



Game Developers Conference

Business & Technology Trends in the PC Gaming Landscape

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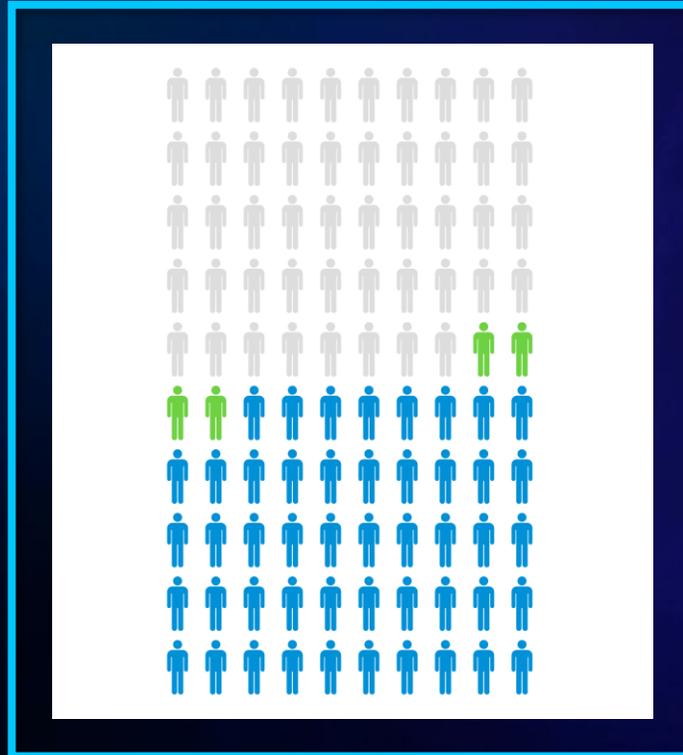


