



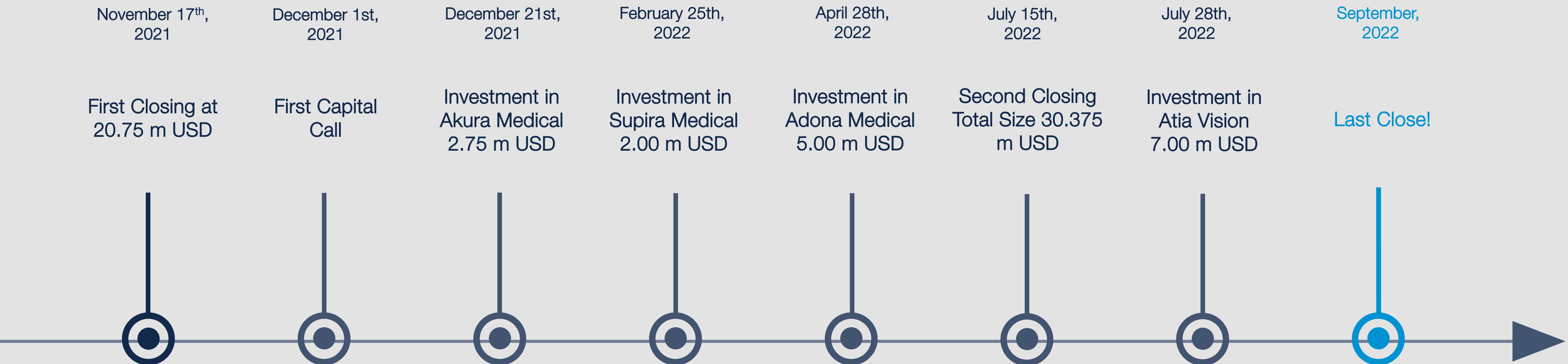
# PA MEDTECH VENTURE CAPITAL FUND

Success with MedTech  
Startups in Silicon Valley

August 2022

Last Close!  
September 2022

# Timeline







“At Shifamed, our passion for innovation drives our performance each and every day.”

*- Amr Salahieh, President & CEO, Shifamed*



# Access to Shifamed Medical Technology Hub



## SHIFAMED

Innovation + Execution

Medical technology innovation hub located in a state-of-the-art campus in the heart of the Silicon Valley and building next generation medical products that improve clinical standards and impact patients lives

**25** years of experience

## PA MEDTECH VC FUND

Venture Capital Fund that provides access to the Shifamed portfolio companies



## MEDTECH FUND

ACCESS TO THE BEST MEDICAL ENGINEERING EXPERTS



## INVESTORS

Opportunity to invest in the best MedTech start-ups

Impressive track-record of 6/6 successful exits to strategic partners

**4.7X**

Average return

**<5Y**

Average time to exit





# Investment Philosophy & Objective

The MedTech Fund offers access to the portfolios of existing or newly created Shifamed companies. These companies follow a fast-follower strategy to expedite value creation.

The portfolio companies are:

- Focused on sectors with strong market growth such as cardiovascular, digital health, AI and ophthalmology
- Sold to large medical technological manufacturers during early clinical phases prior to regulatory approvals

In addition, this Fund is opportunistic regarding attractive opportunities.



