



®

Semiconductor
Research
Corporation

2016

ANNUAL REPORT



Letter from the President

SRC – Evolving to Meet Tomorrow’s Challenges

SRC continues to evolve from a company focused on process and device research to one that approaches the challenge of extending Moore’s Law economics by co-optimization across the design hierarchy stack utilizing cross-disciplinary teams of researchers. Furthermore, SRC is exploring new programs in adjacent topical areas.

Expanding the Research Portfolio

Building on the solid foundation of on-going research, three new programs were launched this year. A third round of hardware security research and a new research effort focused on energy efficient computing were jointly initiated with NSF. Additionally, a new program targeting minimum energy electronics systems began.

During 2016, a great deal of preparation towards the goal of a 2018 launch of a new project consisting of two programs occurred. Both programs, namely Joint University Microelectronics Program (JUMP) and nCORE (nanoelectronic COmputing REsearch), will be jointly funded with government agencies. In the case of JUMP, DARPA will participate and in the case of nCORE, NSF will participate. By year end, membership agreements with EMD Performance Materials, Intel, IBM, Micron, Northrup Grumman, and Raytheon were complete. Additional government agency and industry member agreements are expected in 2017. Combined, the programs will support long-term research focused on high performance, energy efficient microelectronics for end-to-end sensing and actuation, signal and information processing, communication, computing, and storage solutions that are cost-effective and secure.

Finally SRC is in the process of developing new research topics with traditional and nontraditional industry and government partners in the following new exciting areas of electroceuticals, autonomous vehicles and automotive cybersecurity, and human computer interactions.

Extending the SRC Footprint

Adding to the existing membership base, SRC continues to extend its footprint beyond the US. In 2016, SRC added Japanese based Tokyo Electron Limited (TEL) and

European based NXP. With the addition of NXP, SRC members now include five of the top ten semiconductor companies in the world.

Looking Ahead to 2017

As we move forward, SRC is committed to flawless execution in the creation of a research portfolio of programs that will lead the way. By refreshing and diversifying the overall research agenda, SRC plans to grow membership and in doing so create a richer experience for all. While we've started in a number of new directions and have made significant progress, there is still much more to do. You can count on SRC to follow through.

A handwritten signature in cursive script that reads "Kenneth A. Hansen".

Ken Hansen, President and CEO

Semiconductor Research Corporation and Affiliates

**Combined Financial Statements
December 31, 2016 and 2015**

**Reports on Federal Awards in Accordance
with OMB Compliance Supplement
for the Year Ending December 31, 2016
EIN 58-1483645**

Semiconductor Research Corporation

Index

December 31, 2016 and 2015

	Page(s)
Report of Independent Auditors	1–2
Combined Financial Statements	
Combined Statements of Financial Position	3
Combined Statements of Activities	4–5
Combined Statements of Cash Flows.....	6
Notes to Combined Financial Statements.....	7–15
Additional Information	
Schedule of Expenditures of Federal Awards.....	16
Notes to Schedule of Expenditures of Federal Awards	17
Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With <i>Government Auditing Standards</i>	18–19
Report of Independent Auditors on Compliance with Requirements That Could Have a Direct and Material Effect on Each Major Program and on Internal Control Over Compliance in Accordance with the Uniform Guidance	20–21
Schedule of Findings and Questioned Costs.....	22–23
Summary Schedule of Prior Audit Findings	24



Report of Independent Auditors

To Management and the Board of Directors of
Semiconductor Research Corporation

Report on the Combined Financial Statements

We have audited the accompanying combined financial statements of Semiconductor Research Corporation and its affiliates (collectively referred to as "SRC"), which comprise the combined statements of financial position as of December 31, 2016 and 2015, and the related combined statements of activities and of cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Combined Financial Statements

Management is responsible for the preparation and fair presentation of the combined financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of combined financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on the combined financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the combined financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combined financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the combined financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to SRC's preparation and fair presentation of the combined financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of SRC's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combined financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



Opinion

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the combined financial position of SRC as of December 31, 2016 and 2015, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Other Information

Our audits were conducted for the purpose of forming an opinion on the combined financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended December 31, 2016 is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the combined financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the combined financial statements. The information has been subjected to the auditing procedures applied in the audit of the combined financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the combined financial statements or to the combined financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the combined financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated March 10, 2017 on our consideration of SRC's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters for the year ended December 31, 2016. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SRC's internal control over financial reporting and compliance.

