrued and other current liabilities in the accompanying consolidate
As of December 31, 2016 and 2015, we held derivative instruments that are designate
where the effective portion of the gain or loss on the derivative is reported as a compo
(loss) and reclassified into earnings in the same period or periods during which the he
Gains and losses on the derivative representing either hedge ineffectiveness or hedge
assessment of effectiveness are recognized in current earnings. In 2016 and in 2015, v
ineffectiveness related to any cash-flow hedges in earnings. Based on their valuation a
approximately $7.6 million of derivative losses included in accumulated other compre
income during the next 12 months. The cash flows derived from derivatives are classi
cash flows in the same category as the consolidated balance sheet account of the unde
As of December 31, 2016 and 2015, we held derivative instruments that qualify for he
For derivative instruments that are designated and qualify as a fair value hedge, the ef
the derivative is reflected in earnings. This earnings effect is offset by the change in th
attributable to the risk being hedged that is also recorded in earnings. In 2016 and 201
ineffectiveness. The cash flows derived from derivatives are classified in the consolid
same category as the consolidated balance sheet account of the underlying item.

Interest Rate Derivatives

We use interest rate derivative contracts to align our portfolio of interest bearing asset
management objectives. During 2015, we entered into five cross currency interest rate
notional amount of €180.0 million which qualify for hedge accounting as cash flow h
ineffectiveness exists related to these swaps. As of December 31, 2016, the €180.0 mi
value of $1.4 million and accrued and unpaid interest of $1.7 million which are record
prepaid and other current assets, respectively, in the accompanying consolidated balan
this swap had a fair value of $5.3 million and accrued and unpaid interest of $1.6 mill
long-term assets in the accompanying consolidated balance sheet.

During 2014, we entered into interest rate swaps, which effectively fixed the fair valu
private placement debt and qualify for hedge accounting as fair value hedges. We dete
related to these swaps. As of December 31, 2016, the $200.0 million notional swap an
and accrued and unpaid interest of $0.6 million which are both recorded in other long
current assets, respectively, in the accompanying consolidated balance sheet. As of D
value of $5.0 million and accrued and unpaid interest of $0.8 million which are both r
the accompanying balance sheet.

Call Options

We entered into Call Options during 2014 which, along with the sale of the Warrants,
entered into in connection with the Cash Convertible Notes and which are more fully
million of the proceeds from the issuance of the Cash Convertible Notes to pay the pr
simultaneously received $68.9 million (net of issuance costs) from the sale of the War
million for the Call Spread Overlay. The Call Options are intended to address the equ
conversion feature by offsetting cash payments in excess of the principal amount due
Convertible Notes.

Aside from the initial payment of a premium of $105.2 million for the Call Options, w
cash payments under the Call Options. We will, however, be entitled to receive under
amount of cash generally equal to the amount by which the market price per share of
exercise price of the Call Options during the relevant valuation period. The exercise p
the conversion price of the Cash Convertible Notes.

The Call Options, for which our common stock is the underlying security, are a deriva
accounting treatment due to the cash settlement features until the Call Options settle o
measured and reported at fair value on a recurring basis, within Level 2 of the fair val

the inputs used to determine the fair value of the Call Options, refer to Note 14. The f
December 31, 2016 and 2015 was approximately $185.8 million and $169.0 million,
long-term assets in the accompanying consolidated balance sheet.

The Call Options do not qualify for hedge accounting treatment. Therefore, the chang
recognized immediately in our consolidated statements of income in other expense, n

2016 and 2015, the changes in the fair value of the Call Options resulted in gains of $ respectively. Because the terms of the Call Options are substantially similar to those o embedded cash conversion option, discussed below, we expect the effect on earnings to mostly offset each other.

Cash Convertible Notes Embedded Cash Conversion Option

The embedded cash conversion option within the Cash Convertible Notes is required Convertible Notes and accounted for separately as a derivative liability, with changes consolidated statements of income in other expense, net until the cash conversion opti discussion of the Cash Convertible Notes, refer to Note 15. The initial fair value liabil option was $105.2 million, which simultaneously reduced the carrying value of the Ca original issuance discount). The embedded cash conversion option is measured and re basis, within Level 2 of the fair value hierarchy. For further discussion of the inputs u embedded cash conversion option, refer to Note 14. The fair value of the embedded c 2016 and 2015 was approximately $187.5 million and $171.0 million which is record accompanying balance sheet. For the years ended December 31, 2016 and 2015 the ch cash conversion option resulted in losses of $16.6 million and $21.5 million, respectiv

Foreign Currency Derivatives

As a globally active enterprise, we are subject to risks associated with fluctuations in operations. This includes foreign currency-denominated receivables, payables, debt, a including intercompany items. We manage balance sheet exposure on a group-wide b contracts, foreign exchange options and cross-currency swaps.

Undesignated Derivative Instruments

We are party to various foreign exchange forward, option and swap arrangements wh aggregate notional value of $347.6 million and fair values of $3.2 million and $6.1 m current assets and accrued and other current liabilities, respectively, which expire at v We were party to various foreign exchange forward and swap arrangements which ha notional value of $264.2 million and fair values of $1.4 million and $0.5 million inclu and accrued and other current liabilities, respectively, which expired at various dates have been entered into to offset the effects from short-term balance sheet exposure to Changes in the fair value of these arrangements have been recognized in other expens

Fair Values of Derivative Instruments

The following table summarizes the fair value amounts of derivative instruments repo as of December 31, 2016 and 2015:

| | Derivatives in Asset Positions | |
|---|---|---|
| | Fair value | |
| (in thousands) | 2016 | 2015 |
| Derivative instruments designated as hedges | | |
| Interest rate contracts [1] | $ 6,655 | $ 12,687 |
| Total derivative instruments designated as hedges | $ 6,655 | $ 12,687 |
| Undesignated derivative instruments | | |
| Call spread overlay | $ 185,750 | $ 169,037 |
| Foreign exchange contracts | 3,154 | 1,393 |
| Total derivative instruments | $ 188,904 | $ 170,430 |

(1) The fair value amounts for the interest rate contracts include accrued interest.