# Opportunity



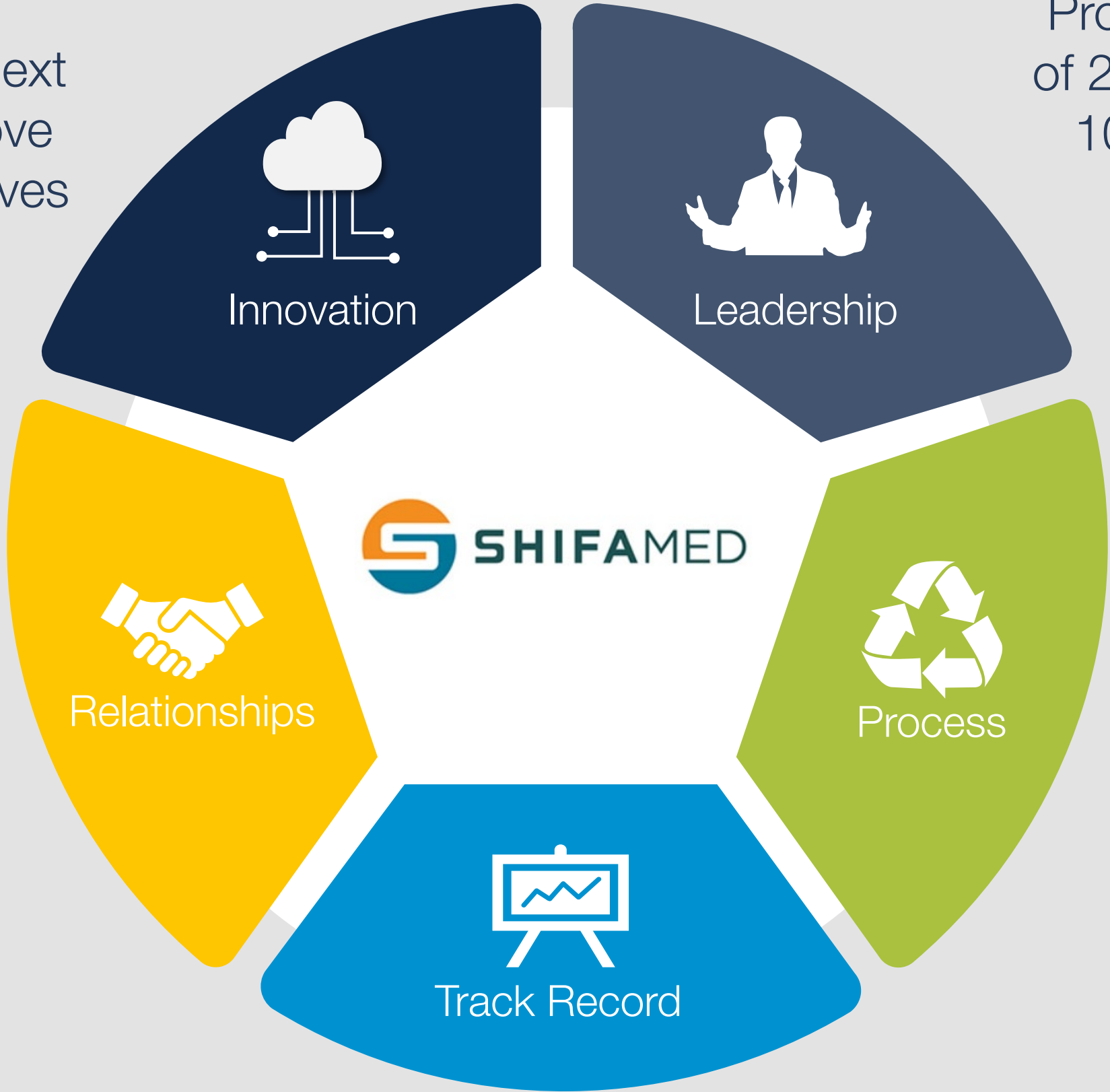
# Shifamed Innovation Hub

A fast-follower medical technology innovation hub focused on developing next generation medical products that improve clinical standards and impact patients' lives

Proven management team with an average of 25 years of experience and approximately 100 patent families collectively within the medical industry

Strong, established industry relationships and KOL network

Invests sizeable personal capital in early rounds for each of the companies



Six successful exits to strategic partners

Engineering a  
Strong Record of  
Success

A Highly-  
Specialized  
Innovation Hub

Bringing the Right  
People and  
Processes  
Together



# Shifamed Campus



# Structure



# Investment Structure

## Investment Team / Investment Committee

### PETER PILAVACHI

Partner and Portfolio Manager

### MAURICE PICARD

Partner, Founder & CEO of Picard Angst

The Investment Team is at Picard Angst – the Investment Manager. The Investment Committee is acting as an adviser to Picard Angst and is conducting all due diligence on each portfolio company and project:

- Independent evaluation and issues recommendations for each portfolio company
- Advises on any medical or technical questions



## Reserved Alternative Investment Fund

Notz Stucki (Lux) is acting as a fund administrator and Management Company, UBS is acting as a custodian

- Standard setup for VC Investment in EU
- Highly reputable and straight-forward structure
- Optimal investor protection

## Investment Services

### DR. DAVID-MICHAEL LINCKE

Head of Asset Management

### CHRISTOPHE VUILLAUME

Chief Operating Officer

Picard Angst is acting as the Investment Manager (IM) and as such bears the responsibility for:

- Regulatory Obligations
- Legal and Compliance
- Risk Management
- Risk Control
- Portfolio Management
- Distribution

# Investment Committee



**HENDRIK TEVÆARAI STAHEL**  
Professor in Cardiovascular Surgery



**OLIVIER BLANDIN**  
Engineer Head of Department in  
Medical Device Company



**CHRISTOPHE CONSTANTIN**  
MedTech Commercial Leader



**PETER PILAVACHI**  
Partner and Portfolio Manager



**DR. DAVID-MICHAEL LINCKE**  
Head of Portfolio Management



# Investment Strategy

# Fast-Follower Strategy

ESTABLISHED PROCESSES TO MAXIMIZE VALUE CREATION & ABILITY TO QUICKLY RESPOND

Market need clearly defined:

large unmet clinical need with demonstrated market interest

First generation platform(s) show 'promise':

yet limitations inhibit broad scale adoption, providing opportunity for highly innovative leapfrog technology

