Stock Code: 3529

# ememory

# eMemory Technology Inc.

# 2019 Corporate Social Responsibility Report

CSR report is available at Market Observation Post System: https://mops.twse.com.tw/mops/web/index

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#### 1. Words From Our Chairman

eMemory is established since year 2000, and 2019 marks the 19<sup>th</sup> year of the company's establishment. This journey has been challenging yet exciting, with the support from employees, customers and partners to enable the fullest potential of innovation and growth of eMemory. With that, I am truly grateful to those who has played a part for the growth of eMemory. We strife to achieve the best with our core values: innovation, doing what we promise, and always moving forward. This brings us to our business philosophy of executing our innovation by constantly improving our competitiveness to become the world's largest pure-play developer and provider of logic-based non-volatile memory (Logic NVM) silicon intellectual property (IP). Apart from this, we firmly believe in becoming our customers' loyal partner by doing what we promise and to help them succeed.

The major business of eMemory is licensing silicon IPs to semiconductor foundries, integrated device manufacturers (IDMs) and fabless design houses around the world, which does not involve manufacturing or producing tangible products and is considered a non-polluting business. Nonetheless, eMemory is fully aware of the importance of sustainability and environmental protection and dedicated to practice it in our product design and daily operations. Not only do we take advantages of our advanced semiconductor process technologies to provide our customers with high-efficiency, energy-saving and environmental- friendly products, but adhere practices on the three Rs, Reduce, Reuse and Recycle. Comparing to 2015, we have significantly reduced the carbon dioxides emissions by 500 kg per person. With continuous practices of saving the environment, we are expected to have greater results in the near future.

eMemory adheres to the attitude of "take from society, give back to society". Therefore, we emphasize following various operating indicators and implementing corporate governance. Furthermore, we actively maintain social welfare and engage with stakeholders including employees, shareholders, customers, suppliers and the society. In 2019, we participated in several charity events such as donating to Tsinghua University scholarship program, participated in the charity sale of the "Spinal Cord Injury Rehabilitation Center", and donating computer hardware equipment to World Vision Taiwan and World Peace Hsinchu.

In 2020, eMemory will continue making innovative breakthroughs on technology development and product applications, as well as fulfilling our promises on corporate social responsibility!

Charles Hsu
Chairman of eMemory Technoloy Inc.

#### 2. About This Report

This is the first CSR Report of eMemory Technology Inc. We disclose the major corporate social responsibility issues that our stakeholders care the most about and that we work the hardest on. These major topics include environmental sustainability, social participation and corporate governance.

#### **Reporting Guidelines**

This report is based on the Global Reporting Initiative (GRI) Sustainability Reporting Standards. By aligning our report to global standards, we can clearly reveal the results of our efforts on these major corporate social responsibility issues. To learn more about how this report is aligned to the GRI Standards, please refer to our GRI Standards Index chart.

#### **Scope of the Report**

The reporting period is from January 1<sup>st</sup>, 2019 to December 31<sup>st</sup>, 2019. The scope of this report include eMemory's facilities in Zhubei and Hsinchu, Taiwan. We integrate financial, social and environmental data of both eMemory Technology Inc., and our subsidiary, PUFsecurity Corporation, in this report. The report is available on eMemory's website and on Market Observation Post System (MOPS) in both Chinese and English.

#### **Data Collection**

For data collection, directors of each department review and verify the annual performance regarding corporate social responsibility. The President Office, as the designated unit, then collect and analyze the data, followed by composing the report.

#### eMemory Technology Inc.

• Founded: September 2, 2000

• Location: Rm 305, No. 47, Yuangu 2<sup>nd</sup> Rd., East Dist., Hsinchu City 300, Taiwan

• Headquarter: 8F., No.5, Taiyuan 1<sup>st</sup> St., Zhubei City, Hsinchu County 302, Taiwan

• Public Listing: Taipei Exchange Stock Code: 3529

• Industry: Semiconductor

• Capital: NTD 758,335,420

• Products: Logic NVM silicon IPs

• Contact Information

■ Address: 8F., No.5, Taiyuan 1<sup>st</sup> St., Zhubei City, Hsinchu County 302, Taiwan

■ Tel: 886-3-5601168

■ Email: ir@ememory.com.tw

#### 3. About eMemory

#### **3.1 Corporate Overview**

eMemory Technology Inc. is the world's largest pure-play developer and provider of Logic NVM technology. The company has licensed its intellectual property to semiconductor foundries, IDMs, and fabless design houses around the world.

eMemory's proprietary IP technologies include NeoBit, NeoFuse, NeoMTP, NeoEE and NeoPUF. Products developed with these core technologies have been made into more than 43 billion ICs used in various consumer, industrial and automotive applications.

#### **Most Comprehensive Logic NVM Silicon IP Platform**

eMemory focuses on the embedded memory needs of foundry partners, IDMs, and fabless design house customers. This commitment has led us to accumulate unrivaled design, processing, and engineering know-how. It has also helped us develop the industry's most comprehensive platform of logic NVM silicon IP technologies, products, services, and solutions.

Today, eMemory's logic NVM silicon IP platform provides fabless design houses superior vendor flexibility and process portability. We give IDMs process scalability and valuable process engineering know-how. Our foundry partners gain access to hundreds of potential customers through us.

#### Commitment to a Full-Service Model

At eMemory, we pride ourselves on providing full-service solutions integrating our NVM IP from the initial design stage. eMemory's Design Service Solution (DSS) provides the industry's most complete silicon IP licensing service.

#### **Our History**

Since 2000, eMemory has led the semiconductor industry in logic NVM technologies. By 2002, eMemory qualified its IP and licensed its first NVM solution — NeoBit — to Chartered Semiconductor of Singapore (now GLOBALFOUNDRIES).

That early success with GLOBALFOUNDRIES — the first foundry to foresee the potential of NVM IP in increasingly sophisticated SoC designs — resulted in more alliances with leading fabless design houses, world-class foundries and integrated device manufacturers.

eMemory has helped over 1,600 fabless design customers, 10 IDMs, and 23 foundry partners from 30 countries design our IP into their products.

Following our breakthrough with NeoBit, eMemory's NeoFuse, NeoMTP, NeoEE and NeoPUF have all seen great success. eMemory offers a range of IP customized to meet a range of product endurance and density requirements. eMemory's industry-leading technology and IP portfolio help customers cut time and development costs, which explains why so many companies have chosen us as an NVM partner.

#### Achievement by 2019

Over 27 million wafer shipped by 2019	foundry partners world-wide	10 IDM coverage world-wide	Over 1,682 verified NVM IP	Over 4,650 cumulative design licences
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#### **Corporate Values and Philosophies**

Core Values	Philosophies	
We innovate	We execute our innovation	
We do what we promise	We help customer success	
We move forward	We pursue technological advancement	

#### **Market Distribution**

eMemory provides its products and services to customers and partners around the world, including Japan, South Korea, China, United States and Europe.

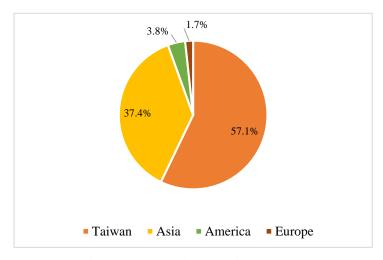


Figure 1: eMemory's main geographic regions for sales of products in 2019 (unit: percentage)

#### **Brand Communication**

eMemory believes in innovation and continual progress. By persistently improving our competitiveness, we have established a great brand image and exceeded the industry in research and development. For the past 19 years, eMemory keeps on delivering our brand and innovations to the world by actively participating in domestic and foreign exhibitions, forums and seminars. In 2019, we joined 27 international exhibitions, from East Asia and the Middle East, to Europe and North America.