A Global Phenomena
2.8 BILLION
People Play Video Games

Source: Newzoo

A Broad Set of Needs

2.8
BILLION
GAMERS



1.3
BILLION
PC GAMERS



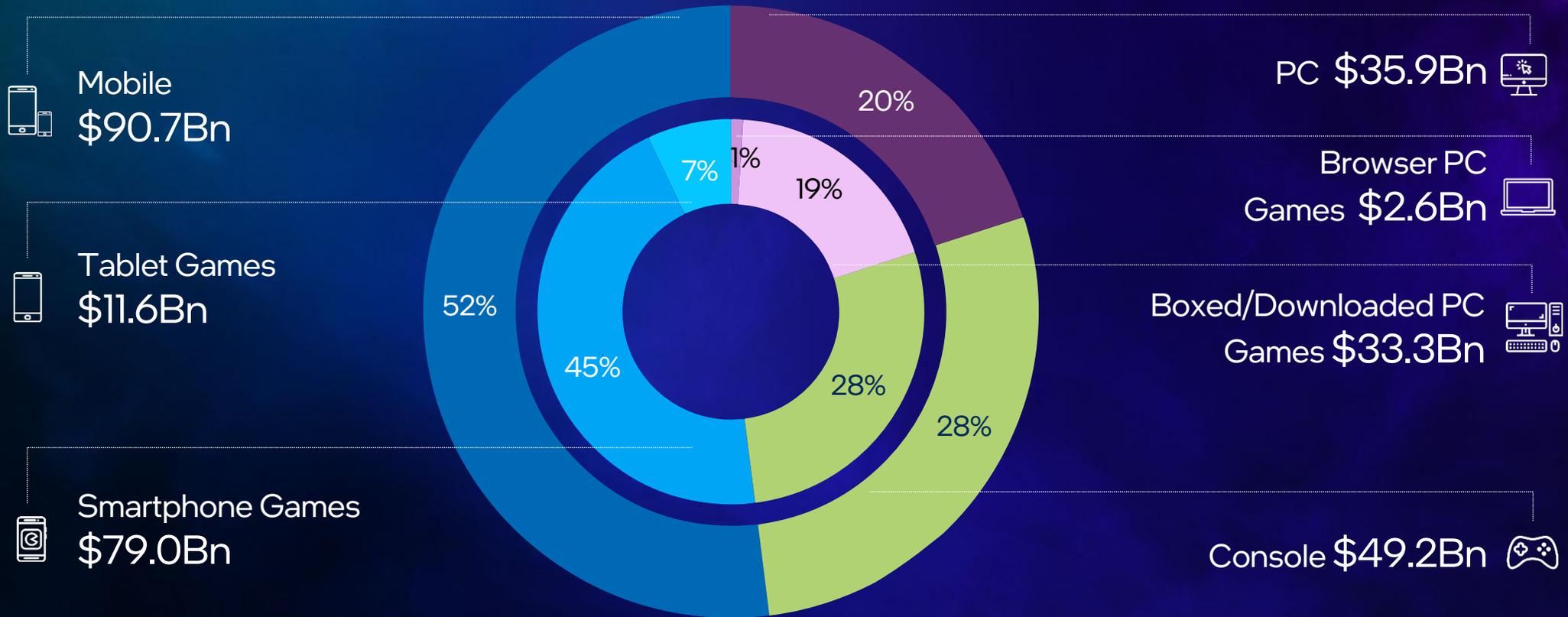
>100 Million
Enthusiasts



>1 Billion
Mainstream Players

Source: Newzoo

Significant Gaming Market Across Platforms



Source: ©Newzoo | Global Games Market Report | April 2021
newzoo.com/globalgamesreport

All platforms are significant markets - growth coming from elsewhere...

Where's The Growth Coming From?