Competitive landscape still early stage:

potential to deliver significant value to the market and investors

Infrastructure optimized for rapid development and execution

Depth of core competencies

Proven track record of delivering differentiated solutions & significant value creation



Engineering Expertise



Proven Results

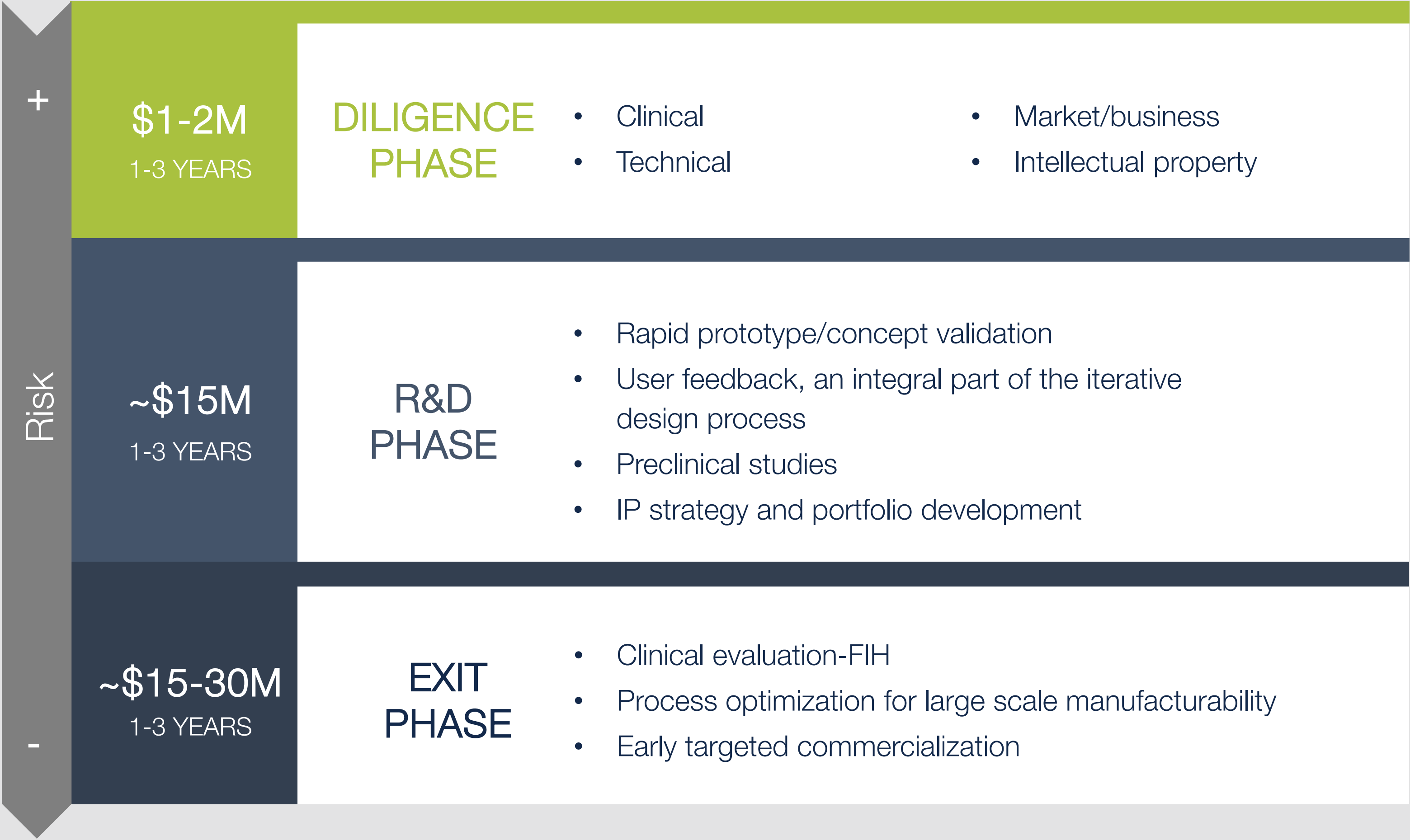


Rapid Return

REDUCED RISK + DIFFERENTIATED VALUE PROPOSITION



# Innovation Model





# Infrastructure Optimized for Rapid Execution

6

Fully equipped R&D labs  
for rapid  
prototype/concept  
validation



5

Cleanrooms  
for pilot  
production



## In-House Machine Shop

(6 CNC machines: 3 axis, 4  
axis, 5 axis, 6 axis, 2 centerless  
air-bearing lathes)



# Growth Strategy

Continue growing  
minimally invasive  
high-impact devices  
(core expertise)

- Cardiology 75%
- Ophthalmology 25%









Expand to new areas  
with high growth potential

- Software
- Digital Health
- Robotics
- Machine learning & artificial intelligence (AI)