PricewaterhouseCoopers LLP

Raleigh, North Carolina
March 10, 2017

Semiconductor Research Corporation
Combined Statements of Financial Position
December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Assets		
Current assets		
Cash and cash equivalents	\$ 42,451	\$ 33,508
Investments	16,320	15,800
Membership fees receivable	1,360	6,001
Grants receivable	-	1,080
Other current assets	413	809
Total current assets	60,544	57,198
Fixed assets		
Computer and office equipment	796	1,295
Furniture and fixtures	231	870
	1,027	2,165
Less - accumulated depreciation	(794)	(2,104)
Net fixed assets	233	61
Other noncurrent assets	1,654	1,800
Total assets	\$ 62,431	\$ 59,059
Liabilities and Net Assets		
Current liabilities		
Research contracts payable	\$ 29,426	\$ 31,964
Accounts payable and accrued expenses	2,515	2,074
Deferred revenue	8,457	7,123
Deferred tax liability	110	9
Total current liabilities	40,508	41,170
Other noncurrent liabilities	1,774	1,823
Total liabilities	42,282	42,993
Unrestricted net assets - undesignated	17,256	13,856
Temporarily restricted net assets	2,893	2,210
Total net assets	20,149	16,066
Total liabilities and net assets	\$ 62,431	\$ 59,059

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

Semiconductor Research Corporation
Combined Statements of Activities
Years Ended December 31, 2016 and 2015

<i>(in thousands of dollars)</i>	2016	2015
Change in unrestricted net assets		
Revenue and gains		
Member fees - undesignated	\$ 11,813	\$ 16,335
Infrastructure member fees	448	330
Thrust member fees	2,600	975
Associate member fees	100	100
Grant revenue	155	46
Investment return	811	(531)
Participant revenue	852	1,375
Management fee revenue	156	276
Other	24	-
Total unrestricted revenues and gains	<u>\$ 16,959</u>	<u>\$ 18,906</u>
Expenses		
Contract research and grants	\$ 8,683	\$ 12,007
Graduate Fellowship Program	386	199
Management and general	6,079	7,607
Income tax expense (benefit)	371	(271)
Total expenses	<u>\$ 15,519</u>	<u>\$ 19,542</u>
Focus Center Research Program		
Participant fees	\$ 23,205	\$ 23,205
Grant revenue	15,778	15,726
Investment return	44	33
Other income	6	-
Contract research and grant expense	(35,660)	(37,881)
Management and general	(1,671)	(1,491)
Total Focus Center Research Program	<u>\$ 1,702</u>	<u>\$ (408)</u>
SRC Education Alliance Program		
Participant fees	\$ 1,365	\$ 1,309
Other income	1	3
Investment return	4	(6)
Grant expense	(1,463)	(1,075)
Management and general	(311)	(289)
Total SRC Education Alliance Program	<u>\$ (404)</u>	<u>\$ (58)</u>
Nanoelectronics Research Initiative Program		
Participant fees	\$ 4,125	\$ 3,975
Grant revenue	3,840	3,733
Investment return	12	12
Contract research and grant expense	(6,479)	(5,564)
Management and general	(836)	(688)
Total Nanoelectronics Research Corporation Program	<u>\$ 662</u>	<u>\$ 1,468</u>

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

Semiconductor Research Corporation
Combined Statements of Activities
Years Ended December 31, 2016 and 2015

<i>(in thousands of dollars)</i>	2016	2015
Energy Research Initiative Program		
Participant fees	\$ -	\$ -
Contract research and grant expense	-	(223)
Management and general	-	(108)
Total Energy Research Initiative Program	<u>-</u>	<u>(331)</u>
Change in unrestricted net assets	<u>3,400</u>	<u>35</u>
Change in temporarily restricted net assets		
Member fees - designated (SRC)	7,530	9,646
Member fees - designated (NERC)	375	525
Contract research and grants	<u>(7,222)</u>	<u>(10,303)</u>
Change in temporarily restricted net assets	<u>683</u>	<u>(132)</u>
Change in net assets	<u>4,083</u>	<u>(97)</u>
Net assets at beginning of year	<u>16,066</u>	<u>16,163</u>
Net assets at end of year	<u>\$ 20,149</u>	<u>\$ 16,066</u>

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

Semiconductor Research Corporation
Combined Statements of Cash Flows
Years Ended December 31, 2016 and 2015

(in thousands of dollars)

