

# **Investor Presentation**

January 2025

### Safe Harbor Statement

#### FORWARD LOOKING STATEMENTS

This presentation contains "forward-looking statements" that involve risks, uncertainties and assumptions. If the risks or uncertainties materialize or the assumptions prove incorrect, our results may differ materially from those expressed or implied by such forward-looking statements. All statements other than statements of historical fact could be deemed forward-looking statements, including, but not limited to: any estimates of addressable market size and our ability to capture that market, market trends and market opportunities, customer growth, product availability, technology developments, or other future events; any statements regarding our plans, strategies or objectives with respect to future operations or business performance; any statements regarding future economic conditions; and any statements of assumptions underlying any of the foregoing. These statements are based on estimates and information available to us at the time of this presentation and are not guarantees of future performance. Actual results could differ materially from our current expectations as a result of many factors, including, but not limited to, risks related to: market adoption of our products; our limited operating history; our ability to raise capital; our rate of growth; our ability to predict customer demand for our existing and future products; our ability to hire, retain and motivate employees; the effects of competition, including price competition; technological, regulatory and legal developments; and developments in the economy and financial markets.

We assume no obligation, and do not intend, to update these forward-looking statements, except as required by law.



## Company Overview

Leading provider of MRAM technology and products for **mission-critical applications** in

- Data Center
- Industrial
- - Automotive
- Radiation hardened applications

15+ Years in production

150M+
MRAM units shipped

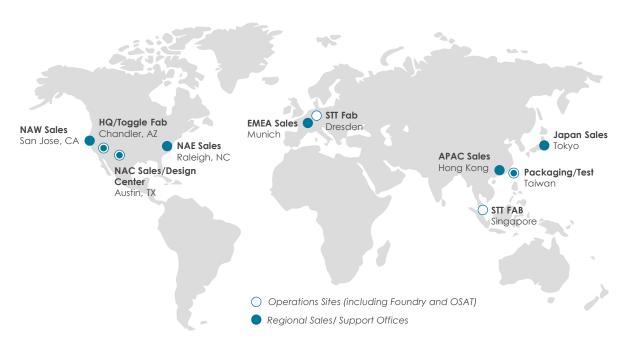
**2,000+**Customers

650+
Patents & applications

#### **FAB PARTNERSHIPS**



#### **GLOBAL OPERATIONS + SALES**





# Investment Highlights



Singular
domestic
provider of
MRAM for
mission critical
applications



Diversified blue
chip customer
base across
end markets
and
applications



**Large market opportunity**exceeding
\$4.3B by 2029



Proven
management
team with
extensive
experience
delivering market
leading
technology
solutions



margins, and positive free

cash flow



### The MRAM Value Proposition

MRAM as a CPU-attached memory (like SRAM/DRAM) that brings non-volatile capability (like Flash)

### **Persistence**

Maintains memory contents without requiring power



### **Endurance**

Superior durability supports memory workloads without sophisticated management

## **Performance**

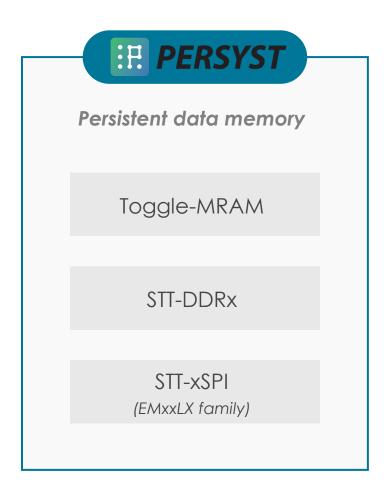
SRAM & DRAM-like performance with low latency