# Solid Track Record

COMPANY	SPACE	DEVICE	EXIT
 Embolic Protection Incorporated	Coronary Artery Disease	Embolic protection catheter	Acquired by Boston Scientific in 2001: <b>\$75M upfront + \$75M</b> in milestones
 Sadra MEDICAL	Structural Heart Disease	Percutaneous aortic valve	Acquired by Boston Scientific in 2011: <b>\$225M upfront + \$225M</b> in milestone payments
 Maya Medical	Hypertension	Renal denervation catheter	Acquired by Covidien in 2012: <b>\$60M upfront + \$170M</b> in milestone payments
 Kalila Medical	Atrial Fibrillation	Steerable sheath for delivery of ablation catheters	Acquired by ABT/Terumo in 2016: <b>Undisclosed</b>
 APAMA MEDICAL	Atrial Fibrillation	RF balloon ablation catheter	Acquired by Boston Scientific in 2017: <b>\$175M upfront + \$125M</b> in milestone payments
 NUVERA MEDICAL	Cardiology	Real-time 3D Intracardiac Echo (ICE) For Advanced Imaging	Acquired by Undisclosed Buyer in 2020: <b>Undisclosed</b>



# Solid Track Record



**RAPID  
RETURNS**  
Average <5Y to exit



**SOLID STEADY  
RETURNS**  
Average 4.7X



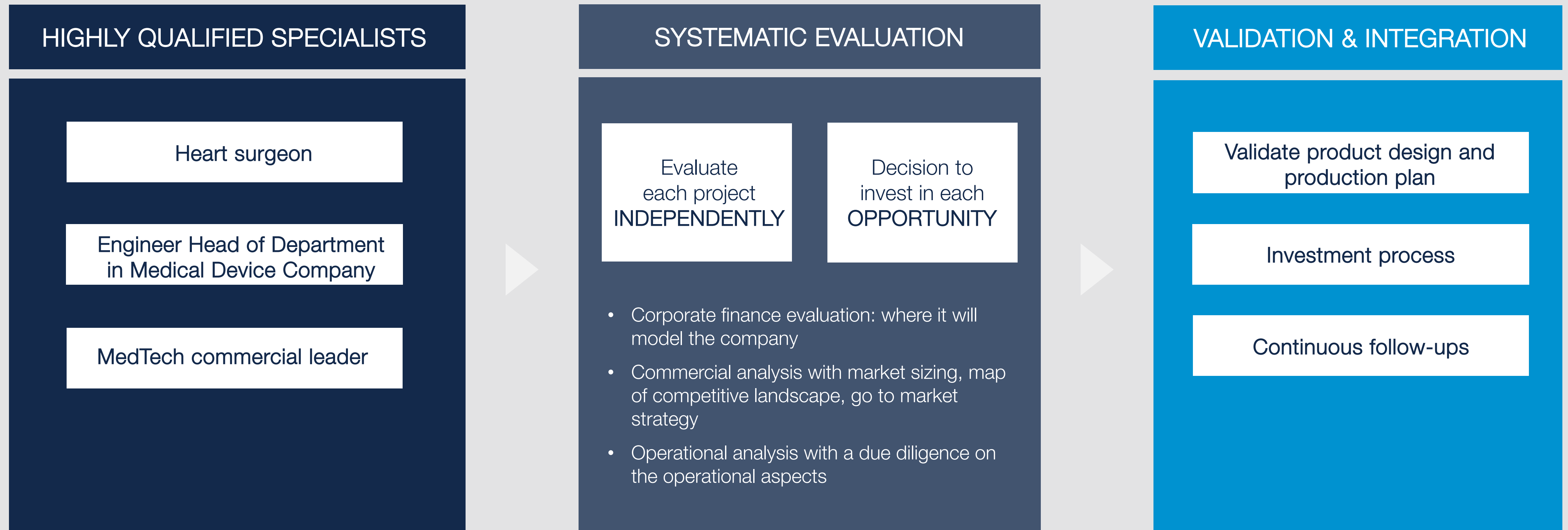
**DE-RISKED  
OPPORTUNITIES\***

\*compared to similar growth investments

# Investment Process



# Independent Evaluation by the Investment Committee



# Systematic Approach by the Investment Committee

## Initial Due Diligence

- First-generation technology/device and its limitations
- The addressable market, the competition and the IP impact
- The technical feasibility
- Discussion with our network of practioners and strategic players about the interest in the market

FIRST STAGE

## Assessment of the Environment

- Definition of the clinical need
- Competitive landscape
- Market assessment and identification of potential buyers
- Differentiation and value proposition
- Health economics and reimbursement policy
- IP and business due diligence
- Clinical and regulatory due diligence

SECOND STAGE

## Operational Analysis

- Talent pool
- Value creation
- Standardize operating procedures, adopting best practices, incorporate lessons learned