	2016	2015
Operating activities		
Change in net assets	\$ 4,083	\$ (97)
Adjustments to reconcile change in net assets to net cash provided by (used in) operating activities		
Depreciation	89	93
Gain on sale of fixed assets	(8)	-
Deferred taxes	101	(283)
Net realized losses (gains) and change in net unrealized losses (gains) on investments	(149)	901
Changes in operating assets and liabilities		
Membership fees receivable	4,641	(3,929)
Grants receivable	1,080	(1,080)
Other assets	542	634
Research contracts payable	(2,538)	(3,786)
Accounts payable and accrued expenses	441	188
Deferred revenue	1,334	745
Other noncurrent liabilities	(49)	176
Net cash provided by (used in) operating activities	<u>9,567</u>	<u>(6,438)</u>
Investing activities		
Purchases of investments	(18,563)	(20,091)
Proceeds from sale of investments	18,192	19,392
Purchases of fixed assets	(266)	(67)
Proceeds from sale of fixed assets	13	-
Net cash used in investing activities	<u>(624)</u>	<u>(766)</u>
Net increase (decrease) in cash and cash equivalents	8,943	(7,204)
Cash and cash equivalents, beginning of year	<u>33,508</u>	<u>40,712</u>
Cash and cash equivalents, end of year	<u>\$ 42,451</u>	<u>\$ 33,508</u>
Supplemental disclosures of cash flow information		
Federal and state income taxes paid	<u>\$ -</u>	<u>\$ 243</u>

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

Semiconductor Research Corporation

Notes to Combined Financial Statements

December 31, 2016 and 2015

(in thousands of dollars)

1. Description of Organization and Summary of Significant Accounting Policies

Background and Basis of Combination

Semiconductor Research Corporation (“SRC” or the “Corporation”) is a nonprofit taxable mutual benefit corporation formed in 1982 to conduct research in the fields of engineering and physical science related to semiconductor development and manufacturing. Activity has centered on initiation and administration of contract research with various institutions and universities. SRC has expended approximately \$1.32 billion since inception through December 31, 2016 relating to fellowships, contract research and grant expenses and industry support activities. SRC’s charter requires that member corporations (members and infrastructure members), which are corporations involved in the manufacturing, purchase, use or sale of semiconductors or semiconductor related equipment, software and materials, be assessed membership fees based on a percentage of their semiconductor sales, use or manufacture. These fees are subject to certain limitations.

SRC has created other classes of membership some of which allow organizations and companies otherwise not eligible for membership to join SRC. Adjunct, associate and affiliate members must undertake research and development of semiconductor devices; they have similar privileges of membership except they do not have direct representation on the Board of Directors. Thrust members are companies which are eligible to join SRC as a member or infrastructure member, but are only interested in a limited section of research. These members pay a set fee for membership in either one or multiple research thrusts.

The combined financial statements include the accounts of Semiconductor Research Corporation Education Alliance (SRCEA), SRCco Inc., doing business as Microelectronics Advanced Research Corporation (MARCO), Nanoelectronics Research Corporation (NERC), National Institute for Nano-Engineering Company (NINECo), and The Energy Research Corporation (TERC). SRCEA is a nonprofit 501(c) (3) education organization. The organization manages the HR Roadmap and Undergraduate Engineering Programs. MARCO is a nonprofit 501(c) (6) organization formed in 1997 to manage a U.S. university-based pre-competitive Focus Center Research Program (FCRP) in semiconductor technology. NERC is a nonprofit 501(c) (6) research management organization formed to manage the Nanoelectronic Research Initiative (NRI) program. NINECo is a nonprofit taxable mutual benefit corporation that was formed to manage the National Institute of Nano-Engineering for Sandia National Laboratory. TERC is a nonprofit taxable mutual benefit corporation formed to manage the Energy Research Initiative program (ERI), which manages research related to photovoltaics and other energy related projects consistent with moving from carbon-based fuels. NINECo and TERC were dissolved during 2015. MARCO, SRCEA, NERC, NINECo, and TERC have been combined with SRC in the accompanying financial statements because SRC maintains control of a majority voting interest in all entities. All significant transactions and balances between affiliates have been eliminated in combination.

Semiconductor Research Corporation

Notes to Combined Financial Statements

December 31, 2016 and 2015

(in thousands of dollars)

Basis of Accounting and Presentation

The financial statements of SRC have been prepared on the accrual basis of accounting.

Net assets and revenues, expenses, gains and losses are classified based on the existence or absence of donor-imposed restrictions. Accordingly, net assets of SRC and changes therein are classified and reported as follows:

- Unrestricted net assets – net assets that are not subject to member-imposed stipulations.
- Temporarily restricted net assets – net assets subject to member-imposed stipulations that are expected to be met either by actions of SRC and/or the passage of time.