# Reliability

Best-in-class robustness designed and tested for extreme conditions



# **Everspin MRAM Products**



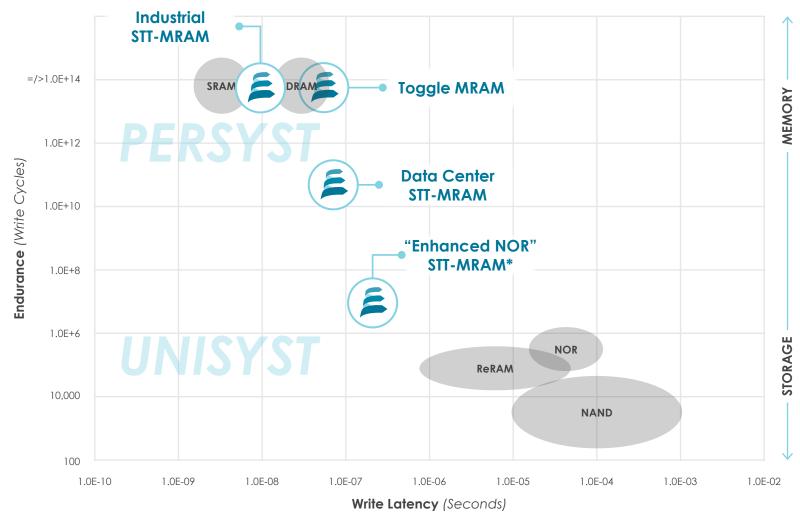


# UNISYST in design / AgILYST in development **AgILYST** Innovation for transformation SRAM-like MRAM for FPGA configuration D-MRAM for Al Inferencing

System-In-Package solutions



# PERSYST and UNISYST MRAM For Varying Memory Workloads





MRAM combines

performance of memory

with persistence of storage





Decades of data retention without power or refresh





Read/write similar to DRAM and SRAM

#### **Endurance**



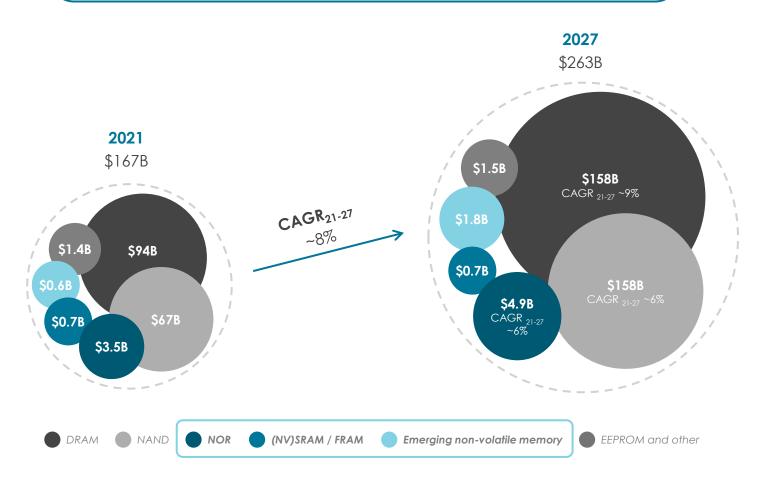
Everspin optimizes MRAM for memory workloads

<sup>\*</sup> In development



## MRAM Markets – In Context of the Semiconductor Memory Outlook





### **PERSYST**

- → NVSRAM/FRAM flat at \$0.7B
- Emerging nonvolatile memory, which includes MRAM, increasing from \$0.6B to \$1.8B

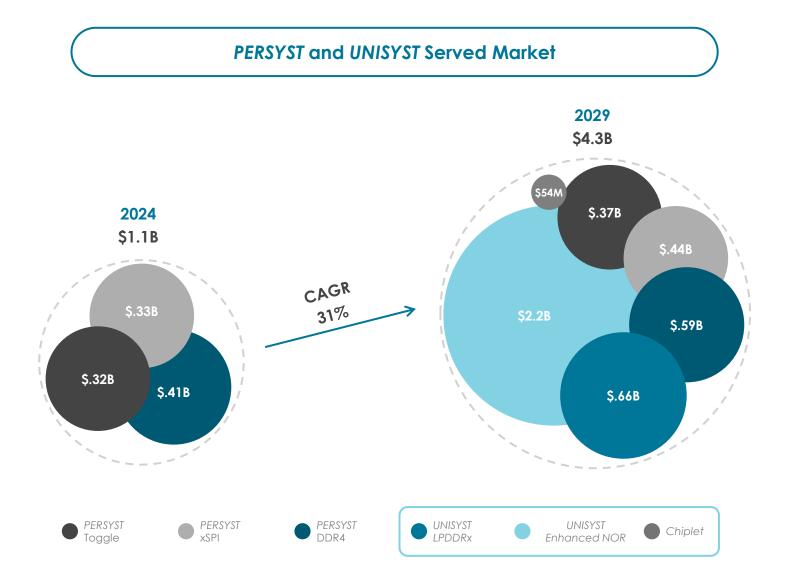
### **UNISYST**

- → NOR Flash at \$3.5B in 2021, and growing at 6%
- Expected to be \$4.9B in 2027