Date	Event	Location	
Dec 20, 2019	CSMC 2019 Annual Technology Conference	WuXi, China	
Dec 19, 2019	ELEXCON 2019	Shenzhen	
	ICCAD 2019 Annual Conference & Nanjing		
Nov 22, 2019	IC Industry Innovation and Development	Nanjing, China	
	Summit		
	ICCAD 2019 Annual Conference & Nanjing		
Nov 21, 2019	IC Industry Innovation and Development	Nanjing, China	
	Summit		
Nov 05, 2019	2019 GF Technology Conference	Hsinchu, Taiwan	
Oct 29, 2019	TSMC 2019 China OIP Ecosystem Pavilion	Beijing, China	
Oct 24, 2019	2019 GF Technology Conference	Shanghai, China	
Sep 26, 2019	TSMC 2019 NA OIP Ecosystem Forum	Santa Clara, USA	
Sep 24, 2019	2019 GF Technology Conference	Santa Clara, USA	
Sep 19, 2019	2019 SMIC Technology Symposium	Shanghai, China	
S 02 2010	TowerJazz 2019 Worldwide Technical Global	Shanghai, China	
Sep 03, 2019	Symposium		
Aug 20, 2010	2019 MagnaChip China Technology	Daiiina China	
Aug 30, 2019	Symposium	Beijing, China	
Aug 29, 2010	2019 MagnaChip China Technology	Chang Hai China	
Aug 28, 2019	Symposium	Shang Hai, China	
Aug 26, 2010	2019 MagnaChip China Technology	GI I GI.	
Aug 26, 2019	Symposium	Shangzhen, China	
A 22, 2010	2019 China IC Innovative Application		
Aug 22, 2019	Summit	Shenzhen, China	
Jun 28, 2019	2019 TSMC Japan Technology Symposium	Yokohama, Japan	
Jun 26, 2019	TSMC 2019 Israel Technology Workshop	Herzliya, Israel	
Jun 18, 2019	2019 TSMC China Technology Symposium	Shanghai, China	

Date	Event	Location
May 28, 2010	TSMC 2010 Europa Tachnology Symposium	Amsterdam,
May 28, 2019	TSMC 2019 Europe Technology Symposium	Netherlands
Mov 27, 2010	TSMC 2010 Europa OID Eggsvotem Forum	Amsterdam,
May 27, 2019	TSMC 2019 Europe OIP Ecosystem Forum	Netherlands
May 23, 2019	TSMC 2019 Taiwan Technology Symposium	Hsinchu, Taiwan
May 08, 2019	2019 TSMC Austin Technology Workshop	Austin, USA
May 01, 2019	2019 TSMC Boston Technology Workshop	Boston, USA
Apr 23, 2019	2019 TSMC NA Technology Symposium	Santa Clara, USA
Apr 19, 2019	UMC 2019 Technology Forum	Shanghai, China
Apr 16, 2019	GSA European Executive Forum	Munich, Germany
Apr 15, 2019	GSA European Executive Forum	Munich, Germany

At the same time, eMemory is also members of many associations in the industry, in order to grasp industry trends more instantly, condense industry consensus on industry development, and build Taiwan's semiconductor industry with leading partners. By participating in GSA, an international association, eMemory hopes to contribute to the cooperation and innovation among global supply chain companies, and solve the challenges encountered in the global supply chain.

Membership in 2019
Taipei Computer Association (TCA)
Taiwan IoT Technology and Industry Association (TwIoTA)
Global Semiconductor Alliance(GSA)
Taiwan Semiconductor Industry Association (TSIA)
AI on Chip Taiwan Alliance (AITA)
RISC-V Taiwan Alliance (RVTA)

#### **Corporate Milestones**

Year	Month	Milestones	
2000	Aug.	eMemory founded as eMemory Technology Inc.	
2001	Mar.	eMemory receives approval to move into Hsinchu Science Park	
2002	Jul. eMemory moves into Hsinchu Science Park		
2005 Oct		NeoBit NVM wins the National Invention and Creation Gold	
2003	Oct.	Medal Award	
2006	Dec.	eMemory wins Industrial Innovation Award	
2007	Mar.	eMemory listed in Taiwan Emerging Market: ticker number #3529	

Year	Month	Milestones		
2000	Oct.	eMemory wins Industrial Technology Advancement Award and		
2008		National Invention and Creation Award		
	Oct.	eMemory wins TSMC's 2010 IP Partner Award		
2010	0 Nov.	eMemory holds the first Embedded Tech Forum		
		eMemory is honored as one of Asia's 200 Best Under A Billion by Forbes		
	Jan.	eMemory lists on Taipei Exchange (GreTai Securities Market) on 24 January 2011		
2011		eMemory wins TSMC's 2011 IP Partner Award		
	Oct.	eMemory honored again as one of Asia's 200 Best Under A Billion by Forbes		
2012	Oct.	eMemory receives TSMC's IP Partner Award for the third straight year		
2012	Dec. eMemory's eNVM silicon IP global deployment contributes to growth of royalty income			
	Jan.	Taiwan Corporate Governance Association accredited eMemory with the Certificate of Corporate Governance System Evaluation – Version CG6007		
2013	Aug.	eMemory ranks as The Top 50 TWSE/GTSM Listed Companies with Most Valuable US Patents _ according to the cooperatives evaluation result by Institute for Information Industry and Ocean Tomo		
	Sep.	eMemory receives SMIC's IP Partner Award		
	Oct.	eMemory receives TSMC's IP Partner Award for the fourth year in a row		
	Apr.	eMemory publishes first book by eNVM IP providers: LOGIC NON-VOLATILE MEMORY—NVM Solutions from eMemory		
2014	Jun.	eMemory ranked A+ in R.O.C. Securities & Futures Institute's 11th Information Disclosure and Transparency Evaluation of Public Companies Ranking		
	Sep.	eMemory receives TSMC's IP Partner Award for five consecutive years		
		eMemory receives again SMIC's IP Partner Award		

Year	Month	Milestones
		eMemory was ranked TOP 20% in the 2014 Corporate Governance
		Evaluation of Public Companies conducted by R.O.C Securities &
	Apr.	Futures Institute.
	Apr.	eMemory ranked A++ in R.O.C. Securities & Futures Institute's
2015		12th Information Disclosure and Transparency Evaluation of
		Public Companies Ranking
		eMemory receives TSMC's IP Partner Award for six consecutive
	Sep.	years
		eMemory receives again SMIC's IP Partner Award
		eMemory was ranked TOP 20% in the 2015 Corporate Governance
	Apr.	Evaluation of Public Companies conducted by R.O.C Securities &
		Futures Institute.
2016		eMemory once again receives TSMC's IP Partner Award—the only
2010	Sep.	eNVM Silicon Intellectual Property (Silicon IP) supplier in the
		world to receive the honor for seven consecutive years
	Oct.	eMemory Receives SMIC Best IP Partner Award for 4th Year in a
		Row
	Apr.	eMemory was ranked TOP 20% in the 2016 Corporate Governance
		Evaluation of Public Companies conducted by R.O.C Securities &
		Futures Institute.
		eMemory receives TSMC's IP Partner Award for eight consecutive
2017		years
		eMemory receives Hsinchu Science Park Bureau Innovative
	Dec.	Product Award
		eMemory receives Hsinchu Science Park Bureau Research and
	1	Development Achievement Award
		eMemory was ranked TOP 20% in the 2017 Corporate Governance
2010	Apr.	Evaluation of Public Companies conducted by R.O.C. Securities &
2018	8 Oct.	Futures Institute.
		eMemory receives TSMC's IP Partner Award for 9 consecutive
	1	years
2010	Feb.	eMemory Receives ISSCC Award for Breakthrough Security
2019		Technology
	Mar.	eMemory receives National Industrial Innovation Award

Year	Month	Milestones	
		eMemory was ranked TOP 5% in the 2018 Corporate Governance	
	Apr.	Evaluation of Public Companies conducted by R.O.C. Securities &	
		Futures Institute.	
	May	Wholly owned subsidiary PUFsecurity Corporation founded.	
	Sep.	eMemory receives TSMC's IP Partner Award for 10 consecutive years.	

#### 3.2 Executive Team

#### Dr. Charles Hsu, Chairman

Dr. Hsu was named Chairman of eMemory in 2009. He founded eMemory Technology Inc. as its President in 2000 with the goal of providing the most innovative NVM IP technology. Under Dr. Hsu's inspiring leadership, eMemory has been achieving technology breakthroughs and awarded prizes one after another, and grow to be the biggest eNVM IP provider in the world. The success and popularity of eMemory quickly grew over the years as industry partners and customers realized the unparallel value of its technology innovation and excellent technical service.

Prior to founding eMemory, Dr. Hsu was appointed the Chairman of Institute of Electronics Engineering of National Tsing-Hua University (NTHU), from 1998 to 2000, because of his outstanding academic and extra-curriculum achievements. He was a professor of Department of Electronics Engineering at NTHU from 1996 to 1998, and in the meantime also the director of Tzu-Chiang Institute and Incubation Center. Before becoming a professor, Dr. Hsu was an associate professor since 1992, a year he was invited by NTHU to return to Taiwan from the United States. Dr. Hsu joined IBM T.J. Watson Research Center in New York State, USA, and served as a researcher from 1987 to 1992.