Revenues are reported as increases in unrestricted net assets unless use of the related assets is limited by member-imposed restrictions. Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments and other assets or liabilities are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit member stipulation or by law. Expirations of temporary restrictions on net assets (i.e., the member-stipulated purpose has been fulfilled and/or the stipulated time period has elapsed) are reported as either revenue or contract research and grants.

Correction of Prior Period Errors

In the process of analyzing temporarily restricted net assets in 2015, management determined that errors had been made in prior years related to the treatment of certain items. Specifically, management fees associated with temporarily restricted revenues were incorrectly included in the temporarily restricted net assets. Additionally, write-offs related to closed programs were not removed from temporarily restricted net assets. Management has determined that none of the errors related to prior periods were material to those periods and has corrected these errors as out of period adjustments. In 2015, the result of the correction of errors reduced temporarily restricted net assets by \$249, consisting of a \$52 decrease in revenue and a \$197 increase in contract and research expense. Unrestricted net assets increased by \$249, consisting of a \$52 increase in revenue and a \$197 decrease in contract and research expense.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosures. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash equivalents consist of various short-term investments which have original maturities of three months or less.

Investments

SRC invests primarily in mutual funds and US equities in order to provide a balanced return of investment income and principal appreciation to SRC with a limited risk of loss exposure.

Investments are carried at estimated market values. Changes in the estimated market value of investments are reflected as unrealized gains or losses, which are included in the investment return amount, in the accompanying combined statements of activities.

Semiconductor Research Corporation

Notes to Combined Financial Statements

December 31, 2016 and 2015

(in thousands of dollars)

The Corporation held investments in certain hedge funds as a limited partner, this investment was liquidated during 2016. Market values represent the Corporation's pro rata interest in the net assets of each limited partnership as of December 31, 2015, as provided by the fund managers. Market values as of December 31, 2015 are not based on audited financial information supplied by the general partner or manager of the funds. Audited information is only available annually based on the partnerships' or funds' year end. Management reviewed monthly valuations provided by the general partner or manager of the funds and assessed the reasonableness of the fair values provided at the interim dates and included in the financial statements. Because of the inherent uncertainty of the valuation of these investments, the market values reflected in the accompanying financial statements may differ from realizable values. There are no restrictions on the redemption of these investments.

Membership Fees Receivable

Membership fees receivable include amounts billed and not yet received from members.

Fixed Assets

Computer and office equipment and furniture and fixtures are recorded at cost, and depreciation is calculated using the straight-line method over the estimated useful life as follows:

Computer and office equipment	3 years
Furniture and fixtures	3-7 years

Member Fees

Revenue from members, associate members, infrastructure members, thrust members and adjunct members is recognized ratably over the membership term, starting at the beginning of the membership term. Revenues from affiliate members are recognized upon receipt as participation in the program is voluntary.

Participant Revenue

Revenue from government participants is recognized ratably over the participant term, starting at the beginning of the participant term. In the event that the related research projects are delayed, participant revenue is deferred until the related research projects commence.

Participant Fees

Revenue from FCRP participants is recognized ratably over the participant term. The contracts between MARCO and FCRP participants stipulate that any net assets which have been accumulated by MARCO from FCRP activities shall be returned to FCRP participants upon termination of the FCRP.

Revenue from NRI participants is recognized ratably over the participant term.

Management Fee Revenue

Revenue from fees charged to establish research projects for member specific research and is recognized immediately upon issuance of the invoice.

Grant Revenue

Revenue from government sponsored grants is recognized upon satisfaction of funding agreement conditions.

Semiconductor Research Corporation

Notes to Combined Financial Statements

December 31, 2016 and 2015

(in thousands of dollars)

Deferred Revenue

Membership fees or Participant fees received in advance of the term of the membership agreement or participant agreement are recorded as deferred revenue. Participant fees received or receivable are deferred until specified research projects commence. For a specific participant agreement, amounts totaling \$5,028 were included in deferred revenue as of December 31, 2016, of which no amounts are in accounts receivable. All amounts received and receivable not committed to research projects and the related management expense are fully refundable.

Contract Research and Grants Expense

For all programs, contract research expense is recognized ratably over the term of the contract unless qualified costs billed by the recipient are greater than the ratable amounts; in that case the actual amount billed is recognized. Billings from the recipients are typically delayed. In order to prepare timely financial statements, SRC employs the practice of recognizing contract expense ratably over the term of the contract. This method approximates actual costs incurred under the contract.