Source: Yole Développement, "Status of the Memory Industry 2022," May 20225/22



# MRAM Product Roadmap Serves a Larger Market



### **PERSYST TAM**

Legacy Toggle, ST-DDR4 and the new xSPI products serve a market of \$1.1B in 2024

- → Industrial
- → Enterprise
- → nvSRAM, FRAM

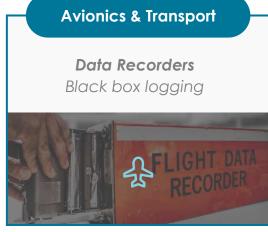
### **UNISYST TAM**

Code and Data Unified products address NOR Flash and Embedded Compute

- → Enhanced NOR with SPI Faster Writes
- LPDDRX- Faster Reads and Writes
- NVM Chiplets emerging



### **PERSYST** Application Examples



**Aerospace** 

Space / Satellite

Code and data

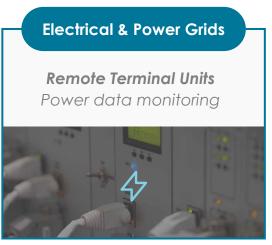


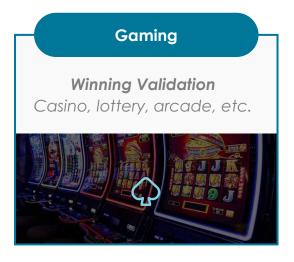


Medical











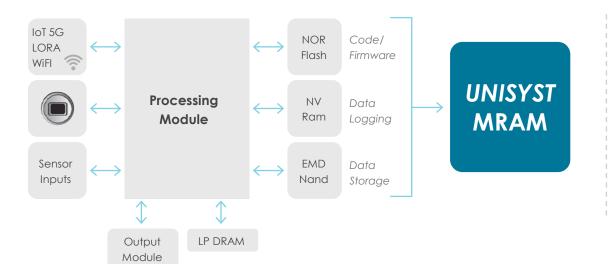
Value proposition → Low latency (fast data logging), reliability at extreme temperatures



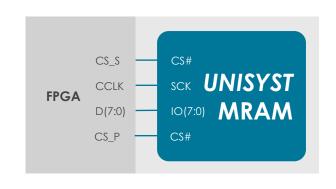
### UNISYST Application Use Cases in Industrial IoT

- Over-the-air (OTA) firmware updates: Firmware / Al models / OS / FPGA Configuration / Security enhancements
- Capacity to store "Golden Code" while updating to New Code
- Enhanced Write Speed and Endurance as compared to NOR Flash

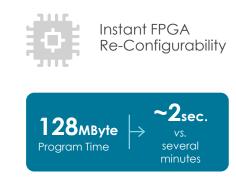
#### Unified NV Memory supporting high speed read & writes



#### Fast OTA FPGA configurations



**PCB** or SIP



Value proposition → One chip that supports fast OTA updates and multipurpose memory function



### \* UNISYST Application Use Cases in Automotive

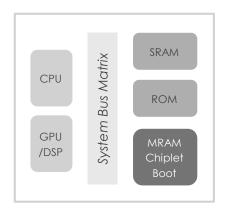
Auto / EV Zonal going to Central puts more demand on fast code execution

Automotive Architecture Options – Chiplets and Discrete MRAM

UNISYST Brings Capacity and Read Speed Advances

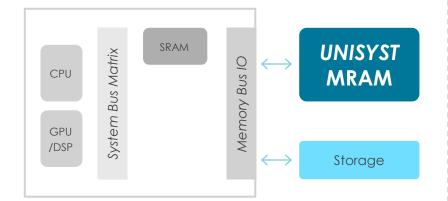
Standard Discrete Interfaces: xSPI and proposed LPDDRx

