

Public Investment Memorandum

Hg Genesis 9 A L.P.

Private Equity Fund Commitment

G. Anthony Meadows, CAIA, CPA.CITP Senior Investment Professional

> Darren C. Foreman, CAIA Director

> > February 11, 2020



Recommendation:

PSERS Investment Office Professionals, together with Hamilton Lane Advisors, L.L.C. ("Hamilton Lane"), recommend the Board commit up to €100 million to Hg Genesis 9 A L.P. ("Genesis 9" or the "Fund"). HgCapital LLP ("Hg" or the "Firm") is seeking to raise Genesis 9 to continue the Firm's mid-market investment strategy, focused on Northern Europe, middle-market companies in the Software and Services Sector.

Firm Overview:

Hg was established in 2000 and is currently managed by Nic Humphries, Matthew Brockman, and Justin von Simpson. Headquartered in London, United Kingdom, Hg's Genesis team consists of 54 professionals, including 43 investment professionals, located in London, New York, and Luxembourg. Hg is authorized and regulated by the Financial Conduct Authority ("FCA"). Hg complies fully with all its requirements as an FCA regulated entity, including systems and controls, conduct of business, and client asset security. Hg is also authorized to act as an alternative investment Fund manager under the Alternative Investment Fund Managers' Directive. The Hg is a wholly owned subsidiary of HgCapital LLP, which is (i) authorized and regulated by the FCA;(ii) an Exempt Reporting Adviser under the SEC Investment Advisers Act as amended by Dodd Frank and (iii) a Lobbyist Employer with the State of California. Hg has managed over €12.5 billion of institutional capital since inception and its senior investment principals have led or co-led nearly 100 portfolio company investments.

Strategy	Target Enterprise Values	Characteristics		
Hg Mercury	€100 M - €500 M (Lower mid-market)	 Investment Equity Requirements: €50 M – €200 M Typical fund hold: €50 M – €165 M 		
Hg Genesis	€500 M - €1.5 B (Mid-market)	 Investment Equity Requirements: €200 M – €600 M Typical fund hold: €175 M – €525 M 		
Hg Saturn	>€1.5 B (Upper mid-market)	 Investment Equity Requirements: >€600 M Typical fund hold: €325 M – €675 M (Typically, co-investment on every deal) 		

Since inception, Hg has raised eleven distinct funds, including Genesis 9. PSERS previously committed \pounds 75.0 million to Hg Genesis 7 A, L.P. ("Fund 7"), a 2013 vintage \pounds 2.0 billion fund and \pounds 95.0 million to Hg Genesis 8 D, L.P. ("Fund 8"), a 2017 vintage \pounds 2.6 billion fund. Hg is currently targeting \pounds 3.0 billion for Genesis 9 to continue its focus on Northern Europe, middle-market software and services investments. The ultimate fund size of Genesis 9 is expected to be no higher than \pounds 4.4 billion.

PSERS is concurrently recommending an investment in the Hg Saturn 2 from the Hg Saturn strategy listed above. These two funds are the same strategy, as noted in the Investment Strategy section of this memo, apart from targeting companies of different enterprise values. PSERS believes investing in both funds will diversify the investments not only by company size, but also by geography. While both funds invest primarily in Europe, the Saturn strategy looks to further the portfolio company's market share to global, rather than Pan-European which is generally the focus of the Genesis strategy.

Market Opportunity:

Hg believes that there is a significant and attractive opportunity to invest in the European software and services sector. This opportunity is underpinned by several structural factors including:

- Demand side pressures, as workflow automation needs continue to grow;
- Supply side acceleration as Software-as-a-Service ("SaaS") delivery models increase in the enduser market place;
- A structural shift of spend towards software and services, facilitated by decreasing infrastructure costs;



- The sector's shift towards a recurring revenue model; and from an investment perspective; and
- A shift in the balance of investment opportunities from public markets to private equity.

Hg has successfully implemented its strategy in several different market environments including before, during, and after the "Great Recession." Looking forward, Hg has identified a pipeline of opportunities for Genesis 9.

Portfolio Fit:

A commitment to Genesis 9 will be allocated to the Private Equity bucket of PSERS' Private Equity portfolio. The table below summarizes PSERS' projected Private Equity exposure inclusive of a recommended €100 million commitment to Genesis 9:

					Pending	Current Commitments	
Investment Type	Market Value ¹	Unfunded ^{1, 2}	Total Exposure	%	March 2020	Total Exposure	%
Buyouts	\$ 5,405	\$ 3,942	\$ 9,347	66.7%	\$ 385	\$ 9,732	67.6%
Special Situations	1,184	761	1,945	13.9%	-	1,945	13.5%
Venture Capital / Growth Equity	1,076	706	1,782	12.7%	-	1,782	12.4%
Internal Co-invest	870	69	939	6.7%	-	939	6.5%
Total	\$ 8,535	\$ 5,478	\$14,013	100.0%	\$ 385	\$14,398	100.0%

¹As of September 30, 2019; ²Includes commitments approved through December 2019

Investment Strategy:

Hg's investment strategy is to target Software and Services companies that are growing faster than the broader economy. They typically target Northern European companies serving the globe with a broad customer base. Company characteristics targeted include: business critical need delivered as a software or service, subscription or repeat revenue model, high gross margin, and a fragmented customer base.

