## AMDA

### FINANCIAL ANALYST DAY 2022

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# **Building on Gaming Leadership**

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### **INSATIABLE DEMAND FOR GRAPHICS COMPUTE**



Source: AMD internal research



# AMD GAMING LEADERSHIP



#### GAMING IS THE FASTEST GROWING FORM OF ENTERTAINMENT



Source: Newzoo, Statista, AMD Research

## DELIVERING INCREDIBLE GAMING EXPERIENCES



#### AMDA RDNA





**Growing Market** 

Established RDNA<sup>™</sup> Architecture Complete Radeon<sup>™</sup> Product Line-Up

**Console Leadership** 

## AMD RADEON<sup>™</sup> GRAPHICS DELIVERING PRODUCT LEADERSHIP

- Top-to-bottom product stack with focus on premium segments
- Strong partnership with ISVs to deliver world-class software solutions
- Projected performance-per-watt leadership
- AMD Advantage<sup>™</sup> solutions deliver unique, state-of-the-art, market-leading solutions



## AMD RADEON™ RX 6000 SERIES

Growing family of powerful and efficient gaming GPUs





300+ SI, AIB and OEM Solutions



3X Notebook Designs



### AMD FIDELITYFX<sup>™</sup> SUPER RESOLUTION TECHNOLOGY



- Only cross-platform, open-source upscaling solution
- FSR 1.0 delivers up to 2.5X performance over native 4K resolution across select titles
- FSR 2.0 launched on May 12
- Near native quality with higher FPS
- 100+ game titles

## AMD "NAVI 3" GRAPHICS AT THE FOREFRONT OF GRAPHICS INNOVATION

- Industry-leading performance-per-watt
- Advanced packaging technologies
- System level efficiency
- Advanced multimedia capabilities



# AMD GAMING GPU ROADMAP SUSTAINED PERFORMANCE LEADERSHIP



ll roadmaps are subject to change.

#### THE POWER OF RYZEN<sup>™</sup> CPU + RADEON<sup>™</sup> GPU TOGETHER



#### AMDA RYZEN RADEON

# **12** SYSTEMS in 2020

# **33** SYSTEMS in 2021

# **50+** SYSTEMS Expected in 2022



RYZEN G Software (+)Adrenalin Edition



### **GAME CONSOLES ARE GROWING & EVOLVING**



- Number of U.S. gamers, total time spent gaming and total spend are increasing
- Expanding demand driven by significant growth in female and 45+ age gamers
- Gaming communities are fast growing, driven by multi-player and online play
- Strong handheld gaming growth driven by on-the-go demand

## **BUILDING THE BEST CUSTOM SILICON**



#1 Market Share

SONY

**PlayStation 5** 

VALVE

Steam Deck

Microsoft

Xbox Series X | S



#### **Increasing Silicon Content**



4K Immersive Experiences





Backward Compatibility



**Strong Partnerships** 

Deep hardware and software co-engineering

Innovative end user experiences

Broadened gaming ecosystem

# NEW MARKET GROWTH



# **NEW GROWTH OPPORTUNITIES**









## **METAVERSE OPPORTUNITIES**



**EPYC<sup>™</sup> Processors** AMD Instinct<sup>™</sup> Accelerators **Alveo<sup>™</sup> Accelerators** 

Radeon Pro<sup>™</sup> Graphics **EPYC<sup>™</sup> Processors** Versal<sup>™</sup> FPGAs

Radeon<sup>™</sup> PRO Graphics **EPYC<sup>™</sup> Processors** Versal<sup>™</sup> FPGAs

Radeon<sup>™</sup> Graphics

**Ryzen<sup>™</sup> Processors** 

## AMD ACCELERATES THE METAVERSE



### UNLOCKING THE FULL POTENTIAL OF CUSTOM SILICON



- Extend proven custom silicon, co-engineering model into new markets
- Leverage multi-generational chiplet experience
- Continue to build deep & long-term partnerships with market makers
- 200+ million custom solutions shipped

## **EXPANDING OUR CUSTOM SILICON & SOLUTIONS**



## OUR PATH FORWARD HUGE GROWTH OPPORTUNITY

- Insatiable demand for graphics
- Leadership products today
- Next generation graphics coming
- Expanded market opportunity in custom silicon and metaverse



#### ENDNOTES

#### GD-18

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#### RM-040

Testing done by AMD performance labs December 10, 2021, comparing the performance of a system configured with a Radeon<sup>™</sup> 6850M XT GPU and a Ryzen<sup>™</sup> 6900H Series processor with SmartShift Max enabled vs a similarly configured system with a Ryzen<sup>™</sup> 5900H Series processor and SmartShift enabled. Games tested: Control (High); Godfall (Ultra); Shadow of the Tomb Raider (Medium); Strange Brigade (Ultra); Tom Clancy's The Division 1 (Ultra). Performance will vary. RM-40.