THIRD STAGE










# Portfolio & Pipeline Facts

# Fact Sheet

Last Close!  
September 2022

Picard Angst	Picard Angst MEDTECH
Type of Investors	Professional/Institutional clients
Fund Size	50-80 m USD (Currently: 30.375 m USD)
Minimum Investment	150 k USD
Management Fee	2% p.a.
Performance Fee	20%
Investment Criteria	Big medical device market / fast follower opportunity
Stage	Early stage / Pre-revenue
Fund Life	5 years + 1 + 1
Investment Manager	Picard Angst Ltd.
Fund Administrator	Notz Stucki (Lux)
Fund Custodian	UBS
Legal Structure	Reserved Alternative Investment Fund (RAIF)
Marketing Authorization	Authorized for Institutional investors in Luxembourg, Switzerland and EU (Specific jurisdictions to be approved on demand)

# Anticipated Portfolio Company Financings

STATUS	COMPANY	DESCRIPTION	CURRENT STATUS & EXPECTED UPCOMING EVENTS	CURRENT EMPLOYEES	EARLIEST POSSIBLE EXIT	FINANCING TO DATE	PROJECTED NEXT ROUND
Invested in December 2021	 <b>AKURA</b> MEDICAL	Thrombectomy device to efficiently remove blood clots in a single pass	► Early prototype phase	4	2023	\$27M	Q2 2023 ~25M
Invested in July 2022	 <b>ATIA VISION</b> TRULY INSIGHTFUL	Modular accommodating IOL that is adjustable post-implant	► Clinical feasibility study Q4 2021	20	2022	\$79M	-
Pipeline	 <b>Enlil</b>	Cloud-based enterprise software to automate quality documentation & business processes	► Development ongoing ► Launched to four customers	10 US 16 OUS	2023	\$8M	Q4 2022 ~\$10-15M
Invested in February 2022	 <b>Supira</b> MEDICAL	Percutaneous heart pump for high-risk PCI & cardiogenic shock patients. Short term use, no longer than ~14 days	► FIH to start in Q2 2022	48	2022	\$81.1M	-
Invested in April 2022	 <b>Adona</b> MEDICAL	Heart failure shunt with differentiated novel key feature	► Pre-clinical development phase	22	2024	\$63.4M	Q4 2023 \$40M
Pipeline	 <b>MYRA</b> MEDICAL	Glaucoma shunt with titratable flow	► Pre-clinical development phase	8	2025	\$23.3M	Q1 2023 ~\$20-30M
Investment planned End 2022	 <b>TIOGA</b> MEDICAL	Transseptal approach for mitral / tricuspid valve replacement	► Pre-clinical development. phase	28	2023	\$48M	Q4 2022 ~\$30-40M



# Current Portfolio Company Overview



## THE OPPORTUNITY

Remove large, formed blood clots without significant blood loss or device exchanges

## CLEAR VALUE PROPOSITION

*Single pass procedure with a flow profile mechanical thrombectomy catheter to navigate any tortuous anatomy*

*Minimal blood loss and efficient aspiration. Break up the clot to remove via an 8F catheter.*

*Compatible with a broad range of vessel diameters and mixed clot morphology*

MARKET

- Venous thromboembolism is the 3rd diagnosis in US, affecting 900K patients
- Pulmonary embolism is the 3rd leading cardiovascular cause of death, 100K in US annually
- Peripheral and pulmonary addressable market is \$4.0B US and 12-15% penetrated\*. Expected 8.7% CAGR to 2027#.

STATUS

- Raised \$27M to date
- R&D preclinical phase

\* Hopkins B, et al. *Inari Medical: Competition: what's coming & how much does it matter?* BofA Global Research 02 June 2021.  
# <https://www.gminsights.com/industry-analysis/venous-thromboembolism-treatment-market>

# Pipeline Portfolio Company Overview



## MARKET

- Global intraocular lens market: \$9.8B
- Cataracts are the leading cause of blindness globally, affecting 94M people worldwide<sup>2</sup>
- Potential to expand into larger presbyopia market

## STATUS

- Raised \$37M to date
- Implementing clinical learnings to next generation device

## THE OPPORTUNITY

Fast follower to 1<sup>st</sup> generation accommodating IOL for cataract patients, the largest segment of the ophthalmology market<sup>1</sup>

## CLEAR VALUE PROPOSITION

*Aiming for a No-Compromise Treatment* with a dual lens that addresses the needs of each patient and allows for future refractive corrections

*Seeking the Precision of True Accommodation* with an accommodating base that uses the ciliary muscles, stimulating the natural mechanism of the eye

*Maintaining Clinical Workflow* with clinician control throughout a familiar conventional cataract procedure

## FUNDED BY

The Capital Partnership (TCP), Medvance Incubator Partners, Cormorant Healthcare Fund