Dr. Hsu graduated from National Tsing-Hua University (NTHU) with a B.S. in Electrical Engineering and received his M.S. and Ph.D. in Electrical Engineering from the University of Illinois, Urbana-Champaign. He holds over 200 patents and published 120 papers in semiconductor device area, and receives renowned recognition for his extensive research and comprehensive inventions.

#### Dr. Rick Shen, President

Dr. Shen was appointed President of eMemory Technology in October 2009, succeeding Dr. Charles Hsu. Dr. Shen previously had served as eMemory's Vice President in charge of operation and technology development since March 2008. In the position he oversaw the technology development and formed the customer service team. From 2005 to 2008, Dr. Shen served as director of Technology & IP Service. He supervised the company's technology development migration from 0.7um to 90nm. His management won eMemory the reputation of the most efficient and reliable OTP partner in the world, and his effort was crucial to the company's success in becoming the leader in the eNVM IP industry.

Dr. Shen received his doctoral degree in Electrical Engineering from National Tsing-Hua University (NTHU). He holds about 80 worldwide patents and has published 25 technical papers. He is one of the inventors in eMemory proprietary NVM technology portfolios. He is also one of the major contributors as an author of the book titled "Logic Non-Volatile Memory" and "IEEE International Conference on Integrated Circuit Design and Technology" (ICICDT).

#### Dr. Evans Yang, Vice President of Corporate Strategy

Dr. Yang was appointed Vice President in 2014, with focuses on corporate development strategy. Dr. Yang joined eMemory in 2000 as one of the founding members and served as the Device Technology Development Department manager. During 2004 to 2009, Dr. Yang had gained experiences in other semiconductor companies including Powerchip Semiconductor and PowerFlash. In 2009, he returned to eMemory to participate in the development of various technology platforms and lead the Marketing and Strategy Division team. Dr. Yang graduated from National Tsing-Hua University (NTHU) with a Ph.D. degree in Electrical Engineering. He holds over 150 worldwide patents and published more than 50 technical papers. He is one of the inventors in eMemory proprietary NVM technology portfolios. He is also one of the major contributors as an author of the book titled "Logic Non-Volatile Memory".

#### Chris Lu, Vice President of OTP Business Group

Mr. Lu was appointed Vice President in 2014, currently leading the OTP Group with focuses on innovative R&D of OTP SIP product line and operational performance improvement. Mr. Lu joined eMemory in 2002 as the team leader of Customer Engineering Department. Since 2012, Mr. Lu has been the leader of Business Group I with focuses on innovative R&D of OTP SIP product line and operational performance improvement. Prior to joining eMemory, Mr. Lu worked at Philips and Taiwan Semiconductor Manufacturing Company (TSMC) and

participated in semiconductor process related R&D projects. Mr. Lu graduated from National Taiwan University (NTU) with a master's degree in Photonics and Optoelectronics Engineering (formerly named Electro-Optical Engineering.)

#### **Ching-Yuan Lin, Vice President of MTP Business Group**

Mr. Lin was appointed Vice President in 2008, currently leading the MTP Group with responsibilities including R&D of MTP SIP product line and improvement of operation performance. Mr. Lin joined eMemory in 2000 and led the development of a number of eMemory's core NVM IP designs. Before joining eMemory, Mr. Lin held managerial positions and involved in semiconductor design and research projects at Taiwan Semiconductor Manufacturing Company (TSMC) and Vanguard International Semiconductor (VIS). Mr. Lin holds a master's degree in Physics from National Central University (NCU) and is studying in the EMBA Department at National Tsing-Hua University.

#### John Ho, Vice President of Research and Development

Mr. Ho was appointed Vice President in 2014, currently responsible for leading the Engineering Center with focuses on the establishment of highly efficient product integration team. Ho joined eMemory in 2000 as one of the founding members and has been focusing on the R&D of core technologies and SIP. Prior to joining eMemory, Mr. Ho worked on memory design and development at Vanguard International Semiconductor (VIS). Mr. Ho graduated from National Chiao Tung University (NCTU) with a master's degree in Electronics Engineering.

#### Michael Ho, Vice President of Business Development

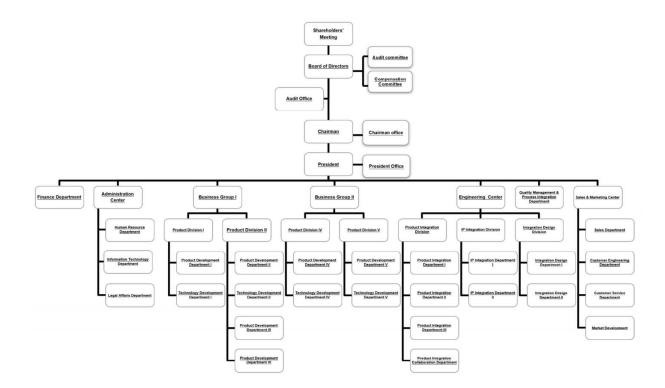
Mr. Ho was appointed Vice President in 2014, currently in charge of worldwide sales, product marketing, global business development, and customer engineering service. Mr. Ho joined eMemory in 2002 as the technology platform development team leader and has been responsible for leading the sales team since 2008. Prior to joining eMemory, Mr. Ho worked at Taiwan Semiconductor Manufacturing Company (TSMC) and participated in various projects of non-volatile memory technology development. Mr. Ho graduated from National Tsing-Hua University (NTHU), with a master's degree in Electrical Engineering and is the owner of 21 US patents in semiconductors and 18 patents pending.

#### Anita Chang, Vice President of Administration

Mrs. Chang was appointed Vice President in 2008. She holds responsibilities of eMemory's Information Technology, Legal, Human Resource, and Public Relations. Mrs. Chang joined eMemory in 2000, and has been leading her team to build management structures and operation systems for corporate governance ever since. Prior to joining eMemory, Mrs. Chang worked at the Food Industry Research & Development Institute and the Tze Chiang Foundation of Science and Technology where she was involved in several major government plans and industrial analysis projects. Mrs. Chang holds a master's degree in Economics from National Taiwan University (NTU).

#### 3.3 Organization Chart

eMemory's corporate governance-related affairs are handled by different divisions: the operation of the board of directors, audit committee and shareholder meetings are handled by the Finance department; the salary and remuneration committee is handled by the Human Resources department; as for the company's integrity management and corporate social responsibility, are then coordinated and executed by the President Office.



#### 4. Corporate Governance

#### 4.1 Board of Directors, Remuneration Committee and Audit Committee

#### **Board of Directors**

The "Corporate Governance Practice Principles" of eMemory sets the composition of the Board of Directors to consider diversification, and formulates appropriate diversification policies based on the company's operation, operation type and development needs, including but not limited to two major aspects: basic conditions and values (such as gender, age, nationality and culture, etc.) and professional knowledge and skills (such as law, accounting, industry, finance, marketing or technology). The Board of Directors must also have the knowledge, skills and literacy necessary to perform their duties. Currently, the 9 members of the Board have professional backgrounds in industry, academia and medicine, and each have expertise in management, leadership decision-making, industrial knowledge, academy, and finance. The proportion of Directors with employee status is 11%, and Independent Directors accounted for 33%. In addition, eMemory also emphasize gender distribution in the composition of Directors. The goal of female directors is at least one seat. Currently, we have two female Directors, accounting for 22%.