**1.4
Trillion**

Global Media & Entertainment Spend

*PWC Global Media and Entertainment outlook 2018-2022

4.4% CAGR

9% CAGR

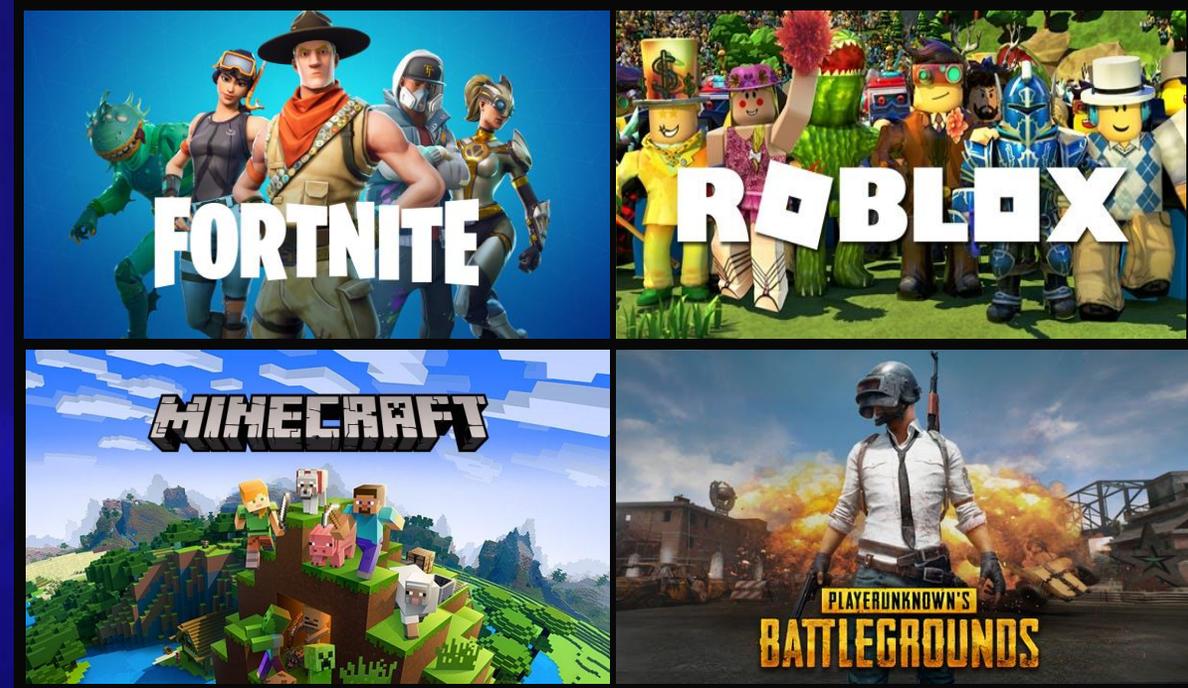
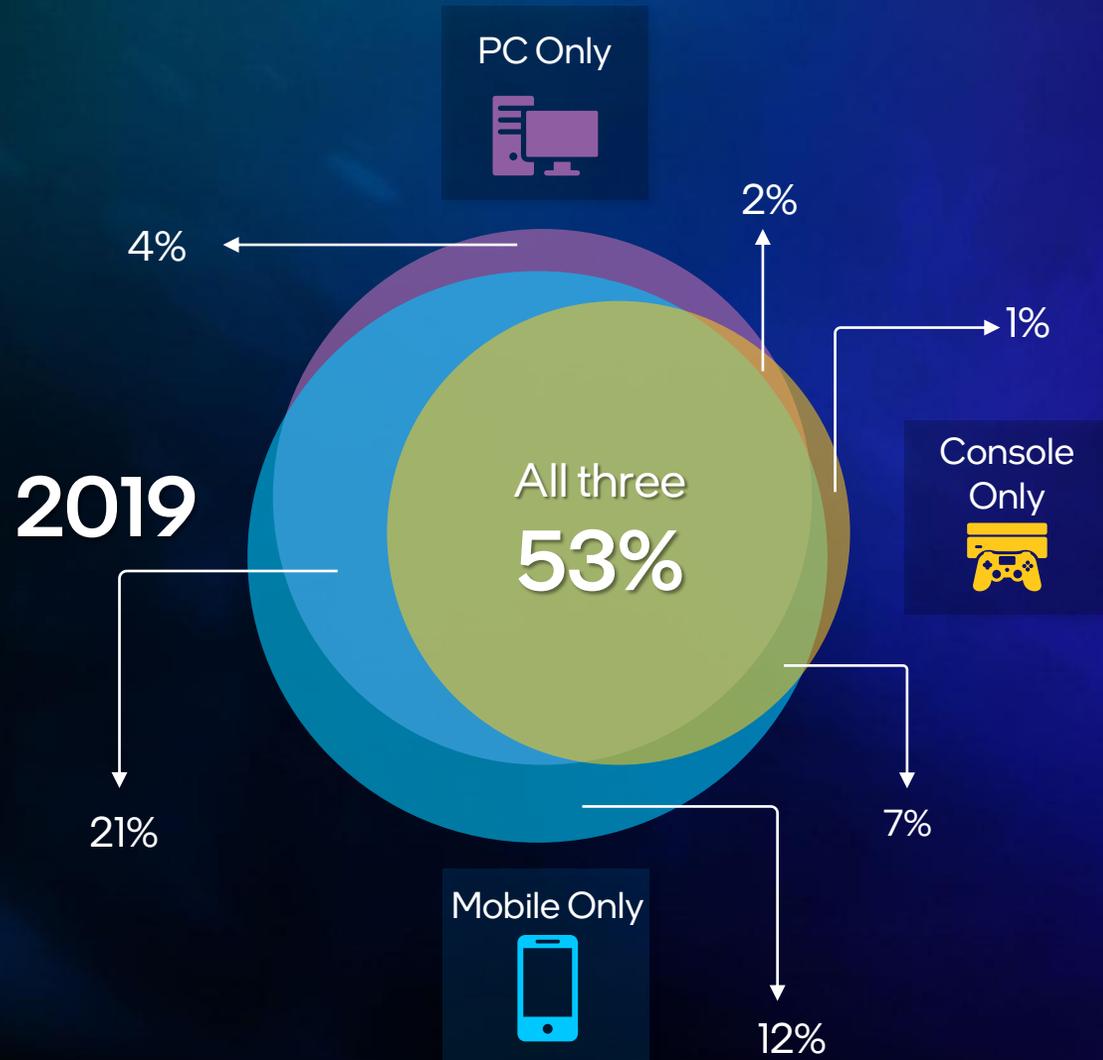
137
Billion

