

COMMONWEALTH OF PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Public Investment Memorandum

Summit Partners Growth Equity Fund X, L.P.

Private Equity Fund Commitment

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December 19, 2018

Recommendation:

Staff, together with Hamilton Lane Advisors, L.L.C. ("Hamilton Lane"), recommends to the Board a commitment of up to \$150 million to Summit Partners Growth Equity Fund X, L.P. ("Summit Growth Equity X" or the "Fund").

Summit Partners, L.P. ("Summit" or the "Firm") is forming the Fund to continue its long history of investing in U.S. growth equity opportunities which spans nine U.S. growth equity funds with aggregate committed capital of \$13.6 billion.

Firm Overview:

Summit Partners, L.P. is a global alternative investment firm managing investment vehicles focused primarily on growth companies. The Firm was founded in 1984 with a commitment to partner with exceptional entrepreneurs and management teams, providing capital and strategic support to help them achieve their growth objectives. Since inception, Summit has raised and managed more than \$22 billion in capital dedicated to growth equity, fixed income, and public equity strategies, including 15 growth equity and venture capital funds with combined committed capital of approximately \$17.4 billion and eight fixed income funds with combined committed capital of approximately \$4.1 billion. Over the last three decades, Summit has invested in more than 475 companies in technology, healthcare and life sciences, and other growth industries — including more than 430 companies from the U.S. growth equity, venture capital and Europe growth equity funds. These companies have completed more than 140 public equity offerings, and more than 190 have been acquired by strategic or financial buyers. Summit's investment team operates as an integrated unit across the Firm's Boston, Menlo Park, London, and Luxembourg offices.

Fund Size & Commitment:

Summit Growth Equity X is seeking equity commitments of \$4 billion. PSERS investment staff believe the Fund will be oversubscribed and total commitments will likely be between \$4.5 - \$5 billion.

Investment Strategy:

Since the Firm's inception in 1984, Summit's growth equity investment strategy has been grounded in a fundamental belief that profitable growth is the most reliable producer of superior risk-adjusted returns across market cycles. The Firm seeks to invest in privately-held companies at an inflection point in their evolution. Target companies are typically category-leaders with proven business models, a history of rapid growth and free cash flow generation, attractive unit-level economics and leadership capable of sustaining that growth. These companies are typically, but not always, profitable at the time of investment, often founder-led, and frequently have strong recurring revenue business models and growth rates significantly in excess of their industry peers. The Summit growth equity team seeks to identify and partner with companies exhibiting these characteristics within three primary sectors: technology, healthcare and life sciences, and growth products and services, which includes business services, financial services, consumer, industrial technology and other growth industries. In many cases, these high-growth, category-leading companies are not actively seeking capital, and it is only through consistent senior-level engagement, demonstration of the Firm's deep sector expertise and domain knowledge, an aligned approach to partnership, a tangible ability to enhance value post-closing, and the strength of the Summit brand, that the Firm's growth equity team is able to create equity investment opportunities in these companies. The Partnership expects to focus primarily on investment opportunities in companies based in the United States.

Investment Team:

Summit possesses an experienced and tenured team, many of whom have spent all or the vast majority of their career working on this strategy.

Name	Role	Investment Team	Yrs. Experience @ Firm / Total	Prior Experience		
Darren Black	Managing Director	Healthcare & Life Sciences	5/15	SV Life Sciences Entrepreneur		
John Carroll	Managing Director	Growth Products & Services	24/24			
Peter Chung	Managing Director & CEO	Technology	25/28	Goldman Sachs		
Scott Collins	Managing Director & COO	Technology	23/23	McKinsey & Co.		
Christopher Dean	Managing Director	Growth Products & Services	18/19	Morgan Stanley J.H. Whitney & Co. Sun Microsystems		
Leonard Ferrington	Managing Director	Technology	12/15	Celerity PartnersBaxter Healthcare		
Craig Frances, M.D.	Managing Director	Healthcare & Life Sciences	16/17	Entrepreneur Practicing M.D.		
Matthew Hamilton	Managing Director	Growth Products & Services	14/14			
Jay Pauley	Managing Director	Growth Products & Services	9/16	GTCR Apax Partners GE Capital		
Peter Rottier	Managing Director	Technology	13/14	KSL Capital Partners Stone Arch Capital RBC Capital Markets		
Peter Francis	Principal	Healthcare & Life Sciences	7/7	Jeffries & Co. UBS		
Ross Stern	Principal	Healthcare & Life Sciences	8/8	Center for Medicare and Medicaid Innovation Cowen & Company		

Market Opportunity:

Summit's abiding belief is that profitable growth is the most reliable producer of superior risk-adjusted returns across market cycles. The Firm's focus has been and will continue to be on companies reaching an inflection point in their growth cycle. Summit Growth Equity X will make investments between \$75 million and \$300 million in three target sectors - technology, healthcare & life sciences, and growth products & services. This sector focus has allowed Summit to leverage its long history and extensive industry relationships to recognize emerging growth trends early and employ a thematic approach to identify and engage leading companies within these sectors through an extremely proactive outreach program.