Gains and Losses on Derivative Instruments
The following tables summarize the classification and gains and losses on derivative i
December 31, 2016, 2015 and 2014:

| Year-Ended December 31, 2016 (in thousands) | Gain/(loss) recognized in AOCI | Location of gain/loss in income stateme |
|---|---|---|
| Cash flow hedges | | |
| Interest rate contracts | $ (3,969 ) | Other expense, |
| Fair value hedges | | |
| Interest rate contracts | $ — | Other expense, |
| Undesignated derivative instruments | | |
| Call spread overlay | n/a | Other expense, |
| Foreign exchange contracts | n/a | Other expense, |

| Year-Ended December 31, 2015 (in thousands) | Gain/(loss) recognized in AOCI | Location of (gain) loss in income stateme |
|---|---|---|
| Cash flow hedges | | |
| Interest rate contracts | $ 5,337 | Other expense, |
| Fair value hedges | | |
| Interest rate contracts | $ — | Other expense, |
| Undesignated derivative instruments | | |
| Call spread overlay | n/a | Other expense, |
| Foreign exchange contracts | n/a | Other expense, |

| Year-Ended December 31, 2014 (in thousands) | Gain/(loss) recognized in AOCI | Location of (gain) loss in income stateme |
|---|---|---|
| Fair value hedges | | |
| Interest rate contracts | $ — | Other expense, |
| Undesignated derivative instruments | | |
| Call spread overlay | n/a | Other expense, |
| Foreign exchange contracts | n/a | Other expense, |

The amounts noted in the table above for accumulated other comprehensive income (
for the impact of deferred income taxes.

14. Fair Value Measurements
Assets and liabilities are measured at fair value according to a three-tier fair value hie
used in measuring fair value as follows:

Level 1. Observable inputs, such as quoted prices in active markets;
Level 2. Inputs, other than the quoted price in active markets, that are observable eith
Level 3. Unobservable inputs in which there is little or no market data, which require
assumptions.
Our assets and liabilities measured at fair value on a recurring basis consist of short-te
in Level 1 and Level 2 of the fair value hierarchy, marketable securities discussed in N
1, derivative contracts used to hedge currency and interest rate risk and derivative fina
connection with the Cash Convertible Notes discussed in Note 15, which are classifie
and contingent consideration accruals which are classified in Level 3 of the fair value
below.
In determining fair value for Level 2 instruments, we apply a market approach, using
the particular instrument under valuation, giving consideration to the credit risk of bo
contract and the Company. To determine our credit risk, we estimated our credit ratin
outstanding debt to publicly-available comparable data from rated companies. Using t
quantified by reference to publicly-traded debt with a corresponding rating. The Leve
include the Call Options asset and the embedded conversion option liability. See Note
Note 13, "Derivatives and Hedging", for further information. The derivatives are not a
an option pricing model that uses observable market data for inputs. Significant mark
values as of December 31, 2016 included our common stock price, the risk-free intere
our common stock. The Call Options asset and the embedded cash conversion option
that changes in their fair values would substantially offset, with limited net impact to
of changes in the unobservable inputs to the option pricing model for such instrument
Our Level 3 instruments include contingent consideration liabilities. We value contin
unobservable inputs, applying the income approach, such as the discounted cash flow
scenario method. Contingent consideration arrangements obligate us to pay the seller
future events occur or conditions are met such as the achievement of technological or
key assumptions, such as the probability of achievement of the milestones (0% to 100
2.2% and 7.7%), to represent the non-performing risk factors and time value when ap
regularly review the fair value of the contingent consideration, and reflect any change
statements of income in the line items commensurate with the underlying nature of m
The following table presents our fair value hierarchy for our financial assets and liabi
recurring basis:

| | As of December 31, 2016 | | | | As of Decemb | |
|---|---|---|---|---|---|---|
| (in thousands) | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level |
| Assets: | | | | | | |
| Short-term investments | $3,699 | $89,300 | $— | $92,999 | $3,674 | $127, |
| Marketable securities | 4,064 | — | — | 4,064 | 3,485 | — |
| Call option | — | 185,750 | — | 185,750 | — | 169,0 |
| Foreign exchange contracts | — | 3,154 | — | 3,154 | — | 1,393 |
| Interest rate contracts | — | 6,655 | — | 6,655 | — | 12,68 |
| | $7,763 | $284,859 | $— | $292,622 | $7,159 | $310, |
| Liabilities: | | | | | | |
| Foreign exchange contracts | $— | $(6,089) | $— | $(6,089) | $— | $(525 |
| Cash conversion option | — | (187,546) | — | (187,546) | — | (170,9 |
| Contingent consideration | — | — | (8,754) | (8,754) | — | — |
| | $— | $(193,635) | $(8,754) | $(202,389) | $— | $(171 |

For liabilities with Level 3 inputs, the following table summarizes the activity for the
2015:

| (in thousands) | Contingent Consideration |
|---|---|
| BALANCE AT DECEMBER 31, 2014 | $ (17,477 ) |
| Additions from acquisitions | (5,476 ) |
| Gain included in earnings | 5,225 |
| Foreign currency translation adjustments | 50 |
| BALANCE AT DECEMBER 31, 2015 | $ (17,678 ) |
| Additions | (692 ) |
| Payments | 3,120 |
| Gain included in earnings | 6,501 |
| Foreign currency translation adjustments | (5 ) |
| BALANCE AT DECEMBER 31, 2016 | $ (8,754 ) |

For the year ended December 31, 2016, of the total $8.8 million accrued for contingen
included in other long-term liabilities and $3.0 million is included in accrued and othe
$6.5 million gain for the reduction in the fair value of contingent consideration relate
in general and administrative, integration and other in the accompanying consolidated
gains for the reduction in the fair value of contingent consideration totaling $5.2 milli
administrative, integration and other.

The carrying values of financial instruments, including cash and cash equivalents, acc
other accrued liabilities, approximate their fair values due to their short-term maturitie
long-term debt as disclosed in Note 15 was based on current interest rates for similar
values may not represent actual values of the financial instruments that could be realiz
will be realized in the future. There were no fair value differences in the years ended
nonfinancial assets or liabilities required to be measured at fair value on a nonrecurrin
cost-method investments as discussed in Note 10.

15. Lines of Credit and Debt

Our credit facilities available and undrawn at December 31, 2016 total €436.6 million
includes a €400.0 million syndicated multi-currency revolving credit facility expiring
were utilized at December 31, 2016 or at December 31, 2015, and four other lines of
no expiration date, none of which were utilized as of December 31, 2016 or as of Dec
facility can be utilized in Euro, British pounds sterling, Swiss franc or U.S. dollar and
three months EURIBOR, or LIBOR in relation to any loan not in euro, and is offered
or six months. The commitment fee is calculated based on 35% of the applicable marg
and $0.9 million of commitment fees were paid, respectively. The revolving facility a
and non-financial covenants, including but not limited to, restrictions on the encumbr
certain financial ratios. We were in compliance with these covenants at December 31,
general corporate purposes.