Included within contract research and grants expense in the accompanying combined statements of activities are industry support expenses totaling approximately \$1,868 and \$1,754 for the years ended December 31, 2016 and 2015, respectively. These expenses relate to special projects undertaken by SRC and are recognized as incurred.

Unrestricted grants awarded to others are expensed at the time the grant is awarded.

Research Customization Program

SRC has designated certain assets to the Research Customization Program which commenced in January 1997. This program allows members whose fees are \$300 or greater to direct up to 20% of their fees for domestic members and up to 40% of their fees for infrastructure and international members to select university projects which are of particular interest to those members. These funds are accounted for as temporarily restricted net assets due to the third party restriction.

Income Taxes

SRC operates as a nonprofit taxable mutual benefit corporation, incorporated in the State of California. MARCO and NERC are exempt from federal income taxes under Section 501(c) (6) of the Internal Revenue Code. The SRCEA is exempt from federal income taxes under Section 501(c) (3) of the Internal Revenue Code. NINECo and TERC, which were dissolved in 2015, operated as nonprofit taxable mutual benefit corporations, incorporated in the State of Delaware.

The Corporation may recognize an income tax benefit from an uncertain position only if it is more likely than not that the position is sustainable, based solely on its technical merits and consideration of the relevant taxing authority's widely understood administrative practices and precedents. If this threshold is met, the Corporation measures the tax benefit as the largest amount of the benefit that has greater than a 50% likelihood of being realized upon ultimate settlement.

Semiconductor Research Corporation
Notes to Combined Financial Statements
December 31, 2016 and 2015

(in thousands of dollars)

Investments

The cost and estimated market values of investments at December 31, 2016 and 2015 are as follows:

	<u>2016</u>		<u>2015</u>	
	Cost	Estimated Market Value	Cost	Estimated Market Value
U.S. Equities	\$ 3	\$ 3	\$ 74	\$ 102
Mutual funds	14,324	14,566	15,100	15,046
Corporate obligations	-	-	38	41
Mortgage and asset backed securities	72	73	89	91
Hedge funds	-	-	53	92
Exchange Traded Products	1,621	1,678	422	428
	<u>\$ 16,020</u>	<u>\$ 16,320</u>	<u>\$ 15,776</u>	<u>\$ 15,800</u>

At December 31, 2016 and 2015, SRC's investment portfolio included \$455 and \$331, respectively, in money market funds which are reflected as cash and cash equivalents in the accompanying combined statements of financial position.

The components of investment return in the accompanying combined statements of activities for the years ended December 31, 2016 and 2015 are as follows:

	2016	2015
Interest income, including earnings on cash and cash equivalents	\$ 647	\$ 509
Net realized gains (losses)	(4)	(246)
Change in net unrealized gains (losses)	259	(655)
Investment fees	(31)	(100)
	<u>\$ 871</u>	<u>\$ (492)</u>

Semiconductor Research Corporation

Notes to Combined Financial Statements

December 31, 2016 and 2015

(in thousands of dollars)

Fair Value Measurements

The Corporation adopted the provisions of the Topic 820 - Fair Value Measurements and Disclosures (Topic 820) of the FASB Accounting Standards Codification effective January 1, 2009. Under this standard, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the “exit price”) in an orderly transaction between market participants at the measurement date. Fair value measurements and related disclosures utilize the fair value hierarchy required by Topic 820, which prioritizes the inputs to valuation techniques used to measure fair value into three broad levels:

Level 1 - Quoted prices in active markets for identical debt and equity securities.

Level 2 – Prices determined using quoted prices in markets that are not active or for which all significant inputs are not observable, either directly or indirectly.

Level 3 - Prices determined using significant unobservable inputs. Unobservable inputs reflect the Corporation’s own assumptions about the factors that other market participants would use in pricing an investment, and would be based on the best information available in the circumstances.

Certain estimates and judgments were required to develop the fair value amounts, which are not necessarily indicative of the amounts that would be realized upon disposition, nor do they indicate the Corporation’s intent or ability to dispose of such instruments.

The statements of financial position carrying amounts of receivables, other assets, research contracts and accounts payable, accrued liabilities and deferred revenue approximate fair value due to the short-term nature of these items.