Technology: Total IT spend in North America passed \$1 trillion in 2017 and is expected to grow at an annual rate of 4.0% through 2020. Software continues to be the fastest-growing segment of total IT spend (~10%), which is fueled by even faster growth in cloud computing, security and mobility. Strategic M&A activity also remains strong across the sector, but has deteriorated relative to prior years. Select investment themes Summit is pursuing include, but are not limited to: the rise of vertical-specific technology solutions; evolving labor market driving demand for human capital management (HCM) solutions; solutions that address increasing complexity and cost in global supply chains; continued prevalence of cyber threats; communications technology companies targeting the hyperscale cloud market; applications that manage enterprise risk and compliance; connected devices and the Internet of Things (IoT); and the emergence of the 5G network.

Healthcare & Life Sciences: The U.S. healthcare market is large and growing with spending now exceeding \$3 trillion per year and growth rates expected to accelerate through 2024. While asset prices in healthcare remain elevated across almost all subsectors, Summit continues to leverage its deep sector expertise to identify and capitalize on key themes within the industry. Select investment themes within healthcare & life sciences include: integrated, coordinated provider organizations; consumer-driven healthcare; research-focused life sciences companies; proactive management providers with low reimbursement risk; and healthcare technology companies serving provider-focused trends. Summit believes that these themes are supported by meaningful market trends, including the increased burden of healthcare spend on consumers (e.g. via high deductible plans); ongoing risk-based contracting between payers and providers and the related trend towards value based reimbursement (versus fee for service); continued consolidation in the provider space and ceiling in payer space; important innovations in life sciences industry, including major breakthroughs such as CRISPR (gene editing) technology and immunotherapy.

Growth Products & Services: Summit's Growth Products & Services (GPS) team is focused on identifying investment opportunities in financial services, business services, consumer, industrial technology and other growth industries. Typically, these companies leverage technology, information and value-added service models to drive deep relationships with both B2B and B2C customers. In the current market environment, Summit continues to believe that these business models result in predictable, high-quality revenue streams with high gross margins and strong free cash flow. Both strategic and sponsor interest remains high across the GPS coverage areas but Summit's focus on thematic investing allows the team to identify unique investment themes early in their life cycle and to build relationships with best-in-class businesses that are capitalizing on these themes. Select investment themes within Summit's GPS landscape include: the power of social media in shaping consumer decisions; infrastructure providers to e-commerce brands; non-risk bearing insurance brokerage; payment security technologies; and tech-enabled high-value recurring product and service offerings.

Summit's investment universe is not limited solely to the areas mentioned above. The team continues to seek and identify new sub-sectors and themes that provide attractive growth opportunities. Of greater importance than any specific sector or theme is the repeatable process which Summit has designed, and refined over time, to source, structure, enhance, and exit investments in category-leading companies.

Investment Highlights:

- Experienced team with successful sector focus
- Proven deal sourcing machine
- Value enhancement through specialized, dedicated teams
- Thoughtful deal structures and terms

Investment/Risk Considerations:

- Growth equity transactions
- Highly competitive market for investment opportunities
- Growing fund and investment sizes

PSERS History & Performance:

This will be PSERS fifth commitment to a Summit Partners equity fund and third to this strategy. PSERS prior fund investment history is listed on the table that follows:

Investment					Transactions Valuat		Valuation	Performance			Benchmarking				
	Investment	Vintage	1 Age (Years)	Commitment	2 Measurement Date	Cumulative Contributions	Cumulative Distributions	Valuation	IRR	TVPI	DPI	RVPI	Index Set Name	GGS ³ Direct Alpha	KS PME
Ve	Venture Capital														
1	Summit Partners Growth Equity Fund IX, L.P.	2017	1.21	100,000,000	6/30/2018	39,100,000	9,973,626	36,953,860	50.76	1.20	0.26	0.95	Nasdaq US Smal	23.37	1.09
2	Summit Partners Growth Equity Fund VIII, L.P.	2012	6.05	100,000,000	6/30/2018	106,235,469	122,922,000	77,563,669	24.78	1.89	1.16	0.73	Nasdaq US Smal	10.77	1.34
3	Summit Partners Venture Capital Fund III, L.P.	2012	6.01	25,000,000	6/30/2018	25,000,000	22,865,560	25,000,990	18.38	1.91	0.91	1.00	Nasdaq US Smal	5.19	1.22
4	Summit Partners Venture Capital Fund IV, L.P.	2015	2.10	50,000,000	6/30/2018	23,706,575	7,050,895	25,216,235	33.61	1.36	0.30	1.06	Nasdaq US Smal	12.83	1.14
Tot	al: Venture Capital			275,000,000	6/30/2018	194,042,044	162,812,081	164,734,754	24.07	1.69	0.84	0.85	Nasdaq US Smc	9.78	1.26
Tot	al Investments: 4			275,000,000	6/30/2018	194,042,044	162,812,081	164,734,754	24.07	1.69	0.84	0.85	Nasdaq US Sma	9.78	1.26

¹ For non-liquidated investments, Age is computed as Measurement Date minus earliest funding transaction date. If a funding or valuation does not exist then age is N/A. For investments liquidated prior to the Report End Date, Age is computed as Liquidation Date

The NASDAQ US Small Cap Index includes securities with a market capitalization which places them in the bottom 10% of the market capitalization of all securities in the NASDAQ US Benchmark Index.

Portfolio Fit:

A commitment to Summit Growth Equity X will give PSERS' Private Markets portfolio, specifically in the growth equity space, exposure to high growth tech, healthcare, and growth products and services companies with a manager that has historically provided attractive alpha relative to public markets. A commitment to the Fund will be allocated to the Private Equity sleeve of PSERS' Private Markets portfolio. The table below summarizes PSERS Private Equity exposure as of June 30, 2018 (in millions):

Investment Type	Active Commitments ¹	%	Market Value	%	Unfunded ¹	%	Total Exposure ¹	%
Private Equity	\$ 15,775.2	67.3%	\$ 5,077.5	64.8%	\$ 3,764.6	73.6%	\$ 9,285.5	68.5%
Special Situations	4,231.5	18.2%	1,187.8	15.1%	709.0	13.9%	2,040.9	15.1%
Venture Capital	2,791.9	12.0%	1,004.5	12.8%	538.5	10.5%	1,570.9	11.6%
PE Internal	602.5	2.6%	564.7	7.2%	102.0	2.0%	654.4	4.8%
Total	\$ 23,401.1	100.0%	\$ 7,834.6	100.0%	\$ 5,114.1	100.0%	\$ 13,551.7	100.0%

Investment Committee Disclosure:

Relationship with Hamilton Lane:	Hamilton Lane serves as consultant for several existing investors in Summit funds.
Placement Agent:	There is no placement agent associated with or compensated for PSERS investment.
T lacomone / igonii	Monument has been engaged on a limited basis in connection with specific prospective investors in Korea.
Source:	Existing investment relationship
PA Political Contributions:	None
PA Presence:	Yes, several portfolio companies
Conflicts:	None Disclosed
History with PSERS:	Yes, 4 private equity funds (please see "PSERS History & Performance" for details) and 1 private credit fund
PSERS AIC Meeting Approval:	December 19, 2018

² for each investment, Measurement Date corresponds to the date of the most recent valuation relative to Report End Date. For pooled results, Measurement Date represents the most recent valuation date among the pool. All results are calculated as of specifier.

³ GGS Direct Alpha is the Gredil, Griffiths, and Stucke Direct Alph

⁴KS PME is the Kaplan and Schoar Public Market Equivalent.

Oversight Responsibility:

	Charles J. Spiller	Deputy CIO, Non-Traditional Investments
Investment Office:	Darren C. Foreman	Senior Manager, Private Markets
	Patrick G. Knapp	Senior Analyst, Private Markets
External Consultant:	Hamilton Lane	



December 19, 2018

Board of Trustees Commonwealth of Pennsylvania Public School Employees' Retirement System 5 North 5th Street Harrisburg, PA 17101

Re: Summit Partners Growth Equity Fund X, L.P.