At December 31, 2016 and December 31, 2015, total long-term debt, net of debt issua
million, respectively, consists of the following:

| (in thousands) | 2016 | 2015 |
|---|---|---|
| 3.19% Series A Senior Notes due October 16, 2019 | $73,408 | $73,790 |
| 3.75% Series B Senior Notes due October 16, 2022 | 301,601 | 302,943 |
| 3.90% Series C Senior Notes due October 16, 2024 | 26,910 | 26,898 |
| 0.375% Senior Unsecured Cash Convertible Notes due 2019 | 402,806 | 391,111 |
| 0.875% Senior Unsecured Cash Convertible Notes due 2021 | 262,371 | 254,284 |
| Total long-term debt | $1,067,096 | $1,049,02 |

The notes are all unsecured obligations that rank pari passu. Interest expense on long-
million and $36.4 million for the years ended December 31, 2016, 2015 and 2014, res
Future maturities (stated at the carrying values) of long-term debt as of December 31,

| Year ending December 31, (in thousands) | |
|---|---|
| 2017 | $ — |
| 2018 | — |
| 2019 | 476,214 |
| 2020 | — |
| 2021 | 262,371 |
| thereafter | 328,511 |
| | $ 1,067,096 |

Cash Convertible Notes due 2019 and 2021

On March 19, 2014, we issued $730.0 million aggregate principal amount of Cash Co
$430.0 million is due in 2019 (2019 Notes) and $300.0 million is due in 2021 (2021 N
2021 Notes, collectively as the “Cash Convertible Notes”. The aggregate net proceeds
$680.7 million, after payment of the net cost of the Call Spread Overlay described bel
we used $372.5 million of the net proceeds to repay the 2006 Notes and related subsc
Interest on the Cash Convertible Notes is payable semiannually in arrears on March 1
rates of 0.375% and 0.875% per annum for the 2019 Notes and 2021 Notes, respectiv
The 2019 Notes will mature on March 19, 2019 and the 2021 Notes will mature on M
converted in accordance with their terms prior to such date.

The Cash Convertible Notes are convertible into cash in whole, but not in part, at the
circumstances: (a) from April 29, 2014 through September 18, 2018 for the 2019 Not
2021 Notes (Contingent Conversion Period), under any of the Contingent Conversion
following the Contingent Conversion Period through the fifth business day immediate
Date. Upon conversion, noteholders will receive an amount in cash equal to the Cash
described below. The Cash Convertible Notes are not convertible into shares of our co
Noteholders may convert their Cash Convertible Notes into cash at their option at any
Conversion Period only under the following circumstances (Contingent Conversion C

- during any calendar quarter commencing after the calendar quarter ending on March
calendar quarter), if the last reported sale price of our common stock for at least 20 tra
consecutive) during a period of 30 consecutive trading days ending on the last trading
calendar quarter is greater than or equal to 130% of the conversion price on each appl
- if we undergo certain fundamental changes as defined in the agreement;
- during the five business day period immediately after any ten consecutive trading day
the 2019 Notes or the 2021 Notes for each trading day of the measurement period wa
last reported sale price of our common stock and the conversion rate on each such tra
- if we elect to distribute assets or property to all or substantially all of the holders of o
other property have a value of more than 25% of the average daily volume-weighted
stock for the prior 20 consecutive trading days;

- if we elect to redeem the Cash Convertible Notes; or
- if we experience certain customary events of default, including defaults under certain

As adjusted by the synthetic share repurchase discussed in Note 17, the conversion ra
stock per $200,000 principal amount of Cash Convertible Notes (reflecting an adjuste
$28.32 per share of common stock). Upon conversion, holders are entitled to a cash p
equal to the average of the conversion rate multiplied by the daily volume-weighted a
stock over a 50-day period. The conversion rate is subject to adjustment in certain ins
accrued and unpaid interest. In addition, following the occurrence of certain corporate
applicable maturity date, we may be required to pay a cash make-whole premium by i
holder who elects to convert Cash Convertible Notes in connection with the occurrenc
We may redeem the 2019 Notes or 2021 Notes in their entirety at a price equal to 100
applicable Cash Convertible Notes plus accrued interest at any time when 20% or less
the applicable Cash Convertible Notes originally issued remain outstanding.

Because the Cash Convertible Notes contain an embedded cash conversion option, we
cash conversion option is a derivative financial instrument, which is required to be se
Notes and accounted for separately as a derivative liability, with changes in fair value
statements of income until the cash conversion option transaction settles or expires. T
embedded cash conversion option was $105.2 million, which simultaneously reduced
Convertible Notes (effectively an original issuance discount). For further discussion o
relating to the Cash Convertible Notes, refer to Note 13.

As noted above, the reduced carrying value on the Cash Convertible Notes resulted in
the principal amount through the recognition of non-cash interest expense over the ex
and seven years for the 2019 Notes and 2021 Notes, respectively. This resulted in our
Cash Convertible Notes at an effective rate approximating what we would have incurr
otherwise similar terms been issued. The effective interest rate of the 2019 and 2021 N
respectively, which is imputed based on the amortization of the fair value of the embe
remaining term of the Cash Convertible Notes. As of December 31, 2016, we expect t
their 2019 maturity date and the 2021 Notes to be outstanding until their 2021 maturit
periods of approximately five and seven years, respectively. Based on an estimation u
information on the Cash Convertible Notes, the fair value of the 2019 Notes was $485
fair value of the 2021 Notes was $349.6 million and $356.1 million, at December 31,

In connection with the issuance of the Cash Convertible Notes, we incurred approxim
costs. Such costs have been allocated to the Cash Convertible Notes and deferred as a
amortized over the terms of the Cash Convertible Notes.

Interest expense related to the Cash Convertible Notes was comprised of the followin

| | Year-Ended December 31 | |
|---|---|---|
| (in thousands) | 2016 | 2015 |
| Coupon interest | $4,238 | $4,238 |
| Amortization of original issuance discount | 17,503 | 16,935 |
| Amortization of debt issuance costs | 2,279 | 2,220 |
| Total interest expense related to the Cash Convertible Notes | $24,020 | $23,393 |

Cash Convertible Notes Call Spread Overlay

Concurrent with the issuance of the Cash Convertible Notes, we entered into privately
Options) with, and issued warrants to purchase shares of our common stock (Warrant
refer to the Call Options and Warrants collectively as the “Call Spread Overlay”. The
cash payments payable by us in excess of the principal amount due upon any conversi
used $105.2 million of the proceeds from the issuance of the Cash Convertible Notes
simultaneously received $69.4 million from the sale of the Warrants, for a net cash ou
Spread Overlay. The Call Options are derivative financial instruments and are discuss

are equity instruments and are further discussed in Note 17.
Aside from the initial payment of a premium of $105.2 million for the Call Option, w
payments under the Call Options, and will be entitled to receive an amount of cash, g
the

market price per share of our common stock exceeds the exercise price of the Call Op
period. The exercise price under the Call Options is initially equal to the conversion p
The Warrants cover an aggregate of 25.8 million shares of our common stock (subjec
certain circumstances) and have an initial exercise price of $32.085 per share, subject
Warrants expire as follows: Warrants to purchase 15.2 million shares expire over a pe
December 27, 2018 and Warrants to purchase 10.6 million shares expire over a perio
December 29, 2020. The Warrants are European-style (exercisable only upon expirati
dilutive effect to the extent that the price of our common stock exceeds the applicable
Warrant that is exercised, we will deliver to the holder a number of shares of our com
which the settlement price exceeds the exercise price, divided by the settlement price,
shares. We will not receive any proceeds if the Warrants are exercised.