# Pipeline Portfolio Company Overview



MARKET			
STATUS			

## THE OPPORTUNITY

Fast follower to 1st generation high-flow percutaneous ventricular assist devices (pVAD) for high-risk percutaneous coronary intervention (HRPCI) and cardiogenic shock (CS)

## CLEAR VALUE PROPOSITION

*High-flow pVAD* enabling maximum flow rate on a low profile catheter, minimizing vascular complications

*Real-time and Accurate Monitoring* of pump performance and location

*Robust Platform* that addresses HRPCI and CS indications

## FUNDED BY

The Capital Partnership (TCP), Cormorant Asset Management

<sup>1</sup> Abiomed, JP Morgan, Jan 2019  
<sup>2</sup> The Advisory Board Co. Guide to Protected PCI in High Risk Cardiovascular Patients, Research Brief Aug 2015  
<sup>3</sup> Cardiac Interventions Today, Jan/Feb 2018

# Pipeline Portfolio Company Overview



MARKET	<ul style="list-style-type: none"><li>▪ Mitral regurgitation (MR) is the largest segment of the US Structural Heart market, 4.6M patients<sup>1</sup></li><li>▪ 1.7M in the US have MR severe enough for treatment<sup>2</sup></li><li>▪ \$51B market opportunity in the US alone</li></ul>
STATUS	<ul style="list-style-type: none"><li>▪ Raised \$17.6M to date</li><li>▪ IP Generation, design iteration and preclinical work</li></ul>

## THE OPPORTUNITY

Redefining valve replacement by dramatically simplifying and improving the safety and efficacy of transcatheter mitral and tricuspid valve replacement procedures

## CLEAR VALUE PROPOSITION

*Truly Trans Septal, simple system, <24F* with an integrated anchoring mechanism that leverages mitral valve leaflets and chordae

*Single-Step Procedure* with the dock and anchoring mechanism deployed rotationally with internal replacement valve, more closely approximating TAVR

*Self Expanding Valve* adapting to the complex and highly variable anatomy of the native mitral valve, accommodating a wide patient population (28-29mm), with no/minimal left ventricular outflow tract (LVOT) obstruction

## FUNDED BY

The Capital Partnership (TCP), Cormorant Healthcare Fund, AMED Ventures, Shangbay Capital

<sup>1</sup>Leon, M, "What is Structural Heart Intervention Today?", PCR London Valves 2017  
<sup>2</sup>Nkomo et al, Lancet 2006 & Sturge et al, J Thoracic Cardiovasc Surg 2006



# Pipeline Portfolio Company Overview



## THE OPPORTUNITY

An improved shunt implant that will greatly enhance the ability to manage patients, and is well-positioned for a fast-follower opportunity

## CLEAR VALUE PROPOSITION

*Adaptable* to individual patient physiology

*Integrated sensor technology* gives physicians the monitoring tools they need to track patient status longitudinally and customize treatments, ultimately improving clinical outcomes and preventing hospitalization

MARKET

- 6.5M HF patients in the US; expected to exceed 8M by 2030<sup>1</sup>
- Each year 1M–1.5M US HF patients are hospitalized or poorly managed with pharmaceutical approaches<sup>2</sup>
- Each year 300k–500k US HF patients expected eligible for implant
- Annual US TAM >\$3B

STATUS

- Closed on Series A Financing \$22M
- IP generation and design iteration

<sup>1</sup>Benjamin et al, *Circulation* 2018  
<sup>2</sup>Jackson et al, *Circ Heart Fail* 2018

# Pipeline Portfolio Company Overview



MARKET	<ul style="list-style-type: none"><li>4M patients in the US have glaucoma, forecasted to grow to 7M by 2050<sup>1</sup></li><li>For patients with moderate to advanced glaucoma, there is a unmet need for a safer, more effective therapy</li><li>MIGS worldwide revenues expected to increase from \$343M in 2019 to \$1.2B in 2024<sup>2</sup></li></ul>
STATUS	<ul style="list-style-type: none"><li>Raised \$3.2M in Seed Round Financing with a Select group of Angel Investors</li><li>Strong IP position</li></ul>

## THE OPPORTUNITY

Proprietary Titratable High Flow minimally invasive glaucoma surgery (MIGS) platform poised to transform and expand the role of MIGS in the management of moderate to advanced stage glaucoma patients

## CLEAR VALUE PROPOSITION

*Enhanced Safety & Efficacy Profile* by offering patients the level of IOP reduction required for managing moderate to advanced glaucoma, without the risk of hypotony

- Current MIGS devices rely on passive flow and therefore need to balance delivering enough flow to achieve the desired IOP reduction with having too much flow and resultant risk of hypotony

*Unprecedented Control When it Matters Most* with the ability to selectively titrate outflow (up or down) for optimal safety and efficacy