Hg seeks to generate 20% - 25% gross returns for targeted investments over typical hold periods of three to five years. Hg invests with an emphasis on obtaining control of or exercising significant influence in its portfolio companies as it seeks to create value through active leadership and governance to effect change.

The sectors that Hg focuses on within Software and Services are categorized as "Hg clusters." These targeted sectors include: Tax & Accounting, ERP & Payroll, Legal & Compliance, Automotive, SME Software & Services, Capital Markets & Wealth Management IT, Insurance, and Healthcare IT.

Hg seeks to improve and grow companies during their ownership by focusing on several value creation levers focused on increasing revenue growth. These levers include: Growth, Technology, Product & Offshoring, Data & Analytics, Program Operators, Talent & Organization, Finance & M&A, ESG & Sustainability, and Reporting & Communities.

As discussed in the Firm Overview Section of this memo, the Genesis strategy focuses on companies with an enterprise value of €500 million - €1.5 billion, classified as mid-market. The typical fund investment in the company ranges from €175 million – €525 million.



Investment Team:

Hg is led by its two Managing Partners, Justin von Simson and Matthew Brockman, and a Senior Partner Nic Humphries. Hg's team consists of approximately 110 professionals, including 77 investment professionals. Hg's Genesis investment professionals include two Managing Partners, one Senior Partner, eight Partners, ten Directors & Principals, and twenty-two Associates & Analysts. The Firm's senior investment professionals (Partner and above) average over 21 years of experience driving deep expertise and networks within the Firm's target sectors. The table below summarizes the experience of Hg's two Managing Partners and Senior Partner:

Name	Title	Yrs. Experience Hg / Total	Prior Experience
Matthew Brockman	Managing Partner	9 / 24	Apax Partners, LEK Consulting
Justin von Simson	Managing Partner	17 / 23	Goldman Sachs, Deloitte
Nic Humphries	Senior Partner	19 / 30	Barclays Private Equity, Geocapital Partners, 3i

The Genesis Partner and Director group is supported by a team of 27 dedicated executives, including five Principals, seven Senior Associates and 15 Associates and Analysts. Genesis Investment Team members are based across Hg's London, Munich and New York offices. The team works together to execute the Genesis strategy, sharing knowhow, best practice and team resources.

The Investment Committee (IC) is comprised of nine executives, with a quorum achieved with no fewer than five attendees. Voting requires a simple majority to pass. The permanent members of the committee are comprised of six Partners across the three Fund strategies. In addition, three Fund-specific representatives will also be present when considering investments under their respective fund. The IC has been purposely designed with both permanent and fund-specific members to combine both domain-specific expertise with Hg's institutional knowledge and firm-wide investment approach that is applicable across the size spectrum.

Investment Highlights:

- Strong Sector Performance
- European Competition
- Responsible Investing
- European Opportunity
- Established Sourcing Network
- Co-Investment Opportunities

Investment / Risk Considerations:

- Technology Company Prices
- TMT Sector Investment
- Investment Sourcing
- Senior Team Turnover



PSERS History & Performance:

PSERS previously committed £75.0 million to Genesis 7 and £95.0 million to Genesis 8. In addition, PSERS has committed £32.2 million to co-investments with Hg.

The table below summarizes PSERS' performance with Hg as of September 30, 2019:

<u>Fund</u> (\$M)	<u>Vintage</u>	<u>Commitment</u>	Contributions	Distributions	NAV	Net IRR	Net MoC
Genesis 7	2013	£ 75.0	£ 64.7	£53.2	£73.1	20.4%	2.0x
Genesis 8	2017	95.0	28.7	0.0	34.1	36.2%	1.2x
Total (Genesis 7 &	8)	£170.0	£ 93.4	£53.2	£107.2	20.9%	1.7x
Co-Investments	N/A	£ 32.2	£ 32.2	£ 4.5	£ 48.5	26.1%	1.7x
Total		£202.2	£125.6	£57.7	£155.7	21.8%	1.7x

Investment Committee Disclosure:

Relationship with Hamilton Lane:	 Hamilton Lane does not have any discretionary clients who have invested in any Hg Funds in the past. For the current fundraise, Hamilton Lane is expecting discretionary clients to commit approximately \$65 M across the 3 Hg Strategies (Mercury, Genesis, and Saturn) for four clients. Hamilton Lane has, however, recommended Hg Funds to several other advisory clients, mainly U.S. public pension plans, in the past; totaling approximately \$100 million in commitments. For this current fundraise, Hamilton Lane has recommended Genesis 9 on 			
	behalf of other advisory clients.			
Introduction Source:	Fund Sponsor			
Placement Agent:	Hg has not engaged a placement agent in soliciting business from PSERS and no placement agent will receive any fees in connection with an investment in the Fund by PSERS. Rede Partners LLP ("Rede") has been retained by Hg Pooled Management Limited (the "Manager") in connection with the marketing of Hg Saturn 2, Hg Genesis 9, and Hg Mercury 3. Rede will be compensated based on aggregate commitments. Any fund commitment from a prohibited investor shall be excluded from any success fee thresholds (but not below zero).			
PA Political Contributions:	None Disclosed			
PA Presence:	No			
Potential Conflicts:	We are not aware of Hg having any investment conflicts.			
Litigation Disclosure:	Hg is a defendant/plaintiff in a lawsuit in United Kingdom jurisdiction. The lawsuit's outcome will not have any impact on Genesis 9 or on PSERS as a limited partner in the investment.			
First Time Fund With PSERS:	No			

Oversight Responsibility:

	Charles J. Spiller	Deputy CIO, Non-Traditional Investments		
Investment Office:	Darren C. Foreman	Director		
	G. Anthony Meadows	Senior Investment Professional		
External Consultant:	Hamilton Lane Advisors, L.L.C.			



January 6, 2020

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

Re: Hg Genesis 9

Dear Trustees:

HgCapital LLP ("Hg") was founded as the private equity arm of Mercury Asset Management in 1990 to target buyout investments; the General Partner became independent and rebranded to become Hg in 2000. At the launch of Fund VII, the General Partner pivoted to focus exclusively on the software and technology services sectors due to the attractive relative performance and opportunity set; the sectors have been part of its investment mandate since inception. To continue to cover the breadth of the lower to upper middle-market software and technology services sectors in Europe, Hg has expanded its product offering and is raising three funds simultaneously: Hg Mercury 3, which targets lower middlemarket companies; Hg Genesis 9, which seeks to invest in middle-market opportunities; and Hg Saturn 2, which targets the upper middle-market. The General Partner's coverage model for each sub-segment is cross-platform to facilitate deep understanding of each sub-segment regardless of company size. Hg has a large European investment team and recently established a New York office. The New York office's primary focus is add-on activity, while also connecting Hg to the attractive North American exit environment. The General Partner benefits from a large Portfolio Team, responsible for supporting sector-specific value creation initiatives post-acquisition to drive EBITDA growth. In addition, Hg has added to its Capital Markets team to optimize transaction execution and financing from investment to exit. Hg is targeting £3.0 billion in commitments from limited partners for its ninth middle-market buyout fund, Hg Genesis 9 (the "Fund"). Hg expects to hold a first and final close in March 2020. The General Partner will commit at least 2.5% of commitments to invest in or alongside the Fund.

Consistent with recent prior funds, the Fund will primarily target Northern European middle-market software and technology services companies, typically business-to-business, mission critical businesses with predictable cash flow streams, subscription or repeat revenue models and low customer concentration. Hg repeatedly targets eight subsector clusters that it believes exhibit materially faster growth rates and greater resilience than the broader economy: tax & accounting, ERP & payroll, legal & compliance, automotive, SME technology services, capital markets & wealth management IT, insurance and healthcare IT. Within the identified attractive clusters of focus, the General Partner employs a topdown approach to track potential investment opportunities, establish a rapport with management and preempt sales processes. Hg seeks control positions to facilitate an active value creation approach; where it is unable to take a majority position, the General Partner expects to negotiate significant shareholder rights. Hg is closely involved in value creation, utilizing its well-resourced Portfolio Team to implement changes that are additive to portfolio companies' based of recurring revenue with high EBITDA margins; as such, the General Partner seeks to drive value creation primarily through operational improvements and revenue growth, rather than relying on multiple expansion. The Fund will target 10 to 12 equity investments in the range of €200 million to €600 million, targeting companies with enterprise values between €500 million and €1.5 billion. Hg has generated attractive net performance since its strategic pivot in Fund VII; Funds VII and VIII have generated second and top-quartile performance, respectively.

Hg Genesis 9's investment thesis can be summarized as follows:



- Established upper middle-market software and technology services investor in Europe
- Experienced senior leadership supported by a deep bench of Partners and well-resourced team
- Attractive net performance since strategy pivot

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 November 21, 2019; the on-site due diligence was conducted November 25, 2019; the fund was approved by Hamilton Lane's Investment Committee on December 9, 2019 and the recommendation to PSERS was issued January 6, 2020.
- 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 Hg'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 Markets Partnership component of the portfolio.

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

Nina Kraus – Vice President, London Office Fredrik Green – Analyst, London Office Oscar Scott – Analyst, London Office

Based on the above, Hamilton Lane recommends that PSERS commit up to €100 million in Hg Genesis 9. 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

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Corina English, Principal