Title	Name	Major Experience	Professional Skill
Chairman	Mr. Charles Hsu	<ul> <li>Ph.D. in Electrical Engineering, University of Illinois, Urbana- Champaign, U.S.A.</li> <li>Chairman, Institute of Electronics Engineering, National Tsing Hua University, Taiwan</li> </ul>	<ul> <li>Corporate Management</li> <li>Decision Making</li> <li>Industry Knowledge</li> <li>Professional Expertise</li> </ul>
Independent Director	Mr. Kenneth Kin	<ul> <li>Ph.D. in Nuclear</li></ul>	<ul> <li>Corporate <ul> <li>Management</li> <li>Decision</li> <li>Making</li> <li>Industry</li> <li>Knowledge</li> <li>Professional</li> <li>Expertise</li> </ul> </li> </ul>

Title	Name	Major Experience	Professional Skill
Independent Director	Mr. Ming-To Yu	Manufacturing Company Limited  Vice Dean, College of Technology Management, National Tsing Hua University  Master of Business Administration, The Wharton School of University of Pennsylvania President, Kaiyu Consulting Co., LTD.  Chief Financial Officer and Spokesperson, MediaTek Inc.	<ul> <li>Corporate Management</li> <li>Decision Making</li> <li>Industry Knowledge</li> <li>Financial Expertise</li> </ul>
Independent Director	Mr. T.C. Chen	<ul> <li>Ph.D. in Engineering and Applied Science, Yale University, U.S.A.</li> <li>Fellow Member, Institute of Electrical and Electronics Engineers (IEEE)</li> <li>Fellow and Vice President Science &amp; Technology, IBM</li> </ul>	<ul> <li>Corporate Management</li> <li>Decision Making</li> <li>Industry Knowledge</li> <li>Professional Expertise</li> </ul>
Director	How-Han Investment Corporation Representative: Ms. Teresa Cheng	<ul> <li>Master of Science,         Computer Science and         Applied Mathematics,         University of Illinois at         Urbana-Champaign,         U.S.A.</li> <li>Chief Information         Officer, Macronix         International Co., Ltd.</li> </ul>	<ul> <li>Corporate Management</li> <li>Decision Making</li> <li>Industry Knowledge</li> <li>Information Technology Expertise</li> </ul>

Title	Name	Major Experience	<b>Professional Skill</b>
		<ul> <li>Department Manager,</li> <li>Software Development,</li> <li>BDC Corporation</li> </ul>	
Director	How-Han Investment Corporation Representative: Mr. Jason Hsu	<ul> <li>Master of Computer         Science, Stevens         Institute of Technology,         U.S.A.</li> <li>Chairman / General         Manager, IBM Taiwan</li> <li>CEO, GE Taiwan</li> </ul>	<ul> <li>Corporate Management</li> <li>Decision Making</li> <li>Industry Knowledge</li> <li>Professional Expertise</li> </ul>
Director	Mr. Mu-Chuan Hsu	<ul> <li>Bachelor Degree in         Medicine, China         Medical University,         Taiwan</li> <li>Attending Physician,         Department of         Obstetrics &amp;         Gynecology, National         Taiwan University         Hospital</li> <li>Superintendent, North         Town Women &amp;         Children Hospital</li> </ul>	<ul> <li>Corporate Management </li> <li>Decision Making </li> <li>Medical Expertise </li> </ul>
Director	Ms. Lijeng Chen	<ul> <li>Master of Air         Transportation         Management, University         of Hawaii, Travel         Industry Management         School, U.S.A.     </li> <li>Chief Investment</li> <li>Officer, Cathay</li> <li>Securities Investment</li> <li>Trust</li> </ul>	<ul> <li>Corporate     Management</li> <li>Decision     Making</li> <li>Financial     Expertise</li> </ul>

Title	Name	Major Experience	Professional Skill
		Portfolio Manager,     Invesco Global     Technology Fund	
Director	Mr. Rick Shen	<ul> <li>Ph.D. in Electrical         Engineering, National         Tsing Hua University,         Taiwan</li> <li>R&amp;D Principal         Engineer, Taiwan         Semiconductor         Manufacturing         Company Limited</li> </ul>	<ul> <li>Corporate Management</li> <li>Decision Making</li> <li>Industry Knowledge</li> <li>Professional Expertise</li> </ul>

#### **Audit Committee**

The main purpose of Audit Committee is assisting the Board of Directors in performing the supervision on the quality and faith of execution regarding accounting, audit, financial report process and financial control of eMemory. The Audit Committee consists of three independent directors, one as the convener. A total of 5 Audit Committee meetings were held in 2019 with the 100% attendance rate of the independent directors. For further details, please refer to eMemory 2019 Annual Report.

#### **Remuneration Committee**

The Remuneration Committee of eMemory takes charge of assisting the Board of Directors in executing and assessing the entire remuneration and welfare policies of the company, and the remuneration of Directors and managers. The committee members are appointed by the Board, composed by at least one Independent Director. Remuneration Committee meeting is taken place at least twice a year. The details and participation rate of each meeting held in 2019 can be found in the annual report.

#### **Committee Members**

Name	<b>Audit Committee</b>	Remuneration Committee
Mr. Kenneth Kin	✓	✓ (Committee Chair)
Mr. Ming-To Yu	✓ (Committee Chair)	✓
Mr. T.C. Chen	✓	✓

# Communication between Independent Directors, Internal Audit Supervisors and Accountants

eMemory was re-elected at the shareholders meeting on June 9, 2015, and set up an Audit Committee to replace the supervisory authority. The Audit Committee is composed of all Independent Directors. eMemory's Audit Supervisors regularly submit audit reports to Independent Directors for review. Independent Directors can then ask the Audit Supervisors to further explain the content of the report. In addition, the company's Audit Supervisors must have full attendance at each Audit Committee meetings and Board of Directors meetings, and will report the internal control quarterly. This ensures the effectiveness and the tracking of the improvement items can be fully communicated face-to-face with the Audit Committee. When the Audit Committee reviews the quarterly financial statements, the company's accountants will attend all the Audit Committee meetings and report on the reviewed items to ensure effective communication between the audit committee and the accountants.

# **Summary of Previous Communications between Independent Directors, Internal Audit Supervisors and Accountants**

Date	Communication Summary	Communication Result
Oct 23, 2019	<ul> <li>Internal audit on the third quarter of 2019 business execution report, and special topic report</li> <li>Accountants explained and communicated on the review of the consolidated financial statements for the third quarter of 2019, and shared the latest tax and securities regulations</li> </ul>	<ul> <li>Independent Directors have no opinion on the audited business report for the third quarter of 2019</li> <li>The consolidated financial statements for the third quarter of 2019 were reviewed by the Audit Committee and approved by the Board of Directors, and was announced and filed as scheduled</li> </ul>
Jul 30, 2019	<ul> <li>Internal audit on the second quarter of 2019 business execution report, and special topic report</li> <li>Accountants explained and communicated on the review of the consolidated financial</li> </ul>	<ul> <li>Independent Directors have no opinion on the audited business report for the second quarter of 2019</li> <li>The consolidated financial statements for the second quarter of 2019 were reviewed</li> </ul>

Date	Communication Summary	<b>Communication Result</b>
	statements for the second quarter of 2019	by the Audit Committee and approved by the Board of Directors, and was announced and filed as scheduled
Apr 24, 2019	<ul> <li>Internal audit on the first quarter of 2019 business execution report, and special topic report</li> <li>Accountants explained and communicated on the review of the consolidated financial statements for the first quarter of 2019</li> </ul>	<ul> <li>Independent Directors have no opinion on the audited business report for the first quarter of 2019</li> <li>The consolidated financial statements for the first quarter of 2019 were reviewed by the Audit Committee and approved by the Board of Directors, and was announced and filed as scheduled</li> </ul>
Feb 26, 2019	<ul> <li>Internal audit on the fourth quarter of 2018 business execution report, special topic report, and 2018 internal control system self-assessment results report</li> <li>Accountants explained and communicated on the review of the consolidated and unconsolidated financial statements for 2018, and shared the latest tax and securities regulations</li> </ul>	<ul> <li>Independent Directors have no opinion on the audited business report for the first quarter of 2019</li> <li>The consolidated and unconsolidated financial statements for 2018 were reviewed by the Audit Committee and approved by the Board of Directors, and was announced and filed as scheduled</li> </ul>

#### **Internal Audit**

eMemory's Audit Office is an independent unit comprising one full-time dedicated member of staff who reports directly to the Board of Directors. Duties include evaluating the internal control system and improving the integrity, rationality, and effectiveness of management policies. The internal auditor reviews the company's internal tasks and monitors its subsidiaries in accordance with annual plans, which needs to be approved by the Board of

Directors. Besides informing the Board of Directors during its ordinary meetings, it briefs the Board Audit Committee on a quarterly.

The purposes of internal audit are to assist the Board of Directors and managers in reviewing the effectiveness of eMemory's internal controls, operational effectiveness and efficiency, and then to provide recommendations. This guarantees the continuous functioning of the internal control system and generates recommendations as to how to improve said system.

Internal auditing includes investigation and evaluation of internal control standards, as well as assessment of existing policies and procedures, and their effects on operational activities.