Private Placement

In October 2012, we completed a private placement through the issuance of new senio
$399.9 million with a weighted average interest rate of 3.66% (settled on October 16,
series: (1) $73.0 million 7-year term due in 2019 (3.19%); (2) $300.0 million 10-year
$26.9 million 12-year term due in 2024 (3.90%). We paid $2.1 million in debt issue c
interest expense over the lifetime of the notes. Approximately €170.0 million (approx
the notes were used to repay amounts outstanding under our short-term revolving cred
the proceeds provides additional resources to support our longer-term business expans
contains certain financial and non-financial covenants, including but not limited to, re
the maintenance of certain financial ratios. We were in compliance with these covena
estimation using the changes in the U.S. Treasury rates, the Level 2 fair value of these
and December 31, 2015 was approximately $397.1 million and $399.3 million, respec
interest rate swaps, which effectively fixed the fair value of the $200.0 million of this
as fair value hedges as described in Note 13.

2006 Notes

In May 2006, we completed the offering of $300 million of 3.25% Senior Convertible
through an unconsolidated subsidiary, QIAGEN Euro Finance (Euro Finance). The ne
loaned by Euro Finance to consolidated subsidiaries. These long-term notes payable t
interest rate of 3.7% and were due in May 2026. Interest was payable semi-annually i
were issued at 100% of principal value, and were convertible into 15.0 million comm
upon the occurrence of certain events, at a price of $20.00 per share, subject to adjust
with QIAGEN Euro Finance to issue shares to the investors in the event of conversion
the related receivable, was recorded at fair value in the equity of QIAGEN N.V. as pa
redeemed the $300.0 million loan payable to Euro Finance and approximately 98% of
Euro Finance for $372.5 million, and recognized a loss on the redemption of $4.6 mil
repayment amount was allocated to the loan and warrants on a relative fair value basis
additional paid in capital for the redemption of the warrant subscription receivable. C
Finance redeemed the 2006 Notes. During 2014, we issued 0.2 million common share
the exercise of the remaining subscription rights and subsequently Euro Finance was

2004 Notes

In August 2004, we completed the sale of $150 million of 1.5% Senior Convertible N
through our unconsolidated subsidiary QIAGEN Finance. The net proceeds of the 200
Finance to consolidated subsidiaries with an effective interest rate of 1.8% were due i
semi-annually in February and August. The 2004 Notes were issued at 100% of princ
11.5 million common shares at the option of the holders upon the occurrence of certai
share, subject to adjustment. QIAGEN N.V. had an agreement with QIAGEN Finance
event of conversion. The subscription right, along with the related receivable, was rec
QIAGEN N.V. as paid-in capital. In 2014, 1.2 million common shares were issued in
During 2015, we repaid the loan to QIAGEN Finance and repurchased the warrant ag

$250.9 million and recognized a loss of $7.6 million in other expense, net. The repayı
and warrants on a relative fair value basis with $113.0 million recorded against additi
of the warrant subscription receivable. Subsequent to these transactions QIAGEN Fin

16. Income Taxes

Income before income taxes for the years ended December 31, 2016, 2015 and 2014 c

| (in thousands) | 2016 | 2015 | 2014 |
|---|---|---|---|
| Pretax income in The Netherlands | $20,695 | $1,310 | $(4,931) |
| Pretax income from foreign operations | 36,213 | 134,993 | 124,320 |
| | $56,908 | $136,303 | $119,389 |

Income taxes for the years ended December 31, 2016, 2015 and 2014 are as follows:

| (in thousands) | 2016 | 2015 | 2014 |
|---|---|---|---|
| Current—The Netherlands | $6,043 | $973 | $936 |
| —Foreign | 36,536 | 41,862 | 41,667 |
| | 42,579 | 42,835 | 42,603 |
| Deferred—The Netherlands | 188 | 250 | 317 |
| —Foreign | (66,162) | (36,684) | (40,464) |
| | (65,974) | (36,434) | (40,147) |
| Total income tax expense (benefit) | $(23,395) | $6,401 | $2,456 |

In the table above and throughout Note 16, amounts related to 2015 and 2014 are revi
for the change in accounting principle for share-based compensation. See further disc
Issued Financial Statements for Change in Attribution Method section of Note 20, Sh
The Netherlands statutory income tax rate was 25% for the years ended December 31
foreign subsidiaries is generally taxed at the statutory income tax rates applicable in t
The principal items comprising the differences between income taxes computed at Th
reported income taxes and effective tax rate for the years ended December 31, 2016, 2

| | 2016 | | 2015 | |
|---|---|---|---|---|
| (in thousands) | Amount | Percent | Amount | Percen |
| Income taxes at The Netherlands statutory rate | $14,227 | 25.0 % | $34,076 | 25.0 |
| Taxation of foreign operations, net[1] | (43,265) | (76.0) | (36,407) | (26.7) |
| Tax impact from non-deductible items | 5,938 | 10.4 | 14,219 | 10.4 |
| Tax impact from tax-exempt income[2] | (3,331) | (5.9) | (5,810) | (4.3) |
| Tax contingencies, net | 1,761 | 3.1 | 1,163 | 0.9 |
| Taxes due to changes in tax rates | 399 | 0.7 | (836) | (0.6) |
| Government incentives and other deductions[3] | (2,543) | (4.5) | (2,754) | (2.0) |
| Prior year taxes | 1,411 | 2.5 | (1,201) | (0.9) |
| Valuation allowance | 1,521 | 2.7 | 3,450 | 2.5 |
| Other items, net | 487 | 0.9 | 501 | 0.4 |
| Total income tax expense (benefit) | $(23,395) | (41.1)% | $6,401 | 4.7 |

(1) Our effective tax rate reflects the benefit of our global operations where certain in
lower than The Netherlands' statutory rate of 25% as well as the benefit of some inco
taxes due to various intercompany operating and financing activities. The most signif
operations and financing activities are attributable to subsidiaries in Germany, Singap
Luxembourg. These foreign tax benefits are due to a combination of favorable tax law
in these jurisdictions. Additionally, in 2016 and 2014, in certain foreign jurisdictions
States), we recorded acquisition related and impairment charges which reduced pretax
jurisdictions.