#### **Closed Architecture**



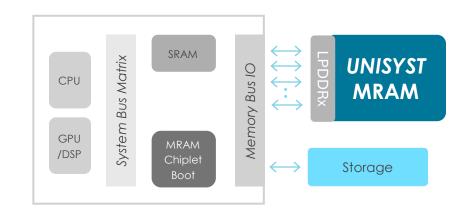
- → Performance
- Power
- → Security
- → Fast Boot Time

#### **Open Architecture**



- → Flexibility
  - → Easier to Upgrade
  - More Advanced Process

#### **Hybrid Architecture**



- → Flexibility
- Fast boot time and Execution
- → Larger Code/Data size

Value proposition → Performance, Reliability, Power & Speed



## Diversified Top-Tier Customer Base in Significant Markets

Serving some of the most demanding customers in segments with long-term stability









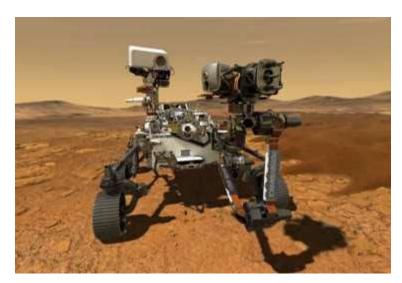




### MRAM in Mission Critical Applications

- → MRAM can be better suited for harsh environments compared with charge-based memories (DRAM, SRAM, and Flash)
  - High-radiation environments for space, defense, and telecommunications applications
  - High temperatures in the automotive applications
- → STT-MRAM provides a promising scaling path for these applications

In a camera of NASA Mars 2020 rover, Perseverance



On its way to Jupiter as part of NASA's Lucy Mission



In power train system of Hypercar EV's





### **Everspin Capabilities**

Everspin offers the widest capability to develop fully customized STT-MRAM > Design to manufacturing



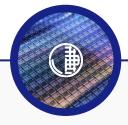
### **Design Services**

- Discrete Memory Device or Embedded
- Custom STT-MRAM
- → Full chip enablement or support in-house design team
- Ability to leverage proven
   Everspin commercial IP
- Experience with multiple successful engagements



#### 8" MRAM Manufacturing

- Everspin owned and operated
   8" line in USA
- Any foundry CMOS
- → In production / operation for over 15 years
- Trusted US Gov programs and commercial
- Everspin Commercial Toggle MRAM line
- R&D capabilities (Innovation)



#### 12" STT-MRAM 28/22/16nm

- PERSYST manufacturing partnership with GLOBALFOUNDRIES
- Manufactured fully at GF
- Commercially proven
   STT MRAM Line
- 22nm FD SOI available for rad hard designs



# **Everspin IP Delivers Value Through Licensing**

**Magnetic Sensors** ALPS **BOSCH** 

Mil-Aero Toggle MRAM

Honeywell

FRONTGRADE

**Embedded STT-MRAM** 





**Head Sensor** 







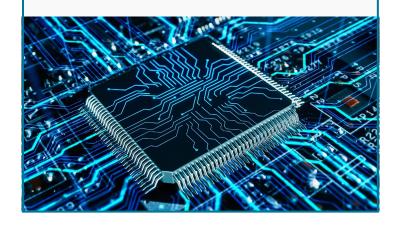
Everspin has successfully licensed MRAM, 3D Magnetic Sensor and TMR Head Sensor (HDD) IP



### MRAM for NN, FPGA and Edge Al

#### **MRAM for FPGA**

- MRAM for configuration storage
- Chiplet for <40nm nodes where NOR does not scale
- SRAM-like MRAM for embedded architecture



#### Distributed MRAM for Al

- Novel Everspin IP for "Distributed MRAM"
- Instant on, Fast reads, Low power
- Distributed weight storage architecture for Edge