#### 4.2 Business Model

eMemory's business model is unique and different from the typical business model of our peers, which revenues are divided into licensing fees and royalties. When eMemory licenses a technology to a foundry partner, we will first collect the technology license fee. At the same time, eMemory will also collect design license fee, either usage fee or NRE, when a complete IP is licensed to the chip design house. When a product application is taped out or mass produced, eMemory will receive the royalty from foundry partner based on the agreed royalty rate.

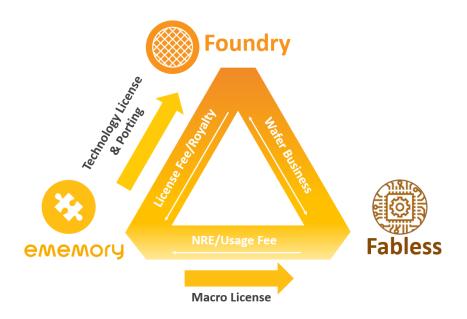


Figure 2: eMemory's Business Model

#### 4.3 Principles of Integrity

#### **Implementation of Integrity Management in 2019**

eMemory engages in commercial activities by basing on the fair, honest, trustworthy, transparent principle, that the "Ethical Corporate Management Practice Principles" had been established and approved by the Board of Directors to make ethical management practicable and prevent form unethical conducts. The President Office is appointed as a dedicated unit which is responsible for establishing the ethical corporate management policies and prevention programs and supervising the implementation and report on the same to the Board of Directors on an annual basis.

- eMemory had established the "Work Rules", stipulating that all employees must be honest
  in their words and deeds, without accepting bribes to prevent employees from damaging
  the company's benefits due to individual interests. In addition, there are also confidential
  communication channels for providing feedback. Employees can fill in the appeal form
  and submit it to the Human Resources unit, who will handle it as soon as possible.
- The recusal for Directors' interest conflict had been provided in the "Rules of Procedure for Board of Directors Meetings", that the Director him/herself or the corporate he/she represents for has a stake in the proposal at the meeting where there is a likelihood that the interests of eMemory would be prejudiced, may state opinions or answer the inquiry but not participate in the discussion or vote on that proposal, shall recuse himself or herself from any discussion and voting, and may not exercise voting rights as proxy on behalf of another director.
- The sales unit and procurement unit of eMemory respectively evaluates customer's credit and manages the quality of supplier's services pursuant to the internal procedures. eMemory also cooperate with customers to sign the Supplier Code of Conduct or Supplier Social Responsibility Commitment and requires major suppliers to sign the "eMemory Supplier Social Responsibility Commitment" in which the requirement of ethical conduct has been provided.
- eMemory had established effective accounting system and internal audit system. The
  financial statements of the Company had been reviewed by the CPAs with audit report.
  Based on the results of assessment of the risk of involvement in unethical conducts under
  internal control operation, the internal auditor devises internal audit plans and performs
  the examination.
- The fulfillment of ethical principle by employees is highly valued during the daily business, that the "Information Environment and Information Safety Propaganda" course is arranged in the new employee's training courses, which emphasize on well preserving and keeping the confidentiality of either tangible information equipment or intangible

information assets to prevent the confidentiality of eMemory from being revealed. The course of "Personal Information Protection Act Propaganda" puts emphasis on the execution of non-disclosure agreement by the personnel who handles personal information to well conform to the confidentiality obligations and not illegally use the personal information. And the course of "Insider Trading Propaganda" which propagates the inhibition of making use of undisclosed information to conduct insider trading and disclose to others. In 2019, the total number of new employees of eMemory who participated in the courses mentioned above are 16, and total in 22.8 hours.

• The whistle-blowing system and related processing procedures had been established in the "Stakeholders Engagement" area on the corporate website, or the whistle-blowing can be made by sending an email to the member of Audit Committee, the whistle-blowing case will be handled by a person appointed by eMemory according to the accused. After receiving the whistleblowing case, according to the matters, eMemory shall appoint a person to accept and investigate the case. The appointed person shall report to eMemory and the whistleblower about handling methods, schedule and result, the whistleblower and appointed person shall keep the investigation and related information confidential, that it shall not be disclosed, and eMemory shall protect the whistleblower from revenge or other improper treatment. The involved person who fails to keep the confidentiality and causes the confidentiality revealed shall be disciplined pursuant to the related rules.

In summary, eMemory has formulated the "Ethical Corporate Management Practice Principles" and disclosed it on the company's website and Market Observation Post System (MOPS). Through internal training courses, all personnel can clearly understand the company's integrity management and related policies. Therefore, under the provisions of the "Ethical Corporate Management Practice Principles" that clearly regulates and prohibits various business activities, the company did not find directly or indirectly providing, receiving, promising or requesting any improper benefits, engaging in other violations of integrity, acts that are illegal or violate fiduciary duties.

#### **4.4 Business Performance**

#### Revenue, Operating Income, and Return on Equity (ROE)

The overall revenue of 2019 is NT\$1,410.09 million, while the operating profit is NT\$ 621.32 million and the ROE is 31.6%.

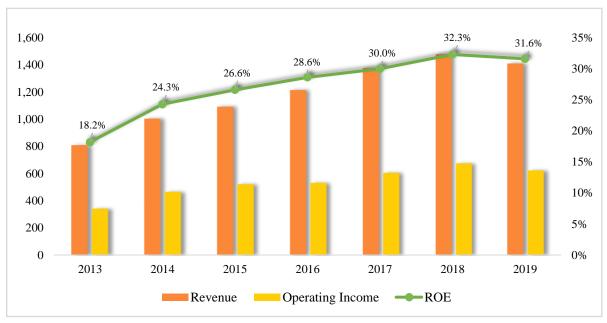


Figure 3: Revenue, operating income, and ROE from 2013 to 2019 (unit: NT\$ million)

#### Earnings per Share (EPS), and Dividends

The EPS is NT\$7.30 in 2019 and the dividend is NT\$7.00.

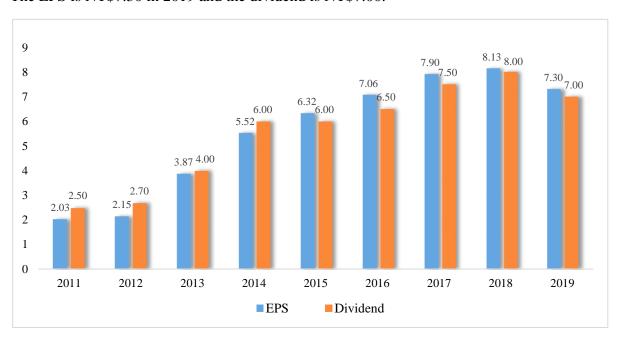


Figure 4: EPS, and dividends from 2011 to 2019 (unit: NT\$)

#### **Net Worth per Share**

Our net worth per share in 2019 is NT\$22.92, which is 1.9% lower than 2018.

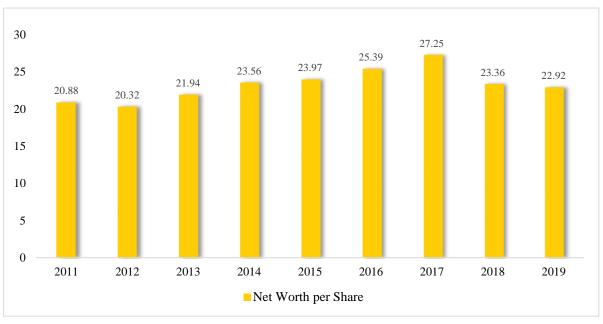


Figure 5: Net worth per share from 2011 to 2019 (unit: NT\$)

#### **Year End Market Capitalization**

The total market capitalization at the end of 2019 was NT\$27,035 million, an increase of 36.1% compared to 2018.



Figure 6: Year-end market capitalization from 2011 to 2019 (unit: NT\$ million)

#### **Corporate Governance Awards**

eMemory is committed to establishing effective communication channels to provide clear information disclosure for shareholders. Our information transparency is widely recognized and is ranked among the top in the industry. We have been selected as a constituent for Taiwan's Taipei Exchange (TPEx) Corporate Governance Index, the TPEx 50 Index, the TPEx 200 Index and the TPEx Compensation Index. eMemory is ranked Top 5% in the Corporate Governance Evaluation of Public Companies conducted by R.O.C Securities & Future Institute.

#### **Awards and Recognitions**

eMemory's outstanding technical support, customer service and continued innovation have been widely recognized by customers worldwide and received many awards. eMemory has received the IP Partner Award from the world's biggest foundry, TSMC, for years in honor of our achievements in silicon IP development. In addition, we have also won the IP Partner Award from foundry SMIC several times for our accomplishments. For more details, please refer to <a href="Corporate Milestones">Corporate Milestones</a> on our website.