(2) The impact from tax-exempt income primarily reflects The Netherlands' benefit o
Note 15 "Lines of Credit and Debt." These notes were redeemed in 2014 and 2015, re

related income tax benefit of $2.6 million in 2014, did not and will not impact our eff
2016, tax-exempt income includes nontaxable income in the U.S. from the release of
nontaxable dividend income in Switzerland.
(3) Government incentives include favorable tax regulations primarily in France in 20
research and development expense as well as the United States Internal Revenue Cod
activities deduction.

We conduct business globally and, as a result, file numerous consolidated and separat
Netherlands, Germany, Switzerland and the U.S. federal jurisdiction, as well as in var
jurisdictions. In the normal course of business, we are subject to examination by taxin
Tax years in The Netherlands are open since 2004 for income tax examinations by tax
few exceptions, are no longer subject to income tax examinations by tax authorities fo
consolidated group is subject to federal and most state income tax examinations by ta
December 31, 2013 through the current period.
Starting in February 2014, the U.S. tax authorities (Internal Revenue Service) have be
returns for 2011 and 2012. The audit was closed in 2016 without any proposed tax adj
$6.6 million of unrecognized tax benefit due to closure of the tax audit. Additionally,
authorities began the audit of the German tax returns for the 2010-2013 tax years. Thi
expect the audit to close during 2017.
In 2014, we established a reserve related to cash convertible notes as discussed in Not
received a confirmation from the relevant tax authorities, which resulted in a release o
Changes in the amount of unrecognized tax benefits are as follows:

| (in thousands) | Unrecognized Tax Benefits |
|---|---|
| BALANCE AT DECEMBER 31, 2014 | $ 16,002 |
| Additions based on tax positions related to the current year | 2,018 |
| Additions for tax positions of prior years | 2,640 |
| Settlements with taxing authorities | (2,988) |
| Reductions due to lapse of statute of limitations | (747) |
| Decrease from currency translation | (190) |
| BALANCE AT DECEMBER 31, 2015 | $ 16,735 |
| Additions based on tax positions related to the current year | 4,218 |
| Additions for tax positions of prior years | 5,162 |
| Decrease for tax position of prior years | (6,796) |
| Settlements with taxing authorities | — |
| Reductions due to lapse of statute of limitations | (288) |
| Decrease from currency translation | (737) |
| BALANCE AT DECEMBER 31, 2016 | $ 18,294 |

At December 31, 2016 and 2015, our net unrecognized tax benefits totaled approxima
respectively, of which $18.3 million and $16.7 million in benefits, if recognized, wou
rate in any future period. It is reasonably possible that approximately $5.8 million of t
released during the next 12 months due to lapse of statute of limitations or settlements
events could cause our current expectations to change in the future. The above unreco
in the financial statements, would be recorded in the statement of income as part of th
Our policy is to recognize interest accrued related to unrecognized tax benefits in inte
income tax expense. For the years ended December 31, 2016, 2015 and 2014, we hav
penalties of $0.1 million, $0.3 million and $(0.3) million, respectively. At December
interest of $1.5 million and $1.4 million, respectively, which are not included in the ta

We have recorded net deferred tax asset of $27.8 million and deferred tax liabilities o
and 2015, respectively. The components of the net deferred tax asset and liability at D
follows:

| (in thousands) | 2016 Deferred Tax Assets | Deferred Tax Liability | 2015 Deferred Tax Assets | Deferred Tax Liabil |
|---|---|---|---|---|
| Net operating loss carryforwards | $46,627 | $— | $25,771 | $— |
| Accrued and other current liabilities | 24,663 | — | 22,648 | — |
| Inventories | 2,919 | (1,567) | 2,394 | (1,060 |
| Allowance for bad debts | 1,060 | (451) | 1,121 | (465 |
| Currency revaluation | 3,474 | (73) | 934 | (132 |
| Property, plant and equipment | 2,096 | (19,733) | 1,859 | (27,854 |
| Capital lease | 830 | — | 1,793 | — |
| Tax credit carryforwards | 915 | — | 1,110 | — |
| Unremitted profits and earnings | — | (923) | — | (902 |
| Intangible assets | 586 | (137,682) | 272 | (150,594 |
| Share-based compensation | 20,282 | — | 20,841 | — |
| Deferred interest deductions | 76,793 | — | 54,307 | — |
| Convertible debt | 12,313 | — | 13,765 | — |
| Other | 2,652 | (1,507) | 2,080 | (1,154 |
| | 195,210 | (161,936) | 148,895 | (182,161 |
| Valuation allowance | (5,511) | — | (3,703) | — |
| Net deferred tax assets (liabilities) | $189,699 | $(161,936) | $145,192 | $(182,161 |
| | | $27,763 | | $(36,969 |

At December 31, 2016 and 2015, we had $380.7 million and $264.2 million in total fo
carryforwards. Included in these amounts at December 31, 2016 and 2015, were $109
federal (NOL) carryforwards. At December 31, 2016, the entire NOL in the U.S. is su
of the Internal Revenue Code. The NOLs in the U.S. will expire beginning December
Also included in the above amount as of December 31, 2016 and 2015, were other for
approximately $271.5 million and $153.9 million, respectively, with $41.9 million of
acquisitions and $56.4 million added due to German trade tax loss generated in 2016.
NOL carryforwards in Germany of $157.4 million predominantly trade tax NOLs. Of
carryforward, a portion of the foreign NOLs will be expiring beginning December 20
as of the years ended December 31, 2016 and December 31, 2015 are $5.5 million an
valuation allowance of $1.8 million related to NOLs and no valuation allowance was
statute of limitations. We believe it is more likely than not that the net deferred tax as
As of December 31, 2016, a deferred tax liability has not been recognized for residua
the undistributed earnings of the majority of our foreign subsidiaries as these earnings
indefinitely reinvested or can be repatriated tax free under the Dutch participation exe
earnings retained by subsidiaries amounted to $343.9 million at December 31, 2016.
unrecognized deferred tax liability on indefinitely reinvested foreign earnings is not p
remitted as dividends, we may be subject to taxes including withholding tax. We have
earnings that we do not consider permanently reinvested and have recorded deferred i
December 31, 2016 and December 31, 2015, of approximately $0.9 million.