24
Billion

Total Gaming
Software Spend

PC Software
Spend

Games Evolving



* other names and brands may be claimed as the property of others

Market Opportunity



Enthusiast (100M)

"Gaming *is* my lifestyle"



Mainstream (600M)

"Gaming *fits* my lifestyle"



Casual (500M)

"Games are my secret habit"

Enthusiast
PC Gamers

>100M



Mainstream PC
Game Players

>1B



Hyper-Segmentation

Broad spectrum of PCs – the platform evolves to meet user needs



Workstation



Gaming desktop



All-in-One desktop



Mini-
desktop



Mobile
workstation



Enthusiast Gaming



Thin Enthusiast



Ultraportable



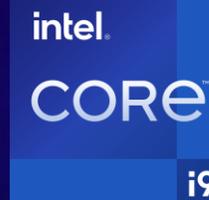
2 in 1 convertible



2 in 1 detachable



Ultrabook



Gaming Market Opportunity

Market TAM

2020 Gaming Sales

>15%¹

YoY growth in gaming sales across laptop and desktop

PC Gamers in 2022

1.4B²

Population growing by 69M when compared vs. 2020

Market Research

IDC PC Gaming Executive Brief³



\$37.4B

worldwide gaming PC HW spend by 2023
+9% 6-year CAGR

60%

of Enthusiast & Hardcore gamers also consider themselves console gamers



"Role of PC during COVID"⁴

Entertainment



Gaming



Creation



We have seen rapid, systemic change across key consumer categories... some will return to previous norms (travel, wellness, social) while others will CONTINUE...

1. NPD & GFK sales out actuals through November; projections for December included
2. Newzoo Global Market Games Dashboard July 2020
3. IDC 2019 Multi-Client Study (12K gamer survey study across 5 major regions)
4. Intel Internal study - Digital Ethnography study: "Role of the PC during COVID-19" US and PRC

intel.
CORE
i9

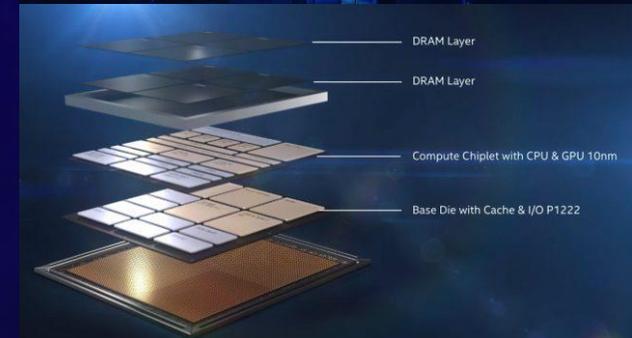
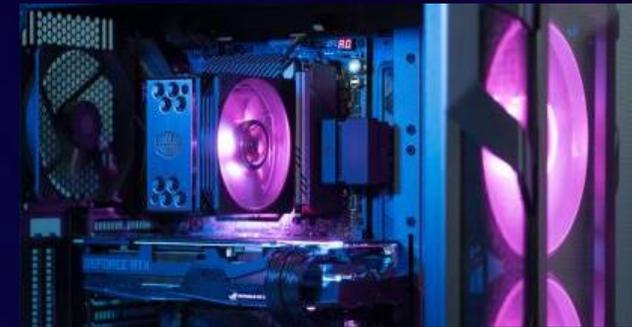
intel.
CORE
i7

intel.
CORE
i5

intel.

Balance of Power

- Power Conservation & Form Factor
- Thermals
- Over-clocking & Configurability
- Power-sharing within the platform
- Hybrid SoC Architectures
- Relevant GDC Session:
 - Program Your Games Today.
Prepare for Tomorrow.