#### **Customer Satisfaction**

eMemory is committed to providing comprehensive technical support, design, and customer service. Over the years, our work has been recognized by customers around the world.

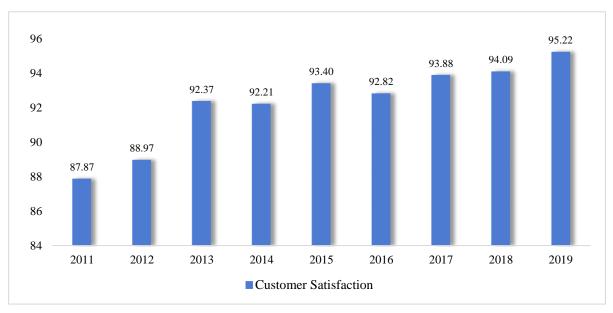


Figure 7: Customer satisfaction from 2011 to 2019 (unit: score)

The major business of eMemory is silicon IP licensing, that labeling will not be applicable for the products are intangible; the marketing of goods and services of eMemory conforms to the requirements of relevant regulations and international standards. Besides, eMemory insists on the spirit of "Best Quality and Best Services bring Satisfied Customers" and focuses on product quality to reach the main goal of increasing the customer's satisfaction, provides customers with safe, reliable and high quality products, and maintain good communication channel with customers by providing transparent and effective complaint handling procedures for products and services. In addition, the customer satisfaction survey is conducted every year, eMemory deserves recognition from customers for years, and the average score of 2019 is 95.22.

#### 4.5 Stakeholder Engagement

#### **Materiality Identification & Stakeholder Communication**

Stakeholders	Importance	Communication Channel	Frequency	Issues	Results
Employees	Employees are the most important asset of eMemory. With continuous innovation and efforts in IP design, eMemory has become a global technology leader.	<ul> <li>Performance         assessment</li> <li>Feedback         mailbox</li> <li>Quarterly         employee         meeting</li> </ul>	<ul><li>Semi- annually</li><li>24/7</li><li>Quarterly</li></ul>	Ethics and regulatory compliance     Talent attraction and retention     Talent cultivation and development	<ul> <li>Performance         assessment/         two times</li> <li>Quarterly         employee         meetings</li> <li>Employee         training 8076         hours</li> </ul>
Shareholders and Investors	Shareholders and investors are the driving force behind eMemory. Through capital investment and participation in corporate governance, our	<ul> <li>Annual general shareholders' meeting</li> <li>Investor conferences</li> </ul>	Annually     Quarterly	Corporate governance  Ethics and regulatory compliance  Customers and services  Technology development	<ul> <li>Annual general shareholders' meeting</li> <li>Investor conferences</li> <li>Attended 9 investor conference by</li> </ul>

Stakeholders	Importance	Communication Channel	Frequency	Issues	Results
Customers	shareholders and investors help us go further on the road of sustainable development.  Customers are our best strategic partners.  Adhering the customeroriented spirit, eMemory develops various IPs and provides professional services in order to assist our customers in successful product	• Designated customer service team • Customer complaint channels • Customer satisfaction survey	<ul><li>Daily</li><li>Monthly</li><li>Annually</li></ul>	Financial performance      Technology innovation     Customer service     Brand value     Information confidentiality	other corporations  The average customer satisfaction score was 95.22 out of 100 in 2019.
Suppliers	development.  Suppliers are eMemory's crucial partners, providing us with excellent products and support. Because of the close collaboration with our suppliers, our IPs are able to be	Supplier audit	Annually	Supply chain sustainability management	Thirty supplier checking list were distributed to the suppliers for management purpose.

Stakeholders	Importance	Communication Channel	Frequency	Issues	Results
	tested and pass various verification tests on schedule.				aMamary was
Government	The government is the bridge for eMemory to enter the stock exchange market. Investors around the world are able to learn about us through the platforms built by the government.	<ul><li>MOPS</li><li>Conferences</li></ul>	<ul><li>Any time</li><li>Aperiodically</li></ul>	<ul> <li>Regulatory compliance</li> <li>Corporate governance</li> <li>Corporate social responsibility</li> <li>Ethics and business integrity</li> </ul>	eMemory was ranked as top 5% in the corporate governance evaluation system, as well as selected as "TPEx Corporate Governance Index", "TPEx 50 Index", and "TPEx Compensation Index" constituents.

#### 5. Human Resources

Employees are eMemory's most valued assets, as well as our powerhouse to keep us moving forward. Thus, we devote to creating the best working environment and supporting our employees in every way possible to maintain work-life balance.

#### **5.1 Human Resources**

In 2019, the total number of employees was 267 with 68.2% of males and 31.8% of females. Given the characteristics of semiconductor industry in Taiwan, the percentage of male employees tends to be higher than female employees.

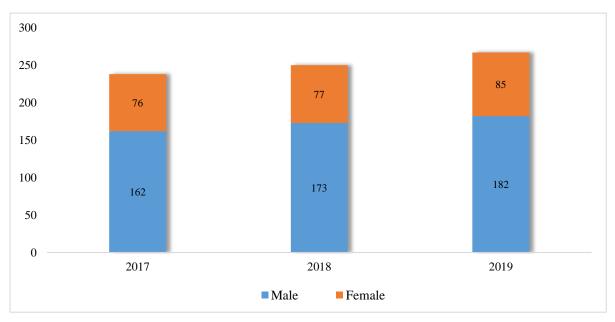


Figure 8: Total number of employees from 2017 to 2019

Our workforce's age composition consisted of 46.1% of the employees aged between 31 to 40 years old, followed by 31.5% aged 41 to 50 years old, 18.7% aged between 21 to 30, and 3.7% above 50 years old.

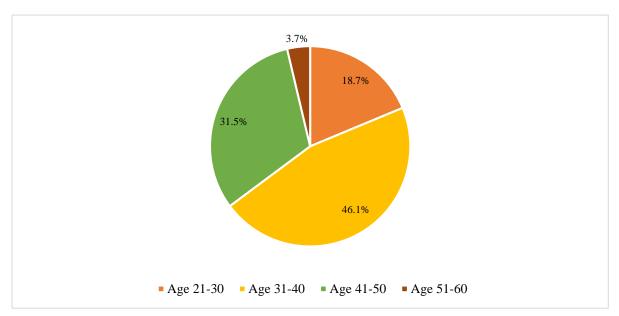


Figure 9: Employees' age distribution in 2019 (unit: percentage)

In terms of job function, eMemory has 68.9% of research and development (R&D) personnel, 18% of administrative personnel, and 13.1% of sales and marketing personnel.

Almost all employees have received higher education. About 64% have their Master's degrees, followed by 31.8% with Bachelor's degrees and 3.8% with Doctoral degrees.

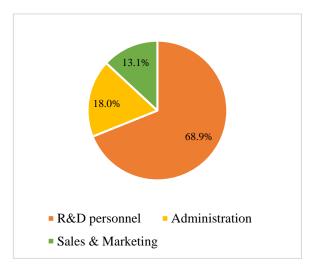


Figure 10: Employees' job title in 2019 (unit: percentage)

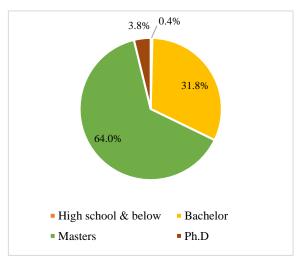


Figure 11: Employees' education level in 2019 (unit: percentage)

The turnover rate has been lower than 6.5% for the past 3 years, which is a lot lower than the average in the industry. We also recruit excellent talents with different backgrounds to further enhance the company's growth in the long run.

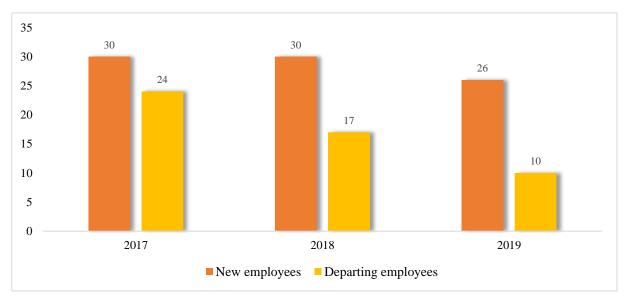


Figure 12: Number of new employees and departing employees in 2019

#### 5.2 Learning and Development

eMemory provides every employee equal opportunity for comprehensive training by means of on-the-job training, a diverse range of professional training programs, e-learning systems, and lectures by guest speakers. In addition to enhancing professional knowledge, these programs also enable the exchange of new ideas. Total staff training time reached 8,076 hours in 2019, which in part reflects the enthusiasm of our staff.