17. Equity

Synthetic Share Repurchase

In January 2017, we completed a synthetic share repurchase that combined a direct ca
split. The transaction was announced in August 2016 and involved an approach used
companies to provide returns to all shareholders in a faster and more efficient manner
purchases. $244.0 million was returned to shareholders through the transaction, which
common shares by approximately 3.7% to 230.8 million (of which 4.95 million in tre

Issuance of Warrants

In March 2014, in connection with the issuance of our Cash Convertible Notes, we iss
for approximately 25.8 million shares of our common stock (subject to antidilution ad
with an initial exercise price of $32.085 per share, subject to customary adjustments.
from the sale of the Warrants of approximately $68.9 million are included as addition
consolidated balance sheets. The Warrants expire as follows: Warrants to purchase 15
of 50 trading days beginning on December 27, 2018 and Warrants to purchase 10.6 m
trading days beginning on December 29, 2020. Following the synthetic share repurch
exercise price is $32.056. The Warrants are exercisable only upon expiration. For eac
deliver to the holder a number of shares of our common stock equal to the amount by
exercise price, divided by the settlement price, plus cash in lieu of any fractional shar
a dilutive effect on shares of our common stock to the extent that the market value pe
the applicable exercise price of the Warrants (as measured under the terms of the War

Share Repurchase Programs

We announced our first share buyback program in 2012 and in 2013, we announced a
purchase another $100.0 million of our common shares (excluding transaction costs).
program in June 2014 having repurchased between September 2013 and June 2014 a
QIAGEN shares were repurchased for a total aggregate cost of $100.4 million (includ
program.

In July 2014, we announced the launch of our third share repurchase program to purch
common shares (excluding transaction costs). In 2014, 2.1 million QIAGEN shares w
(excluding transaction costs) and in 2015, 0.8 million QIAGEN shares were repurcha

In connection with the synthetic share repurchase program discussed above, we annou
take place via the open market during the remainder of 2017, with a view to return to
of $300 million in 2017, including the amounts already returned via the synthetic shar
shares is included in treasury stock and reported as a reduction in total equity when a
will be held in treasury in order to satisfy various obligations, which include the warra
issuance of our Cash Convertible Notes discussed above and employee share-based re

Accumulated Other Comprehensive Loss

The following table is a summary of the components of accumulated other compreher
2015:

(in thousands)
Net unrealized (loss) gain on hedging contracts, net of tax
Net unrealized (loss) gain on marketable securities, net of tax
Net unrealized loss on pension, net of tax
Foreign currency effects from intercompany long-term investment transactions, net of
million and $7.4 million in 2016 and 2015, respectively
Foreign currency translation adjustments
Accumulated other comprehensive loss

18. Earnings per Common Share

We present basic and diluted earnings per share. Basic earnings per share is calculated attributable to the owners of QIAGEN N.V. by the weighted average number of comm earnings per share reflect the potential dilution that would occur if all “in the money” shares were exercised. The following schedule summarizes the information used to co

(in thousands, except per share data)
Net income attributable to the owners of QIAGEN N.V.

Weighted average number of common shares used to compute basic net income per c share
Dilutive effect of stock options and restrictive stock units
Dilutive effect of outstanding warrants
Weighted average number of common shares used to compute diluted net income per share
Outstanding options and awards having no dilutive effect, not included in above calcu
Outstanding warrants having no dilutive effect, not included in above calculation

Basic earnings per common share attributable to the owners of QIAGEN N.V.
Diluted earnings per common share attributable to the owners of QIAGEN N.V.

19. Commitments and Contingencies

Lease Commitments

We lease facilities and equipment under operating lease arrangements expiring in vari commitments provide for escalating rental payments or have renewal options extendi facility and equipment leases constitute capital leases expiring in various years throug consolidated balance sheets include the assets and liabilities arising from these capital operating lease agreements was $29.6 million, $23.2 million and $25.6 million for the 2015 and 2014, respectively.

Minimum future obligations under capital and operating leases at December 31, 2016

| (in thousands) | Capital Leases | Operating Leases |
|---|---|---|
| 2017 | $1,114 | $ 13,338 |
| 2018 | 1,534 | 9,292 |
| 2019 | 59 | 6,121 |
| 2020 | 12 | 3,752 |
| 2021 | — | 3,409 |
| Thereafter | — | 2,690 |
| | 2,719 | $ 38,602 |
| Less: Amount representing interest | (164 ) | |
| | 2,555 | |
| Less: Current portion | (999 ) | |
| Long-term portion | $1,556 | |

Licensing and Purchase Commitments

We have licensing agreements with companies, universities and individuals, some of payments. Royalty payments are required on net product sales ranging from one to 25 on quantities sold. Several of these agreements have minimum royalty requirements. balance sheets include accrued royalties relating to these agreements in the amount of December 31, 2016 and 2015, respectively. Royalty expense relating to these agreem million, and $48.8 million for the years ended December 31, 2016, 2015 and 2014, re primarily recorded in cost of sales, with a small portion recorded as research and deve of the technology under license. Some of these agreements also have minimum raw m requirements to perform specific types of research.

At December 31, 2016, we had commitments to purchase goods or services, and for f They are as follows:

| (in thousands) | Purchase Commitments | License & Royalty Commitments |
|---|---|---|
| 2017 | $ 61,643 | $ 15,969 |
| 2018 | 19,824 | 11,562 |
| 2019 | 12,257 | 10,702 |
| 2020 | 891 | 10,438 |
| 2021 | 661 | 8,066 |
| Thereafter | — | 8,765 |
| | $ 95,276 | $ 65,502 |

As of December 31, 2016, future license payments of $14.8 million and $40.3 million current liabilities and other long-term liabilities, respectively.

Contingent Consideration Commitments

Pursuant to the purchase agreements for certain acquisitions, as discussed more fully make additional contingent cash payments totaling up to $27.6 million based on the a operating results milestones as follows: $15.5 million in 2017, $5.1 million in 2019, a 12-month period from now until 2029 based on the accomplishment of certain revenu contingent obligation, we have assessed the fair value at December 31, 2016, to be $8 included in other long-term liabilities and $3.0 million is included in accrued liabilitie balance sheet.

Employment Agreements

Certain of our employment contracts contain provisions which guarantee the payment change in control, as defined in the agreements, or if the executive is terminated for re the agreements. At December 31, 2016, the commitment under these agreements total agreements with the Managing Directors and the German affiliate include a clause, w the Managing Directors for potential deductions under Dutch law which, since 2014, Managing Director's remuneration any increase in the value of shares or options that such increase is based on a public offer, merger or other identity changing transaction

Contingencies

In the ordinary course of business, we provide a warranty to customers that our produ to published specifications. Generally, the applicable product warranty period is one y product to the customer or of site acceptance, if required. Additionally, we typically p to our services. From time to time, we also make other warranties to customers, inclu manufactured in accordance with applicable laws and not in violation of third-party ri warranty costs at the time of the product sale. We believe our warranty reserves as of appropriately reflect the estimated cost of such warranty obligations.