- With the Myra’s Titratable High Flow approach, physicians control the rate of outflow, enabling them to intentionally start low to reduce the risk of hypotony and then titrate up as needed to reach the patient’s target IOP

<sup>1</sup>American Academy of Ophthalmology  
<sup>2</sup> Market Scope 2019



# Custom-Built Enterprise Software



Automates & combines required processes into one seamless cloud-based platform

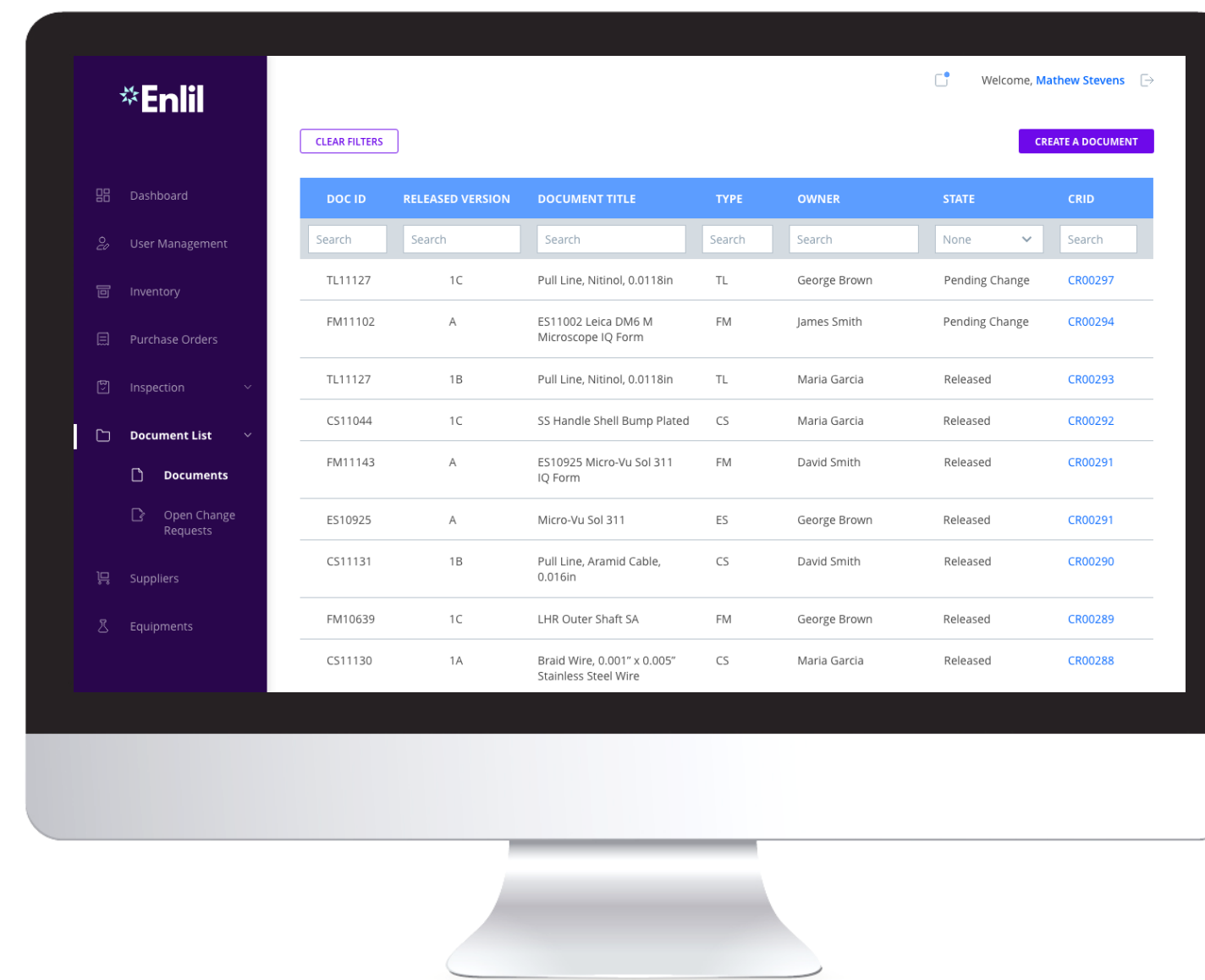
## Backbone of our portfolio companies

Developed based on over a decade of refining processes to maximize value creation

Increases product development efficiency and productivity

Reduces compliance and audit risk

Streamlines R&D, manufacturing & quality systems



## — MULTIPLE MODULES —

- Document control
- Material control & purchasing
- Quality control
- Manufacturing
- Standards tracing
- Employee training
- Equipment calibration & maintenance control

Enlil also includes electronic LHRs, authorization & authentication, electronic lab notebook, and task tracking