### **Synaptic Devices for NN**

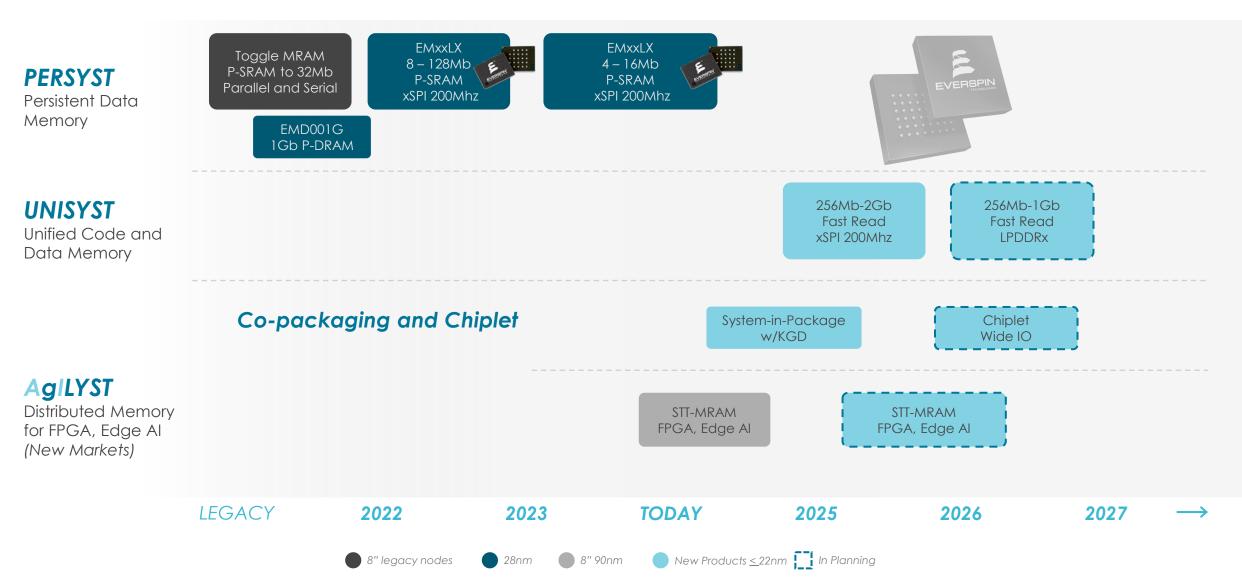
- Analog compute architecture
- Supervised and Unsupervised learning
- Chiplet or Embedded architecture for Edge



Everspin roadmap addresses in-memory compute, FPGA configuration memory, and AI inference



### MRAM & Technology Roadmap





### **Executive Team**

Proven team with strong experience in delivering market leading technology



Sanjeev Aggarwal
President & CEO





Bill Cooper
Chief Financial Officer

AMD



David Schrenk
VP, Sales & Business Development
intel



**Amit Shah**VP, Backend Operations







**Yong Kim**VP, Product Development



**Kerry Nagel**VP, Technology R&D



**Khaldoun Barakat**VP, FAB Operations & Quality

intel







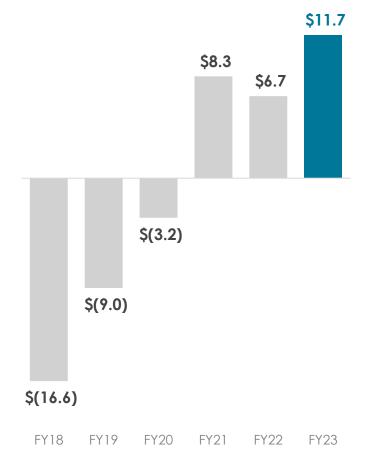
# Financial Highlights

Revenue (\$m)

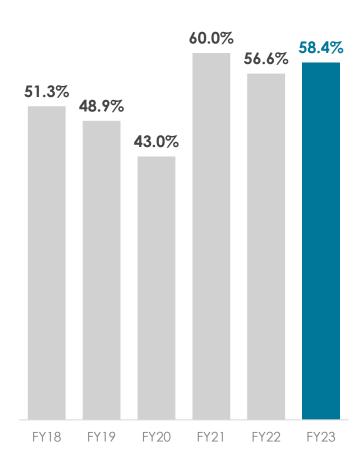
\$63.8 \$60.0 \$55.1 \$49.4 \$42.0 \$37.5 FY18 FY20 FY22 FY23

FY21

Free Cash Flow (\$m)



Gross Margin (%)





FY19



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