Preacquisition Contingencies

In connection with certain acquisitions, amounts were paid into escrow accounts to co assumed in the acquisition. The escrow amounts that are certain to be claimed by QIA long-term asset and amount to $2.5 million as of December 31, 2016. As of Decembe

in prepaid expenses and other current assets in the accompanying consolidated balanc

Litigation

From time to time, we may be party to legal proceedings incidental to our business. A
claims, suits or legal proceedings arising out of the normal course of business have be
QIAGEN or its subsidiaries. These matters have arisen in the ordinary course and con
acquisition. Although it is not possible to predict the outcome of such litigation, we as
evaluate the reasonably possible losses that we could incur as a result of these matters
when it is probable that a liability has been incurred and that the amount of the probab
facts known to QIAGEN and after consultation with legal counsel, management belie
material adverse effect on QIAGEN's financial position or results of operations.

On September 9, 2016, the U.S. District Court for the Northern District of California,
decision in which the court granted a motion for a preliminary injunction against us a
competitor. The lawsuit alleges infringement of U.S. Patent 7,566,537 by our GeneRe
comes as part of a long-standing intellectual property dispute with a competitor and c
entities. These types of disagreements are common in the pharmaceutical and diagnos
launches can trigger legal actions by other parties to defend their positions. No meani
GeneReader NGS System were included in our internal financial forecasts for 2016 d
system and because commercialization only began in December 2015. As a result of t
to the U.S., and also in light of the forthcoming upgrade to the component under dispu
by this decision, we neither expect a material financial impact from this decision on o
nor do we currently anticipate any material changes to our internal financial projectio
currently scheduled to begin in November 2017.

20. Share-Based Compensation

We adopted the QIAGEN N.V. Amended and Restated 2005 Stock Plan (the 2005 Pla
2014 Stock Plan (the 2014 Plan) in 2014. The 2005 Plan expired by its terms in April
granted under the 2005 Plan. The plans allow for the granting of stock rights and ince
non-qualified options, stock grants and stock-based awards, generally with terms of u
termination in certain situations. Generally, options vest over a three-year period. The
stock rights will be accelerated in the event of a Change of Control, as defined in the
been at the market value on the grant date or at a premium above the closing market p
Treasury Shares to satisfy option exercises and award releases and had approximately
reserved and available for issuance under the 2005 and 2014 Plans at December 31, 2

Revision of Previously Issued Financial Statements for Change in Attribution Method

In the fourth quarter of 2016, we made a change in accounting principle to move from
expense recognition to an accelerated attribution method. As a company with multi-ju
made this change to align our share-based compensation expense reporting under both
Financial Reporting Standards (IFRS). This change is preferable because not only doe
share-based compensation expense across our reports, whether prepared under U.S. G
alignment of the cost recognition over the vesting periods. Therefore, we have revised
Consolidated Statements of Income for the years as noted in the tables below. The cha
amount of pre-forfeiture share-based compensation expense in the fourth quarter of 20
after tax. The cumulative effect of the change in accounting principle as of January 1,
earnings of $21.1 million, an increase in additional paid-in capital of $29.1 million an
deferred tax liabilities. This revision had no impact on our net cash provided by opera
December 31, 2015 and 2014.

The following tables summarize the selected line items from our consolidated financi
these adjustments to the comparative years and related tax amounts in Note 16 Incom

As of December 31, 2015 (in thousands)

| Consolidated Balance Sheet | As Reported | Change in Attribution Method | As Adjusted |
|---|---|---|---|
| Long-term deferred income taxes | $75,726 | $(6,116) | $69,610 |
| Additional paid-in capital | $1,741,167 | $24,428 | $1,765,595 |
| Retained earnings | $1,227,509 | $(18,312) | $1,209,197 |

Year-Ended December 31, 2015 (in thousands, except per share data)

Consolidated Statements of income

Cost of sales
Research and development
Sales and marketing
General and administrative, integration and other

Income before income taxes
Income taxes
Net income
Net (loss) income attributable to noncontrolling interest
Net income attributable to the owners of QIAGEN N.V.
Basic net income per common share attributable to the owners of QIAGEN N.V.
Diluted net income per common share attributable to the owners of QIAGEN N.V.

Weighted-average common shares outstanding
Basic
Diluted

Year-Ended December 31, 2014 (in thousands, except per share data)

Consolidated Statements of income

Cost of sales
Research and development
Sales and marketing
General and administrative, integration and other

Income before income taxes
Income taxes
Net income
Net (loss) income attributable to noncontrolling interest
Net income attributable to the owners of QIAGEN N.V.
Basic net income per common share attributable to the owners of QIAGEN N.V.
Diluted net income per common share attributable to the owners of QIAGEN N.V.

Weighted-average common shares outstanding
Basic
Diluted
As a result of these revisions, Note 16--Income Taxes has been revised accordingly fr
respect to deferred taxes related to share-based compensation.
Stock Options
We have not granted stock options since 2013. A summary of the status of employee
and changes during the year then ended is presented below:

| All Employee Options | Number of Shares (in thousands) | Weighted Average Exercise Price | Weighted Average Contractu Term (in |
|---|---|---|---|
| Outstanding at January 1, 2016 | 1,821 | $ 19.37 | |
| Exercised | (354 ) | $ 17.66 | |
| Forfeited | (3 ) | $ 18.68 | |
| Expired | (25 ) | $ 16.21 | |
| Outstanding at December 31, 2016 | 1,439 | $ 19.84 | 3.85 |
| Vested at December 31, 2016 | 1,439 | $ 19.84 | 3.85 |
| Vested and expected to vest at December 31, 2016 | 1,439 | $ 19.84 | 3.85 |

The total intrinsic value of options exercised during the years ended December 31, 20
$7.0 million and $6.38 million, respectively. At December 31, 2016, there was no unr
expense related to employee stock option awards.
At December 31, 2016, 2015 and 2014, 1.4 million, 1.7 million and 2.1 million option
average price of $19.84, $19.27 and $18.10 per share, respectively. The options outsta
various years through 2023.
Stock Units
Stock units represent rights to receive Common Shares at a future date and include re
time-vesting only and performance stock units which include performance conditions
number of performance stock units earned is based on the performance achievement v
120% of the granted shares. There is no exercise price and the fair market value at the
the

requisite vesting period, generally 3 to 5 years, and in certain grants 10 years. The fai
the number of stock units granted and the market value of our shares on the grant date
estimated to be approximately 6.5%. At December 31, 2016, there was $76.5 million
compensation cost including estimated forfeitures related to these awards, which is ex
weighted average period of 2.45 years. The weighted average grant date fair value of
ended December 31, 2016, 2015 and 2014 was $23.81, $24.91 and $22.73, respective
that vested during the years ended December 31, 2016, 2015 and 2014 was $27.4 mil
respectively.