A summary of the inputs used in the measurement of fair value, as of December 31, 2016 and 2015, involving the Corporation’s assets and liabilities carried at fair value, is as follows:

Description	Level 1	Level 2	Level 3	Total
Investments as of December 31, 2016	<u>\$ 16,247</u>	<u>\$ 73</u>	<u>\$ -</u>	<u>\$ 16,320</u>
Investments as of December 31, 2015	<u>\$ 15,576</u>	<u>\$ 132</u>	<u>\$ 92</u>	<u>\$ 15,800</u>

Semiconductor Research Corporation
Notes to Combined Financial Statements
December 31, 2016 and 2015

(in thousands of dollars)

The following table provides a reconciliation of changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the years ended December 31, 2016 and 2015:

	2016	2015
Balance at beginning of year	\$ 92	\$ 89
Total realized and unrealized gain reported in the combined statement of activities	(32)	9
Sales proceeds	(60)	(6)
Balance at end of year	<u>\$ -</u>	<u>\$ 92</u>
Amount of total unrealized (loss) reported in the combined statement of activities attributable to Level 3 assets held at year end	<u>\$ -</u>	<u>\$ 7</u>

2. Operating Leases

SRC leases office space under one noncancelable lease. The lease expires in October 2021 and has minimum rental payments as follows:

2017	\$ 295
2018	304
2019	313
2019	323
2021	276
	<u>\$ 1,511</u>

Rent expense was approximately \$427 and \$461 for 2016 and 2015, respectively.

3. Benefit Plans

SRC sponsors a number of defined contribution plans. The two principal defined contribution plans are the 401(k) Deferred Compensation plan and the Money Purchase Plan (collectively referred to as the "Plans") which cover all employees. Contributions to the Plans are made by SRC based on percentages of eligible compensation as determined by the Board of Directors. Expense under the 401(k) Deferred Compensation plan was approximately \$376 and \$353 for 2016 and 2015, respectively. Expense under the Money Purchase Plan was \$510 and \$573 for 2016 and 2015, respectively.

SRC also has an unfunded supplemental deferred compensation plan in which senior executives participate. SRC established a Rabbi Trust to accumulate funds to satisfy its liabilities with respect to this plan. As of December 31, 2016 and 2015, the assets and the corresponding liability related to this plan were approximately \$1,650 and \$1,796, respectively. The assets are considered Level 1 investments. The assets and the liability are reported gross on the accompanying financial statements, within other noncurrent assets and other noncurrent liabilities, respectively.

Semiconductor Research Corporation
Notes to Combined Financial Statements
December 31, 2016 and 2015

(in thousands of dollars)

4. Commitments and Contingencies

SRC has research contracts and grant commitments outstanding of approximately \$60,755 at December 31, 2016. These commitments represent active research contracts and grants entered into through December 31, 2016, less expenses incurred by SRC on the related contracts. During the period from January 1, 2017 through February 9, 2017, SRC committed to additional contracts and grants. The first year commitment of these new contracts and grants is approximately \$8,972. During the remaining term of the contracts and grants outstanding as of December 31, 2016 and the contracts and grants entered into between January 1, 2017 and the date of this report, SRC expects to commit an additional \$19,356 related to these contracts and grants. SRC may, at its option, terminate any contracts and commitments upon 60 days written notice. Termination would not occur without due reason, justification and negotiation of contract close-out costs as well as bridging costs for SRC funded graduate students, as appropriate.

Expenditures under Federal contracts are subject to audit by the respective cognizant agency. As SRC has recorded contracts in accordance with the agency agreement, there are no reserves in its combined financial statements as of December 31, 2016 and 2015.

5. Income Taxes

SRC incurred income tax expense and (benefit) of \$371 and \$(271) during the years ended December 31, 2016 and 2015, respectively.

Income tax benefit and expense consisted of the following:

	2016	2015
Current		
Federal	\$ 229	\$ 1
State	41	11
	<u>270</u>	<u>12</u>
Deferred		
Federal	95	(247)
State	6	(36)
	<u>101</u>	<u>(283)</u>
	<u>\$ 371</u>	<u>\$ (271)</u>

Components of the net deferred income tax (liability) assets were as follows:

	2016	2015
Fixed assets	\$ 24	\$ 64
Net operating loss	2,655	2,983
Total deferred tax assets	2,679	3,047
Valuation allowance	(2,679)	(3,047)
Total deferred tax assets	<u>\$ -</u>	<u>\$ -</u>
Unrealized gain on investments	\$ 110	\$ 9
Total deferred tax liability	<u>\$ 110</u>	<u>\$ 9</u>

Semiconductor Research Corporation

Notes to Combined Financial Statements

December 31, 2016 and 2015

(in thousands of dollars)

No unrecognized tax benefits existed as of December 31, 2016 and 2015. SRC did not have any additions to its unrecognized tax benefit resulting from uncertain tax positions related to either the current or prior years, and had no reductions resulting due to settlements. The Corporation does not expect any change in unrecognized tax benefits within the next fiscal year.