All PCs are Gaming Capable

- Growth of gaming has played a role in driving demand for capable graphics
- Mainstream PCs exceeding Gaming PCs of only a few years back
- Old rules no longer apply – make these part of your design targets!
- Relevant GDC Sessions:
 - Developing for Intel Graphics: Today & Into The Future
 - Up Your Game! Know Your Intel GPU Architecture



Test on wide range of configurations - Don't make decisions based on configuration, vendor, outdated assumptions

Further Specialization Within Gaming PCs

MAINSTREAM



Gaming performance on a budget

1080P gaming at 60 FPS
Med/High Settings



PERFORMANCE



Performance Sweetspot

1080p 144Hz - vs - 4K 60Hz+



ENTHUSIAST



Ultimate performance

1080P 360Hz – vs - 4K 60Hz



Consider play modes & settings to cater to gamers with desires
(e.g. Competitive-tuned vs max-immersion settings)

Extending the Games as a Service Trend

First wave of Games as a Service

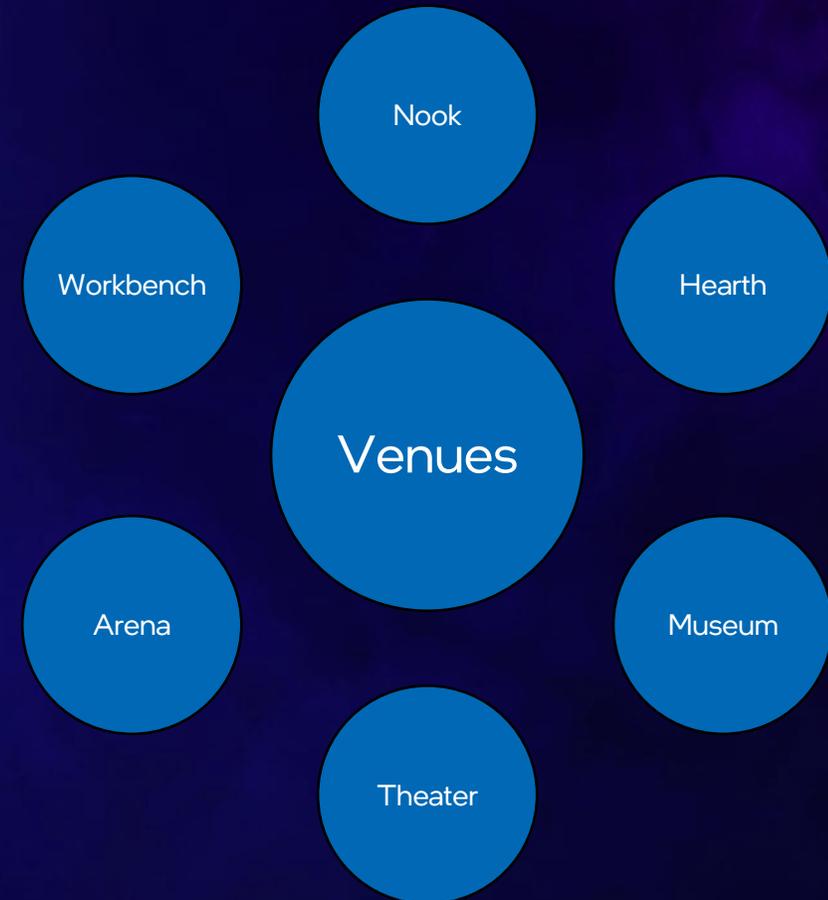
→ Reach Users on All Devices Equally

- Device Agnosticism
- Maximize Player Engagement

Possible future

→ Reach Users on All Devices Best