# Access to Shifamed Medical Technology Hub



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Innovation + Execution

Medical technology innovation hub located in a state-of-the-art campus in the heart of the Silicon Valley and building next generation medical products that improve clinical standards and impact patients lives

**25** years of experience

## PA MEDTECH VC FUND

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## MEDTECH FUND

ACCESS TO THE BEST MEDICAL ENGINEERING EXPERTS



## INVESTORS

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Average time to exit



# Contact



Peter Pilavachi

Partner and Portfolio Manager  
Picard Angst

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Supervised by Swiss Financial Market Supervisory Authority (FINMA)





# Annex



# Investment Committee



## Hendrik Tevaearai Stahel

Professor in Cardiovascular Surgery

Hendrik is a professor in cardiovascular surgery with a past 18 years of clinical practice in 3 major hospitals in Switzerland. He studied Medicine in Lausanne, Switzerland and completed his academic training by a 2 years stay at the Swiss Institute for Cancer Research and an additional 2 years at the Duke University in North Carolina, USA. His expertise in cardiovascular R&D is confirmed by more than 200 scientific publications in several domains including, cell and molecular therapy, cardiovascular engineering and clinical research. As former head of a 25 members team of cardiovascular researchers at the University Hospital in Berne, Switzerland, he trained several students and directed multiple thesis. After completing an executive MBA in 2006 he created and directed, until 2020, a first start-up pharma company, focusing on a new cardiac drug that is currently in a phase 3 clinical trial. Hendrik is now an independent consultant for medical and medtech companies, especially in the cardiovascular field, which are looking for specific competences in all aspects related to translational development, including R&D, IP, strategical and structural development and regulatory.

# Investment Committee



## Olivier Blandin

Engineer Head of Department in Medical Device Company

Olivier is an engineer with 20 plus years of experience in healthcare (10 years in manufacturing and 10 years in business). Rich of an international experience (Europe, US, India, LATAM), he studied micromechanics and robotics at the EPFL in Switzerland and Biomechanics in Paris. He spent 10 years in the manufacturing and industrialization of active medical devices (pacemakers, defibrillators, neurostimulators...) at Medtronic, where he developed and implemented the first Lean line in 2000 before this became an industry standard in healthcare. He also designed the assembly (case, battery, electronic board) of the pacemaker with the highest production volume at that time. After completing his MBA (IAE-LBS) in 2009, he specialized in helping healthcare companies (NayaMed; Quotient) in setting-up their operations from scratch i.e. from the concept to their actual implementation. He has a long experience in business model engineering that helps him migrate from the original idea to business models, processes and solutions that account for the needs and specificities of the various markets.



# Investment Committee



## Christophe Constantin

MedTech Commercial Leader

Christophe is a MedTech commercial leader whose experience spans across marketing, strategic account management, commercial operations, country general management and strategic capabilities. His progressive career has been based upon a platform of over 25 years' working within leading global organisations such as Johnson & Johnson, Medtronic and Stryker. He recently created Toxeos whose mission is to help MedTech companies unlock their full market potential through data driven insights and commercial model innovation. Toxeos has developed proprietary data science methodologies to source, extract, combine and visualize disconnected healthcare data to power rich profiles of physicians and hospitals across Europe and the US; providing clients with a laser focused understanding of where their growth opportunities are. Christophe studied in France, the UK and Italy where he holds an MBA from SDA Bocconi.

# Investment Committee



## Peter Pilavachi

GP and Portfolio Manager

Pete is a General Partner (GP) of the fund and Portfolio Manager. He is a member of the Investment Committee and in addition is responsible for the relationship with investors. Mr. Pilavachi has 22 years of investment-industry experience. He was previously in the investment team of a large hedge fund franchise at Allianz Global investors for more than 4 years. Prior to that he had an 18 years career in investment banking at UBS, JPMorgan and Goldman Sachs. There he held several senior roles in the strategic equity solutions group for corporate and family offices at UBS, head of derivatives sales for Switzerland at JPMorgan and as an equity derivative trader at GS respectively. Mr. Pilavachi has a B.S. in economics and management, and a master's degree in finance from the University of Lausanne, Switzerland.



# Investment Committee



## Dr. David-Michael Lincke

Head of Asset and Portfolio Management, Picard Angst AG

David, CFA, FRM, is the head of asset and portfolio management at Picard Angst AG with more than twenty years of investment management experience. The asset management division of Picard Angst is an institutional investment boutique headquartered in Pfäffikon SZ, Switzerland, and specializing in multi-asset, commodities and systematic investment strategies. Prior to joining Picard Angst Group, he worked as a consultant and portfolio manager and was engaged in various proprietary trading roles focusing on quantitative equity strategies and statistical arbitrage. He is a CFA and FRM charter holder and has earned a Ph.D. in economics from the University of St. Gallen, Switzerland.