6. Related Parties

In 1996, SRC began utilizing personnel from members' companies to assist in program related activities. SRC pays for these services at rates consistent with other providers. Payments for administrative services received from these personnel for the years ended December 31, 2016 and 2015 were approximately \$630 and \$608, respectively, and are included in within management and general expense in the accompanying combined statements of activities. Payments for research services received from these personnel for the years ended December 31, 2016 and 2015 were approximately \$441 and \$360, respectively, and are included in within contract research and grant expense in the accompanying combined statements of activities.

7. Concentration of Credit Risk

A majority of SRC's and MARCO's revenues are generated from membership fees assessed to participating companies in the semiconductor industry. For the year ended December 31, 2016, three companies comprised 42.8%, 25.7% and 8.1% of SRC's membership revenues. For the year ended December 31, 2016, three companies comprised 55.9%, 17.6% and 8.8% of MARCO's membership revenues. For the year ended December 31, 2015, three companies comprised 35.4%, 21.3% and 16.2% of SRC's membership revenues. For the year ended December 31, 2015, three companies comprised 55.9%, 17.6% and 8.8% of MARCO's membership revenues.

8. Subsequent Events

The Corporation has evaluated subsequent events in accordance with US GAAP through March 10, 2017, which was the date the financial statements were available to be issued. We have not identified any events that require disclosure.

**Semiconductor Research Corporation
Schedule of Expenditures of Federal Awards
Year Ended December 31, 2016**

(in thousands of dollars)

Federal Grantor/Cluster Title	Federal CFDA Number	Total Federal Expenditures	Passed through to Subrecipients
Research and Development Cluster			
<i>Direct Awards</i>			
Department of Commerce			
National Institute of Standards and Technology			
Measurement and Engineering Research and Standards	11.609	\$ 3,398	\$ 3,254
Arrangements for Interdisciplinary Research Infrastructure	11.619	155	15
Subtotal Department of Commerce		<u>3,553</u>	<u>3,269</u>
Total Research and Development Cluster		<u>3,553</u>	<u>3,269</u>
Total Expenditures of Federal Awards		<u>\$ 3,553</u>	<u>\$ 3,269</u>

The accompanying notes are an integral part of this schedule.

Semiconductor Research Corporation

Notes to Schedule of Expenditures of Federal Awards

Year Ended December 31, 2016

(in thousands of dollars)

1. Description of Corporation

Semiconductor Research Corporation ("SRC" or the "Corporation") is a nonprofit taxable mutual benefit corporation formed in 1982 to conduct research in the fields of engineering and physical science related to semiconductor development and manufacturing. Activity has centered on initiation and administration of contract research with various institutions and universities. SRC's charter requires that member corporations (members and infrastructure members), which are corporations involved in the manufacturing, purchase, use or sale of semiconductors or semiconductor related equipment, software and materials, be assessed membership fees based on a percentage of their semiconductor sales, use or manufacture. These fees are subject to certain limitations.

SRC has created other classes of membership which allow organizations and companies otherwise not eligible for membership to join SRC. Adjunct and associate members must undertake research and development of semiconductor devices; they have similar privileges of membership except they do not have direct representation on the Board of Directors.

2. Basis of Presentation

The schedule of expenditures of federal awards includes the federal award activity of SRC under programs of the federal government for the year ended December 31, 2016 and is presented on the accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Therefore, some amounts presented in this schedule may differ from amounts presented in, or used in the preparation of, the basic financial statements.

3. Indirect Cost Rate

SRC does not have indirect cost in its expenditures. The subrecipients have not elected to use the 10-percent de minimis indirect cost rate allowed under the Uniform Guidance. The subrecipients claim indirect cost recovery using approved rates.



Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To Management and the Board of Directors of
Semiconductor Research Corporation

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the combined financial statements of Semiconductor Research Corporation and its affiliates (collectively referred to as "SRC"), which comprise the combined statements of financial position as of December 31, 2016 and 2015, and the related combined statements of activities and of cash flows for the years then ended, and the related notes to the financial statements, and have issued our report thereon dated March 10, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered SRC's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of SRC's internal control. Accordingly, we do not express an opinion on the effectiveness of SRC's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



Compliance and Other Matters

As part of obtaining reasonable assurance about whether SRC's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

PricewaterhouseCoopers LLP

Raleigh, North Carolina
March 10, 2017



**Report of Independent Auditors on Compliance with Requirements
That Could Have a Direct and Material Effect on Each Major Program and on
Internal Control Over Compliance in Accordance with the Uniform Guidance**

To Management and the Board of Directors of
Semiconductor Research Corporation

Report on Compliance for Each Major Federal Program

We have audited Semiconductor Research Corporation and its combined affiliates' (collectively referred to as "SRC") compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on SRC's major federal programs for the year ended December 31, 2016. SRC's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations and the terms and conditions of its federal awards applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of SRC's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about SRC's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of SRC's compliance.

Opinion on Each Major Federal Program

In our opinion, SRC complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended December 31, 2016.



Report on Internal Control Over Compliance

Management of SRC is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered SRC's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of SRC's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

PricewaterhouseCoopers LLP

Raleigh, North Carolina
March 10, 2017

**Semiconductor Research Corporation
 Schedule of Findings and Questioned Costs
 Year Ended December 31, 2016**

Section I – Summary of Auditor’s Results

Financial Statements

Type of auditor’s report issued: Unmodified

Internal control over financial reporting:

- Material weakness(es) identified? yes X no
- Significant deficiency(ies) identified that are not considered to be material weaknesses? yes X none reported

Noncompliance material to financial statements noted? yes X no

Federal Awards

Internal control over major programs:

- Material weakness(es) identified? yes X no
- Significant deficiency(ies) identified that are not considered to be material weaknesses? yes X none reported

Type of auditor’s report issued on compliance for major programs: Unmodified

Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)? yes X no

Identification of major programs: CFDA Number(s)	Name of Federal Program or Cluster:
11.609 and 11.619	Research and Development Cluster

Dollar threshold used to distinguish between type A and type B programs: \$ 750,000

Auditee qualified as low-risk auditee? X yes no

**Semiconductor Research Corporation
Schedule of Findings and Questioned Costs
Year Ended December 31, 2016**

Section II – Financial Statement Findings

No financial statement findings noted.

Section III – Federal Award Findings and Questioned Costs

No federal award findings or questioned costs noted.

Semiconductor Research Corporation

Summary Schedule of Prior Audit Findings

Year Ended December 31, 2016

Finding 2015-01: Lack of Records over Verification of Suspension/Debarment

Award Information

Cluster: Research & Development

Agency: Defense Advanced Research Projects Agency & National Institute of Standards and Technology

CFDA Numbers: 11.609 – Measurement and Engineering Research and Standards

12.910 – Research and Technology Development

Summary

SRC did not maintain evidence or records to support SRC had verified that the entity, of which SRC is entering into a covered transaction with, is not suspended or debarred or otherwise excluded from participating transactions as required by 2 CFR Section 180, Subpart C.

PwC recommended SRC management should maintain documentation of verification performed on the entity to ensure that the entity, of which SRC is entering into a covered transaction with, is not suspended or debarred.

Status

SRC has continued to verify that those entities receiving funding, for both new and existing entities, are not included on the list of those entities that are suspended or debarred. Documentation of this verification is now maintained. There were no exceptions noted during the current year audit.

Finding 2015-02: Incomplete Disclosure of Information to Sub-recipients

Award Information

Cluster: Research & Development

Agency: Defense Advanced Research Projects Agency & National Institute of Standards and Technology

CFDA Numbers: 11.609 – Measurement and Engineering Research and Standards

12.910 – Research and Technology Development

Summary

Section 2 CFR Section 200.331, requires that all pass-through entities must ensure that every sub-award is clearly identified to the sub-recipient as a sub-award and includes certain information at the time of the sub-award. SRC did not include all of the information, specifically, SRC did not include (iv) Federal Award date; (vi) amount of Federal funds obligated; (vii) total amount of Federal funds obligated to the sub-recipient; and (viii) total amount of the Federal Award.

PwC recommended that management review the required information to be disclosed as set forth in 2 CFR Section 200.331, and ensure all required information is included within the sub-award agreement.

Status

SRC has notified the sub awardees under CFDA number 11.609 of all required information under 2 CFR Section 200.331. No exceptions were noted during the current year audit for this award.

In the prior year, SRC did not include all required information to be disclosed to sub-recipients under CFDA number 12.910 on the basis that the award is an Other Transaction Agreement that is not subject to the requirements of OMB Uniform guidance. For the same reason, SRC did not include this award in the current year report.