Items	Number of Courses	Total Participants	Total Hours
New Employee Training	2	21	246
Vocational Training	158	2,220	6,273
Supervisor Training	3	24	103
General Training	5	124	1,454
<b>Total Amounts</b>	168	2,389	8,076

#### **Knowledge Sharing and Diversified Learning Courses**

eMemory spares no effort in the cultivation and development of talents. In 2019, we invested more than NT\$1 million to provide complete and diverse training opportunities for every

employees. Every Wednesday is the eMemory's Learning Day, as there will regular training and seminar. Through the internal lecturer system, with external expert lectures and guest speakers, we continue to promote the development of talents and the inheritance of professional knowledge. eMemory also encourages self-improvement among employees. Employees can take language courses, such as TOEIC basic classes and advanced classes, English Presentation Workshops, and Advanced English Conversation classes.

#### **Comprehensive Training and Innovation**

Talent is the seed for growth. Thus, eMemory encourages employees' self-learning and achievements. Our unique training programs enable every employee to cultivate their talent and share professional knowledge. There is also annual awards to honor outstanding performance and contributions to patent invention.

#### **Career Development**

eMemory's innovative R&D thrives on having different ideas and voices working towards the same goals. Employees' career development is important to us because it drives us forward.

Our dual-track promotions system optimizes both organizational needs and the talents of individual employees. Each employee is free to focus on professional technique or managerial skills—either way, eMemory offers employees the opportunity to find their own area of expertise. At eMemory, we ensure comprehensive career development because we want to have the right people in the right places.

#### **5.3** Compensation and Benefits

It is definitely provided for in the Articles of Incorporation that if there is any pre-tax profit, 1% to 25% of the profit shall be distributed to eligible employees for profit sharing. Based on the ideas of human-based management and profit sharing with employees, and also taking account of the external competitiveness, internal fairness and legality, the "Salary Management Rule" is established, which provides various and competitive salary, welfare and reward programs. In addition to the fixed bonus paid for the three traditional festivals, the annual target will be set each year, and the seasonal bonus or performance bonus, project bonus and compensations (bonus) will be distributed to employees to encourage them according to the business operation performance and the status of completion of the target reviewed each season. The employee promotion is processed according to the "Rules for

Performance Management", two assessments are performed each year which will be the basis for the salary adjustment, promotion, and bonus.

eMemory concerns the balance of employees' work and life, except providing the competitive salary, the leaves and activities are offered under the conditions better than those required by laws. The subsidy for daily afternoon tea is granted; there are society activities every week; birthday parties are held by the Welfare Committee each quarter. The travel subsidy is provided as well as the family day and year-end party are held each year. In addition to the leaves stipulated in the Labor Standards Act, eMemory grants 7 days of special leaves and birthday leave. Under certain requirements, 7 days of full-pay sick leaves will be given which are better than those provided by laws.

eMemory is dedicated in the topics of securing labor health and working environment by periodically implementing safety and health education and holding "Fire Safety Seminar" propaganda courses pursuant to the occupational safety and health relevant laws and regulations. And by providing specific parking spaces or transportation allowances, nursery room, full time security system, multifunction rest area etc. the employees can enjoy a comfortable and healthy environment. We believe that the most fortune of eMemory shall be the healthy employees, we provide full allowances for fitness and hold health check periodically, and the nursing personnel on-site services are available at eMemory to manage the health of employees and provide health consulting services.

Categories	Items	
Compensation and welfare	<ul> <li>Complete salary and retirement system</li> <li>Compensation and reward system</li> <li>Group insurance for employees and dependents</li> <li>Workplace safety</li> </ul>	
	Protection of human rights policy	
Career	Appropriate promotion	
Food	<ul> <li>Free fruits, snacks and drinks</li> <li>Fresh afternoon tea snack</li> <li>Overtime meal allowance</li> </ul>	
Health	<ul> <li>Seven full-pay sick leave per year</li> <li>Free regular health check</li> <li>Sports and fitness subsidies</li> <li>Regular on-site medical consultation services</li> <li>Staff rest areas</li> <li>Cross-unit sports competition</li> </ul>	

Categories	Items	
	Indoor and outdoor societies and activities	
Transportation	Full subsidies for employee parking space and transportation	
Transportation	allowance	
	New employee training	
	On-the-job training (internal and external training)	
Education and	Lectures by external experts	
	Guest seminars	
training	Cross-field R&D expertise training	
	Supervisor training	
	e-education and training system	
	<ul> <li>Festive bonuses, vouchers, and gifts</li> </ul>	
	Parking space for pregnant women, dedicated nursing room	
Holidays and	Exclusive birthday leave	
entertainment	High subsidies for domestic and overseas travel, family days,	
	and quarterly birthday parties	
	Club subsidies	

eMemory provides a variety of welfare subsidies to allow employees to focus on their careers and have better welfare care. The welfare provided by eMemory can be divided into the following three categories.

#### 6. Sustainable Development

#### **6.1 Supply Chain Management**

eMemory established "eMemory Supplier Code of Conduct" to require the supply chain vendors for being qualified with the requirements of safe working environment, that their employees shall be respected with dignity, facilitating environment protection in business operation and complying with ethics. Except requiring the suppliers for following the code of conduct, the major suppliers are also required for signing the "eMemory Supplier Social Responsibility Commitment" and complying with the local laws and regulations implemented in the place their businesses are operated.

Meanwhile, the suppliers are also encouraged to require their downstream suppliers, contractors and service providers for recognizing and adopting the "eMemory Supplier Code of Conduct". The suppliers will be required for performing the self-examination pursuant to the "Supplier Checking List" annually by eMemory, where five domains: labor, health and safety, environment protection, ethics and management system, are included in the content. The suppliers are required for complying with the regulations related to the subjects of environment protection, health and safety etc.

There were 30 "Supplier Checking List" distributed to the suppliers in 2019, and all checking list forms were received after the suppliers filled in them. The Quality Management & Process Integration Department reviewed the collected checking list forms and made them as a basis for supplier management. On-site audits will be conducted by the Quality Management & Process Integration Department when necessary to ensure that the suppliers comply with corporate social responsibility.

#### 6.2 Risk Management

eMemory conducts risk assessments on important issues in accordance with the materiality principle of social responsibility. Based on the assessed risks, related risk management strategy and measures are established as follows:

Issues	<b>Assessment Items</b>	Risk Management Strategy and Action
Issues	Environmental protection and ecological conservation	eMemory is devoted to environmental protection, energy conservation, and carbon reduction and water resource protection. For example, timers are configured on the air conditioners, and water savers are installed on faucets. Employees are encouraged to switch off lights when leaving a room, practice paperless operation, and save water. In addition, we conduct regular annual greenhouse gas and water consumption inspections with the goal of gradually reducing carbon dioxide emissions and water consumption.  eMemory is a professional silicon intellectual property (IP) company. We do not engage in the manufacturing of tangible products. Thus, there is no industrial waste being produced. For general waste, a contract with legal cleaning service company is signed to perform daily cleaning and
	Climate change	waste recycling.  eMemory has evaluated that climate change may cause disaster risks, market risks, and operation risks. To minimize the impact of increasing operation costs caused by potential risks, eMemory alters the green environmental protection from duties to opportunities by implementing component reduced product design which substitutes the complex manufacturing process required by the conventional non-volatile memory, and reduces the emission of carbon dioxide. Through innovation in strategy, marketing, management, research and development, and other aspects, eMemory keeps evolving for practicing sustainability.