A summary of stock units as of December 31, 2016 and changes during the year are p

| Stock Units | Stock Units (in thousands) | Weighted Average Contractual Term (in years) | Agg Intr Val (in |
|---|---|---|---|
| Outstanding at January 1, 2016 | 8,956 | | |
| Granted | 2,942 | | |
| Vested | (1,200) | | |
| Forfeited | (500) | | |
| Outstanding at December 31, 2016 | 10,198 | 2.43 | $ 2 |
| Vested and expected to vest at December 31, 2016 | 8,886 | 2.30 | $ 2 |

Compensation Expense

Share-based compensation expense before taxes for the years ended December 31, 20
approximately $28.3 million, $23.8 million and $44.3 million, respectively, as shown
benefit realized for the tax deductions of the share-based payment arrangements totale
million, respectively, for the years ended December 31, 2016, 2015 and 2014.

| Compensation Expense (in thousands) | 2016 | 2015 | 2014 |
|---|---|---|---|
| Cost of sales | $2,553 | $2,177 | $2,809 |
| Research and development | 4,735 | 5,686 | 6,696 |
| Sales and marketing | 4,824 | 4,815 | 9,086 |
| General and administrative | 16,176 | 11,083 | 25,709 |
| Share-based compensation expense | 28,288 | 23,761 | 44,300 |
| Less: income tax benefit | 6,223 | 5,751 | 8,541 |
| Net share-based compensation expense | $22,065 | $18,010 | $35,759 |

Following the restructuring program discussed in Note 6, share-based compensation e
$2.0 million in forfeitures in connection with the restructuring terminations. Total sha
2015 was lower compared to 2014 following a reassessment on stock units with perfo
compensation cost was capitalized in inventory in 2016, 2015 or 2014 as the amounts

21. Employee Benefits

We maintain various benefit plans, including defined contribution and defined benefit
plan is qualified under Section 401(k) of the Internal Revenue Code, and covers subst
Participants may contribute a portion of their compensation not exceeding a limit set
Service. This plan includes a provision for us to match a portion of employee contribu
plans, including the plans acquired via business acquisitions, was $2.5 million, $2.4 m
ended December 31, 2016, 2015 and 2014, respectively. We also have a defined contr
executives. We make matching contributions up to an established maximum. Matchin
expensed, totaled approximately $0.3 million in each year ended December 31, 2016,
We have four defined benefit, non-contributory retirement or termination plans that c
France, Japan and Italy. These defined benefit plans provide benefits to covered indiv
service requirements. For certain plans, we calculate the vested benefits to which emp

immediately. The benefits accrued on a pro-rata basis during the employees' employm
salaries, adjusted for inflation. The liability under the defined benefit plans was $6.7 m
million at

December 31, 2015, and is included as a component of other long-term liabilities on t
sheets.

22. Related Party Transactions

From time to time, we have transactions with other companies in which we hold an in
in the aggregate immaterial, as summarized in the table below.

| | As of December 31, | | For the ye Decembe | |
|---|---|---|---|---|
| (in thousands) | 2016 | 2015 | 2016 | 2( |
| Net sales | — | — | $1,360 | $ |
| Reimbursements against research and development costs | — | — | — | $ |
| Accounts receivable | $1,302 | $1,209 | — | – |
| Loans receivable, including interest | $13,067 | $7,472 | — | – |
| Accounts payable | $391 | $471 | — | – |
| Accrued and other current liabilities | $3,926 | — | — | – |
| Other long-term liabilities | $5,889 | — | — | – |

During 2015, we entered in a loan agreement for $5.0 million bearing interest of 6% a
company in which we hold an ownership interest. In the 2016, we increased this loan
balance at December 31, 2016 of $10.7 million including accrued interest. Additional
($2.4 million as of December 31, 2016 including accrued interest), loan agreement, be
2019, with another company in which we hold an ownership interest. The loans were
and no amounts have been repaid. These loans are included in other long-term assets
balance sheet as of December 31, 2016. Additionally during 2016, we entered into a s
another company in which we hold an ownership interest. In August 2016, we conver
additional interest of the company which we account for on a cost-method as discusse
As discussed in Note 10, during 2016 we acquired a 19.0% interest in Hombrechtikon
total obligation of $9.8 million, which is payable over three years. As of December 31
accrued and other current liabilities and $5.9 million was included in other long-term
consolidated balance sheet. HSE is a variable interest entity and we are not the primar
consolidated. Additionally during 2016, we entered into a short-term $0.6 million loa
in which we hold an ownership interest. In August 2016, we converted this loan into a
which we account for on a cost-method as discussed in Note 10.

We held 100% of the equity interest of QIAGEN Finance (Luxembourg) S.A. (QIAG
for the purpose of issuing convertible debt. QIAGEN Finance was a variable interest
thus was not consolidated and accordingly, the convertible debt was not included in th
N.V., though QIAGEN N.V. did report the full obligation of the debt through its liabi
discussed in Note 15, during 2015, we repaid the loan to QIAGEN Finance and repur
QIAGEN Finance. Subsequent to these transactions, QIAGEN Finance was liquidated

23. Subsequent Events

Acquisition

In January 2017, we acquired OmicSoft Corporation, a privately owned bioinformatic
tools that allow customers to analyze and visualize data sets and compare them to larg
sets. The acquisition was not individually significant to the overall consolidated finan

Synthetic Share Repurchase

In January 2017, QIAGEN completed a synthetic share repurchase that combined a di
stock split as discussed in Note 17 Equity.

SCHEDULE II
QIAGEN N.V. AND SUBSIDIARIES
SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014

| (in thousands) | Balance at Beginning of Year | Provision Charged to Expense | Write-Offs | Foreign Exchange and Other | Ba En |
|---|---|---|---|---|---|
| Year Ended December 31, 2014: | | | | | |
| Allowance for doubtful accounts | $ 10,683 | $ 1,363 | $ (2,263 ) | $ (936 ) | $ |
| Year Ended December 31, 2015: | | | | | |
| Allowance for doubtful accounts | $ 8,847 | $ 2,093 | $ (2,022 ) | $ (1,663 ) | $ |
| Year Ended December 31, 2016: | | | | | |
| Allowance for doubtful accounts | $ 7,255 | $ 2,135 | $ (1,642 ) | $ (134 ) | $ |

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