- Tune Play to Device
- Maximize Player Empowerment

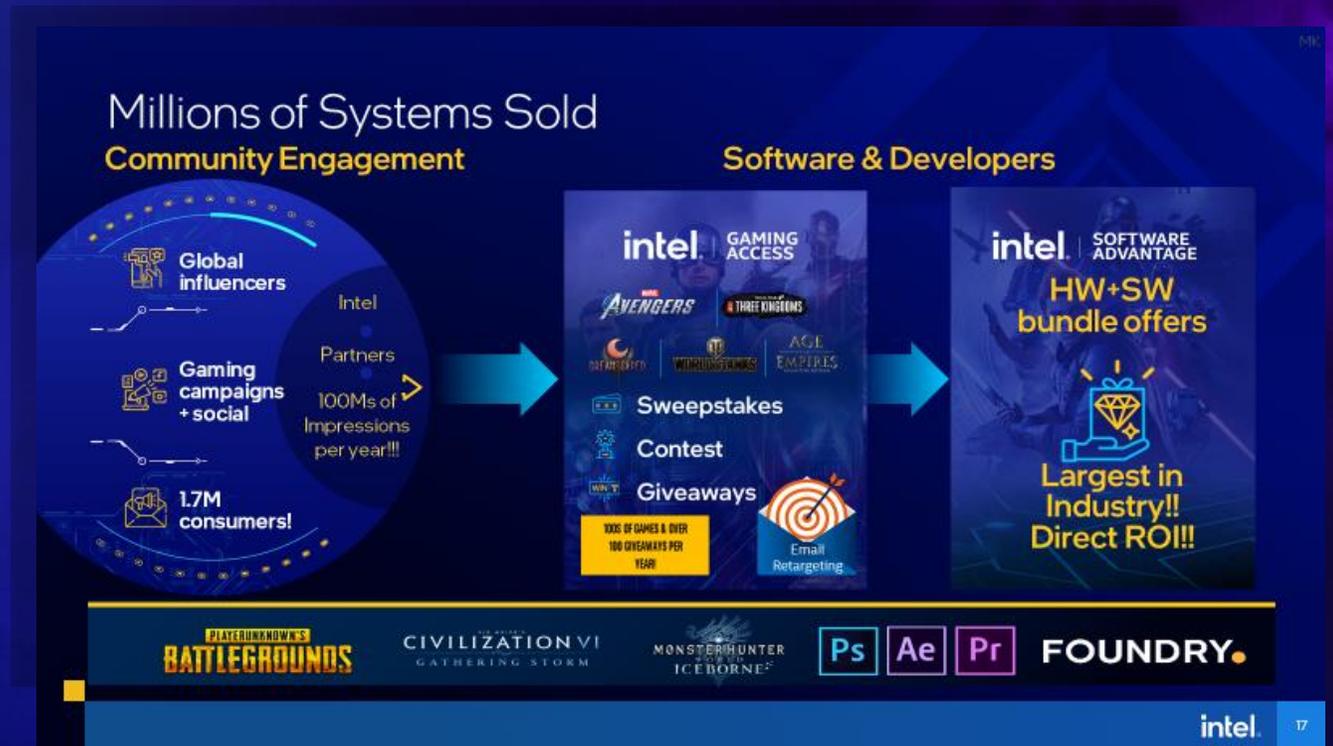


"Four Arrows, Five Questions"
(Jesse Schell, 2019)

Fragmentation of the Business

Trend toward wider number of business models, stores, communities, streaming platforms, and paths to reach customers

Again, the PC leads – Open platform can be your friend, if you are ready to innovate



PC Strengths

Highest Performance:
Highest fidelity Gaming

Open Platform:
Breadth of content and innovation

Versatility:
The PC is the world's workhorse

Approaches for PC developers

- Decide on your audience
- Enthusiast: Range of Specialty designs tuned to needs
- Mainstream: Expectations of good experience, wider variance in form factors – all capable of great mainstream games experiences!
- Embrace innovative and open nature of the platform – redefine rules
- Understand the HW trends and prepare for them
- Attend our other GDC 2021 Sessions
- Sign up for GameDev Boost (software.intel.com/boost)

PC continues to evolve and thrive. Developers have opportunity to do the same.

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