Issues	Assessment Items	Risk Management Strategy and Action
Social	Working environment safety	eMemory is committed to maintaining labor health and working environment related issues. In accordance with occupational safety and health related laws and regulations, safety and health education and "Fire Safety Seminar" are held periodically. Parking lots are assigned for employees depending on personal needs. Transportation allowances are also provided for non-car-drivers. The security system is activated 24/7 for the building. Nursing room and multifunctional rest areas are also available for the employees. We believe that the most fortune of the Company shall be the healthy employees, we provide full exercise allowances for fitness and hold health examination periodically, and the nursing personnel on-site services are available in the Company to manage the health of employees and provide health consulting services. Employees at eMemory are also encouraged to join the gym membership on campus with full compensation. On-site health consulting services and annual physical are provided for our employees.
	Product safety	eMemory follows the spirit of "Best Product Quality and Best Services bring Satisfied Customers." Dedicating to maintain customer satisfaction, we focus on product quality and provide customers with safe, reliable and high quality products. eMemory also maintain communication transparency by providing various communication channels for the customers to solve problems more efficiently. Each year, a customer satisfaction survey is delivered to our customers. In 2019, eMemory scored an average of 95.22 out of 100.
Governance	Social economics and compliance	By establishing corporate governance organization and implementing internal audit mechanisms, eMemory ensures that all personnel and operations of the company comply with relevant laws and regulation.

#### **6.3 Environmental Management**

Environmental protection is one of the most important parts of corporate social responsibility. Although the main business of eMemory is authorizing pollution-free silicon intellectual properties, eMemory adheres to the sustainable management policy of environmental protection and resource reuse.

#### **Green Product Development**

With advances in semiconductor manufacturing processes and the increasing complexity of IC design, silicon IP can now be used to enhance the efficiency of the IC design process and shorten development time. eMemory supports sustainability by continuing to develop advanced semiconductor process technologies that support customers' designs and thereby produce the most advanced, energy-saving and environmentally friendly products.

#### **Environmental Protection Policy**

eMemory is a professional silicon intellectual property (IP) company. We do not engage in the manufacturing of tangible products. Thus, there is no industrial waste being produced. For general waste, a contract with legal cleaning service company is signed to perform daily cleaning and waste recycling.

eMemory is devoted to environmental protection, energy conservation, and carbon reduction and water resource protection. For example, timers are configured on the air conditioners, and water savers are installed on faucets. Employees are encouraged to switch off lights when leaving a room, practice paperless operation, and save water. In addition, we conduct regular annual greenhouse gas and water consumption inspections with the goal of gradually reducing carbon dioxide emissions and water consumption.

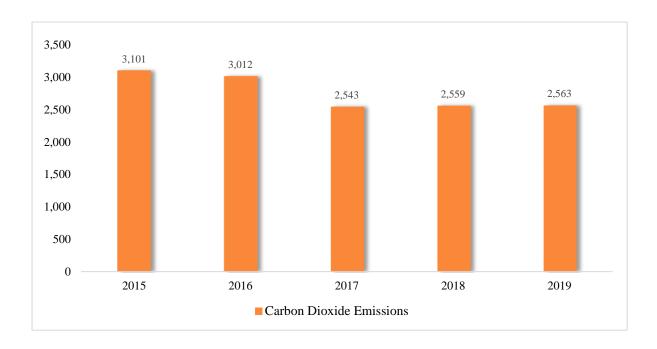


Figure 13: 2015 to 2019 carbon dioxide emissions per person (Unit:kg/person)

In 2019, the averaged emission of carbon dioxide per person was 2,563 kg, which is similar to 2,559 kg in 2018. The emission of carbon dioxide is expected to reach 2,500 kg per person after 3 years. The averaged water consumption for each person is 15.6 kWh in 2019, which is almost equivalent to 15.2 kWh in 2018. It is expected that the water consumption will reach 13 kWh per person after 3 years.

#### 7. Social Participation

#### **Education – A Step UP**

Education is the steppingstone to a brighter future. eMemory has not only provided professional courses and educational events for our own employees, but also developed long-term partnerships with universities and NGOs in order to share our experience and inspire young people to pursue their potential. We are a long-term partner of National Tsing-Hua University (NTHU) in Hsinchu, Taiwan. eMemory provides various assistance for talented young people, including scholarships, summer internships and more.

In addition, eMemory works with NGOs, donating computers and accessories to schools in remote areas to help upgrade their facilities. eMemory also sponsors the educational NGO "Teach For Taiwan" to enhance elementary education environment in Taiwan.

#### **Knowledge Sharing**

To share eMemory's wealth of practical experience and development with industry and academia, eMemory has published the first logic NVM book by an IP provider, LOGIC NON-VOLATILE MEMORY—The NVM Solutions from eMemory. We have offered copies of the book to schools, businesses and universities in order to promote professional education and advanced research in Logic NVM, laying out a long-term foundation for future development in embedded non-volatile memory technology.

#### **Donation**

eMemory is active in community work and charitable contributions because we believe in giving back to society. Helping others is also an excellent way to encourage bonding between employees and to stimulate team spirit. At the same time, we maintain long-term partnerships with "Teach For Taiwan (TFT)", a non-profit organization which devote to helping students living in the rural area to receive better education.

In 2019, eMemory worked with several organizations, including World Vision Taiwan-Hsinchu branch, Hsinchu I-Link Community Care Association, and World Peace Organization-Hsinchu branch and local spinal cord injury rehabilitation center, and donated computers and accessories, school supplies and Christmas gifts. We also offered scholarships and sponsorships to NTHU for encouraging academic research and cultivating young talents.

## **Timeline of Social Participation**

Year	Activities		
	Scholarship for NTHU		
2013	Donation for St. Joseph Home		
	Computer and other equipment donation for Chenggong Junior		
	High School, Chubei Elementary School and Liujia Elementary		
	School		
2014	Scholarship for NTHU		
	Sponsorship for Teach For Taiwan		
	Donation for Taiwan Association for Happy Breathing Children		
	Scholarship for NTHU		
2015	Sponsorship for Teach For Taiwan		
	Donation for Sunshine Social Welfare Foundation		
2016	Scholarship for NTHU		
	Scholarship for NCTU		
	Sponsorship for Teach For Taiwan		
	Stationery donation for Catholic Church – Hsinchu Diocese, Teresa		
	Children Center		
	Fundraising for Spinal Cord Injury Rehabilitation Center		
	Scholarship for NTHU		
2017	Sponsorship for Teach For Taiwan		
2017	Christmas fundraising for Spinal Cord Injury Rehabilitation Center		
	Stationery donation for Hsinchu Renai Children;s Home		
	Scholarship for NTHU		
	Scholarship for NCTU		
	Donation for World Vision Taiwan for earthquake in Hualien		
2018	Computer donation for Teach For Taiwan		
2010	Computer donation for Taiwan Fund for Children and Families		
	Christmas fundraising for Spinal Cord Injury Rehabilitation Center		
	• Stationery donation for Hsinchu I-Link Community Care		
	Association		
	Scholarship for NTHU		
	Computer donation for World Vision – Hsinchu		
2019	Computer donation for World Peace – Hsinchu		
	Christmas fundraising for Spinal Cord Injury Rehabilitation Center		
	Stationery donation for Hsinchu I-Link Community Care		
	Association		

# 8. Appendix

### **GRI Standards Index**

GRI Standards	Disclosure	Chapter
102-1	Name of the organization	2
102-2	Activities, brands, products, and services	3.1
102-3	Location of headquarters	2
102-4	Location of operation	2
102-5	Ownership and legal form	2
102-6	Markets served	3.1
		3.2
102-7	Scale of approximation	3.3
102-7	Scale of organization	4.1
		5.1
102-8	Information on employees and other workers	5.1
102-9	Supply chain	6.1
102-11	Precautionary principle or approach	6.2
102-12	External initiatives	3.1
102-13	Membership of associations	3.1
102-14	Statement from senior decision-maker	1
102-15	Key impacts, risks, and opportunities	6.2
102-16	Values, principles, standards, and norms of	3.1
102-10	behavior	4.3
102-18	Governance structure	3.3
102-18	Governance structure	4.1
102-40	List of stakeholder groups	4.5
102-42	Identifying and selecting stakeholders	4.5
102-43	Approach to stakeholder engagement	4.5
102-44	Key topics and concerns raised	4.5
102-45	Entities included in the consolidated financial	2
102-43	statements	4.4
102-46	Defining report content and topic boundaries	2
102-47	List of material topics	4.5
102-48	Restatements of information	2
102-49	Changes in reporting	2
102-50	Reporting period	2

GRI Standards	Disclosure	Chapter	
102-51	Date of most recent report	2	
102-52	Reporting cycle	2	
102-53	Contact point for questions regarding the report	2	
102-54	Claims of reporting in accordance with the GRI	2	
	Standards	2	
102-55	GRI content index	8	
103-1	Explanation of the material topic and its boundary	4	
103-2	The management approach and its components	4	
103-3	Evaluation of the management approach	4	



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