#### RM-041

Engineering projections are not a guarantee of final performance. Performance projection by AMD engineering staff based on AMD DC power guidelines on a system configured with Radeon<sup>™</sup> RX 6850M XT mobile GPU. Projection is subject to change when final product is released in market. RM-041

#### RM-045

Testing done by AMD performance labs 7/20/2021 with a reference laptop design with AMD Ryzen 7 5800XH, Radeon RX 6600M with Smart Access Memory enabled, 32GB DDR4-3200MHz, Win10 Pro x64 19042.985 and AMD Driver 21.10.01.21. Testing of "Hybrid Mode" vs. "Discrete Graphics Mode" showed an average uplift of 15% more performance across the following titles: Assassin's Creed Valhalla; Battlefield 5; Borderlands 3; Call of Duty: Black Ops Cold War; Cyberpunk 2077; DOOM Eternal; Horizon Zero Dawn; Red Dead Redemption 2; Fortnite; Valorant; World of Warcraft: Shadowlands. Performance may vary. RM-045

#### RM-062

Testing done by AMD performance labs, February 14, 2022, on Asus ROG Strix G513 (pre-production sample) equipped with Ryzen 9 5900HX, Radeon RX 6800M. Tested at 1080p with Smart Access Memory ON with driver 22.2.2 versus SAM OFF in driver 22.2.1 in the following game and settings: Assassin's Creed Valhalla, DX12, Ultra High Settings. Performance may vary. RM-062

#### ENDNOTES

#### RS-430

AMD Radeon<sup>®</sup> RX 6000 Series graphics cards with AMD FidelityFX Super Resolution (FSR) "Performance" mode ON offer on average 2.5x better performance at 4K across select titles vs. FSR OFF. Testing by AMD Performance Labs as of July 22, 2021, on a test system configured with an AMD Ryzen<sup>®</sup> 9 5900X CPU, AMD Radeon<sup>®</sup> 6900 XT/6800 XT/6600 XT graphics cards, 16GB DDR4-3200 RAM, and Windows 10 Pro, with Smart Access Memory enabled and using FSR "Performance" mode vs. FSR off. Actual performance will vary. Games tested: Baldur's Gate 3 ("Ultra"); Black Desert Global Lab ("Epic"); Chernobylite ("Epic"); Deathloop<sup>®</sup> ("Ultra"); Far Cry<sup>®</sup> 6 ("Ultra"); Gamedec ("Very High") Grounded ("Epic"); Necromunda<sup>®</sup>: Hired Gun<sup>®</sup> ("Epic"); Resident Evil<sup>®</sup> Village ("Epic"); Vampire: The Masquerade - Bloodhunt ("Ultra"). Benchmark tests: Baldur's Gate 3, Vulkan<sup>®</sup>, 3840 x 2160, "Ultra" settings, FSR OFF/FSR "Performance" mode. Black Desert, DX11, 3840 x 2160, "Epic" settings, FSR OFF/FSR "Performance" mode. Vampire: The Masquerade - Bloodhunt, DX12, 3840 x 2160, "Ultra" settings, FSR OFF/FSR "Performance" mode. Chernobylite, DX11, 3840 x 2160, "Epic" settings, FSR OFF/FSR "Performance" mode. Deathloop<sup>®</sup>, DX12, 3840 x 2160, "Ultra" settings, FSR OFF/FSR "Performance" mode. Chernobylite, DX11, 3840 x 2160, "Ultra" settings, FSR OFF/FSR "Performance" mode. Deathloop<sup>®</sup>, DX12, 3840 x 2160, "Ultra" settings, FSR OFF/FSR "Performance" mode. Chernobylite, DX12, 3840 x 2160, "Ultra" settings, FSR OFF/FSR "Performance" mode. Camedec, DX12, 3840 x 2160, "Very High" settings, FSR OFF/FSR "Performance" mode. DCamedec, DX12, 3840 x 2160, "Very High" settings, FSR OFF/FSR "Performance" mode. DX12, 3840 x 2160, "Epic" settings, FSR OFF/FSR "Performance" mode. Resident Evil<sup>®</sup> Village, DX12, 3840 x 2160, "Epic" settings, FSR OFF/FSR "Performance" mode. Resident Evil<sup>®</sup> Village, DX12, 3840 x 2160, "Epic" settings, FSR OFF/FSR "Performance" mode. Resident Evil<sup>®</sup> Village, DX12, 3840 x 2160, "Epic" settings, FSR OFF/FSR "Performance" mode. Reside

#### RX-785

Testing done by AMD performance labs May 31, 2022, on (11) AMD Radeon<sup>™</sup> RX 6000 Series graphics cards, using systems configured with Ryzen<sup>™</sup> 9 5900X and Ryzen<sup>™</sup> 5 5600X CPUs, each with 16GB DDR4-3600MHz and AMD Smart Access Memory enabled, Win 10 Pro versus similarly configured systems with (11) Nvidia GeForce RTX 3000 Series, GeForce GTX 1650 and GTX 1050 Ti GPUs, each with ReBAR enabled.

Performance tested across 20 games at 4K, 1440P and 1080P resolutions at MAX settings, and across 12 games at 1080P Medium settings for each one of the (22) AMD and NVIDIA GPUs.

Performance per watt and per die size calculated using the total board power (TBP) and die sizes of the (22) individual AMD and NVIDIA GPUs over the average FPS scores.

Performance may vary. RX-785.

Slide 16 (Building the Best Custom silicon)

#1 market share based on sales of Playstation and Xbox consoles. Source: IDC, Worldwide Home Video Game Console Market Shares, 2021: The Ninth-Generation Race Tightens, doc #US47709922, May 2022