Dear Trustees:

Summit Partners, L.P. ("Summit") was founded in 1984 by Stephen Woodsum, Roe Stamps and Gregory Avis, who spun out of TA Associates; in 2014, Summit transitioned from having an Executive Committee structure to having a centralized power structure, led by Peter Chung as CEO and overseen by the Board of Managers, which consists of 7 managing directors. In addition to its U.S. Growth Equity fund, the General Partner has Europe Growth Equity, Venture Capital, Private Credit, Subordinated Debt and Public Equity funds; the dedicated U.S. Growth Equity team is led by 10 managing directors and is further comprised of 2 principals, 5 vice presidents and 19 associates. Additionally, Summit maintains a back-office team of 19 operations and administration professionals who work across fund products. Investment professionals are divided into three sector-focused teams down to the associate level: technology, growth products and services and healthcare and life sciences. The General Partner has developed a dedicated Value Enhancement Team to work with Summit's portfolio companies, providing support in developing business plans and implementing value creation initiatives. Summit also benefits from the involvement of Executive-in-Residence and Executive Advisors, experienced leaders in Summit's target sectors who assist with deal sourcing and portfolio company strategic guidance, respectively. Summit is targeting \$4.0 billion in commitments for its tenth growth equity fund, Summit Partners Growth Equity Fund X, L.P. (the "Fund"). Summit expects to hold a first and final close in February 2019. The General Partner will commit at least 5% of commitments to invest in the Fund.

Consistent with the General Partner's prior funds, the Fund will primarily target North American investments across the technology, growth products and services and healthcare and life sciences industries. The General Partner has established a proactive sourcing program, enabling it to form relationships and maintain communication with management teams for several years before making an investment. Summit's established relationships with industry experts and management teams, coupled with its longstanding sector focus and value creation capabilities, has positioned it as a preferred partner and has led to advantaged deal sourcing. The General Partner plans to make four types of investments: core growth, growth buyout, buy and build and expansion. During due diligence, Summit's Value Enhancement Team identifies key operational adjustments to be implemented during the life of the investment and works alongside management teams to agree upon a value creation plan to drive company growth. The General Partner may pursue control and non-control investments, though it seeks to lead investments in order to structure favorable terms; regardless of its ownership position, Summit is able to influence value creation initiatives through favorable covenant rights. The Fund will target 25 to 35 equity investments in the range of \$75 million to \$300 million. The General Partner has consistently generated attractive net performance across prior funds, with Funds VIII and IX generating top-quartile returns.

Summit Partners Growth Equity Fund X's investment thesis can be summarized as follows:

Stable investment team with a specialized sector expertise and reputable brand name



- Consistent sector focus and flexible approach leads to advantaged sourcing and value-add capabilities
- Value creation driven by expansive operations platform
- Attractive performance with focus on downside protection

Hamilton Lane's recommendation is based upon the following analytical factors and is made within the context of Commonwealth of Pennsylvania, Public School Employees' Retirement System's ("PSERS") investment guidelines.

- Detailed due diligence, including interviews with industry peers and private equity professionals. The
 initial review was completed October 1, 2018; the on-site due diligence was conducted December 10,
 2018; the Fund was approved by Hamilton Lane's Investment Committee on December 17, 2018 and
 the recommendation to PSERS was issued December 19, 2018.
- Evaluation of the composition of the investment team, how they work together, compensation structure and other factors that help determine whether a group is likely to be able to replicate past successes as currently configured.
- Detailed Operational Due Diligence, including interviews with Summit's back office team to review the controls and processes surrounding the firm's finance, fund administration, tax, legal, compliance, IT, HR, and accounting functions.
- Evaluation of the Fund's proposed investment strategy within the context of the current investment environment.
- The strategy proposed for the Fund is appropriate for the Private Equity Partnership component of the portfolio.

The individuals at Hamilton Lane who were involved in the due diligence process for the Fund are:

John Stake – Vice President, Bala Cynwyd Office Haley Lee – Analyst, Bala Cynwyd Office Jackie Luceri – Analyst, Bala Cynwyd Office

Based on the above, Hamilton Lane recommends that PSERS commit up to \$150 million in Summit Partners Growth Equity Fund X, L.P. Hamilton Lane makes this recommendation considering the General Partner's qualifications and PSERS' overall investment guidelines.

This recommendation is given solely for the benefit of PSERS and cannot be relied upon by other investors, considering an investment in the Fund, since their needs, objectives and circumstances may not be identical to those of PSERS. The scope of this recommendation is limited to the investment merits of the Fund. Hamilton Lane does not provide legal or other non-investment-related advice.

Sincerely,

Michael Koenig, Chief Client Officer Corina English, Principal

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